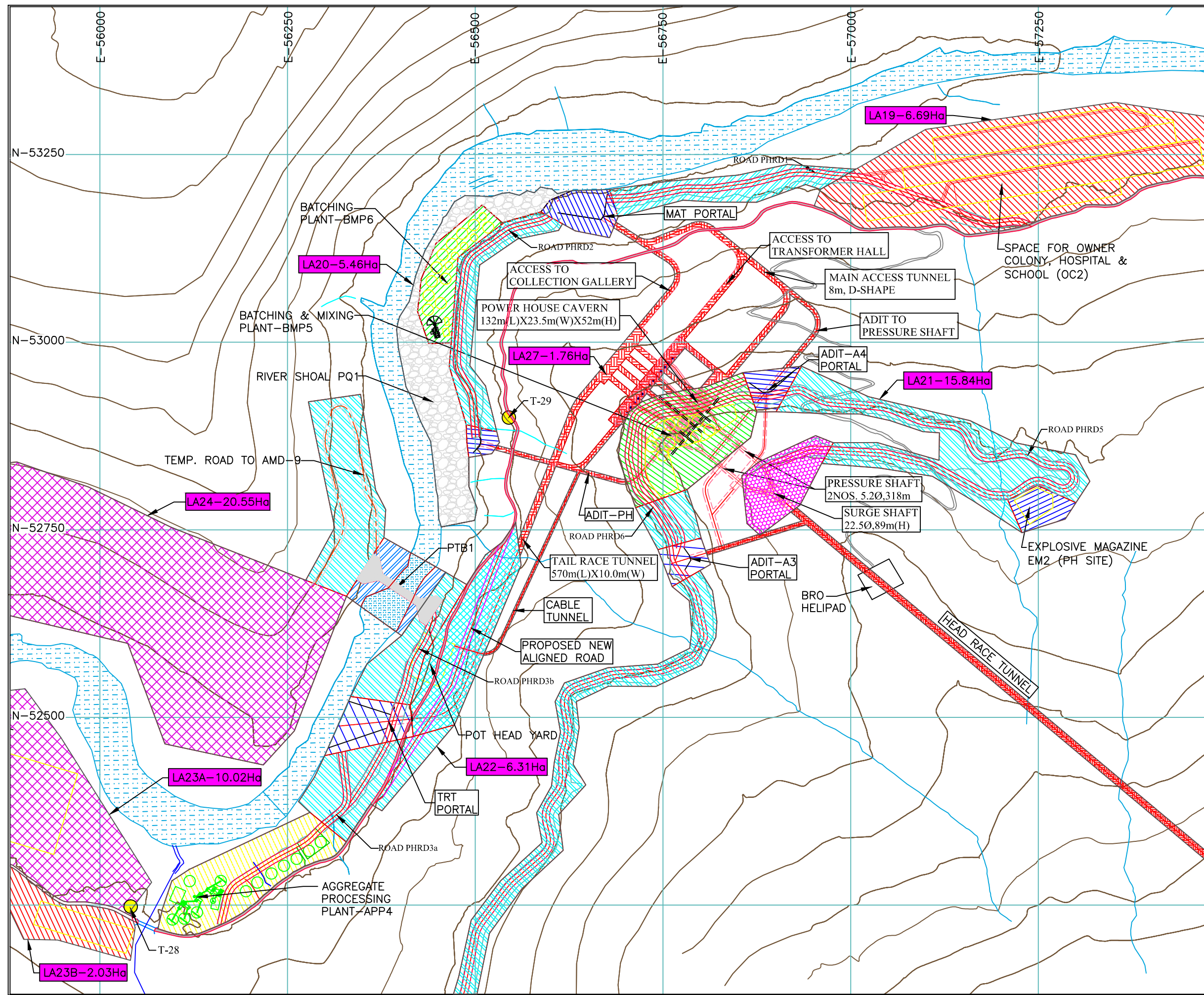


Attunli HEP - Purpose wise breakup of Land requirement							
Area Code	Location	Purpose	Surface Area	U/g Area	River Area (Ha)	Total Area (Ha)	Geo-coordinates of Centroid Latitude (°) Longitude (°)
A. Surface Works							
LA-1	Reservoir	a Area up to EL 1365m includes submergence area of 30.88 Ha upto FRL 1360m and other components which are part of this area are intake, U/s cofferdams, DT inlets, part of proposed temporary construction roads (DRRD3, DRRD4, DRRD4C, DRRD3, DRRD3D), proposed temporary bridge (DTB3), part of proposed job facilities i.e Aggregate Processing Plant-APP1, Batching Plant- BMP2.	25.98		8.65	34.63	28° 40' 2.24" 96° 07' 50.92"
LA-2	Upstream (u/s) of Dam site	a Part area of Aggregate Processing plant (APP1) near RQ2 b Temporary construction road to approach RQ2 (DRRD4b, part of DRRD4c)	1.98 10.23			12.21	28° 40' 5.92" 96° 08' 14.94"
LA-3A	U/s of Dam site	a Main rock quarry (RQ2)	5.62			5.62	28° 40' 14.99" 96° 08' 8.22"
LA-3B	U/s of Dam site	a Main rock quarry (RQ2) b Explosive magazine (EM1)	5.77 0.26			5.77	28° 40' 14.7" 96° 08' 1.01"
LA-4	U/s of Dam site	a Part of temporary approach road DRRD3d from DTB3 to EM1 b Part area of Aggregate Processing plant (APP1)	0.72 0.68			1.66	28° 40' 2.53" 96° 08' 1.78"
LA-5	U/s of Dam site	a Part of temporary roads DRRD3 & DRRD4 to approach RQ2 from dam site b Part of Rock quarry (RQ2) above DRRD4a c Includes Dam area, diversion tunnels, downstream cofferdam, portal of desilting basin (MAT), proposed permanent approach roads (DRRD1, DRRD2, DRRD1, DRRD2, DRRD6), proposed bridge DTB1, batching plant BMP1 and other temporary construction roads required to construct dam	1.68 0.68			2.36	28° 40' 5.88" 96° 07' 38.49"
