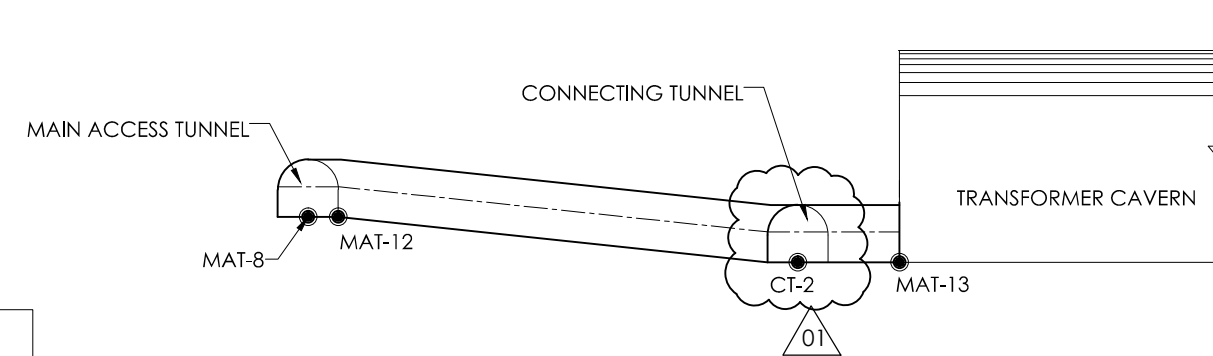
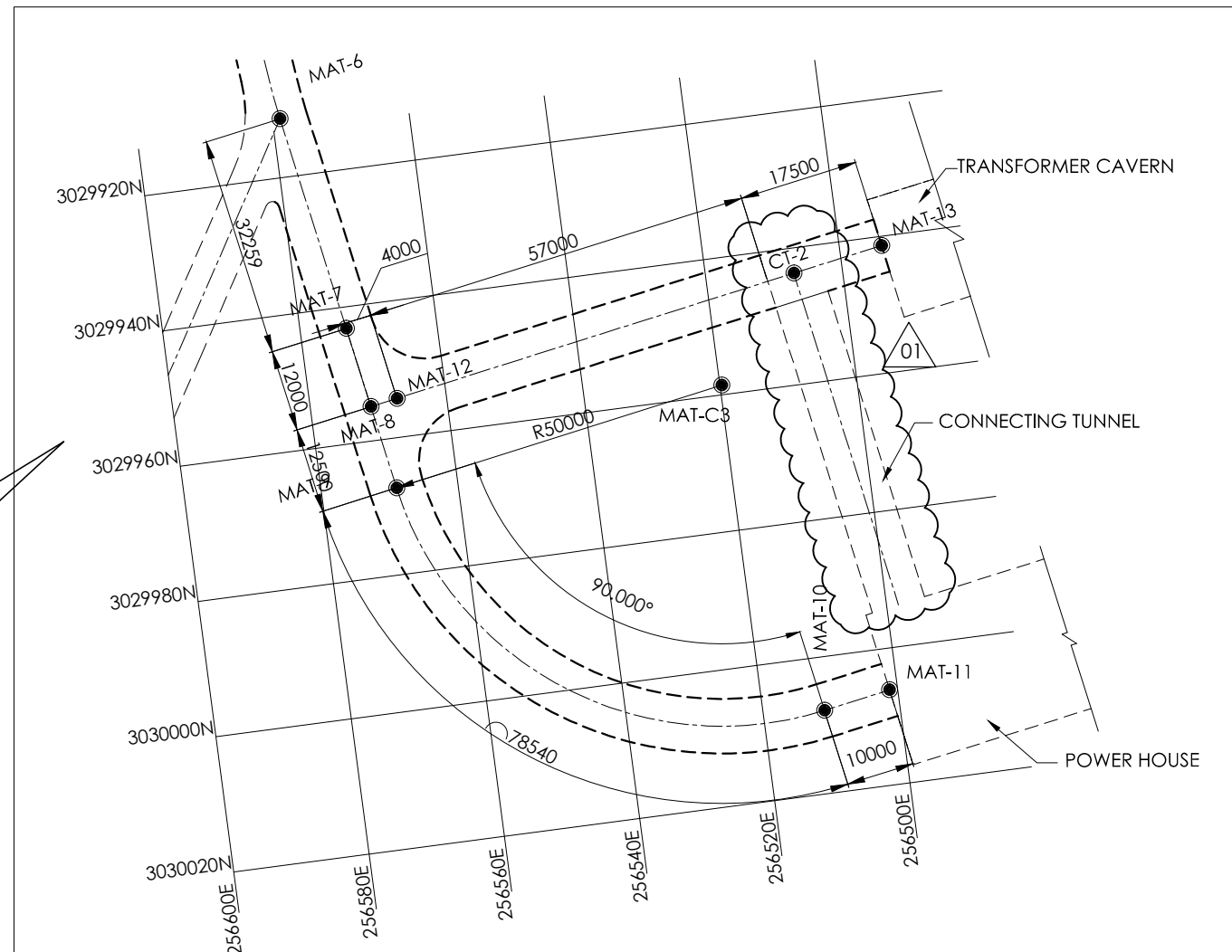
