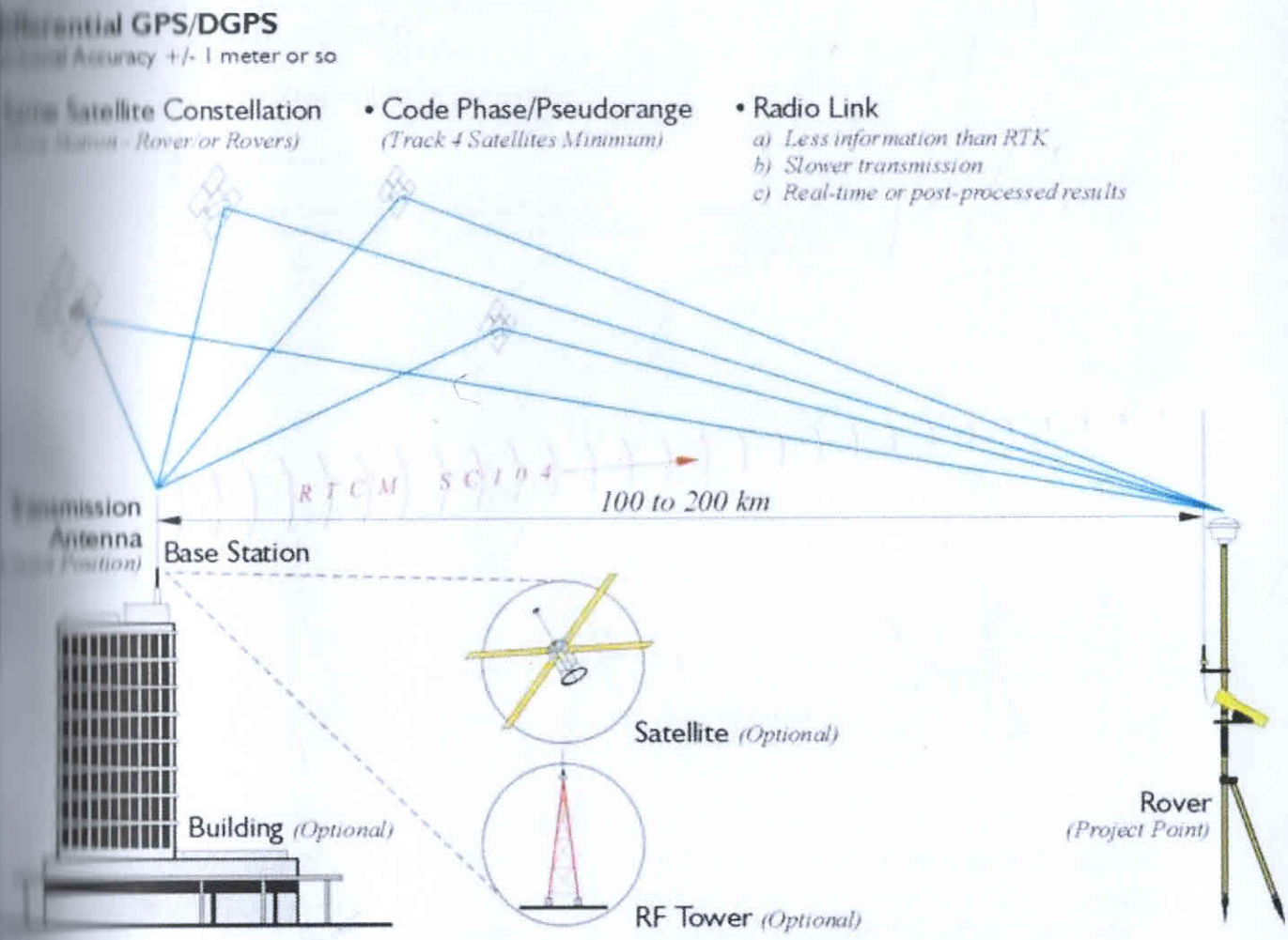
2. INTRODUCTION TO DGPS



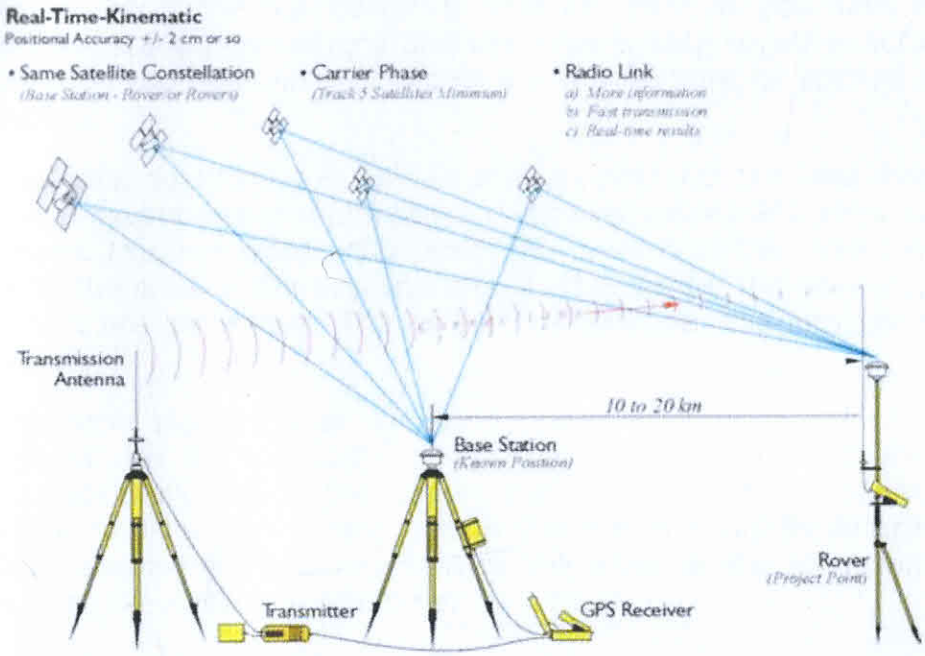
The term DGPS is sometimes used to refer to differential GPS that is based on pseudo ranges, aka code phase. Even though the accuracy of code phase applications was given a boost with the elimination of Selective Availability (SA) in May 2000 consistent accuracy better than the 2-5 meter range still requires reduction of the effect of correlated ephemeris and atmospheric errors by differential corrections. Though the corrections could be applied in post-processing services that supply these corrections, most often operate in real-time. In such an operation pseudo range based versions can offer meter- or even sub meter results.

Usually, pseudo range corrections are broadcast from the base to the rover or rovers for each satellite in the visible constellation. Rovers with an appropriate input/output (I/O) port can receive the correction signal and calculate coordinates. The real-time signal comes to the receiver over a data link. It can originate at a project specific base station or it can come to the user through a service of which there are various categories. Some are open to all users and some are by subscription only. Coverage depends on the spacing of the beacons, aka transmitting base stations, their power, interference, and so forth. Some systems require two-way, some one-way, communication with the base stations. Radio systems, geostationary satellites, low-earth-orbiting.

SURVEY METHOD

1 RTK (Real Time Kinematic)
2 STATIC METHOD

1 Real-time Kinematic



Most, not all, GPS surveying relies on the idea of differential positioning. The mode of a base or reference receiver at a known location logging data at the same time as a receiver at an unknown location together provide the fundamental information for the determination of accurate coordinates. While this basic approach remains today, the majority of GPS surveying is not done in the static post-processed mode. Post-processing is most often applied to control work. Now, the most commonly used methods utilize receivers on reference stations that provide correction signals to the end user via a data link sometimes over the Internet, radio signal, or cell phone and often in real-time.

In this category of GPS surveying work there is sometimes a distinction made between code- based and carrier based solutions. In fact, most systems use a combination of code and carrier measurements so the distinction is more a matter of emphasis rather than an absolute difference. Well that's a bit of discussion about static surveying, but as you know, a good deal of GPS these days is done not static. Much work is now done with DGPS or real-time kinematic, RTK.

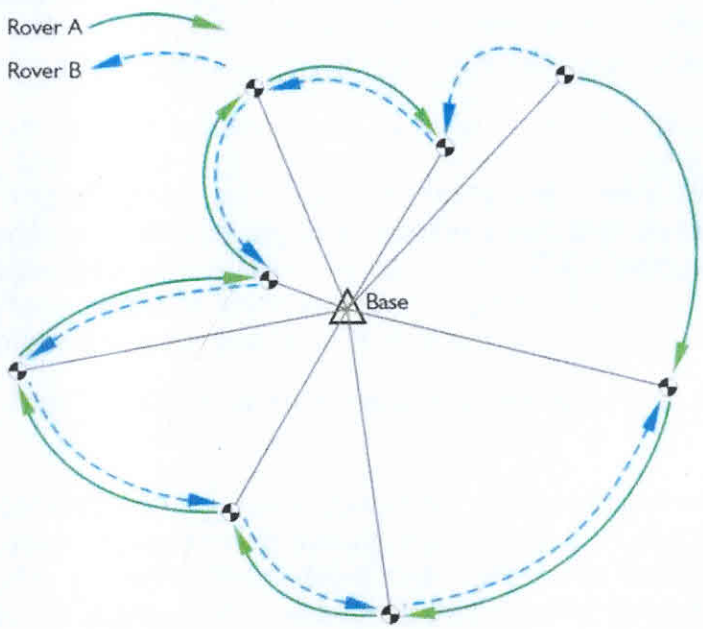
Errors in satellite clocks, imperfect orbits, the trip through the layers of the atmosphere, and many other sources contribute inaccuracies to GPS signals by the time they reach a receiver.

These errors are variable, so the best to way to correct them is to monitor them as they happen. A good way to do this is to set up a GPS receiver on a

station whose position is known exactly, a base station. This base station receiver's computer can calculate its position from satellite data, compare that position with its actual known position, and find the difference. The resulting error corrections can be communicated from the base to the rover. It works well, but the errors are constantly changing so a base station has to monitor them all the time, at least all the time the rover receiver or receivers are working. While this is happening the rovers move from place to place collecting the points whose positions you want to know relative to the base station, which is the real objective after all. Then all you have to do is get those base station corrections and the rover's data together somehow. That combination can be done over a data link in real-time, or applied later in post processing.

Real-time positioning is built on the foundation of the idea that, with the important exceptions of multipath and receiver noise, GPS error sources are correlated. In other words, the closer the rover is to the base the more the errors at the ends of the baseline match. The shorter the baseline, the more the errors are correlated. The longer the baseline, the less the errors are correlated.

The base station is at a known point, whether it was on a building permanently or it's a tripod mounted base station. The fact that it is in a known position allows the base station to produce corrections. The constellation is telling the base station that it is in a slightly different place, so corrections can be created to sent to the rover at the unknown point. The corrections are applied in real time.



RADIAL GPS

Such real-time surveying is essentially radial. There are advantages to the approach. The advantage is a large number of positions can be established in a short amount of time with little or no planning. The disadvantage is that there is little or no redundancy in positions derived, each of the baselines originates from the same control station. Redundancy can be incorporated, but it requires repetition of the observations so each baseline is determined with more than one GPS constellation. One way to do it is to occupy the

project points, the unknown positions, successively with more than one rover. It is best if these successive occupations are separated by at least 4 hours and not more than 8 hours so the satellite constellation can reach a significantly different configuration.

RTK and DGPS are radial. You have a known point in the middle, the base, and then the unknown points around it. This provides little geometric solidity. If there's an error in one of these radial base lines, it would be tough to catch it because there's no real redundancy. The illustration shows a way around this difficulty. There are two receivers, A and B, and it's possible by double occupation, one receiver going one way and the other going the other, by double occupying the unknown points to get some redundancy and some checks against the positions from a base. Another way to do it is to use one receiver. That receiver would occupy each points twice with four to eight hours between the first occupation and the second occupation on the point. Another way is to move the base to another known point. Then if you have vectors from another base into these points, you have a check. This approach allows a solution to be available from two separate control stations. Obviously, this can be done with re-occupation of the project points after one base station has been moved to a new control point, or a two base stations can be up and running from the very outset and throughout of the work as would be the case using two CORS stations. It is best if there are both two occupations on each point and each of the two utilize different base stations.

A more convenient but less desirable approach is to do a second occupation almost immediately after the first. The roving receiver's antenna is blocked or tilted until the lock on the satellites is interrupted. It is then re-oriented on the unknown position a second time for the repeat solution. This does offer a second solution, but from virtually the same constellation.

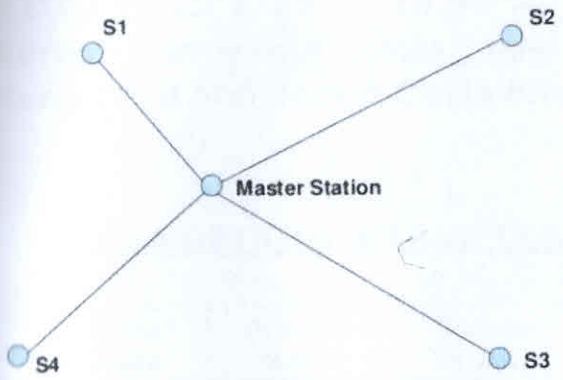
More efficiency can be achieved by adding additional roving receivers. However, as the number of receivers rises, the logistics become more complicated, and a survey plan becomes necessary. Also, project points that are simultaneously near one another but far from the control station should be directly connected with a baseline to maintain the integrity of the survey. Finally, if the base receiver loses lock and it goes unnoticed, it will completely defeat the radial survey for the time it is down.

