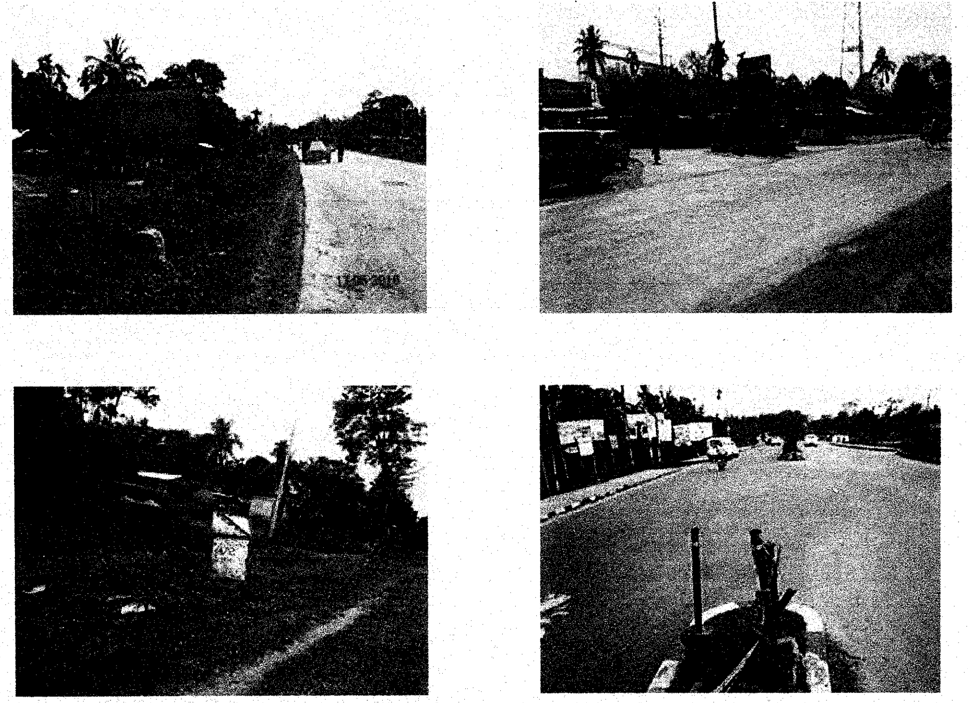
Simplex letter No. 181
Letter date – 20.08.18

Stup letter No – 130 Date – 12/09/18

NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

Four Laning of NH – 37 from Rangagara to Kaliabor Tiniali (Ch: 297.000 Km to Ch: 315.315 Km of NH-37) in Nagaon District in the State of Assam under SARDP – NE, Phase A, on EPC Basis



Latest

Approved

12.09.18

Team Leader
STUP Consultants Pvt. Ltd
Nagaon-782001 (Assam)

2/2

HIGHWAY DRAWINGS
(VOLUME-I)
(CH. 314+000 to CH. 315+315)

Final Drg. P&P.
SK 12/2

CONTRACTOR:-

SIMPLEX INFRASTRUCTURES LIMITED

JULY 2018

CONSULTANTS:-

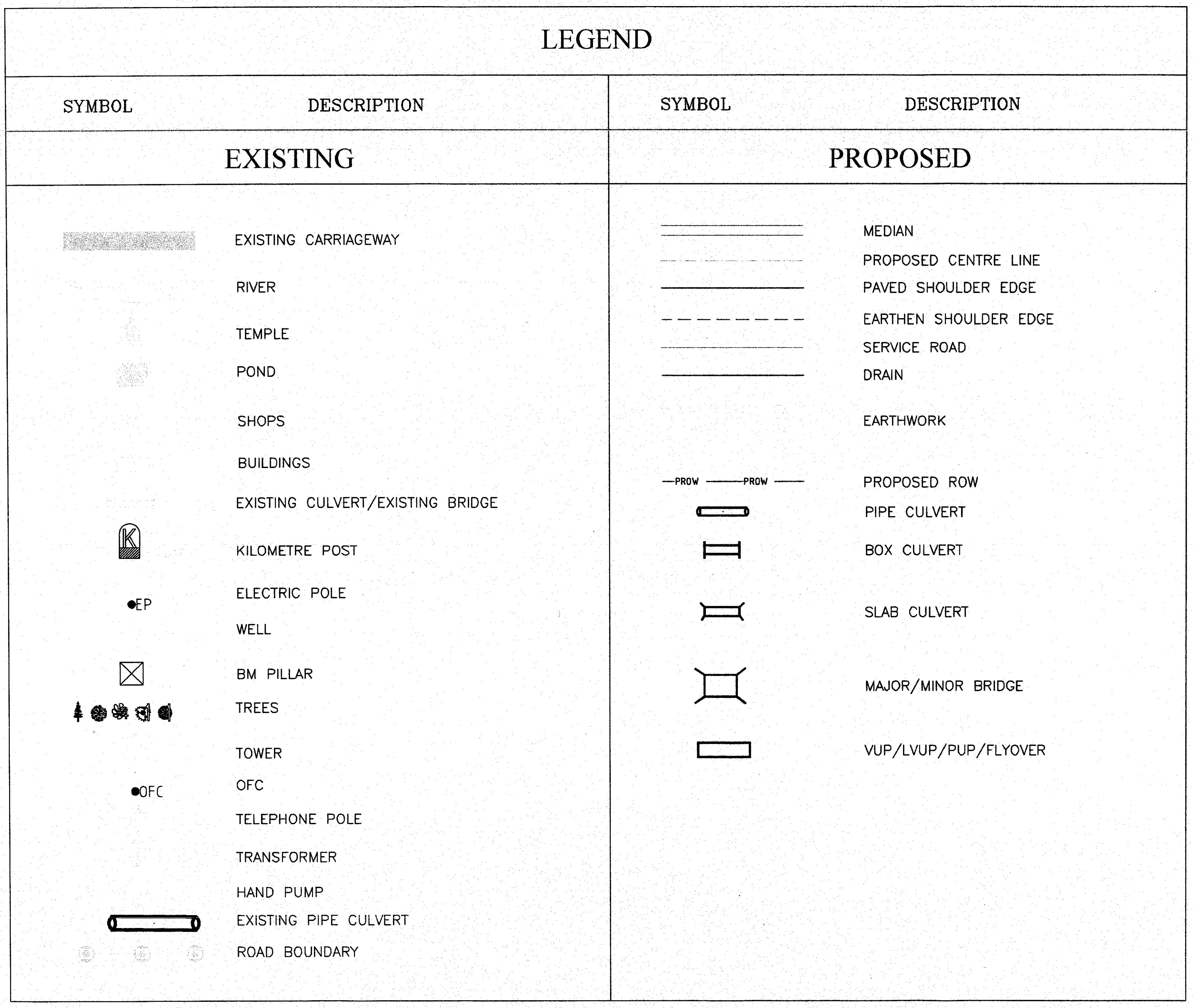
AECOM India Private Limited

INDEX

DESCRIPTION	DRAWING NO.
COVER PAGE	
INDEX	
LEGEND AND ABBREVIATION	AECOM-DELD15159-DD-DWG-LEG-01
TYPICAL CROSS SECTION	AECOM-DELD15159-DD-DWG-TCS-005
HORIZONTAL REPORT	AECOM-DELD15159-DD-DWG-HOR-003
VERTICAL ALIGNMENT REPORT	AECOM-DELD15159-DD-DWG-VER-001 (2 SHEETS)
PLAN & PROFILE (KM 314+000 TO 315+560)	AECOM-DELD15159-DD-DWG-PP-0118 To PP-0119 (3 SHEETS)
VERTICAL ALIGNMENT REPORT (SERVICE ROAD)	AECOM-DELD15159-DD-DWG-SR-VER-002
PLAN & PROFILE OF SERVICE ROAD (KM 314+500 TO 315+470)	AECOM-DELD15159-DD-DWG-SR-0209

12·09·18

LEGEND & ABBREVIATIONS



LEGEND

EXISTING

SYMBOL	DESCRIPTION
▨	EXISTING CARRIAGEWAY
	RIVER
	TEMPLE
	POND
	SHOPS
	BUILDINGS
	EXISTING CULVERT/EXISTING BRIDGE
	KILOMETRE POST
●EP	ELECTRIC POLE
	WELL
⊠	BM PILLAR
	TREES
	TOWER
●OFC	OFC
	TELEPHONE POLE
	TRANSFORMER
	HAND PUMP
	EXISTING PIPE CULVERT
	ROAD BOUNDARY

PROPOSED

SYMBOL	DESCRIPTION
	MEDIAN
	PROPOSED CENTRE LINE
	PAVED SHOULDER EDGE
– – – – – – – –	EARTHEN SHOULDER EDGE
	SERVICE ROAD
	DRAIN
	EARTHWORK
—PROW ——PROW ——	PROPOSED ROW
	PIPE CULVERT
	BOX CULVERT
	SLAB CULVERT
	MAJOR/MINOR BRIDGE
▭	VUP/LVUP/PUP/FLYOVER

NOTES:-

A. GENERAL

1) ALL CHAINAGES ARE IN KILOMETRE AND ALL LEVELS ARE IN METERS UNLESS OTHERWISE NOTED.
2) DETAILS SHOWN IN PLANS ARE BASED ON FIELD SURVEY CARRIED OUT AND SUPPLEMENTED BY SUBSEQUENT FIELD CHECKING AS REQUIRED.
3) ALL COORDINATES ARE UTM NORTHING AND EASTING. BENCH MARKS (BM) ARE IN REFERENCE TO MSL CONNECTED WITH THE FOLLOWING SURVEY OF INDIA BMs.

ABBREVIATIONS:-

CL	CENTER LINE
PROW	PROPOSED RIGHT OF WAY
VUP	VEHICULAR UNDER PASS
LVUP	LIGHT VEHICULAR UNDER PASS
PUP	PEDESTRIAN UNDER PASS
CUP	CATTLE UNDER PASS
LME	LEFT MEDIAN EDGE
RME	RIGHT MEDIAN EDGE
LHS	LEFT HAND SIDE
RHS	RIGHT HAND SIDE
SCB	SCHEDULE B CHAINAGE
R	RADIUS OF CURVE
DC	DEGREE OF CURVATURE
LC	LENGTH OF CURVATURE
TS	TENGENT LENGTH
ES	APEX DISTANCE
LS	LENGTH OF SPIRAL CURVE
S	SHIFT
Δ	DEFLECTION ANGLE
V	DESIGN SPEED Km/hr
e%	SUPERELEVATION
PC	POINT OF TANGENT
PT	POINT OF TANGENT
HIP	HORIZONTAL INTERSECTION POINT

Team Leader
STUP Consultants Pvt. Ltd
Nagaon-782001 (Assam)

Resident Engineer
STUP Consultant Pvt. Ltd
Nagaon-782001 (Assam)

Rev.	Date	Description on Revisions
		Revisions

CLIENT:-
NATIONAL HIGHWAYS
& INFRASTRUCTURE
DEVELOPMENT
CORPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CE TESTING
Company Pvt. Ltd
AUTHORISED SIGNATORY | DATE 20/8/18

SAEFTY CONSULTANT:-
Chaitanya Projects
Consultancy Pvt. Ltd
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India

DRAWN	DESIGN	CHECKED BY	APPROVED BY
		Team Leader	APS Design Director

SCALE:-
N. T. S

TITLE:-
LEGEND AND ABBREVIATION

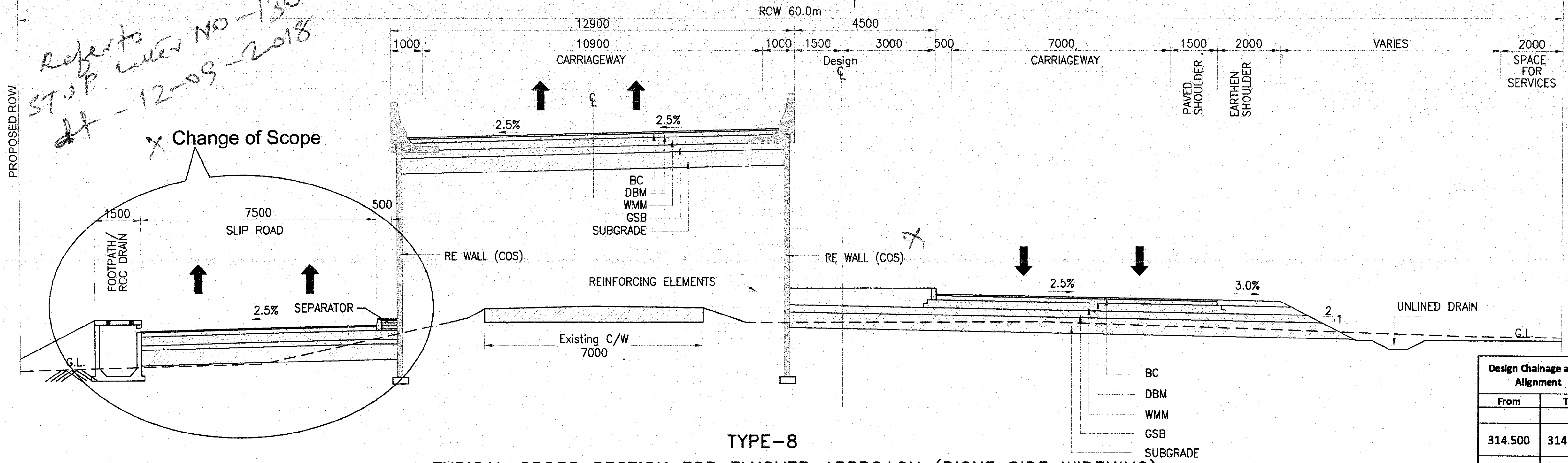
DRAWING NO.:- AECOM-DELD15159-DD-DWG-LEG-01
REV. R0

12·09·18

TYPICAL CROSS SECTION

12.09.18

Refer to STUP letter No-130 dt-12-09-2018

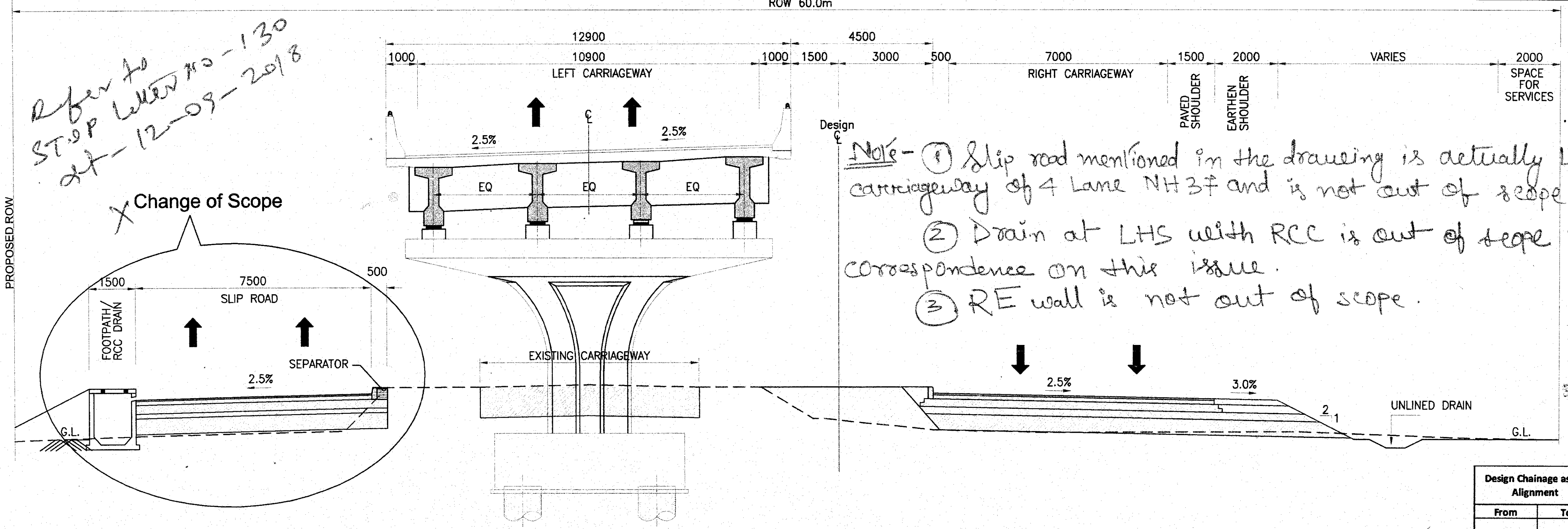

ROW 60.0m
12900
4500
1000
10900
CARRIAGEWAY
1000
1500
3000
500
7000
CARRIAGEWAY
1500
2000
VARIES
2000
SPACE FOR SERVICES
Design ℄
PAVED SHOULDER
EARTHEN SHOULDER
PROPOSED ROW
PROPOSED ROW
2.5%
2.5%
BC
DBM
WMM
GSB
SUBGRADE
Change of Scope
1500
7500
SLIP ROAD
500
FOOTPATH/ RCC DRAIN
RE WALL (COS)
RE WALL (COS)
REINFORCING ELEMENTS
2.5%
SEPARATOR
Existing C/W
7000
G.L.
2.5%
3.0%
2
1
UNLINED DRAIN
G.L.
BC
DBM
WMM
GSB
SUBGRADE

TYPE–8

TYPICAL CROSS SECTION FOR FLYOVER APPROACH (RIGHT SIDE WIDENING)

Design Chainage as per Alignment		Length (km)	Cross Section Type
From	To		
314.500	314.767	0.267	TYPE 8
315.217	315.470	0.253	TYPE 8

Refer to STUP letter No-130 dt-12-09-2018


ROW 60.0m
12900
4500
1000
10900
LEFT CARRIAGEWAY
1000
1500
3000
500
7000
RIGHT CARRIAGEWAY
1500
2000
VARIES
2000
SPACE FOR SERVICES
PAVED SHOULDER
EARTHEN SHOULDER
Design
℄
2.5%
2.5%
EQ
EQ
EQ
PROPOSED ROW
Change of Scope
1500
7500
SLIP ROAD
500
FOOTPATH/ RCC DRAIN
SEPARATOR
2.5%
EXISTING CARRIAGEWAY
G.L.
2.5%
3.0%
2
1
UNLINED DRAIN
G.L.

Note- ① Slip road mentioned in the drawing is actually Left 2 Lane carriageway of 4 Lane NH37 and is not out of scope.

② Drain at LHS with RCC is out of scope refer to correspondence on this issue.

③ RE wall is not out of scope.

Team Leader
STUP Consultants Pvt Ltd
Nagaon-782001 (Assam)

Design Chainage as per Alignment		Length (km)	Cross Section Type
From	To		
314.767	315.217	0.450	TYPE 9

TYPE–9

TYPICAL CROSS SECTION FOR FLYOVER LOCATION (RIGHT SIDE WIDENING)

Note:
1. Right of Way (ROW) as shown in TCS is meant to indicate proposed cross section of highway shall be accommodated within ROW.
2. Actual Right of Way (ROW) has marked in Alignment Plan based on data provided by AE vide letter ref: STUP / NH 37 / SIL / 2017 /01 dated 9 Feb 2017 and site meeting on 15 Feb 2017.
3. Construction of Slip Road along with Associated works are under change of scope (COS).

FOR APPROVAL

Resident Engineer
STUP Consultant Pvt. Ltd
Nagaon-782001 (Assam)

Rev.	Date	Description on Revisions
R2	July 2018	Slip Road added & FO location shifted
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017
R0	August 2017	First Submission
		Revisions

CLIENT:-
NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CE TESTING Company Pvt. Ltd
Kolkata 700 092
AUTHORISED SIGNATORY | DATE 10/8/18

SAEFTY CONSULTANT:-
Chaitanya Projects Consultancy Pvt. Ltd
New Delhi
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India

DRAWN	DESIGN	CHECKED BY	APPROVED BY
		SL Team Leader	MSR Design Director

SCALE:- 1 : 1000

TITLE:- TYPICAL CROSS SECTION

DRAWING NO.:- AECOM-DELD15159-DD-DWG-TCS- 005

REV. R2

HORIZONTAL ALIGNMENT REPORT

Horizontal Alignment report From km 314+500 To Km 315+560

S.No.	HIP Chainage	Easting	Northing	Radius (m)	Hand of Arc	Transition Start Chainage	Arc start Chainage	Arc End Chainage	Transition End Chainage	Transition Length (m)	Arc Length(m)	Design Speed (kmph)	Deflection Angle (D)	Superelevation (%)
314/3	313885.694	2934541	493431.2	600	Right	313796.503	313861.503	313909.858	313974.858	65	48.354693	80	10.828	4.741
315/1	314321.916	2934618	493002.7	370	Right	314053.007	314138.007	314479.358	314564.358	85	341.35078	80	66.052	5.000
316/1	315011.324	2935295	492774.1	1200	Right		314598.585	315393.642			795.05748	80	37.961	NC

Team Leader
STUP Consultants Pvt. Ltd
Nagaon-782001 (Assam)

Resident Engineer
STUP Consultant Pvt. Ltd.
Nagaon-782001 (Assam)

Rev.	Date	Description on Revisions
R2	JULY 2018	DESIGN UPDATED AS PER SITE CONDITION, SLIP ROAD ADDED, FO LOCATION SHIFTED
R1	Nov. 2017	Revised as per AE comments dated 9 Oct. 2017

Revisions

CLIENT:-
NATIONAL HIGHWAYS
& INFRASTRUCTURE
DEVELOPMENT
COPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CETEST
10/8/18
AUTHORISED SIGNATORY | DATE

SAEFTY CONSULTANT:-
Chaitanya Projects Consultancy Pvt. Ltd
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India
DRAWN | DESIGN | CHECKED BY (SL, Team Leader) | APPROVED BY (APS, Design Director)

SCALE:-

TITLE:-
Horizontal Report

DRAWING NO.:- AECOM-DELD15159-DD-DWG-HOR-003
REV. R2

VERTICAL ALIGNMENT REPORT

Vertical Curve Report KM 314+000 to KM 315+560 (LHS)

IP			Element Type	Type of Curve	Length / Curve Length	Start		End		Gradient			K Value
NO.	Chainage	Level				Curve Start Chainage	Curve Start Level	Curve End Chainage	Curve End Level	IN	OUT	Difference	
1	314+045.000	67.725	Curve	Sag	60.000	314+015.000	67.810	314+075.000	67.736	-0.283	0.037	0.320	187.626
			Grade		60.115	314+075.000	67.736	314+135.115	67.758				
2	314+135.115	67.758								0.037	0.140	0.103	
			Grade		125.901	314+135.115	67.758	314+261.016	67.934				
3	314+261.016	67.934								0.140	0.288	0.148	
			Grade		93.994	314+261.016	67.934	314+355.010	68.205				
4	314+355.010	68.205								0.288	0.211	-0.077	
			Grade		106.945	314+355.010	68.205	314+461.955	68.430				
5	314+509.455	68.530	Curve	Sag	95.000	314+461.955	68.430	314+556.955	69.480	0.211	2.000	1.789	53.102
			Grade		316.038	314+556.955	69.480	314+872.993	75.799				
6	314+997.993	78.299	Curve	Hog	250.000	314+872.993	75.799	315+122.993	75.799	2.000	-2.000	-4.000	62.510
			Grade		345.966	315+122.993	75.799	315+468.959	68.881				
7	315+498.959	68.281	Curve	Sag	60.000	315+468.959	68.881	315+528.959	68.242	-2.000	-0.130	1.870	32.095
			Grade		6.041	315+528.959	68.242	315+535.000	68.234				
8	315+555.000	68.208	Curve	Sag	40.000	315+535.000	68.234	315+575.000	68.344	-0.130	0.678	0.808	49.473

Team Leader
STUP Consultants Pvt. Ltd
Nagaon-782001 (Assam)

Resident Engineer
STUP Consultant Pvt. Ltd
Nagaon-782001 (Assam)

Rev.	Date	Description on Revisions
R2	JULY 2018	DESIGN UPDATED AS PER SITE CONDITION, SLIP ROAD ADDED, FO LOCATION SHIFTED
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

Revisions

CLIENT:-
NATIONAL HIGHWAYS
& INFRASTRUCTURE
DEVELOPMENT
COPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CETEST
AUTHORISED SIGNATORY | DATE 16/8/18

SAEFTY CONSULTANT:-
Chaitanya Projects Consultancy Pvt. Ltd
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India

DRAWN	DESIGN	CHECKED BY	APPROVED BY
		Team Leader	MSR Design Director

SCALE:-
NTS

TITLE:-
Vertical Report (LHS)

DRAWING NO.:- AECOM-DELD15159-DD-DWG-VER-001 (1 OF 2)
REV. R2

Vertical Curve Report KM 314+000 to KM 315+560 (RHS)

IP			Element Type	Type of Curve	Length / Curve Length	Start		End		Gradient			K Value
NO.	Chainage	Level				Curve Start Chainage	Curve Start Level	Curve End Chainage	Curve End Level	IN	OUT	Difference	
1	314+045.000	67.725	Curve	Sag	60.000	314+015.000	67.810	314+075.000	67.736	-0.283	0.037	0.320	187.626
			Grade		60.115	314+075.000	67.736	314+135.115	67.758				
2	314+135.115	67.758								0.037	0.140	0.103	
			Grade		125.901	314+135.115	67.758	314+261.016	67.934				
3	314+261.016	67.934								0.140	0.288	0.148	
			Grade		93.994	314+261.016	67.934	314+355.010	68.205				
4	314+355.010	68.205								0.288	0.224	-0.064	
			Grade		168.959	314+355.010	68.205	314+523.969	68.584				
5	314+553.969	68.651	Curve	Hog	60.000	314+523.969	68.584	314+583.969	68.671	0.224	0.066	-0.158	378.539
			Grade		33.022	314+583.969	68.671	314+616.991	68.693				
6	314+646.991	68.713	Curve	Hog	60.000	314+616.991	68.693	314+676.991	68.581	0.066	-0.439	-0.505	118.744
			Grade		16.954	314+676.991	68.581	314+693.945	68.506				
7	314+723.945	68.375	Curve	Sag	60.000	314+693.945	68.506	314+753.945	68.359	-0.439	-0.050	0.389	154.259
			Grade		34.251	314+753.945	68.359	314+788.196	68.342				
8	314+818.196	68.327	Curve	Sag	60.000	314+788.196	68.342	314+848.196	68.405	-0.050	0.261	0.311	192.480
			Grade		120.479	314+848.196	68.405	314+968.675	68.720				
9	314+968.675	68.720								0.261	0.084	-0.177	
			Grade		102.287	314+968.675	68.720	315+070.962	68.806				
10	315+070.962	68.806								0.084	0.077	-0.007	
			Grade		73.837	315+070.962	68.806	315+144.799	68.863				
11	315+174.799	68.885	Curve	Hog	60.000	315+144.799	68.863	315+204.799	68.668	0.077	-0.725	-0.802	74.870
			Grade		43.186	315+204.799	68.668	315+247.985	68.355				
12	315+277.985	68.138	Curve	Sag	60.000	315+247.985	68.355	315+307.985	68.182	-0.725	0.149	0.874	68.667
			Grade		52.153	315+307.985	68.182	315+360.138	68.260				
13	315+360.138	68.260								0.149	-0.013	-0.162	
			Grade		97.867	315+360.138	68.260	315+458.005	68.248				
14	315+488.045	68.224	Curve	Hog	60.000	315+458.005	68.248	315+518.005	68.234	-0.013	-0.032	-0.019	3084.913
			Grade		19.858	315+518.005	68.234	315+537.863	68.228				
15	315+557.863	68.221	Curve	Sag	40.000	315+537.863	68.228	315+577.863	68.359	-0.032	0.686	0.718	55.702

C.E. TESTING CO. PVT. LTD.
KOLKATA 700 092
124A, N.S.C. BOSE ROAD

Team Leader
STUP Consultants Pvt. Ltd
Nagaon-782001 (Assam)

Resident Engineer
STUP Consultant Pvt. Ltd.
(Assam)

Rev.	Date	Description on Revisions
R2	JULY 2018	DESIGN UPDATED AS PER SITE CONDITION, SLIP ROAD ADDED, FO LOCATION SHIFTED
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

Revisions

CLIENT:-
NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT COPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CETEST
AUTHORISED SIGNATORY | DATE 10/8/18

SAEFTY CONSULTANT:-
Chaitanya Projects Consultancy Pvt. Ltd
NEW DELHI
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India
DRAWN | DESIGN | CHECKED BY Team Leader | APPROVED BY Design Director MSR

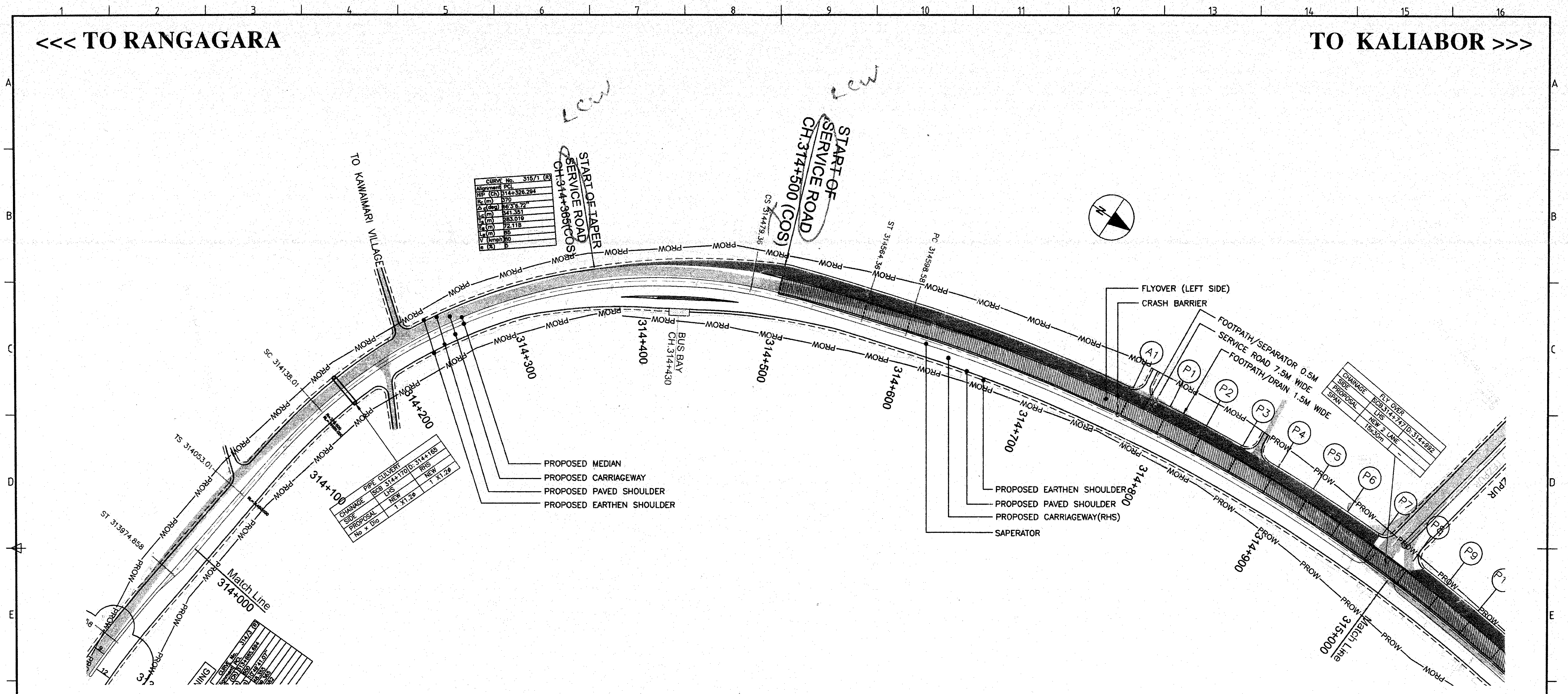
SCALE:-
NTS

TITLE:-
Vertical Report (RHS)

DRAWING NO.:-
AECOM-DELD15159-DD-DWG-VER-001 (2 OF 2)

REV.
R2

PLAN & PROFILE


<<< TO RANGAGARA
TO KALIABOR >>>
LCW
LCW
START OF SERVICE ROAD CH.314+500 (COS)
START OF TAPER SERVICE ROAD CH.314+365(COS)
TO KAWAIMARI VILLAGE
CURVE No. 315/1 (R)
Alignment PCL
HIP (Ch) 314+326.294
Rc (m) 370
Δc (deg) 66°3'6.72"
Lc (m) 341.351
Ts (m) 283.019
Es (m) 72.118
Ls (m) 55
V (kmph) 80
e (%) 5
CS 314479.36
ST 314564.36
PC 314598.58
SC 314136.01
TS 314053.01
ST 313974.858
PROW
314+100
314+200
314+300
314+400
314+500
314+600
314+700
314+800
314+900
315+000
BUS BAY CH.314+430
Match Line 314+000
Match Line 315+000
PIPE CULVERT
CHAINAGE | SCB 314+170 | D: 314+165
SIDE | LHS | RHS
PROPOSAL | NEW | NEW
No x Dia | 1 X1.2Ø | 1 X1.2Ø
PROPOSED MEDIAN
PROPOSED CARRIAGEWAY
PROPOSED PAVED SHOULDER
PROPOSED EARTHEN SHOULDER
PROPOSED EARTHEN SHOULDER
PROPOSED PAVED SHOULDER
PROPOSED CARRIAGEWAY(RHS)
SAPERATOR
FLYOVER (LEFT SIDE)
CRASH BARRIER
FOOTPATH/SEPARATOR 0.5M
SERVICE ROAD 7.5M WIDE
FOOTPATH/DRAIN 1.5M WIDE
FLY OVER
CHAINAGE | SCB.314+747 | D: 314+992
SIDE | LHS | --
PROPOSAL | NEW 2 LANE | --
SPAN | 15x30m | -
A1
P1
P2
P3
P4
P5
P6
P7
P8
P9

Team Leader
STUP Consultants Pvt. Ltd
Nagaon-782001 (Assam)

Resident Engineer
STUP Consultant Pvt. Ltd
Nagaon-782001 (A

NOTE:- 1. Work mentioned above under COS will be executed upon obtaining COS order from Authority.

2.* Pavement layers thickness in Partial Reconstruction area (Overlay Side) shall be as per detail Cross Section.

Rev.	Date	Description on Revisions
R2	JULY 2018	DESIGN UPDATED AS PER SITE CONDITION, SLIP ROAD ADDED, FO LOCATION SHIFTED
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

Revisions

CLIENT:-
NATIONAL HIGHWAYS
& INFRASTRUCTURE
DEVELOPMENT
CORPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CE TESTING
Company Pvt. Ltd
AUTHORISED SIGNATORY | DATE 16/8/18

SAEFTY CONSULTANT:-
Chaitanya Projects
Consultancy Pvt. Ltd
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India
DRAWN | DESIGN | CHECKED BY Team Leader | APPROVED BY Design Director MSR

SCALE:-
HOR- 1 : 2000
VER- 1 : 200

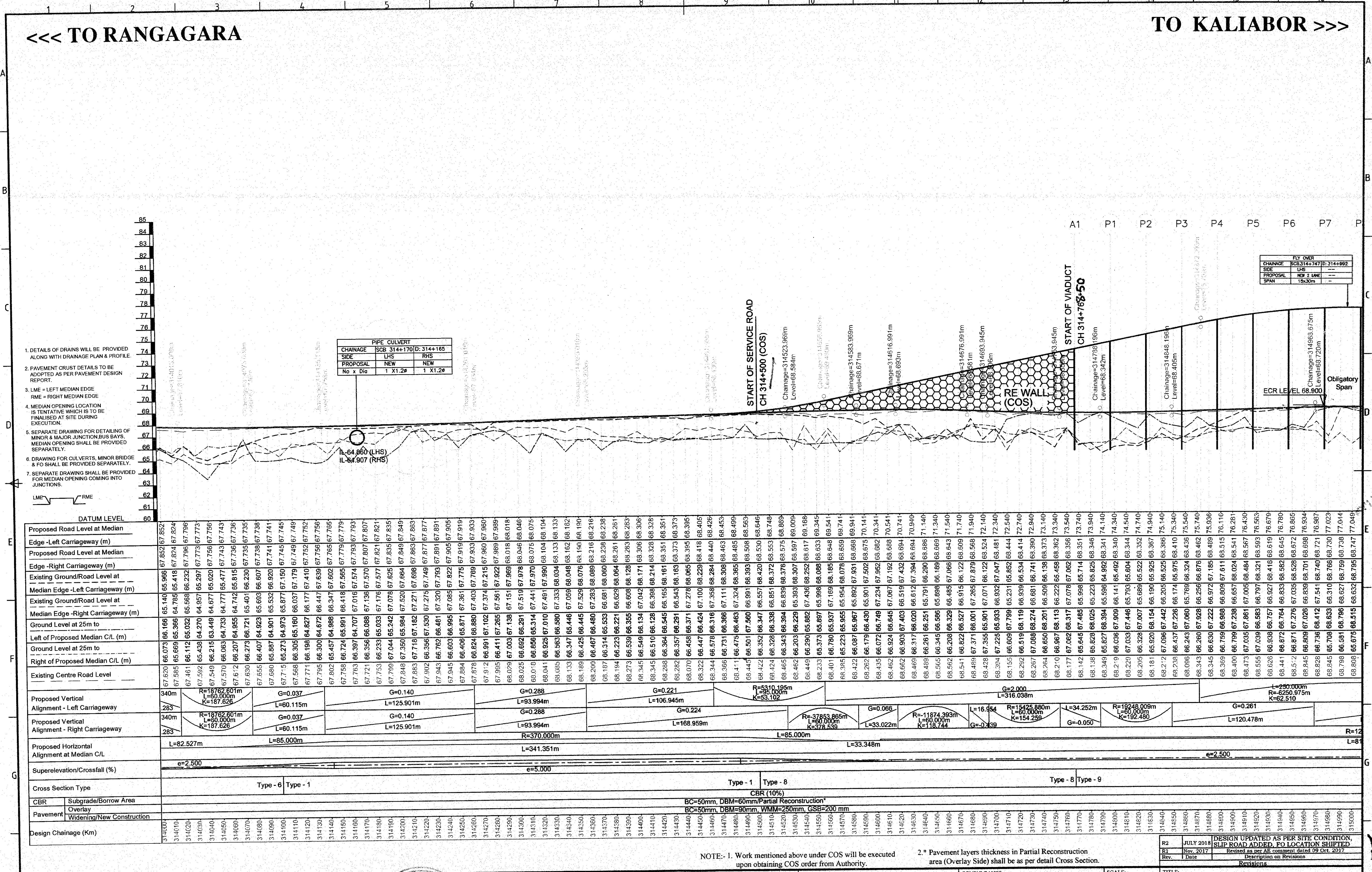
TITLE:-
PLAN AND PROFILE
FROM Km. 314+000 To Km. 315+000

DRAWING NO.:-
AECOM-DELD15159-DD-DWG-PP- 0118

REV.
R2

# PLAN AND PROFILE
FROM Km. 314+000 To Km. 315+000

1. DETAILS OF DRAINS WILL BE PROVIDED ALONG WITH DRAINAGE PLAN & PROFILE.
2. PAVEMENT CRUST DETAILS TO BE ADOPTED AS PER PAVEMENT DESIGN REPORT.
3. LME = LEFT MEDIAN EDGE
   RME = RIGHT MEDIAN EDGE
4. MEDIAN OPENING LOCATION IS TENTATIVE WHICH IS TO BE FINALISED AT SITE DURING EXECUTION.
5. SEPARATE DRAWING FOR DETAILING OF MINOR & MAJOR JUNCTION,BUS BAYS, MEDIAN OPENING SHALL BE PROVIDED SEPARATELY.
6. DRAWING FOR CULVERTS, MINOR BRIDGE & FO SHALL BE PROVIDED SEPARATELY.
7. SEPARATE DRAWING SHALL BE PROVIDED FOR MEDIAN OPENING COMING INTO JUNCTIONS.



<<< TO RANGAGARA
TO KALIABOR >>>
LME
RME
DATUM LEVEL
PIPE CULVERT
CHAINAGE SCB 314+170 D: 314+165
SIDE LHS RHS
PROPOSAL NEW NEW
No x Dia 1 X1.2ø 1 X1.2ø
IL-64.860 (LHS)
IL-64.907 (RHS)
START OF SERVICE ROAD CH 314+500 (COS)
Chainage=314523.969m Level=68.584m
Chainage=314583.969m Level=68.671m
Chainage=314616.991m Level=68.693m
Chainage=314676.991m
Chainage=314693.945m
Chainage=314753.945m
RE WALL (COS)
START OF VIADUCT CH 314+768.50
Chainage=314788.196m Level=68.342m
Chainage=314848.196m Level=68.405m
Chainage=314963.675m Level=68.720m
ECR LEVEL 68.900
Obligatory Span
A1 P1 P2 P3 P4 P5 P6 P7
FLY OVER
CHAINAGE SCB 314+747 D: 314+992
SIDE LHS
PROPOSAL NEW 2 LANE
SPAN 15x30m
Proposed Road Level at Median Edge -Left Carriageway (m)
Proposed Road Level at Median Edge -Right Carriageway (m)
Existing Ground/Road Level at Median Edge -Left Carriageway (m)
Existing Ground/Road Level at Median Edge -Right Carriageway (m)
Ground Level at 25m to Left of Proposed Median C/L (m)
Ground Level at 25m to Right of Proposed Median C/L (m)
Existing Centre Road Level
Proposed Vertical Alignment - Left Carriageway
Proposed Vertical Alignment - Right Carriageway
Proposed Horizontal Alignment at Median C/L
L=82.527m
L=85.000m
R=370.000m
L=341.351m
L=33.348m
Superelevation/Crossfall (%)
e=2.500
e=5.000
Cross Section Type
Type - 6 Type - 1
Type - 1 Type - 8
Type - 8 Type - 9
CBR
Subgrade/Borrow Area
CBR (10%)
Pavement
Overlay
BC=50mm, DBM=60mm/Partial Reconstruction*
Widening/New Construction
BC=50mm, DBM=90mm, WMM=250mm, GSB=200 mm
Design Chainage (Km)

NOTE:- 1. Work mentioned above under COS will be executed upon obtaining COS order from Authority.

2.* Pavement layers thickness in Partial Reconstruction area (Overlay Side) shall be as per detail Cross Section.

