

PROPOSED INTERVENTIONS

Sl	Interventions / Items	Qty
1	De-Weeding	207650 Sqm
2	De-Silting	15964.36 Cum
3	Peripheral Bund	1325 meter
4	H P Laying – 600 φ	4 nos
5	Demarcation Pillar	66 nos
6	Approach Road	628 meter
	a. Earth work filling	2119.72 Cum
	b. GSB	376.8 Cum
	c. WBM	176.63 Cum
	d. ICBP	2355 Sqm
7	Rearing Tank – 0.15 ha each	6 nos
8	Stocking Tank – 0.40 ha each	3 nos
9	Pen Culture	
	Rearing Pen – 0.20 ha each	2 nos
	Stocking Pen - 0.40 ha each	3 nos
10	Katal/Jeng - 0.2 ha each	2 nos
11	Bamboo Barricade	30 m
11	Community Hall cum Wetland Information Centre	202.09 Sqm PA
12	Fish Landing Structure	66.93 Sqm PA
13	Solar Lamp	23 units
14	Information Board	2 nos

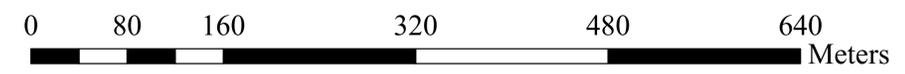
FUTURE PROVISION : (From other components)

1.	Vermicomposting unit
2.	Landscaping and plantation
3.	Eco-tourism development
4.	Furniture for community hall cum Wetland Information Centre
5.	Craft & Gear

Legend

- Vermicompost Site
- TMB 59.27 m
- Demarcation Pillar
- Proposed Culvert
- Culvert
- Paved Road
- Embankment (1325 m)
- Approach Road (628 m)
- Bamboo Barricade
- Katal Structure
- Rearing Tank
- Rearing Pen
- Stocking Pen
- Stock Tank
- Beel Boundary
- Fish Landing Structure
- Community Hall cum Wetland Information Centre

Name of Beel :	Tihulia Beel		
Development Block :	Kapili		
Revenue Village :	Niz Mikir Gaon		
District :	Morigaon		
Lat/Long-	26.279148 92.509923		
Beel Area :	27.14 ha		
Project Title:	Sustainable Wetlands and Integrated Fisheries Transformation (SWIFT)		
Client Detail:	ARIAS Society		
Consultant Details :	Sumato Globaltech Private Limited		
Title:	MASTER PLAN LAYOUT OF TIHULIA BEEL		
Date			
Checked By	Submitted to	Recommended by	Approved by



92°29'40"E

92°29'50"E

92°30'0"E

92°30'10"E

92°30'20"E

92°30'30"E

92°30'40"E

DRONE IMAGE OF TIHULIA BEEL, MORIGAON



26°17'0"N

26°17'0"N

26°16'50"N

26°16'50"N

26°16'40"N

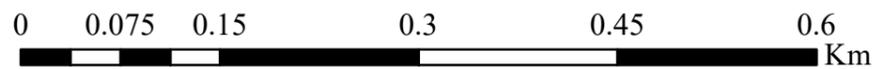
26°16'40"N

26°16'30"N

26°16'30"N

26°16'20"N

26°16'20"N



92°29'40"E

92°29'50"E

92°30'0"E

92°30'10"E

92°30'20"E

92°30'30"E

92°30'40"E

92°29'45"E

92°30'0"E

92°30'15"E

92°30'30"E

WEED INFESTED MAP OF TIHULIA BEEL, MORIGAON SHOWING THE WEED TYPES AND AREA COVER



26°16'45"N

26°16'45"N

26°16'30"N

26°16'30"N

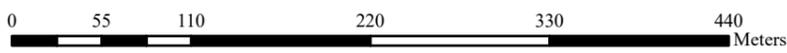
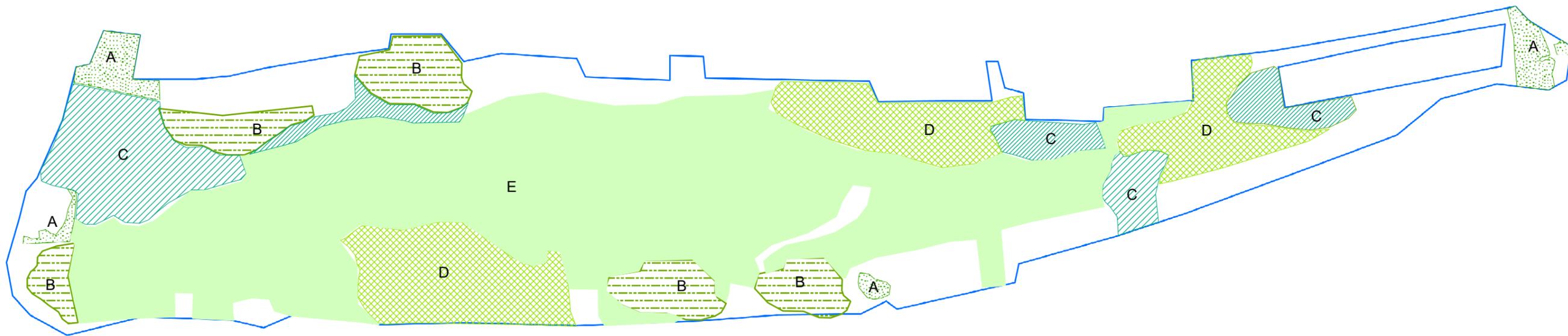


Table- This table shows what type of weed under which catagory and cover area with percentage

Weed Catagory	Type	Area in sqm	Percentage
A	Thin and floating water hyacinths and other aquatic weeds etc.	10,382.75	5%
B	Thick and floating water hyacinths and other aquatic weeds etc.	20,765.50	10%
C	Thick and floating Taranies, Dalanies, Pitanies and other marginal aquatic weeds etc. upto a depth of 50 cm.	31,148.25	15%
D	Medium and floating Taranies, Dalanies, Pitanies and other marginal aquatic weeds etc. upto a depth of 50 cm to 80 cm	41,531.00	20%
E	Heavy and floating Taranies, Dalanies, Pitanies and other marginal aquatic weeds etc. upto a depth of 80 cm to 120 cm	1,03,827.50	50%

Legend

- Beel Boundary 27.14
- Weed Catagory**
- Catagory A (1.038 ha)
- Catagory B (2.076 ha)
- Catagory C (3.115 ha)
- Catagory D (4.153 ha)
- Catagory E (10.383 ha)

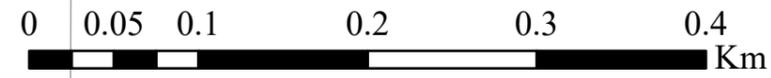
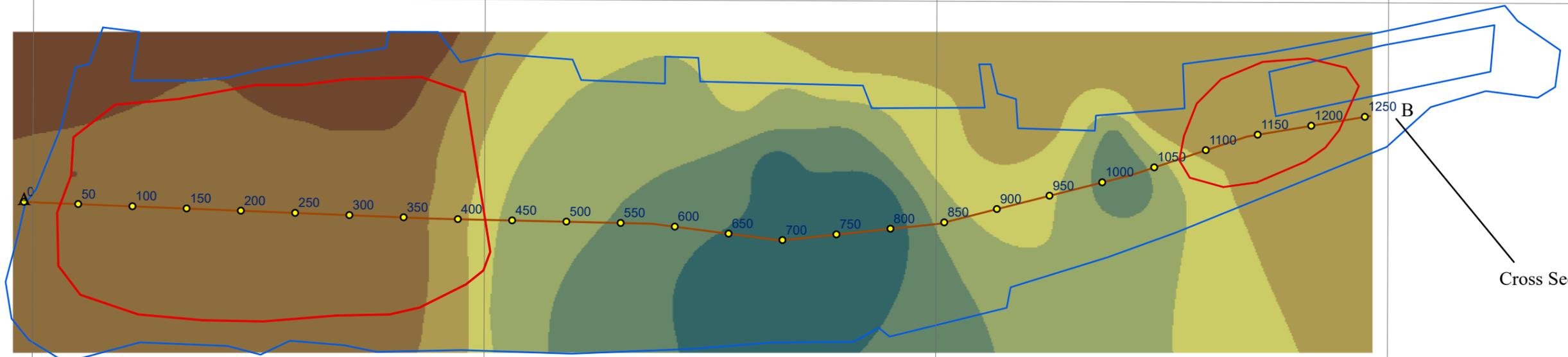
92°29'45"E

