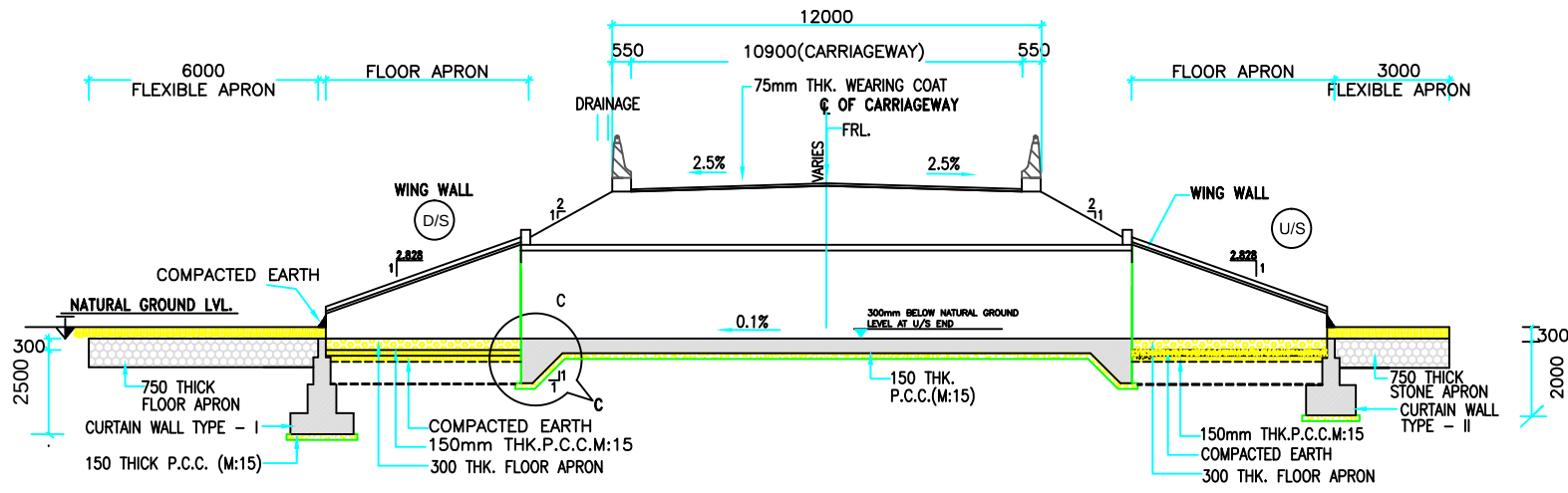
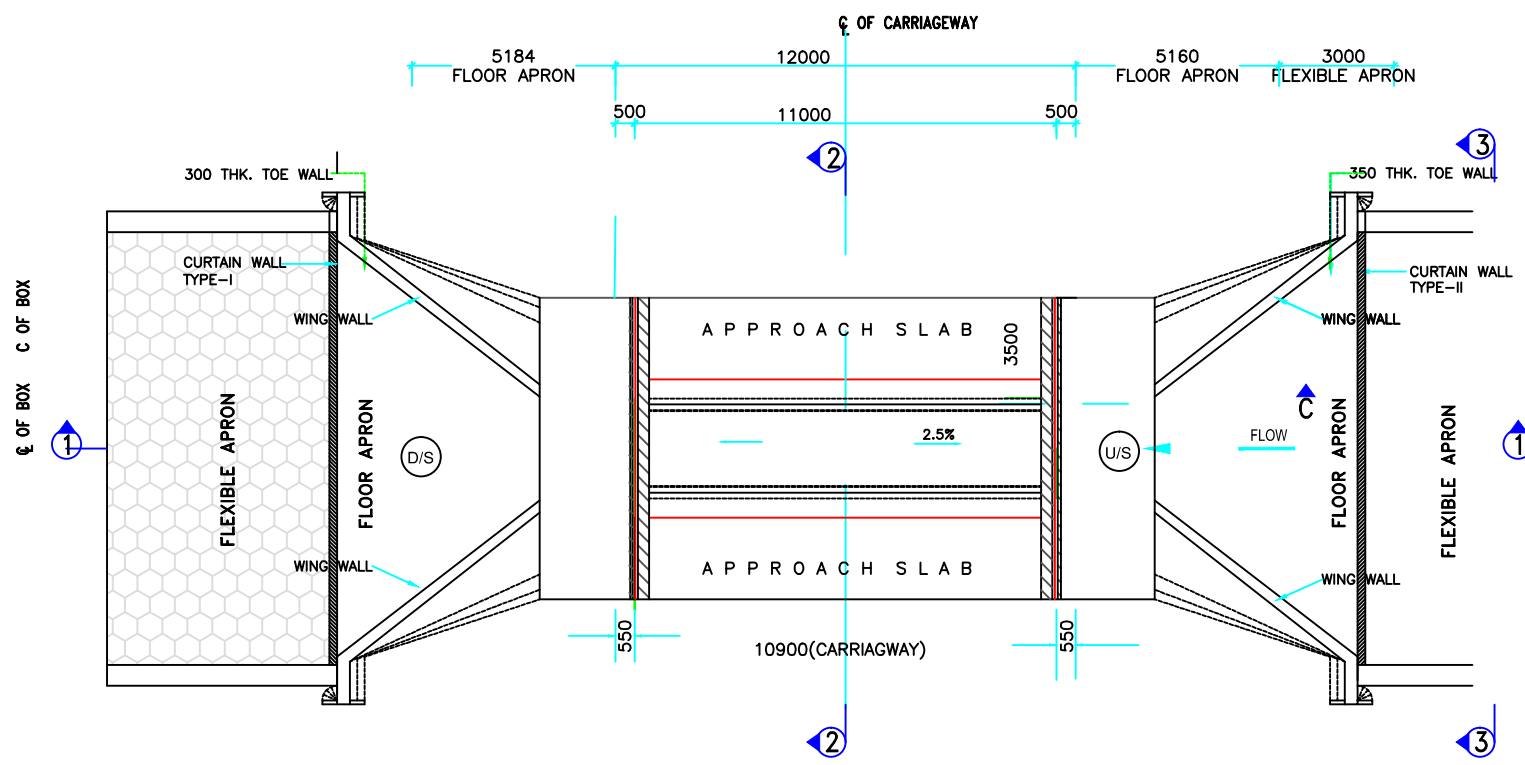
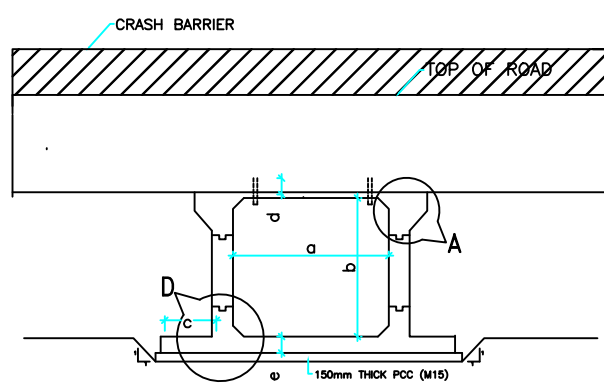