Rev.	Date	Description on Revisions
R2	JULY 2018	DESIGN UPDATED AS PER SITE CONDITION, SLIP ROAD ADDED, FO LOCATION SHIFTED
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

Revisions

CLIENT:-
NATIONAL HIGHWAYS
& INFRASTRUCTURE
DEVELOPMENT
CORPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CE TESTING Company Pvt. Ltd
AUTHORISED SIGNATORY | DATE 10/8/18

SAEFTY CONSULTANT:-
Chaitanya Projects Consultancy Pvt. Ltd
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India
SH Team Leader | MSR Design Director
DRAWN | DESIGN | CHECKED BY | APPROVED BY

SCALE:-
HOR- 1 : 2000
VER- 1 : 200

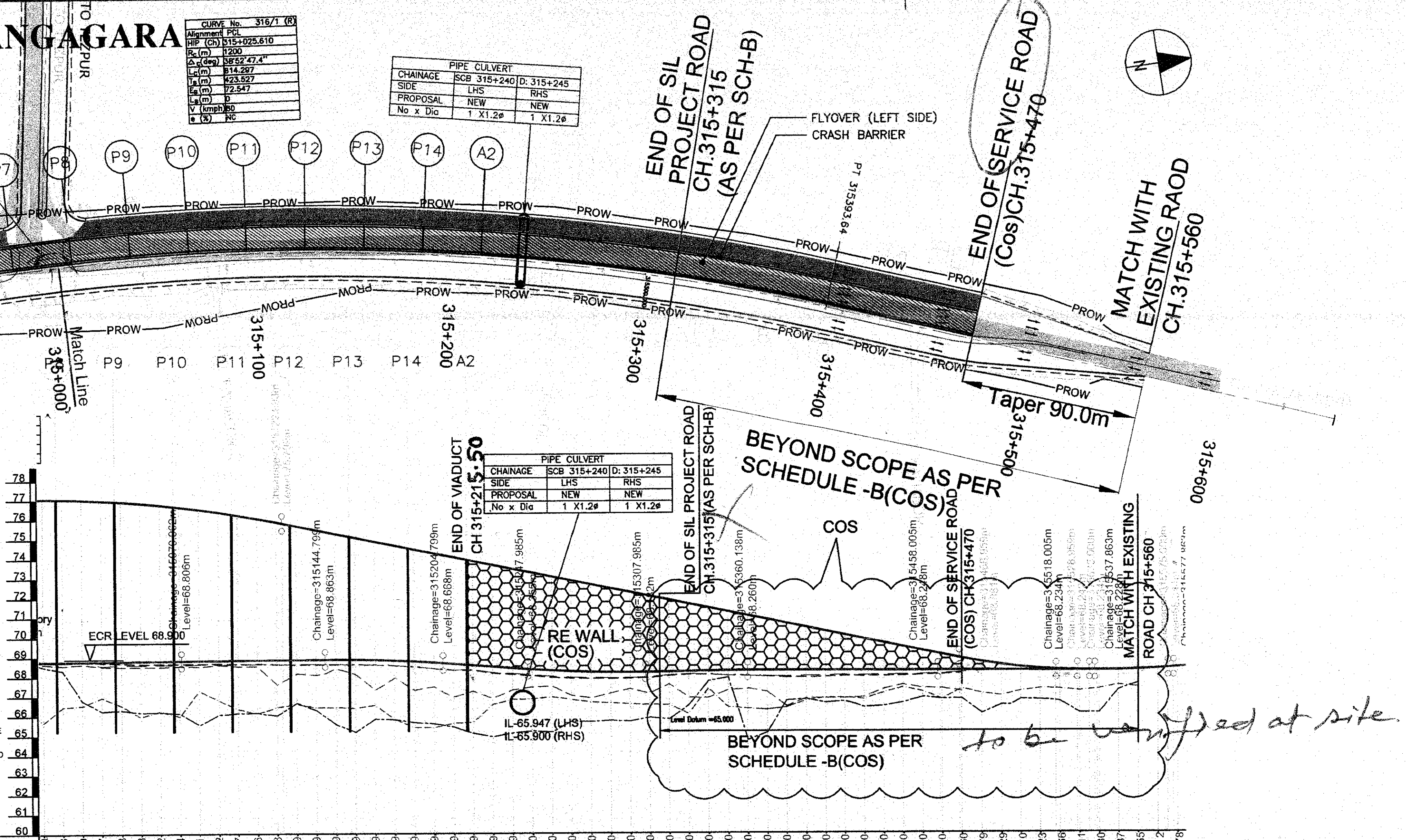
TITLE:-
PLAN AND PROFILE
FROM Km. 314+000 To Km. 315+000

DRAWING NO.:-
AECOM-DELD15159-DD-DWG-PP- 0118A

REV.
R2

Team Leader
STUP Consultants Pvt. Ltd.

Resident Engineer
STUP Consultant Pvt. Ltd.


<<< TO RANGAGARA
TO KALIABOR >>>
TO PUR
P7
P8
P9
P10
P11
P12
P13
P14
A2
PROW
Match Line
315+000
315+100
315+200
315+300
315+400
315+500
315+600
P9 P10 P11 P12 P13 P14 A2
FLYOVER (LEFT SIDE)
CRASH BARRIER
PT 315393.84
END OF SIL PROJECT ROAD CH.315+315 (AS PER SCH-B)
END OF SERVICE ROAD (Cos)CH.315+470
MATCH WITH EXISTING RAOD CH.315+560
Taper 90.0m
BEYOND SCOPE AS PER SCHEDULE -B(COS)
END OF VIADUCT CH 315+215.50
Chainage=315204.799m Level=68.668m
Chainage=315144.799m Level=68.863m
Chainage=315247.985m
Chainage=315307.985m
Chainage=315360.138m Level=68.260m
Chainage=315458.005m Level=68.248m
Chainage=315518.005m Level=68.234m
Chainage=315537.863m Level=68.228m
END OF SIL PROJECT ROAD CH.315+315(AS PER SCH-B)
END OF SERVICE ROAD (COS) CH 315+470
MATCH WITH EXISTING ROAD CH 315+560
COS
RE WALL (COS)
ECR LEVEL 68.900
IL-65.947 (LHS)
IL-65.900 (RHS)
Level Datum =65.000
BEYOND SCOPE AS PER SCHEDULE -B(COS)
78
77
76
75
74
73
72
71
70
69
68
67
66
65
64
63
62
61
DATUM LEVEL 60

KCW

to be verified at site

CURVE No.	316/1 (R)
Alignment	PCL
HIP (Ch)	315+025.610
R_c (m)	1200
Δ_c (deg)	38°52'47.4"
L_c (m)	814.297
T_s (m)	423.527
E_s (m)	72.547
L_s (m)	0
V (kmph)	80
e (%)	NC

PIPE CULVERT		
CHAINAGE	SCB 315+240	D: 315+245
SIDE	LHS	RHS
PROPOSAL	NEW	NEW
No x Dia	1 X1.2ø	1 X1.2ø

PIPE CULVERT		
CHAINAGE	SCB 315+240	D: 315+245
SIDE	LHS	RHS
PROPOSAL	NEW	NEW
No x Dia	1 X1.2ø	1 X1.2ø

1. DETAILS OF DRAINS WILL BE PROVIDED ALONG WITH DRAINAGE PLAN & PROFILE.
2. PAVEMENT CRUST DETAILS TO BE ADOPTED AS PER PAVEMENT DESIGN REPORT.
3. LME = LEFT MEDIAN EDGE
   RME = RIGHT MEDIAN EDGE
4. MEDIAN OPENING LOCATION IS TENTATIVE WHICH IS TO BE FINALISED AT SITE DURING EXECUTION.
5. SEPARATE DRAWING FOR DETAILING OF MINOR & MAJOR JUNCTION,BUS BAYS, MEDIAN OPENING SHALL BE PROVIDED SEPARATELY.
6. DRAWING FOR CULVERTS, MINOR BRIDGE & FO SHALL BE PROVIDED SEPARATELY.
7. SEPARATE DRAWING SHALL BE PROVIDED FOR MEDIAN OPENING COMING INTO JUNCTIONS.

LME RME

Design Chainage (Km)	Proposed Road Level at Median Edge -Left Carriageway (m)	Proposed Road Level at Median Edge -Right Carriageway (m)	Existing Ground/Road Level at Median Edge -Left Carriageway (m)	Existing Ground/Road Level at Median Edge -Right Carriageway (m)	Ground Level at 25m to Left of Proposed Median C/L (m)	Ground Level at 25m to Right of Proposed Median C/L (m)	Existing Centre Road Level
315000	77.049	68.747	68.795	68.632	68.515	65.675	68.808
315010	77.038	68.755	68.782	68.562	68.314	66.473	68.781
315020	77.010	68.763	68.768	68.629	66.778	66.534	68.764
315030	76.967	68.772	68.718	68.522	66.259	66.945	68.568
315040	76.908	68.780	68.679	68.492	66.303	66.537	68.616
315050	76.833	68.788	68.636	68.498	66.183	65.959	68.587
315060	76.742	68.797	68.646	68.496	66.195	66.252	68.612
315070	76.634	68.805	68.646	68.522	66.141	65.979	68.596
315080	76.511	68.813	68.644	68.499	65.543	67.285	68.633
315090	76.372	68.821	68.666	68.588	66.061	66.803	68.629
315100	76.217	68.828	68.632	68.524	66.154	66.350	68.619
315110	76.046	68.836	68.647	68.513	66.158	66.129	68.631
315120	75.858	68.844	68.627	67.582	66.025	66.435	68.611
315130	75.659	68.851	68.606	68.140	66.655	66.582	68.637
315140	75.459	68.859	68.616	68.077	66.278	66.425	68.645
315150	75.259	68.865	68.610	68.413	65.556	66.429	68.631
315160	75.059	68.859	68.611	68.110	65.180	66.392	68.618
315170	74.859	68.839	68.592	67.296	65.837	66.522	68.593
315180	74.659	68.807	68.554	67.925	65.806	65.830	68.566
315190	74.459	68.761	68.492	67.287	65.659	65.403	68.490
315200	74.259	68.701	68.408	67.472	65.583	65.392	68.406
315210	74.059	68.630	68.312	66.942	65.420	65.603	68.312
315220	73.859	68.558	68.311	67.233	65.094	65.667	68.334
315230	73.659	68.485	68.160	66.863	64.919	66.559	68.189
315240	73.459	68.413	68.093	67.284	65.105	66.817	68.135
315250	73.260	68.341	68.024	67.431	65.215	66.833	68.060
315260	73.060	68.278	67.931	67.482	65.147	66.935	67.994
315270	72.860	68.231	67.871	66.994	65.695	66.797	67.935
315280	72.660	68.198	67.861	66.862	65.680	66.667	67.909
315290	72.460	68.179	67.849	67.108	65.729	66.629	67.895
315300	72.260	68.175	67.860	67.324	65.695	66.572	67.898
315310	72.060	68.185	67.897	67.105	65.882	66.524	67.936
315315							
315320	71.860	68.200	68.002	67.556	65.797	66.512	68.035
315330	71.660	68.215	68.057	66.874	66.493	66.072	68.081
315340	71.460	68.230	68.059	66.859	67.730	67.345	68.059
315350	71.260	68.245	68.007	67.249	67.896	66.397	68.007
315360	71.060	68.260	67.990	67.307	64.729	66.322	67.990
315370	70.860	68.259	67.959	67.156	65.098	66.270	67.960
315380	70.660	68.257	67.897	66.425	66.730	66.375	67.965
315390	70.460	68.256	67.910	66.827	66.800	66.722	67.988
315400	70.260	68.255	67.933	66.838	66.612	66.865	67.995
315410	70.060	68.254	67.970	66.841	66.691	66.864	68.027
315420	69.860	68.252	67.967	66.882	66.381	66.790	68.014
315430	69.660	68.251	67.980	67.306	66.441	67.123	68.036
315440	69.460	68.250	67.986	67.518	66.621	67.379	68.042
315450	69.260	68.249	68.023	67.337	66.890	67.169	68.052
315460	69.060	68.247	68.059	67.324	66.801	66.785	68.088
315470	68.860	68.246	68.109	67.187	66.810	67.307	68.154
315480	68.679	68.244			66.060	67.089	68.204
315490	68.529	68.242			66.488	66.958	68.242
315500	68.410	68.239			66.771	67.191	68.266
315510	68.323	68.237			66.751	67.309	68.287
315520	68.266	68.234			66.668	67.291	68.274
315530	68.241	68.230			66.077	67.204	68.241
315540	68.230	68.228			66.072	67.284	68.243
315550	68.237	68.237			67.241	67.480	68.231
315560	68.265	68.265			67.569	67.369	68.236
315570	68.312	68.310					
315580	68.378	68.373					

Proposed Vertical Alignment - Left Carriageway: L=250.000m R=-6250.975m K=62.510 | L=345.966m G=-2.000 | R=3209.458m L=60.000m K=32.095 | L=8.041 G=-0.013 | R=4947.342m L=40.000m K=49.473

Proposed Vertical Alignment - Right Carriageway: G=0.084 L=102.287m | G=0.077 L=73.838m | R=-7487.013m L=60.000m K=74.870 | L=43.185m G=-0.725 | R=6866.749m L=60.000m K=68.667 | G=0.149 L=52.154m | L=97.867m G=-0.013 | L=60.000m R=-308491.279m K=3084.913 | L=19.858 G=-0.032 | R=5570.174m L=40.000m K=55.702

Proposed Horizontal Alignment at Median C/L: R=1200.000m L=814.297m | L=221.626m

Superelevation/Crossfall (%): e=2.500

Cross Section Type: Type - 9 | Type - 8 | Taper Portion

CBR — Subgrade/Borrow Area: CBR (10%)

Pavement — Overlay: BC=50mm, DBM=60mm/Partial Reconstruction*

Pavement — Widening/New Construction: BC=50mm, DBM=90mm, WMM=250mm, GSB=200 mm

NOTE:- 1. Work mentioned above under COS will be executed upon obtaining COS order from Authority.

2.* Pavement layers thickness in Partial Reconstruction area (Overlay Side) shall be as per detail Cross Section.

Team Leader
STUP Consultants Pvt. Ltd
Nagaon-782001 (Assam)

Resident Engineer
STUP Consultants Pvt. Ltd
Nagaon-782001 (Assam)

Rev.	Date	Description on Revisions
R2	JULY 2018	DESIGN UPDATED AS PER SITE CONDITION, SLIP ROAD ADDED, FO LOCATION SHIFTED
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

Revisions

CLIENT:-
NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CE TESTING Company Pvt. Ltd
10/8/18
AUTHORISED SIGNATORY | DATE

SAEFTY CONSULTANT:-
Chaitanya Projects Consultancy Pvt. Ltd
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India
Team Leader | Design Director
DRAWN | DESIGN | CHECKED BY | APPROVED BY

SCALE:-
HOR- 1 : 2000
VER- 1 : 200

TITLE:-
PLAN AND PROFILE
FROM Km. 315+000 To Km. 315+315

DRAWING NO.:-
AECOM-DELD15159-DD-DWG-PP- 0119

REV.
R2

SERVICE ROAD

LCW.

VERTICAL ALIGNMENT REPORT (SERVICE ROAD) - LHS

Location	IP			Element Type	Curve Type	Length of Grade/Curve	Start		End		Gradient			K Value
	No.	IP Chainage	IP Level				Curve Start Chainage	Curve Start Level	Curve End Chainage	Curve End Level	In	Out	Difference	
KM 314+500 to KM 315+470	1	314+520.000	69.194	Curve	Hog	40.000	314+500.000	69.194	314+540.000	68.915		-1.397		28.635
				Grade		12.402	314+540.000	68.915	314+552.402	68.741				
	2	314+572.402	68.462	Curve	Sag	40.000	314+552.402	68.741	314+592.402	68.485	-1.397	0.117	1.514	26.422
				Grade		32.042	314+592.402	68.485	314+624.444	68.523				
	3	314+654.444	68.558	Curve	Hog	60.000	314+624.444	68.523	314+684.444	68.45	0.117	-0.360	-0.477	125.850
				Grade		55.571	314+684.444	68.45	314+740.016	68.25				
	4	314+760.000	68.178	Curve	Sag	39.969	314+740.015	68.250	314+779.985	68.194	-0.360	0.077	0.437	91.605
				Grade		37.156	314+779.985	68.194	314+817.141	68.222				
	5	314+847.141	68.245	Curve	Sag	60.000	314+817.141	68.222	314+877.141	68.397	0.077	0.507	0.430	139.440
				Grade		84.859	314+877.141	68.397	314+962.000	68.827				
	6	314+992.000	68.979	Curve	Hog	60.000	314+962.000	68.827	315+022.000	68.83	0.507	-0.497	-1.004	59.744
				Grade		14.636	315+022.000	68.83	315+036.636	68.757				
	7	315+066.636	68.608	Curve	Sag	60.000	315+036.636	68.757	315+096.636	68.618	-0.497	0.034	0.531	112.837
				Grade		39.921	315+096.636	68.618	315+136.557	68.632				
	8	315+136.557	68.632								0.034	-0.075		
				Grade		19.598	315+136.557	68.632	315+156.155	68.617				
	9	315+176.138	68.602	Curve	Hog	39.966	315+156.155	68.617	315+196.121	68.422	-0.075	-0.901	-0.826	48.428
				Grade		11.066	315+196.121	68.422	315+207.187	68.322				
	10	315+227.187	68.142	Curve	Sag	40.000	315+207.187	68.322	315+247.187	68.039	-0.901	-0.519	0.382	104.777
				Grade		12.659	315+247.187	68.039	315+259.846	67.973				
	11	315+279.846	67.869	Curve	Sag	40.000	315+259.846	67.973	315+299.846	67.948	-0.519	0.394	0.913	43.794
				Grade		8.634	315+299.846	67.948	315+308.480	67.982				
	12	315+328.480	68.061	Curve	Hog	40.000	315+308.480	67.982	315+348.480	68.056	0.394	-0.022	-0.416	95.934
				Grade		3.795	315+348.480	68.056	315+352.275	68.056				
	13	315+374.775	68.051	Curve	Hog	45.001	315+352.275	68.056	315+397.275	68.04	-0.022	-0.048	-0.026	1752.037
				Grade		1.925	315+397.276	68.04	315+399.201	68.039				
	14	315+414.201	68.032	Curve	Sag	30.000	315+399.201	68.039	315+429.201	68.246	-0.048	1.429	1.477	20.313
				Grade		0.799	315+429.201	68.246	315+430.000	68.257				
	15	315+450.000	68.543	Curve	Hog	40.000	315+430.000	68.257	315+470.000	68.543	1.429			27.997

Team Leader
STUP Consultants Pvt. Ltd
Nagaon-782001 (Assam)

Resident Engineer
STUP Consultant Pvt. Ltd.
Nagaon-782001 (Assam)

Rev.	Date	Description on Revisions
R0	July 2018	First Submission

Revisions

CLIENT:-
NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT COPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY
DATE

PROOF CHECKED CONSULTANT:-
CETEST
CO-092
10/8/18
AUTHORISED SIGNATORY
DATE

SAEFTY CONSULTANT:-
Chaitanya Projects Consultancy Pvt. Ltd
AUTHORISED SIGNATORY
DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India

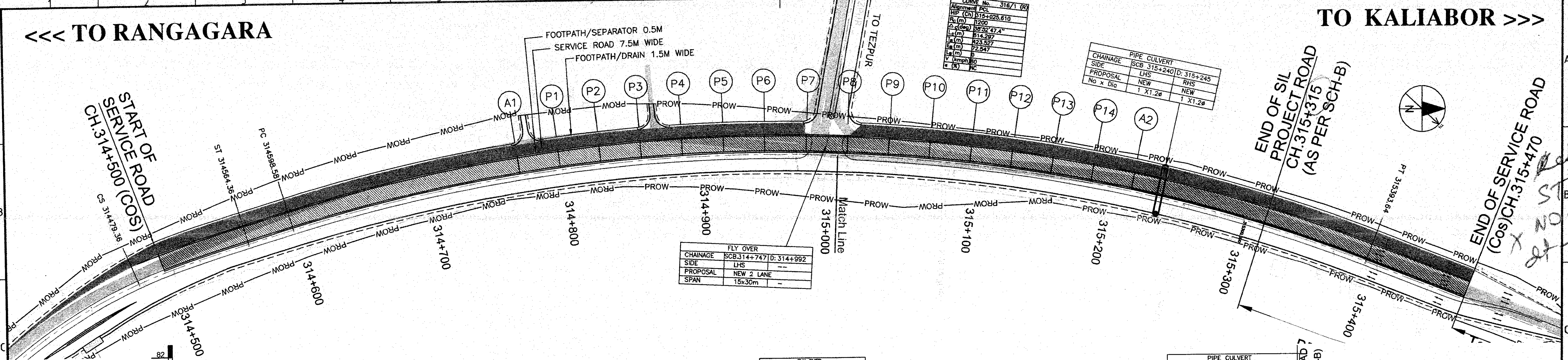
DRAWN	DESIGN	CHECKED BY	APPROVED BY
		Team Leader	APS Design Director

SCALE:-

TITLE:-
Vertical Report (LHS)
KM 314+500 - KM 315+470

DRAWING NO.:- AECOM-DELD15159-DD-DWG-SR-VER-002
REV. R0

328



<<< TO RANGAGARA
TO KALIABOR >>>
FOOTPATH/SEPARATOR 0.5M
SERVICE ROAD 7.5M WIDE
FOOTPATH/DRAIN 1.5M WIDE
TO TEZPUR
A1
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
P11
P12
P13
P14
A2
PROW
START OF SERVICE ROAD CH.314+500 (COS)
CS 314479.36
ST 314564.36
PC 314598.58
314+500
314+600
314+700
314+800
314+900
315+000
Match Line
315+100
315+200
315+300
315+400
PT 315393.84
END OF SIL PROJECT ROAD CH.315+315 (AS PER SCH-B)
END OF SERVICE ROAD (Cos)CH.315+470
N

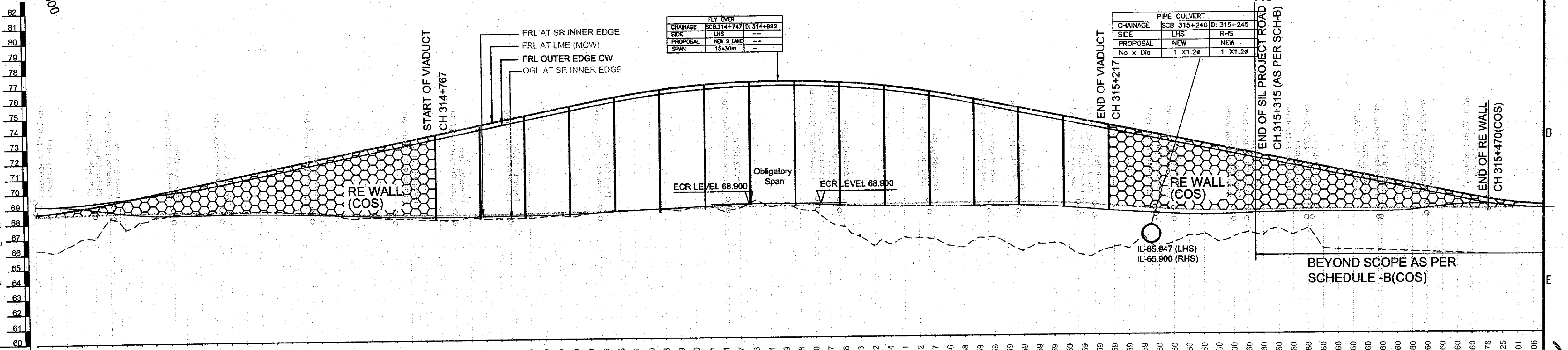
CURVE No.	316/1 (R)
Alignment	PCL
HIP (Ch)	315+025.610
R_c (m)	1200
Δ_c (deg)	38°52'47.4"
L_c (m)	814.297
T_s (m)	423.527
E_s (m)	72.547
L_s (m)	0
V (kmph)	80
e (%)	NC

PIPE CULVERT		
CHAINAGE	SCB 315+240	D: 315+245
SIDE	LHS	RHS
PROPOSAL	NEW	NEW
No x Dia	1 X1.2ø	1 X1.2ø

FLY OVER		
CHAINAGE	SCB.314+747	D: 314+992
SIDE	LHS	--
PROPOSAL	NEW 2 LANE	
SPAN	15x30m	-

No COS
Refer to STUP Letter
No- 130
dt- 12-05-2018

1. DETAILS OF DRAINS WILL BE PROVIDED ALONG WITH DRAINAGE PLAN & PROFILE.
2. PAVEMENT CRUST DETAILS TO BE ADOPTED AS PER PAVEMENT DESIGN REPORT.
3. LME = LEFT MEDIAN EDGE
   RME = RIGHT MEDIAN EDGE
4. MEDIAN OPENING LOCATION IS TENTATIVE WHICH IS TO BE FINALISED AT SITE DURING EXECUTION.
5. SEPARATE DRAWING FOR DETAILING OF MINIOR & MAJOR JUNCTION,BUS BAYS, MEDIAN OPENING SHALL BE PROVIDED SEPARATELY.
6. DRAWING FOR CULVERTS, MINOR BRIDGE & FO SHALL BE PROVIDED SEPARATELY.
7. SEPARATE DRAWING SHALL BE PROVIDED FOR MEDIAN OPENING COMING INTO JUNCTIONS.
8. THE TAPERED PORTION OF THE SERVICE ROAD SHALL FOLLOW THE LONGITUDINAL GRADIENT AND CROSS FALL OF THE MAIN CW TILL THE FULL WIDTH OF THE SERVICE ROAD.



82
81
80
79
78
77
76
75
74
73
72
71
70
69
68
67
66
65
64
63
62
61
60
DATUM LEVEL
FRL AT SR INNER EDGE
FRL AT LME (MCW)
FRL OUTER EDGE CW
OGL AT SR INNER EDGE
START OF VIADUCT CH 314+767
RE WALL (COS)
ECR LEVEL 68.900
Obligatory Span
ECR LEVEL 68.900
END OF VIADUCT CH 315+217
END OF SIL PROJECT ROAD CH.315+315 (AS PER SCH-B)
RE WALL (COS)
IL-65.947 (LHS)
IL-65.900 (RHS)
END OF RE WALL CH 315+470(COS)
BEYOND SCOPE AS PER SCHEDULE -B(COS)

FLY OVER		
CHAINAGE	SCB.314+747	D: 314+992
SIDE	LHS	--
PROPOSAL	NEW 2 LANE	--
SPAN	15x30m	-

PIPE CULVERT		
CHAINAGE	SCB 315+240	D: 315+245
SIDE	LHS	RHS
PROPOSAL	NEW	NEW
No x Dio	1 X1.2ø	1 X1.2ø

MAIN CARRIAGEWAY (LHS) FRL LME	68.646	68.748	68.869	69.009	69.168	69.345	69.541	69.741	69.941	70.141	70.341	70.541	70.741	70.940	71.140	71.340	71.540	71.740	71.940	72.140
MAIN CARRIAGEWAY (LHS) FRL OUTER EDGE CW	69.194	69.165	69.216	69.286	69.375	69.482	69.608	69.738	69.868	69.998	70.128	70.258	70.443	70.642	70.842	71.042	71.242	71.442	71.642	71.842
SERVICE ROAD (LHS) FRL AT SERVICE ROAD INNER EDGE	69.194	69.177	69.124	69.037	68.915	68.775	68.646	68.554	68.500	68.484	68.494	68.506	68.518	68.528	68.531	68.527	68.514	68.494	68.465	68.430
OGL AT SR INNER EDGE	66.272	66.120	66.449	66.968	67.006	68.353	67.646	68.100	68.385	68.554	68.608	68.617	68.544	68.625	68.684	68.714	68.723	68.614	68.583	68.578
DESIGN CHAINAGE	314500	314510	314520	314530	314540	314550	314560	314570	314580	314590	314600	314610	314620	314630	314640	314650	314660	314670	314680	314690

MAIN CARRIAGEWAY (LHS) FRL LME	72.340	72.540	72.740	72.940	73.140	73.340	73.540	73.740	73.940	74.140	74.340	74.540	74.740	74.940	75.140	75.340	75.540	75.740	75.936	76.116
MAIN CARRIAGEWAY (LHS) FRL OUTER EDGE CW	72.042	72.242	72.442	72.642	72.842	73.042	73.242	73.442	73.642	73.842	74.042	74.242	74.442	74.642	74.842	75.042	75.242	75.442	75.638	75.818
SERVICE ROAD (LHS) FRL AT SERVICE ROAD INNER EDGE	68.394	68.358	68.322	68.286	68.250	68.220	68.200	68.191	68.194	68.201	68.209	68.217	68.225	68.238	68.258	68.286	68.321	68.363	68.412	68.462
OGL AT SR INNER EDGE	68.423	68.155	68.231	68.197	68.139	68.088	68.050	68.010	67.973	68.197	68.039	68.063	68.063	68.080	68.164	68.226	68.130	68.366	68.406	68.534
DESIGN CHAINAGE	314700	314710	314720	314730	314740	314750	314760	314770	314780	314790	314800	314810	314820	314830	314840	314850	314860	314870	314880	314890

MAIN CARRIAGEWAY (LHS) FRL LME	76.281	76.430	76.563	76.679	76.780	76.865	76.934	76.987	77.023	77.044	77.049	77.038	77.010	76.967	76.908	76.833	76.742	76.634	76.511	76.372
MAIN CARRIAGEWAY (LHS) FRL OUTER EDGE CW	75.984	76.132	76.265	76.381	76.482	76.567	76.636	76.689	76.725	76.746	76.751	76.740	76.712	76.669	76.610	76.535	76.444	76.336	76.213	76.074
SERVICE ROAD (LHS) FRL AT SERVICE ROAD INNER EDGE	68.513	68.564	68.614	68.665	68.716	68.766	68.817	68.862	68.891	68.900	68.899	68.878	68.840	68.790	68.741	68.699	68.665	68.641	68.625	68.618
OGL AT SR INNER EDGE	68.515	68.578	68.577	68.450	68.767	68.773	68.438	68.629	69.103	68.670	68.917	68.477	68.406	67.610	67.332	66.696	66.011	66.120	66.574	66.518
DESIGN CHAINAGE	314900	314910	314920	314930	314940	314950	314960	314970	314980	314990	315000	315010	315020	315030	315040	315050	315060	315070	315080	315090

MAIN CARRIAGEWAY (LHS) FRL LME	76.217	76.046	75.858	75.659	75.459	75.259	75.059	74.859	74.659	74.459	74.259	74.059	73.859	73.659	73.459	73.260	73.060	72.860	72.660	72.460
MAIN CARRIAGEWAY (LHS) FRL OUTER EDGE CW	75.919	75.749	75.560	75.362	75.161	74.961	74.761	74.561	74.362	74.161	73.961	73.761	73.561	73.362	73.161	72.962	72.762	72.562	72.362	72.162
SERVICE ROAD (LHS) FRL AT SERVICE ROAD INNER EDGE	68.619	68.623	68.626	68.630	68.629	68.622	68.613	68.587	68.541	68.473	68.387	68.298	68.215	68.142	68.078	68.024	67.972	67.932	67.915	67.920
OGL AT SR INNER EDGE	66.430	65.982	65.869	66.508	66.556	66.055	65.606	66.075	66.116	65.755	65.282	65.487	65.813	65.714	66.482	65.611	66.092	66.547	66.650	66.106
DESIGN CHAINAGE	315100	315110	315120	315130	315140	315150	315160	315170	315180	315190	315200	315210	315220	315230	315240	315250	315260	315270	315280	315290

MAIN CARRIAGEWAY (LHS) FRL LME	72.260	72.060 71.860	71.660	71.460	71.260	71.060	70.860	70.660	70.460	70.260	70.060	69.860	69.660	69.460	69.260	69.060	68.878	68.725	68.601	68.506
MAIN CARRIAGEWAY (LHS) FRL OUTER EDGE CW	71.962	71.762 71.562	71.362	71.162	70.962	70.762	70.562	70.362	70.162	69.962	69.762	69.562	69.362	69.162	68.962	68.762	68.543	68.435	68.344	68.278
SERVICE ROAD (LHS) FRL AT SERVICE ROAD INNER EDGE	67.949	67.986 68.021	68.043	68.055	68.056	68.054	68.051	68.047	68.043	68.039	68.062	68.135	68.257	68.382	68.472	68.525	68.543			
OGL AT SR INNER EDGE	66.445	66.725 66.522	66.997	66.567	66.994	65.647	65.463	65.461	65.460	65.457	65.450	65.446	65.440	65.437	65.435	65.431	65.428			
DESIGN CHAINAGE	315300	315310 315315 315320	315330	315340	315350	315360	315370	315380	315390	315400	315410	315420	315430	315440	315450	315460	315470	315480	315490	315500

MAIN CARRIAGEWAY (LHS) VERTICAL SCHEMATIC:
R=5310.195m L=95.000m K=53.102
G=2.000 L=316.038m
L=250.000m R=-6250.975m K=62.509
L=335.966m G=-2.000
R=3419.868m L=80.000m K=34.198

SERVICE ROAD (LHS) VERTICAL SCHEMATIC:
L=40.000m R=-2863.497m
L=12.402m G=-1.397
R=2642.171m L=40.000m
G=0.117 L=32.042m
L=60.000m R=-12585.031m
L=55.571m G=-0.360
R=9160.495m L=39.969m
G=0.077 L=37.156m
R=13943.954m L=60.000m
G=0.507 L=84.859m
L=60.000m R=-5974.392m
L=39.921m G= -0.497
R=11283.740m L=60.000m
G=0.034 L=39.921m
L=19.598m G=-0.075
R=4842.800 L=39.966m
L=11.067m G=-0.901
R=10477.658m L=40.000m
L=12.659m G=-0.519
R=4379.381m L=40.000m
G=0.394 L=8.634m
L=40.000m R=-9593.371m
L=3.795m G=-0.022
R=175203.700m L=45.000m
L=1.926m G=-0.048
R=2031.300m L=30.000m
G=1.429 L=0.799m
L=40.000m R=-2799.708m

SUPERELEVATION: e=2.500 e=2.500 e=2.500

(MCW) HORIZONTAL SCHEMATIC:
L=85.000m
L=33.348m
R=1200.000m
L=814.297m

SUPERELEVATION: e=2.500 e=2.500

NOTE:- 1. Work mentioned above under COS will be executed upon obtaining COS order from Authority.
2.* Pavement layers thickness in Partial Reconstruction area (Overlay Side) shall be as per detail Cross Section.

R0	July 2018	First Submission
Rev.	Date	Description on Revisions
Revisions		

CLIENT:-
NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

AUTHORITY"S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CE TESTING Company Pvt. Ltd
AUTHORISED SIGNATORY | DATE 10/9/18

SAEFTY CONSULTANT:-
Chaitanya Projects Consultancy Pvt. Ltd
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India

SL	MSR
Team Leader	Design Director

DRAWN	DESIGN	CHECKED BY	APPROVED BY

SCALE:-
HOR- 1 : 2000
VER- 1 : 200

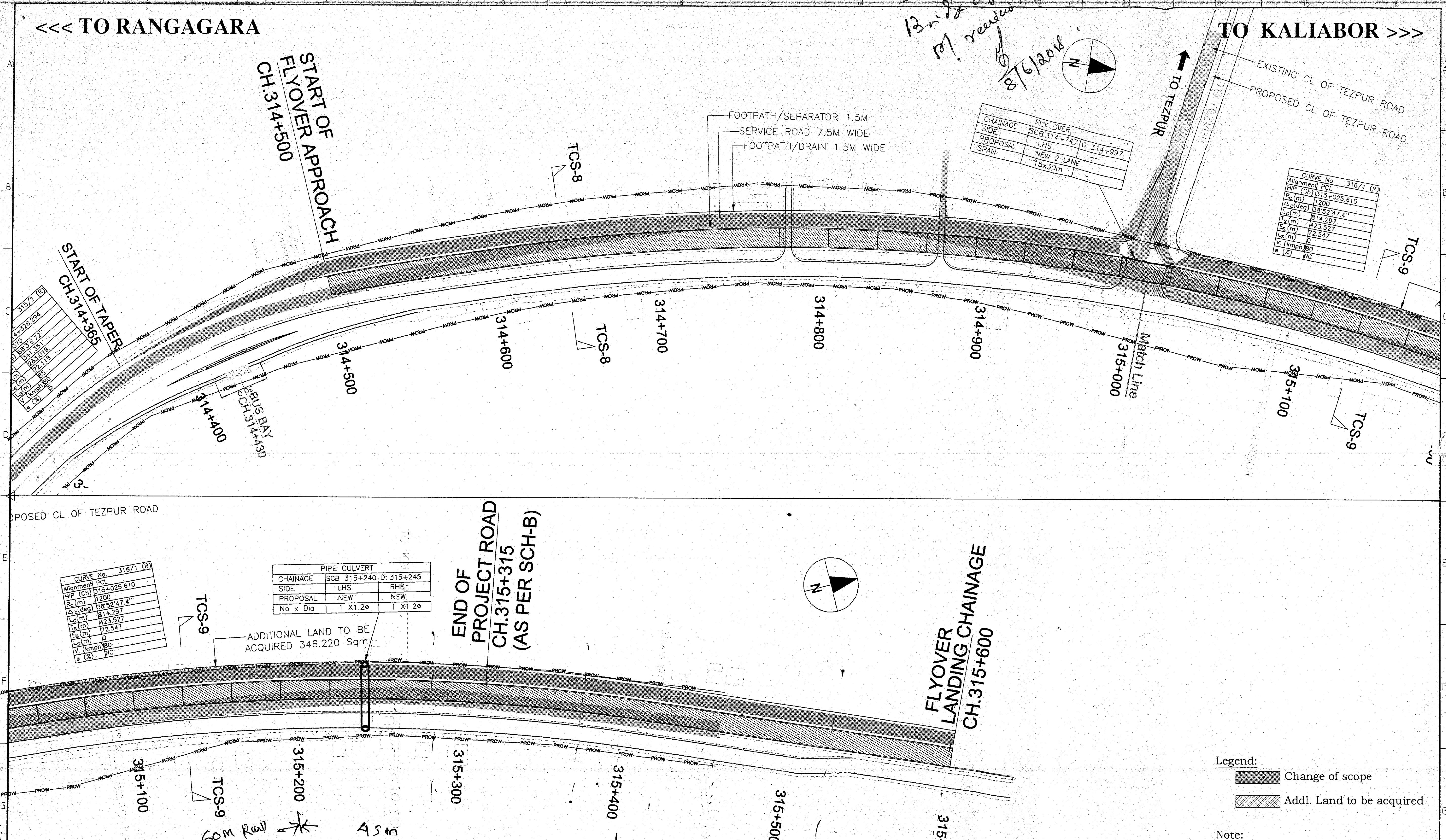
TITLE:-
SERVICE ROAD
PLAN & PROFILE
FROM Km. 314+500 To Km. 315+470
(LHS)

DRAWING NO.:-
AECOM-DELD15159-DD-DWG-SR- 0209
REV. R0

568

Urgent

Bridge Engr/RE
Pl. review & put up
8/6/2018


<<< TO RANGAGARA
TO KALIABOR >>>
START OF FLYOVER APPROACH CH.314+500
START OF TAPER CH.314+365
BUS BAY CH.314+430
TCS-8
TCS-8
TCS-9
TCS-9
TCS-9
FOOTPATH/SEPARATOR 1.5M
SERVICE ROAD 7.5M WIDE
FOOTPATH/DRAIN 1.5M WIDE
EXISTING CL OF TEZPUR ROAD
PROPOSED CL OF TEZPUR ROAD
TO TEZPUR
N
PROW
314+400
314+500
314+600
314+700
314+800
314+900
315+000
315+100
Match Line
PROPOSED CL OF TEZPUR ROAD
ADDITIONAL LAND TO BE ACQUIRED 346.220 Sqm
END OF PROJECT ROAD CH.315+315 (AS PER SCH-B)
FLYOVER LANDING CHAINAGE CH.315+600
315+100
315+200
315+300
315+400
315+500
315+600
CURVE No. 315/1 (R)
14+326.294
370
66°3'6.72"
341.351
283.019
72.118
85
80
5
Ls (m)
V (kmph)
e (%)
60m RoW
45m

CHAINAGE	FLY OVER	
SIDE	SCB.314+747	D: 314+997
PROPOSAL	LHS	--
SPAN	NEW 2 LANE	
	15x30m	-

CURVE No.	316/1 (R)
Alignment	PCL
HIP (Ch)	315+025.610
R_c (m)	1200
Δ_c (deg)	38°52'47.4"
L_c (m)	814.297
T_s (m)	423.527
E_s (m)	72.547
L_s (m)	0
V (kmph)	80
e (%)	NC

PIPE CULVERT		
CHAINAGE	SCB 315+240	D: 315+245
SIDE	LHS	RHS
PROPOSAL	NEW	NEW
No x Dia	1 X1.20	1 X1.20

CURVE No.	316/1 (R)
Alignment	PCL
HIP (Ch)	315+025.610
R_c (m)	1200
Δ_c (deg)	38°52'47.4"
L_c (m)	814.297
T_s (m)	423.527
E_s (m)	72.547
L_s (m)	0
V (kmph)	80
e (%)	NC

Legend:

▨	Change of scope
▨	Addl. Land to be acquired

Note:

1. Construction of Slip Road along with Associated works are under change of scope (COS).
2. Detail Design/drawing shall be submitted only after approval of revised Layout & Cross section.

FOR APPROVAL

Rev.	Date	Description on Revisions
R1	May 2018	Slip Road added & FO location shifted
R0	November 2017	First Submission

Revisions

CLIENT:-
NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CE TESTING Company Pvt. Ltd
AUTHORISED SIGNATORY | DATE

SAEFTY CONSULTANT:-
Chaitanya Projects Consultancy Pvt. Ltd
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India

DRAWN	DESIGN	CHECKED BY	APPROVED BY
		SL Team Leader	MSR Design Director

SCALE:-
NOT TO SCALE

TITLE:-
ALIGNMENT PLAN AT FO LOCATION
FROM KM 314+500 TO KM 315+315

DRAWING NO.:-
AECOM-DELD15159-DD-DWG-AP-001

REV.