92°30'0"E

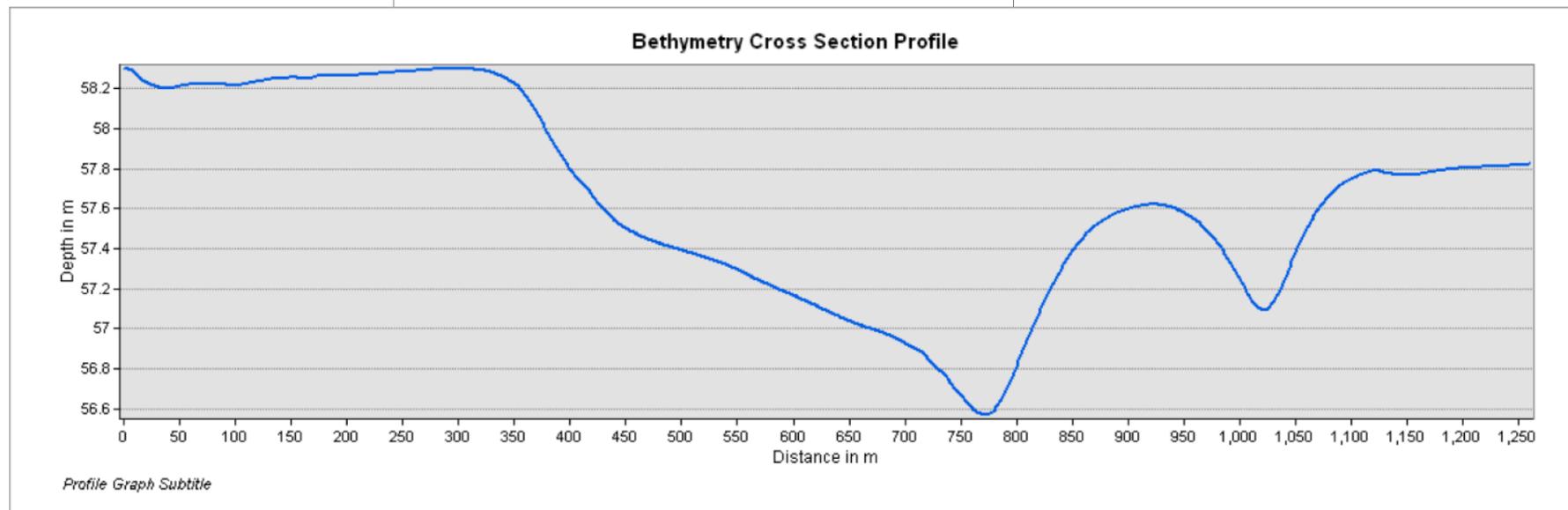
92°30'15"E

92°30'30"E

BETHYMETRIC MAP OF TIHULIA BEEL, MORIGAON



Cross Section



Legend

- Beel Boundry
- Excavtion Area

Depth in m

	56.484 - 57.059
	57.06 - 57.323
	57.324 - 57.54
	57.541 - 57.719
	57.72 - 58.03
	58.031 - 58.408
	58.409 - 58.816

Profile Graph Subtitle

92°29'50"E

92°30'0"E

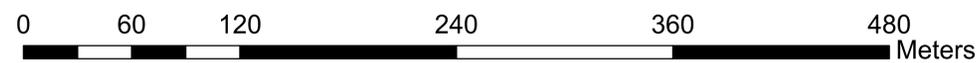
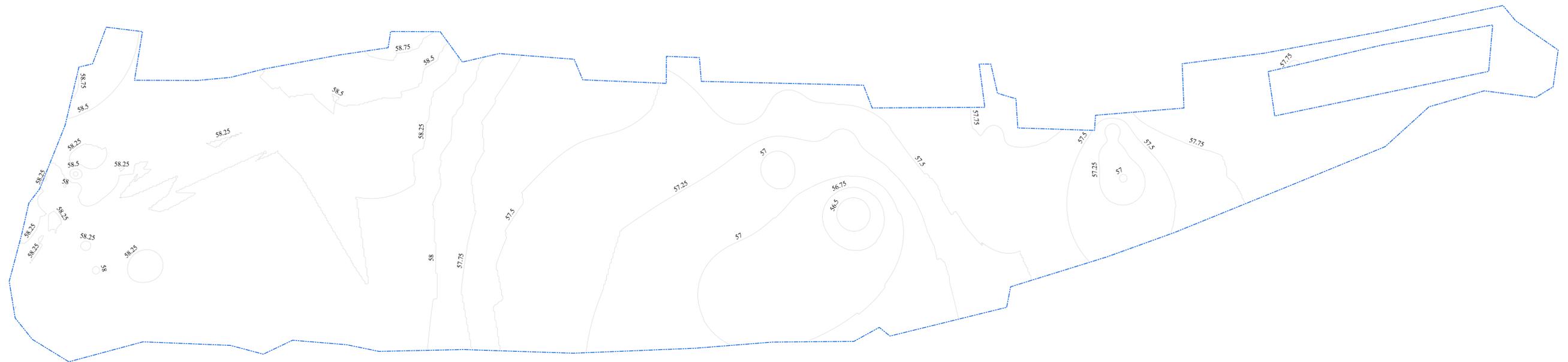
92°30'10"E

92°30'20"E

92°30'30"E

BATHYMETRIC CONTOUR MAP OF TIHULIA BEEL, MORIGAON

0.25 m CONTOUR INTERVAL



26°16'40"N

26°16'40"N

26°16'30"N

26°16'30"N

26°16'40"N

26°16'30"N

92°29'50"E

92°30'0"E

92°30'10"E

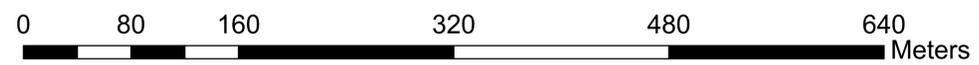
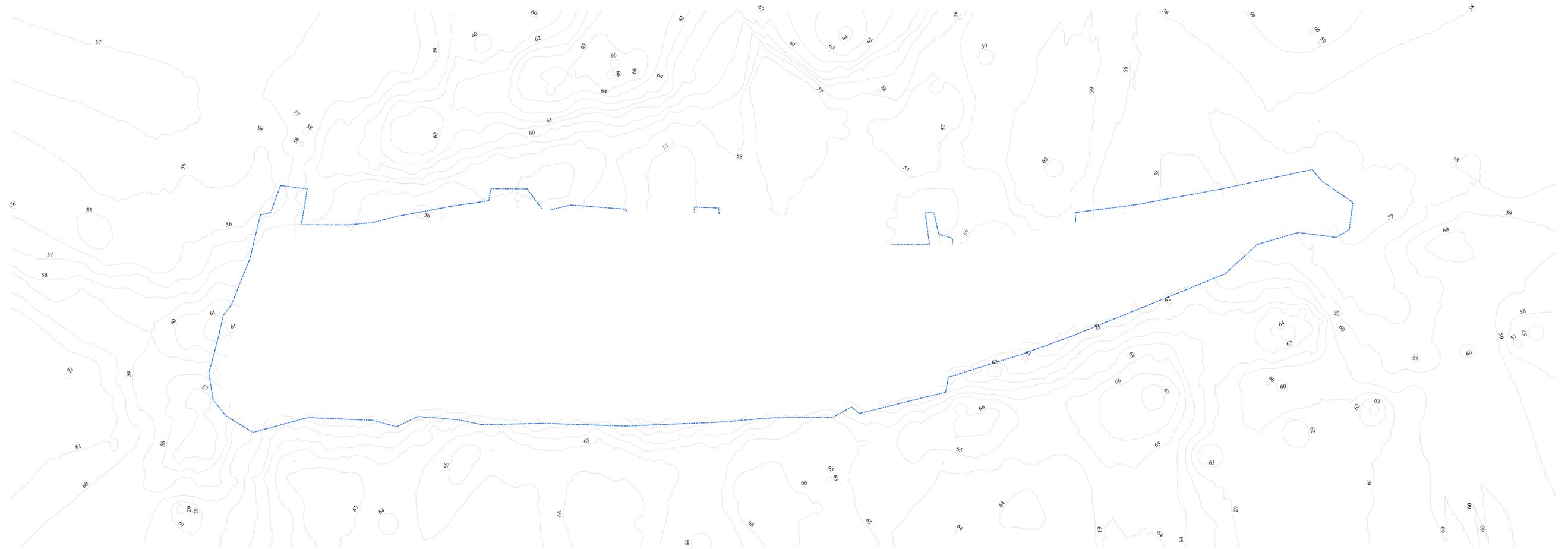
92°30'20"E