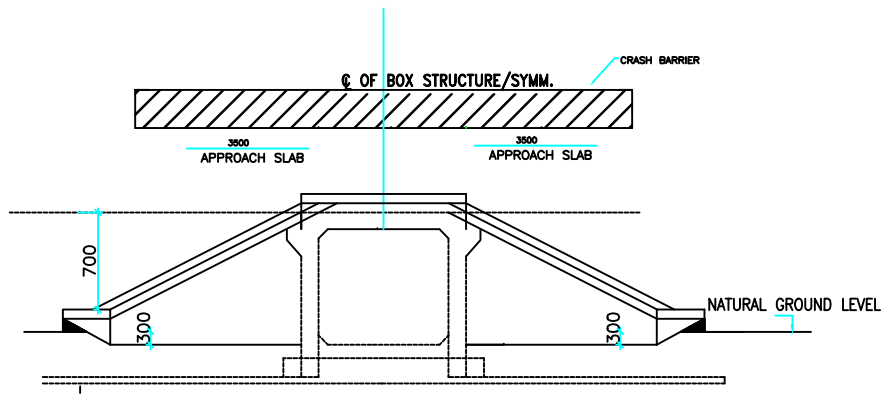
SECTIONAL ELEVATION AT A-A



PLAN

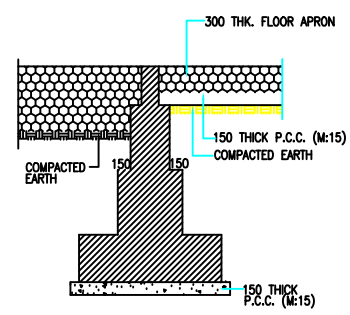


SECTION 2-2

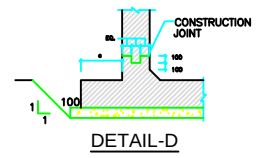


SECTION 2-2

VIEW 3-3

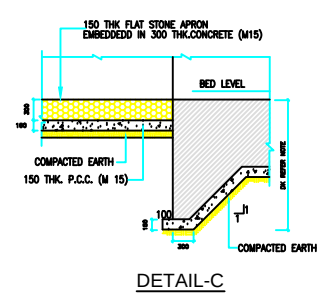


DETAIL OF CURTAIN WALL (CURTAIN WALL TYPE - I)

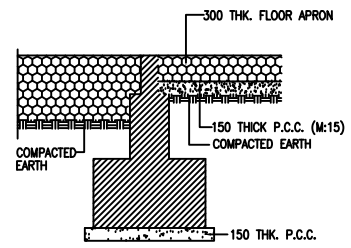


DETAIL-D

*d DECK SLAB THICKNESS AT INNER EDGE OF KERB AS SHOWN IN SECTION 1-1



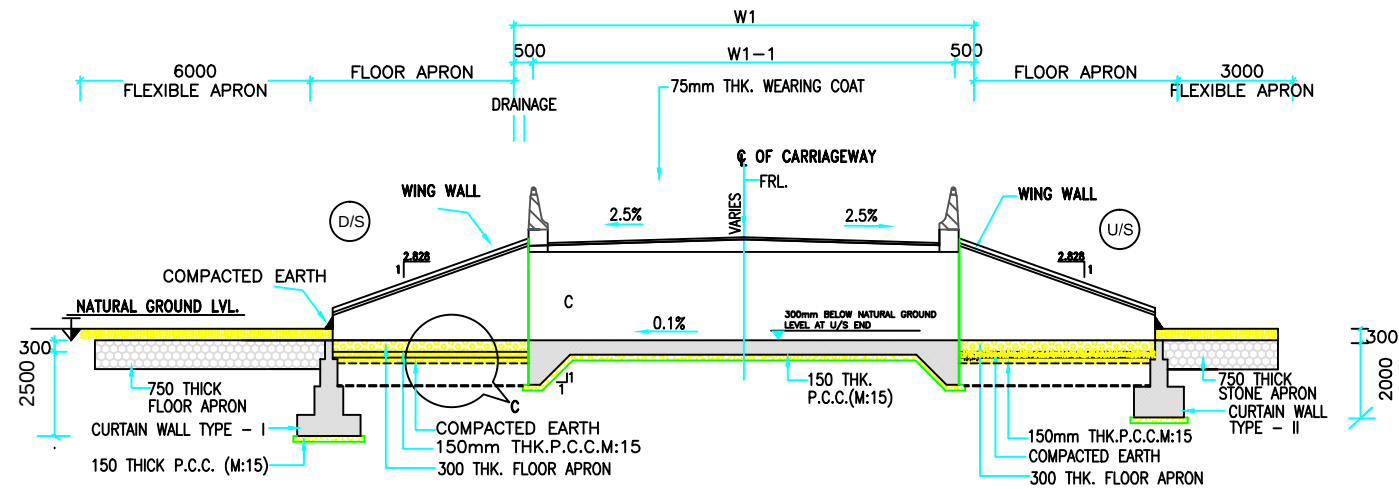
DETAIL-C



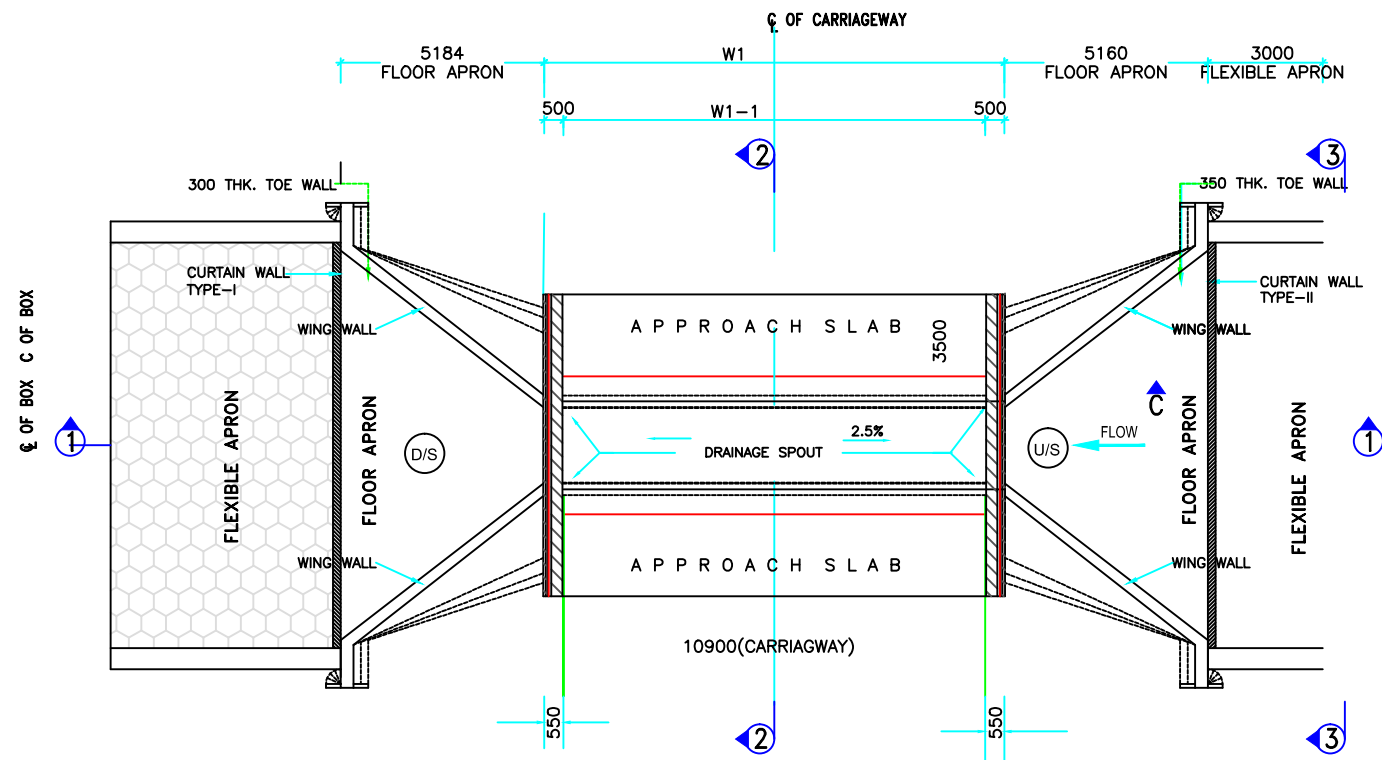
DETAIL OF CURTAIN WALL (CURTAIN WALL TYPE - II)