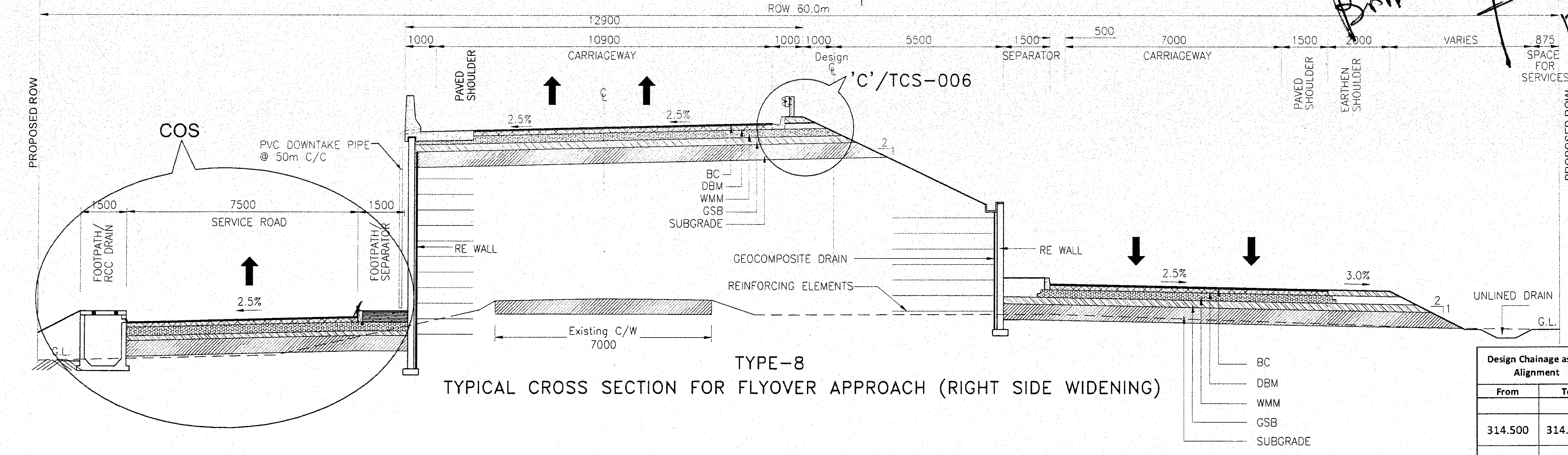
Draft drawing

Urgent

Bridge Engr / RE

Pl review & put up for comments / finalization to Simplex

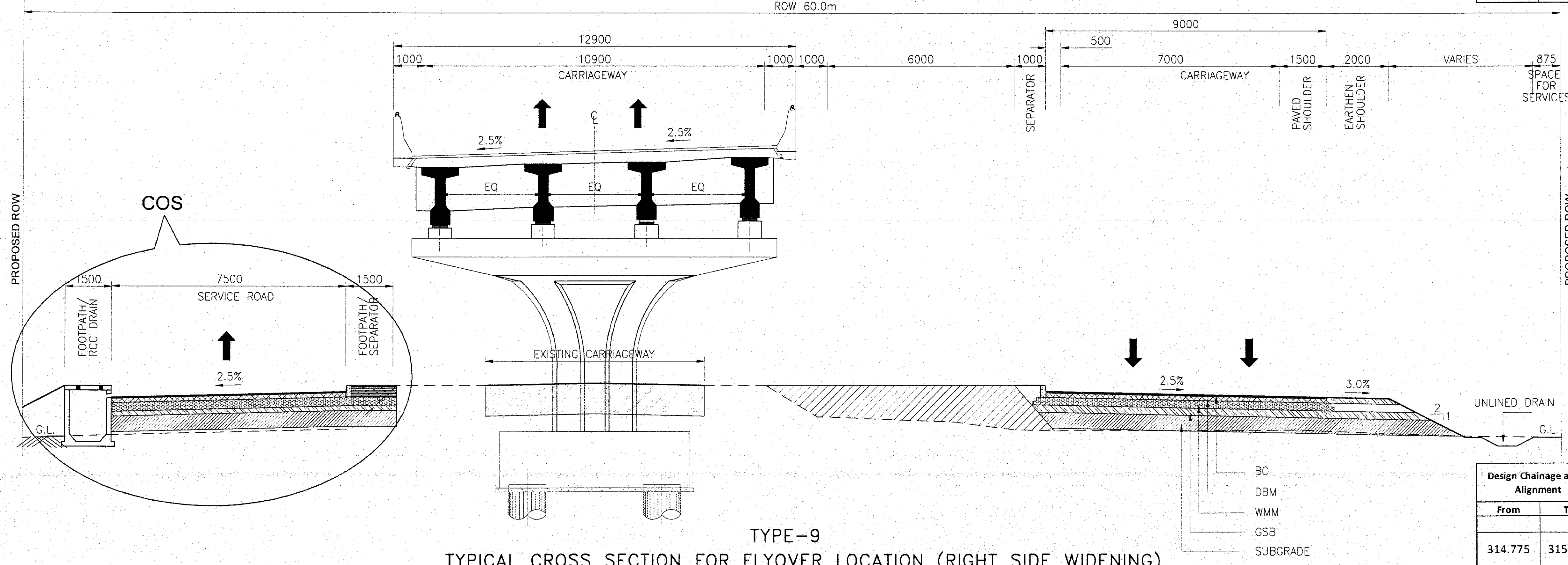
8/6/2018


ROW 60.0m
12900
1000
10900
1000
1000
5500
1500
500
7000
1500
2000
VARIES
875
CARRIAGEWAY
PAVED SHOULDER
Design ℄
'C'/TCS-006
SEPARATOR
CARRIAGEWAY
PAVED SHOULDER
EARTHEN SHOULDER
SPACE FOR SERVICES
PROPOSED ROW
PROPOSED ROW
℄
2.5%
2.5%
COS
PVC DOWNTAKE PIPE @ 50m C/C
2
1
BC
DBM
WMM
GSB
SUBGRADE
1500
7500
1500
SERVICE ROAD
FOOTPATH/ RCC DRAIN
FOOTPATH/ SEPARATOR
RE WALL
GEOCOMPOSITE DRAIN
REINFORCING ELEMENTS
RE WALL
2.5%
3.0%
2
1
UNLINED DRAIN
G.L.
2.5%
G.L.
Existing C/W
7000
BC
DBM
WMM
GSB
SUBGRADE

TYPE–8

TYPICAL CROSS SECTION FOR FLYOVER APPROACH (RIGHT SIDE WIDENING)

Design Chainage as per Alignment		Length (km)	Cross Section Type
From	To		
314.500	314.775	0.275	TYPE 8
315.225	315.315	0.090	TYPE 8


ROW 60.0m
12900
1000
10900
1000
1000
6000
1000
9000
500
7000
1500
2000
VARIES
875
CARRIAGEWAY
SEPARATOR
CARRIAGEWAY
PAVED SHOULDER
EARTHEN SHOULDER
SPACE FOR SERVICES
℄
2.5%
2.5%
EQ
EQ
EQ
PROPOSED ROW
PROPOSED ROW
COS
1500
7500
1500
SERVICE ROAD
FOOTPATH/ RCC DRAIN
FOOTPATH/ SEPARATOR
2.5%
G.L.
EXISTING CARRIAGEWAY
2.5%
3.0%
2
1
UNLINED DRAIN
G.L.
BC
DBM
WMM
GSB
SUBGRADE

TYPE–9

TYPICAL CROSS SECTION FOR FLYOVER LOCATION (RIGHT SIDE WIDENING)

Design Chainage as per Alignment		Length (km)	Cross Section Type
From	To		
314.775	315.225	0.450	TYPE 9

Note:

1. Right of Way (ROW) as shown in TCS is meant to indicate proposed cross section of highway shall be accommodated within ROW.
2. Actual Right of Way (ROW) has marked in Alignment Plan based on data provided by AE vide letter ref: STUP / NH 37 / SIL / 2017 /01 dated 9 Feb 2017 and site meeting on 15 Feb 2017.
3. Construction of Slip Road along with Associated works are under change of scope (COS).

FOR APPROVAL

Rev.	Date	Description on Revisions
R1	May 2018	Slip Road added & FO location shifted
R0	November 2017	First Submission

Revisions

CLIENT:-
NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CE TESTING Company Pvt. Ltd
AUTHORISED SIGNATORY | DATE

SAEFTY CONSULTANT:-
Chaitanya Projects Consultancy Pvt. Ltd
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India

DRAWN	DESIGN	CHECKED BY	APPROVED BY
		SL Team Leader	MSR Design Director

SCALE:-
1 : 1000

TITLE:-
TYPICAL CROSS SECTION

DRAWING NO.:-
AECOM-DELD15159-DD-DWG-TCS- 005

REV.
R1

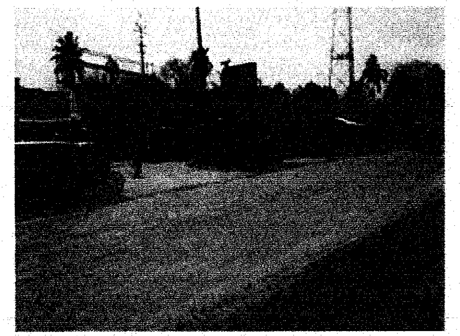
Simplex letter No -168, 23/07/18

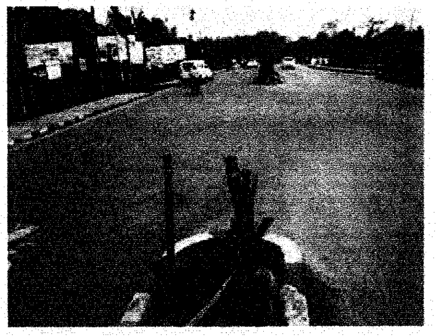
NHIDCL

BUILDING INFRASTRUCTURE - BUILDING THE NATION

NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

Four Laning of NH – 37 from Rangagara to Kaliabor Tiniali (Ch: 297.000 Km to Ch: 315.315 Km of NH-37) in Nagaon District in the State of Assam under SARDP – NE, Phase A, on EPC Basis





HIGHWAY DRAWINGS
(VOLUME - I)

P&P Simplex

OK checked

Latest

23/7/18

To provide soft copy & more data

TL-122

Final copy-①

Final Drg 1/2

P&P SIL 1/2

CONTRACTOR:-

SIMPLEX INFRASTRUCTURES LIMITED

JUNE 2018

CONSULTANTS:-

AECOM

AECOM India Private Limited

①

INDEX

DESCRIPTION	DRAWING NO.
COVER PAGE	
INDEX	
LEGEND & ABBREVIATIONS	AECOM-DELD15159-DD-DWG-LEG-01
TYPICAL CROSS SECTION	AECOM-DELD15159-DD-DWG-TCS-002
VERTICAL ALIGNMENT REPORT	AECOM-DELD15159-DD-DWG-VER-001 To 008
PLAN & PROFILE	AECOM-DELD15159-DD-DWG-PP-0101 To PP-0117

13/2/18

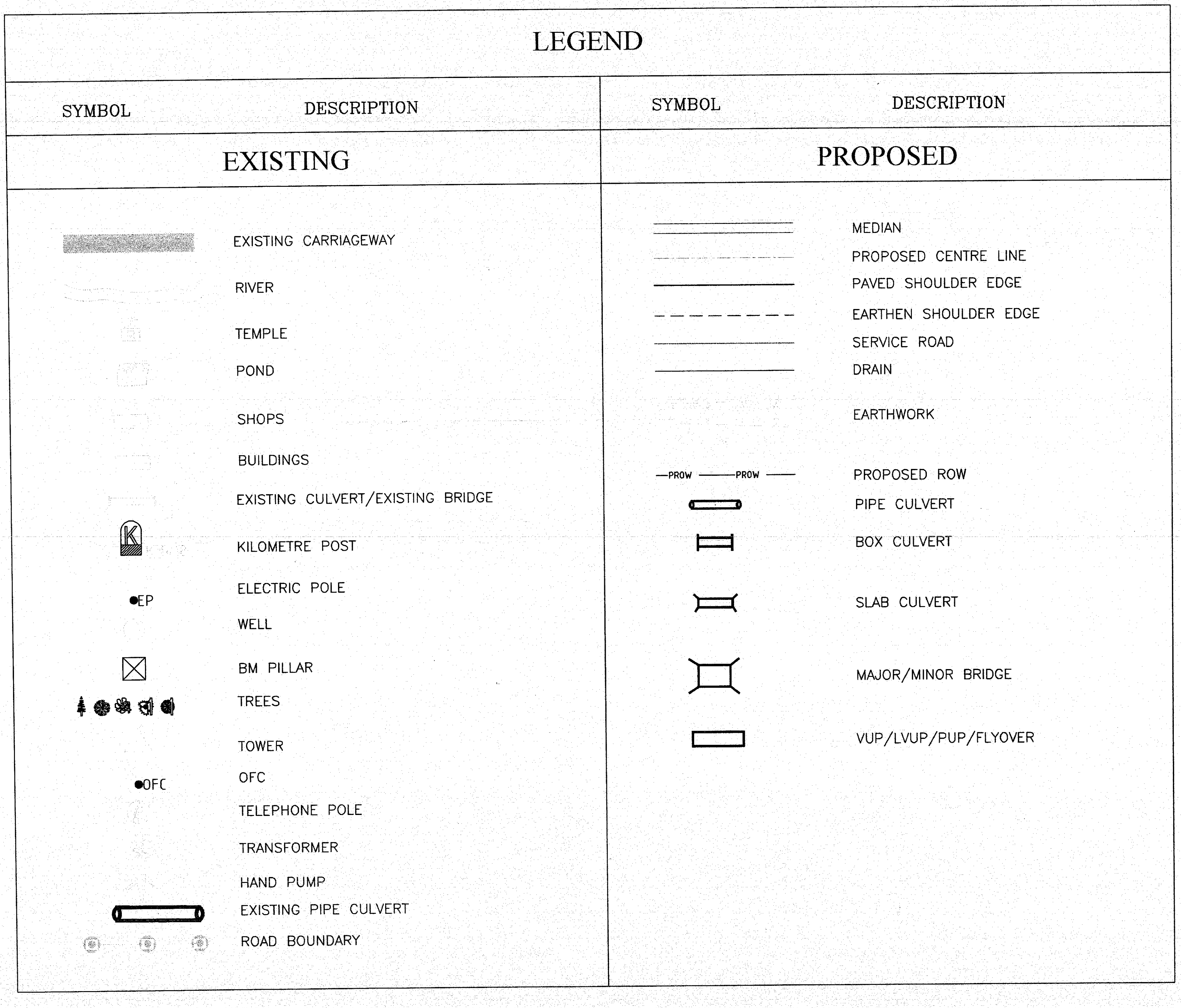
LEGEND & ABBREVIATIONS

NOTES:-

A. GENERAL

1) ALL CHAINAGES ARE IN KILOMETRE AND ALL LEVELS ARE IN METERS UNLESS OTHERWISE NOTED.
2) DETAILS SHOWN IN PLANS ARE BASED ON FIELD SURVEY CARRIED OUT AND SUPPLEMENTED BY SUBSEQUENT FIELD CHECKING AS REQUIRED.
3) ALL COORDINATES ARE UTM NORTHING AND EASTING. BENCH MARKS (BM) ARE IN REFERENCE TO MSL CONNECTED WITH THE FOLLOWING SURVEY OF INDIA BMs.

LEGEND



EXISTING

SYMBOL	DESCRIPTION
▨	EXISTING CARRIAGEWAY
	RIVER
	TEMPLE
	POND
	SHOPS
	BUILDINGS
	EXISTING CULVERT/EXISTING BRIDGE
K	KILOMETRE POST
●EP	ELECTRIC POLE
	WELL
☒	BM PILLAR
	TREES
	TOWER
●OFC	OFC
	TELEPHONE POLE
	TRANSFORMER
	HAND PUMP
	EXISTING PIPE CULVERT
	ROAD BOUNDARY

PROPOSED

SYMBOL	DESCRIPTION
	MEDIAN
	PROPOSED CENTRE LINE
	PAVED SHOULDER EDGE
- - - - - - - -	EARTHEN SHOULDER EDGE
	SERVICE ROAD
	DRAIN
	EARTHWORK
—PROW ——PROW —	PROPOSED ROW
	PIPE CULVERT
	BOX CULVERT
	SLAB CULVERT
	MAJOR/MINOR BRIDGE
▭	VUP/LVUP/PUP/FLYOVER

ABBREVIATIONS:-

CL	CENTER LINE
PROW	PROPOSED RIGHT OF WAY
VUP	VEHICULAR UNDER PASS
LVUP	LIGHT VEHICULAR UNDER PASS
PUP	PEDESTRIAN UNDER PASS
CUP	CATTLE UNDER PASS
LME	LEFT MEDIAN EDGE
RME	RIGHT MEDIAN EDGE
LHS	LEFT HAND SIDE
RHS	RIGHT HAND SIDE
SCB	SCHEDULE B CHAINAGE
R	RADIUS OF CURVE
DC	DEGREE OF CURVATURE
LC	LENGTH OF CURVATURE
TS	TENGENT LENGTH
ES	APEX DISTANCE
LS	LENGTH OF SPIRAL CURVE
S	SHIFT
Δ	DEFLECTION ANGLE
V	DESIGN SPEED Km/hr
e%	SUPERELEVATION
PC	POINT OF TANGENT
PT	POINT OF TANGENT
HIP	HORIZONTAL INTERSECTION POINT

India Private limited

Rev.	Date	Description on Revisions
Revisions		

CLIENT:-
NATIONAL HIGHWAYS
& INFRASTRUCTURE
DEVELOPMENT
CORPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CE TESTING
Company Pvt. Ltd
Psabui 13/3/18
AUTHORISED SIGNATORY | DATE

SAEFTY CONSULTANT:-
Chaitanya Projects
Consultancy Pvt. Ltd
NEW DELHI
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India

DRAWN	DESIGN	CHECKED BY	APPROVED BY
		SL Team Leader	APS Design Director

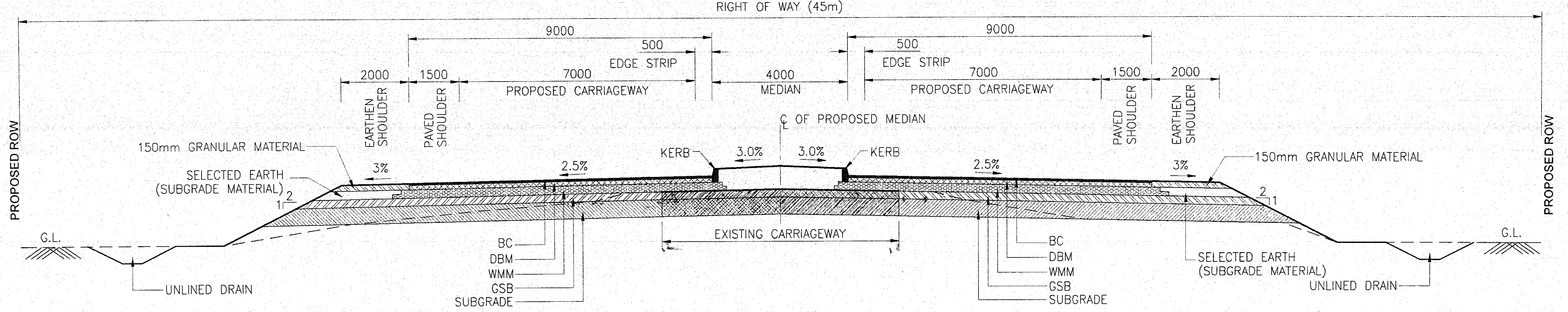
SCALE:-
N. T. S

TITLE:-
LEGEND AND ABBREVIATION

DRAWING NO.:- AECOM-DELD15159-DD-DWG-LEG-01
REV. R0

4

TYPICAL CROSS SECTION


RIGHT OF WAY (45m)
9000
500
EDGE STRIP
2000
1500
7000
PROPOSED CARRIAGEWAY
4000
MEDIAN
9000
500
EDGE STRIP
7000
PROPOSED CARRIAGEWAY
1500
2000
EARTHEN SHOULDER
PAVED SHOULDER
C OF PROPOSED MEDIAN
PAVED SHOULDER
EARTHEN SHOULDER
PROPOSED ROW
150mm GRANULAR MATERIAL
SELECTED EARTH (SUBGRADE MATERIAL)
3%
2.5%
KERB
3.0%
3.0%
KERB
2.5%
3%
150mm GRANULAR MATERIAL
2
1
2
1
PROPOSED ROW
G.L.
EXISTING CARRIAGEWAY
G.L.
BC
DBM
WMM
GSB
SUBGRADE
UNLINED DRAIN
BC
DBM
WMM
GSB
SUBGRADE
SELECTED EARTH (SUBGRADE MATERIAL)
UNLINED DRAIN

TYPE-3

TYPICAL CROSS SECTION FOR 4-LANE WITHOUT SERVICE ROAD (TRANSITION FROM LHS TO RHS / RHS TO LHS)

Design Chainage as per Alignment		Length (km)	Cross Section Type
From	To		
298.700	298.800	0.100	TYPE 3
307.950	308.050	0.100	TYPE 3

Note:

1. Right of Way (ROW) as shown in TCS is meant to indicate proposed cross section of highway shall be accommodated within ROW.
2. Actual Right of Way (ROW) has marked in Alignment Plan based on data provided by AE vide letter ref: STUP / NH 37 / SIL / 2017 /01 dated 9 Feb 2017 and site meeting on 15 Feb 2017.

R2	June 2018	WMM Layer Revised in TCS Type-3
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017
R0	August 2017	First Submission
Rev.	Date	Description on Revisions
Revisions		

CLIENT:-
NATIONAL HIGHWAYS
& INFRASTRUCTURE
DEVELOPMENT
CORPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY
DATE

PROOF CHECKED CONSULTANT:-
CE TESTING
Company Pvt. Ltd
13/7/18
AUTHORISED SIGNATORY
DATE

SAEFTY CONSULTANT:-
Chaitanya Projects
Consultancy Pvt. Ltd
AUTHORISED SIGNATORY
DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India
SL
Team Leader
MSR
Design Director
DRAWN
DESIGN
CHECKED BY
APPROVED BY

SCALE:-
1 : 1000

TITLE:-
TYPICAL CROSS SECTION

DRAWING NO.:-
AECOM-DELD15159-DD-DWG-TCS- 002

REV.
R2

VERTICAL ALIGNMENT REPORT

Vertical Curve Report KM 297+000 to KM 314+000(LHS)

IP			Element Type	Type of Curve	Length / Curve Length	Start		End		Gradient			K Value
NO.	Chainage	Level				Curve Start Chainage	Curve Start Level	Curve End Chainage	Curve End Level	IN	OUT	Difference	
1	297+000.000	65.327									-0.024	-0.024	
			Grade		155.000	297+000.000	65.327	297+155.000	65.29				
2	297+155.000	65.290								-0.024	0.399	0.423	
			Grade		100.260	297+155.000	65.290	297+255.260	65.69				
3	297+285.260	65.810	Curve	Hog	60.000	297+255.260	65.690	297+315.260	65.771	0.399	-0.129	-0.528	113.508
			Grade		62.740	297+315.260	65.771	297+378.000	65.69				
4	297+378.000	65.690								-0.129	-0.266	-0.137	
			Grade		62.000	297+378.000	65.690	297+440.000	65.525				
5	297+440.000	65.525								-0.266	-0.537	-0.271	
			Grade		50.000	297+440.000	65.525	297+490.000	65.256				
6	297+520.000	65.095	Curve	Sag	60.000	297+490.000	65.256	297+550.000	65.214	-0.538	0.396	0.934	64.286
			Grade		60.000	297+550.000	65.214	297+610.000	65.451				
7	297+640.000	65.570	Curve	Hog	60.000	297+610.000	65.451	297+670.000	65.503	0.396	-0.223	-0.619	96.904
			Grade		30.000	297+670.000	65.503	297+700.000	65.436				
8	297+730.000	65.369	Curve	Sag	60.000	297+700.000	65.436	297+760.000	65.461	-0.223	0.308	0.531	113.030
			Grade		50.000	297+760.000	65.461	297+810.000	65.615				
9	297+810.000	65.615								0.308	0.551	0.243	
			Grade		74.637	297+810.000	65.615	297+884.637	66.027				
10	297+914.637	66.192	Curve	Hog	60.000	297+884.637	66.027	297+944.637	66.177	0.551	-0.050	-0.601	99.823
			Grade		125.363	297+944.637	66.177	298+070.000	66.115				
11	298+100.000	66.100	Curve	Hog	60.000	298+070.000	66.115	298+130.000	66.07	-0.050	-0.100	-0.050	1191.241
			Grade		40.000	298+130.000	66.070	298+170.000	66.03				
12	298+200.000	66.000	Curve	Sag	60.000	298+170.000	66.030	298+230.000	66.05	-0.100	0.166	0.266	225.264
			Grade		91.484	298+230.000	66.050	298+321.484	66.202				
13	298+351.484	66.252	Curve	Hog	60.000	298+321.484	66.202	298+381.484	66.2	0.166	-0.174	-0.340	176.341
			Grade		6.723	298+381.484	66.200	298+388.207	66.188				
14	298+418.207	66.136	Curve	Sag	60.000	298+388.207	66.188	298+448.207	66.209	-0.174	0.243	0.417	144.074
			Grade		49.467	298+448.207	66.209	298+497.674	66.329				
15	298+547.674	66.450	Curve	Hog	100.000	298+497.674	66.329	298+597.674	66.248	0.243	-0.405	-0.648	154.509
			Grade		72.326	298+597.674	66.248	298+670.000	65.955				
16	298+670.000	65.955								-0.405	-0.438	-0.033	
			Grade		130.000	298+670.000	65.955	298+800.000	65.386				
17	298+800.000	65.386								-0.438	-0.083	0.355	
			Grade		78.603	298+800.000	65.386	298+878.603	65.321				
18	298+908.603	65.296	Curve	Sag	60.000	298+878.603	65.321	298+938.603	65.285	-0.083	-0.035	0.048	1253.431
			Grade		71.421	298+938.603	65.285	299+010.024	65.261				
19	299+040.024	65.250	Curve	Sag	60.000	299+010.024	65.261	299+070.024	65.289	-0.035	0.129	0.164	365.914
			Grade		123.842	299+070.024	65.289	299+193.866	65.448				
20	299+233.866	65.500	Curve	Hog	80.000	299+193.866	65.448	299+273.866	65.5	0.129	0.000	-0.129	620.294
			Grade		136.134	299+273.866	65.500	299+410.000	65.5				
21	299+440.000	65.500	Curve	Sag	60.000	299+410.000	65.500	299+470.000	65.533	0.000	0.111	0.111	539.882
			Grade		192.189	299+470.000	65.533	299+662.189	65.747				
22	299+662.189	65.747								0.111	0.104	-0.007	
			Grade		116.971	299+662.189	65.747	299+779.160	65.868				
23	299+779.160	65.868								0.104	-0.044	-0.148	
			Grade		137.274	299+779.160	65.868	299+916.434	65.808				
24	299+916.434	65.808								-0.044	-0.072	-0.028	
			Grade		115.173	299+916.434	65.808	300+031.607	65.726				
25	300+031.607	65.726								-0.072	0.179	0.251	
			Grade		122.849	300+031.607	65.726	300+154.456	65.946				
26	300+184.456	66.000	Curve	Hog	60.000	300+154.456	65.946	300+214.456	65.912	0.179	-0.295	-0.474	126.588
			Grade		65.544	300+214.456	65.912	300+280.000	65.718				
27	300+310.000	65.630	Curve	Sag	60.000	300+280.000	65.718	300+340.000	65.622	-0.295	-0.027	0.268	223.838
			Grade		90.000	300+340.000	65.622	300+430.000	65.598				
28	300+460.000	65.590	Curve	Sag	60.000	300+430.000	65.598	300+490.000	65.744	-0.027	0.514	0.541	110.915
			Grade		10.000	300+490.000	65.744	300+500.000	65.796				
29	300+530.000	65.950	Curve	Hog	60.000	300+500.000	65.796	300+560.000	65.948	0.514	-0.008	-0.522	114.852
			Grade		63.069	300+560.000	65.948	300+623.069	65.942				
30	300+653.069	65.940	Curve	Sag	60.000	300+623.069	65.942	300+683.069	66.177	-0.008	0.790	0.798	75.212
			Grade		65.376	300+683.069	66.177	300+748.445	66.693				
31	300+778.445	66.930	Curve	Hog	60.000	300+748.445	66.693	300+808.445	66.818	0.790	-0.374	-1.164	51.545
			Grade		81.555	300+808.445	66.818	300+890.000	66.512				
32	300+920.000	66.400	Curve	Sag	60.000	300+890.000	66.512	300+950.000	66.476	-0.374	0.253	0.627	95.611
			Grade		76.294	300+950.000	66.476	301+026.294	66.669				
33	301+056.294	66.745	Curve	Hog	60.000	301+026.294	66.669	301+086.294	66.682	0.253	-0.210	-0.463	129.559
			Grade		62.866	301+086.294	66.682	301+149.160	66.55				
34	301+149.160	66.550								-0.210	0.344	0.554	
			Grade		130.840	301+149.160	66.550	301+280.000	67				
35	301+280.000	67.000								0.344	0.143	-0.201	
			Grade		40.000	301+280.000	67.000	301+320.000	67.057				

AECOM India Private limited
Gurgaon

Rev.	Date	Description on Revisions
R2	June 2018	Based on Survey Data Provided by Client.
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

Revisions

CLIENT:-
NATIONAL HIGHWAYS
& INFRASTRUCTURE
DEVELOPMENT
COPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CETEST
C E TESTING COMPANY PVT. LTD.
13/7/18
AUTHORISED SIGNATORY | DATE

SAEFTY CONSULTANT:-
Chaitanya Projects
Consultancy Pvt. Ltd
NEW DELHI
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India
SL
Team Leader
MSR
Design Director
DRAWN | DESIGN | CHECKED BY | APPROVED BY

SCALE:-
NTS

TITLE:-
Vertical Report (LHS)

DRAWING NO.:-
AECOM-DELD15159-DD-DWG-VER-001

REV.
R2

Vertical Curve Report KM 297+000 to KM 314+000(LHS)

IP			Element Type	Type of Curve	Length / Curve Length	Start		End		Gradient			K Value
NO.	Chainage	Level				Curve Start Chainage	Curve Start Level	Curve End Chainage	Curve End Level	IN	OUT	Difference	
36	301+350.000	67.100	Curve	Hog	60.000	301+320.000	67.057	301+380.000	67.062	0.143	-0.128	-0.271	221.701
			Grade		30.000	301+380.000	67.062	301+410.000	67.023				
37	301+440.000	66.985	Curve	Sag	60.000	301+410.000	67.023	301+470.000	67.081	-0.128	0.319	0.447	134.226
			Grade		70.000	301+470.000	67.081	301+540.000	67.304				
38	301+570.000	67.400	Curve	Hog	60.000	301+540.000	67.304	301+600.000	67.422	0.319	0.074	-0.245	245.018
			Grade		113.257	301+600.000	67.422	301+713.257	67.506				
39	301+713.257	67.506								0.074	0.009	-0.065	
			Grade		86.743	301+713.257	67.506	301+800.000	67.514				
40	301+800.000	67.514								0.009	0.138	0.129	
			Grade		177.724	301+800.000	67.514	301+977.724	67.76				
41	301+977.724	67.760								0.138	0.177	0.039	
			Grade		100.000	301+977.724	67.760	302+077.724	67.936				
42	302+077.724	67.936								0.177	-0.117	-0.294	
			Grade		109.769	302+077.724	67.936	302+187.493	67.808				
43	302+187.493	67.808								-0.117	0.226	0.343	
			Grade		137.017	302+187.493	67.808	302+324.510	68.119				
44	302+324.510	68.119								0.226	0.055	-0.171	
			Grade		275.490	302+324.510	68.119	302+600.000	68.27				
45	302+600.000	68.270								0.055	-0.094	-0.149	
			Grade		110.000	302+600.000	68.270	302+710.000	68.166				
46	302+710.000	68.166								-0.094	-0.234	-0.140	
			Grade		80.000	302+710.000	68.166	302+790.000	67.979				
47	302+790.000	67.979								-0.234	-0.111	0.123	
			Grade		80.000	302+790.000	67.979	302+870.000	67.89				
48	302+870.000	67.890								-0.111	-0.047	0.064	
			Grade		122.000	302+870.000	67.890	302+992.000	67.832				
49	302+992.000	67.832								-0.047	0.187	0.234	
			Grade		100.003	302+992.000	67.832	303+092.003	68.019				
50	303+092.003	68.019								0.187	0.065	-0.122	
			Grade		99.996	303+092.003	68.019	303+191.999	68.084				
51	303+191.999	68.084								0.065	0.059	-0.006	
			Grade		109.370	303+191.999	68.084	303+301.369	68.148				
52	303+333.869	68.168	Curve	Sag	65.000	303+301.369	68.148	303+366.369	68.769	0.059	1.850	1.791	36.293
			Grade		5.824	303+366.369	68.769	303+372.193	68.877				
53	303+492.193	71.097	Curve	Hog	240.000	303+372.193	68.877	303+612.193	68.721	1.850	-1.980	-3.830	62.663
			Grade		12.863	303+612.193	68.721	303+625.056	68.466				
54	303+675.056	67.476	Curve	Sag	100.000	303+625.056	68.466	303+725.056	67.618	-1.980	0.284	2.264	44.163
			Grade		29.983	303+725.056	67.618	303+755.039	67.703				
55	303+785.039	67.789	Curve	Hog	60.000	303+755.039	67.703	303+815.039	67.672	0.284	-0.388	-0.672	89.210
			Grade		34.310	303+815.039	67.672	303+849.349	67.539				
56	303+879.349	67.422	Curve	Sag	60.000	303+849.349	67.539	303+909.349	67.476	-0.388	0.179	0.567	105.840
			Grade		50.007	303+909.349	67.476	303+959.356	67.565				
57	303+959.356	67.565								0.179	-0.264	-0.443	
			Grade		138.750	303+959.356	67.565	304+098.106	67.2				
58	304+128.106	67.120	Curve	Sag	60.000	304+098.106	67.200	304+158.106	67.218	-0.264	0.326	0.590	101.830
			Grade		71.894	304+158.106	67.218	304+230.000	67.452				
59	304+230.000	67.452								0.326	-0.014	-0.340	
			Grade		80.000	304+230.000	67.452	304+310.000	67.441				
60	304+310.000	67.441								-0.014	0.131	0.145	
			Grade		466.235	304+310.000	67.441	304+776.235	68.052				
61	304+776.235	68.052								0.131	-0.177	-0.308	
			Grade		69.259	304+776.235	68.052	304+845.494	67.929				
62	304+875.494	67.876	Curve	Sag	60.000	304+845.494	67.929	304+905.494	67.976	-0.177	0.334	0.511	117.416
			Grade		70.000	304+905.494	67.976	304+975.494	68.21				
63	304+975.494	68.210								0.334	0.271	-0.063	
			Grade		84.506	304+975.494	68.210	305+060.000	68.439				
64	305+060.000	68.439								0.271	0.094	-0.177	
			Grade		150.000	305+060.000	68.439	305+210.000	68.58				
65	305+210.000	68.580								0.094	-0.016	-0.110	
			Grade		136.366	305+210.000	68.580	305+346.366	68.557				
66	305+346.366	68.557								-0.016	-0.086	-0.070	
			Grade		133.656	305+346.366	68.557	305+480.022	68.443				
67	305+480.022	68.443								-0.086	0.094	0.180	
			Grade		129.978	305+480.022	68.443	305+610.000	68.565				
68	305+610.000	68.565								0.094	-0.029	-0.123	
			Grade		100.000	305+610.000	68.565	305+710.000	68.536				
69	305+710.000	68.536								-0.029	0.208	0.237	
			Grade		100.000	305+710.000	68.536	305+810.000	68.743				
70	305+810.000	68.743								0.208	-0.009	-0.217	
			Grade		130.000	305+810.000	68.743	305+940.000	68.731				

R2	June 2018	Based on Survey Data Provided by Client.
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017
Rev.	Date	Description on Revisions

Revisions

CLIENT:-
NATIONAL HIGHWAYS
& INFRASTRUCTURE
DEVELOPMENT
COPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY
DATE

PROOF CHECKED CONSULTANT:-
CETEST
CR TESTING COMPANY PVT. LTD
13/7/18
AUTHORISED SIGNATORY
DATE

SAEFTY CONSULTANT:-
Chaitanya Projects
Consultancy Pvt. Ltd
AUTHORISED SIGNATORY
DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India

SL Team Leader	MSR Design Director
DRAWN	DESIGN	CHECKED BY	APPROVED BY

SCALE:-
NTS

TITLE:-
Vertical Report (LHS)

DRAWING NO.:-
AECOM-DELD15159-DD-DWG-VER-002

REV.
R2

Vertical Curve Report KM 297+000 to KM 314+000(LHS)

IP			Element Type	Type of Curve	Length / Curve Length	Start		End		Gradient			K Value
NO.	Chainage	Level				Curve Start Chainage	Curve Start Level	Curve End Chainage	Curve End Level	IN	OUT	Difference	
71	305+940.000	68.731								-0.009	0.208	0.217	
			Grade		70.003	305+940.000	68.731	306+010.003	68.877				
72	306+040.003	68.939	Curve	Hog	60.000	306+010.003	68.877	306+070.003	68.858	0.208	-0.269	-0.477	125.862
			Grade		69.997	306+070.003	68.858	306+140.000	68.67				
73	306+140.000	68.670								-0.269	-0.080	0.189	
			Grade		80.000	306+140.000	68.670	306+220.000	68.606				
74	306+220.000	68.606								-0.080	-0.233	-0.153	
			Grade		150.000	306+220.000	68.606	306+370.000	68.256				
75	306+370.000	68.256								-0.233	-0.148	0.085	
			Grade		90.000	306+370.000	68.256	306+460.000	68.122				
76	306+460.000	68.122								-0.148	0.218	0.366	
			Grade		120.000	306+460.000	68.122	306+580.000	68.384				
77	306+580.000	68.384								0.218	-0.035	-0.253	
			Grade		102.698	306+580.000	68.384	306+682.698	68.348				
78	306+682.698	68.348								-0.035	0.039	0.074	
			Grade		80.000	306+682.698	68.348	306+762.698	68.38				
79	306+762.698	68.380								0.039	0.223	0.184	
			Grade		113.711	306+762.698	68.380	306+876.409	68.633				
80	306+926.409	68.745	Curve	Hog	100.000	306+876.409	68.633	306+976.409	68.539	0.223	-0.412	-0.635	157.632
			Grade		95.412	306+976.409	68.539	307+071.821	68.146				
81	307+101.821	68.023	Curve	Sag	60.000	307+071.821	68.146	307+131.821	68.268	-0.412	0.819	1.231	48.734
			Grade		2.042	307+131.821	68.268	307+133.863	68.285				
82	307+203.863	68.859	Curve	Hog	140.000	307+133.863	68.285	307+273.863	67.886	0.819	-1.390	-2.209	63.367
			Grade		41.251	307+273.863	67.886	307+315.114	67.312				
83	307+355.114	66.756	Curve	Sag	80.000	307+315.114	67.312	307+395.114	66.937	-1.390	0.450	1.840	43.477
			Grade		12.628	307+395.114	66.937	307+407.742	66.993				
84	307+440.242	67.140	Curve	Hog	65.000	307+407.742	66.993	307+472.742	66.939	0.450	-0.617	-1.067	60.907
			Grade		17.500	307+472.742	66.939	307+490.242	66.831				
85	307+520.242	66.646	Curve	Sag	60.000	307+490.242	66.831	307+550.242	66.684	-0.617	0.127	0.744	80.611
			Grade		62.750	307+550.242	66.684	307+612.992	66.764				
86	307+642.992	66.802	Curve	Sag	60.000	307+612.992	66.764	307+672.992	67.012	0.127	0.698	0.571	105.172
			Grade		11.646	307+672.992	67.012	307+684.638	67.093				
87	307+714.638	67.302	Curve	Hog	60.000	307+684.638	67.093	307+744.638	67.269	0.698	-0.110	-0.808	74.287
			Grade		164.538	307+744.638	67.269	307+909.176	67.089				
88	307+939.176	67.056	Curve	Sag	60.000	307+909.176	67.089	307+969.176	67.224	-0.110	0.562	0.672	89.235
			Grade		70.824	307+969.176	67.224	308+040.000	67.623				
89	308+070.000	67.791	Curve	Hog	60.000	308+040.000	67.623	308+100.000	67.763	0.562	-0.093	-0.655	91.471
			Grade		55.010	308+100.000	67.763	308+155.010	67.712				
90	308+155.010	67.712								-0.093	0.099	-0.671	
			Grade		90.000	308+155.010	67.712	308+245.010	67.802				
91	308+245.010	67.802								0.099	-0.014	-0.671	
			Grade		78.810	308+245.010	67.802	308+323.820	67.791				
92	308+323.820	67.791								-0.014	0.160	-0.671	
			Grade		76.135	308+323.820	67.791	308+399.955	67.912				
93	308+429.955	67.960	Curve	Hog	60.000	308+399.955	67.912	308+459.955	67.847	0.160	-0.377	-0.537	111.900
			Grade		38.216	308+459.955	67.847	308+498.171	67.703				
94	308+528.171	67.590	Curve	Sag	60.000	308+498.171	67.703	308+558.171	67.61	-0.377	0.068	0.445	134.931
			Grade		76.839	308+558.171	67.610	308+635.010	67.663				
95	308+635.010	67.663								0.068	-0.219	-0.287	
			Grade		115.000	308+635.010	67.663	308+750.010	67.411				
96	308+750.010	67.411								-0.219	-0.018	0.201	
			Grade		134.990	308+750.010	67.411	308+885.000	67.387				
97	308+885.000	67.387								-0.018	-0.099	-0.081	
			Grade		145.000	308+885.000	67.387	309+030.000	67.244				
98	309+030.000	67.244								-0.099	0.360	0.459	
			Grade		90.000	309+030.000	67.244	309+120.000	67.568				
99	309+120.000	67.568								0.360	0.169	-0.191	
			Grade		126.707	309+120.000	67.568	309+246.707	67.782				
100	309+286.707	67.850	Curve	Hog	80.000	309+246.707	67.782	309+326.707	67.698	0.169	-0.380	-0.549	145.798
			Grade		73.293	309+326.707	67.698	309+400.000	67.42				
101	309+400.000	67.420								-0.380	-0.229	0.151	
			Grade		112.691	309+400.000	67.420	309+512.691	67.162				
102	309+542.691	67.093	Curve	Sag	60.000	309+512.691	67.162	309+572.691	67.255	-0.229	0.540	0.769	77.991
			Grade		17.309	309+572.691	67.255	309+590.000	67.348				
103	309+620.000	67.510	Curve	Hog	60.000	309+590.000	67.348	309+650.000	67.434	0.540	-0.255	-0.795	75.486
			Grade		66.865	309+650.000	67.434	309+716.865	67.263				
104	309+746.865	67.187	Curve	Sag	60.000	309+716.865	67.263	309+776.865	67.48	-0.255	0.976	1.231	48.750
			Grade		4.920	309+776.865	67.480	309+781.785	67.528				
105	309+834.285	68.040	Curve	Hog	105.000	309+781.785	67.528	309+886.785	67.731	0.976	-0.589	-1.565	67.118
			Grade		2.668	309+886.785	67.731	309+889.453	67.715				