92°30'30"E

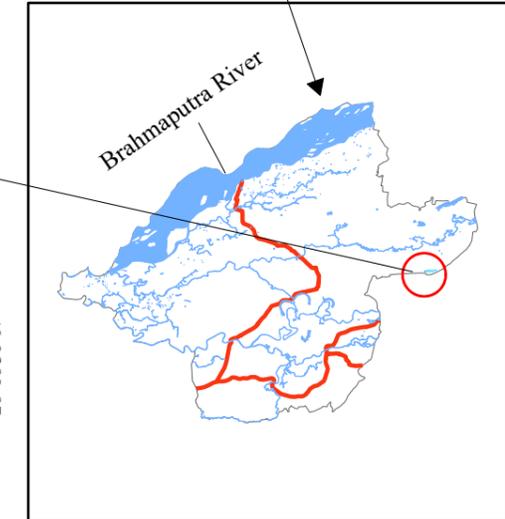
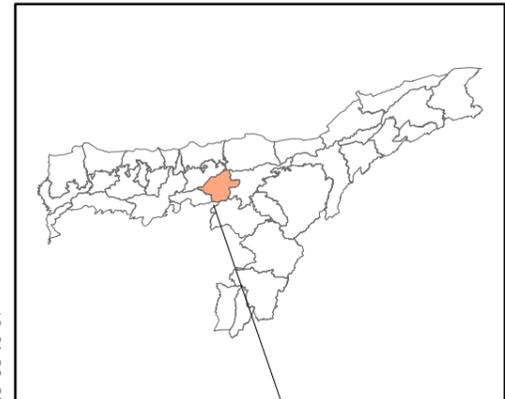
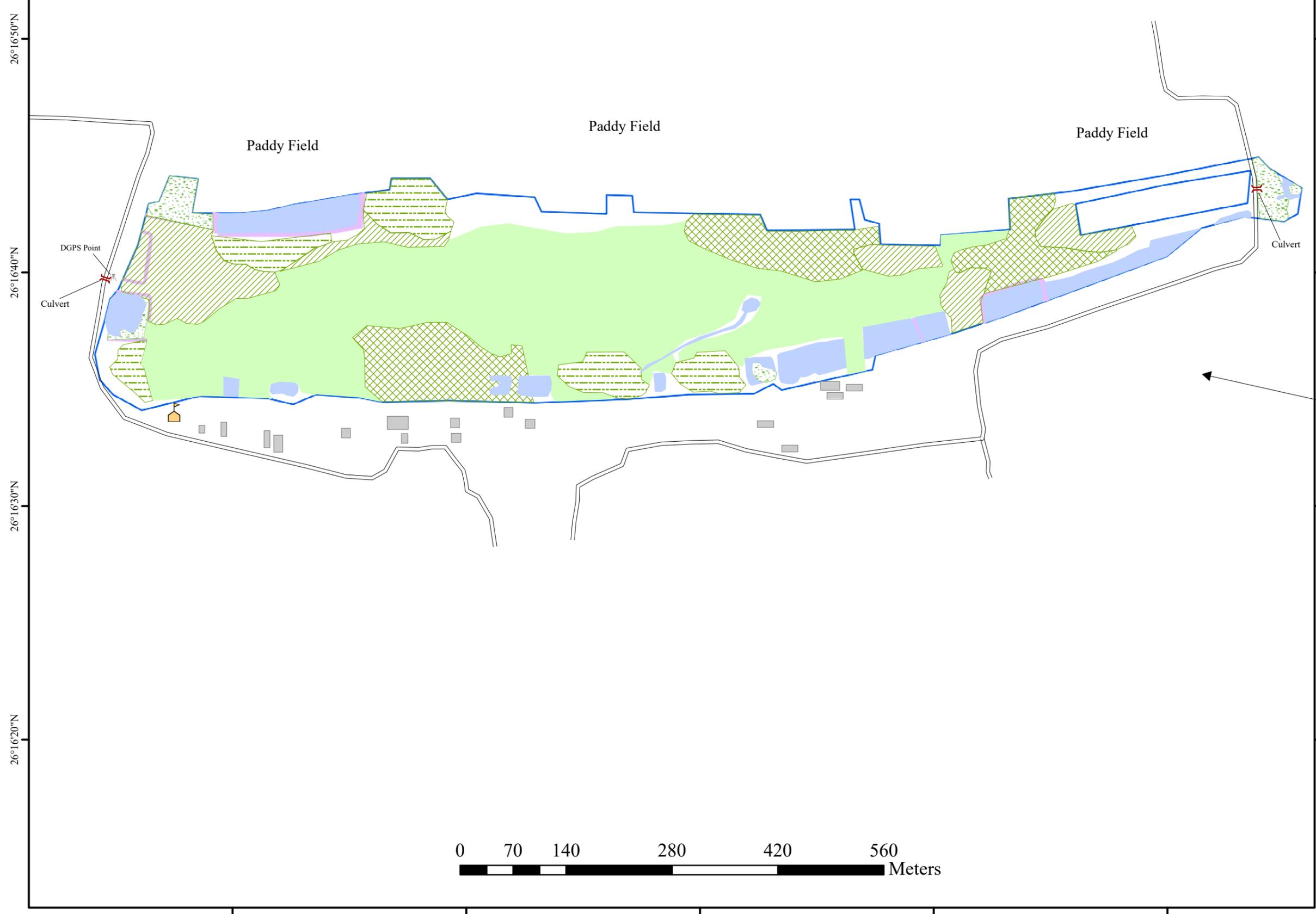
61

CONTOUR MAP OF TIHULIA BEEL, MORIGAON

1 m CONTOUR INTERVAL

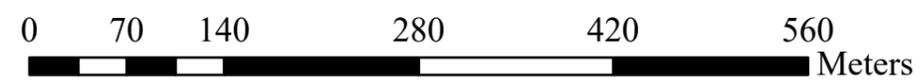


DRONE SURVEY MAP OF TIHULIA BEEL, MORIGAON



Legend

	Bench Mark
	Village Road
	Culvert
	A Category weed (1.19 ha)
	B Category weed (2.38 ha)
	C Category weed (3.58 ha)
	D Category weed (4.78 ha)
	E Category weed (11.94 ha)
	Manmade Bunds (0.357 ha)
	Household
	Water Area (2.493 ha)
	Beel Boundary (27.14 ha)



92°29'45"E 92°30'0"E 92°30'15"E 92°30'30"E



26°17'0"N

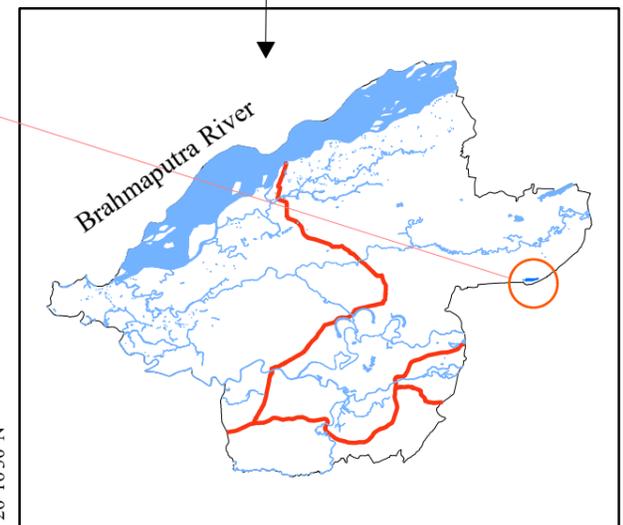
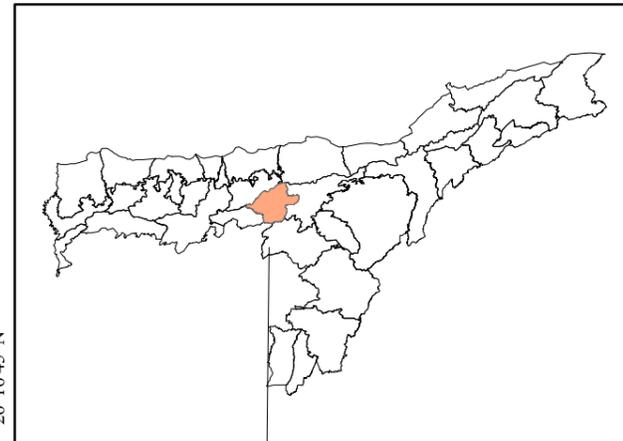
26°17'0"N

26°16'45"N

26°16'45"N

26°16'30"N

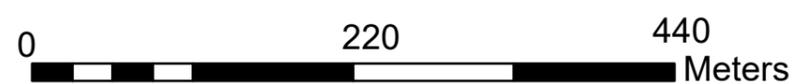
26°16'30"N



LOCATIONAL MAP OF TIHULIA BEEL, MORIGAON

Area- 27.14 ha
Lat- 26.279148
Long- 92.495705
Lat- 26.276207
Long- 92.509923

92°29'45"E 92°30'0"E 92°30'15"E 92°30'30"E



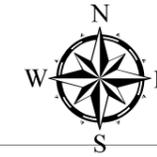
92°29'30"E

92°30'0"E

92°30'30"E

92°31'0"E

92°31'30"E



26°17'30"N

26°17'30"N

26°17'0"N

26°17'0"N

Paddy Field

Paddy Field

Paddy Field

26°16'30"N

26°16'30"N

Paddy Field

26°16'0"N

26°16'0"N

This map shows Tihulia Beel and all surrounding households, illustrating 150 active fishing families, 30 directly dependent neighbouring families, and approximately 1,000 indirectly benefiting neighbouring households whose livelihoods and food security are closely linked to the wetland.