Details of Box Culvert - (With Cuttings)													
S. No.	Proposed Ch in Km	Formation level in M	Invert Lvl	Min. SBC	Cutting M	Detail of Box							
						No.	a,m	b,m	c,m	d,m	e,m	f,m	h,m
1	68+390	570.95	566.7	15	1.9	1	2	2	0.8	0.25	0.3	0.25	5
2	68+490	570.495	565	15	2.1	1	3	3	0.5	0.37	0.45	0.4	5
3	70+260	559.873	556	15	0.5	1	3	3	0.5	0.37	0.45	0.4	-
4	70+540	541	535	15	2.6	1	3	3	0.5	0.37	0.45	0.4	-
5	70+800	522.2	515.3	15	3.5	1	3	3	0.5	0.37	0.45	0.4	-
6	70+955	511.355	506	15	1.9	1	3	3	0.5	0.37	0.45	0.4	-
7	71+280	488.55	483	15	2.1	1	3	3	0.5	0.37	0.45	0.4	-
8	71+490	473.1	469.2	15	0.5	1	3	3	0.5	0.37	0.45	0.4	-
9	71+690	459.775	455.3	15	1.1	1	3	3	0.5	0.37	0.45	0.4	-
10	72+540	401.061	395	15	2.6	1	3	3	0.5	0.37	0.45	0.4	-
11	72.72	395.666	390	15	2.2	1	3	3	0.5	0.37	0.45	0.4	-
12	73+980	380.686	371.7	15	6.6	1	2	2	0.8	0.25	0.3	0.25	-
13	75+380	315.916	310.7	15	2.9	1	2	2	0.8	0.25	0.3	0.25	-
14	75+920	278.354	274	15	2.0	1	2	2	0.8	0.25	0.3	0.25	-
15	76+950	238	234.7	15	1.0	1	2	2	0.8	0.25	0.3	0.25	-
16	77+160	231.162	226.7	15	2.1	1	2	2	0.8	0.25	0.3	0.25	-
17	77+340	225.132	221	15	1.8	1	2	2	0.8	0.25	0.3	0.25	-
18	77+700	213.072	209.89	15	0.8	1	2	2	0.8	0.25	0.3	0.25	-
19	78+660	163.979	160.1	15	1.5	1	2	2	0.8	0.25	0.3	0.25	-
20	78+810	154.85	149.7	15	2.8	1	2	2	0.8	0.25	0.3	0.25	-
21	79+860	154.027	149.5	15	1.2	1	3	3	0.5	0.37	0.45	0.4	-
22	80+600	165.085	161.7	15	1.0	1	2	2	0.8	0.25	0.3	0.25	-
23	81+120	145.809	140.9	15	1.6	1	3	3	0.5	0.37	0.45	0.4	-
24	82+090	124.72	120.7	15	0.7	1	3	3	0.5	0.37	0.45	0.4	-
25	82+560	137.547	133	15	1.2	1	3	3	0.5	0.37	0.45	0.4	-

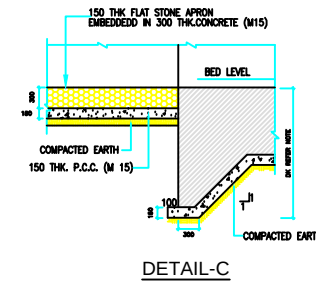
CONSULTANTS :- M/s Lion Engineering Consultants, Bhopal.		CLIENT :- NATIONAL HIGHWAYS INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED (NHIDCL)		DRG. NO. : 1	DESIGNED BY.	APPROVED BY.	PROJECT TITLE :- Consultancy Services for Preparation of Feasibility Study and Detailed Project Report For Two lane With Paved Shoulders of Manu - Simlung Section of NH-44A (86 Kms) In The State of Tripura on EPC Mode.		GENERAL ARRANGEMENT DRAWING:- SINGLE CELL R.C.C. BOX STRUCTURE - PACKAGE-4 VAGHMUN - SIMLUNG SECTION OF NH-44A	
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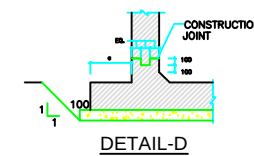
SECTIONAL ELEVATION AT A-A



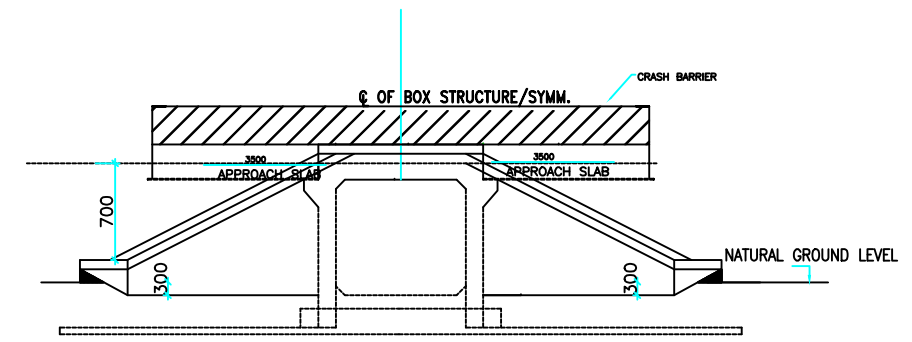
PLAN



DETAIL-C

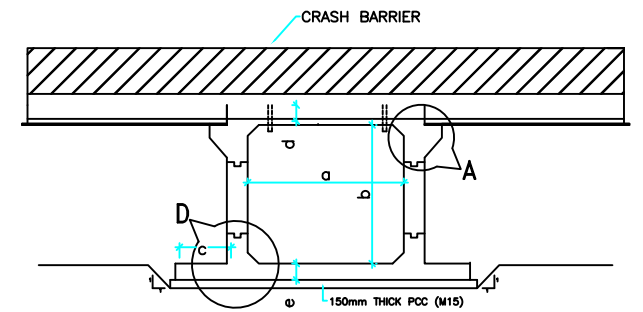


DETAIL-D



SECTION 2-2

VIEW 3-3



SECTION 2-2

Details of Box Culvert - (Without Cuttings)													
S. No.	Proposed Ch in Km	Formation level in M	Invert Lvl	Min. SBC	Cutting M	Detail of Box							
						No.	a,m	b,m	c,m	d,m	e,m	f,m	h,m
1	67+280	592.039	589.7	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
2	68+760	583.7	581.4	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
3	69+130	607.2	604.9	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
4	69+390	610.35	608	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
5	71+950	441.885	437.4	15	0.0	1	4	4	0.9	0.42	0.42	0.42	-
6	72+000	438.205	435.9	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
7	72+900	398.236	395.9	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
8	73+240	407.091	404.7	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
9	73+405	405.667	403.3	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
10	73+620	396.799	394.4	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
11	74+160	372.63	370.3	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
12	74+440	360.097	357.7	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
13	74+780	344.88	342.5	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
14	75+035	333.2	330.9	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
15	76+380	257.293	254.9	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
16	76+500	253.273	250.9	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
17	76+720	245.903	243.6	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
18	77+500	219.772	217.4	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
19	77+940	205.032	202.7	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
20	78+100	199.52	197.2	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
21	78+410	180.82	178.5	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
22	79+170	149.32	147	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
23	79+380	147.9	145.6	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
24	81+420	131.381	129	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
25	81+600	125.301	123	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
26	81+850	123.7	121.4	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
27	82+330	129	126.7	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
28	82+690	143	140.7	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
29	83+070	156.65	154.3	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
30	83+330	158.45	156.1	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
31	83+860	147.03	144.7	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
32	84+180	126.089	123.7	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-
33	84+450	109.8	107.4	15	0.0	1	2	2	0.5	0.35	0.38	0.3	-

*d DECK SLAB THICKNESS AT INNER EDGE OF KERB AS SHOWN IN SECTION 1-1

CONSULTANTS :-

M/s Lion Engineering Consultants, Bhopal.



Plot No.97, "Lion Tower", Elegant Estate,
Near Mother Teresa School, Kolar Road,
Bhopal (M.P.)

CLIENT :-

NATIONAL HIGHWAYS INFRASTRUCTURE
DEVELOPMENT CORPORATION LIMITED (NHIDCL)



DRG. NO. :

2

DESIGNED BY.

APPROVED BY.