Rev.	Date	Description on Revisions
R2	June 2018	Based on Survey Data Provided by Client.
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

Revisions

CLIENT:-
NATIONAL HIGHWAYS
& INFRASTRUCTURE
DEVELOPMENT
COPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY
DATE

PROOF CHECKED CONSULTANT:-
CETEST
C E TESTING COMPANY PVT. LTD.
13/7/18
AUTHORISED SIGNATORY
DATE

SAEFTY CONSULTANT:-
Chaitanya Projects
Consultancy Pvt. Ltd
AUTHORISED SIGNATORY
DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India

DRAWN	DESIGN	CHECKED BY	APPROVED BY
		SL Team Leader	MSR Design Director

SCALE:-
NTS

TITLE:-
Vertical Report (LHS)

DRAWING NO.:-
AECOM-DELD15159-DD-DWG-VER-003

REV.
R2

Vertical Curve Report KM 297+000 to KM 314+000 (LHS)

IP			Element Type	Type of Curve	Length / Curve Length	Start		End		Gradient			K Value
NO.	Chainage	Level				Curve Start Chainage	Curve Start Level	Curve End Chainage	Curve End Level	IN	OUT	Difference	
106	309+746.865	67.187	Curve	Sag	60.000	309+716.865	67.263	309+776.865	67.480	-0.255	0.976	1.231	48.750
			Grade		4.920	309+776.865	67.480	309+781.785	67.528				
107	309+834.285	68.040	Curve	Hog	105.000	309+781.785	67.528	309+886.785	67.731	0.976	-0.589	-1.565	67.118
			Grade		2.668	309+886.785	67.731	309+889.453	67.715				
108	309+919.453	67.539	Curve	Sag	60.000	309+889.453	67.715	309+949.453	67.564	-0.589	0.083	0.672	89.333
			Grade		74.715	309+949.453	67.564	310+024.168	67.626				
109	310+024.168	67.626								0.083	-0.244	-0.327	
			Grade		92.320	310+024.168	67.626	310+116.488	67.400				
110	310+116.488	67.400								-0.244	0.139	0.383	
			Grade		86.140	310+116.488	67.400	310+202.628	67.520				
111	310+202.628	67.520								0.139	-0.010	-0.149	
			Grade		101.532	310+202.628	67.520	310+304.160	67.510				
112	310+304.160	67.510								-0.010	-0.207	-0.197	
			Grade		96.845	310+304.160	67.510	310+401.005	67.310				
113	310+431.005	67.248	Curve	Sag	60.000	310+401.005	67.310	310+461.005	67.347	-0.207	0.331	0.538	111.546
			Grade		40.073	310+461.005	67.347	310+501.078	67.480				
114	310+531.078	67.579	Curve	Hog	60.000	310+501.078	67.480	310+561.078	67.448	0.331	-0.437	-0.768	78.060
			Grade		21.531	310+561.078	67.448	310+582.609	67.354				
115	310+612.609	67.223	Curve	Sag	60.000	310+582.609	67.354	310+642.609	67.248	-0.437	0.084	0.521	115.123
			Grade		87.640	310+642.609	67.248	310+730.249	67.321				
116	310+730.249	67.321								0.084	0.284	0.200	
			Grade		178.061	310+730.249	67.321	310+908.310	67.827				
117	310+908.310	67.827								0.284	-0.185	-0.469	
			Grade		176.700	310+908.310	67.827	311+085.010	67.500				
118	311+085.010	67.500								-0.185	0.052	0.237	
			Grade		237.937	311+085.010	67.500	311+322.947	67.624				
119	311+362.947	67.645	Curve	Hog	80.000	311+322.947	67.624	311+402.947	67.465	0.052	-0.448	-0.500	160.060
			Grade		51.070	311+402.947	67.465	311+454.017	67.237				
120	311+484.017	67.102	Curve	Sag	60.000	311+454.017	67.237	311+514.017	67.189	-0.448	0.289	0.737	81.421
			Grade		105.993	311+514.017	67.189	311+620.010	67.495				
121	311+620.010	67.495								0.289	0.056	-0.233	
			Grade		194.140	311+620.010	67.495	311+814.150	67.603				
122	311+814.150	67.603								0.056	-0.035	-0.091	
			Grade		153.632	311+814.150	67.603	311+967.782	67.549				
123	311+967.782	67.549								-0.035	0.041	0.076	
			Grade		292.218	311+967.782	67.549	312+260.000	67.670				
124	312+260.000	67.670								0.041	0.164	0.123	
			Grade		109.836	312+260.000	67.670	312+369.836	67.851				
125	312+399.836	67.900	Curve	Hog	60.000	312+369.836	67.851	312+429.836	67.718	0.164	-0.607	-0.771	77.735
			Grade		44.623	312+429.836	67.718	312+474.459	67.447				
126	312+504.459	67.265	Curve	Sag	60.000	312+474.459	67.447	312+534.459	67.234	-0.607	-0.103	0.504	118.858
			Grade		30.551	312+534.459	67.234	312+565.010	67.202				
127	312+595.010	67.172	Curve	Sag	60.000	312+565.010	67.202	312+625.010	67.260	-0.103	0.294	0.397	151.444
			Grade		31.045	312+625.010	67.260	312+656.055	67.351				
128	312+686.055	67.439	Curve	Hog	60.000	312+656.055	67.351	312+716.055	67.410	0.294	-0.095	-0.389	154.371
			Grade		83.955	312+716.055	67.410	312+800.010	67.331				
129	312+800.010	67.331								-0.095	0.096	0.191	
			Grade		89.123	312+800.010	67.331	312+889.133	67.416				
130	312+889.133	67.416								0.096	-0.104	-0.200	
			Grade		57.806	312+889.133	67.416	312+946.939	67.356				
131	312+946.939	67.356								-0.104	-0.194	-0.090	
			Grade		31.159	312+946.939	67.356	312+978.098	67.295				
132	313+008.098	67.237	Curve	Sag	60.000	312+978.098	67.295	313+038.098	67.454	-0.194	0.721	0.915	65.584
			Grade		6.825	313+038.098	67.454	313+044.923	67.503				
133	313+074.923	67.719	Curve	Hog	60.000	313+044.923	67.503	313+104.923	67.702	0.721	-0.056	-0.777	77.230
			Grade		71.203	313+104.923	67.702	313+176.126	67.662				
134	313+211.126	67.643	Curve	Sag	70.000	313+176.126	67.662	313+246.126	67.834	-0.056	0.548	0.604	115.982
			Grade		32.413	313+246.126	67.834	313+278.539	68.012				
135	313+311.039	68.190	Curve	Hog	65.000	313+278.539	68.012	313+343.539	68.052	0.548	-0.422	-0.970	67.013
			Grade		35.621	313+343.539	68.052	313+379.160	67.902				
136	313+419.160	67.733	Curve	Sag	80.000	313+379.160	67.902	313+459.160	67.730	-0.422	-0.007	0.415	192.411
			Grade		50.000	313+459.160	67.730	313+509.160	67.727				
137	313+509.160	67.727								-0.007	-0.015	-0.008	
			Grade		91.860	313+509.160	67.727	313+601.020	67.713				
138	313+601.020	67.713								-0.015	0.045	0.060	
			Grade		78.140	313+601.020	67.713	313+679.160	67.748				
139	313+679.160	67.748								0.045	0.329	0.284	
			Grade		45.472	313+679.160	67.748	313+724.632	67.898				
140	313+764.632	68.029	Curve	Hog	80.000	313+724.632	67.898	313+804.632	67.680	0.329	-0.873	-1.202	66.544

Rev.	Date	Description on Revisions
R2	June 2018	Based on Survey Data Provided by Client.
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

Revisions

CLIENT:-
NATIONAL HIGHWAYS
& INFRASTRUCTURE
DEVELOPMENT
COPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY
DATE

PROOF CHECKED CONSULTANT:-
CETEST
C E TESTING COMPANY PVT. LTD.
13/7/18
AUTHORISED SIGNATORY
DATE

SAEFTY CONSULTANT:-
Chaitanya Projects Consultancy Pvt. Ltd
AUTHORISED SIGNATORY
DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India

DRAWN	DESIGN	CHECKED BY	APPROVED BY
		SL Team Leader	MSR Design Director

SCALE:-
NTS

TITLE:-
Vertical Report (LHS)

DRAWING NO.:-
AECOM-DELD15159-DD-DWG-VER-004

REV.
R2

Vertical Curve Report KM 297+000 to KM 314+000 (RHS)

IP			Element Type	Type of Curve	Length / Curve Length	Start		End		Gradient			K Value
NO.	Chainage	Level				Curve Start Chainage	Curve Start Level	Curve End Chainage	Curve End Level	IN	OUT	Difference	
1	297+000.000	65.327									-0.024	-0.024	
			Grade		155.000	297+000.000	65.327	297+155.000	65.290				
2	297+155.000	65.290								-0.024	0.399	0.423	
			Grade		100.260	297+155.000	65.290	297+255.260	65.690				
3	297+285.260	65.810	Curve	Hog	60.000	297+255.260	65.690	297+315.260	65.771	0.399	-0.129	-0.528	113.508
			Grade		62.740	297+315.260	65.771	297+378.000	65.690				
4	297+378.000	65.690								-0.129	-0.266	-0.137	
			Grade		62.000	297+378.000	65.690	297+440.000	65.525				
5	297+440.000	65.525								-0.266	-0.537	-0.271	
			Grade		50.000	297+440.000	65.525	297+490.000	65.256				
6	297+520.000	65.095	Curve	Sag	60.000	297+490.000	65.256	297+550.000	65.214	-0.538	0.396	0.934	64.286
			Grade		60.000	297+550.000	65.214	297+610.000	65.451				
7	297+640.000	65.570	Curve	Hog	60.000	297+610.000	65.451	297+670.000	65.503	0.396	-0.223	-0.619	96.904
			Grade		30.000	297+670.000	65.503	297+700.000	65.436				
8	297+730.000	65.369	Curve	Sag	60.000	297+700.000	65.436	297+760.000	65.461	-0.223	0.308	0.531	113.030
			Grade		50.000	297+760.000	65.461	297+810.000	65.615				
9	297+810.000	65.615								0.308	0.551	0.243	
			Grade		74.637	297+810.000	65.615	297+884.637	66.027				
10	297+914.637	66.192	Curve	Hog	60.000	297+884.637	66.027	297+944.637	66.177	0.551	-0.050	-0.601	99.823
			Grade		125.363	297+944.637	66.177	298+070.000	66.115				
11	298+100.000	66.100	Curve	Hog	60.000	298+070.000	66.115	298+130.000	66.070	-0.050	-0.100	-0.050	1191.241
			Grade		40.000	298+130.000	66.070	298+170.000	66.030				
12	298+200.000	66.000	Curve	Sag	60.000	298+170.000	66.030	298+230.000	66.050	-0.100	0.166	0.266	225.264
			Grade		91.484	298+230.000	66.050	298+321.484	66.202				
13	298+351.484	66.252	Curve	Hog	60.000	298+321.484	66.202	298+381.484	66.200	0.166	-0.174	-0.340	176.341
			Grade		6.723	298+381.484	66.200	298+388.207	66.188				
14	298+418.207	66.136	Curve	Sag	60.000	298+388.207	66.188	298+448.207	66.209	-0.174	0.243	0.417	144.074
			Grade		49.467	298+448.207	66.209	298+497.674	66.329				
15	298+547.674	66.450	Curve	Hog	100.000	298+497.674	66.329	298+597.674	66.248	0.243	-0.405	-0.648	154.509
			Grade		72.326	298+597.674	66.248	298+670.000	65.955				
16	298+670.000	65.955								-0.405	-0.438	-0.033	
			Grade		130.000	298+670.000	65.955	298+800.000	65.386				
17	298+800.000	65.386								-0.438	-0.083	0.355	
			Grade		78.603	298+800.000	65.386	298+878.603	65.321				
18	298+908.603	65.296	Curve	Sag	60.000	298+878.603	65.321	298+938.603	65.285	-0.083	-0.035	0.048	1253.431
			Grade		71.421	298+938.603	65.285	299+010.024	65.261				
19	299+040.024	65.250	Curve	Sag	60.000	299+010.024	65.261	299+070.024	65.289	-0.035	0.129	0.164	365.914
			Grade		123.842	299+070.024	65.289	299+193.866	65.448				
20	299+233.866	65.500	Curve	Hog	80.000	299+193.866	65.448	299+273.866	65.500	0.129	0.000	-0.129	620.294
			Grade		136.134	299+273.866	65.500	299+410.000	65.500				
21	299+440.000	65.500	Curve	Sag	60.000	299+410.000	65.500	299+470.000	65.533	0.000	0.111	0.111	539.882
			Grade		192.189	299+470.000	65.533	299+662.189	65.747				
22	299+662.189	65.747								0.111	0.104	-0.007	
			Grade		116.971	299+662.189	65.747	299+779.160	65.868				
23	299+779.160	65.868								0.104	-0.044	-0.148	
			Grade		137.274	299+779.160	65.868	299+916.434	65.808				
24	299+916.434	65.808								-0.044	-0.072	-0.028	
			Grade		115.173	299+916.434	65.808	300+031.607	65.726				
25	300+031.607	65.726								-0.072	0.179	0.251	
			Grade		122.849	300+031.607	65.726	300+154.456	65.946				
26	300+184.456	66.000	Curve	Hog	60.000	300+154.456	65.946	300+214.456	65.912	0.179	-0.295	-0.474	126.588
			Grade		65.544	300+214.456	65.912	300+280.000	65.718				
27	300+310.000	65.630	Curve	Sag	60.000	300+280.000	65.718	300+340.000	65.622	-0.295	-0.027	0.268	223.838
			Grade		90.000	300+340.000	65.622	300+430.000	65.598				
28	300+460.000	65.590	Curve	Sag	60.000	300+430.000	65.598	300+490.000	65.744	-0.027	0.514	0.541	110.915
			Grade		10.000	300+490.000	65.744	300+500.000	65.796				
29	300+530.000	65.950	Curve	Hog	60.000	300+500.000	65.796	300+560.000	65.948	0.514	-0.008	-0.522	114.852
			Grade		63.069	300+560.000	65.948	300+623.069	65.942				
30	300+653.069	65.940	Curve	Sag	60.000	300+623.069	65.942	300+683.069	66.177	-0.008	0.790	0.798	75.212
			Grade		65.376	300+683.069	66.177	300+748.445	66.693				
31	300+778.445	66.930	Curve	Hog	60.000	300+748.445	66.693	300+808.445	66.818	0.790	-0.374	-1.164	51.545
			Grade		81.555	300+808.445	66.818	300+890.000	66.512				
32	300+920.000	66.400	Curve	Sag	60.000	300+890.000	66.512	300+950.000	66.476	-0.374	0.253	0.627	95.611
			Grade		76.294	300+950.000	66.476	301+026.294	66.669				
33	301+056.294	66.745	Curve	Hog	60.000	301+026.294	66.669	301+086.294	66.682	0.253	-0.210	-0.463	129.559
			Grade		62.866	301+086.294	66.682	301+149.160	66.550				
34	301+149.160	66.550								-0.210	0.344	0.554	
			Grade		130.840	301+149.160	66.550	301+280.000	67.000				
35	301+280.000	67.000								0.344	0.143	-0.201	
			Grade		40.000	301+280.000	67.000	301+320.000	67.057				

Rev.	Date	Description on Revisions
R2	June 2018	Based on Survey Data Provided by Client.
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

Revisions

CLIENT:-
NATIONAL HIGHWAYS
& INFRASTRUCTURE
DEVELOPMENT
COPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CETEST
C.E TESTING COMPANY PVT. LTD
13/7/18
AUTHORISED SIGNATORY | DATE

SAEFTY CONSULTANT:-
Chaitanya Projects Consultancy Pvt. Ltd
NEW DELHI
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India

		SL	MSR
		Team Leader	Design Director
DRAWN	DESIGN	CHECKED BY	APPROVED BY

SCALE:-
NTS

TITLE:-
Vertical Report (RHS)

DRAWING NO.:- AECOM-DELD15159-DD-DWG-VER-005
REV. R2

Vertical Curve Report KM 297+000 to KM 314+000 (RHS)

IP			Element Type	Type of Curve	Length / Curve Length	Start		End		Gradient			K Value
NO.	Chainage	Level				Curve Start Chainage	Curve Start Level	Curve End Chainage	Curve End Level	IN	OUT	Difference	
36	301+350.000	67.100	Curve	Hog	60.000	301+320.000	67.057	301+380.000	67.062	0.143	-0.128	-0.271	221.701
			Grade		30.000	301+380.000	67.062	301+410.000	67.023				
37	301+440.000	66.985	Curve	Sag	60.000	301+410.000	67.023	301+470.000	67.081	-0.128	0.319	0.447	134.226
			Grade		70.000	301+470.000	67.081	301+540.000	67.304				
38	301+570.000	67.400	Curve	Hog	60.000	301+540.000	67.304	301+600.000	67.422	0.319	0.074	-0.245	245.018
			Grade		113.257	301+600.000	67.422	301+713.257	67.506				
39	301+713.257	67.506								0.074	0.009	-0.065	
			Grade		86.743	301+713.257	67.506	301+800.000	67.514				
40	301+800.000	67.514								0.009	0.138	0.129	
			Grade		177.724	301+800.000	67.514	301+977.724	67.760				
41	301+977.724	67.760								0.138	0.177	0.039	
			Grade		100.000	301+977.724	67.760	302+077.724	67.936				
42	302+077.724	67.936								0.177	-0.117	-0.294	
			Grade		109.769	302+077.724	67.936	302+187.493	67.808				
43	302+187.493	67.808								-0.117	0.226	0.343	
			Grade		137.017	302+187.493	67.808	302+324.510	68.119				
44	302+324.510	68.119								0.226	0.055	-0.171	
			Grade		275.490	302+324.510	68.119	302+600.000	68.270				
45	302+600.000	68.270								0.055	-0.094	-0.149	
			Grade		110.000	302+600.000	68.270	302+710.000	68.166				
46	302+710.000	68.166								-0.094	-0.234	-0.140	
			Grade		80.000	302+710.000	68.166	302+790.000	67.979				
47	302+790.000	67.979								-0.234	-0.111	0.123	
			Grade		80.000	302+790.000	67.979	302+870.000	67.890				
48	302+870.000	67.890								-0.111	-0.047	0.064	
			Grade		122.000	302+870.000	67.890	302+992.000	67.832				
49	302+992.000	67.832								-0.047	0.187	0.234	
			Grade		100.003	302+992.000	67.832	303+092.003	68.019				
50	303+092.003	68.019								0.187	0.065	-0.122	
			Grade		99.996	303+092.003	68.019	303+191.999	68.084				
51	303+191.999	68.084								0.065	0.059	-0.006	
			Grade		109.370	303+191.999	68.084	303+301.369	68.148				
52	303+256.417	68.122								0.059	-0.023	-0.082	
			Grade		62.002	303+256.417	68.148	303+318.419	68.108				
53	303+348.419	68.101	Curve	Sag	60.000	303+318.419	68.108	303+378.419	68.309	-0.023	0.694	0.717	83.678
			Grade		46.260	303+378.419	68.309	303+424.679	68.630				
54	303+492.179	69.099	Curve	Hog	135.000	303+424.679	68.630	303+559.679	68.506	0.694	-0.879	-1.573	85.831
			Grade		86.762	303+559.679	68.506	303+646.441	67.744				
55	303+676.441	67.480	Curve	Sag	60.000	303+646.441	67.744	303+706.441	67.565	-0.879	0.284	1.163	51.598
			Grade		48.598	303+706.441	67.565	303+755.039	67.703				
56	303+785.039	67.789	Curve	Hog	60.000	303+755.039	67.703	303+815.039	67.672	0.284	-0.388	-0.672	89.210
			Grade		34.310	303+815.039	67.672	303+849.349	67.539				
57	303+879.349	67.422	Curve	Sag	60.000	303+849.349	67.539	303+909.349	67.476	-0.388	0.179	0.567	105.840
			Grade		50.007	303+909.349	67.476	303+959.356	67.565				
58	303+959.356	67.565								0.179	-0.264	-0.443	
			Grade		138.750	303+959.356	67.565	304+098.106	67.200				
59	304+128.106	67.120	Curve	Sag	60.000	304+098.106	67.200	304+158.106	67.218	-0.264	0.326	0.590	101.830
			Grade		71.894	304+158.106	67.218	304+230.000	67.452				
60	304+230.000	67.452								0.326	-0.014	-0.340	
			Grade		80.000	304+230.000	67.452	304+310.000	67.441				
61	304+310.000	67.441								-0.014	0.131	0.145	
			Grade		466.235	304+310.000	67.441	304+776.235	68.052				
62	304+776.235	68.052								0.131	-0.177	-0.308	
			Grade		69.259	304+776.235	68.052	304+845.494	67.929				
63	304+875.494	67.876	Curve	Sag	60.000	304+845.494	67.929	304+905.494	67.976	-0.177	0.334	0.511	117.416
			Grade		70.000	304+905.494	67.976	304+975.494	68.210				
64	304+975.494	68.210								0.334	0.271	-0.063	
			Grade		84.506	304+975.494	68.210	305+060.000	68.439				
65	305+060.000	68.439								0.271	0.094	-0.177	
			Grade		150.000	305+060.000	68.439	305+210.000	68.580				
66	305+210.000	68.580								0.094	-0.016	-0.110	
			Grade		136.366	305+210.000	68.580	305+346.366	68.557				
67	305+346.366	68.557								-0.016	-0.086	-0.070	
			Grade		133.656	305+346.366	68.557	305+480.022	68.443				
68	305+480.022	68.443								-0.086	0.094	0.180	
			Grade		129.978	305+480.022	68.443	305+610.000	68.565				
69	305+610.000	68.565								0.094	-0.029	-0.123	
			Grade		100.000	305+610.000	68.565	305+710.000	68.536				
70	305+710.000	68.536								-0.029	0.208	0.237	
			Grade		100.000	305+710.000	68.536	305+810.000	68.743				

AECOM India Private limited
Gurgaon

Rev.	Date	Description on Revisions
R2	June 2018	Based on Survey Data Provided by Client.
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

Revisions

CLIENT:-
NATIONAL HIGHWAYS
& INFRASTRUCTURE
DEVELOPMENT
COPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY
DATE

PROOF CHECKED CONSULTANT:-
CETEST
C E TESTING COMPANY PVT. LTD.
13/7/18
AUTHORISED SIGNATORY
DATE

SAEFTY CONSULTANT:-
Chaitanya Projects Consultancy Pvt. Ltd
NEW DELHI
AUTHORISED SIGNATORY
DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India

DRAWN	DESIGN	CHECKED BY	APPROVED BY
		SL Team Leader	MSR Design Director

SCALE:-
NTS

TITLE:-
Vertical Report (RHS)

DRAWING NO.:-
AECOM-DELD15159-DD-DWG-VER-006

REV.
R2

13

Vertical Curve Report KM 297+000 to KM 314+000 (RHS)

IP			Element Type	Type of Curve	Length / Curve Length	Start		End		Gradient			K Value
NO.	Chainage	Level				Curve Start Chainage	Curve Start Level	Curve End Chainage	Curve End Level	IN	OUT	Difference	
71	305+810.000	68.743								0.208	-0.009	-0.217	
			Grade		130.000	305+810.000	68.743	305+940.000	68.731				
72	305+940.000	68.731								-0.009	0.208	0.217	
			Grade		70.003	305+940.000	68.731	306+010.003	68.877				
73	306+040.003	68.939	Curve	Hog	60.000	306+010.003	68.877	306+070.003	68.858	0.208	-0.269	-0.477	125.862
			Grade		69.997	306+070.003	68.858	306+140.000	68.670				
74	306+140.000	68.670								-0.269	-0.080	0.189	
			Grade		80.000	306+140.000	68.670	306+220.000	68.606				
75	306+220.000	68.606								-0.080	-0.233	-0.153	
			Grade		150.000	306+220.000	68.606	306+370.000	68.256				
76	306+370.000	68.256								-0.233	-0.148	0.085	
			Grade		90.000	306+370.000	68.256	306+460.000	68.122				
77	306+460.000	68.122								-0.148	0.218	0.366	
			Grade		120.000	306+460.000	68.122	306+580.000	68.384				
78	306+580.000	68.384								0.218	-0.035	-0.253	
			Grade		102.698	306+580.000	68.384	306+682.698	68.348				
79	306+682.698	68.348								-0.035	0.039	0.074	
			Grade		80.000	306+682.698	68.348	306+762.698	68.380				
80	306+762.698	68.380								0.039	0.223	0.184	
			Grade		113.711	306+762.698	68.380	306+876.409	68.633				
81	306+926.409	68.745	Curve	Hog	100.000	306+876.409	68.633	306+976.409	68.539	0.223	-0.412	-0.635	157.546
			Grade		92.137	306+976.409	68.539	307+068.546	68.159				
82	307+068.546	68.159								-0.412	-0.772	-0.360	
			Grade		49.954	307+068.546	68.159	307+118.500	67.774				
83	307+148.500	67.542	Curve	Sag	60.000	307+118.500	67.774	307+178.500	67.451	-0.772	-0.305	0.467	128.453
84	307+235.500	67.277	Curve	Hog	60.000	307+205.500	67.368	307+265.500	67.038	-0.305	-0.797	-0.492	121.885
85	307+320.458	66.600	Curve	Sag	60.000	307+290.458	66.839	307+350.458	66.735	-0.797	0.451	1.248	48.099
86	307+440.242	67.140	Curve	Hog	65.000	307+407.742	66.993	307+472.742	66.939	0.451	-0.617	-1.068	60.885
			Grade		17.500	307+472.742	66.939	307+490.242	66.831				
87	307+520.242	66.646	Curve	Sag	60.000	307+490.242	66.831	307+550.242	66.684	-0.617	0.127	0.744	80.611
			Grade		62.750	307+550.242	66.684	307+612.992	66.764				
88	307+642.992	66.802	Curve	Sag	60.000	307+612.992	66.764	307+672.992	67.012	0.127	0.698	0.571	105.172
			Grade		11.646	307+672.992	67.012	307+684.638	67.093				
89	307+714.638	67.302	Curve	Hog	60.000	307+684.638	67.093	307+744.638	67.269	0.698	-0.110	-0.808	74.287
			Grade		164.538	307+744.638	67.269	307+909.176	67.089				
90	307+939.176	67.056	Curve	Sag	60.000	307+909.176	67.089	307+969.176	67.224	-0.110	0.562	0.672	89.235
			Grade		70.824	307+969.176	67.224	308+040.000	67.623				
91	308+070.000	67.791	Curve	Hog	60.000	308+040.000	67.623	308+100.000	67.763	0.562	-0.093	-0.655	91.471
			Grade		55.010	308+100.000	67.763	308+155.010	67.712				
92	308+155.010	67.712								-0.093	0.099	-0.671	
			Grade		90.000	308+155.010	67.712	308+245.010	67.802				
93	308+245.010	67.802								0.099	-0.014	-0.671	
			Grade		78.810	308+245.010	67.802	308+323.820	67.791				
94	308+323.820	67.791								-0.014	0.160	-0.671	
			Grade		76.135	308+323.820	67.791	308+399.955	67.912				
95	308+429.955	67.960	Curve	Hog	60.000	308+399.955	67.912	308+459.955	67.847	0.160	-0.377	-0.537	111.900
			Grade		38.216	308+459.955	67.847	308+498.171	67.703				
96	308+528.171	67.590	Curve	Sag	60.000	308+498.171	67.703	308+558.171	67.610	-0.377	0.068	0.445	134.931
			Grade		76.839	308+558.171	67.610	308+635.010	67.663				
97	308+635.010	67.663								0.068	-0.219	-0.287	
			Grade		115.000	308+635.010	67.663	308+750.010	67.411				
98	308+750.010	67.411								-0.219	-0.018	0.201	
			Grade		134.990	308+750.010	67.411	308+885.000	67.387				
99	308+885.000	67.387								-0.018	-0.099	-0.081	
			Grade		145.000	308+885.000	67.387	309+030.000	67.244				
100	309+030.000	67.244								-0.099	0.360	0.459	
			Grade		90.000	309+030.000	67.244	309+120.000	67.568				
101	309+120.000	67.568								0.360	0.169	-0.191	
			Grade		126.707	309+120.000	67.568	309+246.707	67.782				
102	309+286.707	67.850	Curve	Hog	80.000	309+246.707	67.782	309+326.707	67.698	0.169	-0.380	-0.549	145.798
			Grade		73.293	309+326.707	67.698	309+400.000	67.420				
103	309+400.000	67.420								-0.380	-0.229	0.151	
			Grade		112.691	309+400.000	67.420	309+512.691	67.162				
104	309+542.691	67.093	Curve	Sag	60.000	309+512.691	67.162	309+572.691	67.255	-0.229	0.540	0.769	77.991
			Grade		17.309	309+572.691	67.255	309+590.000	67.348				
105	309+620.000	67.510	Curve	Hog	60.000	309+590.000	67.348	309+650.000	67.434	0.540	-0.255	-0.795	75.486
			Grade		66.865	309+650.000	67.434	309+716.865	67.263				

AECOM India Private Limited
Gurgaon

Rev.	Date	Description on Revisions
R2	June 2018	Based on Survey Data Provided by Client.
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

Revisions

CLIENT:-
NATIONAL HIGHWAYS
& INFRASTRUCTURE
DEVELOPMENT
COPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY
DATE

PROOF CHECKED CONSULTANT:-
CETEST
CE TESTING COMPANY PVT.
13/2/18
AUTHORISED SIGNATORY
DATE

SAEFTY CONSULTANT:-
Chaitanya Projects
Consultancy Pvt. Ltd
NEW DELHI
AUTHORISED SIGNATORY
DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India

DRAWN	DESIGN	CHECKED BY	APPROVED BY
		SL Team Leader	MSR Design Director

SCALE:-
NTS

TITLE:-
Vertical Report (RHS)

DRAWING NO.:-
AECOM-DELD15159-DD-DWG-VER-007

REV.
R2

14

Vertical Curve Report KM 297+000 to KM 314+000 (RHS)

IP			Element Type	Type of Curve	Length / Curve Length	Start		End		Gradient			K Value
NO.	Chainage	Level				Curve Start Chainage	Curve Start Level	Curve End Chainage	Curve End Level	IN	OUT	Difference	
106	309+746.865	67.187	Curve	Sag	60.000	309+716.865	67.263	309+776.865	67.480	-0.255	0.976	1.231	48.750
			Grade		4.920	309+776.865	67.480	309+781.785	67.528				
107	309+834.285	68.040	Curve	Hog	105.000	309+781.785	67.528	309+886.785	67.731	0.976	-0.589	-1.565	67.118
			Grade		2.668	309+886.785	67.731	309+889.453	67.715				
108	309+919.453	67.539	Curve	Sag	60.000	309+889.453	67.715	309+949.453	67.564	-0.589	0.083	0.672	89.333
			Grade		74.715	309+949.453	67.564	310+024.168	67.626				
109	310+024.168	67.626								0.083	-0.244	-0.327	
			Grade		92.320	310+024.168	67.626	310+116.488	67.400				
110	310+116.488	67.400								-0.244	0.139	0.383	
			Grade		86.140	310+116.488	67.400	310+202.628	67.520				
111	310+202.628	67.520								0.139	-0.010	-0.149	
			Grade		101.532	310+202.628	67.520	310+304.160	67.510				
112	310+304.160	67.510								-0.010	-0.207	-0.197	
			Grade		96.845	310+304.160	67.510	310+401.005	67.310				
113	310+431.005	67.248	Curve	Sag	60.000	310+401.005	67.310	310+461.005	67.347	-0.207	0.331	0.538	111.546
			Grade		40.073	310+461.005	67.347	310+501.078	67.480				
114	310+531.078	67.579	Curve	Hog	60.000	310+501.078	67.480	310+561.078	67.448	0.331	-0.437	-0.768	78.060
			Grade		21.531	310+561.078	67.448	310+582.609	67.354				
115	310+612.609	67.223	Curve	Sag	60.000	310+582.609	67.354	310+642.609	67.248	-0.437	0.084	0.521	115.123
			Grade		87.640	310+642.609	67.248	310+730.249	67.321				
116	310+730.249	67.321								0.084	0.284	0.200	
			Grade		178.061	310+730.249	67.321	310+908.310	67.827				
117	310+908.310	67.827								0.284	-0.185	-0.469	
			Grade		176.700	310+908.310	67.827	311+085.010	67.500				
118	311+085.010	67.500								-0.185	0.052	0.237	
			Grade		237.937	311+085.010	67.500	311+322.947	67.624				
119	311+362.947	67.645	Curve	Hog	80.000	311+322.947	67.624	311+402.947	67.465	0.052	-0.448	-0.500	160.060
			Grade		51.070	311+402.947	67.465	311+454.017	67.237				
120	311+484.017	67.102	Curve	Sag	60.000	311+454.017	67.237	311+514.017	67.189	-0.448	0.289	0.737	81.421
			Grade		105.993	311+514.017	67.189	311+620.010	67.495				
121	311+620.010	67.495								0.289	0.056	-0.233	
			Grade		194.140	311+620.010	67.495	311+814.150	67.603				
122	311+814.150	67.603								0.056	-0.035	-0.091	
			Grade		153.632	311+814.150	67.603	311+967.782	67.549				
123	311+967.782	67.549								-0.035	0.041	0.076	
			Grade		292.218	311+967.782	67.549	312+260.000	67.670				
124	312+260.000	67.670								0.041	0.164	0.123	
			Grade		109.836	312+260.000	67.670	312+369.836	67.851				
125	312+399.836	67.900	Curve	Hog	60.000	312+369.836	67.851	312+429.836	67.718	0.164	-0.607	-0.771	77.735
			Grade		44.623	312+429.836	67.718	312+474.459	67.447				
126	312+504.459	67.265	Curve	Sag	60.000	312+474.459	67.447	312+534.459	67.234	-0.607	-0.103	0.504	118.858
			Grade		30.551	312+534.459	67.234	312+565.010	67.202				
127	312+595.010	67.172	Curve	Sag	60.000	312+565.010	67.202	312+625.010	67.260	-0.103	0.294	0.397	151.444
			Grade		31.045	312+625.010	67.260	312+656.055	67.351				
128	312+686.055	67.439	Curve	Hog	60.000	312+656.055	67.351	312+716.055	67.410	0.294	-0.095	-0.389	154.371
			Grade		83.955	312+716.055	67.410	312+800.010	67.331				
129	312+800.010	67.331								-0.095	0.096	0.191	
			Grade		89.123	312+800.010	67.331	312+889.133	67.416				
130	312+889.133	67.416								0.096	-0.104	-0.200	
			Grade		57.806	312+889.133	67.416	312+946.939	67.356				
131	312+946.939	67.356								-0.104	-0.194	-0.090	
			Grade		31.159	312+946.939	67.356	312+978.098	67.295				
132	313+008.098	67.237	Curve	Sag	60.000	312+978.098	67.295	313+038.098	67.454	-0.194	0.721	0.915	65.584
			Grade		6.825	313+038.098	67.454	313+044.923	67.503				
133	313+074.923	67.719	Curve	Hog	60.000	313+044.923	67.503	313+104.923	67.702	0.721	-0.056	-0.777	77.230
			Grade		71.203	313+104.923	67.702	313+176.126	67.662				
134	313+211.126	67.643	Curve	Sag	70.000	313+176.126	67.662	313+246.126	67.834	-0.056	0.548	0.604	115.982
			Grade		32.413	313+246.126	67.834	313+278.539	68.012				
135	313+311.039	68.190	Curve	Hog	65.000	313+278.539	68.012	313+343.539	68.052	0.548	-0.422	-0.970	67.013
			Grade		35.621	313+343.539	68.052	313+379.160	67.902				
136	313+419.160	67.733	Curve	Sag	80.000	313+379.160	67.902	313+459.160	67.730	-0.422	-0.007	0.415	192.411
			Grade		50.000	313+459.160	67.730	313+509.160	67.727				
137	313+509.160	67.727								-0.007	-0.015	-0.008	
			Grade		91.860	313+509.160	67.727	313+601.020	67.713				
138	313+601.020	67.713								-0.015	0.045	0.060	
			Grade		78.140	313+601.020	67.713	313+679.160	67.748				
139	313+679.160	67.748								0.045	0.329	0.284	
			Grade		45.472	313+679.160	67.748	313+724.632	67.898				
140	313+764.632	68.029	Curve	Hog	80.000	313+724.632	67.898	313+804.632	67.680	0.329	-0.873	-1.202	66.544
			Grade		8.806	313+804.632	67.680	313+813.438	67.603				
141	313+850.938	67.276	Curve	Sag	75.000	313+813.438	67.603	313+888.438	67.620	-0.873	0.917	1.790	41.900
			Grade		3.222	313+888.438	67.620	313+891.660	67.649				
142	313+934.160	68.039	Curve	Hog	85.000	313+891.660	67.649	313+976.660	67.919	0.917	-0.283	-1.200	70.829
			Grade		38.340	313+976.660	67.919	314+015.000	67.810				

Rev.	Date	Description on Revisions
R2	June 2018	Based on Survey Data Provided by Client.
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

Revisions

CLIENT:-

NATIONAL HIGHWAYS
& INFRASTRUCTURE
DEVELOPMENT
COPORATION LTD.

AUTHORITY'S ENGINEER:-

STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.

AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-

CETEST
CE TESTING COMPANY PVT. LTD.

13/7/18

AUTHORISED SIGNATORY | DATE

SAEFTY CONSULTANT:-

Chaitanya Projects
Consultancy Pvt. Ltd
NEW DELHI

AUTHORISED SIGNATORY | DATE

PROJECT:

FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-

SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-

AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India

DRAWN	DESIGN	CHECKED BY	APPROVED BY
		SL Team Leader	MSR Deputy Director

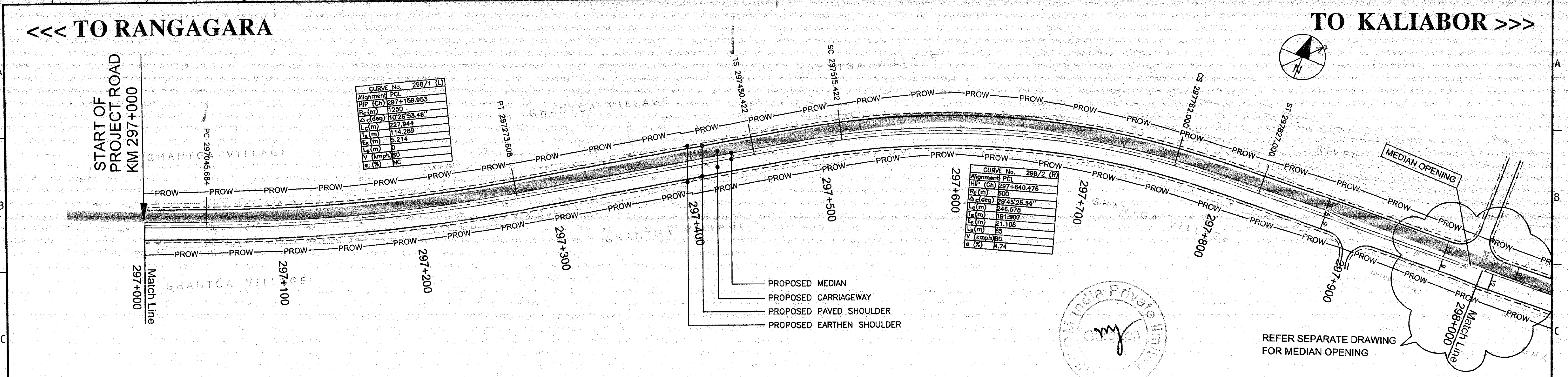
SCALE:-
NTS

TITLE:-
Vertical Report (RHS)

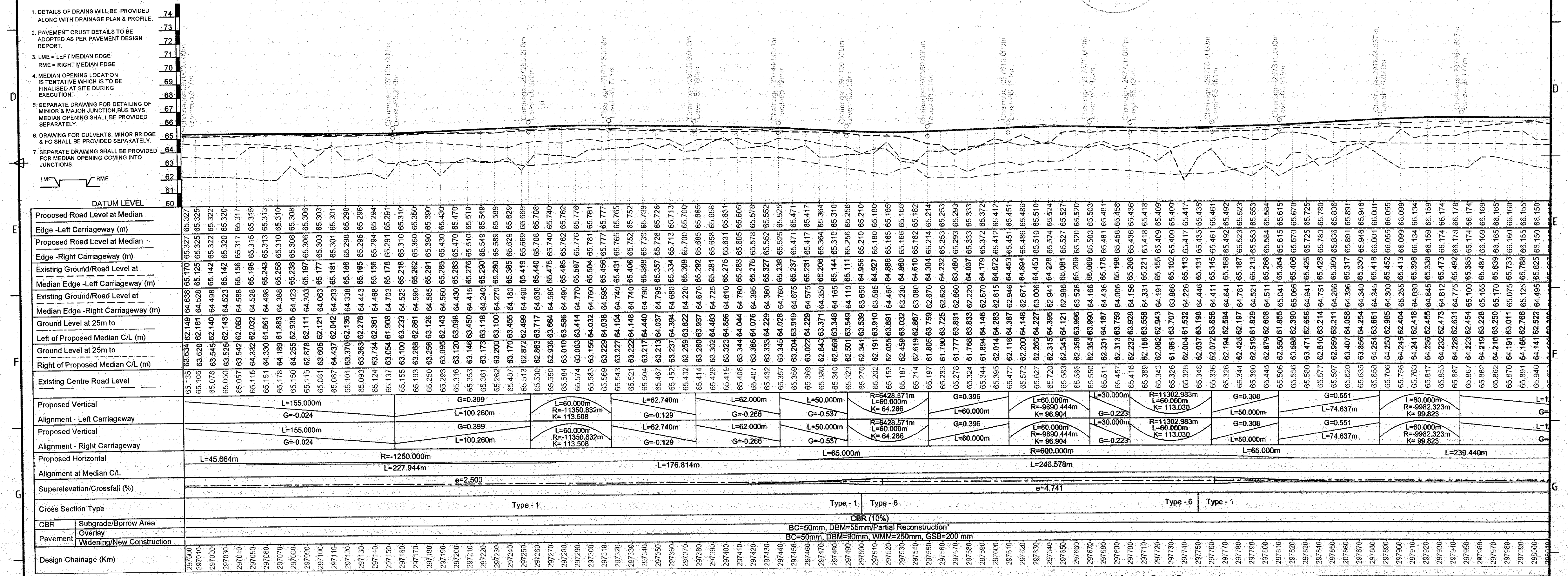
DRAWING NO.:- AECOM-DELD15159-DD-DWG-VER-008

REV. R2

PLAN & PROFILE


<<< TO RANGAGARA
TO KALIABOR >>>
START OF PROJECT ROAD KM 297+000
Match Line 297+000
Match Line 298+000
GHANTGA VILLAGE
RIVER
PROW
PC 297045.664
PT 297273.608
TS 297450.422
SC 297515.422
CS 297762.000
ST 297827.000
CURVE No. 298/1 (L)
Alignment PCL
HIP (Ch) 297+159.953
Rc(m) 1250
Δc(deg) 10°26'53.46"
Lc(m) 227.944
Ts(m) 114.289
Es(m) 5.214
Ls(m) 0
V (kmph) 80
e (%) NC
CURVE No. 298/2 (R)
Alignment PCL
HIP (Ch) 297+640.476
Rc(m) 600
Δc(deg) 29°45'25.34"
Lc(m) 246.578
Ts(m) 191.907
Es(m) 21.106
Ls(m) 65
V (kmph) 80
e (%) 4.74
297+100
297+200
297+300
297+400
297+500
297+600
297+700
297+800
297+900
PROPOSED MEDIAN
PROPOSED CARRIAGEWAY
PROPOSED PAVED SHOULDER
PROPOSED EARTHEN SHOULDER
MEDIAN OPENING
REFER SEPARATE DRAWING FOR MEDIAN OPENING

1. DETAILS OF DRAINS WILL BE PROVIDED ALONG WITH DRAINAGE PLAN & PROFILE.
2. PAVEMENT CRUST DETAILS TO BE ADOPTED AS PER PAVEMENT DESIGN REPORT.
3. LME = LEFT MEDIAN EDGE
   RME = RIGHT MEDIAN EDGE
4. MEDIAN OPENING LOCATION IS TENTATIVE WHICH IS TO BE FINALISED AT SITE DURING EXECUTION.
5. SEPARATE DRAWING FOR DETAILING OF MINIOR & MAJOR JUNCTION,BUS BAYS, MEDIAN OPENING SHALL BE PROVIDED SEPARATELY.
6. DRAWING FOR CULVERTS, MINOR BRIDGE & FO SHALL BE PROVIDED SEPARATELY.
7. SEPARATE DRAWING SHALL BE PROVIDED FOR MEDIAN OPENING COMING INTO JUNCTIONS.


