

ESP-001-
2A Rev.00



PROJECT ENGINEERING & SYSTEMS DIVISION

Annexure-2

Site of The Project for Bhandai Jn – Udi Jn

Std. / Doc. Number

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**1.0 SITE**

The Site of the Railway Project comprises the section Bhandai-Udi Commencing from Km 1332/.99 to Km 1445/726 in the North central Railway Zone. The land and other structures comprising the Site are described below:

2.0 Details of existing structures and facilities on adjoining railway track (For doubling or 3rd line projects or electrification)**2.1 PERMANENT WAY:**

Details of the Permanent Way on the Right of Way are:

SL. No	No. of railway line	km from	km to	Route km	Min and Max Implantation (if electrified)	Remarks
1	Single line	1332/.99	1445/726	113	Not Electrified	Bhandai-Udi

2.2 IMPORTANT BRIDGES:

The Site includes the following Important Bridges:

SL. No.	Bridge No. and location (km)	Type of Structure			No. of Spans with span length (m)	Width (m)
		Foundation	Substructure	Superstructure		
Bhandai-Udi Gr.240						
NIL						

2.3 MAJOR BRIDGES:

The Site includes the following Major Bridges:

SL. No	Bridge No. and location (km)		Type of Structure			No. of spans with span length (m)		Width (m)
	Bridge No.	Location	Foundation	Substructure	Superstructure			
	Bhandai-Udi Group-240							
1	1367/1	N/A	Open	CC	PSC GIRDER	1	15	6.1
2	1377/1	N/A	Open	CC	PSC GIRDER	1 2	18.3	6.1
3	1395/1	N/A	Open	CC	PSC GIRDER	2	15	6.1
4	1413/2	N/A	Open	CC	PSC GIRDER	2	15	6.1

2.4 MINOR BRIDGES/CULVERTS

The Site includes the following Minor Bridges and culverts:



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SL. No.	Bridge No.	location (km)	Type of Structure			No. of spans with span length (m)		Width (m)
			Foundation	Substructure	Superstructure	No	Span	
Bhandai-Udi Gr-240								
1	1333/01	1333/9-34/0	Open	CC	RCC/BOX	2	2	6.1
2	1334/1	1334/3-4	Open	CC	RCC/BOX	1	3	6.1
3	1334/2	1334/6-7	Open	CC	RCC/BOX	2	3	6.1
4	1337/1	1337/1-2	Open	CC	RCC/BOX	1	3	6.1
5	1337/2	1337/8-9	Open	CC	RCC/BOX	2	3	6.1
6	1340/1	1340/7-8	Open	CC	RCC/BOX	3	4	6.1
7	1342/1	1342/0-1	Open	CC	RCC/BOX	1	6	6.1
8	1342/2	1342/3-4	Open	CC	RCC/BOX	1	2.5	6.1
9	1345/1	1345/7-8	Open	CC	RCC/BOX	1	3	6.1
10	1349/1	1349/3-4	Open	CC	RCC/BOX	1	3	6.1
11	1352/1	1352/3-4	Open	CC	RCC/BOX	1	2.5	6.1
12	1354/1	1354/2-3	Open	CC	RCC/BOX	1	2.5	6.1
13	1357/1	1357/5-6	Open	CC	RCC/BOX	2	3	6.1
14	1357/2	1357/8-9	Open	CC	RCC/BOX	2	5.5	6.1
15	1357/3	1357/9-58/0	Open	CC	RCC/BOX	1	3	6.1
16	1359/1	1359/0-1	Open	CC	RCC/BOX	1	6	6.1
17	1359/2	1359/8-9	Open	CC	RCC/BOX	1	2.5	6.1
18	1364/1	1364/0-1	Open	CC	RCC/BOX	1	3	6.1
19	1364/2	1364/7-8	Open	CC	RCC/BOX	1	1.5	6.1
20	1366/1	1366/0-1	Open	CC	RCC/BOX	1	2.5	6.1
21	1366/2	1366/8-9	Open	CC	RCC/BOX	1	3	6.1
22	1367/2	1367/6-7	Open	CC	RCC/BOX	1	3	6.1
23	1368/2	1368/0-1	Open	CC	RCC/BOX	1	3	6.1
24	1368/2	1368/9-1369/0	Open	CC	RCC/BOX	1	3	6.1
25	1369/1	1369/7-8	Open	CC	RCC/BOX	1	2	6.1
26	1371/1	1371/3-4	Open	CC	RCC/BOX	1	2.5	6.1
27	1374/1	1374/2-3	Open	CC	RCC/BOX	1	4	6.1
28	1374/2	1374/3-4	Open	CC	RCC/BOX	1	5	6.1
29	1374/3	1374/8-9	Open	CC	RCC/BOX	1	3	6.1
30	1375/1	1375/7-8	Open	CC	RCC/BOX	1	3	6.1
31	1379/1	1379/6-7	Open	CC	RCC/BOX	1	3	6.1
32	1383/1	1383/4-5	Open	CC	RCC/BOX	1	3	6.1
33	1384/1	1384/0-1	Open	CC	RCC/BOX	1	1.5	6.1
34	1387/1	1387/3-4	Open	CC	RCC/BOX	1	2.5	6.1