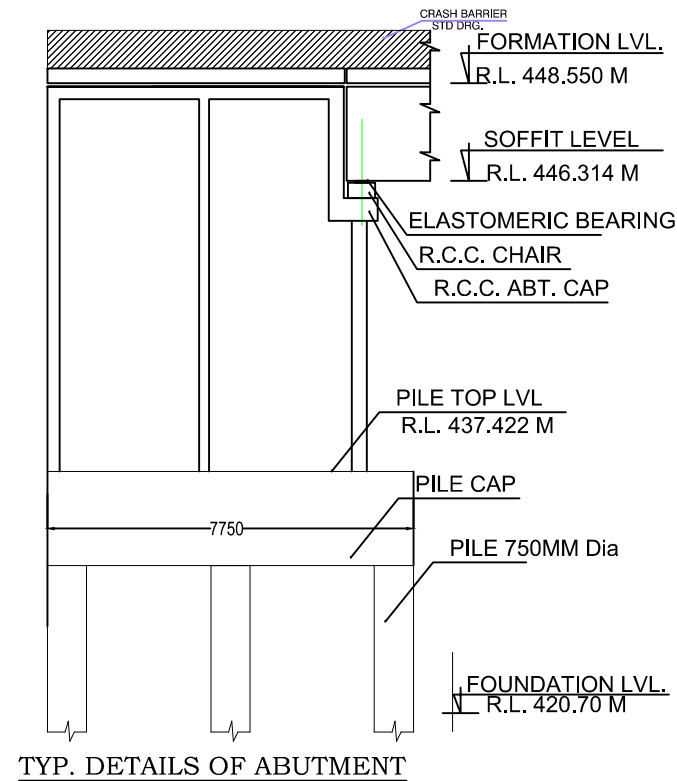
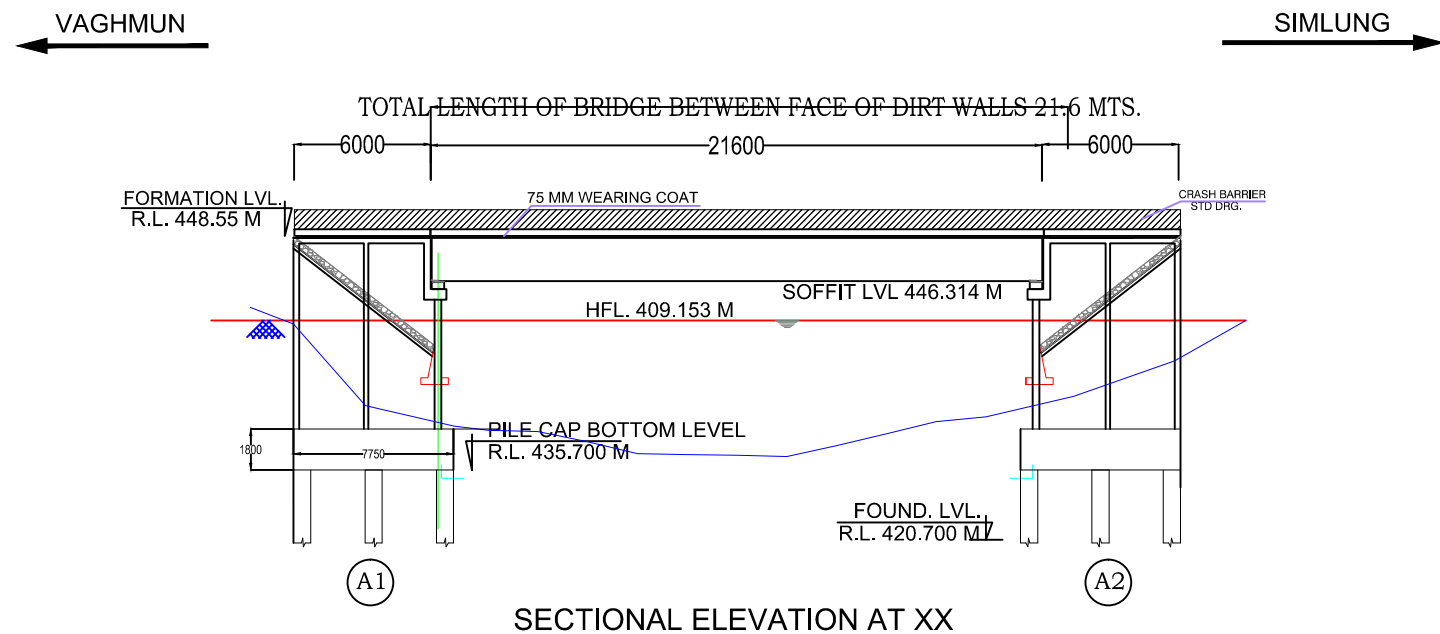
PROJECT TITLE :-

Consultancy Services for Preparation of
Feasibility Study and Detailed Project Report For
Two lane With Paved Shoulders of Manu -
Simlung Section of NH-44A (86 Kms) In The
State of Tripura on EPC Mode.

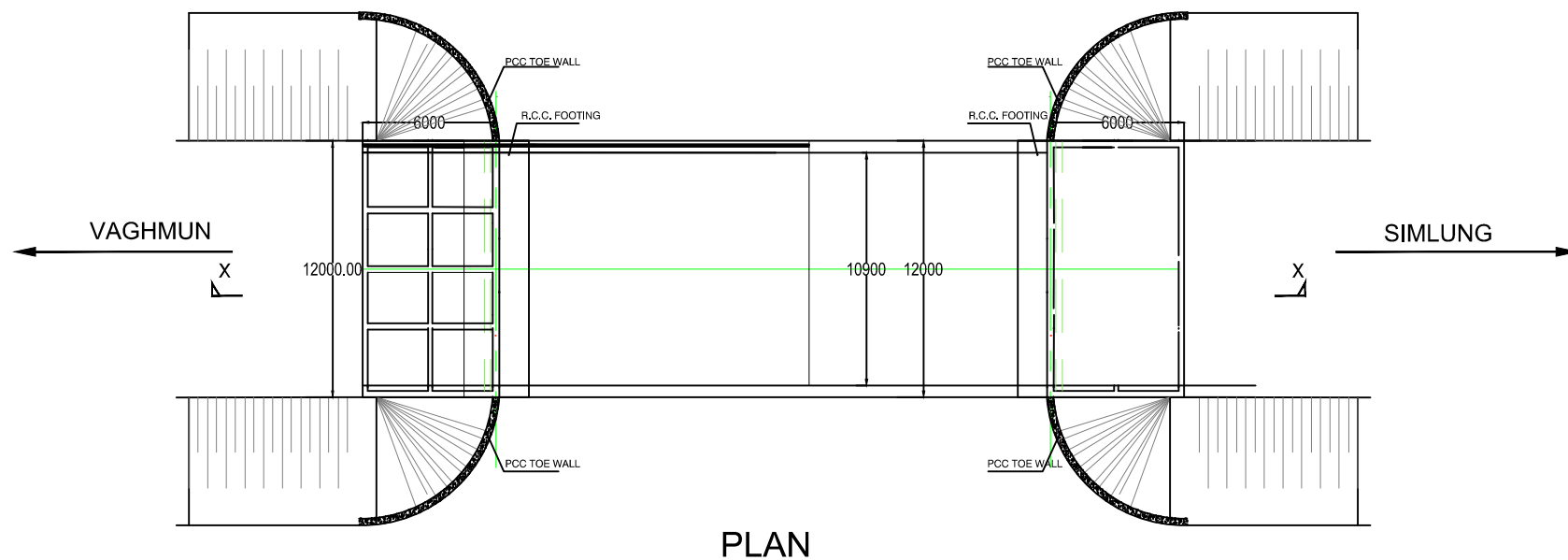
GENERAL ARRANGEMENT DRAWING:-

SINGLE CELL R.C.C. BOX STRUCTURE -

PACKAGE-4
VAGHMUN - SIMLUNG
SECTION OF NH-44A



GROUND LVL. IN METERS	438.142	437.422	436.581	435.861	435.221	434.698	434.277	434.689	435.209	435.821	436.551	437.411	438.131
CHAINAGE IN METERS	11.000	10.000	8.000	6.000	4.000	2.000	0.000	2.000	4.000	6.000	8.000	10.000	11.000