LME
RME
74
73
72
71
70
69
68
67
66
65
64
63
62
61
DATUM LEVEL 60
Proposed Road Level at Median Edge -Left Carriageway (m)
Proposed Road Level at Median Edge -Right Carriageway (m)
Existing Ground/Road Level at Median Edge -Left Carriageway (m)
Existing Ground/Road Level at Median Edge -Right Carriageway (m)
Ground Level at 25m to Left of Proposed Median C/L (m)
Ground Level at 25m to Right of Proposed Median C/L (m)
Existing Centre Road Level
Proposed Vertical Alignment - Left Carriageway
Proposed Vertical Alignment - Right Carriageway
Proposed Horizontal Alignment at Median C/L
Superelevation/Crossfall (%)
Cross Section Type
CBR
Subgrade/Borrow Area
Pavement
Overlay
Widening/New Construction
Design Chainage (Km)
L=155.000m
G=-0.024
G=0.399
L=100.260m
L=60.000m
R=-11350.832m
K= 113.508
L=62.740m
G=-0.129
L=62.000m
G=-0.266
L=50.000m
G=-0.537
R=6428.571m
L=60.000m
K= 64.286
G=0.396
L=60.000m
R=-9690.444m
K= 96.904
L=30.000m
G=-0.223
R=11302.983m
K= 113.030
G=0.308
L=50.000m
G=0.551
L=74.637m
R=-9982.323m
K= 99.823
L=45.664m
R=-1250.000m
L=227.944m
L=176.814m
L=65.000m
R=600.000m
L=246.578m
L=239.440m
e=2.500
e=4.741
Type - 1
Type - 6
CBR (10%)
BC=50mm, DBM=55mm/Partial Reconstruction*
BC=50mm, DBM=90mm, WMM=250mm, GSB=200 mm
297000
298000

* Pavement layers thickness in Partial Reconstruction area (Overlay Side) shall be as per detail Cross Section.

Rev.	Date	Description on Revisions
R2	June 2018	Profile updated as per site condition, bus bay incorporated.
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

Revisions

CLIENT:-
NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CE TESTING Company Pvt. Ltd
13/2/18
AUTHORISED SIGNATORY | DATE

SAEFTY CONSULTANT:-
Chaitanya Projects Consultancy Pvt. Ltd
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

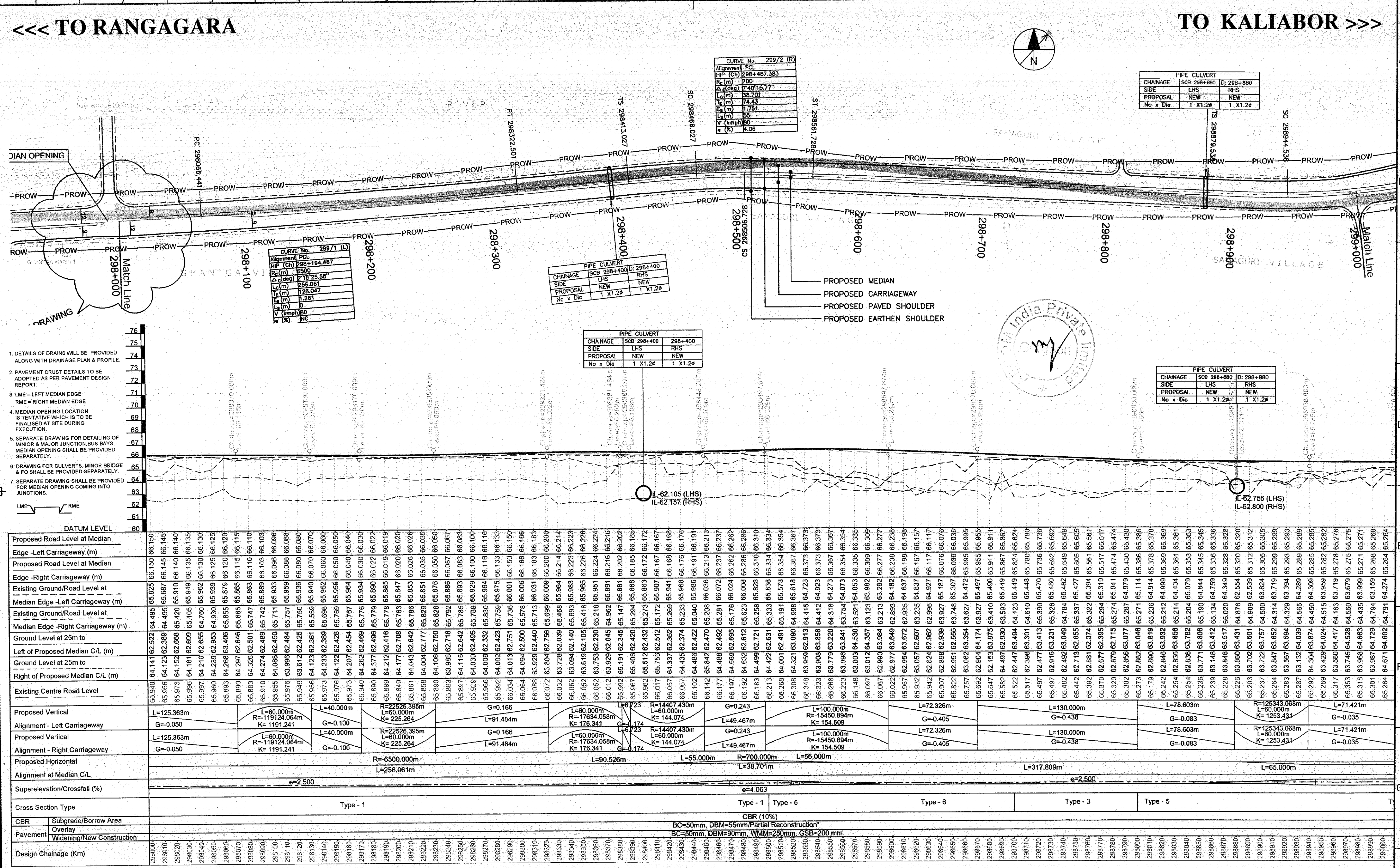
CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India
SI | MSR
Team Leader | Deputy Director
DRAWN | DESIGN | CHECKED BY | APPROVED BY

SCALE:-
HOR- 1 : 2000
VER- 1 : 200

TITLE:-
PLAN AND PROFILE
FROM Km. 297+000 To Km. 298+000

DRAWING NO.:- AECOM-DELD15159-DD-DWG-PP- 0101
REV. R2

17


<<< TO RANGAGARA
TO KALIABOR >>>
N
RIVER
SAMAGURI VILLAGE
SHANTGAON VILLAGE
MEDIAN OPENING
DRAWING
PROW
Match Line 298+000
Match Line 299+000
298+100
298+200
298+300
298+400
298+500
298+600
298+700
298+800
298+900
PC 298066.441
PT 298322.501
TS 298413.027
SC 298468.027
CS 298506.728
ST 298561.728
TS 298879.535
SC 298944.535
CURVE No. 299/1 (L)
Alignment PCL
HIP (Ch) 298+194.487
Rc (m) 6500
Δ (deg) 2°15'25.58"
Lc (m) 256.061
Tg (m) 128.047
Eg (m) 1.261
Ls (m) 0
V (kmph) 80
e (%) NC
CURVE No. 299/2 (R)
Alignment PCL
HIP (Ch) 298+487.383
Rc (m) 700
Δ (deg) 7°40'15.77"
Lc (m) 38.701
Tg (m) 74.43
Eg (m) 1.751
Ls (m) 55
V (kmph) 80
e (%) 4.06
PIPE CULVERT
CHAINAGE SCB 298+400 D: 298+400
SIDE LHS RHS
PROPOSAL NEW NEW
No x Dia 1 X1.2ø 1 X1.2ø
PIPE CULVERT
CHAINAGE SCB 298+880 D: 298+880
SIDE LHS RHS
PROPOSAL NEW NEW
No x Dia 1 X1.2ø 1 X1.2ø
PROPOSED MEDIAN
PROPOSED CARRIAGEWAY
PROPOSED PAVED SHOULDER
PROPOSED EARTHEN SHOULDER
IL-62.105 (LHS)
IL-62.157 (RHS)
IL-62.756 (LHS)
IL-62.800 (RHS)
DATUM LEVEL 60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
Proposed Road Level at Median Edge -Left Carriageway (m)
Proposed Road Level at Median Edge -Right Carriageway (m)
Existing Ground/Road Level at Median Edge -Left Carriageway (m)
Existing Ground/Road Level at Median Edge -Right Carriageway (m)
Ground Level at 25m to Left of Proposed Median C/L (m)
Ground Level at 25m to Right of Proposed Median C/L (m)
Existing Centre Road Level
Proposed Vertical Alignment - Left Carriageway
Proposed Vertical Alignment - Right Carriageway
Proposed Horizontal Alignment at Median C/L
Superelevation/Crossfall (%)
Cross Section Type
CBR
Pavement
Subgrade/Borrow Area
Overlay
Widening/New Construction
Design Chainage (Km)
L=125.363m
G=-0.050
L=60.000m
R=-119124.064m
K= 1191.241
L=40.000m
G=-0.100
L=22526.395m
L=60.000m
K= 225.264
G=0.166
L=91.484m
L=60.000m
R=-17634.058m
K= 176.341
L=6.723
G=-0.174
R=14407.430m
L=60.000m
K= 144.074
G=0.243
L=49.467m
L=100.000m
R=-15450.894m
K= 154.509
L=72.326m
G=-0.405
L=130.000m
G=-0.438
L=78.603m
G=-0.083
R=125343.068m
L=60.000m
K= 1253.431
L=71.421m
G=-0.035
R=-6500.000m
L=256.061m
L=90.526m
L=55.000m
R=700.000m
L=38.701m
L=55.000m
L=317.809m
L=65.000m
e=2.500
e=4.063
e=2.500
Type - 1
Type - 1
Type - 6
Type - 6
Type - 3
Type - 5
CBR (10%)
BC=50mm, DBM=55mm/Partial Reconstruction*
BC=50mm, DBM=90mm, WMM=250mm, GSB=200 mm
LME
RME

1. DETAILS OF DRAINS WILL BE PROVIDED ALONG WITH DRAINAGE PLAN & PROFILE.
2. PAVEMENT CRUST DETAILS TO BE ADOPTED AS PER PAVEMENT DESIGN REPORT.
3. LME = LEFT MEDIAN EDGE
   RME = RIGHT MEDIAN EDGE
4. MEDIAN OPENING LOCATION IS TENTATIVE WHICH IS TO BE FINALISED AT SITE DURING EXECUTION.
5. SEPARATE DRAWING FOR DETAILING OF MINIOR & MAJOR JUNCTION,BUS BAYS, MEDIAN OPENING SHALL BE PROVIDED SEPARATELY.
6. DRAWING FOR CULVERTS, MINOR BRIDGE & FO SHALL BE PROVIDED SEPARATELY.
7. SEPARATE DRAWING SHALL BE PROVIDED FOR MEDIAN OPENING COMING INTO JUNCTIONS.

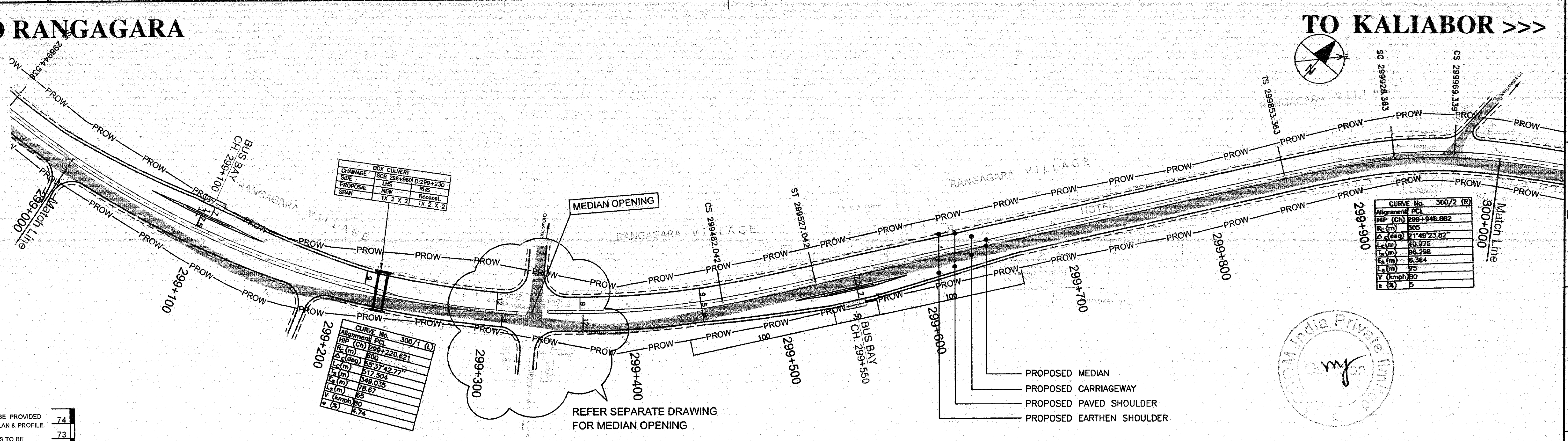
* Pavement layers thickness in Partial Reconstruction area (Overlay Side) shall be as per detail Cross Section.

Rev.	Date	Description on Revisions
R2	June 2018	Profile updated as per site condition, bus bay incorporated.
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

Revisions

CLIENT:- NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.	AUTHORITY'S ENGINEER: STUP Consultants P. Ltd & Ayoleeza Consultants P. Ltd. AUTHORISED SIGNATORY / DATE	PROOF CHECKED CONSULTANT:- CE TESTING Company Pvt. Ltd 13/7/18 AUTHORISED SIGNATORY / DATE	SAEFTY CONSULTANT:- Chaitanya Projects Consultancy Pvt. Ltd NEW DELHI AUTHORISED SIGNATORY / DATE	PROJECT: FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE	EPC CONTRACTOR:- SIMPLEX INFRASTRUCTURES LIMITED 27, SHAKESPEARE SARANI, KOLKATA-17, INDIA	CONSULTANTS:- AECOM 9th Floor, Infinity Tower C DLF Cyber City DLF Phase II, Gurgaon-122002, Haryana, India DRAWN / DESIGN / CHECKED BY (SL, Team Leader) / APPROVED BY (MSR, Design Director)	SCALE:- HOR- 1 : 2000 VER- 1 : 200	TITLE:- PLAN AND PROFILE FROM Km. 298+000 To Km. 299+000 DRAWING NO.:- AECOM-DELD15159-DD-DWG-PP- 0102 REV. R2

19

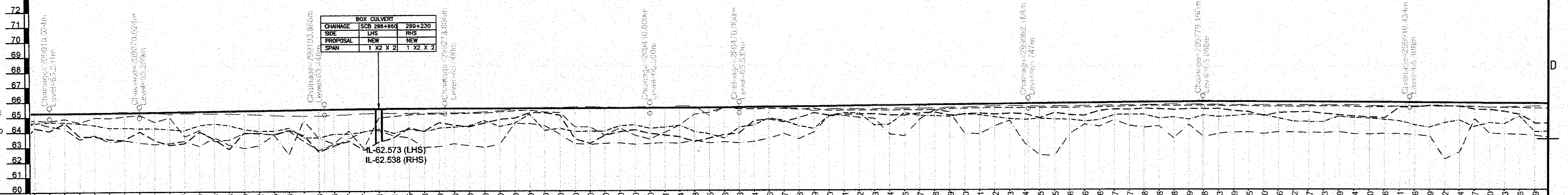


BOX CULVERT		
CHAINAGE	SCB 298+960	D:299+230
SIDE	LHS	RHS
PROPOSAL	NEW	Reconst.
SPAN	1X 2 X 2	1X 2 X 2

CURVE No.	300/1 (L)
Alignment	PCL
HIP (Ch)	299+220.621
R_c (m)	600
Δ_c (deg)	55°37'42.77"
L_c (m)	517.504
T_s (m)	349.035
E_s (m)	78.67
L_s (m)	65
V (kmph)	80
e (%)	4.74

CURVE No.	300/2 (R)
Alignment	PCL
HIP (Ch)	299+948.882
R_c (m)	305
Δ_c (deg)	21°49'23.82"
L_c (m)	40.976
T_s (m)	96.298
E_s (m)	6.384
L_s (m)	75
V (kmph)	80
e (%)	5

1. DETAILS OF DRAINS WILL BE PROVIDED ALONG WITH DRAINAGE PLAN & PROFILE.
2. PAVEMENT CRUST DETAILS TO BE ADOPTED AS PER PAVEMENT DESIGN REPORT.
3. LME = LEFT MEDIAN EDGE
   RME = RIGHT MEDIAN EDGE
4. MEDIAN OPENING LOCATION IS TENTATIVE WHICH IS TO BE FINALISED AT SITE DURING EXECUTION.
5. SEPARATE DRAWING FOR DETAILING OF MINIOR & MAJOR JUNCTION,BUS BAYS, MEDIAN OPENING SHALL BE PROVIDED SEPARATELY.
6. DRAWING FOR CULVERTS, MINOR BRIDGE & FO SHALL BE PROVIDED SEPARATELY.
7. SEPARATE DRAWING SHALL BE PROVIDED FOR MEDIAN OPENING COMING INTO JUNCTIONS.



BOX CULVERT		
CHAINAGE	SCB 298+960	299+230
SIDE	LHS	RHS
PROPOSAL	NEW	NEW
SPAN	1 X2 X 2	1 X2 X 2

Design Chainage (Km)	Proposed Road Level at Median Edge -Left Carriageway (m)	Proposed Road Level at Median Edge -Right Carriageway (m)	Existing Ground/Road Level at Median Edge -Left Carriageway (m)	Existing Ground/Road Level at Median Edge -Right Carriageway (m)	Ground Level at 25m to Left of Proposed Median C/L (m)	Ground Level at 25m to Right of Proposed Median C/L (m)	Existing Centre Road Level
299000	65.264	65.264	64.274	64.791	64.602	64.671	65.264
299010	65.261	65.261	64.082	64.752	64.671	64.406	65.266
299020	65.258	65.258	64.621	64.889	64.648	64.246	65.273
299030	65.259	65.259	63.712	64.629	64.579	63.526	65.279
299040	65.262	65.262	63.708	64.967	64.469	63.782	65.283
299050	65.268	65.268	63.516	64.930	64.272	63.329	65.308
299060	65.277	65.277	63.445	65.020	64.282	63.454	65.348
299070	65.289	65.289	64.022	65.117	64.220	63.271	65.248
299080	65.302	65.302	63.437	64.653	64.226	63.173	65.292
299090	65.314	65.314	63.123	64.953	64.158	63.224	65.173
299100	65.327	65.327	63.222	63.684	64.084	63.386	65.231
299110	65.340	65.340	64.004	64.102	64.426	63.038	65.219
299120	65.353	65.353	63.476	63.369	64.527	63.619	65.201
299130	65.366	65.366	62.828	63.456	64.412	63.112	65.194
299140	65.379	65.379	63.922	63.889	64.139	62.904	65.153
299150	65.392	65.392	63.873	63.912	64.028	63.064	65.113
299160	65.405	65.405	63.806	63.777	64.030	63.784	65.068
299170	65.418	65.418	64.086	64.047	64.219	62.466	65.036
299180	65.431	65.431	63.723	63.328	63.594	64.739	65.031
299190	65.443	65.443	62.618	62.723	63.575	63.517	65.027
299200	65.456	65.456	63.027	63.141	63.821	63.171	65.069
299210	65.467	65.467	63.333	64.018	63.821	63.483	65.109
299220	65.477	65.477	62.732	62.833	63.962	63.993	65.181
299230	65.484	65.484	63.260	64.874	64.148	64.053	65.208
299240	65.491	65.491	63.562	64.982	63.864	63.695	65.201
299250	65.495	65.495	64.210	65.074	64.127	63.570	65.201
299260	65.498	65.498	63.981	65.122	63.991	62.924	65.211
299270	65.500	65.500	64.562	65.121	64.202	62.965	65.211
299280	65.500	65.500	64.388	65.148	64.257	63.157	65.223
299290	65.500	65.500	64.291	65.170	64.349	63.028	65.232
299300	65.500	65.500	64.535	65.195	64.682	62.921	65.278
299310	65.500	65.500	64.785	65.271	64.305	63.105	65.349
299320	65.500	65.500	64.855	65.342	64.503	64.502	65.457
299330	65.500	65.500	65.220	65.371	65.114	64.480	65.532
299340	65.500	65.500	65.214	65.252	64.022	64.359	65.540
299350	65.500	65.500	65.035	65.214	64.163	63.774	65.540
299360	65.500	65.500	63.454	64.246	63.952	63.140	65.582
299370	65.500	65.500	63.155	64.244	63.961	63.094	65.580
299380	65.500	65.500	63.700	63.696	63.964	63.151	65.567
299390	65.500	65.500	63.935	64.178	64.332	63.178	65.528
299400	65.500	65.500	64.059	63.682	64.387	63.084	65.559
299410	65.500	65.500	63.811	63.432	64.145	63.138	65.595
299420	65.501	65.501	63.695	63.880	64.218	63.178	65.491
299430	65.504	65.504	63.576	64.357	64.337	63.143	65.636
299440	65.508	65.508	63.258	65.069	63.930	63.341	65.610
299450	65.515	65.515	63.481	65.196	63.764	63.157	64.992
299460	65.523	65.523	63.708	65.511	63.481	63.229	65.535
299470	65.533	65.533	63.795	65.412	64.198	63.156	65.532
299480	65.544	65.544	64.615	65.414	64.357	63.248	65.509
299490	65.556	65.556	64.728	65.433	64.810	63.451	65.511
299500	65.567	65.567	64.543	65.435	64.629	63.768	65.487
299510	65.578	65.578	64.818	65.381	64.290	63.419	65.448
299520	65.589	65.589	65.138	65.425	64.091	63.867	65.287
299530	65.600	65.600	64.975	65.295	64.954	64.931	65.407
299540	65.611	65.611	65.033	65.310	65.131	64.952	65.422
299550	65.622	65.622	65.046	65.313	65.128	64.831	65.401
299560	65.633	65.633	65.057	65.313	64.326	64.771	65.405
299570	65.644	65.644	64.980	65.295	64.365	63.718	65.422
299580	65.656	65.656	64.963	65.320	65.125	63.590	65.434
299590	65.667	65.667	65.095	65.315	64.941	64.691	65.425
299600	65.678	65.678	65.162	65.330	64.932	65.321	65.441
299610	65.689	65.689	64.958	65.390	64.880	65.185	65.477
299620	65.700	65.700	65.032	65.416	65.048	63.739	65.500
299630	65.711	65.711	65.095	65.436	64.980	63.719	65.536
299640	65.722	65.722	65.026	65.454	64.851	64.244	65.564
299650	65.733	65.733	65.084	65.443	64.717	64.608	65.575
299660	65.744	65.744	65.048	65.451	64.664	63.094	65.572
299670	65.755	65.755	64.783	65.445	64.739	62.303	65.536
299680	65.765	65.765	65.112	65.456	64.682	62.245	65.560
299690	65.776	65.776	64.982	65.453	64.666	63.700	65.567
299700	65.786	65.786	64.939	65.477	64.549	64.349	65.583
299710	65.796	65.796	65.267	65.496	64.627	64.211	65.587
299720	65.807	65.807	65.357	65.517	64.977	64.638	65.616
299730	65.817	65.817	65.336	65.541	65.003	64.250	65.639
299740	65.828	65.828	65.395	65.582	65.008	64.133	65.643
299750	65.838	65.838	65.370	65.582	64.748	64.230	65.666
299760	65.848	65.848	65.314	65.574	64.822	63.411	65.682
299770	65.859	65.859	65.378	65.569	64.662	64.327	65.680
299780	65.868	65.868	65.360	65.592	64.944	63.503	65.683
299790	65.863	65.863	65.374	65.570	64.851	63.724	65.665
299800	65.859	65.859	65.245	65.547	64.900	63.797	65.642
299810	65.855	65.855	65.154	65.548	64.992	63.813	65.640
299820	65.850	65.850	64.910	65.523	64.966	63.700	65.620
299830	65.846	65.846	65.099	65.526	64.748	63.834	65.617
299840	65.842	65.842	65.133	65.500	64.535	63.805	65.633
299850	65.837	65.837	65.163	65.532	64.508	63.756	65.640
299860	65.833	65.833	65.045	65.532	64.502	63.767	65.636
299870	65.829	65.829	64.953	65.541	64.860	63.824	65.630
299880	65.824	65.824	64.874	65.512	64.781	63.669	65.611
299890	65.820	65.820	64.819	65.485	64.749	63.686	65.565
299900	65.816	65.816	64.768	65.496	64.646	63.714	65.551
299910	65.811	65.811	65.474	65.523	64.560	63.706	65.526
299920	65.806	65.806	65.500	65.538	64.300	63.629	65.513
299930	65.799	65.799	65.588	65.560	64.131	63.574	65.536
299940	65.792	65.792	65.567	65.547	64.446	62.024	65.536
299950	65.784	65.784	65.524	65.549	64.614	62.485	65.534
299960	65.777	65.777	65.351	65.516	64.181	64.721	65.497
299970	65.770	65.770	65.328	65.474	64.453	63.744	65.471
299980	65.763	65.763	65.204	65.453	64.373	63.697	65.492
299990	65.756	65.756	64.999	65.449	64.885	63.666	65.520
300000	65.749	65.749	64.417	65.420	63.857	63.606	65.540

Proposed Vertical Alignment - Left Carriageway: R=36591.382m L=60.000m K= 365.914 | G=0.129 L=123.842m | L=80.000m R=-62029.440m K= 620.294 | G=0.000 L=136.134m | R=53988.221m L=60.000m K= 539.882 | G=0.111 L=192.189m | G=0.104 L=116.972m | L=137.273m G=-0.044 | L=115.174m G=-0.072

Proposed Vertical Alignment - Right Carriageway: R=36591.382m L=60.000m K= 365.914 | G=0.129 L=123.842m | L=80.000m R=-62029.440m K= 620.294 | G=0.000 L=136.134m | R=53988.221m L=60.000m K= 539.882 | G=0.111 L=192.189m | G=0.104 L=116.972m | L=137.273m G=-0.044 | L=115.174m G=-0.072

Proposed Horizontal Alignment at Median C/L: R=-600.000m L=517.504m | L=65.000m | L=326.321m | L=75.000m | R=305.000m L=40.976m | L=75

Superelevation/Crossfall (%): e=4.741 | e=2.500 | e=5.000

Cross Section Type: Type - 5 | Type - 5 | Type - 2 | Type - 5 | Type - 2 | Type - 2

CBR – Subgrade/Borrow Area: CBR (10%)

Pavement – Overlay: BC=50mm, DBM=55mm/Partial Reconstruction*

Pavement – Widening/New Construction: BC=50mm, DBM=90mm, WMM=250mm, GSB=200 mm

* Pavement layers thickness in Partial Reconstruction area (Overlay Side) shall be as per detail Cross Section.

Rev.	Date	Description on Revisions
R2	June 2018	Profile updated as per site condition, bus bay incorporated.
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

Revisions

CLIENT:-
NATIONAL HIGHWAYS
& INFRASTRUCTURE
DEVELOPMENT
CORPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CE TESTING
Company Pvt. Ltd
13/2/18
AUTHORISED SIGNATORY | DATE

SAEFTY CONSULTANT:-
Chaitanya Projects
Consultancy Pvt. Ltd
NEW DELHI
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

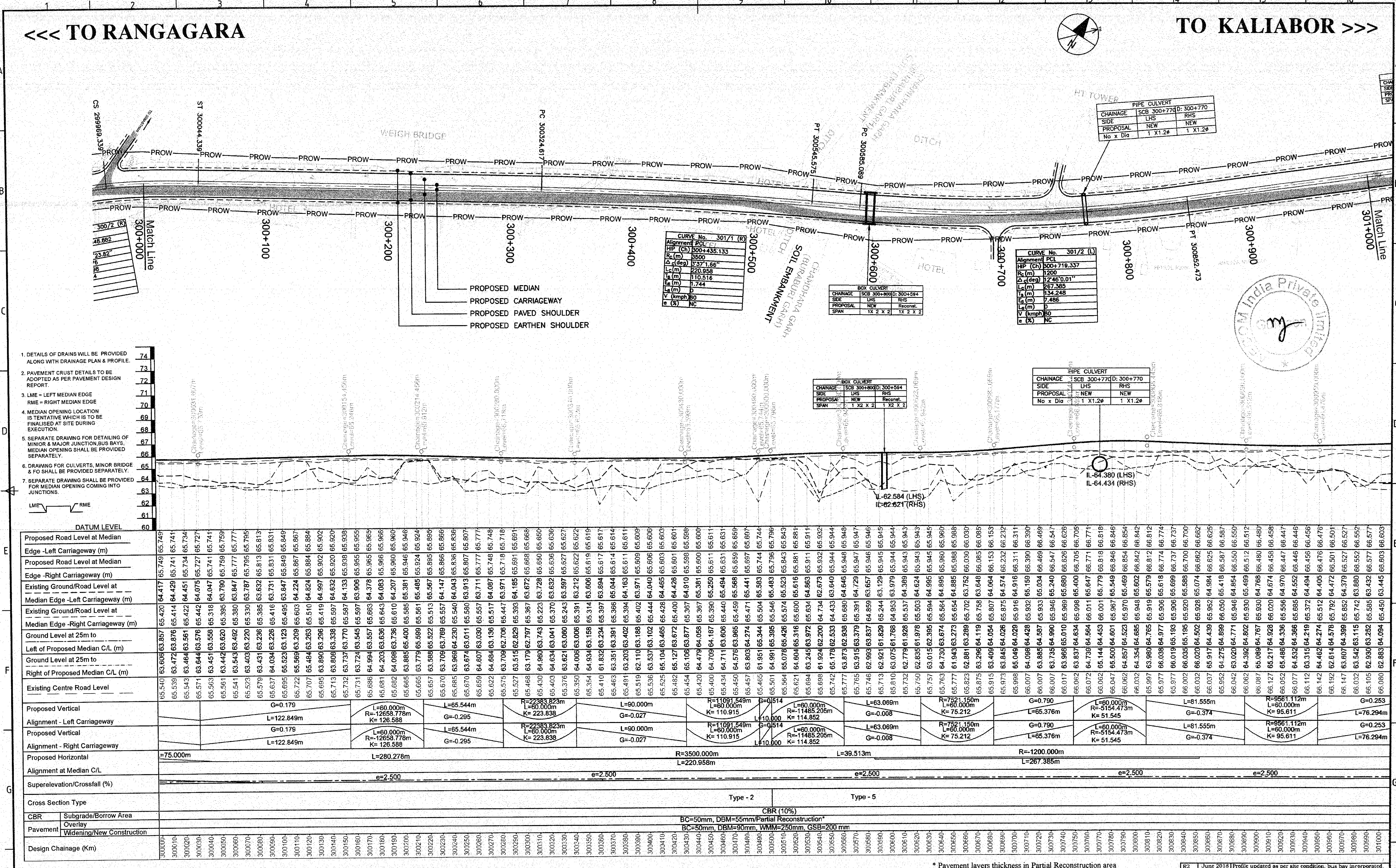
EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India
DRAWN | DESIGN | CHECKED BY SL Team Leader | APPROVED BY MSR Design Director

SCALE:-
HOR- 1 : 2000
VER- 1 : 200

TITLE:-
PLAN AND PROFILE
FROM Km. 299+000 To Km. 300+000

DRAWING NO.:- AECOM-DELD15159-DD-DWG-PP- 0103
REV. R2



<<< TO RANGAGARA
TO KALIABOR >>>
CS 299969.339
ST 300044.339
PC 300324.617
PT 300545.575
PC 300565.089
PT 300852.473
WEIGH BRIDGE
HOTEL
DITCH
HT TOWER
SOIL EMBANKMENT
PROW
Match Line 300+000
Match Line 301+000
300+100
300+200
300+300
300+400
300+500
300+600
300+700
300+800
300+900
PROPOSED MEDIAN
PROPOSED CARRIAGEWAY
PROPOSED PAVED SHOULDER
PROPOSED EARTHEN SHOULDER
CURVE No. 301/1 (R)
CURVE No. 301/2 (L)
BOX CULVERT
PIPE CULVERT
IL-62.584 (LHS)
IL-62.621 (RHS)
IL-64.380 (LHS)
IL-64.434 (RHS)
DATUM LEVEL
Proposed Road Level at Median Edge -Left Carriageway (m)
Proposed Road Level at Median Edge -Right Carriageway (m)
Existing Ground/Road Level at Median Edge -Left Carriageway (m)
Existing Ground/Road Level at Median Edge -Right Carriageway (m)
Ground Level at 25m to Left of Proposed Median C/L (m)
Ground Level at 25m to Right of Proposed Median C/L (m)
Existing Centre Road Level
Proposed Vertical Alignment - Left Carriageway
Proposed Vertical Alignment - Right Carriageway
Proposed Horizontal Alignment at Median C/L
Superelevation/Crossfall (%)
Cross Section Type
CBR
Subgrade/Borrow Area
Pavement
Overlay
Widening/New Construction
Design Chainage (Km)
Type - 2
Type - 5
CBR (10%)
BC=50mm, DBM=55mm/Partial Reconstruction*
BC=50mm, DBM=90mm, WMM=250mm, GSB=200 mm

1. DETAILS OF DRAINS WILL BE PROVIDED ALONG WITH DRAINAGE PLAN & PROFILE.
2. PAVEMENT CRUST DETAILS TO BE ADOPTED AS PER PAVEMENT DESIGN REPORT.
3. LME = LEFT MEDIAN EDGE
   RME = RIGHT MEDIAN EDGE
4. MEDIAN OPENING LOCATION IS TENTATIVE WHICH IS TO BE FINALISED AT SITE DURING EXECUTION.
5. SEPARATE DRAWING FOR DETAILING OF MINIOR & MAJOR JUNCTION,BUS BAYS, MEDIAN OPENING SHALL BE PROVIDED SEPARATELY.
6. DRAWING FOR CULVERTS, MINOR BRIDGE & FO SHALL BE PROVIDED SEPARATELY.
7. SEPARATE DRAWING SHALL BE PROVIDED FOR MEDIAN OPENING COMING INTO JUNCTIONS.

* Pavement layers thickness in Partial Reconstruction area (Overlay Side) shall be as per detail Cross Section.

Rev.	Date	Description on Revisions
R2	June 2018	Profile updated as per site condition, bus bay incorporated
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

Revisions

CLIENT:-
NATIONAL HIGHWAYS
& INFRASTRUCTURE
DEVELOPMENT
CORPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CE TESTING
Company Pvt. Ltd
13/7/18
AUTHORISED SIGNATORY | DATE

SAEFTY CONSULTANT:-
Chaitanya Projects
Consultancy Pvt. Ltd
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

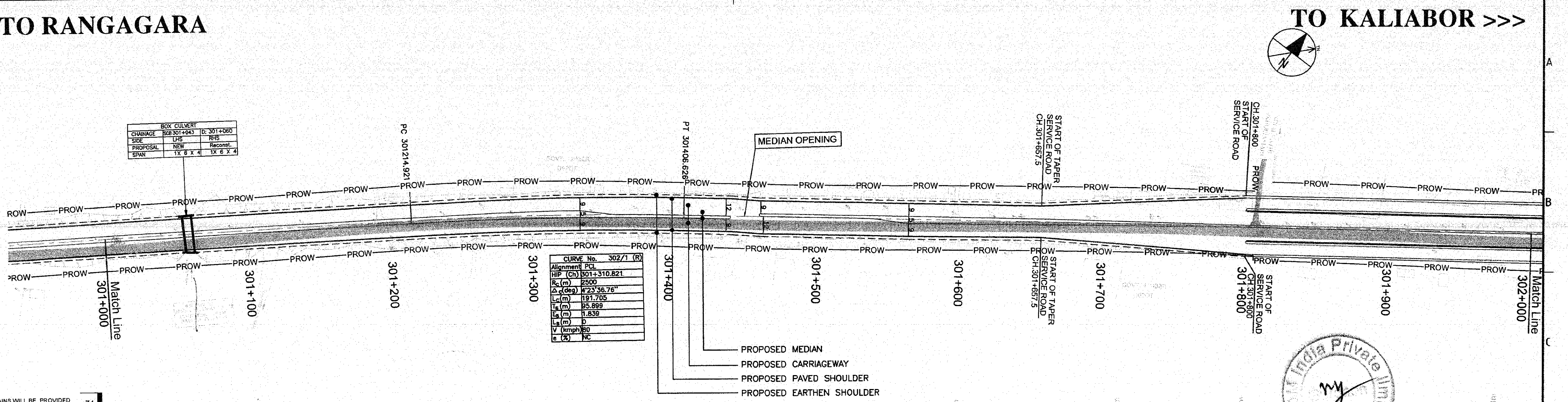
CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India
DRAWN | DESIGN | CHECKED BY (Team Leader) | APPROVED BY (Design Director)

SCALE:-
HOR- 1 : 2000
VER- 1 : 200

TITLE:-
PLAN AND PROFILE
FROM Km. 300+000 To Km. 301+000

DRAWING NO.:- AECOM-DELD15159-DD-DWG-PP- 0104
REV. R2

<<< TO RANGAGARA **TO KALIABOR >>>**

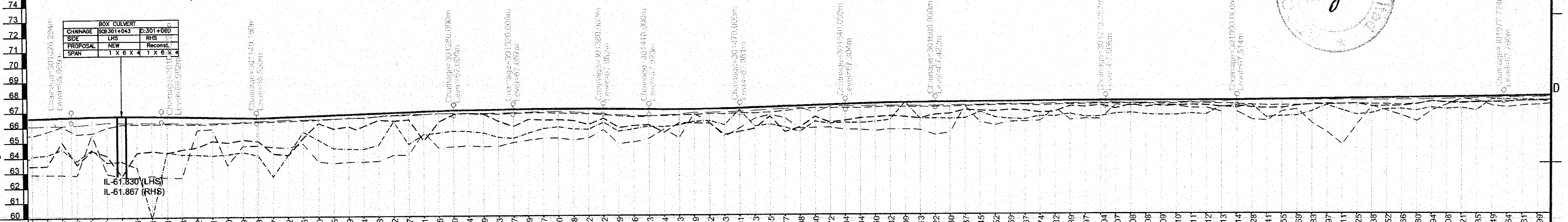


BOX CULVERT		
CHAINAGE	SCB 301+043	D: 301+060
SIDE	LHS	RHS
PROPOSAL	NEW	Reconst.
SPAN	1X 6 X 4	1X 6 X 4

CURVE No.	302/1 (R)
Alignment	PCL
HIP (Ch)	301+310.821
R_c (m)	2500
Δ_c (deg)	4°23'36.76"
L_c (m)	191.705
T_s (m)	95.899
E_s (m)	1.839
L_s (m)	0
V (kmph)	80
e (%)	NC

1. DETAILS OF DRAINS WILL BE PROVIDED ALONG WITH DRAINAGE PLAN & PROFILE.
2. PAVEMENT CRUST DETAILS TO BE ADOPTED AS PER PAVEMENT DESIGN REPORT.
3. LME = LEFT MEDIAN EDGE
   RME = RIGHT MEDIAN EDGE
4. MEDIAN OPENING LOCATION IS TENTATIVE WHICH IS TO BE FINALISED AT SITE DURING EXECUTION.
5. SEPARATE DRAWING FOR DETAILING OF MINIOR & MAJOR JUNCTION,BUS BAYS, MEDIAN OPENING SHALL BE PROVIDED SEPARATELY.
6. DRAWING FOR CULVERTS, MINOR BRIDGE & FO SHALL BE PROVIDED SEPARATELY.
7. SEPARATE DRAWING SHALL BE PROVIDED FOR MEDIAN OPENING COMING INTO JUNCTIONS.