LA-6A	Dam Site	a Owner's office OCI at dam site	0.36			0.36	28° 40' 6.38" 96° 07' 14.84"
LA-7A	Downstream D/s of Dam site near Apani village	a Muck Dumping yard (AMD1) near dam site	5.34			5.34	28° 40' 13.55" 96° 06' 33.48"
LA-7B	Downstream D/s of Dam site near Apani village	a Muck Dumping yard (AMD1) near dam site b Proposed Approach Roads DRRD5 & DRRD6	1.55 4.06			5.61	28° 40' 9.80" 96° 06' 45.91"
LA-8	Downstream D/s of Dam site near Apani village	a Contractor Office & Colony (CC1) at dam site b Labour colony (LC1) at dam site c Temporary construction road DRRD7 to approach AMD1, CC1&LC1	0.95 3.19 0.39			4.53	28° 40' 14.84" 96° 06' 41.76"
LA-9A	Downstream D/s of Dam site near Apani village	a Workshop, parking & ware house for dam site (WS1)	1.68			1.68	28° 40' 8.76" 96° 06' 12.24"
LA-9B	D/s of Dam site near Apani village	a Shoal quarry (PQ2) b Temporary construction Road (DRRD8) to approach shoal quarry (PQ2) from existing road	1.49 0.35			1.84	28° 40' 6.46" 96° 06' 12"
LA-10	Desilting Basin near Apani village	a Proposed Road DRRD4 to approach SFT & other areas b Shoal quarry (PQ3) c Muck Dumping yard (AMD2) d Aggregate processing plant (APP2) e Rock quarry (RQ1) f Proposed Bridge (DTB2) on Tangon river to approach SFT and other areas	4.1 2.99 1.59 2.52 2.32 0.57			14.29	28° 40' 5.66" 96° 06' 25.87"
LA-11	Head Race Tunnel (HRT) near Adit A1	a Adit A1 portal b Approach Road TRD1 & TRD2 to approach Adit A1 & BMP3 c Batching plant (BMP3) at Adit A1 d Contractor colony (CC2) & Labour colony (LC2)	0.33 0.74 1.14 1.79			4	28° 39' 43.81" 96° 05' 49.62"
LA-12	HRT near Adit A1	a Muck Dumping Yard (AMD3)	8.79			8.79	28° 39' 49.25" 96° 05' 46.24"