These are a few possibilities to consider when you are doing a real-time survey.

An advantage to continuously operating reference station network is that since those bases are operating simultaneously and all the time, it's possible to download the positions from more than one base and process your new position based on these continuously operating reference stations and have some redundancy.

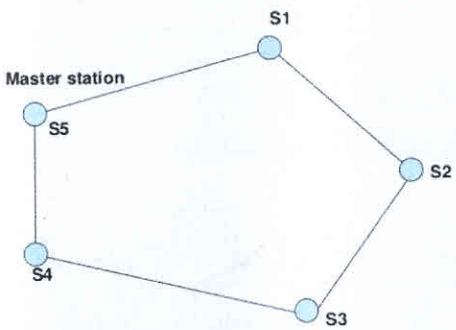
2. STATIC METHOD

I. Rapid Static Method



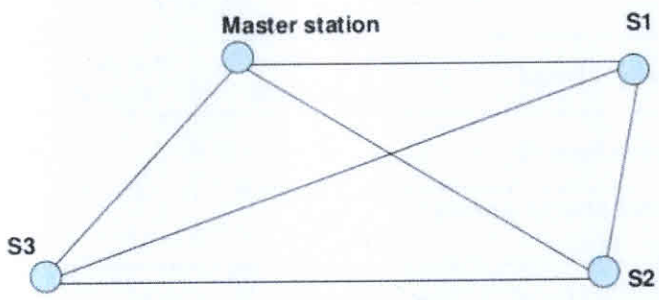
Schematic diagram of Rapid Static Method

II. Traverse Method



Schematic diagram of Traverse method

III. Trilateration Method



Trilateration method

3. INTRODUCTION TO SURVEY SITE

The surveyed area is located on **Villages Ratija, Renki, Bamhanikona and Sarai Singar,** which comes under **Block Pali, District Korba and Chhattisgarh.** Korba Railway Station longitude latitude is **82°42'46.13"E 22°20'14.86"N.** Survey site is located **26.7** Km from **Korba.** Survey site comes under **Forest Division Katghora, Forest Range Pali and Forest Circle Bilaspur.**

AREA DETAILS & LAND CLASSIFICATION (ORANGE AREA)

S.No.	District Name	Division Name	Range Name	Land Type	Compartment No.	Area (In Hectare)
1	Korba	Katghora	Pali	Orange Area	OA 599	2.723
2					OA 601	8.344
3					OA 602	4.333
TOTAL						15.400

AREA DETAILS & LAND CLASSIFICATION [REVENUE PRIVATE (NON-FOREST) LAND]

S.No.	District Name	Division Name	Range Name	Land Type	Area (In Hectare)
1	Korba	Katghora	Pali	Revenue Private (Non-Forest) Land	11.232
TOTAL					11.232

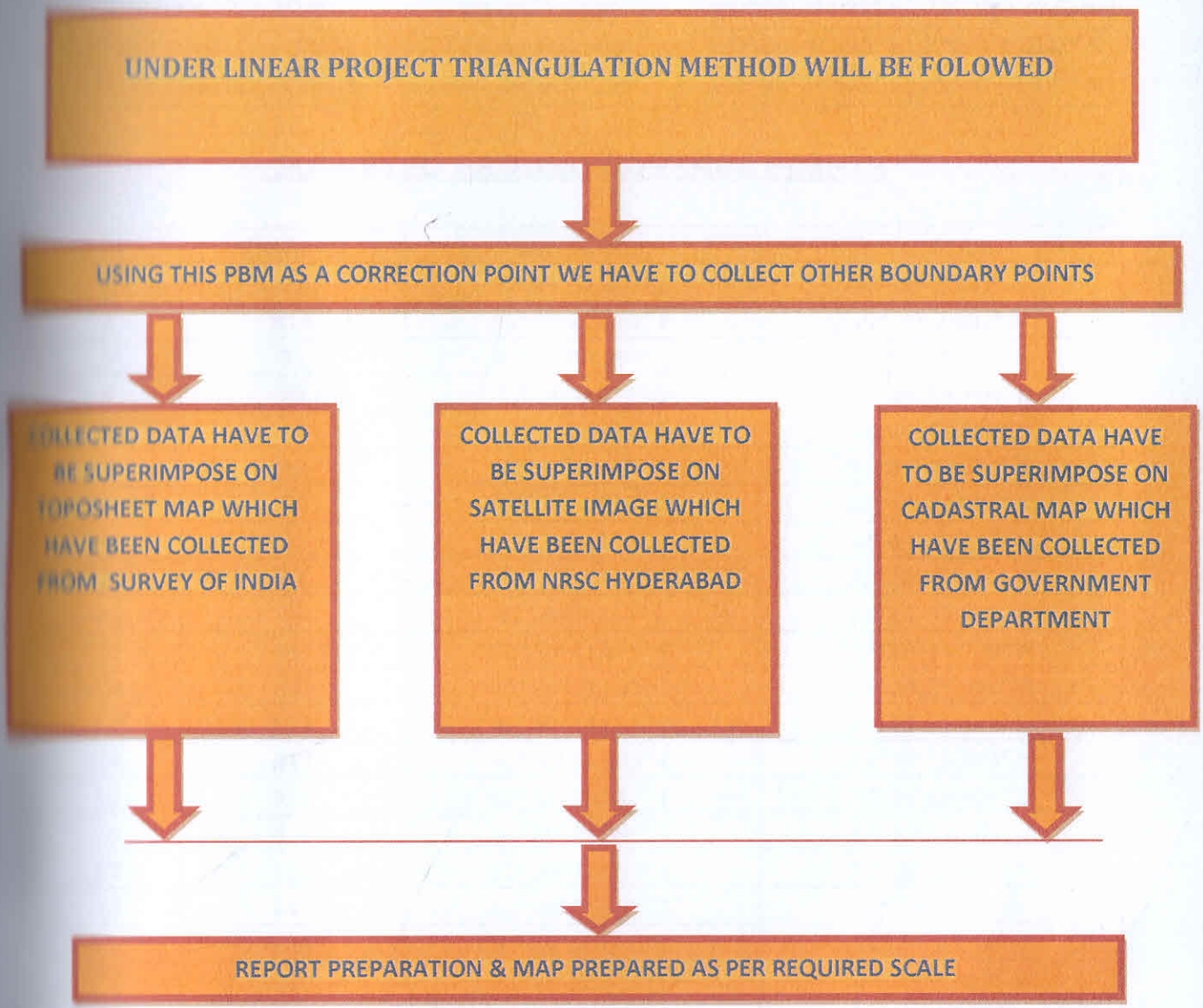
LAND SUMMARY

S.No.	District Name	Division Name	Land Type	Length (In Kms)	Area (In Hectare)
1	Korba	Katghora	Orange Area	6.89	15.400
2			Revenue Private (Non-Forest) Land	5.04	11.232
TOTAL				11.93	26.632

Computer Plan
Raipur (C.G.)

4. METHODOLOGY USED

SURVEY METHODLOGY UNDER LINEAR PROJECT



5. CONTROL POINT

PRIMARY CONTROL POINT (FIXING OF BASE STATION POINT)

S.NO	P.C.P VILLAGE NAME	LONGITUDE	LATITUDE
GROUND CONTROL POINT 1	Ratija, Renki, Bamhanikona and Sarai Singar	82° 29' 58.983" E	22° 20' 1.424" N
GROUND CONTROL POINT 2		82° 30' 23.580" E	22° 18' 13.097" N
GROUND CONTROL POINT 3		82° 31' 29.545" E	22° 17' 19.223" N

SURVEYED GROUND CONTROL POINTS

S.NO	PILLAR ID	LONGITUDE	LATITUDE
1	R1	82° 29' 57.357" E	22° 20' 2.557" N
2	R1A	82° 29' 57.382" E	22° 20' 2.192" N
3	R2	82° 29' 58.694" E	22° 19' 58.845" N
4	R3	82° 30' 0.029" E	22° 19' 55.786" N
5	R4	82° 30' 1.702" E	22° 19' 52.899" N
6	R5	82° 30' 2.993" E	22° 19' 49.971" N
7	R6	82° 30' 4.314" E	22° 19' 46.981" N
8	R7	82° 30' 5.394" E	22° 19' 43.618" N
9	R8	82° 30' 6.997" E	22° 19' 40.853" N
10	R9	82° 30' 9.322" E	22° 19' 35.866" N
11	R10	82° 30' 11.075" E	22° 19' 31.798" N
12	R11	82° 30' 13.211" E	22° 19' 25.615" N
13	R12	82° 30' 14.591" E	22° 19' 22.642" N
14	R13	82° 30' 16.322" E	22° 19' 19.564" N
15	R14	82° 30' 18.317" E	22° 19' 16.926" N
16	R15	82° 30' 20.389" E	22° 19' 14.265" N
17	R16	82° 30' 22.652" E	22° 19' 11.839" N
18	R17	82° 30' 24.531" E	22° 19' 9.063" N
19	R18	82° 30' 26.625" E	22° 19' 6.433" N
20	R19	82° 30' 28.226" E	22° 19' 4.019" N
21	R20	82° 30' 29.374" E	22° 19' 1.352" N
22	R21	82° 30' 30.082" E	22° 18' 58.276" N
23	R22	82° 30' 30.861" E	22° 18' 55.371" N
24	R23	82° 30' 31.251" E	22° 18' 51.958" N
25	R24	82° 30' 31.289" E	22° 18' 48.585" N
26	R25	82° 30' 31.834" E	22° 18' 45.313" N
27	R26	82° 30' 32.383" E	22° 18' 42.106" N
28	R27	82° 30' 33.234" E	22° 18' 35.760" N
29	R28	82° 30' 33.416" E	22° 18' 32.585" N
30	R29	82° 30' 33.785" E	22° 18' 29.292" N
31	R30	82° 30' 33.842" E	22° 18' 28.958" N
32	R31	82° 30' 33.657" E	22° 18' 28.646" N
33	R32	82° 30' 33.226" E	22° 18' 27.953" N

S.NO	PILLAR ID	LONGITUDE	LATITUDE
34	R33	82° 30' 31.324" E	22° 18' 25.150" N
35	R34	82° 30' 29.263" E	22° 18' 22.506" N
36	R35	82° 30' 27.154" E	22° 18' 19.364" N
37	R36	82° 30' 25.553" E	22° 18' 16.233" N
38	R37	82° 30' 24.694" E	22° 18' 14.769" N
39	R38	82° 30' 23.473" E	22° 18' 14.117" N
40	R39	82° 30' 19.582" E	22° 18' 13.896" N
41	R40	82° 30' 15.495" E	22° 18' 13.611" N
42	R41	82° 30' 11.372" E	22° 18' 13.428" N
43	R42	82° 30' 7.152" E	22° 18' 13.536" N
44	R43	82° 30' 3.068" E	22° 18' 14.203" N
45	R44	82° 29' 58.590" E	22° 18' 13.845" N
46	R45	82° 29' 55.864" E	22° 18' 12.277" N
47	R46	82° 29' 54.355" E	22° 18' 10.832" N
48	R46A	82° 29' 54.287" E	22° 18' 10.602" N
49	R46B	82° 29' 54.351" E	22° 18' 10.326" N
50	R47	82° 29' 55.203" E	22° 18' 6.957" N
51	R48	82° 29' 55.067" E	22° 18' 4.489" N
52	R49	82° 29' 54.612" E	22° 18' 0.650" N
53	R50	82° 29' 54.270" E	22° 17' 57.384" N
54	R51	82° 29' 54.022" E	22° 17' 53.735" N
55	R52	82° 29' 53.812" E	22° 17' 50.908" N
56	R53	82° 29' 54.396" E	22° 17' 47.597" N
57	R54	82° 29' 54.463" E	22° 17' 45.575" N
58	R55	82° 29' 54.164" E	22° 17' 42.976" N
59	R56	82° 29' 54.128" E	22° 17' 40.184" N
60	R57	82° 29' 53.549" E	22° 17' 37.583" N
61	R58	82° 29' 51.413" E	22° 17' 34.113" N
62	R59	82° 29' 51.156" E	22° 17' 32.081" N
63	R59A	82° 29' 51.197" E	22° 17' 31.871" N
64	R60	82° 29' 51.478" E	22° 17' 31.370" N
65	R60A	82° 29' 51.697" E	22° 17' 31.110" N
66	R61	82° 29' 53.984" E	22° 17' 29.938" N
67	R62	82° 29' 56.380" E	22° 17' 28.241" N
68	R63	82° 29' 59.309" E	22° 17' 27.339" N
69	R64	82° 30' 1.692" E	22° 17' 26.207" N
70	R65	82° 30' 4.427" E	22° 17' 25.091" N
71	R66	82° 30' 7.369" E	22° 17' 23.981" N
72	R67	82° 30' 9.833" E	22° 17' 22.525" N
73	R68	82° 30' 12.295" E	22° 17' 21.319" N
74	R69	82° 30' 14.863" E	22° 17' 19.847" N
75	R69A	82° 30' 15.092" E	22° 17' 19.795" N
76	R70	82° 30' 18.075" E	22° 17' 19.993" N
77	R71	82° 30' 21.465" E	22° 17' 19.888" N
78	R72	82° 30' 25.891" E	22° 17' 18.712" N
79	R72A	82° 30' 26.044" E	22° 17' 18.719" N