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35	1387/2	1387/6-7	Open	CC	RCC/BOX	1	4	6.1
36	1388/1	1388/3-4	Open	CC	RCC/BOX	2	6	6.1
37	1391/1	1391/1-2	Open	CC	RCC/BOX	1	3	6.1
38	1393/1	1393/0-1	Open	CC	RCC/BOX	1	3	6.1
39	1393/2	1393/7-8	Open	CC	RCC/BOX	2	6	6.1
40	1394/1	1394/1-2	Open	CC	RCC/BOX	1	5	6.1
41	1396/1	1396/5-6	Open	CC	RCC/BOX	2	4.5	6.1
42	1397/1	1397/1-2	Open	CC	RCC/BOX	1	4	6.1
43	1397/2	1397/5-6	Open	CC	RCC/BOX	2	4	6.1
44	1398/1	1398/0-1	Open	CC	RCC/BOX	1	3	6.1
45	1398/2	1398/6-7	Open	CC	RCC/BOX	1	4	6.1
46	1399/1	1399/4-5	Open	CC	RCC/BOX	1	3	6.1
47	1399/2	1399/9-1400/0	Open	CC	RCC/BOX	2	6	6.1
48	1401/1	1401/5-6	Open	CC	RCC/BOX	1	6	6.1
50	1402/1	1402/0-1	Open	CC	RCC/BOX	1	3	6.1
51	1405/1	1405/1-2	Open	CC	RCC/BOX	1	3	6.1
52	1407/1	1407/5-6	Open	CC	RCC/BOX	1	3	6.1
53	1407/2	1407/7-8	Open	CC	RCC/BOX	1	3	6.1
54	1408/1	1408/2-3	Open	CC	RCC/BOX	1	5	6.1
55	1409/1	1409/7-8	Open	CC	RCC/BOX	1	3	6.1
56	1410/1	1410/7-8	Open	CC	RCC/BOX	1	3	6.1
57	1411/1	141/7-8	Open	CC	RCC/BOX	1	3	6.1
58	1412/1	1412/2-3	Open	CC	RCC/BOX	1	5	6.1
59	1412/2	1412/7-8	Open	CC	RCC/BOX	1	3	6.1
60	1413/1	1413/1-2	Open	CC	RCC/BOX	1	5	6.1
61	1414/1	1414/4-5	Open	CC	RCC/BOX	1	4	6.1
62	1415/1	1415/9-1416/0	Open	CC	RCC/BOX	1	3	6.1
63	1417/1	1417/4-5	Open	CC	RCC/BOX	1	6	6.1
64	1418/1	1418/2-3	Open	CC	RCC/BOX	1	3	6.1
65	1419/1	1419/7-8	Open	CC	RCC/BOX	1	4	6.1
66	1419/2	1419/8-9	Open	CC	RCC/BOX	1	3	6.1
67	1420/1	1420/2-3	Open	CC	RCC/BOX	1	1.5	6.1
68	1420/2	1420/3-4	Open	CC	RCC/BOX	1	3	6.1
39	1423/1	1423/7-8	Open	CC	RCC/BOX	1	4	6.1
70	1425/1	1425/5-6	Open	CC	RCC/BOX	1	3	6.1
71	1425/2	1425/6-7	Open	CC	RCC/BOX	1	3.5	6.1
72	1425/3	1425/7-8	Open	CC	RCC/BOX	1	1.5	6.1
73	1426/1	1426/1-2	Open	CC	RCC/BOX	1	2.5	6.1