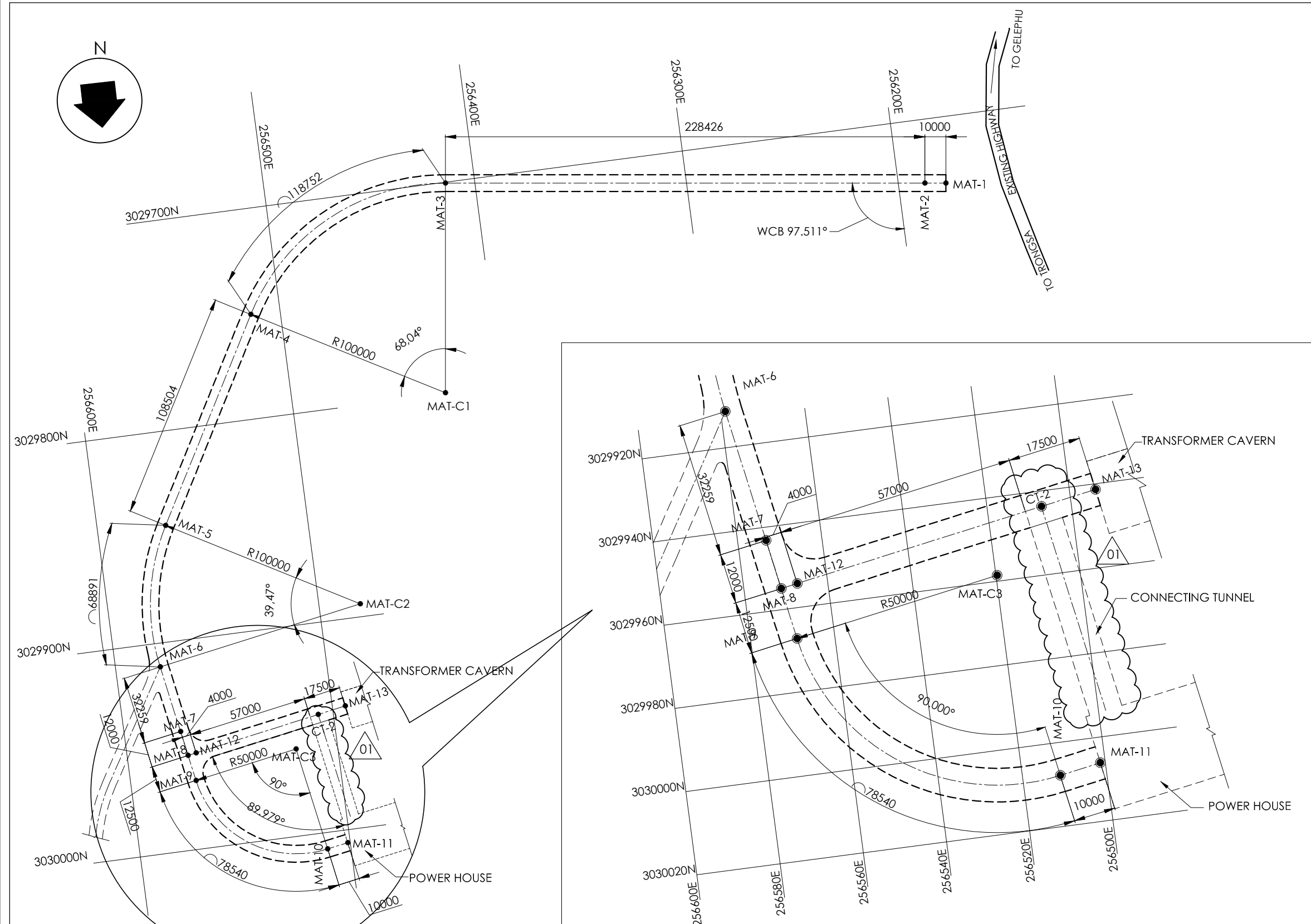