NOTES :-

- | | |
|---------------------------------|--|
| 1. TYPES OF BRIDGE | HIGH LEVEL |
| 2. LENGTH OF BRIDGE | 21.6 MTS. (1 SPANS @ 21.60 MTS.) |
| 3. OVER ALL WIDTH OF BRIDGE | 12.00 MTS. |
| 4. CLEAR ROADWAY (CARRIAGE WAY) | 10.500 MTS. |
| 5. DESIGN DISCHARGE | 122.50 CUMEC. |
| 6. CATCHMENT AREA | 12.0 SQ. KM. |
| 7. DESIGN VELOCITY | 2.95 M/SEC. |
| 8. FORMATION LEVEL | R.L. 448.55 M |
| 9. SOFFIT LEVEL | R.L. 446.314 M |
| 10. H.F.L. | R.L. 438.153 M |
| 11. L.W.L. | Dry Stream |
| 12. SCOUR LEVEL ABUTMENT | 433.215 M |
| 14. FOUNDATION LEVEL ABUTMENT | 431.215 M |
| 16. TYPE OF SUPER STRUCTURE | R.C.C. T-BEAM GIRDER |
| 17. TYPE OF SUB STRUCTURE | a) ABUTMENT
b) PIER |
| 18. TYPE OF FOUNDATION | R.C.C. BOX TYPE ABUTMENT CUM RETURN(30)
R.C.C. SOLID CIRCULAR PIER(30)
PILE FOUNDATION |
| 19. FOUNDING STRATA | HARD ROCK |
| 20. TYPE OF BEARING | ELECTROMETRIC BEARING |
| 21. APPROACH SLAB | R.C.C. STRUCTURAL SLAB(30) |
| 22. APPROACH SLAB | R.C.C. STRUCTURAL SLAB(30) |
| 23. RAILING | R.C.C. CRASH BARRIER AS PER STD. DWG. |
| 24. WEARING COAT | BITUMINOUS CONCRET 60MM |
| 25. EXPANSION JOINTS | EXPANSION JOINTS AS PER STD. DRG. |
| 26. SPECIFICATIONS | AS PER M.O.R.T. & H. SPECIFICATIONS |
| 27. SAFE BEARING CAPACITY | 60T/SqM. AS PER N.I.T. AND SPECIFICATION. |
| 28. DESIGN LOADING | ONE LANE OF I.R.C. CLASS AA LOADING OR
TWO LANE OF I.R.C. CLASS 'A' LOADING. |
| 29. ALL DIMENSIONS IN MM. | |

:- CONSULTANTS :-

M/s Lion Engineering Consultants, Bhopal.



Plot No.97, "Lion Tower", Elegant Estate,
Near Mother Teresa School, Kolar Road,
Bhopal (M.P.)

:- CLIENT :-

NATIONAL HIGHWAYS INFRASTRUCTURE
DEVELOPMENT CORPORATION LIMITED (NHIDCL)



DRG. NO. :

3

DESIGNED BY.

APPROVED BY.

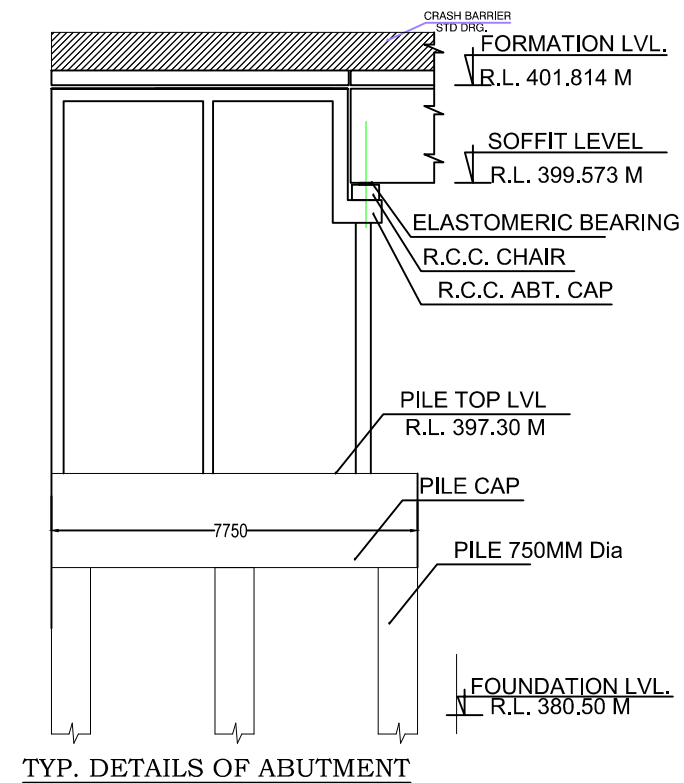
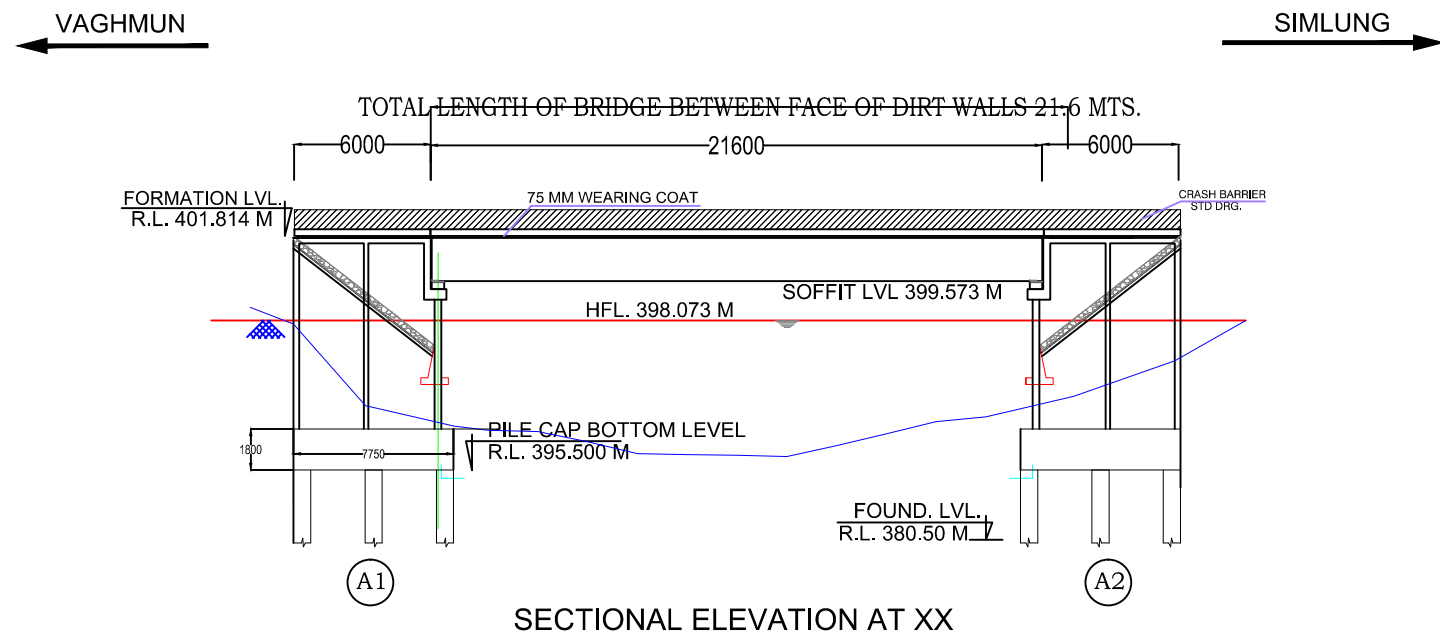
:- PROJECT TITLE :-

Consultancy Services for Preparation of
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Simlung Section of NH-44A (86 Kms) In The
State of Tripura on EPC Mode.