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74	1427/1	1427/0-1	Open	CC	RCC/BOX	1	4	6.1
75	1427/2	1427/5-6	Open	CC	RCC/BOX	1	4	6.1
76	1427/3	1427/8-9	Open	CC	RCC/BOX	1	5	6.1
77	1428/1	1428/5-6	Open	CC	RCC/BOX	1	4	6.1
78	1428/2	1428/7-8	Open	CC	RCC/BOX	1	4	6.1
79	1429/1	1429/5-6	Open	CC	RCC/BOX	1	3	6.1
80	1430/1	1430/1-2	Open	CC	RCC/BOX	1	4	6.1
81	1431/1	1431/0-1	Open	CC	RCC/BOX	1	4	6.1
82	1431/2	1431/6-7	Open	CC	RCC/BOX	1	3	6.1
83	1432/1	1432/2-3	Open	CC	RCC/BOX	1	2.5	6.1
84	1433/1	1433/0-1	Open	CC	RCC/BOX	1	3	6.1
85	1433/2	1423/3-4	Open	CC	RCC/BOX	1	4	6.1
86	1434/1	1434/0-1	Open	CC	RCC/BOX	1	4	6.1
87	1434/2	1434/6-7	Open	CC	RCC/BOX	2	2.5	6.1
88	1434/3	1434/8-9	Open	CC	RCC/BOX	1	2.5	6.1
89	1435/1	1435/6-7	Open	CC	RCC/BOX	1	3	6.1
89	1438/1	1438/2-3	Open	CC	RCC/BOX	2	2	6.1

2.5 TUNNELS

SL. No.	Block Section	km from	km to	Remarks
Bhandai-Udi - NIL				

2.6 RAILWAY FLYOVERS

The Site includes the following Railway Fly Over:

SL. No.	Block Section	Bridge No and location (Km)	Type of Structure			Span (Nos. × length)	Width (m)
			Foundation	Sub-structure	Super-structure		
Bhandai-Udi - NIL							

2.7 ROAD UNDER-BRIDGES (RUB) / ROAD OVER-BRIDGES (ROB)

The Site includes the following RUB (Road under railway line)/ ROB (road over railway line):



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SL. No.	Block section	Bridge No. and location(Km)		Type of Structure		Span (no. x length)	Width (m)	Height (m)	ROB/RUB
		Bridge No.	Location (Km)	Foundation	Superstructure				
Bhandai-Udi									
1	Bhandai – Udi	1335/1	1367/3-4	PILE	PSC	1	12.6	6.9	ROB
2		1349/2	1377/7-8	PILE	PSC	1	20.93	6.5	ROB