HOUSEHOLD BENEFICIARY MAP TIHULIA BEEL, MORIGAON

Legend



Temple



Unpaved Road



State Highway

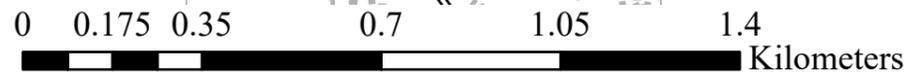


Household



Beel Boundary

165



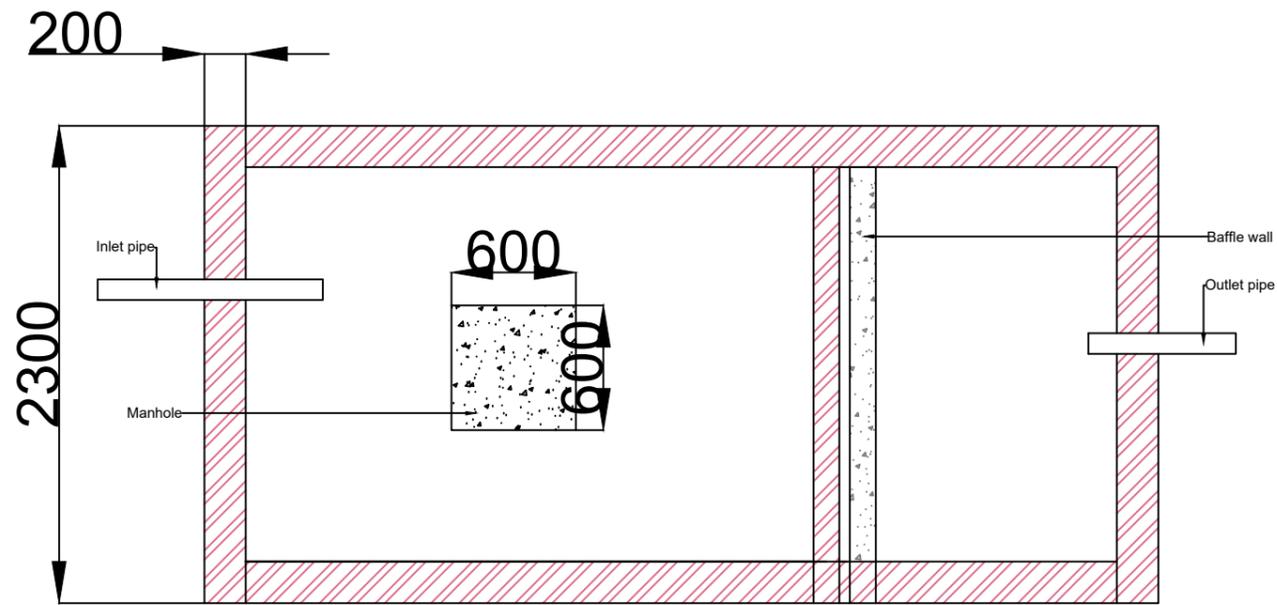
92°29'30"E

92°30'0"E

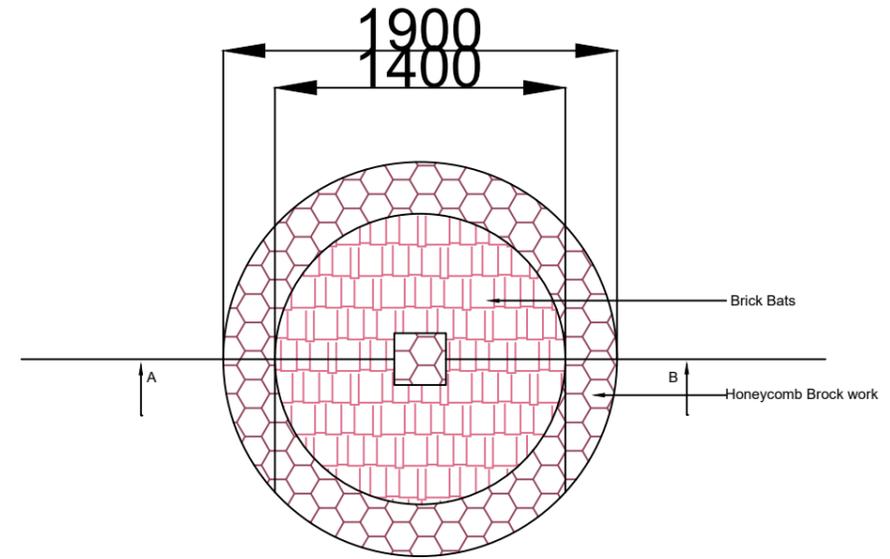
92°30'30"E

92°31'0"E

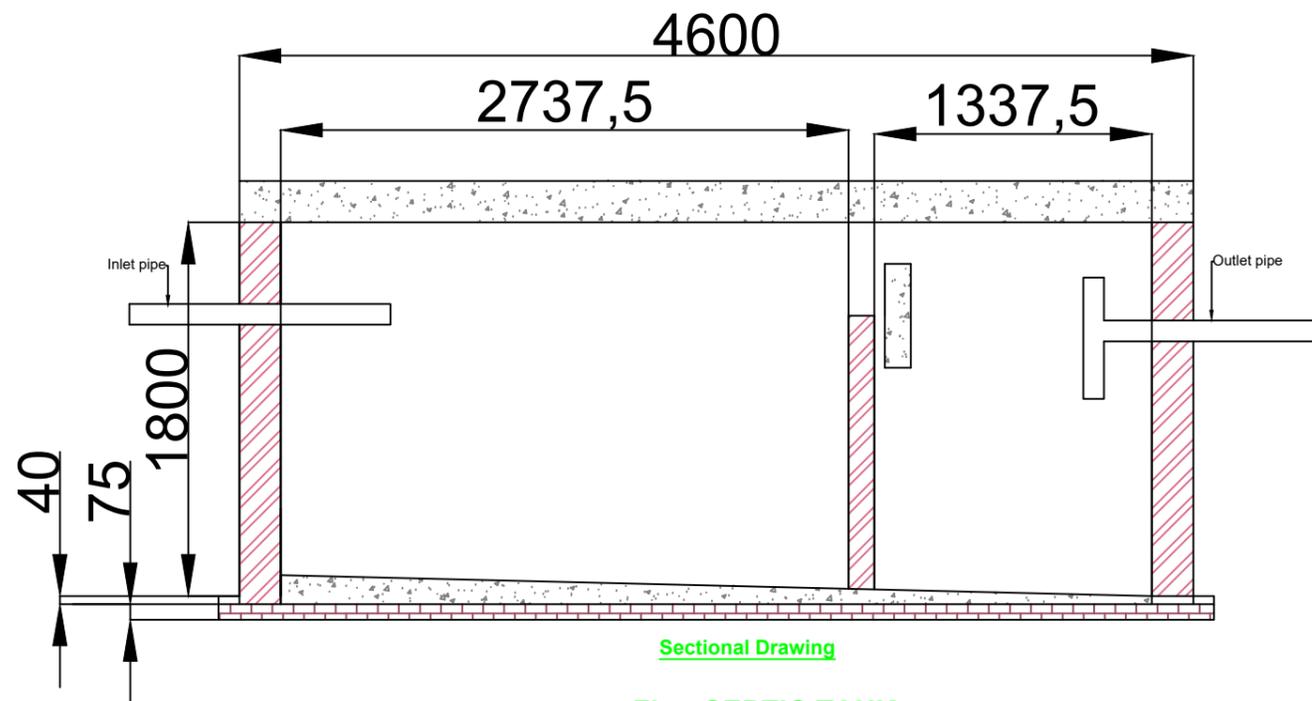
92°31'30"E



Plan Drawing

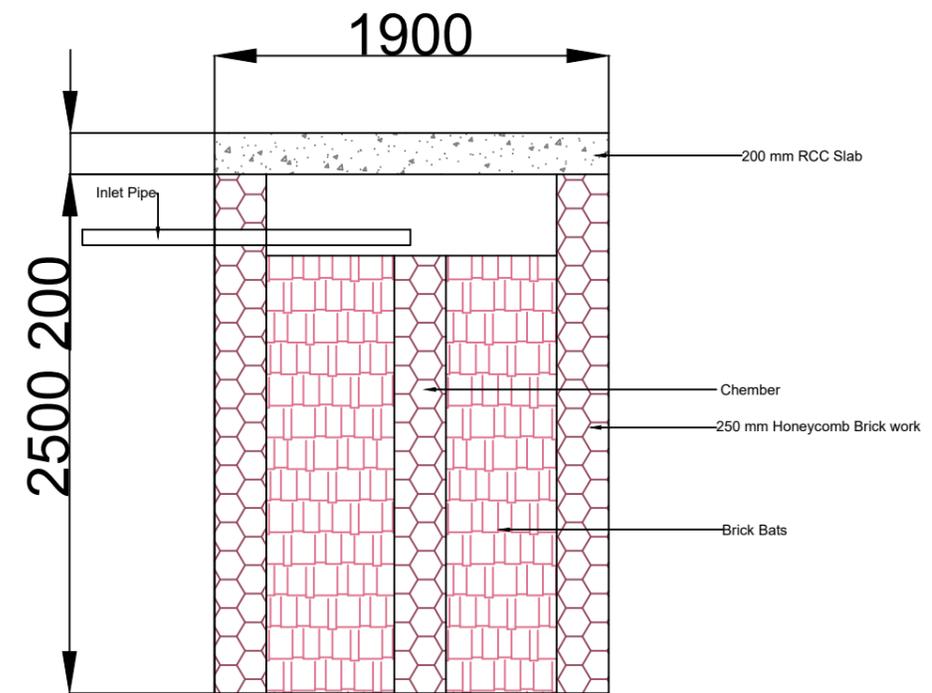


Plan Drawing



Sectional Drawing

Fig:- SEPTIC TANK



Sectional Drawing

Fig:- SOAK PIT

KEY PLAN

REFERENCE DRAWING

NO	DRAWING NO.	DESCRIPTION

GENERAL NOTES

- ALL DIMENSION ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

LEGEND

NO	DATE	DESCRIPTION	BY	CHECKED	APPROVED

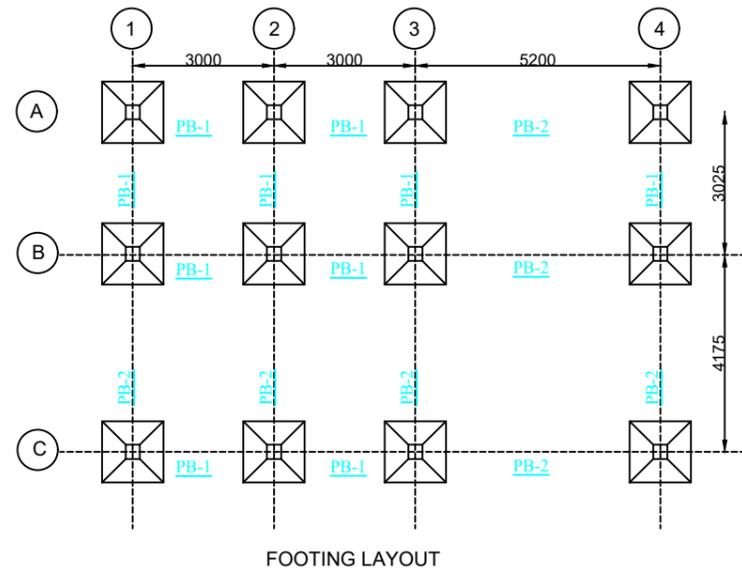
PROJECT	CLIENT
SWIFT DPR	ARIAS

DRAWING TITLE	SCALE	FORMAT	DRAWING NUMBER	SHEET NUMBER
COMMUNITY HALL SEPTIC TANK AND SOAK PIT	A3			

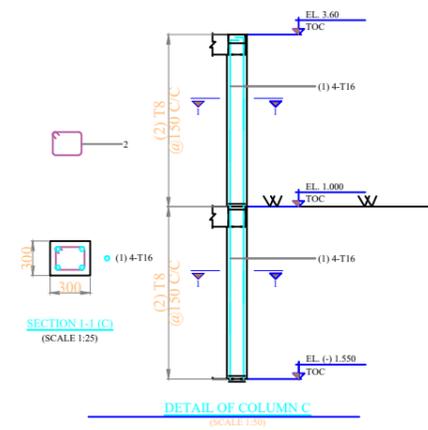
SUMATO GLOBALTECH PVT LTD	AVATAR COMPLEX, NAHARANI PATH, DISPUR GUWAHATI 781006
Architects & Consultant	

NOTES

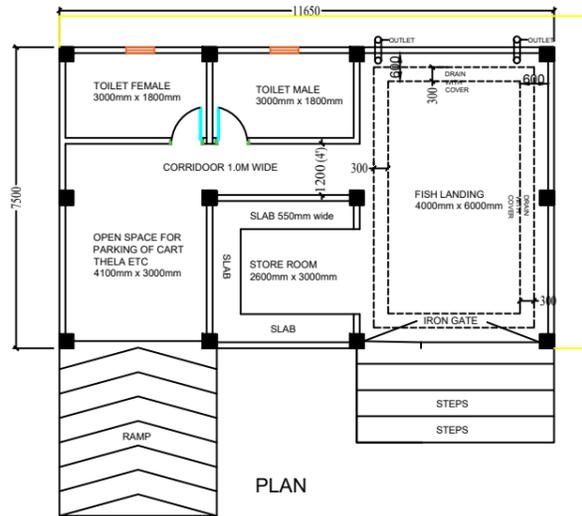