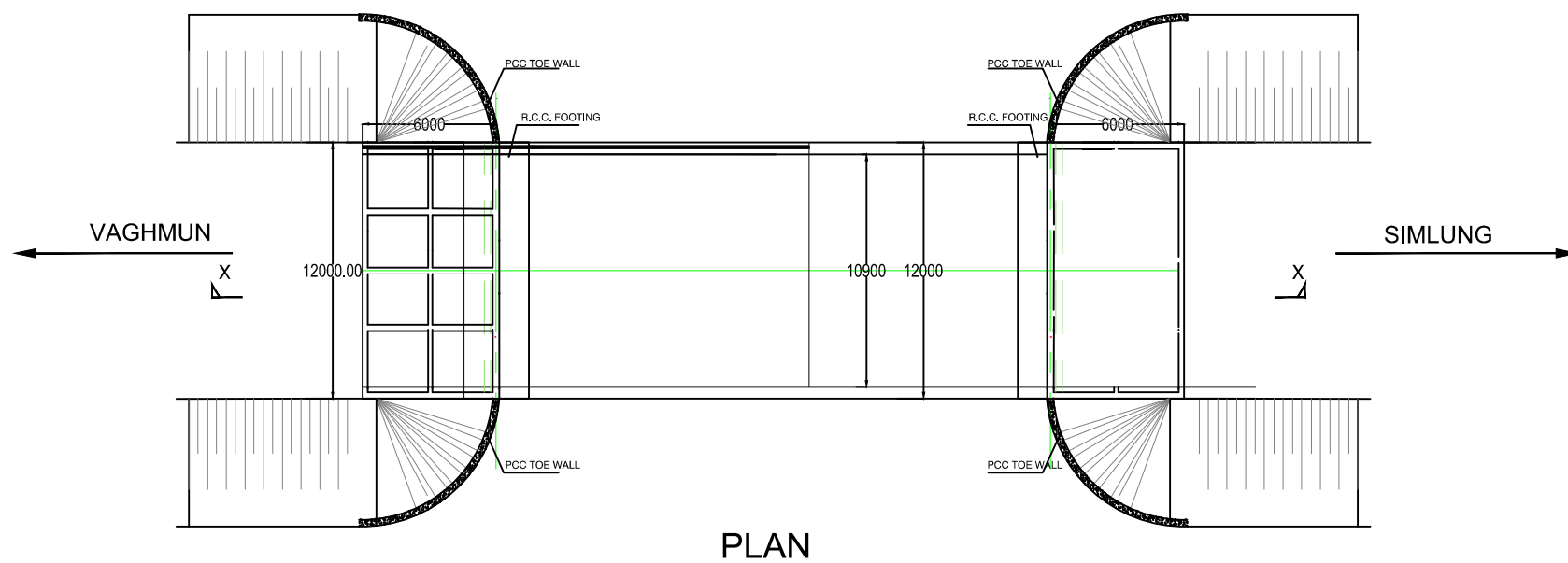
:-GENERAL ARRANGEMENT DRAWING:-

MAJOR BRIDGE AT CH. 69+120, (1X21 m)

PACKAGE-4
VAGHMUN - SIMLUNG
SECTION OF NH-44A



GROUND LVL. IN METERS	398.005	397.285	396.444	395.724	395.084	394.561	394.140	394.552	395.072	395.684	396.414	397.274	397.994
CHAINAGE IN METERS	11.000	10.000	8.000	6.000	4.000	2.000	0.000	2.000	4.000	6.000	8.000	10.000	11.000



NOTES :-

- | | |
|---------------------------------|--|
| 1. TYPES OF BRIDGE | HIGH LEVEL |
| 2. LENGTH OF BRIDGE | 21.6 MTS. (1 SPANS @ 21.60 MTS.) |
| 3. OVER ALL WIDTH OF BRIDGE | 12.00 MTS. |
| 4. CLEAR ROADWAY (CARRIAGE WAY) | 10.500 MTS. |
| 5. DESIGN DISCHARGE | 122.50 CUMEC. |
| 6. CATCHMENT AREA | 12.0 SQ. KM. |
| 7. DESIGN VELOCITY | 2.87 M/SEC. |
| 8. FORMATION LEVEL | R.L. 401.814 M |
| 9. SOFFIT LEVEL | R.L. 399.573 M |
| 10. H.F.L. | R.L. 398.073 M |
| 11. L.W.L. | Dry Stream |
| 12. SCOUR LEVEL ABUTMENT | 380.50 M |
| 14. FOUNDATION LEVEL ABUTMENT | 391. M |
| 16. TYPE OF SUPER STRUCTURE | R.C.C. T-BEAM GIRDER |
| 17. TYPE OF SUB STRUCTURE | |
| a) ABUTMENT | R.C.C. BOX TYPE ABUTMENT CUM RETURN(30) |
| b) PIER | R.C.C. SOLID CIRCULAR PIER(30) |
| 18. TYPE OF FOUNDATION | PILE FOUNDATION |
| 19. FOUNDING STRATA | HARD ROCK |
| 20. TYPE OF BEARING | ELECTROMETRIC BEARING |
| 21. APPROACH SLAB | R.C.C. STRUCTURAL SLAB(30) |
| 22. APPROACH SLAB | R.C.C. STRUCTURAL SLAB(30) |
| 23. RAILING | R.C.C. CRASH BARRIER AS PER STD. DWG. |
| 24. WEARING COAT | BITUMINOUS CONCRET 60MM |
| 25. EXPANSION JOINTS | EXPANSION JOINTS AS PER STD. DRG. |
| 26. SPECIFICATIONS | AS PER M.O.R.T. & H. SPECIFICATIONS |
| 27. SAFE BEARING CAPACITY | 60T/SqM. AS PER N.I.T. AND SPECIFICATION. |
| 28. DESIGN LOADING | ONE LANE OF I.R.C. CLASS AA LOADING OR TWO LANE OF I.R.C. CLASS 'A' LOADING. |
| 29. ALL DIMENSIONS IN MM. | |

:- CONSULTANTS :-

M/s Lion Engineering Consultants, Bhopal.



Plot No.97, "Lion Tower", Elegant Estate,
Near Mother Teresa School, Kolar Road,
Bhopal (M.P.)

:- CLIENT :-

NATIONAL HIGHWAYS INFRASTRUCTURE
DEVELOPMENT CORPORATION LIMITED (NHIDCL)



DRG. NO. :

4

DESIGNED BY.

APPROVED BY.