LME RME



BOX CULVERT		
CHAINAGE	SCB301+043	D:301+060
SIDE	LHS	RHS
PROPOSAL	NEW	Reconst.
SPAN	1 X 6 X 4	1 X 6 X 4

Proposed Road Level at Median Edge -Left Carriageway (m)	66.603	66.628	66.653	66.678	66.697	66.707	66.711	66.706	66.694	66.674	66.653	66.632	66.611	66.590	66.569	66.553	66.587	66.622	66.656	66.690
Proposed Road Level at Median Edge -Right Carriageway (m)	66.603	66.628	66.653	66.678	66.697	66.707	66.711	66.706	66.694	66.674	66.653	66.632	66.611	66.590	66.569	66.553	66.587	66.622	66.656	66.690
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	63.445	63.463	65.015	63.520	64.445	64.095	62.735	64.295	64.390	64.275	64.485	64.620	65.030	64.924	65.099	65.019	64.179	65.309	65.234	66.179
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	65.450	65.725	66.050	65.535	65.590	65.950	66.160	66.170	66.150	66.200	66.145	66.140	66.155	66.205	66.247	66.274	66.306	66.330	66.367	66.415
Ground Level at 25m to Left of Proposed Median C/L (m)	64.094	64.177	64.548	63.780	64.513	63.667	63.705	63.307	59.927	64.318	64.152	64.132	64.075	64.142	64.294	64.108	62.664	64.079	65.624	65.084
Ground Level at 25m to Right of Proposed Median C/L (m)	62.883	62.850	62.858	62.812	65.515	62.917	62.670	62.620	62.755	62.632	62.622	65.767	65.832	63.432	64.690	64.725	64.615	64.570	64.835	63.640
Existing Centre Road Level	66.080	66.095	66.110	66.145	66.215	66.305	66.280	66.280	66.260	66.255	66.240	66.225	66.230	66.255	66.290	66.345	66.375	66.430	66.430	66.450
Design Chainage (Km)	301000	301010	301020	301030	301040	301050	301060	301070	301080	301090	301100	301110	301120	301130	301140	301150	301160	301170	301180	301190

Proposed Road Level at Median Edge -Left Carriageway (m)	66.725	66.759	66.794	66.828	66.862	66.897	66.931	66.966	67.000	67.014	67.029	67.043	67.057	67.069	67.077	67.080	67.078	67.072	67.062	67.049
Proposed Road Level at Median Edge -Right Carriageway (m)	66.725	66.759	66.794	66.828	66.862	66.897	66.931	66.966	67.000	67.014	67.029	67.043	67.057	67.069	67.077	67.080	67.078	67.072	67.062	67.049
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	65.814	65.969	65.974	66.384	66.314	66.404	64.984	66.244	66.746	66.814	66.740	66.264	65.920	66.379	66.340	66.348	66.293	66.020	66.424	65.811
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	66.455	66.524	66.520	66.638	66.706	66.733	66.756	66.794	66.799	66.771	66.749	66.747	66.773	66.804	66.818	66.791	66.754	66.730	66.669	66.581
Ground Level at 25m to Left of Proposed Median C/L (m)	64.514	64.474	64.456	64.734	66.284	64.769	65.416	65.504	65.637	65.602	65.496	65.212	65.143	65.474	65.776	65.877	65.737	65.713	66.161	65.567
Ground Level at 25m to Right of Proposed Median C/L (m)	63.535	63.604	63.624	63.649	64.059	64.061	65.566	64.523	64.594	64.648	64.593	64.614	64.857	65.003	65.118	65.141	65.009	65.120	65.678	64.751
Existing Centre Road Level	66.470	66.511	66.576	66.616	66.671	66.686	66.741	66.791	66.786	66.801	66.796	66.806	66.829	66.862	66.892	66.901	66.862	66.811	66.737	66.662
Design Chainage (Km)	301200	301210	301220	301230	301240	301250	301260	301270	301280	301290	301300	301310	301320	301330	301340	301350	301360	301370	301380	301390

Proposed Road Level at Median Edge -Left Carriageway (m)	67.036	67.023	67.014	67.013	67.019	67.032	67.053	67.081	67.113	67.145	67.177	67.208	67.240	67.272	67.304	67.334	67.360	67.382	67.399	67.413
Proposed Road Level at Median Edge -Right Carriageway (m)	67.036	67.023	67.014	67.013	67.019	67.032	67.053	67.081	67.113	67.145	67.177	67.208	67.240	67.272	67.304	67.334	67.360	67.382	67.399	67.413
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	65.943	65.983	65.474	66.106	66.101	66.066	65.324	65.518	65.724	66.512	65.480	65.793	66.482	66.099	66.235	66.391	66.438	66.519	66.453	66.352
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	66.522	66.602	66.579	66.628	66.649	66.703	66.694	66.759	66.731	66.787	66.867	67.010	67.058	67.057	67.062	67.057	67.097	67.131	67.111	67.109
Ground Level at 25m to Left of Proposed Median C/L (m)	65.721	65.890	65.856	65.966	66.202	66.254	65.960	66.966	65.871	65.991	65.792	65.495	66.164	66.024	66.090	66.060	66.142	66.257	67.408	66.336
Ground Level at 25m to Right of Proposed Median C/L (m)	64.868	65.084	65.707	65.118	66.707	66.137	65.197	65.741	66.382	66.627	66.403	65.725	65.759	65.770	65.628	65.608	65.532	65.630	65.626	65.575
Existing Centre Road Level	66.616	66.588	66.637	66.685	66.790	66.795	66.833	66.849	66.901	66.966	67.010	67.087	66.740	67.172	67.177	67.162	67.188	67.196	67.193	67.172
Design Chainage (Km)	301400	301410	301420	301430	301440	301450	301460	301470	301480	301490	301500	301510	301520	301530	301540	301550	301560	301570	301580	301590

Proposed Road Level at Median Edge -Left Carriageway (m)	67.422	67.430	67.437	67.445	67.452	67.459	67.467	67.474	67.482	67.489	67.497	67.504	67.507	67.508	67.508	67.509	67.510	67.511	67.512	67.513
Proposed Road Level at Median Edge -Right Carriageway (m)	67.422	67.430	67.437	67.445	67.452	67.459	67.467	67.474	67.482	67.489	67.497	67.504	67.507	67.508	67.508	67.509	67.510	67.511	67.512	67.513
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	66.603	66.661	66.899	66.839	66.803	66.893	66.842	66.709	66.753	67.129	67.082	67.180	66.958	67.209	67.060	67.197	67.149	67.195	67.169	67.064
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	67.107	67.119	67.155	67.166	67.203	67.221	67.215	67.173	67.217	67.247	67.254	67.282	67.274	67.282	67.274	67.280	67.286	67.328	67.291	67.276
Ground Level at 25m to Left of Proposed Median C/L (m)	66.343	66.317	66.349	66.767	66.398	66.300	66.272	66.474	66.456	66.622	66.413	66.440	66.621	66.682	66.574	66.531	66.535	66.623	66.565	67.087
Ground Level at 25m to Right of Proposed Median C/L (m)	65.256	65.400	67.152	66.091	65.876	66.112	66.133	66.173	67.008	66.229	66.300	66.279	67.209	67.158	67.282	67.104	67.132	66.989	66.987	66.729
Existing Centre Road Level	67.185	67.204	67.219	67.225	67.270	67.276	67.267	67.282	67.303	67.307	67.333	67.340	67.330	67.324	67.326	67.334	67.344	67.374	67.381	67.381
Design Chainage (Km)	301600	301610	301620	301630	301640	301650	301660	301670	301680	301690	301700	301710	301720	301730	301740	301750	301760	301770	301780	301790

Proposed Road Level at Median Edge -Left Carriageway (m)	67.514	67.528	67.541	67.555	67.569	67.583	67.597	67.611	67.625	67.638	67.652	67.666	67.680	67.694	67.708	67.721	67.735	67.749	67.764	67.781	67.799
Proposed Road Level at Median Edge -Right Carriageway (m)	67.514	67.528	67.541	67.555	67.569	67.583	67.597	67.611	67.625	67.638	67.652	67.666	67.680	67.694	67.708	67.721	67.735	67.749	67.764	67.781	67.799
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	67.138	67.289	67.029	66.963	67.005	67.148	67.236	67.260	67.245	67.270	67.088	67.112	67.128	67.233	67.418	67.325	67.302	67.374	67.376	67.386	67.461
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	67.257	67.239	67.189	67.159	67.166	67.163	67.205	67.210	67.240	67.265	67.227	67.228	67.199	67.248	67.399	67.347	67.333	67.340	67.356	67.369	67.445
Ground Level at 25m to Left of Proposed Median C/L (m)	66.997	67.219	66.369	66.438	66.473	66.759	67.177	66.836	66.545	66.631	66.899	66.903	66.801	67.002	66.907	66.978	66.818	67.558	67.544	67.533	67.522
Ground Level at 25m to Right of Proposed Median C/L (m)	66.744	66.738	66.228	66.158	66.767	66.887	65.958	65.364	64.552	65.938	67.108	66.788	66.463	66.113	66.833	67.202	67.613	67.479	67.142	67.040	67.152
Existing Centre Road Level	67.514	67.515	67.516	67.517	67.518	67.519	67.519	67.520	67.521	67.522	67.523	67.524	67.538	67.559	67.581	67.603	67.624	67.646	67.668	67.690	67.711
Design Chainage (Km)	301800	301810	301820	301830	301840	301850	301860	301870	301880	301890	301900	301910	301920	301930	301940	301950	301960	301970	301980	301990	302000

Proposed Vertical Alignment - Left Carriageway: 253 / 94m; L=60.000m R=-12955.907m K= 129.559; L=62.866m G=-0.210; G=0.344 L=130.840m; G=0.143 L=40.000m; L=60.000m R=-22170.088m K= 221.701; L=30.000m G=-0.128; R=13422.562m L=60.000m K= 134.226; G=0.319 L=70.000m; L=60.000m R=-24501.818m K= 245.018; G=0.074 L=113.257m; G=0.009 L=86.743m; G=0.138 L=177.724m

Proposed Vertical Alignment - Right Carriageway: 253 / 94m; L=60.000m R=-12955.907m K= 129.559; L=62.866m G=-0.210; G=0.344 L=130.840m; G=0.143 L=40.000m; L=60.000m R=-22170.088m K= 221.701; L=30.000m G=-0.128; R=13422.562m L=60.000m K= 134.226; G=0.319 L=70.000m; L=60.000m R=-24501.818m K= 245.018; G=0.074 L=113.257m; G=0.009 L=86.743m; G=0.138 L=177.724m

Proposed Horizontal Alignment at Median C/L: L=362.448m; R=2500.000m L=191.705m; L=611.808m; L=218.434m

Superelevation/Crossfall (%)

Cross Section Type: Type - 5; Type - 2; Type - 2; Type - 7

CBR	Subgrade/Borrow Area	CBR (10%)	CBR (10%)
Pavement	Overlay	BC=50mm, DBM=55mm/Partial Reconstruction*	BC=50mm, DBM=50mm/Partial Reconstruction*
	Widening/New Construction	BC=50mm, DBM=90mm, WMM=250mm, GSB=200 mm	BC=50mm, DBM=90mm, WMM=250mm, GSB=200 mm

* Pavement layers thickness in Partial Reconstruction area (Overlay Side) shall be as per detail Cross Section.

R2	June 2018	Profile updated as per site condition, bus bay incorporated.
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017
Rev.	Date	Description on Revisions

Revisions

CLIENT:-
NATIONAL HIGHWAYS
& INFRASTRUCTURE
DEVELOPMENT
CORPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY DATE

PROOF CHECKED CONSULTANT:-
CE TESTING
Company Pvt Ltd
13/7/18
AUTHORISED SIGNATORY DATE

SAEFTY CONSULTANT:-
Chaitanya Projects
Consultancy Pvt. Ltd
AUTHORISED SIGNATORY DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India
SK Team Leader
MSR Design Director
DRAWN DESIGN CHECKED BY APPROVED BY

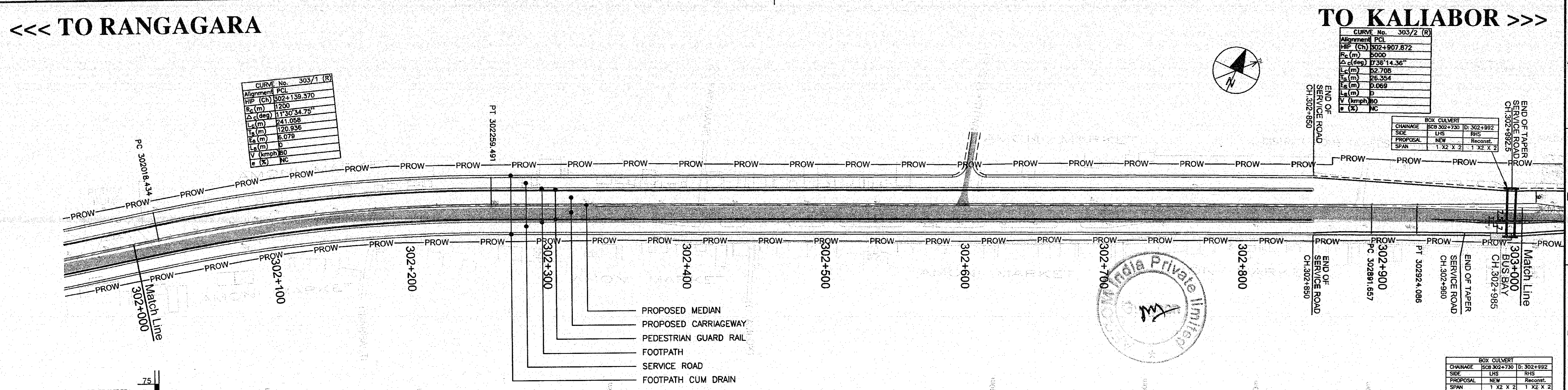
SCALE:-
HOR- 1 : 2000
VER- 1 : 200

TITLE:-
PLAN AND PROFILE
FROM Km. 301+000 To Km. 302+000

DRAWING NO.:- AECOM-DELD15159-DD-DWG-PP- 0105
REV. R2

<<< TO RANGAGARA

TO KALIABOR >>>



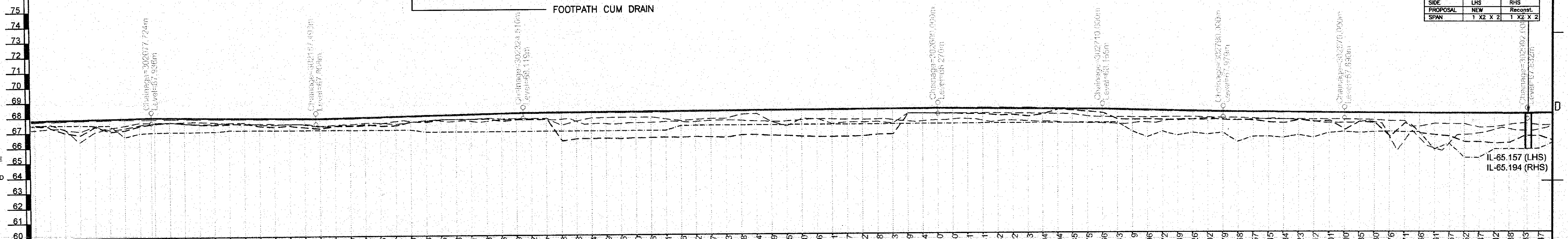
CURVE No.	303/1 (R)
Alignment	PCL
HIP (Ch)	302+139.370
Rc (m)	1200
Δc (deg)	11°30'34.75"
Lc (m)	241.058
Ts (m)	120.936
Es (m)	6.079
Ls (m)	0
V (kmph)	80
e (%)	NC

CURVE No.	303/2 (R)
Alignment	PCL
HIP (Ch)	302+907.872
Rc (m)	5000
Δc (deg)	0°36'14.36"
Lc (m)	52.708
Ts (m)	26.354
Es (m)	0.069
Ls (m)	0
V (kmph)	80
e (%)	NC

BOX CULVERT		
CHAINAGE	BCB 302+730	D: 302+992
SIDE	LHS	RHS
PROPOSAL	NEW	Reconst.
SPAN	1 X2 X 2	1 X2 X 2

1. DETAILS OF DRAINS WILL BE PROVIDED ALONG WITH DRAINAGE PLAN & PROFILE.
2. PAVEMENT CRUST DETAILS TO BE ADOPTED AS PER PAVEMENT DESIGN REPORT.
3. LME = LEFT MEDIAN EDGE
   RME = RIGHT MEDIAN EDGE
4. MEDIAN OPENING LOCATION IS TENTATIVE WHICH IS TO BE FINALISED AT SITE DURING EXECUTION.
5. SEPARATE DRAWING FOR DETAILING OF MINIOR & MAJOR JUNCTION,BUS BAYS, MEDIAN OPENING SHALL BE PROVIDED SEPARATELY.
6. DRAWING FOR CULVERTS, MINOR BRIDGE & FO SHALL BE PROVIDED SEPARATELY.
7. SEPARATE DRAWING SHALL BE PROVIDED FOR MEDIAN OPENING COMING INTO JUNCTIONS.

LME RME



Design Chainage (Km)	Proposed Road Level at Median Edge -Left Carriageway (m)	Proposed Road Level at Median Edge -Right Carriageway (m)	Existing Ground/Road Level at Median Edge -Left Carriageway (m)	Existing Ground/Road Level at Median Edge -Right Carriageway (m)	Ground Level at 25m to Left of Proposed Median C/L (m)	Ground Level at 25m to Right of Proposed Median C/L (m)	Existing Centre Road Level
302000	67.799	67.799	67.461	67.445	67.522	67.152	67.711
302010	67.817	67.817	67.473	67.460	67.511	67.197	67.733
302020	67.834	67.834	67.338	67.562	67.501	67.291	67.755
302030	67.852	67.852	67.004	67.195	67.490	67.268	67.776
302040	67.870	67.870	66.832	67.078	67.479	66.375	67.796
302050	67.887	67.887	67.377	67.431	67.469	67.002	67.810
302060	67.905	67.905	67.059	67.154	66.690	67.286	67.820
302070	67.923	67.923	67.145	67.268	66.909	67.416	67.826
302080	67.934	67.934	67.422	67.487	66.966	67.615	67.826
302090	67.922	67.922	67.558	67.567	66.968	67.616	67.823
302100	67.910	67.910	67.623	67.627	66.970	67.633	67.816
302110	67.899	67.899	67.563	67.527	66.972	67.631	67.810
302120	67.887	67.887	67.453	67.500	66.975	67.651	67.804
302130	67.876	67.876	67.429	67.502	67.079	67.607	67.798
302140	67.864	67.864	67.490	67.567	67.064	67.539	67.792
302150	67.852	67.852	67.507	67.558	67.069	67.470	67.786
302160	67.841	67.841	67.332	67.420	67.059	67.486	67.780
302170	67.829	67.829	67.277	67.398	67.057	67.500	67.774
302180	67.817	67.817	67.350	67.445	67.055	67.428	67.769
302190	67.814	67.814	67.235	67.458	67.053	67.480	67.771
302200	67.837	67.837	67.155	67.319	67.051	67.311	67.780
302210	67.859	67.859	67.315	67.379	67.050	67.290	67.794
302220	67.882	67.882	67.317	67.421	67.048	67.375	67.815
302230	67.905	67.905	67.409	67.509	67.046	67.318	67.842
302240	67.927	67.927	67.304	67.501	67.044	67.376	67.874
302250	67.950	67.950	67.323	67.410	67.043	67.556	67.906
302260	67.973	67.973	67.574	67.560	66.882	67.665	67.938
302270	67.995	67.995	67.553	67.652	66.884	67.546	67.970
302280	68.018	68.018	67.712	67.708	66.886	67.680	68.001
302290	68.041	68.041	67.712	67.717	66.888	67.558	68.030
302300	68.063	68.063	67.718	67.714	66.890	67.643	68.053
302310	68.086	68.086	67.739	67.777	66.892	67.523	68.071
302320	68.109	68.109	67.579	67.722	66.894	67.648	68.084
302330	68.122	68.122	67.673	67.744	66.896	67.696	68.091
302340	68.127	68.127	67.673	67.74	66.898	67.743	68.094
302350	68.133	68.133	67.689	67.748	66.900	67.696	68.095
302360	68.138	68.138	66.253	67.286	66.902	67.651	68.096
302370	68.144	68.144	66.385	67.574	66.904	67.728	68.097
302380	68.149	68.149	66.401	67.756	66.906	67.341	68.098
302390	68.155	68.155	66.409	67.773	66.908	67.396	68.099
302400	68.160	68.160	66.387	67.786	66.910	67.333	68.100
302410	68.166	68.166	66.422	67.773	66.912	67.425	68.109
302420	68.171	68.171	66.432	67.786	66.914	67.415	68.124
302430	68.176	68.176	66.450	67.649	67.230	67.475	68.140
302440	68.182	68.182	66.436	67.536	67.232	67.515	68.155
302450	68.187	68.187	66.474	67.611	67.234	67.456	68.171
302460	68.193	68.193	66.447	67.670	67.236	67.526	68.186
302470	68.198	68.198	66.413	67.665	67.238	67.566	68.202
302480	68.204	68.204	66.584	67.939	67.240	67.566	68.217
302490	68.209	68.209	66.585	67.978	67.242	67.516	68.232
302500	68.215	68.215	66.526	67.419	67.244	67.483	68.248
302510	68.220	68.220	66.505	67.153	67.246	67.445	68.262
302520	68.226	68.226	66.452	67.629	67.248	67.523	68.265
302530	68.231	68.231	66.426	67.611	67.250	67.595	68.268
302540	68.237	68.237	66.428	67.275	67.252	67.615	68.270
302550	68.242	68.242	66.438	67.383	67.254	67.576	68.273
302560	68.248	68.248	66.471	67.373	67.256	67.571	68.276
302570	68.253	68.253	66.574	67.404	67.258	67.566	68.279
302580	68.259	68.259	66.593	67.285	67.260	67.591	68.281
302590	68.264	68.264	67.964	67.952	67.262	67.466	68.284
302600	68.270	68.270	67.959	67.951	67.264	67.376	68.287
302610	68.260	68.260	67.938	67.939	67.266	67.485	68.289
302620	68.251	68.251	67.948	67.925	67.268	67.502	68.292
302630	68.241	68.241	67.888	67.939	67.271	67.583	68.295
302640	68.232	68.232	67.888	67.955	67.272	67.540	68.296
302650	68.222	68.222	67.788	67.939	67.275	67.341	68.292
302660	68.213	68.213	67.822	67.908	67.277	67.458	68.281
302670	68.204	68.204	67.721	67.893	67.279	67.423	68.264
302680	68.194	68.194	67.859	67.881	67.281	67.360	68.241
302690	68.185	68.185	68.166	67.86	67.283	67.360	68.211
302700	68.175	68.175	68.094	67.836	67.285	67.286	68.177
302710	68.166	68.166	68.018	67.694	67.287	67.260	68.142
302720	68.143	68.143	67.919	67.635	67.289	67.245	68.107
302730	68.119	68.119	67.483	67.629	66.682	67.219	68.073
302740	68.096	68.096	67.468	67.617	66.292	67.175	68.043
302750	68.072	68.072	67.488	67.593	66.677	67.295	68.016
302760	68.049	68.049	67.443	67.617	66.400	67.245	67.995
302770	68.026	68.026	67.404	67.626	66.592	67.454	67.977
302780	68.002	68.002	67.481	67.633	66.462	67.494	67.964
302790	67.979	67.979	67.546	67.589	66.592	67.428	67.954
302800	67.968	67.968	67.434	67.561	65.967	67.479	67.946
302810	67.957	67.957	67.411	67.563	66.312	67.402	67.937
302820	67.945	67.945	67.391	67.520	66.317	67.430	67.929
302830	67.934	67.934	67.253	67.457	66.242	67.485	67.920
302840	67.923	67.923	67.208	67.459	66.417	67.514	67.911
302850	67.912	67.912	67.408	67.468	66.245	67.437	67.903
302860	67.901	67.901	67.285	67.429	66.555	67.394	67.894
302870	67.890	67.890	67.36	67.455	66.632	67.232	67.886
302880	67.885	67.885	66.759	67.437	66.567	67.218	67.877
302890	67.880	67.880	67.299	67.422	66.617	67.224	67.868
302900	67.876	67.876	67.205	67.401	66.647	67.334	67.860
302910	67.871	67.871	66.303	67.330	66.613	67.169	67.851
302920	67.866	67.866	67.193	67.334	66.612	65.370	67.843
302930	67.861	67.861	66.527	66.967	65.452	66.692	67.834
302940	67.857	67.857	66.413	67.163	65.847	65.682	67.825
302950	67.852	67.852	66.317	67.135	64.910	65.355	67.826
302960	67.847	67.847	65.943	67.130	64.890	66.400	67.827
302970	67.842	67.842	65.941	66.901	65.462	66.437	67.828
302980	67.838	67.838	65.854	66.922	65.474	66.615	67.829
302990	67.833	67.833	65.891	67.078	65.457	66.884	67.830
303000	67.847	67.847	66.357	67.187	65.492	66.700	67.832

Proposed Vertical Alignment - Left Carriageway: G=0.177 L=100.000m; G=-0.117 L=109.769m; G=0.226 L=137.017m; G=0.055 L=275.490m; G=-0.094 L=110.000m; G=-0.234 L=80.000m; G=-0.111 L=80.000m; G=-0.047 L=122.000m

Proposed Vertical Alignment - Right Carriageway: G=0.177 L=100.000m; G=-0.117 L=109.769m; G=0.226 L=137.017m; G=0.055 L=275.490m; G=-0.094 L=110.000m; G=-0.234 L=80.000m; G=-0.111 L=80.000m; G=-0.047 L=122.000m

Proposed Horizontal Alignment at Median C/L: R=1200.000m L=241.057m; L=632.167m; R=5000.000m L=32.428m

Superelevation/Crossfall (%): e=2.500

Cross Section Type: Type - 7; Type - 7; Type - 5; Type - 4

CBR Subgrade/Borrow Area: CBR (10%); CBR (10%)

Pavement Overlay: BC=50mm, DBM=50mm/Partial Reconstruction*; BC=50mm, DBM=55mm/Partial Reconstruction*

Pavement Widening/New Construction: BC=50mm, DBM=90mm, WMM=250mm, GSB=200 mm; BC=50mm, DBM=90mm, WMM=250mm, GSB=200 mm

* Pavement layers thickness in Partial Reconstruction area (Overlay Side) shall be as per detail Cross Section.

Rev.	Date	Description on Revisions
R2	June 2018	Profile updated as per site condition, bus bay incorporated.
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

Revisions

CLIENT:-
NATIONAL HIGHWAYS
& INFRASTRUCTURE
DEVELOPMENT
CORPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CE TESTING
Company Pvt. Ltd
AUTHORISED SIGNATORY | DATE
13/2/18

SAEFTY CONSULTANT:-
Chaitanya Projects
Consultancy Pvt. Ltd
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

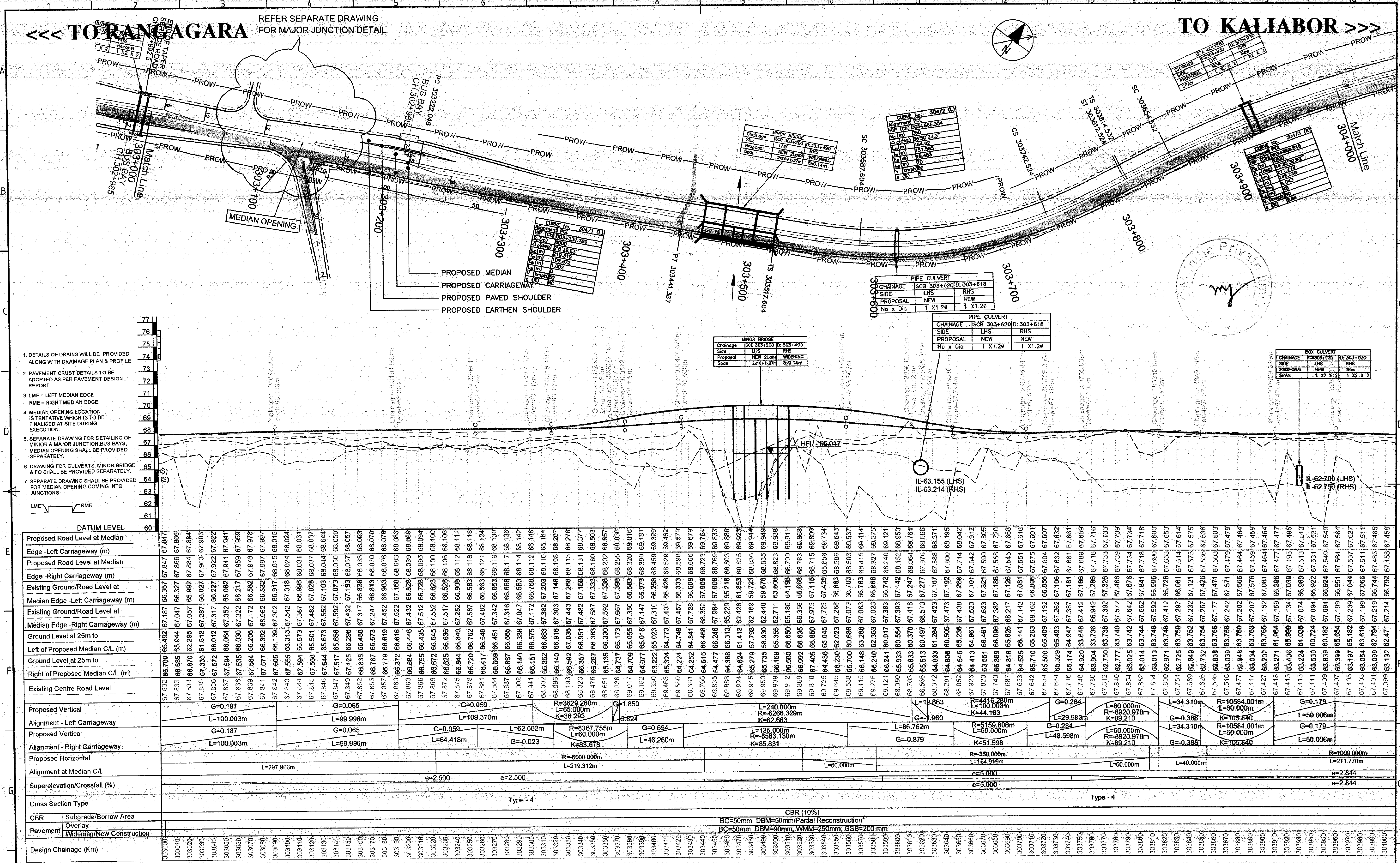
EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India
DRAWN | DESIGN | CHECKED BY Team Leader | APPROVED BY Design Director

SCALE:-
HOR- 1 : 2000
VER- 1 : 200

TITLE:-
PLAN AND PROFILE
FROM Km. 302+000 To Km. 303+000

DRAWING NO.:- AECOM-DELD15159-DD-DWG-PP- 0106
REV. R2


<<< TO RANGAGARA
TO KALIABOR >>>
REFER SEPARATE DRAWING FOR MAJOR JUNCTION DETAIL
MEDIAN OPENING
PROPOSED MEDIAN
PROPOSED CARRIAGEWAY
PROPOSED PAVED SHOULDER
PROPOSED EARTHEN SHOULDER
PROW
Match Line 303+000
Match Line 304+000
BUS BAY CH.302+985
BUS BAY CH.302+965
PC 303222.048
303+100
303+200
303+300
303+400
303+500
303+600
303+700
303+800
303+900
PT 303441.367
TS 303517.604
SC 303587.604
CS 303742.524
ST 303812.524
TS 303814.532
SC 303854.532
MINOR BRIDGE
PIPE CULVERT
BOX CULVERT
HFL - 66.017
IL-63.155 (LHS)
IL-63.214 (RHS)
IL-62.700 (LHS)
IL-62.750 (RHS)
DATUM LEVEL
Proposed Road Level at Median Edge -Left Carriageway (m)
Proposed Road Level at Median Edge -Right Carriageway (m)
Existing Ground/Road Level at Median Edge -Left Carriageway (m)
Existing Ground/Road Level at Median Edge -Right Carriageway (m)
Ground Level at 25m to Left of Proposed Median C/L (m)
Ground Level at 25m to Right of Proposed Median C/L (m)
Existing Centre Road Level
Proposed Vertical Alignment - Left Carriageway
Proposed Vertical Alignment - Right Carriageway
Proposed Horizontal Alignment at Median C/L
Superelevation/Crossfall (%)
Cross Section Type
Type - 4
CBR Subgrade/Borrow Area
CBR (10%)
Pavement Overlay
BC=50mm, DBM=50mm/Partial Reconstruction*
Pavement Widening/New Construction
BC=50mm, DBM=90mm, WMM=250mm, GSB=200 mm
Design Chainage (Km)

1. DETAILS OF DRAINS WILL BE PROVIDED ALONG WITH DRAINAGE PLAN & PROFILE.
2. PAVEMENT CRUST DETAILS TO BE ADOPTED AS PER PAVEMENT DESIGN REPORT.
3. LME = LEFT MEDIAN EDGE
   RME = RIGHT MEDIAN EDGE
4. MEDIAN OPENING LOCATION IS TENTATIVE WHICH IS TO BE FINALISED AT SITE DURING EXECUTION.
5. SEPARATE DRAWING FOR DETAILING OF MINIOR & MAJOR JUNCTION,BUS BAYS, MEDIAN OPENING SHALL BE PROVIDED SEPARATELY.
6. DRAWING FOR CULVERTS, MINOR BRIDGE & FO SHALL BE PROVIDED SEPARATELY.
7. SEPARATE DRAWING SHALL BE PROVIDED FOR MEDIAN OPENING COMING INTO JUNCTIONS.

* Pavement layers thickness in Partial Reconstruction area (Overlay Side) shall be as per detail Cross Section.

Rev.	Date	Description on Revisions
R2	June 2018	Profile updated as per site condition, bus bay incorporated.
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

Revisions

CLIENT:-
NATIONAL HIGHWAYS
& INFRASTRUCTURE
DEVELOPMENT
CORPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CE TESTING Company Pvt. Ltd
13/7/18
AUTHORISED SIGNATORY | DATE

SAEFTY CONSULTANT:-
Chaitanya Projects Consultancy Pvt. Ltd
NEW DELHI
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

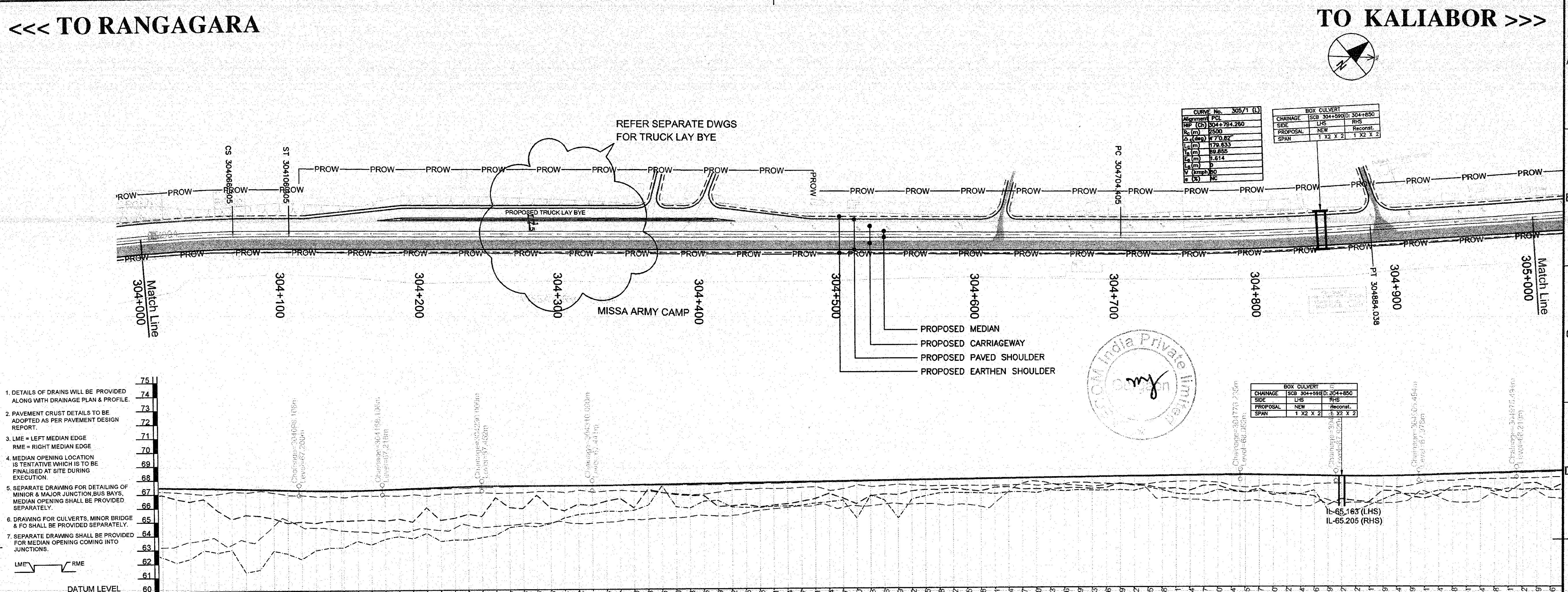
CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India
SL Team Leader | MSR Design Director
DRAWN | DESIGN | CHECKED BY | APPROVED BY

SCALE:-
HOR- 1 : 2000
VER- 1 : 200

TITLE:-

PLAN AND PROFILE
FROM Km. 303+000 To Km. 304+000

DRAWING NO.:- AECOM-DELD15159-DD-DWG-PP- 0107
REV. R2



CURVE No.	305/1 (L)
Alignment	PCL
HIP (Ch)	304+794.260
R_c (m)	2500
Δ_c (deg)	4°7'0.82"
L_c (m)	179.633
T_s (m)	89.855
E_s (m)	1.614
L_s (m)	0
V (kmph)	80
e (%)	NC

BOX CULVERT		
CHAINAGE	SCB 304+590	D: 304+850
SIDE	LHS	RHS
PROPOSAL	NEW	Reconst.
SPAN	1 X2 X 2	1 X2 X 2

BOX CULVERT		
CHAINAGE	SCB 304+590	D: 304+850
SIDE	LHS	RHS
PROPOSAL	NEW	Reconst.
SPAN	1 X2 X 2	1 X2 X 2

1. DETAILS OF DRAINS WILL BE PROVIDED ALONG WITH DRAINAGE PLAN & PROFILE.
2. PAVEMENT CRUST DETAILS TO BE ADOPTED AS PER PAVEMENT DESIGN REPORT.
3. LME = LEFT MEDIAN EDGE
   RME = RIGHT MEDIAN EDGE
4. MEDIAN OPENING LOCATION IS TENTATIVE WHICH IS TO BE FINALISED AT SITE DURING EXECUTION.
5. SEPARATE DRAWING FOR DETAILING OF MINIOR & MAJOR JUNCTION,BUS BAYS, MEDIAN OPENING SHALL BE PROVIDED SEPARATELY.
6. DRAWING FOR CULVERTS, MINOR BRIDGE & FO SHALL BE PROVIDED SEPARATELY.
7. SEPARATE DRAWING SHALL BE PROVIDED FOR MEDIAN OPENING COMING INTO JUNCTIONS.