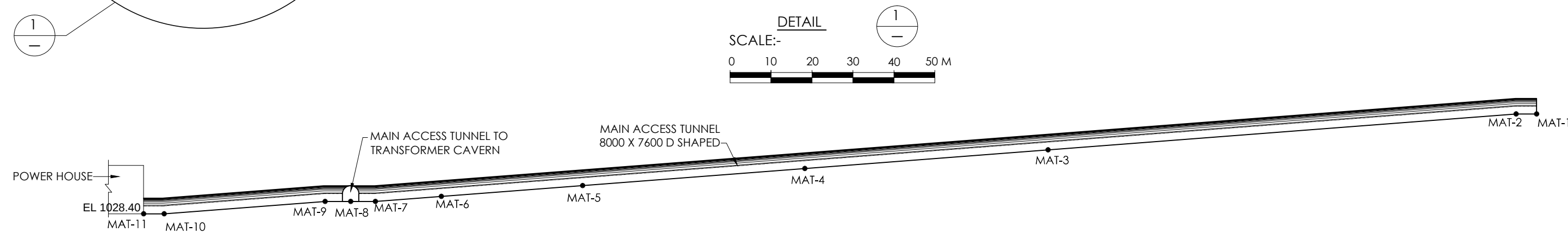


LONGITUDINAL SECTION
(MAIN ACCESS TUNNEL TO TRANSFORMER CAVERN)

SCALE:-



NSL	1338.03	1336.03	1320.03	1311.03
TUNNEL INVERT LEVEL	1034.408	1034.408	1028.40	1028.40
CUMULATIVE LENGTH	000	4000	61000	78500
PARTIAL LENGTH	4000	57000	4000	13500
SLOPE		1 IN 9.487	NO SLOPE	
CURVE DATA				



LONGITUDINAL SECTION
(MAIN ACCESS TUNNEL TO POWER HOUSE)

NSL	1299.48	1340.76	1338.03	1324.93	1284.08	1215.02	1168.82	1143.10	1105.35
TUNNEL INVERT LEVEL	1028.40	1028.40	1034.408	1034.408	1036.875	1042.145	1050.444	1059.526	1077.00
CUMULATIVE LENGTH	679872	669872	591332	578832	564832	534573	465682	238426	0
PARTIAL LENGTH	10000	78540	2500	12000	32259	68891	108504	118752	228426
SLOPE		1 IN 13.073					1 IN 13.073		
CURVE DATA		R=50000			R=100000		R=100000		

CO-ORDINATES

POINTS	NORTHING	EASTING	INVERT ELEVATION
MAT-1	3029731.582	256177.521	1077.00
MAT-2	3029730.275	256187.435	1077.00
MAT-3	3029700.415	256413.901	1059.526
MAT-4	3029750.358	256514.033	1050.444
MAT-5	3029844.822	256567.416	1042.145
MAT-6	3029911.386	256578.837	1036.875
MAT-7	3029943.155	256573.235	1034.408
MAT-8	3029954.973	256571.151	1034.408
MAT-9	3029967.283	256568.981	1034.408
MAT-10	3030007.841	256511.058	1028.400
MAT-11	3030006.104	256501.210	1028.400
MAT-12	3029954.278	256567.212	1034.408
CT-2	3029943.685	256507.139	1028.400
MAT-13	3029941.341	256493.844	1028.400
MAT-C1	3029799.557	256426.973	-
MAT-C2	3029894.021	256480.356	-
MAT-C3	3029958.600	256519.741	-

NOTES:-

- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS IN METERS
- THIS DRAWING HAS BEEN DEVELOPED BASED ON DPR LEVEL SURVEY (REFER MHPA LETTER NO. 2/MD/MHPA/CONSULTANCY/ 2012/888 DATED 18/04/2012) AND TOPOGRAPHICAL MAP OF RIVER WASHOUT AREA BETWEEN NALLA U/S OF POWER HOUSE AND YURMU NALLA.
- EXISTING LEVELS SHALL BE VERIFIED ON SITE PRIOR TO EXCAVATION WORKS.
- TRONGSA - GELEPHU HIGHWAY SHOWN IS INDICATIVE ONLY.
- FOR SETTING OUT OF CONNECTING TUNNEL REFER DRAWING NO. NHMN-4CC3-41-DD-007.

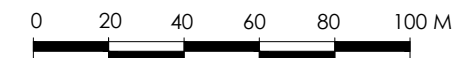
PORTAL CO-ORDINATE

MAT-1 | N 3029731.582 | E 256177.521 | EL 1077.00

REFERENCE DRG:-

- NHMN-4CC3-41-DD-007

SCALE:-



		MANGDECHHU HYDROELECTRIC PROJECT AUTHORITY THIMPHU BHUTAN			
		एन एच पी सी लिमिटेड NHPC Limited (A GOVT. OF INDIA ENTERPRISE)			
मांगडेचू जलविद्युत परियोजना (भूटान) MANGDECHHU H.E PROJECT (BHUTAN)					
POWER HOUSE MAIN ACCESS TUNNEL SETTING OUT DETAILS					
DRAWN 08.10.2013 18.05.2012	DATE 00	'CT-2 POINT & CONNECTING TUNNEL' ADDED ISSUED FOR CONSTRUCTION	sd/- sd/- sd/-	SUBMITTED 00	RECOMMENDED 00
DATE 00	NO. 00	REVISION OR ISSUES	BY CH. APP	DATE OCT. 2013	DRG. NO. 4CC3 41 DD 001 01