S.NO	PILLAR ID	LONGITUDE	LATITUDE
80	R73	82° 30' 29.953" E	22° 17' 19.635" N
81	R74	82° 30' 32.837" E	22° 17' 20.254" N
82	R75	82° 30' 35.379" E	22° 17' 21.554" N
83	R76	82° 30' 37.640" E	22° 17' 22.672" N
84	R77	82° 30' 40.720" E	22° 17' 22.499" N
85	R78	82° 30' 43.653" E	22° 17' 22.682" N
86	R79	82° 30' 46.586" E	22° 17' 22.608" N
87	R80	82° 30' 48.241" E	22° 17' 22.665" N
88	R81	82° 30' 49.371" E	22° 17' 22.475" N
89	R82	82° 30' 52.254" E	22° 17' 22.181" N
90	R83	82° 30' 55.304" E	22° 17' 22.275" N
91	R84	82° 31' 1.320" E	22° 17' 22.354" N
92	R85	82° 31' 3.937" E	22° 17' 21.363" N
93	R86	82° 31' 6.870" E	22° 17' 21.461" N
94	R87	82° 31' 11.196" E	22° 17' 20.967" N
95	R88	82° 31' 15.543" E	22° 17' 20.420" N
96	R89	82° 31' 19.437" E	22° 17' 19.708" N
97	R90	82° 31' 23.051" E	22° 17' 20.801" N
98	R91	82° 31' 29.376" E	22° 17' 18.418" N
99	R92	82° 31' 32.046" E	22° 17' 17.322" N
100	R93	82° 31' 37.454" E	22° 17' 15.354" N
101	R93A	82° 31' 37.659" E	22° 17' 15.335" N
102	R94	82° 31' 40.521" E	22° 17' 15.802" N
103	R95	82° 31' 46.281" E	22° 17' 15.405" N
104	R96	82° 31' 51.967" E	22° 17' 17.076" N
105	R97	82° 31' 53.946" E	22° 17' 18.448" N
106	R98	82° 31' 56.496" E	22° 17' 19.807" N
107	R99	82° 32' 1.348" E	22° 17' 22.665" N
108	R100	82° 32' 5.898" E	22° 17' 24.251" N
109	R101	82° 32' 8.801" E	22° 17' 24.425" N
110	R102	82° 32' 14.588" E	22° 17' 26.518" N
111	R103	82° 32' 19.712" E	22° 17' 27.452" N
112	R104	82° 32' 23.225" E	22° 17' 28.866" N
113	R105	82° 32' 27.410" E	22° 17' 29.273" N
114	R106	82° 32' 30.982" E	22° 17' 31.330" N
115	R107	82° 32' 34.832" E	22° 17' 31.461" N
116	R108	82° 32' 37.678" E	22° 17' 31.505" N
117	R109	82° 32' 43.320" E	22° 17' 31.938" N
118	R110	82° 32' 46.333" E	22° 17' 31.409" N
119	R111	82° 32' 51.742" E	22° 17' 32.029" N
120	R112	82° 32' 56.663" E	22° 17' 32.258" N
121	R112A	82° 32' 56.941" E	22° 17' 32.386" N
122	R113	82° 33' 1.751" E	22° 17' 37.750" N
123	R114	82° 33' 3.605" E	22° 17' 39.882" N
124	R115	82° 33' 5.083" E	22° 17' 42.376" N
125	R116	82° 33' 6.470" E	22° 17' 45.273" N

S.NO	PILLAR ID	LONGITUDE	LATITUDE
126	R117	82° 33' 8.010" E	22° 17' 47.228" N
127	L1	82° 29' 58.124" E	22° 20' 2.420" N
128	L2	82° 29' 59.425" E	22° 19' 59.100" N
129	L3	82° 30' 0.745" E	22° 19' 56.078" N
130	L4	82° 30' 2.417" E	22° 19' 53.193" N
131	L5	82° 30' 3.716" E	22° 19' 50.247" N
132	L6	82° 30' 5.057" E	22° 19' 47.206" N
133	L7	82° 30' 6.130" E	22° 19' 43.862" N
134	L8	82° 30' 7.692" E	22° 19' 41.185" N
135	L9	82° 30' 10.044" E	22° 19' 36.141" N
136	L10	82° 30' 11.815" E	22° 19' 32.031" N
137	L11	82° 30' 13.894" E	22° 19' 25.975" N
138	L12	82° 30' 15.290" E	22° 19' 22.967" N
139	L13	82° 30' 16.997" E	22° 19' 19.932" N
140	L14	82° 30' 18.953" E	22° 19' 17.349" N
141	L15	82° 30' 20.991" E	22° 19' 14.729" N
142	L16	82° 30' 23.268" E	22° 19' 12.287" N
143	L17	82° 30' 25.184" E	22° 19' 9.462" N
144	L18	82° 30' 27.262" E	22° 19' 6.854" N
145	L19	82° 30' 28.938" E	22° 19' 4.318" N
146	L20	82° 30' 30.117" E	22° 19' 1.579" N
147	L21	82° 30' 30.844" E	22° 18' 58.434" N
148	L22	82° 30' 31.634" E	22° 18' 55.473" N
149	L23	82° 30' 32.029" E	22° 18' 52.018" N
150	L24	82° 30' 32.065" E	22° 18' 48.670" N
151	L25	82° 30' 32.605" E	22° 18' 45.426" N
152	L26	82° 30' 33.157" E	22° 18' 42.202" N
153	L27	82° 30' 34.010" E	22° 18' 35.837" N
154	L28	82° 30' 34.196" E	22° 18' 32.633" N
155	L29	82° 30' 34.560" E	22° 18' 29.377" N
156	L30	82° 30' 34.640" E	22° 18' 28.891" N
157	L31	82° 30' 34.337" E	22° 18' 28.288" N
158	L32	82° 30' 33.890" E	22° 18' 27.571" N
159	L33	82° 30' 31.977" E	22° 18' 24.752" N
160	L34	82° 30' 29.903" E	22° 18' 22.089" N
161	L35	82° 30' 27.850" E	22° 18' 19.033" N
162	L36	82° 30' 26.253" E	22° 18' 15.911" N
163	L37	82° 30' 25.298" E	22° 18' 14.289" N
164	L38	82° 30' 23.728" E	22° 18' 13.420" N
165	L39	82° 30' 19.635" E	22° 18' 13.171" N
166	L40	82° 30' 15.548" E	22° 18' 12.886" N
167	L41	82° 30' 11.394" E	22° 18' 12.701" N
168	L42	82° 30' 7.044" E	22° 18' 12.816" N
169	L43	82° 30' 3.046" E	22° 18' 13.474" N
170	L44	82° 29' 58.866" E	22° 18' 13.155" N
171	L45	82° 29' 56.358" E	22° 18' 11.711" N

S.NO	PILLAR ID	LONGITUDE	LATITUDE
172	L46	82° 29' 55.106" E	22° 18' 10.515" N
173	L47	82° 29' 55.976" E	22° 18' 7.073" N
174	L48	82° 29' 55.846" E	22° 18' 4.441" N
175	L49	82° 29' 55.388" E	22° 18' 0.575" N
176	L50	82° 29' 55.049" E	22° 17' 57.339" N
177	L51	82° 29' 54.801" E	22° 17' 53.685" N
178	L52	82° 29' 54.590" E	22° 17' 50.983" N
179	L53	82° 29' 55.176" E	22° 17' 47.643" N
180	L54	82° 29' 55.245" E	22° 17' 45.572" N
181	L55	82° 29' 54.945" E	22° 17' 42.950" N
182	L56	82° 29' 54.908" E	22° 17' 40.140" N
183	L57	82° 29' 54.284" E	22° 17' 37.324" N
184	L58	82° 29' 52.170" E	22° 17' 33.906" N
185	L59	82° 29' 51.945" E	22° 17' 32.108" N
186	L60	82° 29' 52.170" E	22° 17' 31.705" N
187	L61	82° 29' 54.396" E	22° 17' 30.556" N
188	L62	82° 29' 56.747" E	22° 17' 28.888" N
189	L63	82° 29' 59.582" E	22° 17' 28.021" N
190	L64	82° 30' 2.016" E	22° 17' 26.868" N
191	L65	82° 30' 4.726" E	22° 17' 25.762" N
192	L66	82° 30' 7.758" E	22° 17' 24.612" N
193	L67	82° 30' 10.211" E	22° 17' 23.161" N
194	L68	82° 30' 12.691" E	22° 17' 21.946" N
195	L69	82° 30' 15.162" E	22° 17' 20.528" N
196	L70	82° 30' 18.039" E	22° 17' 20.720" N
197	L71	82° 30' 21.598" E	22° 17' 20.607" N
198	L72	82° 30' 25.955" E	22° 17' 19.447" N
199	L73	82° 30' 29.771" E	22° 17' 20.342" N
200	L74	82° 30' 32.566" E	22° 17' 20.939" N
201	L75	82° 30' 35.008" E	22° 17' 22.193" N
202	L76	82° 30' 37.472" E	22° 17' 23.396" N
203	L77	82° 30' 40.693" E	22° 17' 23.225" N
204	L78	82° 30' 43.619" E	22° 17' 23.408" N
205	L79	82° 30' 46.570" E	22° 17' 23.335" N
206	L80	82° 30' 48.338" E	22° 17' 23.387" N
207	L81	82° 30' 49.470" E	22° 17' 23.196" N
208	L82	82° 30' 52.311" E	22° 17' 22.906" N
209	L83	82° 30' 55.285" E	22° 17' 23.001" N
210	L84	82° 31' 1.441" E	22° 17' 23.080" N
211	L85	82° 31' 4.100" E	22° 17' 22.082" N
212	L86	82° 31' 6.890" E	22° 17' 22.189" N
213	L87	82° 31' 11.296" E	22° 17' 21.688" N
214	L88	82° 31' 15.660" E	22° 17' 21.138" N
215	L89	82° 31' 19.420" E	22° 17' 20.446" N
216	L90	82° 31' 23.050" E	22° 17' 21.551" N
217	L91	82° 31' 29.686" E	22° 17' 19.085" N

S.NO	PILLAR ID	LONGITUDE	LATITUDE
218	L92	82° 31' 32.338" E	22° 17' 17.996" N
219	L93	82° 31' 37.634" E	22° 17' 16.069" N
220	L94	82° 31' 40.506" E	22° 17' 16.531" N
221	L95	82° 31' 46.167" E	22° 17' 16.131" N
222	L96	82° 31' 51.608" E	22° 17' 17.727" N
223	L97	82° 31' 53.497" E	22° 17' 19.043" N
224	L98	82° 31' 56.100" E	22° 17' 20.433" N
225	L99	82° 32' 0.965" E	22° 17' 23.299" N
226	L100	82° 32' 5.752" E	22° 17' 24.968" N
227	L101	82° 32' 8.631" E	22° 17' 25.138" N
228	L102	82° 32' 14.404" E	22° 17' 27.225" N
229	L103	82° 32' 19.466" E	22° 17' 28.144" N
230	L104	82° 32' 23.026" E	22° 17' 29.574" N
231	L105	82° 32' 27.181" E	22° 17' 29.977" N
232	L106	82° 32' 30.718" E	22° 17' 32.027" N
233	L107	82° 32' 34.812" E	22° 17' 32.188" N
234	L108	82° 32' 37.626" E	22° 17' 32.230" N
235	L109	82° 32' 43.345" E	22° 17' 32.667" N
236	L110	82° 32' 46.350" E	22° 17' 32.140" N
237	L111	82° 32' 51.661" E	22° 17' 32.752" N
238	L112	82° 32' 56.453" E	22° 17' 32.976" N
239	L113	82° 33' 1.148" E	22° 17' 38.212" N
240	L114	82° 33' 2.938" E	22° 17' 40.262" N
241	L115	82° 33' 4.392" E	22° 17' 42.713" N
242	L116	82° 33' 5.816" E	22° 17' 45.671" N
243	L117	82° 33' 7.920" E	22° 17' 48.343" N

K.R. SAHU
E.E./Member Security
Project Implementation Unit
C.G.R.R.D.A. KORBA

वनमण्डलाधिकारी
कटघोरा वनमण्डल, कटघोरा

Computer Print
Raipur (C.G.)

6. SURVEY DATE

Survey Date	Survey Time	Village Name
04-10-2018 To 06-10-2018	11.00 AM To 05.00 PM	Ratija, Renki, Bamhanikona and Sarai Singar

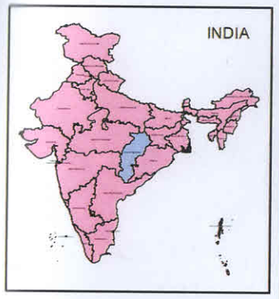
Weather was nice with clear sun light. Survey pillar marking has been done before itself so it was easy to get the location point. Survey has been done by the survey team members Mr. Kishor Sahu, Mr. M.Ketan, and Mr. Goldi. The team was lead by **Mr. Kishor Sahu.**

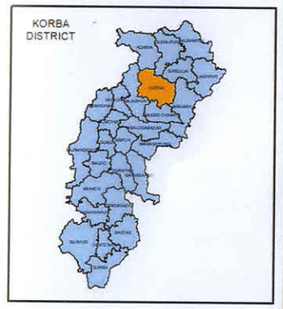
Base Station Photographs

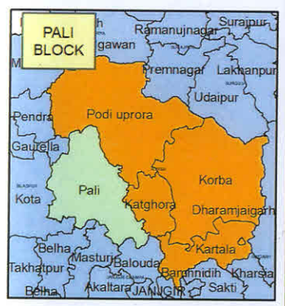
Survey Photographs With Staff

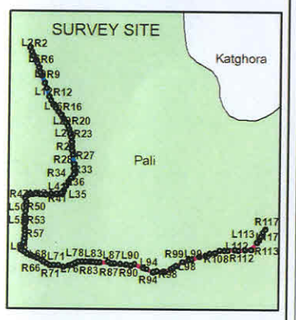
Survey Pillar photographs

INDEX









82°29'30"E 82°31'40"E

22°18'20"N

LOCATION MAP OF SURVEY SITE
HARDI BAZAR BYPASS PROPOSED ROAD 10.31KM
(Via. RATIJA, RENKI, BAMHANIKONA, SARAI SINGAR)
FOREST DIVISION KATGHORA
DISTRICT KORBA
CHHATTISGARH

N W E S

K.R. SAHU
E.E./Member Security
Project Implementation Unit
C.G.R.R.D.A. KORBA

वनमण्डलाधिकारी
कटघोरा वनमण्डल, कटघोरा

SEAL & SIGN

Computer Plus Raipur (C.G.)