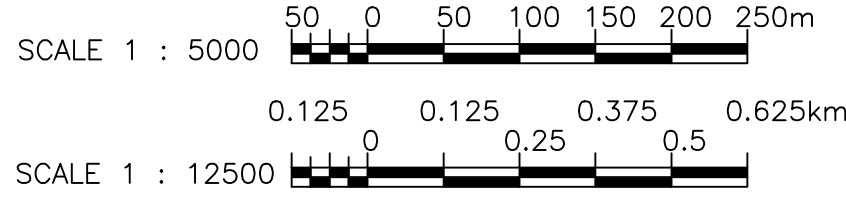
Attunli HEP - Purpose wise breakup of Land requirement							
Area Code	Location	Purpose	Surface Area	U/g Area	River Area (Ha)	Total Area (Ha)	Geo-coordinates of Centroid Latitude (°) Longitude (°)
A. Surface Works							
LA-13	HRT between Adit A1 & A2	a Contractor Office & Colony (CC3) b Aggregate processing plant (APP3)	0.71 2.31			2.72	28° 40' 8" 96° 05' 1.88"
LA-14	HRT near Adit A1 opposite bank between Chippa & Ahun nalla	a Muck Dumping Yard (AMD4) b Proposed Bridge (DTB4) on Tangon river to approach AMD4 c Temporary Road (TRD4) to approach AMD4	20 0.53 6.9		0.25	27.68	28° 40' 11.57" 96° 05' 13.03"
LA-15A	HRT in between Adit A1 & A2 near Echali village	a Part of Muck Dumping Yard (AMD5)	2.42			2.42	28° 40' 19.2" 96° 04' 37.61"
LA-15B	HRT in between Adit A1 & A2 near Echali village	a Part of Muck Dumping Yard (AMD5) b Remaining part of Muck Dumping yards (AMD5)	4.09 1.73			5.82	28° 40' 13.12" 96° 04' 8.72"
LA-16	HRT near Adit A2	a Muck Dumping Yard (AMD6)	5.95			5.95	28° 39' 54.07" 96° 03' 31.75"
LA-17	HRT near Adit A2	a Adit A-2 portal & Adit A-2 site office b Batching plant (BMP4) for Adit A2 c Labour colony (LC3)	0.31 1.19 0.97			8.19	28° 39' 52.16" 96° 03' 27.93"
LA-18	HRT near Adit A2	a Muck Dumping Yard (AMD7)	5.72			1.45	28° 40' 3.83" 96° 03' 6"
LA-19	HRT near Adit A2 upstream of power house	a Owner's colony & Approach road PHRD1 to MAT	1.45 6.69			6.69	28° 39' 54.4" 96° 02' 29.92"
LA-20	Power House	a MAT portal b PH Adit portal c Shoal quarry (PQ1) d Batching plant (BMP5) e Remaining part of PHRD1 and approach road PHRD2 to PH adit	0.45 0.14 2.01 0.8 2.06			5.46	28° 39' 48.74" 96° 02' 4.07"
LA-21	Power House-Surge shaft	a Adit A-3 portal b Adit A-4 portal c Surge shaft top d Batching plant & Mixing Plant (BMP5), Explosive Magazine (EM2) (PH Site) e Approach road PHRD4 & PHRD5 to surge shaft & PHRD6 to Adit A4	0.26 0.29 0.85 12.04			15.84	28° 39' 29.02" 96° 01' 59.14"
LA-22	Tail Race Outlet	a TRT portal b Pot head yard c Aggregate Processing plant (APP4) d Approach road PHRD3a & b to outlet and PTB1	0.59 1.67 1.79 2.26			6.31	28° 39' 29.59" 96° 01' 56.5"
LA-23A	D/s of power house near Attunli village	a Muck Dumping yard (AMD8) Labour colony LC4, ERM Storage and Penstock Fabrication Yard	10.02			10.02	28° 39' 26.64" 96° 1' 34.48"
LA-23B	D/s of power house near Attunli village	a Contractor Colony (CC4) & Workshop & facility (WS2)	2.03			2.03	28° 39' 22.82" 96° 01' 38.91"
LA-24	Power house - Opposite bank	a Muck Dumping yard (AMD9) b Proposed Bridge (PTB1) at Tangon river to approach AMD9 c Approach road to approach AMD9	17.9 0.51 1.75		0.39	20.55	28° 39' 36.68" 96° 01' 41.97"
Sub-total (Surface Area)			236.36	0	10.98	247.04	
B. Underground Works (Notional area)							
LA-25	Desilting basin	a Intake tunnels, Desilting basin caverns & allied components	4.47			4.47	28° 39' 48.38" 96° 07' 1"
LA-26	HRT	a HRT & Adits	7.96			7.96	28° 39' 28.01" 96° 04' 30.34"
LA-27	Power House	a Powerhouse cavern & allied components	1.76			1.76	28° 39' 46.69" 96° 02' 11.56"
Sub-total (Notional area)			14.19			14.19	
Surface Area required (Ha) =			247.34				
Notional Area required (Ha) =			14.19				
Total Land Requirement (Ha) =			261.53				



DETAIL "A"
SCALE 1 : 5000

SOI CONTROL POINTS:-			
POINT	EASTING	NORTHING	ELEVATION
T-A1	58405.880	53422.320	1184.37
T-A2	58362.050	53494.690	1181.37
T-27	55455.780	52269.130	1103.00"
T-28	56041.200	52247.970	1102.00"
T-29	56544.770	52899.600	1155.00"
T-36	62017.690	53350.350	1251.00"
T-37	62763.550	52967.410	1279.00"
T-38	63114.660	53119.910	1290.00"
T-40	66307.520	53893.060	1305.41
T-43	65522.570	53628.660	1483.60
T-44	63876.050	53729.890	1520.48

NOTE:-
1. ALL DIMENSIONS AND LEVELS ARE IN METERS, UNLESS OTHERWISE SPECIFIED.
2. LA-3, LA-14, LA-15, LA-23 ARE ESTIMATED FROM SOI TOPOSHEET-NO 910/2, NEEDS FIELD TOPO-GRAPHICAL SURVEY.



Shawinigan Engineering India

Client: Attunli Hydro Electric Power Company Limited

Project: ATTUNLI HYDRO ELECTRIC PROJECT (680 MW) Arunachal Pradesh, India.

Title: PROJECT LAYOUT LAND REQUIREMENT

Scale 1 : 12500

THIS DRAWING IS MEANT FOR DPR NOT TO BE USED FOR CONSTRUCTION.

169125 Contract No. AT-34 | 41DD Drawing Code. 0002 Serial. PA Rev.