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2. All dimensions are in millimeters except where mentioned otherwise.
3. Drawings are not to be scaled, written dimensions are to be followed. All discrepancies to be brought to the notice of the Architect and resolved before commencement of any work.
4. This drawing is to be read in conjunction with details, large scale drawings, structural, plumbing, electrical and other relevant drawings.
5. Detail drawings shall supercede smaller scale drawings and notes.
6. All lintel lvl. is from finish floor lvl.



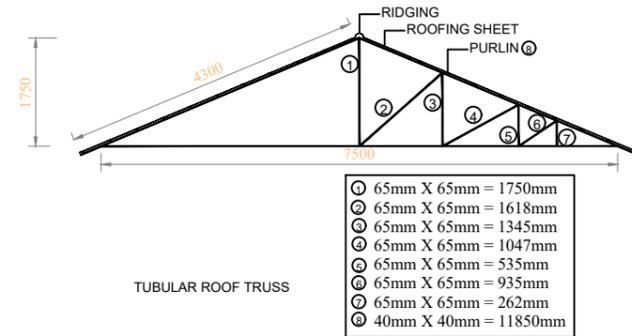
FOOTING LAYOUT



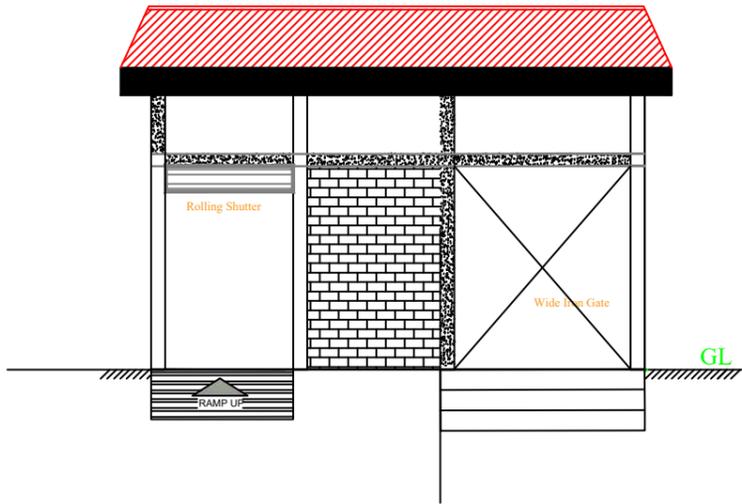
DETAIL OF COLUMN C (SCALE 1:50)



PLAN



TUBULAR ROOF TRUSS



NOTE:

1. COLUMN SIZE = 300MM X 300MM
2. PLINTH BEAM SIZE = 300MM X 350MM
3. BEAM SIZE ABOVE GL = 200MM X 250MM
4. SIZE OF LINTEL = 150MM X 150MM
5. SIZE OF WINDOW = 1.50M X 1.20M
6. SIZE OF DOOR = 0.75M X 1.80M

DESCRIPTION

CLIENT:
ARIAS SOCIETY

PROJECT TITLE:
Sustainable Wetlands and Integrated Fisheries Transformation (SWIFT) Project

DRAWING CONTENTS:
PLAN ELEVATION & CROSS SECTION OF FISH LANDING STRUCTURE

DRAWING NO:

DRAWING TITLE:-
PLAN & SECTION

SCALE:
DATE : 12-01-2025

PAPER SIZE: A3

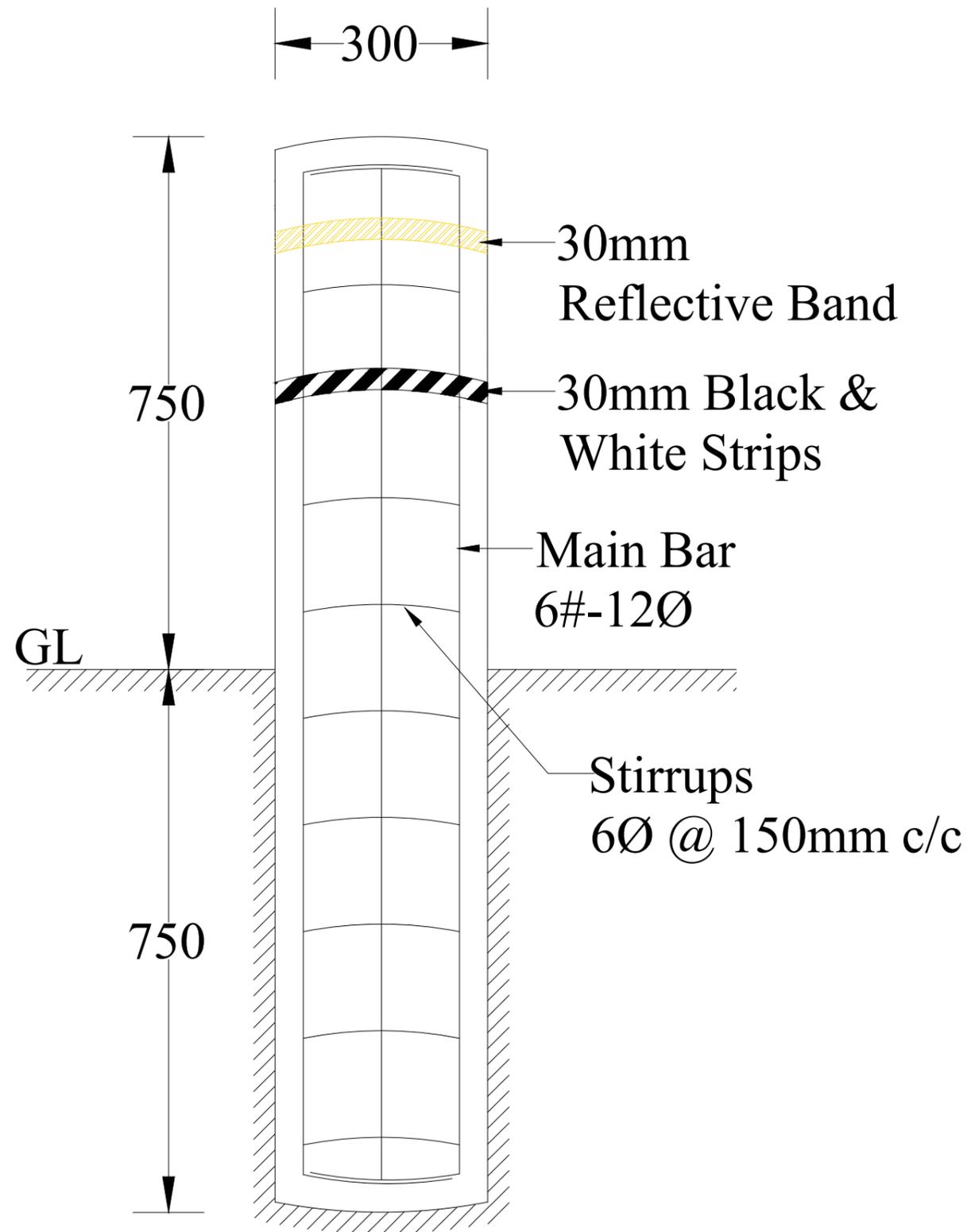
SIGNATURE:

DESIGNED BY:

CONSULTANT ►

SUMATO GLOBALTECH PVT LTD

REVISIONS



KEY PLAN

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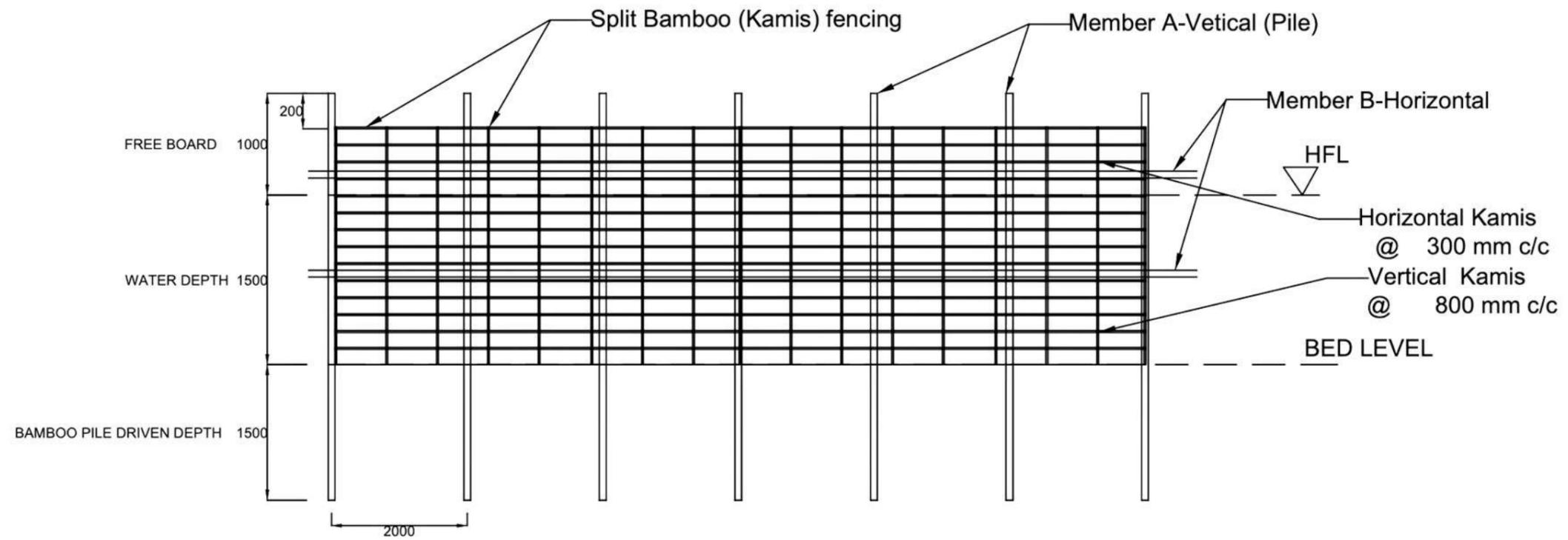
GENERAL NOTES

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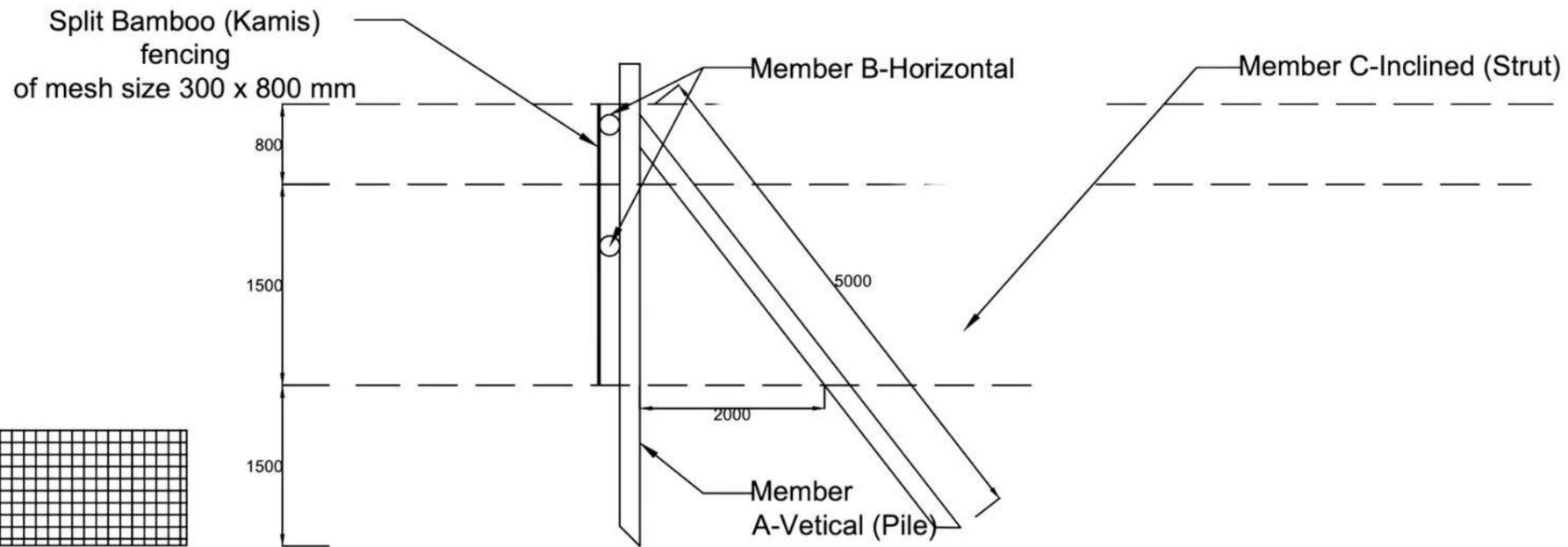
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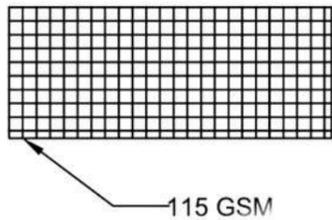
PROJECT SWIFT DPR		CLIENT ARIAS	
DRAWING TITLE COMMUNITY HALL		C/S	SHEET
SUMATO GLOBALTECH PVT LTD Architects & Consultant		AVATAR COMPLEX KANDAMBA PATEL, DESHPANDE DUMBAKATI-781008	DRAWING NUMBER