MAP PREPARED BY
COMPUTER PLUS RAIPUR

Legend

- SURVEYED GROUND CONTROL POINT

SURVEY SITE TOTAL AREA : 26.632 (InHectare)

- FOREST LAND AREA : 15.400 (In Hectare)
- REVENUE PRIVATE(NON FOREST) LAND AREA : 11.232 (In Hectare)

Scale
1:30,000
1 centimeter = 300 meters

0 320 640 1,280 1,920 2,560 Meters

Geographic Coordinate Systems
WGS 1984
Projected Coordinate Systems
WGS 1984 UTM Zone 44N

Geographic Coordinate Systems
WGS 1984
Projected Coordinate Systems
WGS 1984 UTM Zone 44N

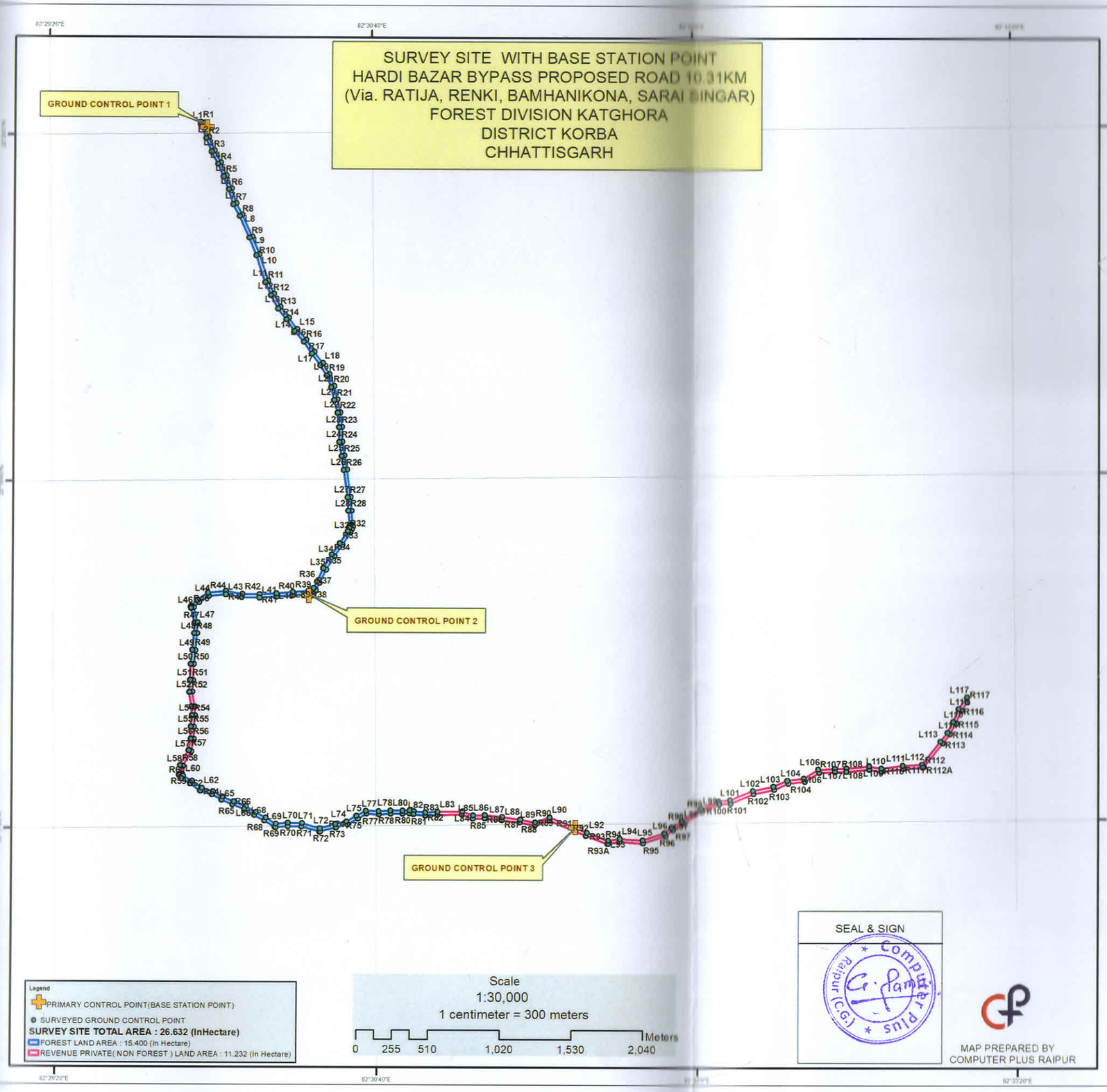
SURVEYED GROUND CONTROL POINTS

S.NO	PILLAR ID	LONGITUDE	LATITUDE
1	R1	82° 29' 57.357" E	22° 20' 2.557" N
2	R1A	82° 29' 57.382" E	22° 20' 2.192" N
3	R2	82° 29' 58.694" E	22° 19' 58.845" N
4	R3	82° 30' 0.029" E	22° 19' 55.786" N
5	R4	82° 30' 1.702" E	22° 19' 52.899" N
6	R5	82° 30' 2.993" E	22° 19' 49.971" N
7	R6	82° 30' 4.314" E	22° 19' 46.981" N
8	R7	82° 30' 5.394" E	22° 19' 43.618" N
9	R8	82° 30' 6.997" E	22° 19' 40.853" N
10	R9	82° 30' 9.322" E	22° 19' 35.866" N
11	R10	82° 30' 11.075" E	22° 19' 31.798" N
12	R11	82° 30' 13.211" E	22° 19' 25.615" N
13	R12	82° 30' 14.591" E	22° 19' 22.642" N
14	R13	82° 30' 16.322" E	22° 19' 19.564" N
15	R14	82° 30' 18.317" E	22° 19' 16.926" N
16	R15	82° 30' 20.389" E	22° 19' 14.265" N
17	R16	82° 30' 22.652" E	22° 19' 11.839" N
18	R17	82° 30' 24.531" E	22° 19' 9.063" N
19	R18	82° 30' 26.625" E	22° 19' 6.433" N
20	R19	82° 30' 28.226" E	22° 19' 4.019" N
21	R20	82° 30' 29.374" E	22° 19' 1.352" N
22	R21	82° 30' 30.082" E	22° 18' 58.276" N
23	R22	82° 30' 30.861" E	22° 18' 55.371" N
24	R23	82° 30' 31.251" E	22° 18' 51.998" N
25	R24	82° 30' 31.289" E	22° 18' 48.585" N
26	R25	82° 30' 31.834" E	22° 18' 45.315" N
27	R26	82° 30' 32.385" E	22° 18' 42.108" N
28	R27	82° 30' 33.234" E	22° 18' 35.769" N
29	R28	82° 30' 33.416" E	22° 18' 32.585" N
30	R29	82° 30' 33.785" E	22° 18' 29.292" N
31	R30	82° 30' 33.842" E	22° 18' 28.958" N
32	R31	82° 30' 33.657" E	22° 18' 28.646" N
33	R32	82° 30' 33.226" E	22° 18' 27.953" N
34	R33	82° 30' 31.324" E	22° 18' 25.150" N
35	R34	82° 30' 29.263" E	22° 18' 22.506" N
36	R35	82° 30' 27.154" E	22° 18' 19.364" N
37	R36	82° 30' 25.552" E	22° 18' 16.233" N
38	R37	82° 30' 24.694" E	22° 18' 14.709" N
39	R38	82° 30' 23.473" E	22° 18' 14.117" N
40	R39	82° 30' 19.582" E	22° 18' 13.896" N
41	R40	82° 30' 15.495" E	22° 18' 13.611" N
42	R41	82° 30' 11.372" E	22° 18' 13.428" N
43	R42	82° 30' 7.152" E	22° 18' 13.536" N
44	R43	82° 30' 3.068" E	22° 18' 14.203" N
45	R44	82° 29' 58.590" E	22° 18' 13.845" N
46	R45	82° 29' 55.864" E	22° 18' 12.277" N
47	R46	82° 29' 54.355" E	22° 18' 10.832" N
48	R46A	82° 29' 54.287" E	22° 18' 10.602" N
49	R46B	82° 29' 54.351" E	22° 18' 10.320" N
50	R47	82° 29' 55.207" E	22° 18' 6.957" N
51	R48	82° 29' 55.067" E	22° 18' 4.489" N
52	R49	82° 29' 54.612" E	22° 18' 0.650" N
53	R50	82° 29' 54.270" E	22° 17' 57.384" N
54	R51	82° 29' 54.022" E	22° 17' 53.735" N
55	R52	82° 29' 53.812" E	22° 17' 50.908" N
56	R53	82° 29' 54.396" E	22° 17' 47.507" N
57	R54	82° 29' 54.463" E	22° 17' 45.574" N
58	R55	82° 29' 54.164" E	22° 17' 42.976" N
59	R56	82° 29' 54.128" E	22° 17' 40.184" N
60	R57	82° 29' 53.549" E	22° 17' 37.583" N
61	R58	82° 29' 51.412" E	22° 17' 34.113" N
62	R59	82° 29' 51.156" E	22° 17' 32.081" N
63	R59A	82° 29' 51.197" E	22° 17' 31.871" N
64	R60	82° 29' 51.478" E	22° 17' 31.370" N
65	R60A	82° 29' 51.697" E	22° 17' 31.110" N
66	R61	82° 29' 53.984" E	22° 17' 29.938" N
67	R62	82° 29' 56.380" E	22° 17' 28.241" N
68	R63	82° 29' 59.309" E	22° 17' 27.339" N
69	R64	82° 30' 1.692" E	22° 17' 26.207" N
70	R65	82° 30' 4.427" E	22° 17' 25.091" N
71	R66	82° 30' 7.369" E	22° 17' 23.981" N
72	R67	82° 30' 9.833" E	22° 17' 22.525" N
73	R68	82° 30' 12.295" E	22° 17' 21.319" N
74	R69	82° 30' 14.863" E	22° 17' 19.847" N
75	R69A	82° 30' 15.092" E	22° 17' 19.795" N
76	R70	82° 30' 18.075" E	22° 17' 19.993" N
77	R71	82° 30' 21.465" E	22° 17' 19.880" N
78	R72	82° 30' 25.891" E	22° 17' 18.712" N
79	R72A	82° 30' 26.044" E	22° 17' 18.719" N
80	R73	82° 30' 29.953" E	22° 17' 19.635" N
81	R74	82° 30' 32.837" E	22° 17' 20.254" N

S.NO	PILLAR ID	LONGITUDE	LATITUDE
[illegible]	[illegible]	[illegible]	[illegible]

S.NO	PILLAR ID	LONGITUDE	LATITUDE
[illegible]	L37	82° 30' 25.290" E	22° 18' 14.289" N
[illegible]	L38	82° 30' 23.728" E	22° 18' 13.420" N
[illegible]	L39	82° 30' 19.635" E	22° 18' 13.171" N
[illegible]	L40	82° 30' 15.548" E	22° 18' 12.886" N
[illegible]	L41	82° 30' 11.394" E	22° 18' 12.701" N
[illegible]	L42	82° 30' 7.014" E	22° 18' 12.816" N
[illegible]	L43	82° 30' 3.046" E	22° 18' 13.474" N
[illegible]	L44	82° 29' 58.866" E	22° 18' 13.155" N
[illegible]	L45	82° 29' 56.358" E	22° 18' 11.711" N
[illegible]	L46	82° 29' 55.106" E	22° 18' 10.515" N
[illegible]	L47	82° 29' 55.976" E	22° 18' 7.073" N
[illegible]	L48	82° 29' 55.840" E	22° 18' 4.441" N
[illegible]	L49	82° 29' 55.388" E	22° 18' 0.575" N
[illegible]	[illegible]	[illegible]	[illegible]

SURVEY SITE WITH BASE STATION POINT
HARDI BAZAR BYPASS PROPOSED ROAD 10.31KM
(Via. RATIJA, RENKI, BAMHANIKONA, SARAI SINGAR)
FOREST DIVISION KATGHORA
DISTRICT KORBA
CHHATTISGARH



Geographic Coordinate Systems
WGS 1984
Projected Coordinate Systems
WGS 1984 UTM Zone 44N

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PRIMARY CONTROL POINT (BASE STATION POINT)