2.8 RAILWAY LEVEL CROSSINGS

SL. No.	Block Section	Chainage	LC No.	TVUs/Year		L C Classification	Remarks
Bhandai-Udi							
1	BHA-SSDT	1340/2-3	2	NA	NA	C	
2	BHA-SSDT	1344/1-2	4	NA	NA	C	
3	BHA-SSDT	1346/1-2	5	NA	NA	C	
4	SSDT-FAB	1354/1-2	9	NA	NA	C	
5	SSDT-FAB	1356/9-10	11	NA	NA	C	
6	SSDT-FAB	1361/6-7	12	NA	NA	C	
7	SSDT-FAB	1362/6-7	13	NA	NA	C	
8	SSDT-FAB	1364/5-6	14	1088	9/2017	C	
9	FAB-HAB	1373/3-4	17	NA	NA	C	
10	FAB-HAB	1377/3-4	18	NA	NA	C	
11	FAB-HAB	1380/3-4	19	10662	9/2017	C	
12	FAB-HAB	1404/8-9	29	NA	NA	C	
13	FAB-HAB	1406/6-7	31	NA	NA	C	
14	HAB-UDI	1421/9-10	32	NA	NA	C	
15	HAB-UDI	1436/0-1	35	NA	NA	C	
16	HAB-UDI	1437/4-5	36	NA	NA	C	
17	HAB-UDI	1439/9-10	38	NA	NA	C	
18	HAB-UDI	1441/3-4	39	NA	NA	C	
19	HAB-UDI	1443/2-3	40	NA	NA	C	



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2.9 RAILWAY STATIONS ON RAILWAY PROJECT

The Site includes the following railway stations

Bhandai-Udi

SL. No.	Station	C.L. km	Nos. Of lines	Nos. Of P.F. & Length	FOB	Remark
1	Bhandai	1332.90	4	PF = 2nos. PF1=278.00 PF2 & 3 =278.00	Nil	
2	Karandhan kalan	1340.377	1	PF = 1no. PF1=250.00	Nil	
3	Shamsabad	1350.935	2	PF = 1no. PF1=250.00	Nil	
4	Dhimsiri	1358.227	1	PF = 1no. PF1= 250.00	Nil	
5	Fatehabad	1368.827	2	PF = 1no. PF1=250.00	Nil	
6	Manikpura	1381.677	1	PF = 1no. PF1=250.00	Nil	
7	Bhadrauli	1391.977	1	PF = 1no. PF1=250.00	Nil	
8	Batesar	1400.427	1	PF = 1no. PF1=250.00	Nil	
9	Bah	1408.975	3	PF = 1no. PF1=250.00	Nil	
10	Jaitpur kalan	1418.377	1	PF = 1no. PF1=250.00	Nil	
11	Mansingh ka pura	1426.177	1	PF = 1no. PF1=250.00	Nil	
12	Jaitpura	1439.227	1	PF = 1no. PF1=250.00	Nil	
13	Udi	1330.52	4	PF = 2no. PF1=575..00 PF2=575..00	Nil	

2.10 RAILWAY YARDS

The Site includes the following Railway yards:

Bhandai-Udi

SL. No.	Name of Yard	No. of Line	Remarks
1	Bhandai	4	
2	Karandhan kalan	1	
3	Shamsabad	2	
4	Dhimsiri	1	
5	Fatehabad	2	
6	Manikpura	1	
7	Bhadrauli	1	
8	Batesar	1	
9	Bah	3	
10	Jaitpur kalan	1	
11	Mansingh ka pura	1	
12	Jaitpura	1	
13	Udi	4	

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2.11 FOOT OVER BRIDGES ON RAILWAY PROJECT


The Site includes the following foot over bridges:

SL. No.	Station/ Block Section	Km/Chainage	Span (mtr.)/ No. of Track	Remarks
Bhandai-Udi Section				
Nil				

2.12 TRANSMISSION LINES CROSSING

The Site includes the following transmission lines crossing:

SL. No.	Block Section	Chainage	HT/LT (Specify KV)	OH/UG	Height above RL/ Depth below RL in meters
Bhandai-Udi Group 240					
1	Udi Mor- Etawah	1331/45	132	OH	20.00
2	Udi Mor- Etawah	1331/3-4	800	OH	25.00
3	Jaitpur-Bah	1415/2-3	756	OH	22.00
4	Jaitpur-Bah	1415/0-1	756	OH	22.50
5	Bhadrauli-Bateshar	1395/3-4	765	OH	23.00
6	Bhadrauli-Bateshar	1395/1-2	765	OH	25.00
7	Bhadrauli-Manikpura	1384/1-2	132	OH	24.00
8	Bhadrauli-Manikpura	1384/2-3	132	OH	23.00
9	Manikpura-Fatehabad	1379/7-8	132	OH	18.50
10	Manikpura-Fatehabad	1372/8-9	800	OH	25.00
11	Manikpura-Fatehabad	1371/7-8	400	OH	25.00
12	Manikpura-Fatehabad	1371/5-6	765	OH	23.00
13	Manikpura-Fatehabad	1370/7-9	765	OH	25.0
14	Shamshabad-Dhinsri	1356/0-1	800	OH	24.00
15	Shamshabad-Dhinsri	1354/3-4	800	OH	25.00
16	Shamshabad-Karandhand Kalan	1344/8-9	800	OH	23.00
17	Shamshabad-Karandhand Kalan	1345/5-6	132	OH	24.00
18	Karandhand Kalan-Bhandai	1339/1-2	800	OH	25.00
19	Karandhand Kalan-Bhandai	1337/7-8	800	OH	25.00
20	Karandhand Kalan-Bhandai	1337/7-8	132	OH	18.00

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21	Karandhand Kalan-Bhandai	1337/8-9	400	OH	23.00
22	Karandhand Kalan-Bhandai	1335/2-3	400	OH	23.00
23	Karandhand Kalan-Bhandai	1334/8-9	400	OH	25.00

2.13 UNDERGROUND POWER LINE CROSSING

The Site includes the following Underground Power Line Crossings.

SL. No.	Location	Section	System Voltage in KV	Distance of Structure from centre of Track in meters	Remarks
(A) Bhandai- Udi					
-----NIL -----					

2.14 TSS Locations

SL. No	Location	Starting Chainage	Ending Chainage	Length	Width
1	Bah	1408/277	1408/377	100	50
2	Fatehabad	1368/242	1368/342	100	50

2.15 For SP/SSP Works

SL. No	Location	Starting Chainage	Ending Chainage	Length	Width
Bhandai-Udi Group-240					
1	Karandhad Kalan-SP	1339/800	1339/820.80	20.80 M	5.623 M
2	Shamsabad-SSP	1350/182.20	1350/200	20.80 M	5.623 M
3	Dhimsiri-SSP	1358/210	1358/227.80	17.80 M	5.623 M
4	Manikpura-SSP	1381/800	1381/817.80	17.80 M	5.623 M
5	Bhadroli-SP	1390/250	1390/270.80	20.80 M	5.623 M
6	Batesar-SSP	1400/400	1400/417.80	17.80 M	5.623 M
7	Jaitpur Kalan-SSP	1417/210	1417/227.80	17.80 M	5.623 M
8	Man Singh ka Pura-SSP	1425/800	1425/817.80	17.80M	5.623 M
9	Jaitpura-SSP	1438/700	1438/717.80	17.80 M	5.623 M
10	Oodi-SP	1444/900	1444/920.80	20.80 M	5.623 M

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SL. No.	Section & Group	Location	Length of track
1	Bhandai-Udi Gr-240	BAH	0.125TKM(TWS) 0.060TKM(TSS)
		Fatehabad	0.125TKM(TWS) 0.060TKM(TSS)

2.17 Railway Electrification sidings & Depots

SL. No.	Location	Length of track
1	Fatehabad	250

The proposed sectioning arrangement of the Railway Electrification Project, Sectioning diagrams for various facilities are provided separately in the document for the brief information to bidder.

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