Design Chainage (Km)	304000	304010	304020	304030	304040	304050	304060	304070	304080	304090	304100	304110	304120
Proposed Road Level at Median Edge -Left Carriageway (m)	67.458	67.432	67.406	67.379	67.353	67.326	67.300	67.274	67.247	67.221	67.195	67.175	67.165
Proposed Road Level at Median Edge -Right Carriageway (m)	67.458	67.432	67.406	67.379	67.353	67.326	67.300	67.274	67.247	67.221	67.195	67.175	67.165
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	66.792	66.939	66.661	66.449	66.634	65.788	65.166	65.446	65.391	65.201	64.864	64.948	64.855
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	67.214	67.179	67.114	67.039	66.919	66.974	67.134	67.064	67.174	67.014	66.849	66.834	66.744
Ground Level at 25m to Left of Proposed Median C/L (m)	62.471	62.082	62.347	62.956	62.754	62.967	61.326	61.516	62.873	62.663	62.257	62.899	63.068
Ground Level at 25m to Right of Proposed Median C/L (m)	63.192	63.182	63.524	63.643	63.848	63.172	63.674	63.439	64.298	65.241	64.819	64.516	64.504
Existing Centre Road Level	67.399	67.381	67.362	67.343	67.324	67.304	67.285	67.266	67.247	67.228	67.209	67.191	67.179

Design Chainage (Km)	304130	304140	304150	304160	304170	304180	304190	304200	304210	304220	304230	304240	304250
Proposed Road Level at Median Edge -Left Carriageway (m)	67.165	67.175	67.195	67.224	67.257	67.289	67.322	67.354	67.387	67.420	67.452	67.451	67.449
Proposed Road Level at Median Edge -Right Carriageway (m)	67.165	67.175	67.195	67.224	67.257	67.289	67.322	67.354	67.387	67.420	67.452	67.451	67.449
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	65.001	65.007	65.031	65.070	64.998	65.125	64.909	65.926	65.025	65.161	65.451	65.283	66.617
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	66.784	66.679	66.824	66.784	66.794	66.769	66.869	66.754	66.909	66.904	66.964	66.969	66.926
Ground Level at 25m to Left of Proposed Median C/L (m)	63.083	63.546	63.279	63.685	63.877	63.702	64.091	63.512	63.606	63.593	63.769	63.929	64.481
Ground Level at 25m to Right of Proposed Median C/L (m)	64.342	64.244	64.209	64.117	64.302	64.202	64.464	64.331	64.251	64.756	64.474	64.516	64.614
Existing Centre Road Level	67.174	67.175	67.183	67.198	67.217	67.237	67.258	67.278	67.298	67.318	67.338	67.358	67.378

Design Chainage (Km)	304260	304270	304280	304290	304300	304310	304320	304330	304340	304350	304360	304370	304380
Proposed Road Level at Median Edge -Left Carriageway (m)	67.448	67.446	67.445	67.444	67.442	67.441	67.454	67.467	67.480	67.493	67.506	67.520	67.533
Proposed Road Level at Median Edge -Right Carriageway (m)	67.448	67.446	67.445	67.444	67.442	67.441	67.454	67.467	67.480	67.493	67.506	67.520	67.533
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	65.899	65.828	66.772	65.848	65.657	66.105	66.024	66.320	66.502	65.825	67.147	66.920	66.769
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	66.946	66.956	67.051	67.026	66.951	67.126	66.951	67.064	67.091	67.006	67.006	66.896	66.811
Ground Level at 25m to Left of Proposed Median C/L (m)	64.589	64.517	64.737	65.142	65.386	65.465	65.607	65.581	65.672	66.017	67.411	65.897	65.802
Ground Level at 25m to Right of Proposed Median C/L (m)	64.669	64.796	64.721	64.908	64.749	64.701	64.798	64.828	64.988	64.976	65.068	65.089	65.134
Existing Centre Road Level	67.399	67.405	67.410	67.415	67.420	67.425	67.430	67.435	67.440	67.445	67.449	67.454	67.459

Design Chainage (Km)	304390	304400	304410	304420	304430	304440	304450	304460	304470	304480	304490	304500	304510
Proposed Road Level at Median Edge -Left Carriageway (m)	67.546	67.559	67.572	67.585	67.598	67.611	67.624	67.637	67.651	67.664	67.677	67.690	67.703
Proposed Road Level at Median Edge -Right Carriageway (m)	67.546	67.559	67.572	67.585	67.598	67.611	67.624	67.637	67.651	67.664	67.677	67.690	67.703
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	66.700	66.690	65.904	65.940	66.047	65.850	65.979	66.063	66.238	66.420	66.804	66.475	66.052
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	66.731	66.796	66.931	67.091	67.106	67.176	67.156	67.171	67.236	67.271	66.991	67.151	67.396
Ground Level at 25m to Left of Proposed Median C/L (m)	66.299	66.339	65.860	65.826	65.821	65.893	65.911	65.946	66.110	66.200	66.310	65.010	66.665
Ground Level at 25m to Right of Proposed Median C/L (m)	65.284	65.248	65.219	65.303	65.551	65.673	65.758	65.873	65.873	66.056	65.704	65.919	65.856
Existing Centre Road Level	67.464	67.473	67.490	67.507	67.524	67.541	67.558	67.575	67.592	67.609	67.626	67.643	67.660

Design Chainage (Km)	304520	304530	304540	304550	304560	304570	304580	304590	304600	304610	304620	304630	304640
Proposed Road Level at Median Edge -Left Carriageway (m)	67.716	67.729	67.742	67.755	67.768	67.782	67.795	67.808	67.821	67.834	67.847	67.860	67.873
Proposed Road Level at Median Edge -Right Carriageway (m)	67.716	67.729	67.742	67.755	67.768	67.782	67.795	67.808	67.821	67.834	67.847	67.860	67.873
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	66.614	66.739	66.697	66.940	67.050	67.028	67.163	67.008	66.909	67.174	67.210	67.044	67.064
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	67.266	67.336	67.426	67.356	67.289	67.304	67.299	67.319	67.289	67.309	67.319	67.379	67.289
Ground Level at 25m to Left of Proposed Median C/L (m)	66.310	65.010	66.370	66.608	66.800	66.820	66.800	66.788	66.732	66.840	66.858	66.776	66.979
Ground Level at 25m to Right of Proposed Median C/L (m)	65.956	66.073	65.988	66.016	66.024	65.879	65.986	65.892	65.702	66.549	67.327	67.631	67.541
Existing Centre Road Level	67.677	67.694	67.711	67.728	67.745	67.762	67.779	67.796	67.813	67.830	67.847	67.864	67.881

Design Chainage (Km)	304650	304660	304670	304680	304690	304700	304710	304720	304730	304740	304750	304760	304770
Proposed Road Level at Median Edge -Left Carriageway (m)	67.886	67.899	67.913	67.926	67.939	67.952	67.965	67.978	67.991	68.004	68.017	68.030	68.044
Proposed Road Level at Median Edge -Right Carriageway (m)	67.886	67.899	67.913	67.926	67.939	67.952	67.965	67.978	67.991	68.004	68.017	68.030	68.044
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	67.044	67.107	67.128	67.064	67.109	67.450	67.279	67.263	67.054	67.090	66.902	67.265	67.289
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	67.389	67.334	67.269	67.194	67.339	67.409	67.279	67.384	67.519	67.544	67.569	67.539	67.484
Ground Level at 25m to Left of Proposed Median C/L (m)	66.896	66.967	66.937	66.926	66.964	66.900	67.164	66.945	66.682	66.641	66.620	66.944	66.871
Ground Level at 25m to Right of Proposed Median C/L (m)	67.307	67.511	67.498	67.426	67.392	67.371	67.382	66.324	66.414	66.267	66.251	66.121	66.221
Existing Centre Road Level	67.898	67.915	67.921	67.927	67.933	67.939	67.945	67.951	67.957	67.963	67.969	67.975	67.981

Design Chainage (Km)	304780	304790	304800	304810	304820	304830	304840	304850	304860	304870	304880	304890	304900
Proposed Road Level at Median Edge -Left Carriageway (m)	68.045	68.027	68.010	67.992	67.974	67.956	67.939	67.922	67.912	67.911	67.919	67.934	67.959
Proposed Road Level at Median Edge -Right Carriageway (m)	68.045	68.027	68.010	67.992	67.974	67.956	67.939	67.922	67.912	67.911	67.919	67.934	67.959
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	66.940	66.767	67.03	66.59	66.723	66.634	66.488	65.839	66.277	66.16	66.029	66.869	66.842
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	67.199	67.119	67.194	67.319	67.299	67.199	67.367	67.377	67.387	67.347	67.177	67.147	67.097
Ground Level at 25m to Left of Proposed Median C/L (m)	66.750	66.870	66.741	66.598	66.640	66.900	65.463	65.028	65.424	65.828	66.238	66.650	66.639
Ground Level at 25m to Right of Proposed Median C/L (m)	66.122	66.200	66.082	66.021	65.766	65.759	66.299	65.949	66.014	65.999	65.931	65.980	66.135
Existing Centre Road Level	67.987	67.984	67.973	67.963	67.952	67.941	67.931	67.920	67.911	67.907	67.910	67.919	67.935

Design Chainage (Km)	304910	304920	304930	304940	304950	304960	304970	304980	304990	305000
Proposed Road Level at Median Edge -Left Carriageway (m)	67.991	68.024	68.058	68.091	68.124	68.158	68.191	68.222	68.249	68.276
Proposed Road Level at Median Edge -Right Carriageway (m)	67.991	68.024	68.058	68.091	68.124	68.158	68.191	68.222	68.249	68.276
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	66.452	66.315	66.559	67.136	67.187	67.111	66.987	66.759	67.372	67.421
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	67.247	67.497	67.557	67.582	67.687	67.697	67.707	67.742	67.752	67.772
Ground Level at 25m to Left of Proposed Median C/L (m)	66.602	66.885	66.877	66.899	67.158	66.792	67.045	66.925	67.032	66.896
Ground Level at 25m to Right of Proposed Median C/L (m)	66.907	66.515	66.037	66.000	66.037	66.692	66.337	66.335	66.997	66.372
Existing Centre Road Level	67.957	67.984	68.012	68.040	68.068	68.096	68.124	68.152	68.179	68.207

Proposed Vertical Alignment - Left Carriageway: L=138.750m G=-0.264 | R=10182.964m L=60.000m K=101.830 | G=0.326 L=71.894m | L=80.000m G=-0.014 | G=0.131 L=466.235m | L=69.259m G=-0.177 | R=11741.635m L=60.000m K=117.416 | G=0.334 L=70.000m

Proposed Vertical Alignment - Right Carriageway: L=138.750m G=-0.264 | R=10182.964m L=60.000m K=101.830 | G=0.326 L=71.894m | L=80.000m G=-0.014 | G=0.131 L=466.235m | L=69.259m G=-0.177 | R=11741.635m L=60.000m K=117.416 | G=0.334 L=70.000m

Proposed Horizontal Alignment at Median C/L: L=40.000m | L=598.102m | R=-2500.000m L=179.633m

Superelevation/Crossfall (%): e=2.500 | e=2.500 | e=2.500

Cross Section Type: Type - 4 | Type - 4

CBR – Subgrade/Borrow Area: CBR (10%)

Pavement – Overlay: BC=50mm, DBM=50mm/Partial Reconstruction*

Pavement – Widening/New Construction: BC=50mm, DBM=90mm, WMM=250mm, GSB=200 mm

* Pavement layers thickness in Partial Reconstruction area (Overlay Side) shall be as per detail Cross Section.

Rev.	Date	Description on Revisions
R2	June 2018	Profile updated as per site condition, bus bay incorporated.
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

Revisions

AECOM India Private limited

CLIENT:-
NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CE TESTING Company Pvt. Ltd
13/8/18
AUTHORISED SIGNATORY | DATE

SAEFTY CONSULTANT:-
Chaitanya Projects Consultancy Pvt. Ltd
NEW DELHI
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

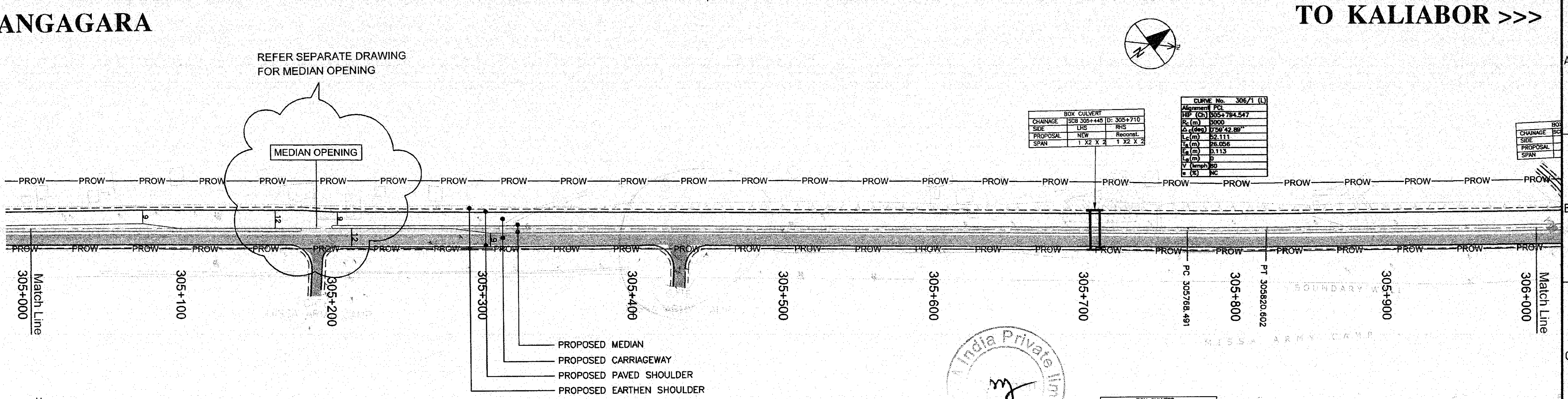
CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India
DRAWN | DESIGN | SL Team Leader CHECKED BY | MSR Design Director APPROVED BY

SCALE:-
HOR- 1 : 2000
VER- 1 : 200

TITLE:-
PLAN AND PROFILE
FROM Km. 304+000 To Km. 305+000

DRAWING NO.:- AECOM-DELD15159-DD-DWG-PP- 0108
REV. R2

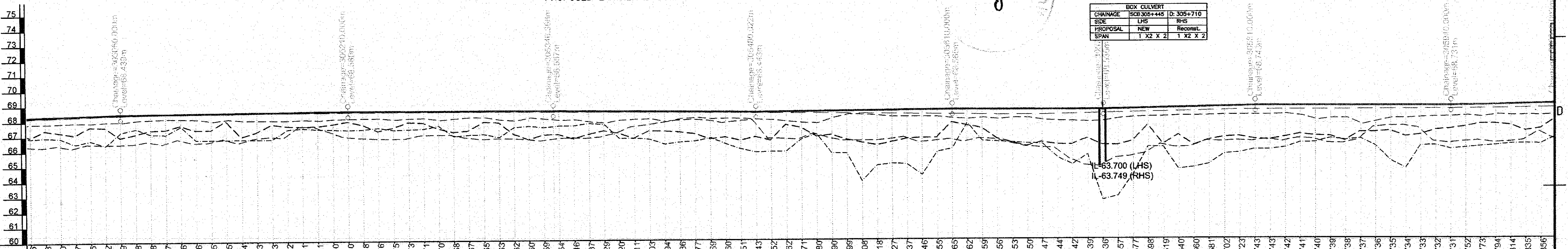
24



BOX CULVERT		
CHAINAGE	SCB 305+445	D: 305+710
SIDE	LHS	RHS
PROPOSAL	NEW	Reconst.
SPAN	1 X2 X 2	1 X2 X 2

CURVE No.	306/1 (L)
Alignment	PCL
HIP (Ch)	305+784.547
R_c (m)	3000
Δ_c (deg)	0°59'42.89"
L_c (m)	52.111
T_s (m)	26.056
E_s (m)	0.113
L_s (m)	0
V (kmph)	80
e (%)	NC

1. DETAILS OF DRAINS WILL BE PROVIDED ALONG WITH DRAINAGE PLAN & PROFILE.
2. PAVEMENT CRUST DETAILS TO BE ADOPTED AS PER PAVEMENT DESIGN REPORT.
3. LME = LEFT MEDIAN EDGE
   RME = RIGHT MEDIAN EDGE
4. MEDIAN OPENING LOCATION IS TENTATIVE WHICH IS TO BE FINALISED AT SITE DURING EXECUTION.
5. SEPARATE DRAWING FOR DETAILING OF MINIOR & MAJOR JUNCTION,BUS BAYS, MEDIAN OPENING SHALL BE PROVIDED SEPARATELY.
6. DRAWING FOR CULVERTS, MINOR BRIDGE & FO SHALL BE PROVIDED SEPARATELY.
7. SEPARATE DRAWING SHALL BE PROVIDED FOR MEDIAN OPENING COMING INTO JUNCTIONS.



BOX CULVERT		
CHAINAGE	SCB 305+445	D: 305+710
SIDE	LHS	RHS
PROPOSAL	NEW	Reconst.
SPAN	1 X2 X 2	1 X2 X 2

Design Chainage (Km)	305000	305010	305020	305030	305040	305050	305060	305070	305080	305090
Proposed Road Level at Median Edge -Left Carriageway (m)	68.276	68.303	68.330	68.357	68.385	68.412	68.439	68.448	68.458	68.467
Proposed Road Level at Median Edge -Right Carriageway (m)	68.276	68.303	68.330	68.357	68.385	68.412	68.439	68.448	68.458	68.467
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	67.421	66.984	67.42	67.27	67.111	67.628	67.598	66.903	67.129	67.385
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	67.772	67.837	67.837	67.867	67.897	67.877	67.942	67.937	68.047	68.092
Ground Level at 25m to Left of Proposed Median C/L (m)	66.896	66.939	66.890	66.501	66.731	66.400	67.252	67.494	67.141	67.101
Ground Level at 25m to Right of Proposed Median C/L (m)	66.372	66.295	66.420	66.249	66.494	66.459	66.455	66.487	66.652	66.476
Existing Centre Road Level	68.207	68.235	68.263	68.291	68.319	68.347	68.375	68.402	68.429	68.450

Design Chainage (Km)	305100	305110	305120	305130	305140	305150	305160	305170	305180	305190
Proposed Road Level at Median Edge -Left Carriageway (m)	68.476	68.486	68.495	68.505	68.514	68.523	68.533	68.542	68.551	68.561
Proposed Road Level at Median Edge -Right Carriageway (m)	68.476	68.486	68.495	68.505	68.514	68.523	68.533	68.542	68.551	68.561
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	67.416	67.706	67.381	67.381	67.981	66.931	67.236	67.741	67.616	67.596
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	68.127	68.107	68.087	67.957	68.087	67.992	67.997	67.987	67.977	68.037
Ground Level at 25m to Left of Proposed Median C/L (m)	67.641	66.741	66.743	66.745	66.747	66.749	66.751	67.386	67.476	67.400
Ground Level at 25m to Right of Proposed Median C/L (m)	66.787	66.562	66.572	66.802	66.540	66.812	66.922	66.875	67.594	67.578
Existing Centre Road Level	68.468	68.481	68.490	68.494	68.496	68.498	68.499	68.501	68.503	68.505

Design Chainage (Km)	305200	305210	305220	305230	305240	305250	305260	305270	305280	305290
Proposed Road Level at Median Edge -Left Carriageway (m)	68.570	68.580	68.578	68.576	68.575	68.573	68.571	68.570	68.568	68.567
Proposed Road Level at Median Edge -Right Carriageway (m)	68.570	68.580	68.578	68.576	68.575	68.573	68.571	68.570	68.568	68.567
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	67.616	67.736	67.906	67.696	67.276	67.496	67.846	67.796	67.426	67.196
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	68.002	68.077	68.087	68.097	68.107	68.027	68.087	68.107	67.977	68.077
Ground Level at 25m to Left of Proposed Median C/L (m)	67.380	67.346	67.371	67.486	67.336	67.364	67.404	67.611	66.906	66.988
Ground Level at 25m to Right of Proposed Median C/L (m)	67.244	66.89	66.817	66.773	66.756	66.763	66.979	67.004	66.994	66.819
Existing Centre Road Level	68.506	68.508	68.510	68.512	68.513	68.515	68.517	68.519	68.520	68.522

Design Chainage (Km)	305300	305310	305320	305330	305340	305350	305360	305370	305380	305390
Proposed Road Level at Median Edge -Left Carriageway (m)	68.565	68.563	68.562	68.560	68.559	68.554	68.546	68.537	68.529	68.520
Proposed Road Level at Median Edge -Right Carriageway (m)	68.565	68.563	68.562	68.560	68.559	68.554	68.546	68.537	68.529	68.520
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	67.276	67.841	67.806	67.051	66.686	66.976	67.006	66.711	67.016	67.231
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	68.147	68.142	67.987	67.922	68.112	68.027	67.942	67.967	67.817	67.737
Ground Level at 25m to Left of Proposed Median C/L (m)	67.038	66.821	67.486	67.564	67.474	67.578	67.586	67.724	67.651	66.739
Ground Level at 25m to Right of Proposed Median C/L (m)	66.709	66.744	66.739	66.695	66.592	66.732	66.791	66.750	66.835	67.072
Existing Centre Road Level	68.516	68.510	68.504	68.498	68.492	68.486	68.480	68.474	68.468	68.462

Design Chainage (Km)	305400	305410	305420	305430	305440	305450	305460	305470	305480	305490
Proposed Road Level at Median Edge -Left Carriageway (m)	68.511	68.503	68.494	68.486	68.477	68.469	68.460	68.451	68.443	68.452
Proposed Road Level at Median Edge -Right Carriageway (m)	68.511	68.503	68.494	68.486	68.477	68.469	68.460	68.451	68.443	68.452
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	67.076	66.716	67.216	67.196	67.136	67.023	66.668	66.788	66.573	66.808
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	67.932	67.977	68.007	67.807	68.017	68.077	67.997	68.017	68.012	67.962
Ground Level at 25m to Left of Proposed Median C/L (m)	66.744	66.678	66.336	66.468	66.536	66.760	66.348	66.013	65.798	65.828
Ground Level at 25m to Right of Proposed Median C/L (m)	67.496	67.608	67.761	67.915	67.973	67.917	67.738	67.854	67.937	66.701
Existing Centre Road Level	68.456	68.450	68.444	68.438	68.432	68.426	68.420	68.414	68.402	68.390

Design Chainage (Km)	305500	305510	305520	305530	305540	305550	305560	305570	305580	305590
Proposed Road Level at Median Edge -Left Carriageway (m)	68.462	68.471	68.480	68.490	68.499	68.508	68.518	68.527	68.537	68.546
Proposed Road Level at Median Edge -Right Carriageway (m)	68.462	68.471	68.480	68.490	68.499	68.508	68.518	68.527	68.537	68.546
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	66.573	67.598	67.398	66.823	66.923	66.608	66.408	66.228	66.423	66.648
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	67.907	67.807	67.722	67.702	68.042	68.262	68.244	68.172	68.097	68.101
Ground Level at 25m to Left of Proposed Median C/L (m)	65.836	66.640	66.978	65.713	65.701	63.856	64.883	65.005	64.963	64.236
Ground Level at 25m to Right of Proposed Median C/L (m)	66.689	66.624	67.021	66.726	66.531	66.533	66.533	66.619	66.746	66.407
Existing Centre Road Level	68.378	68.366	68.354	68.342	68.329	68.317	68.305	68.293	68.281	68.269

Design Chainage (Km)	305600	305610	305620	305630	305640	305650	305660	305670	305680	305690
Proposed Road Level at Median Edge -Left Carriageway (m)	68.555	68.565	68.562	68.559	68.556	68.553	68.550	68.547	68.544	68.542
Proposed Road Level at Median Edge -Right Carriageway (m)	68.555	68.565	68.562	68.559	68.556	68.553	68.550	68.547	68.544	68.542
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	66.703	66.698	67.708	67.517	67.322	66.642	66.372	66.132	66.387	66.232
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	68.103	68.078	67.977	67.927	68.007	67.907	67.997	67.987	67.827	67.782
Ground Level at 25m to Left of Proposed Median C/L (m)	65.766	65.973	67.663	66.472	66.429	66.367	66.311	66.272	65.372	64.900
Ground Level at 25m to Right of Proposed Median C/L (m)	66.476	66.603	66.420	66.646	66.600	66.342	66.134	66.039	65.998	65.286
Existing Centre Road Level	68.257	68.245	68.233	68.221	68.209	68.203	68.202	68.208	68.219	68.236

Design Chainage (Km)	305700	305710	305720	305730	305740	305750	305760	305770	305780	305790
Proposed Road Level at Median Edge -Left Carriageway (m)	68.539	68.536	68.557	68.577	68.598	68.619	68.640	68.660	68.681	68.702
Proposed Road Level at Median Edge -Right Carriageway (m)	68.539	68.536	68.557	68.577	68.598	68.619	68.640	68.660	68.681	68.702
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	66.222	66.622	66.192	66.182	66.427	67.462	66.212	66.832	66.162	66.497
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	67.757	67.717	67.767	67.937	68.017	68.042	68.057	68.102	68.102	68.122
Ground Level at 25m to Left of Proposed Median C/L (m)	65.549	62.565	62.807	64.217	66.059	66.025	64.575	64.692	64.900	65.572
Ground Level at 25m to Right of Proposed Median C/L (m)	64.859	64.789	65.330	65.436	65.634	66.221	66.019	66.054	66.442	66.398
Existing Centre Road Level	68.258	68.282	68.305	68.328	68.352	68.375	68.398	68.421	68.445	68.468

Design Chainage (Km)	305800	305810	305820	305830	305840	305850	305860	305870	305880	305890
Proposed Road Level at Median Edge -Left Carriageway (m)	68.723	68.743	68.743	68.742	68.741	68.740	68.739	68.738	68.737	68.736
Proposed Road Level at Median Edge -Right Carriageway (m)	68.723	68.743	68.743	68.742	68.741	68.740	68.739	68.738	68.737	68.736
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	66.697	66.737	66.567	66.502	66.692	66.877	66.762	66.737	66.422	67.016
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	68.157	68.152	68.147	68.157	68.187	68.077	67.792	67.912	67.917	67.492
Ground Level at 25m to Left of Proposed Median C/L (m)	65.654	65.865	65.855	65.973	66.307	66.322	66.599	66.460	66.567	66.086
Ground Level at 25m to Right of Proposed Median C/L (m)	66.449	66.407	66.528	66.388	66.603	66.549	66.282	66.264	66.465	67.309
Existing Centre Road Level	68.487	68.490	68.493	68.496	68.498	68.501	68.504	68.506	68.509	68.512

Design Chainage (Km)	305900	305910	305920	305930	305940	305950	305960	305970	305980	305990	306000
Proposed Road Level at Median Edge -Left Carriageway (m)	68.735	68.734	68.733	68.732	68.731	68.752	68.773	68.794	68.814	68.835	68.856
Proposed Road Level at Median Edge -Right Carriageway (m)	68.735	68.734	68.733	68.732	68.731	68.752	68.773	68.794	68.814	68.835	68.856
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	67.016	67.076	66.711	66.811	67.141	67.211	67.341	67.536	67.536	67.441	67.071
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	67.707	67.922	67.917	67.973	68.007	68.027	68.072	67.997	68.137	68.082	68.097
Ground Level at 25m to Left of Proposed Median C/L (m)	65.099	64.594	66.103	66.118	65.863	65.951	66.044	66.118	66.214	66.228	66.206
Ground Level at 25m to Right of Proposed Median C/L (m)	67.397	67.408	67.269	66.371	66.265	66.365	66.424	66.312	66.334	66.43	67.018
Existing Centre Road Level	68.514	68.517	68.520	68.523	68.526	68.537	68.549	68.560	68.571	68.582	68.594

Proposed Vertical Alignment - Left Carriageway: G=0.271 L=84.506m; G=0.094 L=150.000m; L=136.366m G=-0.016; L=133.657m G=-0.086; G=0.094 L=129.977m; L=100.000m G=-0.029; G=0.208 L=100.000m; L=130.000m G=-0.009; G=0.208 L=70.003m

Proposed Vertical Alignment - Right Carriageway: G=0.271 L=84.506m; G=0.094 L=150.000m; L=136.366m G=-0.016; L=133.657m G=-0.086; G=0.094 L=129.977m; L=100.000m G=-0.029; G=0.208 L=100.000m; L=130.000m G=-0.009; G=0.208 L=70.003m

Proposed Horizontal Alignment at Median C/L: L=884.450m; R=-3000.000m L=52.115m; L=284.735m

Superelevation/Crossfall (%): e=2.500; e=2.500; e=2.500; e=2.500

Cross Section Type: Type - 4

CBR Subgrade/Borrow Area: CBR (10%)

Pavement Overlay: BC=50mm, DBM=50mm/Partial Reconstruction*

Pavement Widening/New Construction: BC=50mm, DBM=90mm, WMM=250mm, GSB=200 mm

* Pavement layers thickness in Partial Reconstruction area (Overlay Side) shall be as per detail Cross Section.

Rev.	Date	Description on Revisions
R2	June 2018	Profile updated as per site condition, bus bay incorporated.
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

Revisions

CLIENT:-
NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CE TESTING Company Pvt. Ltd
13/7/18
AUTHORISED SIGNATORY | DATE

SAEFTY CONSULTANT:-
Chaitanya Projects Consultancy Pvt. Ltd
NEW DELHI
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India

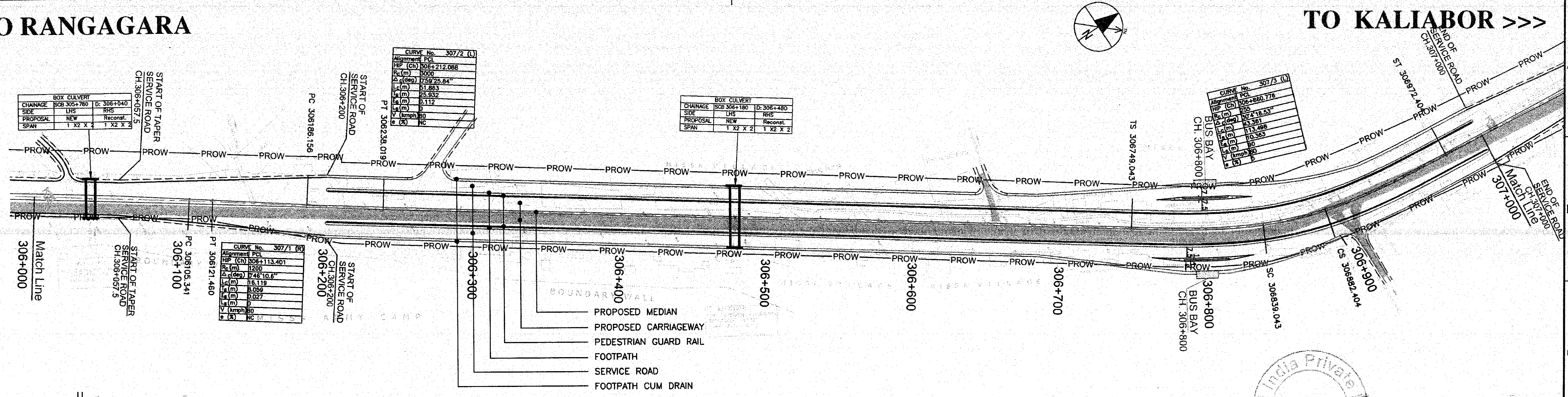
DRAWN	DESIGN	CHECKED BY	APPROVED BY
		SL Team Leader	MSR Design Director

SCALE:-
HOR- 1 : 2000
VER- 1 : 200

TITLE:-
PLAN AND PROFILE
FROM Km. 305+000 To Km. 306+000

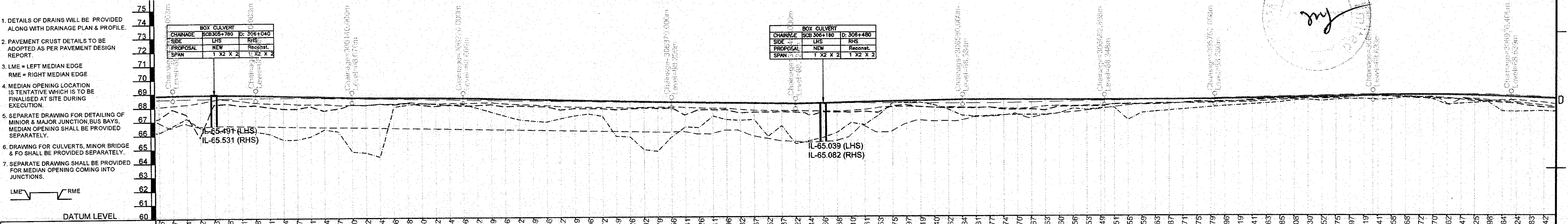
DRAWING NO.:- AECOM-DELD15159-DD-DWG-PP- 0109
REV. R2

25



<<< TO RANGAGARA
TO KALIABOR >>>
BOX CULVERT
CHAINAGE | SCB 305+780 | D: 306+040
SIDE | LHS | RHS
PROPOSAL | NEW | Reconst.
SPAN | 1 X2 X 2 | 1 X2 X 2
START OF TAPER SERVICE ROAD CH:306+057.5
START OF SERVICE ROAD CH:306+200
PC 306186.156
PT 306238.019
CURVE No. 307/2 (L)
Alignment PCL
HIP (Ch) 306+212.068
Rc(m) 3000
Δ c(deg) 0°59'25.84"
Lc(m) 51.863
Tc(m) 25.932
Es(m) 0.112
V (kmph) 80
e (%) NC
BOX CULVERT
CHAINAGE | SCB 306+180 | D: 306+480
SIDE | LHS | RHS
PROPOSAL | NEW | Reconst.
SPAN | 1 X2 X 2 | 1 X2 X 2
TS 306749.043
BUS BAY CH: 306+800
ST 306972.404
END OF SERVICE ROAD CH:307+000
CURVE No. 307/3 (L)
Alignment PCL
HIP (Ch) 306+860.776
Rc(m) 255
Δ c(deg) 30°4'18.53"
Lc(m) 43.361
Ls(m) 113.498
Tc(m) 70.353
V (kmph) 80
e (%) 5
PROW
Match Line 306+000
START OF TAPER SERVICE ROAD CH:306+057.5
306+100
PC 306105.341
PT 306121.480
CURVE No. 307/1 (R)
Alignment PCL
HIP (Ch) 306+113.401
Rc(m) 1200
Δ c(deg) 0°46'10.6"
Lc(m) 16.119
Tc(m) 8.056
Es(m) 0.027
V (kmph) 80
e (%) NC
306+200
START OF SERVICE ROAD CH:306+200
306+300
306+400
306+500
306+600
306+700
306+800
BUS BAY CH: 306+800
SC 306839.043
CS 306882.404
306+900
Match Line 307+000
END OF SERVICE ROAD CH:307+000
BOUNDARY WALL
ARMY CAMP
PROPOSED MEDIAN
PROPOSED CARRIAGEWAY
PEDESTRIAN GUARD RAIL
FOOTPATH
SERVICE ROAD
FOOTPATH CUM DRAIN

1. DETAILS OF DRAINS WILL BE PROVIDED ALONG WITH DRAINAGE PLAN & PROFILE.
2. PAVEMENT CRUST DETAILS TO BE ADOPTED AS PER PAVEMENT DESIGN REPORT.
3. LME = LEFT MEDIAN EDGE
   RME = RIGHT MEDIAN EDGE
4. MEDIAN OPENING LOCATION IS TENTATIVE WHICH IS TO BE FINALISED AT SITE DURING EXECUTION.
5. SEPARATE DRAWING FOR DETAILING OF MINOR & MAJOR JUNCTION,BUS BAYS, MEDIAN OPENING SHALL BE PROVIDED SEPARATELY.
6. DRAWING FOR CULVERTS, MINOR BRIDGE & FO SHALL BE PROVIDED SEPARATELY.
7. SEPARATE DRAWING SHALL BE PROVIDED FOR MEDIAN OPENING COMING INTO JUNCTIONS.



Design Chainage (Km)	Proposed Road Level at Median Edge -Left Carriageway (m)	Proposed Road Level at Median Edge -Right Carriageway (m)	Existing Ground/Road Level at Median Edge -Left Carriageway (m)	Existing Ground/Road Level at Median Edge -Right Carriageway (m)	Ground Level at 25m to Left of Proposed Median C/L (m)	Ground Level at 25m to Right of Proposed Median C/L (m)	Existing Centre Road Level
306000	68.856	68.856	67.071	68.097	66.206	67.018	68.594
306010	68.877	68.877	67.216	68.082	66.698	66.521	68.605
306020	68.894	68.894	67.886	68.157	67.226	66.882	68.616
306030	68.902	68.902	67.541	68.234	66.546	66.635	68.628
306040	68.903	68.903	65.846	68.387	66.124	66.657	68.639
306050	68.896	68.896	68.216	68.592	66.581	66.680	68.650
306060	68.881	68.881	68.273	68.566	66.234	66.664	68.661
306070	68.858	68.858	68.126	68.451	66.261	66.649	68.672
306080	68.831	68.831	68.153	68.322	66.089	66.633	68.678
306090	68.804	68.804	68.028	68.270	65.671	66.617	68.679
306100	68.777	68.777	67.901	68.269	65.679	66.602	68.676
306110	68.751	68.751	67.883	68.194	65.889	66.586	68.667
306120	68.724	68.724	68.086	68.204	66.389	66.570	68.654
306130	68.697	68.697	67.750	68.199	66.241	66.554	68.637
306140	68.670	68.670	67.889	68.120	64.788	66.539	68.620
306150	68.662	68.662	68.153	68.152	64.698	66.523	68.602
306160	68.654	68.654	68.127	68.145	64.399	66.507	68.585
306170	68.646	68.646	68.209	68.215	67.998	66.492	68.567
306180	68.638	68.638	68.158	68.216	68.138	66.476	68.549
306190	68.630	68.630	68.261	68.307	68.252	66.460	68.532
306200	68.622	68.622	68.116	68.219	68.182	66.445	68.514
306210	68.614	68.614	68.036	68.202	68.093	66.429	68.497
306220	68.606	68.606	68.134	68.241	68.177	66.413	68.479
306230	68.582	68.582	68.042	68.228	67.891	66.397	68.462
306240	68.559	68.559	68.086	68.258	67.606	66.382	68.444
306250	68.536	68.536	68.141	68.256	67.319	66.366	68.427
306260	68.512	68.512	67.992	68.182	67.053	66.350	68.409
306270	68.489	68.489	68.052	68.136	66.938	66.335	68.392
306280	68.466	68.466	68.000	68.089	66.873	66.319	68.374
306290	68.442	68.442	67.983	68.047	67.125	66.303	68.357
306300	68.419	68.419	67.739	67.962	67.308	66.288	68.339
306310	68.396	68.396	67.830	67.943	67.433	66.272	68.322
306320	68.372	68.372	67.817	67.922	67.282	66.256	68.304
306330	68.349	68.349	67.817	67.901	65.828	66.240	68.286
306340	68.326	68.326	67.738	67.868	65.777	66.225	68.269
306350	68.302	68.302	67.784	67.863	64.865	66.209	68.251
306360	68.279	68.279	67.841	67.883	64.735	66.193	68.234
306370	68.256	68.256	67.823	67.901	65.743	66.178	68.218
306380	68.241	68.241	67.836	67.905	66.471	66.162	68.213
306390	68.226	68.226	67.332	67.869	66.426	65.971	68.208
306400	68.211	68.211	67.718	67.827	67.253	65.956	68.203
306410	68.196	68.196	67.711	67.805	66.993	66.226	68.199
306420	68.182	68.182	67.712	67.790	66.933	66.241	68.194
306430	68.167	68.167	67.477	67.701	66.988	65.836	68.189
306440	68.152	68.152	67.521	67.641	65.775	65.654	68.185
306450	68.137	68.137	67.518	67.624	66.533	65.462	68.180
306460	68.122	68.122	67.540	67.618	65.241	65.407	68.175
306470	68.144	68.144	67.515	67.606	65.446	65.356	68.171
306480	68.166	68.166	67.305	67.580	65.683	65.385	68.166
306490	68.188	68.188	67.523	67.575	66.041	65.417	68.161
306500	68.210	68.210	67.515	67.575	66.743	65.706	68.156
306510	68.231	68.231	67.497	67.612	66.594	66.599	68.152
306520	68.253	68.253	67.552	67.687	67.277	66.045	68.147
306530	68.275	68.275	67.469	67.828	68.143	66.046	68.142
306540	68.297	68.297	67.943	67.868	68.183	66.612	68.138
306550	68.319	68.319	68.009	67.884	68.178	66.924	68.133
306560	68.340	68.340	67.865	67.864	68.008	66.832	68.128
306570	68.362	68.362	67.814	67.801	67.681	66.853	68.123
306580	68.384	68.384	67.796	67.851	67.236	66.824	68.119
306590	68.381	68.381	67.790	67.811	67.179	67.125	68.114
306600	68.377	68.377	67.767	67.788	67.206	67.164	68.113
306610	68.374	68.374	67.819	67.795	67.269	67.203	68.133
306620	68.370	68.370	67.674	67.727	67.278	67.362	68.152
306630	68.367	68.367	67.663	67.722	67.279	67.035	68.172
306640	68.363	68.363	67.687	67.767	67.276	67.240	68.192
306650	68.360	68.360	67.596	67.892	67.378	67.346	68.212
306660	68.356	68.356	67.857	67.931	67.723	67.452	68.232
306670	68.353	68.353	67.868	67.904	67.631	67.564	68.252
306680	68.349	68.349	67.899	67.938	67.749	67.683	68.272
306690	68.351	68.351	67.887	67.934	67.788	67.801	68.291
306700	68.355	68.355	68.031	68.041	66.899	67.920	68.311
306710	68.359	68.359	68.027	68.052	67.394	68.038	68.331
306720	68.363	68.363	68.013	68.027	67.494	68.080	68.351
306730	68.367	68.367	68.019	68.042	67.570	68.103	68.371
306740	68.371	68.371	68.047	68.051	67.645	68.095	68.391
306750	68.375	68.375	68.107	68.107	67.721	68.087	68.411
306760	68.379	68.379	68.193	68.146	67.796	68.102	68.434
306770	68.396	68.396	68.171	68.146	67.870	68.127	68.458
306780	68.419	68.419	68.215	68.205	67.941	68.147	68.483
306790	68.441	68.441	68.205	68.211	68.009	68.162	68.507
306800	68.463	68.463	68.301	68.247	68.074	68.241	68.531
306810	68.485	68.485	68.390	68.364	68.136	68.305	68.555
306820	68.508	68.508	68.437	68.319	68.269	68.367	68.580
306830	68.530	68.530	68.430	68.388	68.328	68.443	68.604
306840	68.552	68.552	68.549	68.489	68.238	68.405	68.628
306850	68.575	68.575	68.470	68.444	68.322	68.430	68.652
306860	68.597	68.597	68.480	68.478	68.374	68.538	68.674
306870	68.619	68.619	68.549	68.602	68.394	68.590	68.691
306880	68.641	68.641	68.585	68.672	68.319	68.585	68.704
306890	68.658	68.658	68.583	68.657	68.338	68.534	68.712
306900	68.668	68.668	68.553	68.649	68.508	68.483	68.715
306910	68.672	68.672	68.483	68.552	68.503	68.433	68.715
306920	68.670	68.670	68.442	68.511	68.347	68.382	68.712
306930	68.662	68.662	68.427	68.522	67.973	68.331	68.709
306940	68.647	68.647	68.388	67.931	68.035	68.171	68.706
306950	68.625	68.625	68.366	68.433	68.095	68.228	68.703
306960	68.598	68.598	68.313	68.373	68.152	68.272	68.689
306970	68.564	68.564	68.192	68.266	67.493	68.275	68.662
306980	68.524	68.524	68.113	68.179	67.460	68.182	68.622
306990	68.483	68.483	68.057	68.112	67.490	68.095	68.567
307000	68.442	68.441	67.892	68.000	67.498	67.955	68.500

Proposed Vertical Alignment - Left Carriageway: L=60.000m, R=-12586.216m, K=125.862; L=69.997m, G=-0.269; L=80.000m, G=-0.080; L=150.000m, G=-0.233; L=90.000m, G=-0.148; G=0.218, L=120.000m; L=102.698m, G=-0.035; G=0.039, L=80.000m; G=0.223, L=113.711m; L=100.000m, R=-15763.186m, K=157.632

Proposed Vertical Alignment - Right Carriageway: L=60.000m, R=-12586.216m, K=125.862; L=69.997m, G=-0.269; L=80.000m, G=-0.080; L=150.000m, G=-0.233; L=90.000m, G=-0.148; G=0.218, L=120.000m; L=102.698m, G=-0.035; G=0.039, L=80.000m; G=0.223, L=113.711m; L=100.000m, R=-15754.600m, K=157.546

Proposed Horizontal Alignment at Median C/L: R=1200.000m, L=16.125m; R=-3000.000m, L=51.875m; L=511.017m; L=90.000m; R=-255.000m, L=43.361m; L=90.000m

Superelevation/Crossfall (%): e=2.500; e=2.500; e=2.500; e=5.000; e=5.000; e=2.500

Cross Section Type: Type - 4; Type - 7; Type - 7; Type - 7

CBR Subgrade/Borrow Area: CBR (10%); CBR (10%)

Pavement Overlay: BC=50mm, DBM=50mm/Partial Reconstruction*; BC=50mm, DBM=105mm/Partial Reconstruction*

Pavement Widening/New Construction: BC=50mm, DBM=90mm, WMM=250mm, GSB=200 mm; BC=50mm, DBM=90mm, WMM=250mm, GSB=200 mm

* Pavement layers thickness in Partial Reconstruction area (Overlay Side) shall be as per detail Cross Section.