S.NO	LONGITUDE	LATITUDE
GROUND CONTROL POINT 1	82° 29' 58.983" E	22° 20' 1.424" N
GROUND CONTROL POINT 2	82° 30' 23.580" E	22° 18' 13.097" N
GROUND CONTROL POINT 3	82° 31' 29.545" E	22° 17' 19.223" N

SURVEYED GROUND CONTROL POINTS

S.NO	PILLAR ID	LONGITUDE	LATITUDE	S.NO	PILLAR ID	LONGITUDE	LATITUDE	S.NO	PILLAR ID	LONGITUDE	LATITUDE
1	R1	82° 29' 57.357" E	22° 20' 2.557" N	82	R75	82° 30' 35.370" E	22° 17' 21.554" N	163	L37	82° 30' 25.298" E	22° 18' 14.289" N
2	R1A	82° 29' 57.382" E	22° 20' 2.192" N	83	R76	82° 30' 37.640" E	22° 17' 22.672" N	164	L38	82° 30' 23.728" E	22° 18' 13.420" N
3	R2	82° 29' 58.694" E	22° 19' 58.845" N	84	R77	82° 30' 40.720" E	22° 17' 22.490" N	165	L39	82° 30' 19.635" E	22° 18' 13.171" N
4	R3	82° 30' 0.029" E	22° 19' 55.786" N	85	R78	82° 30' 43.653" E	22° 17' 22.682" N	166	L40	82° 30' 15.548" E	22° 18' 12.886" N
5	R4	82° 30' 1.702" E	22° 19' 52.899" N	86	R79	82° 30' 46.586" E	22° 17' 22.608" N	167	L41	82° 30' 11.394" E	22° 18' 12.701" N
6	R5	82° 30' 2.993" E	22° 19' 49.971" N	87	R80	82° 30' 48.241" E	22° 17' 22.665" N	168	L42	82° 30' 7.044" E	22° 18' 12.816" N
7	R6	82° 30' 4.314" E	22° 19' 46.981" N	88	R81	82° 30' 49.371" E	22° 17' 22.475" N	169	L43	82° 30' 3.046" E	22° 18' 13.474" N
8	R7	82° 30' 5.394" E	22° 19' 43.618" N	89	R82	82° 30' 52.254" E	22° 17' 22.181" N	170	L44	82° 29' 58.866" E	22° 18' 13.155" N
9	R8	82° 30' 6.997" E	22° 19' 40.853" N	90	R83	82° 30' 55.304" E	22° 17' 22.275" N	171	L45	82° 29' 56.358" E	22° 18' 11.711" N
10	R9	82° 30' 9.322" E	22° 19' 35.866" N	91	R84	82° 31' 1.320" E	22° 17' 22.354" N	172	L46	82° 29' 55.106" E	22° 18' 10.515" N
11	R10	82° 30' 11.075" E	22° 19' 31.798" N	92	R85	82° 31' 3.937" E	22° 17' 21.363" N	173	L47	82° 29' 55.976" E	22° 18' 7.073" N
12	R11	82° 30' 13.211" E	22° 19' 25.615" N	93	R86	82° 31' 6.870" E	22° 17' 21.461" N	174	L48	82° 29' 55.846" E	22° 18' 4.441" N
13	R12	82° 30' 14.591" E	22° 19' 22.642" N	94	R87	82° 31' 11.196" E	22° 17' 20.967" N	175	L49	82° 29' 55.388" E	22° 18' 0.575" N
14	R13	82° 30' 16.322" E	22° 19' 19.564" N	95	R88	82° 31' 15.543" E	22° 17' 20.420" N	176	L50	82° 29' 55.040" E	22° 17' 57.339" N
15	R14	82° 30' 18.317" E	22° 19' 16.926" N	96	R89	82° 31' 19.437" E	22° 17' 19.708" N	177	L51	82° 29' 54.801" E	22° 17' 53.685" N
16	R15	82° 30' 20.389" E	22° 19' 14.265" N	97	R90	82° 31' 23.051" E	22° 17' 20.801" N	178	L52	82° 29' 54.590" E	22° 17' 50.983" N
17	R16	82° 30' 22.652" E	22° 19' 11.839" N	98	R91	82° 31' 29.376" E	22° 17' 18.418" N	179	L53	82° 29' 55.170" E	22° 17' 47.643" N
18	R17	82° 30' 24.531" E	22° 19' 9.063" N	99	R92	82° 31' 32.046" E	22° 17' 17.322" N	180	L54	82° 29' 55.245" E	22° 17' 45.572" N
19	R18	82° 30' 26.625" E	22° 19' 6.433" N	100	R93	82° 31' 37.454" E	22° 17' 15.354" N	181	L55	82° 29' 54.945" E	22° 17' 42.950" N
20	R19	82° 30' 28.226" E	22° 19' 4.019" N	101	R93A	82° 31' 37.659" E	22° 17' 15.335" N	182	L56	82° 29' 54.908" E	22° 17' 40.140" N
21	R20	82° 30' 29.374" E	22° 19' 1.352" N	102	R94	82° 31' 40.521" E	22° 17' 15.802" N	183	L57	82° 29' 54.284" E	22° 17' 37.324" N
22	R21	82° 30' 30.082" E	22° 18' 58.276" N	103	R95	82° 31' 46.281" E	22° 17' 15.405" N	184	L58	82° 29' 52.170" E	22° 17' 33.906" N
23	R22	82° 30' 30.861" E	22° 18' 55.371" N	104	R96	82° 31' 51.967" E	22° 17' 17.076" N	185	L59	82° 29' 51.945" E	22° 17' 32.108" N
24	R23	82° 30' 31.251" E	22° 18' 51.958" N	105	R97	82° 31' 53.946" E	22° 17' 18.448" N	186	L60	82° 29' 52.170" E	22° 17' 31.705" N
25	R24	82° 30' 31.289" E	22° 18' 48.585" N	106	R98	82° 31' 56.496" E	22° 17' 19.807" N	187	L61	82° 29' 54.396" E	22° 17' 30.556" N
26	R25	82° 30' 31.834" E	22° 18' 45.313" N	107	R99	82° 32' 1.348" E	22° 17' 22.665" N	188	L62	82° 29' 56.747" E	22° 17' 28.888" N
27	R26	82° 30' 32.383" E	22° 18' 42.106" N	108	R100	82° 32' 5.898" E	22° 17' 24.251" N	189	L63	82° 29' 59.582" E	22° 17' 28.021" N
28	R27	82° 30' 33.234" E	22° 18' 35.760" N	109	R101	82° 32' 8.801" E	22° 17' 24.425" N	190	L64	82° 30' 2.016" E	22° 17' 26.868" N
29	R28	82° 30' 33.416" E	22° 18' 32.585" N	110	R102	82° 32' 14.588" E	22° 17' 26.518" N	191	L65	82° 30' 4.726" E	22° 17' 25.762" N
30	R29	82° 30' 33.785" E	22° 18' 29.292" N	111	R103	82° 32' 19.712" E	22° 17' 27.452" N	192	L66	82° 30' 7.758" E	22° 17' 24.612" N
31	R30	82° 30' 33.842" E	22° 18' 28.958" N	112	R104	82° 32' 23.225" E	22° 17' 28.866" N	193	L67	82° 30' 10.211" E	22° 17' 23.161" N
32	R31	82° 30' 33.657" E	22° 18' 28.646" N	113	R105	82° 32' 27.410" E	22° 17' 29.273" N	194	L68	82° 30' 12.691" E	22° 17' 21.946" N
33	R32	82° 30' 33.226" E	22° 18' 27.953" N	114	R106	82° 32' 30.982" E	22° 17' 31.330" N	195	L69	82° 30' 15.162" E	22° 17' 20.528" N
34	R33	82° 30' 31.324" E	22° 18' 25.150" N	115	R107	82° 32' 34.832" E	22° 17' 31.461" N	196	L70	82° 30' 18.039" E	22° 17' 20.720" N
35	R34	82° 30' 29.263" E	22° 18' 22.506" N	116	R108	82° 32' 37.678" E	22° 17' 31.505" N	197	L71	82° 30' 21.598" E	22° 17' 20.607" N
36	R35	82° 30' 27.154" E	22° 18' 19.364" N	117	R109	82° 32' 43.320" E	22° 17' 31.938" N	198	L72	82° 30' 25.055" E	22° 17' 19.447" N
37	R36	82° 30' 25.553" E	22° 18' 16.233" N	118	R110	82° 32' 46.333" E	22° 17' 31.400" N	199	L73	82° 30' 29.771" E	22° 17' 20.342" N
38	R37	82° 30' 24.694" E	22° 18' 14.760" N	119	R111	82° 32' 51.742" E	22° 17' 32.029" N	200	L74	82° 30' 32.566" E	22° 17' 20.939" N
39	R38	82° 30' 23.473" E	22° 18' 14.117" N	120	R112	82° 32' 56.663" E	22° 17' 32.258" N	201	L75	82° 30' 35.008" E	22° 17' 22.193" N
40	R39	82° 30' 19.582" E	22° 18' 13.896" N	121	R112A	82° 32' 56.941" E	22° 17' 32.386" N	202	L76	82° 30' 37.472" E	22° 17' 23.396" N
41	R40	82° 30' 15.495" E	22° 18' 13.611" N	122	R113	82° 33' 1.751" E	22° 17' 37.750" N	203	L77	82° 30' 40.693" E	22° 17' 23.224" N
42	R41	82° 30' 11.372" E	22° 18' 13.428" N	123	R114	82° 33' 3.695" E	22° 17' 39.882" N	204	L78	82° 30' 43.619" E	22° 17' 23.408" N
43	R42	82° 30' 7.152" E	22° 18' 13.536" N	124	R115	82° 33' 5.083" E	22° 17' 42.376" N	205	L79	82° 30' 46.570" E	22° 17' 23.335" N
44	R43	82° 30' 3.068" E	22° 18' 14.203" N	125	R116	82° 33' 6.470" E	22° 17' 45.273" N	206	L80	82° 30' 48.338" E	22° 17' 23.387" N
45	R44	82° 29' 58.590" E	22° 18' 13.845" N	126	R117	82° 33' 8.010" E	22° 17' 47.228" N	207	L81	82° 30' 49.470" E	22° 17' 23.196" N
46	R45	82° 29' 55.864" E	22° 18' 12.277" N	127	L1	82° 29' 58.124" E	22° 20' 2.420" N	208	L82	82° 30' 52.311" E	22° 17' 22.906" N
47	R46	82° 29' 54.356" E	22° 18' 10.832" N	128	L2	82° 29' 59.425" E	22° 19' 59.100" N	209	L83	82° 30' 55.285" E	22° 17' 23.001" N
48	R46A	82° 29' 54.287" E	22° 18' 10.602" N	129	L3	82° 30' 0.745" E	22° 19' 56.078" N	210	L84	82° 31' 1.441" E	22° 17' 23.080" N
49	R46B	82° 29' 54.351" E	22° 18' 10.326" N	130	L4	82° 30' 2.417" E	22° 19' 53.193" N	211	L85	82° 31' 4.100" E	22° 17' 22.082" N
50	R47	82° 29' 55.203" E	22° 18' 6.957" N	131	L5	82° 30' 3.716" E	22° 19' 50.247" N	212	L86	82° 31' 6.890" E	22° 17' 22.189" N
51	R48	82° 29' 55.067" E	22° 18' 4.489" N	132	L6	82° 30' 5.057" E	22° 19' 47.206" N	213	L87	82° 31' 11.296" E	22° 17' 21.688" N
52	R49	82° 29' 54.612" E	22° 18' 0.650" N	133	L7	82° 30' 6.130" E	22° 19' 43.862" N	214	L88	82° 31' 15.660" E	22° 17' 21.138" N
53	R50	82° 29' 54.270" E	22° 17' 57.384" N	134	L8	82° 30' 7.692" E	22° 19' 41.185" N	215	L89	82° 31' 19.420" E	22° 17' 20.446" N
54	R51	82° 29' 54.022" E	22° 17' 53.745" N	135	L9	82° 30' 10.044" E	22° 19' 36.141" N	216	L90	82° 31' 23.050" E	22° 17' 21.551" N
55	R52	82° 29' 53.812" E	22° 17' 50.008" N	136	L10	82° 30' 11.815" E	22° 19' 32.031" N	217	L91	82° 31' 29.680" E	22° 17' 19.085" N
56	R53	82° 29' 54.390" E	22° 17' 47.497" N	137	L11	82° 30' 13.894" E	22° 19' 25.975" N	218	L92	82° 31' 32.338" E	22° 17' 17.996" N
57	R54	82° 29' 54.463" E	22° 17' 45.576" N	138	L12	82° 30' 15.290" E	22° 19' 22.967" N	219	L93	82° 31' 37.634" E	22° 17' 16.069" N
58	R55	82° 29' 54.164" E	22° 17' 42.976" N	139	L13	82° 30' 16.997" E	22° 19' 19.932" N	220	L94	82° 31' 40.506" E	22° 17' 16.531" N
59	R56	82° 29' 54.128" E	22° 17' 40.184" N	140	L14	82° 30' 18.953" E	22° 19' 17.349" N	221	L95	82° 31' 46.167" E	22° 17' 16.131" N
60	R57	82° 29' 53.549" E	22° 17' 37.583" N	141	L15	82° 30' 20.991" E	22° 19' 14.729" N	222	L96	82° 31' 51.608" E	22° 17' 17.727" N
61	R58	82° 29' 51.413" E	22° 17' 34.113" N	142	L16	82° 30' 23.268" E	22° 19' 12.287" N	223	L97	82° 31' 53.497" E	22° 17' 19.043" N
62	R59	82° 29' 51.156" E	22° 17' 32.081" N	143	L17	82° 30' 25.184" E	22° 19' 9.462" N	224	L98	82° 31' 56.100" E	22° 17' 20.433" N
63	R59A	82° 29' 51.197" E	22° 17' 31.871" N	144	L18	82° 30' 27.262" E	22° 19' 6.854" N	225	L99	82° 32' 0.965" E	22° 17' 23.290" N
64	R60	82° 29' 51.478" E	22° 17' 31.370" N	145	L19	82° 30' 28.938" E	22° 19' 4.318" N	226	L100	82° 32' 5.752" E	22° 17' 24.968" N
65	R60A	82° 29' 51.697" E	22° 17' 31.110" N	146	L20	82° 30' 30.117" E	22° 19' 1.579" N	227	L101	82° 32' 8.631" E	22° 17' 25.138" N
66	R61	82° 29' 53.984" E	22° 17' 29.938" N	147	L21	82° 30' 30.844" E	22° 18' 58.434" N	228	L102	82° 32' 14.404" E	22° 17' 27.225" N
67	R62	82° 29' 56.380" E	22° 17' 28.241" N	148	L22	82° 30' 31.634" E	22° 18' 55.473" N	229	L103	82° 32' 19.466" E	22° 17' 28.344" N
68	R63	82° 29' 59.309" E	22° 17' 27.339" N	149	L23	82° 30' 32.029" E	22° 18' 52.018" N	230	L104	82° 32' 23.026" E	22° 17' 29.574" N
69	R64	82° 30' 1.692" E	22° 17' 26.207" N	150	L24	82° 30' 32.005" E	22° 18' 48.670" N	231	L105	82° 32' 27.181" E	22° 17' 29.977" N
70	R65	82° 30' 4.427" E	22° 17' 25.091" N	151	L25	82° 30' 32.605" E	22° 18' 45.426" N	232	L106	82° 32' 30.718" E	22° 17' 32.027" N
71	R66	82° 30' 7.369" E	22° 17' 23.981" N	152	L26	82° 30' 33.157" E	22° 18' 42.202" N	233	L107	82° 32' 34.812" E	22° 17' 32.188" N
72	R67	82° 30' 9.833" E	22° 17' 22.825" N	153	L27	82° 30' 34.010" E	22° 18' 35.837" N	234	L108	82° 32' 37.626" E	22° 17' 32.230" N
73	R68	82° 30' 12.295" E	22° 17' 21.819" N	154	L28	82° 30' 34.196" E	22° 18' 32.633" N	235	L109	82° 32' 43.345" E	22° 17' 32.667" N
74	R69	82° 30' 14.863" E	22° 17' 10.847" N	155	L29	82° 30' 34.560" E	22° 18' 29.377" N	236	L110	82° 32' 46.350" E	22° 17' 32.140" N
75	R69A	82° 30' 15.092" E	22° 17' 10.769" N	156	L30	82° 30' 34.640" E	22° 18' 28.891" N	237	L111	82° 32' 51.661" E	22° 17' 32.752" N
76	R70	82° 30' 18.075" E	22° 17' 10.093" N	157	L31	82° 30' 34.337" E	22° 18' 26.288" N	238	L112	82° 32' 56.453" E	22° 17' 32.976" N
77	R71	82° 30' 21.465" E	22° 17' 9.888" N	158	L32	82° 30' 33.890" E	22° 18' 25.571" N	239	L113	82° 33' 1.148" E	22° 17' 38.212" N
78	R72	82° 30' 25.891" E	22° 17' 18.712" N	159	L33	82° 30' 31.977" E	22° 18' 24.752" N	240	L114	82° 33' 2.938" E	22° 17' 40.262" N
79	R72A	82° 30' 26.044" E	22° 17' 18.719" N	160	L34	82° 30' 29.903" E	22° 18' 22.089" N	241	L115	82° 33' 4.392" E	22° 17' 42.713" N
80	R73	82° 30' 29.953" E	22° 17' 19.635" N	161	L35	82° 30' 27.850" E	22° 18' 19.033" N	242	L116	82° 33' 5.816" E	22° 17' 45.671" N
81	R74	82° 30' 32.837" E	22° 17' 20.254" N	162	L36	82° 30' 26.253" E	22° 18' 15.911" N	243	L117	82° 33' 7.920" E	22° 17' 48.343" N