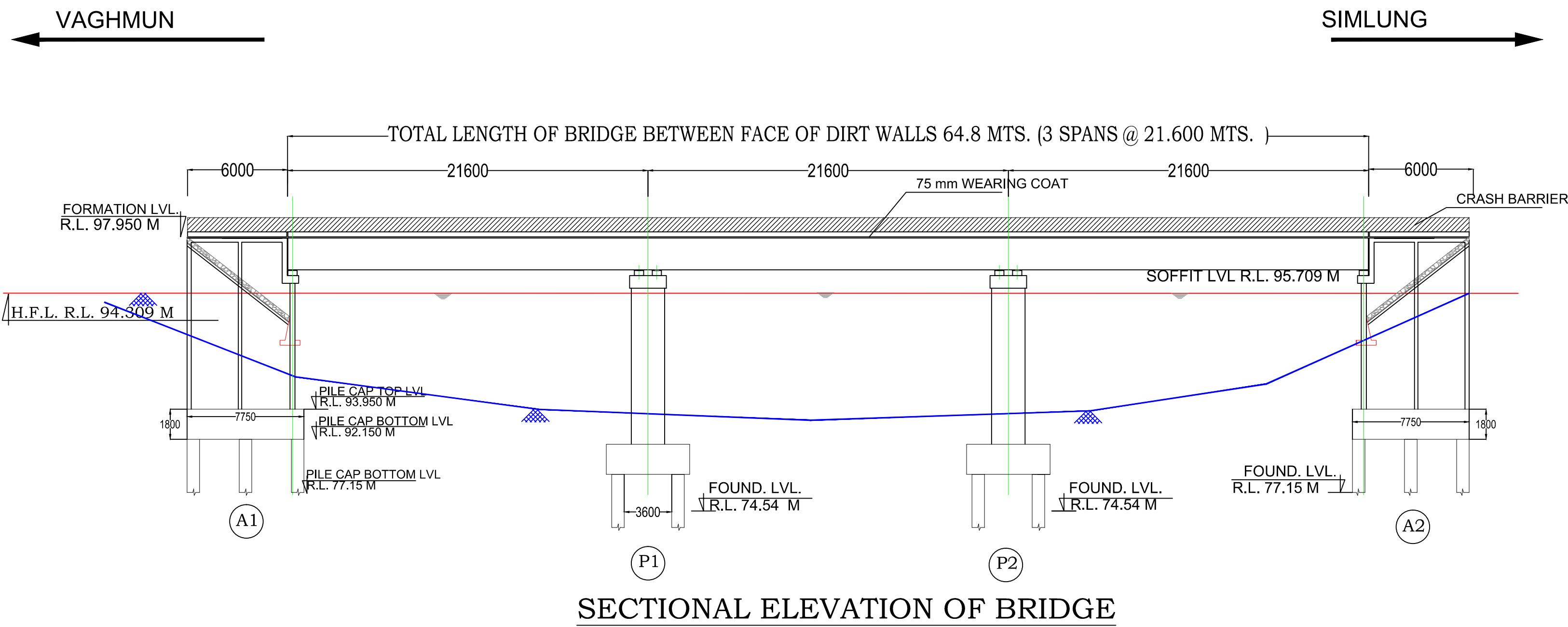
:- PROJECT TITLE :-

Consultancy Services for Preparation of
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Simlung Section of NH-44A (86 Kms) In The
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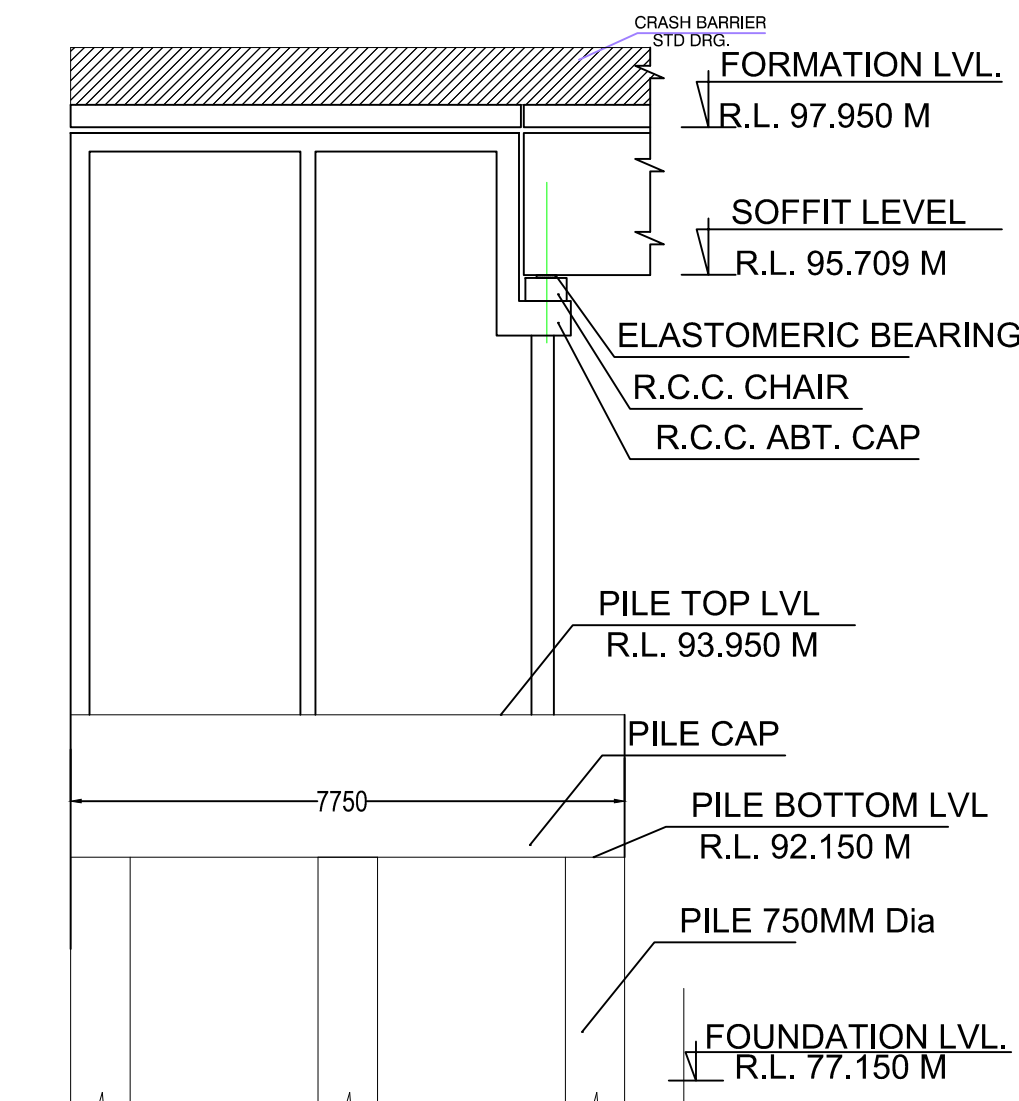
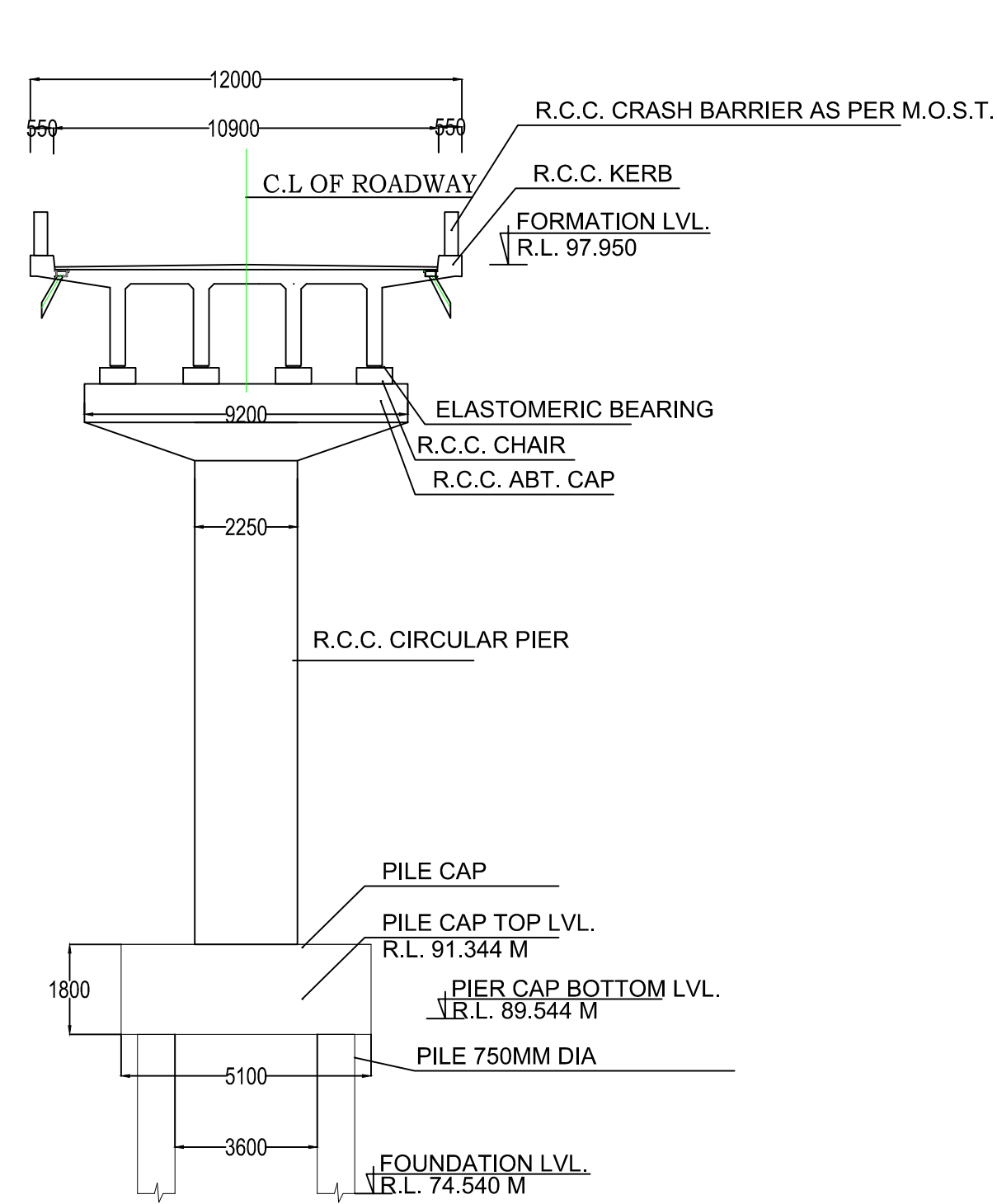
:-GENERAL ARRANGEMENT DRAWING:-