PEN CULTURE STRUCTURE AT BEEL/WETLAND FISHERIES. (FRONT-ELEVATION)



URE STRUCTURE AT BEEL/WETLAND



KEY PLAN

REFERENCE DRAWING

NO.	DRAWING NO.	DESCRIPTION

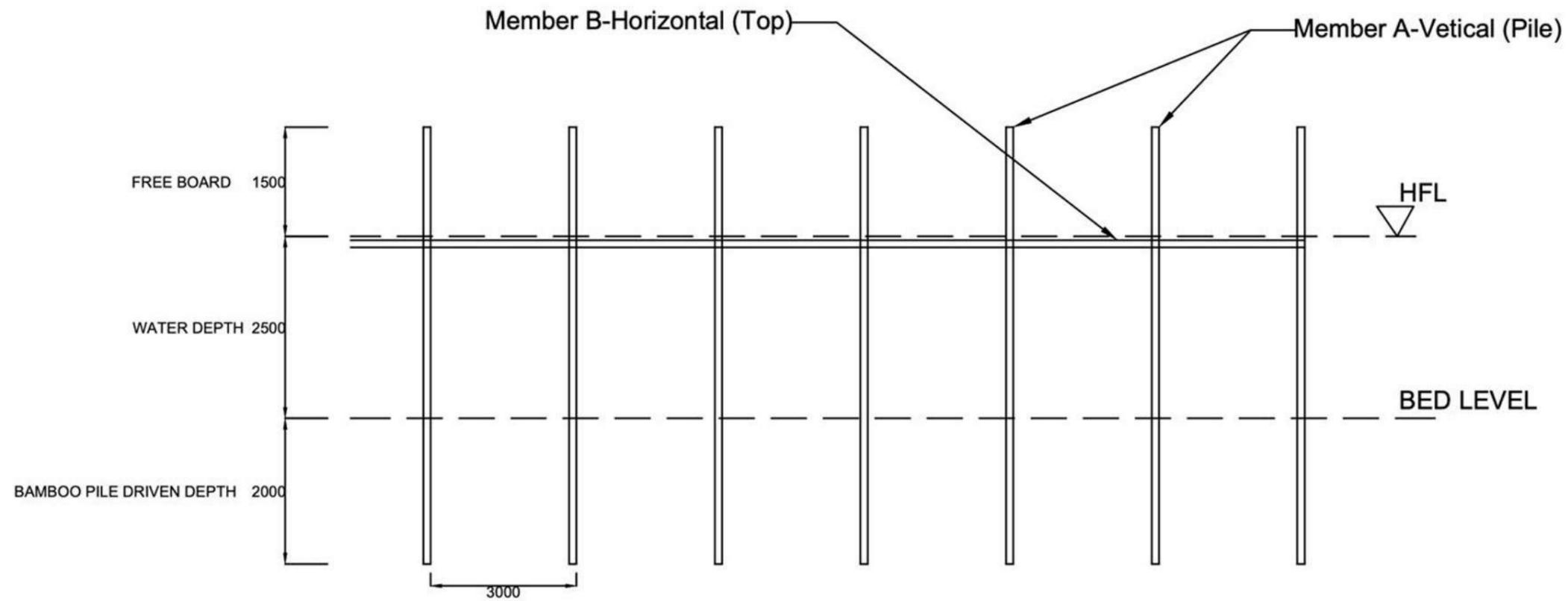
GENERAL NOTES

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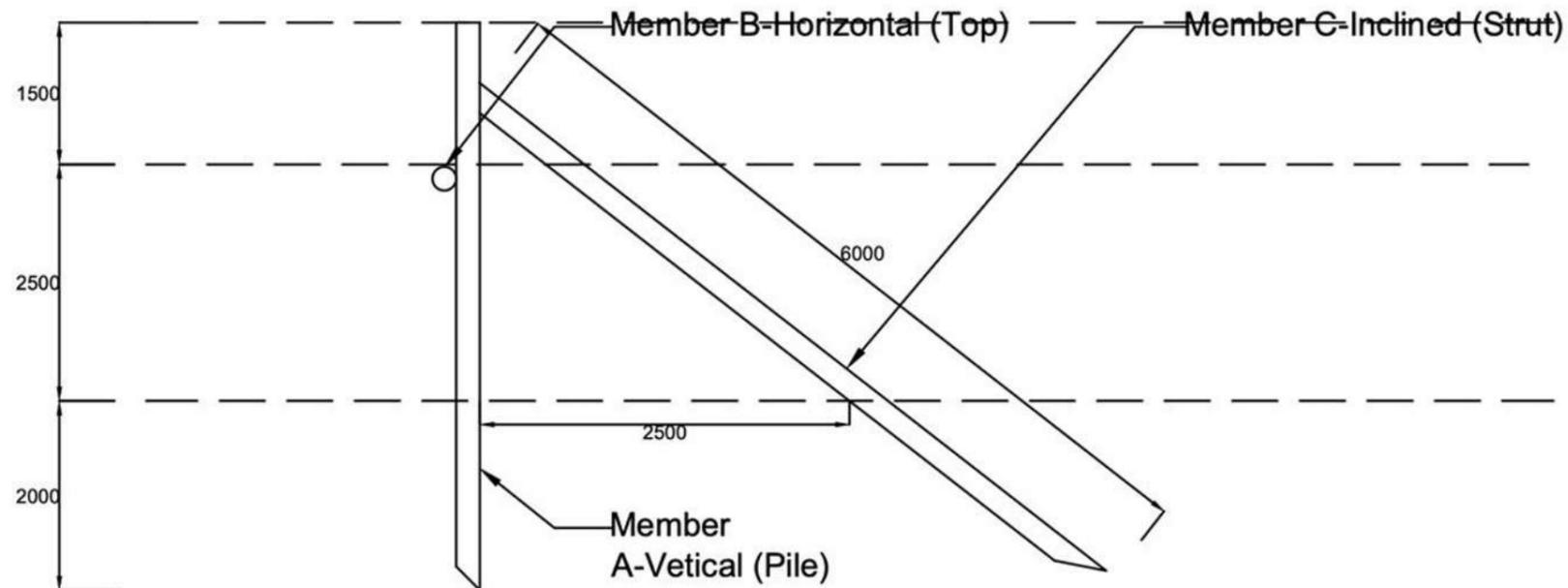
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NO.	REV.	DATE	BY	CHKD.	APPV.

PROJECT	CLIENT
SWIFT DPR	ARIAS
DRAWING TITLE	
PEN CULTURE	
SUMATO GLOBAL TECH PVT LTD	AVATAR COMPLEX, RAJAJAN PATE, DISPUR GUWAHATI, ASSAM
Architects & Consultant	



KATAL/CATTLE FISHING STRUCTURE AT BEEL/WETLAND FISHERIES. (FRONT-ELEVATION)



KATAL/CATTLE FISHING STRUCTURE AT BEEL/WETLAND FISHERIES. (SIDE-ELEVATION)

KEY PLAN

REFERENCE DRAWING

NO	DRAWING NO.	DESCRIPTION

GENERAL NOTES

1. ALL DIMENSION ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

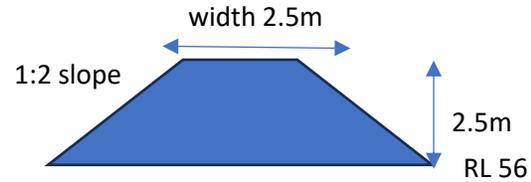
LEGEND

NO	REV	DATE	DESCRIPTION	BY	CHECKED	APPROVED

PROJECT	CLIENT
SWIFT DPR	ARIAS
DRAWING TITLE	
KATAL FISHING	
SUMATO GLOBAL TECH PVT LTD	AVATAR COMPLEX, RAJAJANATHAL, DISPUR, GUWAHATI, ASSAM
Architects & Consultant	

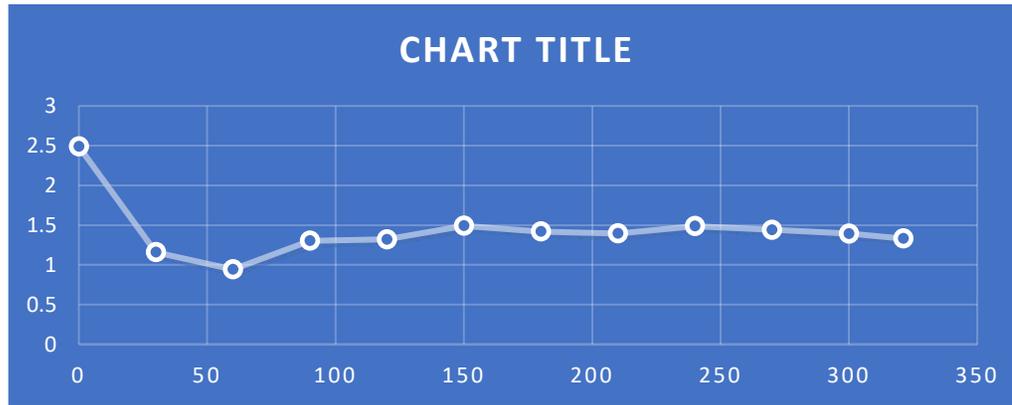
Mean area method

Name	Embakment A
Ground level (RL)	56
Desired hight	2.5
slope (1:2)	2
Embankment top width	2.5
top RL of embakment	58.5