Geographic Coordinate Systems
WGS 1984
Projected Coordinate Systems
WGS 1984 UTM Zone 44N

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SURVEYED GROUND CONTROL POINTS

S.NO	PILLAR ID	LONGITUDE	LATITUDE	S.NO	PILLAR ID	LONGITUDE	LATITUDE	S.NO	PILLAR ID	LONGITUDE	LATITUDE
1	R1	82° 29' 57.357" E	22° 20' 2.557" N	82	R75	82° 30' 35.379" E	22° 17' 21.554" N	163	L37	82° 30' 25.298" E	22° 18' 14.289" N
2	R1A	82° 29' 57.382" E	22° 20' 2.192" N	83	R76	82° 30' 37.640" E	22° 17' 22.672" N	164	L38	82° 30' 23.728" E	22° 18' 13.420" N
3	R2	82° 29' 58.694" E	22° 19' 58.845" N	84	R77	82° 30' 40.720" E	22° 17' 22.499" N	165	L39	82° 30' 19.635" E	22° 18' 13.171" N
4	R3	82° 30' 0.029" E	22° 19' 55.786" N	85	R78	82° 30' 43.653" E	22° 17' 22.682" N	166	L40	82° 30' 15.548" E	22° 18' 12.886" N
5	R4	82° 30' 1.702" E	22° 19' 52.899" N	86	R79	82° 30' 46.586" E	22° 17' 22.608" N	167	L41	82° 30' 11.394" E	22° 18' 12.701" N
6	R5	82° 30' 2.993" E	22° 19' 49.971" N	87	R80	82° 30' 48.241" E	22° 17' 22.665" N	168	L42	82° 30' 7.044" E	22° 18' 12.816" N
7	R6	82° 30' 4.314" E	22° 19' 46.981" N	88	R81	82° 30' 49.371" E	22° 17' 22.475" N	169	L43	82° 30' 3.046" E	22° 18' 13.474" N
8	R7	82° 30' 5.394" E	22° 19' 43.618" N	89	R82	82° 30' 52.254" E	22° 17' 22.181" N	170	L44	82° 29' 58.866" E	22° 18' 13.155" N
9	R8	82° 30' 6.997" E	22° 19' 40.853" N	90	R83	82° 30' 55.304" E	22° 17' 22.275" N	171	L45	82° 29' 56.358" E	22° 18' 11.711" N
10	R9	82° 30' 9.322" E	22° 19' 35.866" N	91	R84	82° 31' 1.320" E	22° 17' 22.354" N	172	L46	82° 29' 55.106" E	22° 18' 10.515" N
11	R10	82° 30' 11.075" E	22° 19' 31.798" N	92	R85	82° 31' 3.937" E	22° 17' 21.363" N	173	L47	82° 29' 55.976" E	22° 18' 7.073" N
12	R11	82° 30' 13.211" E	22° 19' 25.615" N	93	R86	82° 31' 6.870" E	22° 17' 21.461" N	174	L48	82° 29' 55.846" E	22° 18' 4.441" N
13	R12	82° 30' 14.591" E	22° 19' 22.642" N	94	R87	82° 31' 11.196" E	22° 17' 20.967" N	175	L49	82° 29' 55.388" E	22° 18' 0.575" N
14	R13	82° 30' 16.322" E	22° 19' 19.564" N	95	R88	82° 31' 15.543" E	22° 17' 20.420" N	176	L50	82° 29' 55.049" E	22° 17' 57.339" N
15	R14	82° 30' 18.317" E	22° 19' 16.926" N	96	R89	82° 31' 19.437" E	22° 17' 19.708" N	177	L51	82° 29' 54.801" E	22° 17' 53.685" N
16	R15	82° 30' 20.389" E	22° 19' 14.265" N	97	R90	82° 31' 25.051" E	22° 17' 20.801" N	178	L52	82° 29' 54.590" E	22° 17' 50.983" N
17	R16	82° 30' 22.652" E	22° 19' 11.839" N	98	R91	82° 31' 29.376" E	22° 17' 18.418" N	179	L53	82° 29' 55.176" E	22° 17' 47.643" N
18	R17	82° 30' 24.531" E	22° 19' 9.063" N	99	R92	82° 31' 32.046" E	22° 17' 17.322" N	180	L54	82° 29' 55.245" E	22° 17' 45.572" N
19	R18	82° 30' 26.625" E	22° 19' 6.433" N	100	R93	82° 31' 37.454" E	22° 17' 15.354" N	181	L55	82° 29' 54.945" E	22° 17' 42.950" N
20	R19	82° 30' 28.226" E	22° 19' 4.019" N	101	R93A	82° 31' 37.659" E	22° 17' 15.335" N	182	L56	82° 29' 54.908" E	22° 17' 40.140" N
21	R20	82° 30' 29.374" E	22° 19' 1.352" N	102	R94	82° 31' 40.521" E	22° 17' 15.802" N	183	L57	82° 29' 54.284" E	22° 17' 37.324" N
22	R21	82° 30' 30.082" E	22° 18' 58.276" N	103	R95	82° 31' 46.281" E	22° 17' 15.405" N	184	L58	82° 29' 52.170" E	22° 17' 33.906" N
23	R22	82° 30' 30.861" E	22° 18' 55.371" N	104	R96	82° 31' 51.967" E	22° 17' 17.076" N	185	L59	82° 29' 51.945" E	22° 17' 32.108" N
24	R23	82° 30' 31.251" E	22° 18' 51.958" N	105	R97	82° 31' 53.946" E	22° 17' 18.448" N	186	L60	82° 29' 52.170" E	22° 17' 31.705" N
25	R24	82° 30' 31.289" E	22° 18' 48.585" N	106	R98	82° 31' 56.496" E	22° 17' 19.807" N	187	L61	82° 29' 54.396" E	22° 17' 30.556" N
26	R25	82° 30' 31.834" E	22° 18' 45.313" N	107	R99	82° 32' 1.348" E	22° 17' 22.665" N	188	L62	82° 29' 56.747" E	22° 17' 28.888" N
27	R26	82° 30' 32.383" E	22° 18' 42.106" N	108	R100	82° 32' 5.898" E	22° 17' 24.251" N	189	L63	82° 29' 59.582" E	22° 17' 28.021" N
28	R27	82° 30' 33.234" E	22° 18' 35.760" N	109	R101	82° 32' 8.801" E	22° 17' 24.425" N	190	L64	82° 30' 2.016" E	22° 17' 26.868" N
29	R28	82° 30' 33.416" E	22° 18' 32.585" N	110	R102	82° 32' 14.588" E	22° 17' 26.518" N	191	L65	82° 30' 4.726" E	22° 17' 25.762" N
30	R29	82° 30' 33.785" E	22° 18' 29.292" N	111	R103	82° 32' 19.712" E	22° 17' 27.452" N	192	L66	82° 30' 7.758" E	22° 17' 24.612" N
31	R30	82° 30' 33.842" E	22° 18' 28.958" N	112	R104	82° 32' 23.225" E	22° 17' 28.866" N	193	L67	82° 30' 10.211" E	22° 17' 23.161" N
32	R31	82° 30' 33.65" E	22° 18' 28.646" N	113	R105	82° 32' 27.410" E	22° 17' 29.273" N	194	L68	82° 30' 12.691" E	22° 17' 21.946" N
33	R32	82° 30' 33.226" E	22° 18' 27.953" N	114	R106	82° 32' 30.982" E	22° 17' 31.330" N	195	L69	82° 30' 15.162" E	22° 17' 20.528" N
34	R33	82° 30' 31.324" E	22° 18' 25.150" N	115	R107	82° 32' 34.832" E	22° 17' 31.461" N	196	L70	82° 30' 18.039" E	22° 17' 20.720" N
35	R34	82° 30' 29.263" E	22° 18' 22.506" N	116	R108	82° 32' 37.678" E	22° 17' 31.505" N	197	L71	82° 30' 21.598" E	22° 17' 20.607" N
36	R35	82° 30' 27.154" E	22° 18' 19.364" N	117	R109	82° 32' 43.320" E	22° 17' 31.938" N	198	L72	82° 30' 25.955" E	22° 17' 19.447" N
37	R36	82° 30' 25.553" E	22° 18' 16.233" N	118	R110	82° 32' 46.333" E	22° 17' 31.409" N	199	L73	82° 30' 29.771" E	22° 17' 20.342" N
38	R37	82° 30' 24.694" E	22° 18' 14.769" N	119	R111	82° 32' 51.742" E	22° 17' 32.029" N	200	L74	82° 30' 32.566" E	22° 17' 20.939" N
39	R38	82° 30' 23.473" E	22° 18' 14.117" N	120	R112	82° 32' 56.663" E	22° 17' 32.258" N	201	L75	82° 30' 35.008" E	22° 17' 22.193" N
40	R39	82° 30' 19.582" E	22° 18' 13.896" N	121	R112A	82° 32' 56.941" E	22° 17' 32.386" N	202	L76	82° 30' 37.472" E	22° 17' 23.396" N
41	R40	82° 30' 15.495" E	22° 18' 13.611" N	122	R113	82° 33' 1.751" E	22° 17' 37.750" N	203	L77	82° 30' 40.693" E	22° 17' 23.225" N
42	R41	82° 30' 11.372" E	22° 18' 13.428" N	123	R114	82° 33' 3.605" E	22° 17' 39.882" N	204	L78	82° 30' 43.619" E	22° 17' 23.408" N
43	R42	82° 30' 7.152" E	22° 18' 13.536" N	124	R115	82° 33' 5.083" E	22° 17' 42.376" N	205	L79	82° 30' 46.570" E	22° 17' 23.335" N
44	R43	82° 30' 3.068" E	22° 18' 14.203" N	125	R116	82° 33' 6.470" E	22° 17' 45.273" N	206	L80	82° 30' 48.338" E	22° 17' 23.387" N
45	R44	82° 29' 58.590" E	22° 18' 13.845" N	126	R117	82° 33' 8.010" E	22° 17' 47.228" N	207	L81	82° 30' 49.470" E	22° 17' 23.196" N
46	R45	82° 29' 55.864" E	22° 18' 12.277" N	127	L1	82° 29' 58.124" E	22° 20' 2.420" N	208	L82	82° 30' 52.311" E	22° 17' 22.906" N
47	R46	82° 29' 54.355" E	22° 18' 10.832" N	128	L2	82° 29' 59.425" E	22° 19' 59.100" N	209	L83	82° 30' 55.285" E	22° 17' 23.001" N
48	R46A	82° 29' 54.287" E	22° 18' 10.602" N	129	L3	82° 30' 0.745" E	22° 19' 56.078" N	210	L84	82° 31' 1.441" E	22° 17' 23.080" N
49	R46B	82° 29' 54.351" E	22° 18' 10.326" N	130	L4	82° 30' 2.417" E	22° 19' 53.193" N	211	L85	82° 31' 4.100" E	22° 17' 22.082" N
50	R47	82° 29' 55.203" E	22° 18' 6.957" N	131	L5	82° 30' 3.716" E	22° 19' 50.247" N	212	L86	82° 31' 6.890" E	22° 17' 22.189" N
51	R48	82° 29' 55.067" E	22° 18' 4.489" N	132	L6	82° 30' 5.057" E	22° 19' 47.206" N	213	L87	82° 31' 11.296" E	22° 17' 21.688" N
52	R49	82° 29' 54.612" E	22° 18' 0.650" N	133	L7	82° 30' 6.130" E	22° 19' 43.862" N	214	L88	82° 31' 15.660" E	22° 17' 21.138" N
53	R50	82° 29' 54.270" E	22° 17' 57.384" N	134	L8	82° 30' 7.692" E	22° 19' 41.185" N	215	L89	82° 31' 19.420" E	22° 17' 20.446" N
54	R51	82° 29' 54.022" E	22° 17' 53.735" N	135	L9	82° 30' 10.044" E	22° 19' 36.141" N	216	L90	82° 31' 23.050" E	22° 17' 21.551" N
55	R52	82° 29' 53.812" E	22° 17' 50.908" N	136	L10	82° 30' 11.815" E	22° 19' 32.031" N	217	L91	82° 31' 29.686" E	22° 17' 19.085" N
56	R53	82° 29' 54.396" E	22° 17' 47.597" N	137	L11	82° 30' 13.894" E	22° 19' 25.975" N	218	L92	82° 31' 32.338" E	22° 17' 17.996" N
57	R54	82° 29' 54.463" E	22° 17' 45.575" N	138	L12	82° 30' 15.290" E	22° 19' 22.967" N	219	L93	82° 31' 37.634" E	22° 17' 16.069" N
58	R55	82° 29' 54.164" E	22° 17' 42.976" N	139	L13	82° 30' 16.997" E	22° 19' 19.932" N	220	L94	82° 31' 40.506" E	22° 17' 16.531" N
59	R56	82° 29' 54.128" E	22° 17' 40.184" N	140	L14	82° 30' 18.953" E	22° 19' 17.349" N	221	L95	82° 31' 46.167" E	22° 17' 16.131" N
60	R57	82° 29' 53.549" E	22° 17' 37.583" N	141	L15	82° 30' 20.991" E	22° 19' 14.720" N	222	L96	82° 31' 51.608" E	22° 17' 17.727" N
61	R58	82° 29' 51.413" E	22° 17' 34.113" N	142	L16	82° 30' 23.268" E	22° 19' 12.287" N	223	L97	82° 31' 53.497" E	22° 17' 19.043" N
62	R59	82° 29' 51.156" E	22° 17' 32.061" N	143	L17	82° 30' 25.184" E	22° 19' 9.462" N	224	L98	82° 31' 56.100" E	22° 17' 20.433" N
63	R59A	82° 29' 51.197" E	22° 17' 31.871" N	144	L18	82° 30' 27.262" E	22° 19' 6.854" N	225	L99	82° 32' 0.965" E	22° 17' 23.299" N
64	R60	82° 29' 51.478" E	22° 17' 31.370" N	145	L19	82° 30' 28.938" E	22° 19' 4.318" N	226	L100	82° 32' 5.752" E	22° 17' 24.968" N
65	R60A	82° 29' 51.697" E	22° 17' 31.110" N	146	L20	82° 30' 30.117" E	22° 19' 1.579" N	227	L101	82° 32' 8.631" E	22° 17' 25.138" N
66	R61	82° 29' 53.984" E	22° 17' 29.938" N	147	L21	82° 30' 30.844" E	22° 18' 58.434" N	228	L102	82° 32' 14.404" E	22° 17' 27.225" N
67	R62	82° 29' 56.380" E	22° 17' 28.241" N	148	L22	82° 30' 31.634" E	22° 18' 55.473" N	229	L103	82° 32' 19.466" E	22° 17' 28.144" N
68	R63	82° 29' 59.309" E	22° 17' 27.339" N	149	L23	82° 30' 32.029" E	22° 18' 52.018" N	230	L104	82° 32' 23.026" E	22° 17' 29.574" N
69	R64	82° 30' 1.692" E	22° 17' 26.207" N	150	L24	82° 30' 32.065" E	22° 18' 48.670" N	231	L105	82° 32' 27.181" E	22° 17' 29.977" N
70	R65	82° 30' 4.427" E	22° 17' 25.091" N	151	L25	82° 30' 32.605" E	22° 18' 45.426" N	232	L106	82° 32' 30.718" E	22° 17' 32.027" N
71	R66	82° 30' 7.369" E	22° 17' 23.981" N	152	L26	82° 30' 33.157" E	22° 18' 42.202" N	233	L107	82° 32' 34.812" E	22° 17' 32.188" N
72	R67	82° 30' 9.833" E	22° 17' 22.525" N	153	L27	82° 30' 34.010" E	22° 18' 35.837" N	234	L108	82° 32' 37.626" E	22° 17' 32.230" N
73	R68	82° 30' 12.295" E	22° 17' 21.319" N	154	L28	82° 30' 34.196" E	22° 18' 32.633" N	235	L109	82° 32' 43.345" E	22° 17' 32.667" N
74	R69	82° 30' 14.863" E	22° 17' 19.847" N	155	L29	82° 30' 34.560" E	22° 18' 29.377" N	236	L110	82° 32' 46.350" E	22° 17' 32.140" N
75	R69A	82° 30' 15.092" E	22° 17' 19.795" N	156	L30	82° 30' 34.640" E	22° 18' 28.891" N	237	L111	82° 32' 51.661" E	22° 17' 32.752" N
76	R70	82° 30' 18.074" E	22° 17' 19.993" N	157	L31	82° 30' 34.337" E	22° 18' 28.288" N	238	L112	82° 32' 56.453" E	22° 17' 32.976" N
77	R71	82° 30' 21.465" E	22° 17' 19.888" N	158	L32	82° 30' 33.890" E	22° 18' 27.571" N	239	L113	82° 33' 1.148" E	22° 17' 38.212" N
78	R72	82° 30' 25.891" E	22° 17' 18.712" N	159	L33	82° 30' 31.977" E	22° 18' 24.752" N	240	L114	82° 33' 2.938" E	22° 17' 40.262" N
79	R72A	82° 30' 26.044" E	22° 17' 18.719" N	160	L34	82° 30' 29.903" E	22° 18' 22.089" N	241	L115	82° 33' 4.392" E	22° 17' 42.713" N
80	R73	82° 30' 29.953" E	22° 17' 19.635" N	161	L35	82° 30' 27.850" E	22° 18' 19.033" N	242	L116	82° 33' 5.816" E	22° 17' 45.671" N
81	R74	82° 30' 32.837" E	22° 17' 20.254" N	162	L36	82° 30' 26.253" E	22° 18' 15.911" N	243	L117	82° 33' 7.920" E	22° 17' 48.343" N