MAJOR BRIDGE AT CH. 73+020, (1X21 m)

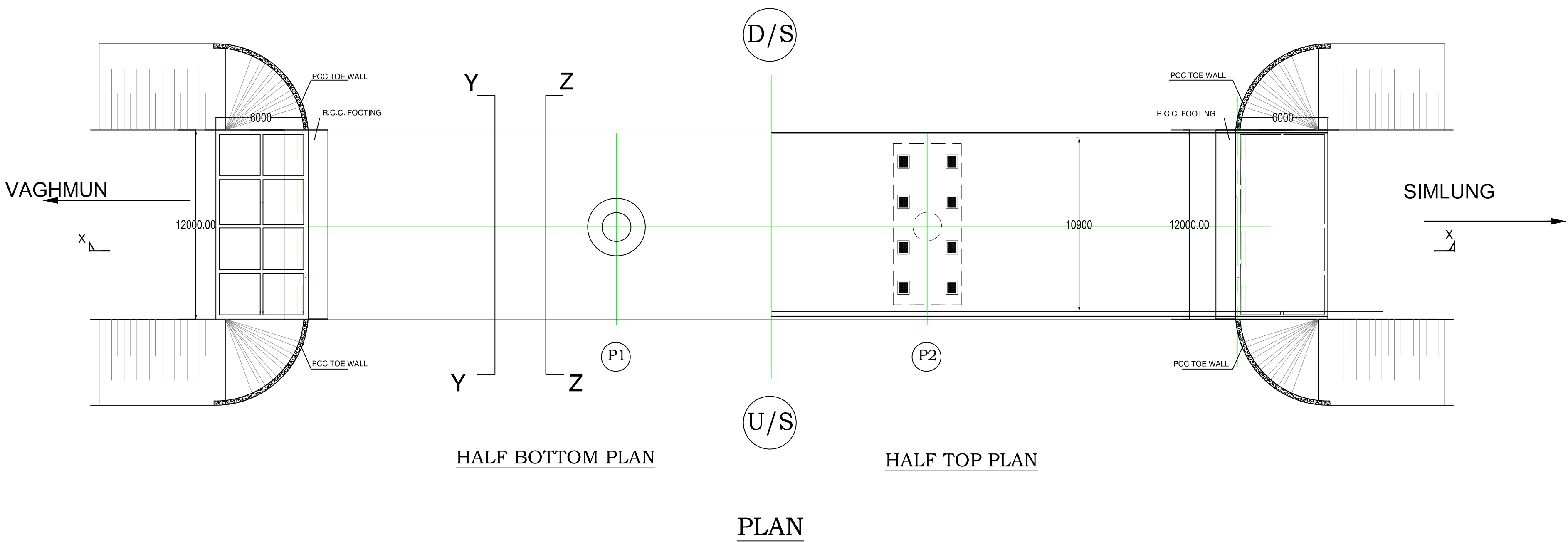
PACKAGE-4
VAGHMUN - SIMLUNG
SECTION OF NH-44A



GROUND LVL. IN METERS	94.265	93.545	92.704	91.984	91.344	90.821	91.332	91.944	92.674	91.944	92.674	93.534	94.254
CHAINAGE IN METERS	30.000	25.000	20.000	15.000	10.000	5.000	0.000	5.000	10.000	15.000	20.000	25.000	30.000



TYP. DETAILS OF ABUTMENT



NOTES :-

- | | |
|---------------------------------|--|
| 1. TYPES OF BRIDGE | HIGH LEVEL |
| 2. LENGTH OF BRIDGE | 64.8 MTS. (3 SPANS @ 21.600 MTS.) |
| 3. OVER ALL WIDTH OF BRIDGE | 12.00 MTS. |
| 4. CLEAR ROADWAY (CARRIAGE WAY) | 10.500 MTS. |
| 5. DESIGN DISCHARGE | 346.49 CUMEC. |
| 6. CATCHMENT AREA | 48 SQ. KM. |
| 7. DESIGN VELOCITY | 2.82 M/SEC. |
| 8. FORMATION LEVEL | R.L. 97.950 M |
| 9. SOFFIT LEVEL | R.L. 95.709 M |
| 10. H.F.L. | R.L. 94.309 M |
| 11. L.W.L. | Dry Stream |
| 12. SCOUR LEVEL ABUTMENT | 89.408 M |
| 13. SCOUR LEVEL PIER | 86.433 M |
| 14. FOUNDATION LEVEL ABUTMENT | 87.408 M |
| 15. FOUNDATION LEVEL PIER | 84.433 M |
| 16. TYPE OF SUPER STRUCTURE | R.C.C. T-BEAM GIRDER |
| 17. TYPE OF SUB STRUCTURE | |
| a) ABUTMENT | R.C.C. BOX TYPE ABUTMENT CUM RETURN(30) |
| b) PIER | R.C.C. SOLID CIRCULAR PIER(30) |
| 18. TYPE OF FOUNDATION | PILE FOUNDATION |
| 19. FOUNDING STRATA | HARD ROCK |
| 20. TYPE OF BEARING | ELECTROMETRIC BEARING |
| 21. APPROACH SLAB | R.C.C. STRUCTURAL SLAB(30) |
| 22. APPROACH SLAB | R.C.C. STRUCTURAL SLAB(30) |
| 23. RAILING | R.C.C. CRASH BARRIER AS PER STD. DWG |
| 24. WEARING COAT | BITUMINOUS CONCRET 60MM |
| 25. EXPANSION JOINTS | EXPANSION JOINTS AS PER STD. DRG. |
| 26. SPECIFICATIONS | AS PER M.O.R.T. & H. SPECIFICATIONS |
| 27. SAFE BEARING CAPACITY | 60T/SqM. AS PER N.I.T. AND SPECIFICATION. |
| 28. DESIGN LOADING | ONE LANE OF I.R.C. CLASS AA LOADING OR TWO LANE OF I.R.C. CLASS 'A' LOADING. |
| 29. ALL DIMENSIONS IN MM. | |

:- CONSULTANTS :-

M/s Lion Engineering Consultants, Bhopal.



Plot No.97, "Lion Tower", Elegant Estate,
Near Mother Teresa School, Kolar Road,
Bhopal (M.P.)

:- CLIENT :-

NATIONAL HIGHWAYS INFRASTRUCTURE
DEVELOPMENT CORPORATION LIMITED (NHIDCL)



DRG. NO. :

4

DESIGNED BY.

APPROVED BY.

:- PROJECT TITLE :-

Consultancy Services for Preparation of
Feasibility Study and Detailed Project Report For
Two lane With Paved Shoulders of Manu -
Simlung Section of NH-44A (86 Kms) In The
State of Tripura on EPC Mode.

:-GENERAL ARRANGEMENT DRAWING:-

MAJOR BRIDGE (3X21.6) AT CHAINAGE 84+780 M

PACKAGE-4
VAGHMUN-SIMLUNG
SECTION OF NH-44A