Total earthwork required

Chainage (m)	Elevation (m)	Depth (D)	Area	Mean Area	Length	Quantity of filling	current hight
0	57.989	0.511	1.799742	0	0	0	2.489
30	57.658	1.842	11.390928	6.595335	30	197.86005	1.158
60	57.443	2.057	13.604998	12.497963	30	374.93889	0.943
90	57.803	1.697	10.002118	11.803558	30	354.10674	1.303
120	57.822	1.678	9.826368	9.914243	30	297.42729	1.322
150	57.991	1.509	8.326662	9.076515	30	272.29545	1.491
180	57.92	1.58	8.9428	8.634731	30	259.04193	1.42
210	57.895	1.605	9.16455	9.053675	30	271.61025	1.395
240	57.988	1.512	8.352288	8.758419	30	262.75257	1.488
270	57.942	1.558	8.749728	8.551008	30	256.53024	1.442
300	57.894	1.606	9.173472	8.9616	30	268.848	1.394
321.23	57.831	1.669	9.743622	9.458547	21.23	200.804953	1.331



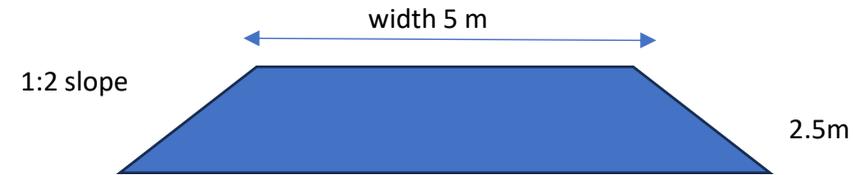
0	2.489
30	1.158
60	0.943
90	1.303
120	1.322
150	1.491
180	1.42
210	1.395
240	1.488
270	1.442
300	1.394
321.23	1.331

Chainage (n Elevation (Z Remarks

0	57.989	Start Point
30	57.658	
60	57.443	Lowest Area
90	57.803	
120	57.822	
150	57.991	Highest Area
180	57.92	
210	57.895	
240	57.988	
270	57.942	
300	57.894	
321.23	57.831	End Point

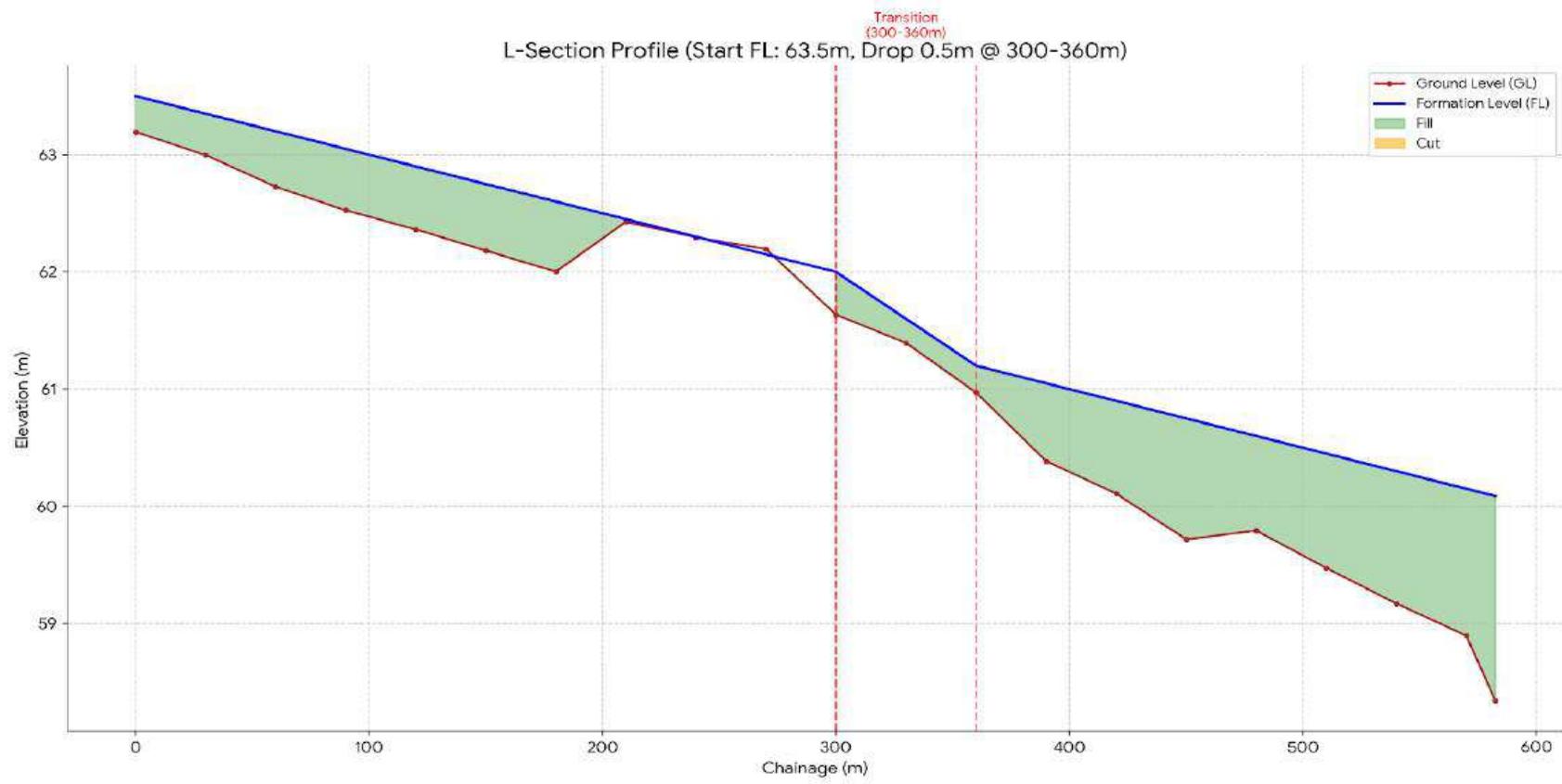
| 3016.216363 |

Name	Approch Road
Ground level	56
Desired hight	2.5
slope (1:2)	2
Embankment	2.5
top RL of emb	58.5



Chainage (m)	Ground Level (GL)	Formation Level (FL)	Depth Cut (m)	Depth Fill (m)	Cut Vol (cum)	Fill Vol (cum)	Remarks
0	63.194	63.5	0	0.306	0	0	Start Point
30	62.997	63.35	0	0.353	0	55.97	Fill
60	62.727	63.2	0	0.473	0	72.4	Fill
90	62.525	63.05	0	0.525	0	89.83	Fill
120	62.363	62.9	0	0.537	0	96.57	Fill
150	62.182	62.75	0	0.568	0	101.21	Fill
180	62.002	62.6	0	0.598	0	107.86	Fill
210	62.427	62.45	0	0.023	0	57.32	Near Grade
240	62.295	62.3	0	0.005	0	2.12	Near Grade
270	62.196	62.15	0.046	0	3.51	0.38	Tiny Cut
300	61.635	62	0	0.365	3.51	31.37	Drop Start
330	61.394	61.6	0	0.206	0	48.1	Transition
360	60.971	61.2	0	0.229	0	35.47	Drop End
390	60.386	61.05	0	0.664	0	81.78	Fill
420	60.109	60.9	0	0.791	0	141.12	Fill
450	59.718	60.75	0	1.032	0	187.45	Fill
480	59.792	60.6	0	0.808	0	189.54	Fill
510	59.474	60.45	0	0.976	0	181.96	Fill
540	59.171	60.3	0	1.129	0	224.69	Fill
570	58.897	60.15	0	1.253	0	263.99	Fill
582.43	58.342	60.088	0	1.746	0	150.59	End Point
					7.02	2119.72	

Chainage (m)	Ground Level (GL)
0	63.194
30	62.997
60	62.727
90	62.525
120	62.363
150	62.182
180	62.002
210	62.427
240	62.295
270	62.196
300	61.635
330	61.394
360	60.971
390	60.386
420	60.109
450	59.718
480	59.792
510	59.474
540	59.171
570	58.897
582.43	58.342



A	B	C	D	E	F
Item ID	Component Name	Material Profile	Cut Length	Quantity (P Total Length (m)
1	Vertical Frame (Sides)	MS Angle (L-Bar)	4	2	8
2	Horizontal Frame (Top/Bot)	MS Angle (L-Bar)	3	2	6
3	Vertical Grid Bars	MS Bar (Solid)	3.9	59	230.1
4	Horizontal Grid Bars	MS Bar (Solid)	2.9	79	229.1
5	TOTALS				
6	Total L-Bar Required				14.00 m
7	Total Solid Bar Required				459.20 m