Geographic Coordinate Systems
WGS 1984
Projected Coordinate Systems
WGS 1984 UTM Zone 44N

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SURVEYED GROUND CONTROL POINTS

S.NO	PILLAR ID	LONGITUDE	LATITUDE	S.NO	PILLAR ID	LONGITUDE	LATITUDE	S.NO	PILLAR ID	LONGITUDE	LATITUDE
1	R1	82° 29' 57.357" E	22° 20' 2.557" N	82	R75	82° 30' 35.379" E	22° 17' 21.554" N	163	L37	82° 30' 25.298" E	22° 18' 14.289" N
2	R1A	82° 29' 57.382" E	22° 20' 2.192" N	83	R76	82° 30' 37.640" E	22° 17' 22.672" N	164	L38	82° 30' 23.728" E	22° 18' 13.420" N
3	R2	82° 29' 58.694" E	22° 19' 58.845" N	84	R77	82° 30' 40.720" E	22° 17' 22.499" N	165	L39	82° 30' 19.635" E	22° 18' 13.171" N
4	R3	82° 30' 0.029" E	22° 19' 55.786" N	85	R78	82° 30' 43.653" E	22° 17' 22.682" N	166	L40	82° 30' 15.548" E	22° 18' 12.886" N
5	R4	82° 30' 1.702" E	22° 19' 52.899" N	86	R79	82° 30' 46.586" E	22° 17' 22.608" N	167	L41	82° 30' 11.394" E	22° 18' 12.701" N
6	R5	82° 30' 2.993" E	22° 19' 49.971" N	87	R80	82° 30' 48.241" E	22° 17' 22.665" N	168	L42	82° 30' 7.044" E	22° 18' 12.816" N
7	R6	82° 30' 4.314" E	22° 19' 46.981" N	88	R81	82° 30' 49.371" E	22° 17' 22.475" N	169	L43	82° 30' 3.046" E	22° 18' 13.474" N
8	R7	82° 30' 5.394" E	22° 19' 43.618" N	89	R82	82° 30' 52.254" E	22° 17' 22.181" N	170	L44	82° 29' 58.866" E	22° 18' 13.155" N
9	R8	82° 30' 6.997" E	22° 19' 40.853" N	90	R83	82° 30' 55.304" E	22° 17' 22.275" N	171	L45	82° 29' 56.358" E	22° 18' 11.711" N
10	R9	82° 30' 9.322" E	22° 19' 35.866" N	91	R84	82° 31' 1.320" E	22° 17' 22.354" N	172	L46	82° 29' 55.106" E	22° 18' 10.515" N
11	R10	82° 30' 11.075" E	22° 19' 31.798" N	92	R85	82° 31' 3.937" E	22° 17' 21.363" N	173	L47	82° 29' 55.976" E	22° 18' 7.073" N
12	R11	82° 30' 13.211" E	22° 19' 25.615" N	93	R86	82° 31' 6.870" E	22° 17' 21.461" N	174	L48	82° 29' 55.846" E	22° 18' 4.441" N
13	R12	82° 30' 14.591" E	22° 19' 22.642" N	94	R87	82° 31' 11.196" E	22° 17' 20.967" N	175	L49	82° 29' 55.388" E	22° 18' 0.575" N
14	R13	82° 30' 16.322" E	22° 19' 19.564" N	95	R88	82° 31' 15.543" E	22° 17' 20.420" N	176	L50	82° 29' 55.049" E	22° 17' 57.339" N
15	R14	82° 30' 18.317" E	22° 19' 16.926" N	96	R89	82° 31' 19.437" E	22° 17' 19.708" N	177	L51	82° 29' 54.801" E	22° 17' 53.685" N
16	R15	82° 30' 20.389" E	22° 19' 14.265" N	97	R90	82° 31' 23.051" E	22° 17' 20.801" N	178	L52	82° 29' 54.590" E	22° 17' 50.983" N
17	R16	82° 30' 22.652" E	22° 19' 11.839" N	98	R91	82° 31' 29.376" E	22° 17' 18.418" N	179	L53	82° 29' 55.176" E	22° 17' 47.643" N
18	R17	82° 30' 24.531" E	22° 19' 9.063" N	99	R92	82° 31' 32.046" E	22° 17' 17.322" N	180	L54	82° 29' 55.245" E	22° 17' 45.572" N
19	R18	82° 30' 26.625" E	22° 19' 6.433" N	100	R93	82° 31' 37.454" E	22° 17' 15.354" N	181	L55	82° 29' 54.945" E	22° 17' 42.950" N
20	R19	82° 30' 28.226" E	22° 19' 4.019" N	101	R93A	82° 31' 37.659" E	22° 17' 15.335" N	182	L56	82° 29' 54.908" E	22° 17' 40.140" N
21	R20	82° 30' 29.374" E	22° 19' 1.352" N	102	R94	82° 31' 40.521" E	22° 17' 15.802" N	183	L57	82° 29' 54.284" E	22° 17' 37.324" N
22	R21	82° 30' 30.082" E	22° 18' 58.276" N	103	R95	82° 31' 46.281" E	22° 17' 15.405" N	184	L58	82° 29' 52.170" E	22° 17' 33.906" N
23	R22	82° 30' 30.861" E	22° 18' 55.371" N	104	R96	82° 31' 51.967" E	22° 17' 17.076" N	185	L59	82° 29' 51.945" E	22° 17' 32.108" N
24	R23	82° 30' 31.251" E	22° 18' 51.958" N	105	R97	82° 31' 53.946" E	22° 17' 18.448" N	186	L60	82° 29' 52.170" E	22° 17' 31.705" N
25	R24	82° 30' 31.289" E	22° 18' 48.585" N	106	R98	82° 31' 56.490" E	22° 17' 19.807" N	187	L61	82° 29' 54.396" E	22° 17' 30.556" N
26	R25	82° 30' 31.834" E	22° 18' 45.313" N	107	R99	82° 32' 1.348" E	22° 17' 22.665" N	188	L62	82° 29' 56.747" E	22° 17' 28.888" N
27	R26	82° 30' 32.383" E	22° 18' 42.106" N	108	R100	82° 32' 5.898" E	22° 17' 24.251" N	189	L63	82° 29' 59.582" E	22° 17' 28.021" N
28	R27	82° 30' 33.234" E	22° 18' 35.760" N	109	R101	82° 32' 8.801" E	22° 17' 24.425" N	190	L64	82° 30' 2.016" E	22° 17' 26.868" N
29	R28	82° 30' 33.416" E	22° 18' 32.585" N	110	R102	82° 32' 14.588" E	22° 17' 26.518" N	191	L65	82° 30' 4.726" E	22° 17' 25.762" N
30	R29	82° 30' 33.785" E	22° 18' 29.292" N	111	R103	82° 32' 19.712" E	22° 17' 27.452" N	192	L66	82° 30' 7.758" E	22° 17' 24.612" N
31	R30	82° 30' 33.842" E	22° 18' 28.958" N	112	R104	82° 32' 23.225" E	22° 17' 28.866" N	193	L67	82° 30' 10.211" E	22° 17' 23.161" N
32	R31	82° 30' 33.657" E	22° 18' 28.646" N	113	R105	82° 32' 27.410" E	22° 17' 29.273" N	194	L68	82° 30' 12.691" E	22° 17' 21.946" N
33	R32	82° 30' 33.226" E	22° 18' 27.953" N	114	R106	82° 32' 30.982" E	22° 17' 31.330" N	195	L69	82° 30' 15.162" E	22° 17' 20.528" N
34	R33	82° 30' 31.324" E	22° 18' 25.150" N	115	R107	82° 32' 34.832" E	22° 17' 31.461" N	196	L70	82° 30' 18.039" E	22° 17' 20.720" N
35	R34	82° 30' 29.263" E	22° 18' 22.506" N	116	R108	82° 32' 37.678" E	22° 17' 31.505" N	197	L71	82° 30' 21.598" E	22° 17' 20.607" N
36	R35	82° 30' 27.154" E	22° 18' 19.364" N	117	R109	82° 32' 43.320" E	22° 17' 31.938" N	198	L72	82° 30' 25.955" E	22° 17' 19.447" N
37	R36	82° 30' 25.553" E	22° 18' 16.233" N	118	R110	82° 32' 46.333" E	22° 17' 31.409" N	199	L73	82° 30' 29.771" E	22° 17' 20.342" N
38	R37	82° 30' 24.694" E	22° 18' 14.769" N	119	R111	82° 32' 51.742" E	22° 17' 32.029" N	200	L74	82° 30' 32.566" E	22° 17' 20.939" N
39	R38	82° 30' 23.473" E	22° 18' 14.117" N	120	R112	82° 32' 56.663" E	22° 17' 32.258" N	201	L75	82° 30' 35.008" E	22° 17' 22.193" N
40	R39	82° 30' 19.582" E	22° 18' 13.896" N	121	R112A	82° 32' 56.941" E	22° 17' 32.386" N	202	L76	82° 30' 37.472" E	22° 17' 23.396" N
41	R40	82° 30' 15.495" E	22° 18' 13.611" N	122	R113	82° 33' 1.751" E	22° 17' 37.750" N	203	L77	82° 30' 40.693" E	22° 17' 23.225" N
42	R41	82° 30' 11.372" E	22° 18' 13.428" N	123	R114	82° 33' 3.605" E	22° 17' 39.882" N	204	L78	82° 30' 43.619" E	22° 17' 23.408" N
43	R42	82° 30' 7.152" E	22° 18' 13.536" N	124	R115	82° 33' 5.083" E	22° 17' 42.376" N	205	L79	82° 30' 46.570" E	22° 17' 23.335" N
44	R43	82° 30' 3.068" E	22° 18' 14.203" N	125	R116	82° 33' 6.470" E	22° 17' 45.273" N	206	L80	82° 30' 48.338" E	22° 17' 23.387" N
45	R44	82° 29' 58.590" E	22° 18' 13.845" N	126	R117	82° 33' 8.010" E	22° 17' 47.228" N	207	L81	82° 30' 49.470" E	22° 17' 23.196" N
46	R45	82° 29' 55.864" E	22° 18' 12.277" N	127	L1	82° 29' 58.124" E	22° 20' 2.420" N	208	L82	82° 30' 52.311" E	22° 17' 22.906" N
47	R46	82° 29' 54.355" E	22° 18' 10.832" N	128	L2	82° 29' 59.425" E	22° 19' 59.100" N	209	L83	82° 30' 55.285" E	22° 17' 23.001" N
48	R46A	82° 29' 54.287" E	22° 18' 10.602" N	129	L3	82° 30' 0.745" E	22° 19' 56.078" N	210	L84	82° 31' 1.441" E	22° 17' 23.089" N
49	R46B	82° 29' 54.351" E	22° 18' 10.326" N	130	L4	82° 30' 2.417" E	22° 19' 53.193" N	211	L85	82° 31' 4.100" E	22° 17' 22.082" N
50	R47	82° 29' 55.203" E	22° 18' 6.957" N	131	L5	82° 30' 3.716" E	22° 19' 50.247" N	212	L86	82° 31' 6.890" E	22° 17' 22.189" N
51	R48	82° 29' 55.067" E	22° 18' 4.489" N	132	L6	82° 30' 5.057" E	22° 19' 47.206" N	213	L87	82° 31' 11.296" E	22° 17' 21.688" N
52	R49	82° 29' 54.612" E	22° 18' 0.650" N	133	L7	82° 30' 6.130" E	22° 19' 43.862" N	214	L88	82° 31' 15.660" E	22° 17' 21.138" N
53	R50	82° 29' 54.270" E	22° 17' 57.384" N	134	L8	82° 30' 7.692" E	22° 19' 41.185" N	215	L89	82° 31' 19.420" E	22° 17' 20.446" N
54	R51	82° 29' 54.022" E	22° 17' 53.735" N	135	L9	82° 30' 10.044" E	22° 19' 36.141" N	216	L90	82° 31' 23.050" E	22° 17' 21.551" N
55	R52	82° 29' 53.812" E	22° 17' 50.908" N	136	L10	82° 30' 11.815" E	22° 19' 32.031" N	217	L91	82° 31' 29.686" E	22° 17' 19.085" N
56	R53	82° 29' 54.396" E	22° 17' 47.597" N	137	L11	82° 30' 13.894" E	22° 19' 25.975" N	218	L92	82° 31' 32.338" E	22° 17' 17.996" N
57	R54	82° 29' 54.463" E	22° 17' 45.575" N	138	L12	82° 30' 15.290" E	22° 19' 22.967" N	219	L93	82° 31' 37.634" E	22° 17' 16.069" N
58	R55	82° 29' 54.164" E	22° 17' 42.976" N	139	L13	82° 30' 16.997" E	22° 19' 19.932" N	220	L94	82° 31' 40.506" E	22° 17' 16.531" N
59	R56	82° 29' 54.128" E	22° 17' 40.184" N	140	L14	82° 30' 18.953" E	22° 19' 17.349" N	221	L95	82° 31' 46.167" E	22° 17' 16.131" N
60	R57	82° 29' 53.549" E	22° 17' 37.583" N	141	L15	82° 30' 20.991" E	22° 19' 14.729" N	222	L96	82° 31' 51.608" E	22° 17' 17.727" N
61	R58	82° 29' 51.413" E	22° 17' 34.113" N	142	L16	82° 30' 23.268" E	22° 19' 12.287" N	223	L97	82° 31' 53.497" E	22° 17' 19.043" N
62	R59	82° 29' 51.156" E	22° 17' 32.081" N	143	L17	82° 30' 25.184" E	22° 19' 9.462" N	224	L98	82° 31' 56.100" E	22° 17' 20.433" N
63	R59A	82° 29' 51.197" E	22° 17' 31.871" N	144	L18	82° 30' 27.262" E	22° 19' 6.854" N	225	L99	82° 32' 0.965" E	22° 17' 23.299" N
64	R60	82° 29' 51.478" E	22° 17' 31.370" N	145	L19	82° 30' 28.938" E	22° 19' 4.318" N	226	L100	82° 32' 5.752" E	22° 17' 24.968" N
65	R60A	82° 29' 51.697" E	22° 17' 31.110" N	146	L20	82° 30' 30.117" E	22° 19' 1.579" N	227	L101	82° 32' 8.631" E	22° 17' 25.138" N
66	R61	82° 29' 53.984" E	22° 17' 29.938" N	147	L21	82° 30' 30.844" E	22° 18' 58.434" N	228	L102	82° 32' 14.404" E	22° 17' 27.225" N
67	R62	82° 29' 56.380" E	22° 17' 28.241" N	148	L22	82° 30' 31.634" E	22° 18' 55.473" N	229	L103	82° 32' 19.466" E	22° 17' 28.144" N
68	R63	82° 29' 59.309" E	22° 17' 27.339" N	149	L23	82° 30' 32.029" E	22° 18' 52.018" N	230	L104	82° 32' 23.026" E	22° 17' 29.574" N
69	R64	82° 30' 1.692" E	22° 17' 26.207" N	150	L24	82° 30' 32.605" E	22° 18' 48.670" N	231	L105	82° 32' 27.181" E	22° 17' 29.977" N
70	R65	82° 30' 4.427" E	22° 17' 25.491" N	151	L25	82° 30' 32.605" E	22° 18' 45.426" N	232	L106	82° 32' 30.718" E	22° 17' 32.027" N
71	R66	82° 30' 7.369" E	22° 17' 23.981" N	152	L26	82° 30' 33.157" E	22° 18' 42.202" N	233	L107	82° 32' 34.812" E	22° 17' 32.188" N
72	R67	82° 30' 9.833" E	22° 17' 22.525" N	153	L27	82° 30' 34.010" E	22° 18' 35.837" N	234	L108	82° 32' 37.626" E	22° 17' 32.230" N
73	R68	82° 30' 12.295" E	22° 17' 21.319" N	154	L28	82° 30' 34.196" E	22° 18' 32.633" N	235	L109	82° 32' 43.345" E	22° 17' 32.667" N
74	R69	82° 30' 14.863" E	22° 17' 19.847" N	155	L29	82° 30' 34.560" E	22° 18' 29.377" N	236	L110	82° 32' 46.350" E	22° 17' 32.140" N
75	R69A	82° 30' 15.092" E	22° 17' 19.795" N	156	L30	82° 30' 34.640" E	22° 18' 28.891" N	237	L111	82° 32' 51.661" E	22° 17' 32.752" N
76	R70	82° 30' 18.075" E	22° 17' 19.993" N	157	L31	82° 30' 34.337" E	22° 18' 28.288" N	238	L112	82° 32' 56.453" E	22° 17' 32.976" N
77	R71	82° 30' 21.465" E	22° 17' 19.888" N	158	L32	82° 30' 33.890" E	22° 18' 27.571" N	239	L113	82° 33' 1.148" E	22° 17' 38.212" N
78	R72	82° 30' 25.891" E	22° 17' 18.712" N	159	L33	82° 30' 31.977" E	22° 18' 24.752" N	240	L114	82° 33' 2.938" E	22° 17' 40.262" N
79	R72A	82° 30' 26.044" E	22° 17' 18.719" N	160	L34	82° 30' 29.903" E	22° 18' 22.089" N	241	L115	82° 33' 4.392" E	22° 17' 42.713" N
80	R73	82° 30' 29.953" E	22° 17' 19.635" N	161	L35	82° 30' 27.850" E	22° 18' 19.033" N	242	L116	82° 33' 5.816" E	22° 17' 45.671" N
81	R74	82° 30' 32.837" E	22° 17' 20.254" N	162	L36	82° 30' 26.253" E	22° 18' 15.911" N	243	L117	82° 33' 7.920" E	22° 17' 49.343" N

Legend
- SURVEYED GROUND CONTROL POINT
- **SURVEY SITE TOTAL AREA : 26.632 (InHectare)**
- FOREST LAND AREA : 15.400 (In Hectare)
- REVENUE PRIVATE(NON FOREST) LAND AREA : 11.232 (In Hectare)
- **GOOGLE IMAGE.jpg**
- **RGB**
- Red: Band_1
- Green: Band_2
- Blue: Band_3

Scale
1:30,000
1 centimeter = 300 meters

0 255 510 1,020 1,530 2,040 Meters

SEAL & SIGN

Computer Plus (CG) Raipur

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