Rev.	Date	Description on Revisions
R2	June 2018	Profile updated as per site condition, bus bay incorporated.
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

Revisions

CLIENT:-
NATIONAL HIGHWAYS
& INFRASTRUCTURE
DEVELOPMENT
CORPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CE TESTING Company Pvt. Ltd
13/7/18
AUTHORISED SIGNATORY | DATE

SAEFTY CONSULTANT:-
Chaitanya Projects Consultancy Pvt. Ltd
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

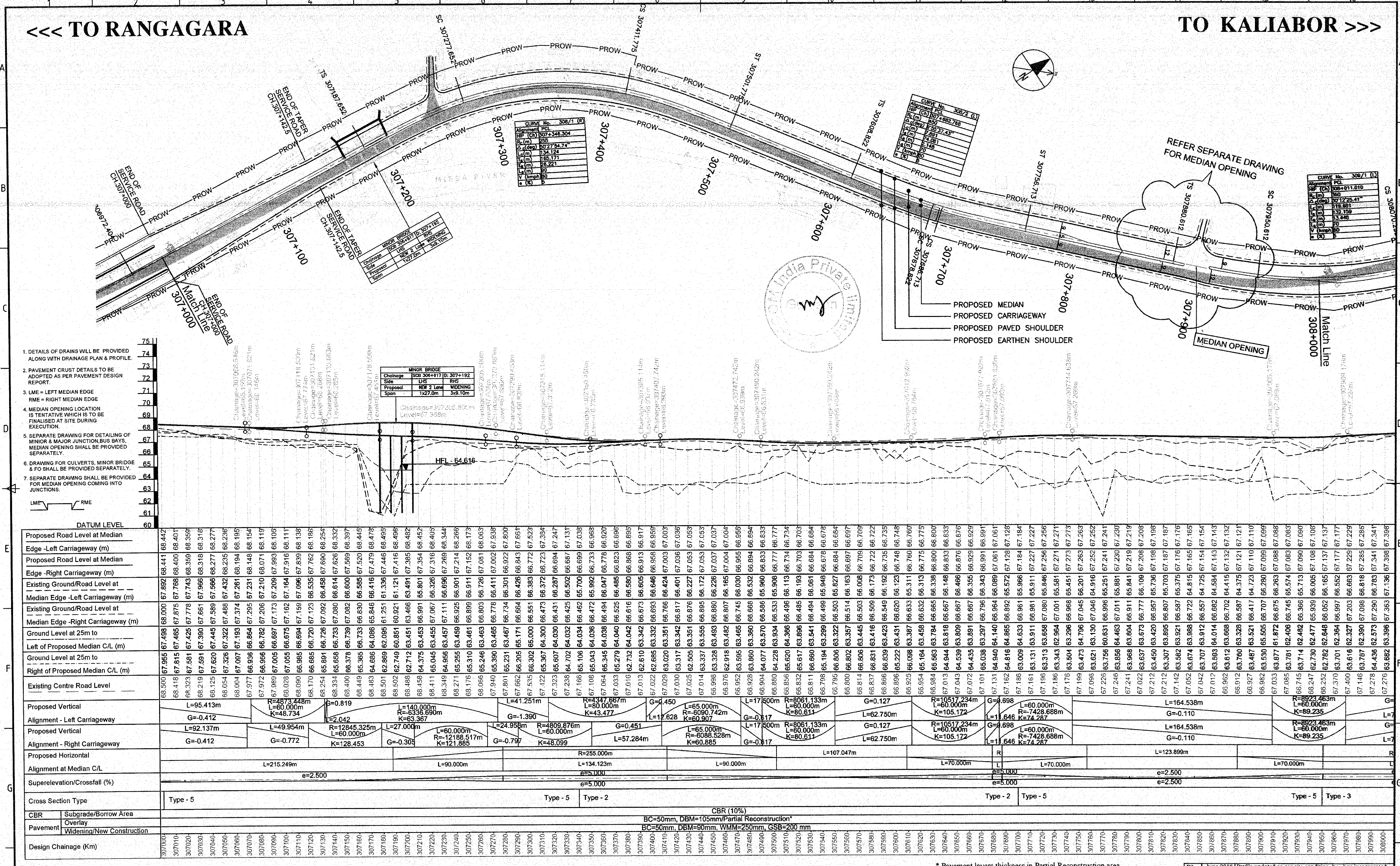
EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India
SL | MSR
Team Leader | Design Director
DRAWN | DESIGN | CHECKED BY | APPROVED BY

SCALE:-
HOR- 1 : 2000
VER- 1 : 200

TITLE:-
PLAN AND PROFILE
FROM Km. 306+000 To Km. 307+000

DRAWING NO.:- AECOM-DELD15159-DD-DWG-PP- 0110
REV. R2


<<< TO RANGAGARA
TO KALIABOR >>>
SC 307277.652
TS 307187.652
ST 307411.775
ST 307501.775
TS 307608.829
ST 307756.713
CS 307678.822
CS 307688.713
TS 307880.612
SC 307950.612
CS 30800
END OF TAPER SERVICE ROAD CH:307+142.5
END OF SERVICE ROAD CH:307+000
END OF TAPER SERVICE ROAD CH:307+142.5
END OF SERVICE ROAD CH:307+000
306972.404
307+000
307+100
307+200
307+300
307+400
307+500
307+600
307+700
307+800
307+900
308+000
Match Line
Match Line
PROW
MINOR BRIDGE
PROPOSED MEDIAN
PROPOSED CARRIAGEWAY
PROPOSED PAVED SHOULDER
PROPOSED EARTHEN SHOULDER
REFER SEPARATE DRAWING FOR MEDIAN OPENING
MEDIAN OPENING
HFL - 64.616
DATUM LEVEL
75
74
73
72
71
70
69
68
67
66
65
64
63
62
61
60
LME
RME
Proposed Road Level at Median Edge -Left Carriageway (m)
Proposed Road Level at Median Edge -Right Carriageway (m)
Existing Ground/Road Level at Median Edge -Left Carriageway (m)
Existing Ground/Road Level at Median Edge -Right Carriageway (m)
Ground Level at 25m to Left of Proposed Median C/L (m)
Ground Level at 25m to Right of Proposed Median C/L (m)
Existing Centre Road Level
Proposed Vertical Alignment - Left Carriageway
Proposed Vertical Alignment - Right Carriageway
Proposed Horizontal Alignment at Median C/L
Superelevation/Crossfall (%)
Cross Section Type
Type - 5
Type - 2
Type - 3
e=2.500
e=5.000
R=255.000m
CBR
Subgrade/Borrow Area
CBR (10%)
Pavement
Overlay
Widening/New Construction
BC=50mm, DBM=105mm/Partial Reconstruction*
BC=50mm, DBM=90mm, WMM=250mm, GSB=200 mm
Design Chainage (Km)

1. DETAILS OF DRAINS WILL BE PROVIDED ALONG WITH DRAINAGE PLAN & PROFILE.
2. PAVEMENT CRUST DETAILS TO BE ADOPTED AS PER PAVEMENT DESIGN REPORT.
3. LME = LEFT MEDIAN EDGE
   RME = RIGHT MEDIAN EDGE
4. MEDIAN OPENING LOCATION IS TENTATIVE WHICH IS TO BE FINALISED AT SITE DURING EXECUTION.
5. SEPARATE DRAWING FOR DETAILING OF MINIOR & MAJOR JUNCTION,BUS BAYS, MEDIAN OPENING SHALL BE PROVIDED SEPARATELY.
6. DRAWING FOR CULVERTS, MINOR BRIDGE & FO SHALL BE PROVIDED SEPARATELY.
7. SEPARATE DRAWING SHALL BE PROVIDED FOR MEDIAN OPENING COMING INTO JUNCTIONS.

* Pavement layers thickness in Partial Reconstruction area (Overlay Side) shall be as per detail Cross Section.

Rev.	Date	Description on Revisions
R2	June 2018	Profile updated as per site condition, bus bay incorporated.
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

Revisions

CLIENT:-
NATIONAL HIGHWAYS
& INFRASTRUCTURE
DEVELOPMENT
CORPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CE TESTING Company Pvt. Ltd
13/12/18
AUTHORISED SIGNATORY | DATE

SAEFTY CONSULTANT:-
Chaitanya Projects Consultancy Pvt. Ltd
NEW DELHI
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

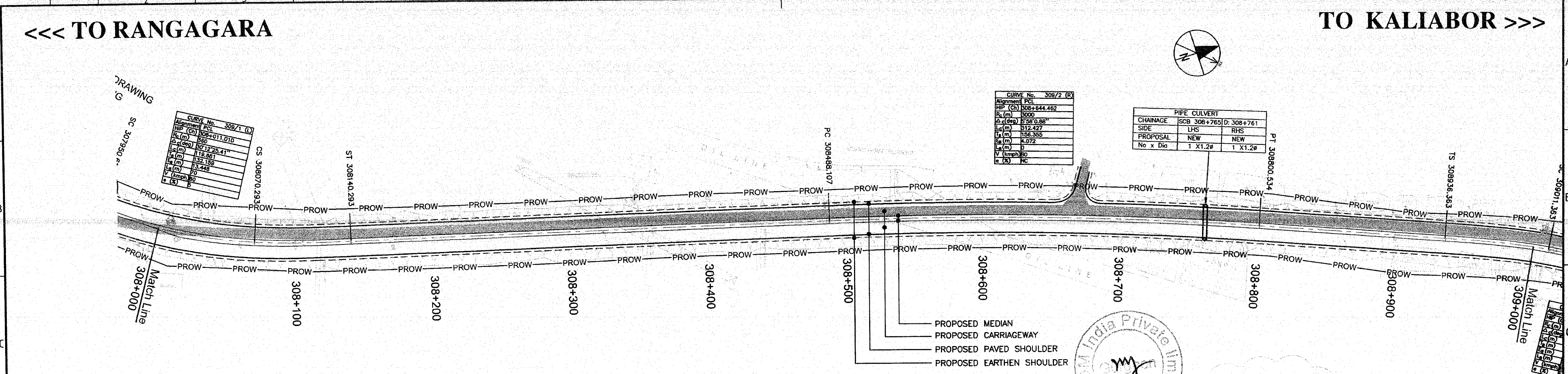
CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India
SL
Team Leader
MSR
Design Director
DRAWN | DESIGN | CHECKED BY | APPROVED BY

SCALE:-
HOR- 1 : 2000
VER- 1 : 200

TITLE:-
PLAN AND PROFILE
FROM Km. 307+000 To Km. 308+000

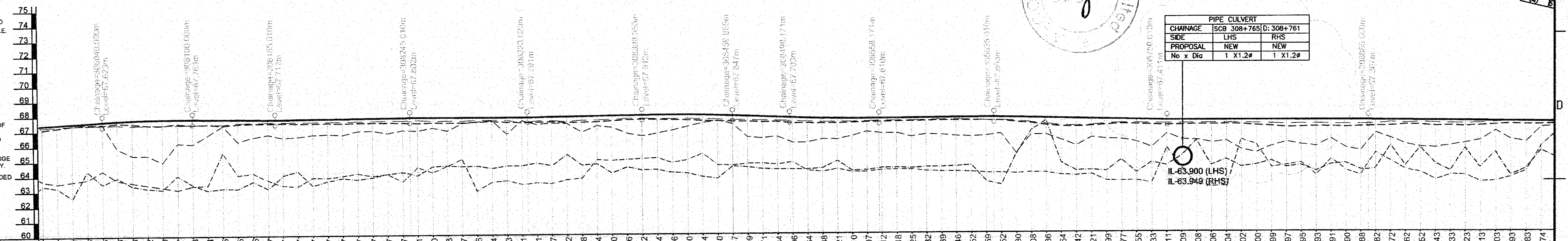
DRAWING NO.:-
AECOM-DELD15159-DD-DWG-PP- 0111

REV.
R2



1. DETAILS OF DRAINS WILL BE PROVIDED ALONG WITH DRAINAGE PLAN & PROFILE.
2. PAVEMENT CRUST DETAILS TO BE ADOPTED AS PER PAVEMENT DESIGN REPORT.
3. LME = LEFT MEDIAN EDGE
   RME = RIGHT MEDIAN EDGE
4. MEDIAN OPENING LOCATION IS TENTATIVE WHICH IS TO BE FINALISED AT SITE DURING EXECUTION.
5. SEPARATE DRAWING FOR DETAILING OF MINIOR & MAJOR JUNCTION,BUS BAYS, MEDIAN OPENING SHALL BE PROVIDED SEPARATELY.
6. DRAWING FOR CULVERTS, MINOR BRIDGE & FO SHALL BE PROVIDED SEPARATELY.
7. SEPARATE DRAWING SHALL BE PROVIDED FOR MEDIAN OPENING COMING INTO JUNCTIONS.

LME RME



Design Chainage (Km)	308000	308010	308020	308030	308040	308050	308060	308070	308080	308090	308100	308110	308120	308130	308140	308150	308160	308170	308180	308190	308200	308210	308220	308230	308240	308250	308260	308270
Proposed Road Level at Median Edge -Left Carriageway (m)	67.398	67.454	67.510	67.566	67.623	67.673	67.713	67.742	67.760	67.767	67.763	67.754	67.745	67.735	67.726	67.717	67.717	67.727	67.737	67.747	67.757	67.767	67.777	67.787	67.797	67.801	67.800	67.798
Proposed Road Level at Median Edge -Right Carriageway (m)	67.398	67.454	67.510	67.566	67.623	67.673	67.713	67.742	67.760	67.767	67.763	67.754	67.745	67.735	67.726	67.717	67.717	67.727	67.737	67.747	67.757	67.767	67.777	67.787	67.797	67.801	67.800	67.798
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	67.136	67.256	67.382	67.406	67.410	67.538	67.475	67.375	67.369	67.469	67.399	67.414	67.341	67.436	67.468	67.470	67.485	67.453	67.456	67.480	67.439	67.483	67.478	67.478	67.473	67.428	67.465	67.456
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	67.363	67.471	67.507	67.453	67.461	65.812	65.360	65.362	64.907	66.165	66.110	66.694	67.315	66.240	66.565	66.715	66.490	66.565	66.685	66.715	66.680	66.915	66.938	66.766	66.957	66.917	67.125	66.917
Ground Level at 25m to Left of Proposed Median C/L (m)	63.396	63.231	62.576	64.358	63.479	63.901	63.343	63.177	63.091	64.027	63.413	63.043	63.160	63.126	63.610	63.131	64.009	64.279	63.313	63.611	63.793	63.694	63.842	64.065	64.178	63.958	64.554	64.598
Ground Level at 25m to Right of Proposed Median C/L (m)	63.682	63.539	63.662	63.788	64.360	63.708	63.602	63.463	63.275	63.085	63.320	63.362	65.527	64.028	64.143	63.690	63.323	63.267	63.847	63.827	63.948	64.109	63.932	64.059	63.550	64.504	64.151	64.578
Existing Centre Road Level	67.276	67.325	67.382	67.387	67.392	67.397	67.352	67.380	67.374	67.395	67.401	67.419	67.404	67.506	67.527	67.538	67.542	67.555	67.554	67.565	67.558	67.572	67.585	67.617	67.602	67.628	67.578	67.592

Design Chainage (Km)	308280	308290	308300	308310	308320	308330	308340	308350	308360	308370	308380	308390	308400	308410	308420	308430	308440	308450	308460	308470	308480	308490	308500	308510	308520
Proposed Road Level at Median Edge -Left Carriageway (m)	67.797	67.796	67.794	67.793	67.791	67.801	67.817	67.832	67.848	67.864	67.880	67.896	67.912	67.924	67.926	67.920	67.904	67.880	67.847	67.809	67.771	67.734	67.696	67.664	67.638
Proposed Road Level at Median Edge -Right Carriageway (m)	67.797	67.796	67.794	67.793	67.791	67.801	67.817	67.832	67.848	67.864	67.880	67.896	67.912	67.924	67.926	67.920	67.904	67.880	67.847	67.809	67.771	67.734	67.696	67.664	67.638
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	67.462	67.506	67.536	67.487	67.472	67.485	67.490	67.453	67.446	67.482	67.532	67.600	67.626	67.619	67.592	67.575	67.528	67.505	67.483	67.464	67.418	67.428	67.328	67.326	67.310
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	67.407	67.508	67.575	66.680	67.568	67.314	67.391	67.363	66.796	67.207	67.090	66.692	66.518	66.696	66.888	67.149	67.376	67.537	67.292	66.416	66.344	66.426	66.031	66.036	66.254
Ground Level at 25m to Left of Proposed Median C/L (m)	64.552	64.573	64.423	64.584	64.576	64.761	64.576	65.314	64.601	64.676	64.068	64.464	64.275	64.295	64.104	64.044	63.809	63.677	64.487	64.428	64.310	64.277	64.253	64.262	64.332
Ground Level at 25m to Right of Proposed Median C/L (m)	65.032	62.924	63.493	63.599	63.361	63.453	63.400	63.633	63.726	64.961	64.904	64.963	65.007	65.069	64.761	64.923	65.353	64.569	64.549	64.654	64.654	64.586	64.731	64.175	64.087
Existing Centre Road Level	67.578	67.623	67.635	67.615	67.433	67.565	67.559	67.512	67.590	67.600	67.635	67.694	67.694	67.673	67.670	67.673	67.653	67.610	67.579	67.560	67.539	67.518	67.473	67.428	67.397

Design Chainage (Km)	308530	308540	308550	308560	308570	308580	308590	308600	308610	308620	308630	308640	308650	308660	308670	308680	308690	308700	308710	308720	308730	308740	308750	308760	308770
Proposed Road Level at Median Edge -Left Carriageway (m)	67.621	67.610	67.607	67.612	67.618	67.625	67.632	67.639	67.646	67.652	67.659	67.652	67.630	67.608	67.586	67.564	67.542	67.521	67.499	67.477	67.455	67.433	67.411	67.409	67.408
Proposed Road Level at Median Edge -Right Carriageway (m)	67.621	67.610	67.607	67.612	67.618	67.625	67.632	67.639	67.646	67.652	67.659	67.652	67.630	67.608	67.586	67.564	67.542	67.521	67.499	67.477	67.455	67.433	67.411	67.409	67.408
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	67.312	67.340	67.379	67.388	67.398	67.416	67.431	67.453	67.442	67.438	67.439	67.418	67.316	67.230	67.105	67.019	66.994	67.048	67.110	67.175	67.148	67.111	67.084	67.099	67.121
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	66.241	66.451	66.725	66.621	66.635	66.379	66.526	66.492	66.404	66.370	66.413	66.559	65.235	66.473	66.466	66.126	65.724	66.280	66.185	66.148	65.971	65.607	66.505	66.124	66.093
Ground Level at 25m to Left of Proposed Median C/L (m)	64.813	64.140	64.174	64.329	64.341	64.303	64.370	64.373	64.413	64.474	63.391	63.169	65.207	66.766	67.411	64.607	64.082	64.115	64.047	64.790	63.933	64.603	64.404	65.013	66.053
Ground Level at 25m to Right of Proposed Median C/L (m)	64.263	64.060	64.070	64.181	64.201	64.203	64.104	64.066	64.067	64.037	63.963	63.959	63.925	63.980	63.968	63.798	63.755	63.841	63.415	63.401	63.419	63.228	65.571	64.208	63.180
Existing Centre Road Level	67.388	67.402	67.428	67.450	67.459	67.464	67.489	67.515	67.508	67.494	67.464	67.464	67.404	67.288	67.200	67.095	67.061	67.110	67.198	67.236	67.233	67.205	67.207	67.195	67.202

Design Chainage (Km)	308780	308790	308800	308810	308820	308830	308840	308850	308860	308870	308880	308890	308900	308910	308920	308930	308940	308950	308960	308970	308980	308990	309000
Proposed Road Level at Median Edge -Left Carriageway (m)	67.406	67.404	67.402	67.400	67.399	67.397	67.395	67.393	67.391	67.390	67.388	67.382	67.372	67.362	67.352	67.343	67.333	67.323	67.313	67.303	67.293	67.283	67.274
Proposed Road Level at Median Edge -Right Carriageway (m)	67.406	67.404	67.402	67.400	67.399	67.397	67.395	67.393	67.391	67.390	67.388	67.382	67.372	67.362	67.352	67.343	67.333	67.323	67.313	67.303	67.293	67.283	67.274
Existing Ground/Road Level at Median Edge -Left Carriageway (m)	67.114	67.138	67.110	67.043	66.992	66.904	66.925	66.956	66.936	66.913	66.952	66.968	66.989	67.080	67.059	66.970	67.000	66.941	67.015	67.062	67.111	67.075	67.084
Existing Ground/Road Level at Median Edge -Right Carriageway (m)	65.898	66.013	65.438	65.238	65.662	65.936	65.767	65.660	66.140	65.540	65.345	66.530	66.183	65.786	65.580	65.527	65.693	65.840	66.027	66.649	66.080	65.915	66.900
Ground Level at 25m to Left of Proposed Median C/L (m)	64.395	64.795	64.296	64.429	64.681	64.267	64.388	63.999	64.443	64.521	64.083	64.153	65.688	64.346	65.541	64.495	63.992	65.497	64.200	65.251	63.710	64.145	65.344
Ground Level at 25m to Right of Proposed Median C/L (m)	62.981	63.029	66.138	65.756	64.261	64.400	64.550	63.713	64.801	64.037	63.714	65.198	64.670	64.091	63.913	63.409	63.740	63.717	63.274	63.320	63.580	63.998	65.667
Existing Centre Road Level	67.217	67.220	67.210	67.194	67.158	67.127	67.154	67.150	67.133	67.120	67.130	67.145	67.222	67.182	67.219	67.189	67.159	67.144	67.175	67.243	67.292	67.297	67.304

Proposed Vertical Alignment - Left Carriageway	G=0.562 L=70.824m L=60.000m R=-9147.110m K=91.471 L=55.010m G=-0.093 G=0.099 L=90.000m L=78.810m G=-0.014 G=0.160 L=76.135m L=60.000m R=-11189.958m K=111.900 L=38.216m G=-0.377 R=13493.113m L=60.000m K=134.931 G=0.068 L=76.839m L=115.000m G=-0.219 L=134.990m G=-0.018 L=145.000m G=-0.099
Proposed Vertical Alignment - Right Carriageway	G=0.562 L=70.824m L=60.000m R=-9147.110m K=91.471 L=55.010m G=-0.093 G=0.099 L=90.000m L=78.810m G=-0.014 G=0.160 L=76.135m L=60.000m R=-11189.958m K=111.900 L=38.216m G=-0.377 R=13493.113m L=60.000m K=134.931 G=0.068 L=76.839m L=115.000m G=-0.219 L=134.990m G=-0.018 L=145.000m G=-0.099
Proposed Horizontal Alignment at Median C/L	R=-360.000m L=119.683m L=70.000m L=70.000m L=347.814m R=3000.000m L=312.427m L=135.829m L=75.000m
Superelevation/Crossfall (%)	e=5.000 e=5.000 e=2.500
Cross Section Type	Type - 3 Type - 1 Type - 1 Type - 1 Type - 1
CBR Subgrade/Borrow Area	CBR (10%) CBR (10%)
Pavement Overlay	BC=50mm, DBM=105mm/Partial Reconstruction* BC=50mm, DBM=60mm/Partial Reconstruction*
Pavement Widening/New Construction	BC=50mm, DBM=90mm, WMM=250mm, GSB=200 mm BC=50mm, DBM=90mm, WMM=250mm, GSB=200 mm

* Pavement layers thickness in Partial Reconstruction area (Overlay Side) shall be as per detail Cross Section.

Rev.	Date	Description on Revisions
R2	June 2018	Profile updated as per site condition, bus bay incorporated.
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

Revisions

CLIENT:-
NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CE TESTING Company Pvt. Ltd
13/7/18
AUTHORISED SIGNATORY | DATE

SAEFTY CONSULTANT:-
Chaitanya Projects Consultancy Pvt. Ltd
NEW DELHI
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

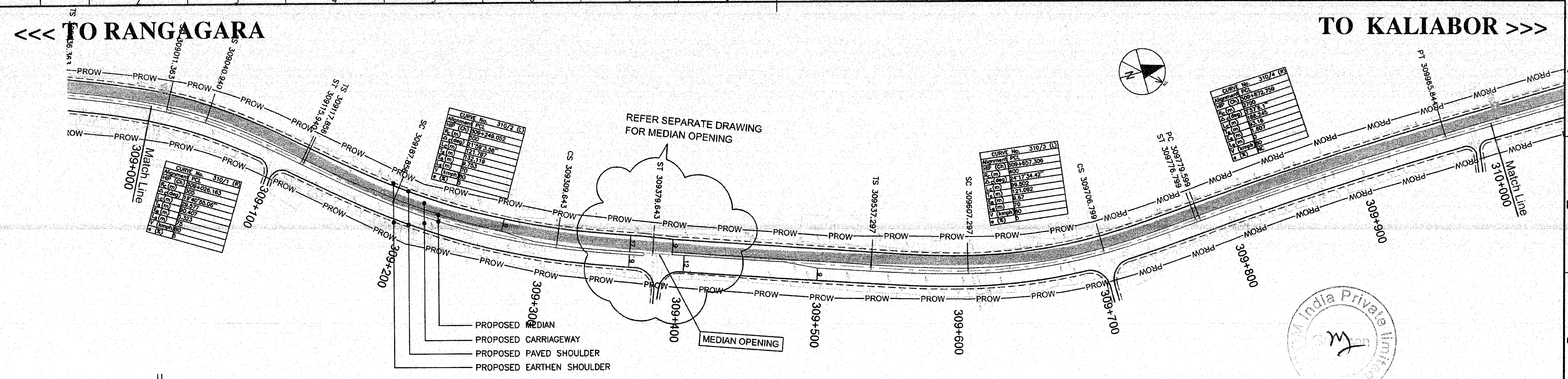
CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India
DRAWN | DESIGN | SL Team Leader CHECKED BY | MSR Design Director APPROVED BY

SCALE:-
HOR- 1 : 2000
VER- 1 : 200

TITLE:-
PLAN AND PROFILE
FROM Km. 308+000 To Km. 309+000

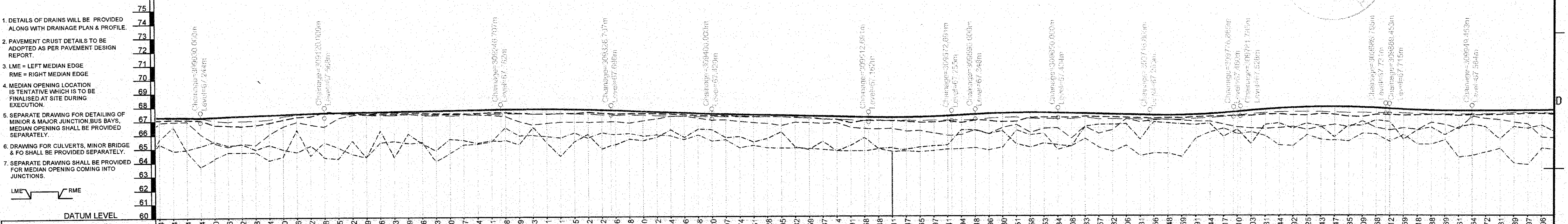
DRAWING NO.:-
AECOM-DELD15159-DD-DWG-PP- 0112

REV.
R2



1. DETAILS OF DRAINS WILL BE PROVIDED ALONG WITH DRAINAGE PLAN & PROFILE.
2. PAVEMENT CRUST DETAILS TO BE ADOPTED AS PER PAVEMENT DESIGN REPORT.
3. LME = LEFT MEDIAN EDGE
RME = RIGHT MEDIAN EDGE
4. MEDIAN OPENING LOCATION IS TENTATIVE WHICH IS TO BE FINALISED AT SITE DURING EXECUTION.
5. SEPARATE DRAWING FOR DETAILING OF MINOR & MAJOR JUNCTION,BUS BAYS, MEDIAN OPENING SHALL BE PROVIDED SEPARATELY.
6. DRAWING FOR CULVERTS, MINOR BRIDGE & FO SHALL BE PROVIDED SEPARATELY.
7. SEPARATE DRAWING SHALL BE PROVIDED FOR MEDIAN OPENING COMING INTO JUNCTIONS.

LME RME



Design Chainage (Km)	Proposed Road Level at Median Edge -Left Carriageway (m)	Proposed Road Level at Median Edge -Right Carriageway (m)	Existing Ground/Road Level at Median Edge -Left Carriageway (m)	Existing Ground/Road Level at Median Edge -Right Carriageway (m)	Ground Level at 25m to Left of Proposed Median C/L (m)	Ground Level at 25m to Right of Proposed Median C/L (m)	Existing Centre Road Level
309000	67.274	67.274	67.084	66.900	65.344	65.667	67.304
309010	67.264	67.264	67.111	66.946	64.873	66.569	67.334
309020	67.254	67.254	67.091	66.969	64.941	64.802	67.313
309030	67.244	67.244	67.063	66.050	65.199	63.693	67.233
309040	67.280	67.280	66.704	65.439	65.508	64.237	67.036
309050	67.316	67.316	66.670	65.130	65.222	64.721	66.953
309060	67.352	67.352	66.633	65.359	65.327	64.708	67.002
309070	67.388	67.388	66.701	65.251	64.928	64.735	67.034
309080	67.424	67.424	66.852	66.021	65.260	64.137	67.101
309090	67.460	67.460	67.086	66.597	64.918	64.410	67.317
309100	67.496	67.496	67.264	66.900	64.735	66.331	67.447
309110	67.532	67.532	67.308	66.705	65.197	64.455	67.548
309120	67.568	67.568	67.635	66.562	64.336	65.426	67.552
309130	67.585	67.585	67.601	67.180	64.237	65.045	67.516
309140	67.602	67.602	67.529	67.380	65.544	64.572	67.452
309150	67.619	67.619	67.466	67.474	64.349	64.348	67.402
309160	67.636	67.636	67.444	67.559	66.286	65.407	67.384
309170	67.653	67.653	67.442	67.562	64.341	65.503	67.374
309180	67.669	67.669	67.449	67.538	66.046	65.356	67.498
309190	67.686	67.686	67.428	67.550	65.356	65.455	67.362
309200	67.703	67.703	67.434	67.511	64.824	64.037	67.362
309210	67.720	67.720	67.440	67.513	65.663	64.616	67.342
309220	67.737	67.737	67.465	67.520	65.564	65.243	67.374
309230	67.754	67.754	67.528	67.404	65.356	65.297	67.431
309240	67.771	67.771	67.567	67.372	65.536	65.450	67.473
309250	67.788	67.788	67.559	67.283	65.562	66.461	67.488
309260	67.799	67.799	67.518	66.900	65.250	65.881	67.488
309270	67.803	67.803	67.474	66.653	66.474	65.918	67.465
309280	67.801	67.801	67.466	66.775	65.373	65.821	67.458
309290	67.791	67.791	67.488	66.857	64.386	65.724	67.478
309300	67.775	67.775	67.503	66.849	65.434	66.072	67.453
309310	67.752	67.752	67.558	66.823	65.961	65.717	67.442
309320	67.722	67.722	67.502	66.860	64.906	66.072	67.380
309330	67.686	67.686	67.425	66.872	65.215	65.946	67.339
309340	67.648	67.648	67.462	66.770	65.608	66.015	67.344
309350	67.610	67.610	67.460	66.926	65.497	65.829	67.342
309360	67.572	67.572	67.443	67.072	65.748	65.918	67.301
309370	67.534	67.534	67.413	67.250	66.276	65.844	67.278
309380	67.496	67.496	67.355	67.247	65.719	65.569	67.260
309390	67.458	67.458	67.312	67.108	66.326	65.897	67.233
309400	67.420	67.420	67.294	66.949	66.277	65.456	67.233
309410	67.397	67.397	67.283	66.971	65.700	65.545	67.223
309420	67.374	67.374	67.238	66.852	65.782	64.967	67.202
309430	67.351	67.351	67.213	66.771	65.379	65.126	67.194
309440	67.328	67.328	67.217	66.713	65.636	64.950	67.209
309450	67.305	67.305	67.194	66.562	66.103	64.928	67.209
309460	67.282	67.282	67.154	66.781	65.016	64.942	67.150
309470	67.259	67.259	67.113	66.763	64.825	64.904	67.103
309480	67.237	67.237	67.043	66.695	65.415	64.837	67.027
309490	67.214	67.214	66.993	66.766	64.718	64.740	66.986
309500	67.191	67.191	66.746	66.402	65.105	64.718	66.963
309510	67.168	67.168	66.931	66.331	65.673	64.716	66.906
309520	67.148	67.148	66.916	66.295	64.884	64.867	66.899
309530	67.141	67.141	66.888	66.332	64.944	64.659	66.907
309540	67.147	67.147	66.830	66.131	64.821	64.692	66.908
309550	67.165	67.165	66.777	66.172	64.980	64.639	66.886
309560	67.197	67.197	66.783	65.979	65.069	64.727	66.927
309570	67.241	67.241	66.879	65.822	65.116	64.831	66.927
309580	67.294	67.294	66.743	65.862	66.219	64.853	66.919
309590	67.348	67.348	66.921	66.221	66.208	64.933	66.930
309600	67.396	67.396	66.892	65.930	65.915	64.763	67.069
309610	67.430	67.430	66.815	66.368	66.140	64.952	67.106
309620	67.451	67.451	66.820	66.590	65.205	66.190	67.123
309630	67.458	67.458	67.115	66.022	64.953	65.836	67.033
309640	67.453	67.453	67.123	66.307	65.246	65.947	67.026
309650	67.434	67.434	67.123	66.337	65.110	64.785	67.016
309660	67.408	67.408	67.091	65.580	65.018	65.037	67.006
309670	67.383	67.383	67.175	66.427	66.437	65.573	67.112
309680	67.357	67.357	67.131	65.924	66.597	64.936	66.977
309690	67.332	67.332	67.121	66.182	66.590	64.619	66.989
309700	67.306	67.306	67.086	66.981	66.625	65.069	66.973
309710	67.281	67.281	67.044	66.758	65.485	64.317	66.949
309720	67.256	67.256	67.030	66.888	66.755	64.506	66.945
309730	67.248	67.248	67.064	66.922	66.677	64.493	66.924
309740	67.259	67.259	67.049	66.859	66.610	64.240	66.926
309750	67.291	67.291	67.104	66.786	66.568	65.589	67.016
309760	67.344	67.344	67.154	66.781	66.658	66.008	67.069
309770	67.417	67.417	67.179	66.583	65.700	66.305	67.138
309780	67.510	67.510	67.207	66.371	66.213	65.890	67.233
309790	67.603	67.603	67.215	66.293	65.161	66.016	67.345
309800	67.681	67.681	67.301	66.266	66.570	65.758	67.418
309810	67.744	67.744	67.323	66.323	66.674	65.082	67.473
309820	67.792	67.792	67.254	66.408	66.282	65.027	67.509
309830	67.825	67.825	67.237	66.194	66.656	65.823	67.502
309840	67.843	67.843	67.347	66.398	66.470	65.491	67.490
309850	67.847	67.847	67.287	66.565	65.664	65.442	67.452
309860	67.835	67.835	67.153	66.381	66.484	65.363	67.419
309870	67.809	67.809	67.139	66.808	66.494	65.916	67.423
309880	67.768	67.768	67.298	66.335	66.874	65.871	67.403
309890	67.712	67.712	67.272	66.161	66.777	65.338	67.406
309900	67.659	67.659	67.223	66.313	65.481	65.838	67.387
309910	67.618	67.618	67.248	66.191	66.154	65.130	67.356
309920	67.588	67.588	67.281	66.714	66.371	65.136	67.302
309930	67.569	67.569	67.271	66.556	65.796	65.449	67.316
309940	67.561	67.561	67.218	66.238	66.365	64.197	67.306
309950	67.564	67.564	67.249	67.160	66.568	64.328	67.305
309960	67.572	67.572	67.256	66.978	66.388	64.565	67.318
309970	67.581	67.581	67.274	66.895	65.517	64.844	67.346
309980	67.589	67.589	67.309	66.727	66.401	63.757	67.428
309990	67.597	67.597	67.341	66.594	66.284	63.665	67.417
310000	67.606	67.606	67.342	65.617	66.504	64.860	67.408

Proposed Vertical Alignment - Left Carriageway: G=0.360, L=90.000m; G=0.169, L=126.707m; L=80.000m, R=-14579.766m, K=145.798; L=73.293m, G=-0.380; L=112.691m, G=-0.229; R=7799.050m, L=60.000m, K=77.991; G=0.540, L=17.308; L=60.000m, R=-7548.591m, K=75.486; L=66.865m, G=-0.255; R=4874.985m, L=60.000m, K=48.750; G=0.976, L=4.920; L=105.000m, R=-6711.787m, K=67.118; L=2.668, G=-0.589; R=8933.345m, L=60.000m, K=89.333; G=0.083, L=74.715m

Proposed Vertical Alignment - Right Carriageway: G=0.360, L=90.000m; G=0.169, L=126.707m; L=80.000m, R=-14579.766m, K=145.798; L=73.293m, G=-0.380; L=112.691m, G=-0.229; R=7799.050m, L=60.000m, K=77.991; G=0.540, L=17.308; L=60.000m, R=-7548.591m, K=75.486; L=66.865m, G=-0.255; R=4874.985m, L=60.000m, K=48.750; G=0.976, L=4.920; L=105.000m, R=-6711.787m, K=67.118; L=2.668, G=-0.589; R=8933.345m, L=60.000m, K=89.333; G=0.083, L=74.715m

Proposed Horizontal Alignment at Median C/L: R=305.000m, L=75.000m; R=-500.000m; R=-400.000m; R=2700.000m; L=29.577m; L; L=70.000m; L=121.787m; L=70.000m; L=157.655m; L=70.000m; L=99.502m; L=70.000m; L; L=186.245m

Superelevation/Crossfall (%): e=5.000; e=2.500; e=5.000; e=5.000; e=2.500; e=5.000; e=2.500

Cross Section Type: Type - 1

CBR Subgrade/Borrow Area: CBR (10%)

Pavement Overlay: BC=50mm, DBM=60mm/Partial Reconstruction*

Pavement Widening/New Construction: BC=50mm, DBM=90mm, WMM=250mm, GSB=200 mm

* Pavement layers thickness in Partial Reconstruction area (Overlay Side) shall be as per detail Cross Section.

Rev.	Date	Description on Revisions
R2	June 2018	Profile updated as per site condition, bus bay incorporated.
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

CLIENT:-
NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CE TESTING Company Pvt. Ltd
13/7/18
AUTHORISED SIGNATORY | DATE

SAEFTY CONSULTANT:-
Chaitanya Projects Consultancy Pvt. Ltd
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

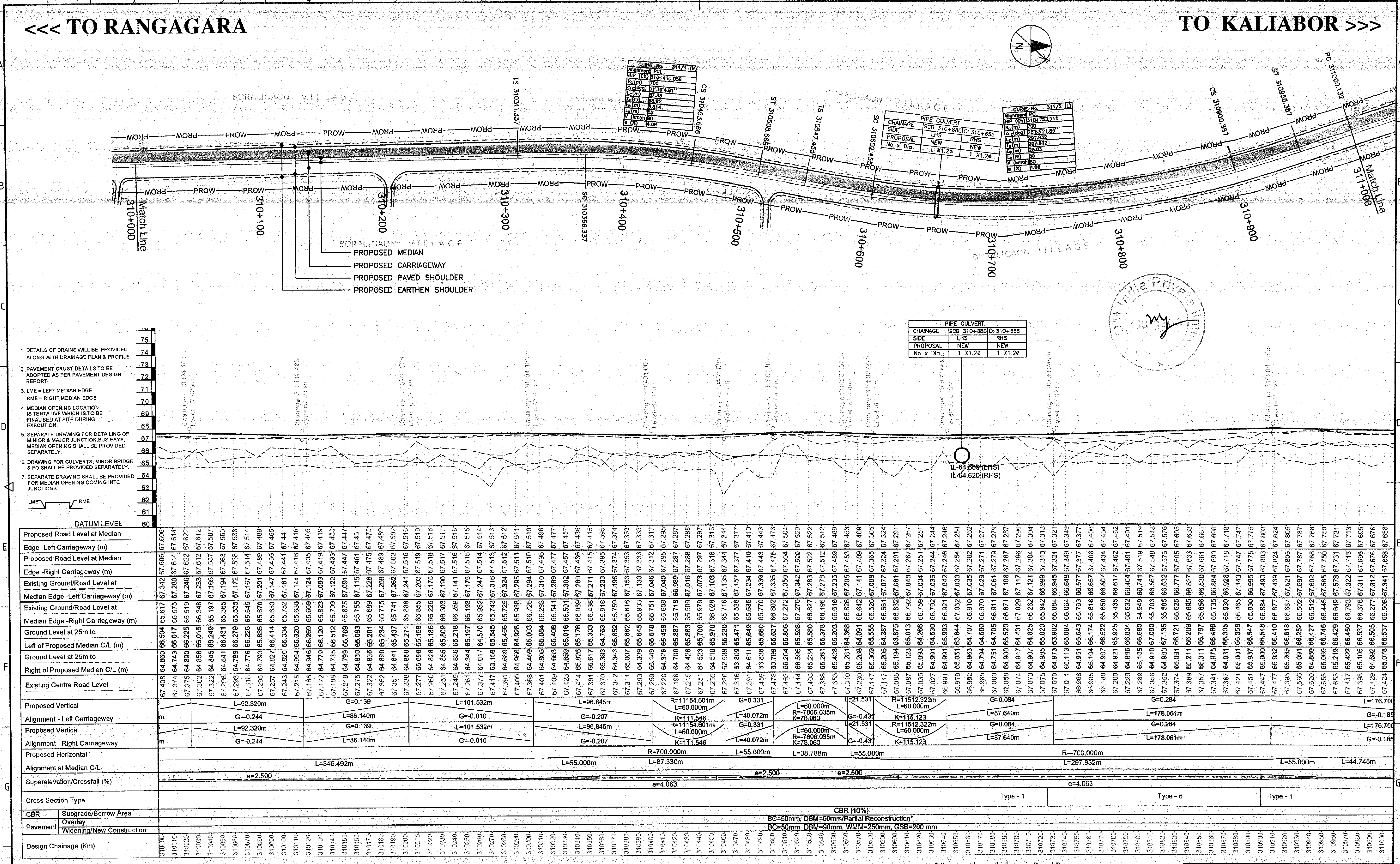
EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India
DRAWN | DESIGN | CHECKED BY Team Leader | APPROVED BY Deputy Director

SCALE:-
HOR:- 1 : 2000
VER:- 1 : 200

TITLE:-
PLAN AND PROFILE
FROM Km. 309+000 To Km. 310+000

DRAWING NO.:-
AECOM-DELD15159-DD-DWG-PP- 0113
REV.
R2



<<< TO RANGAGARA
TO KALIABOR >>>
BORALIGAON VILLAGE
PROW
Match Line 310+000
Match Line 311+000
310+100
310+200
310+300
310+400
310+500
310+600
310+700
310+800
310+900
TS 310311.337
SC 310366.337
CS 310453.668
ST 310508.668
TS 310547.455
SC 310602.455
CS 310900.387
ST 310955.387
PC 311000.132
CURVE No. 311/1 (R)
CURVE No. 311/2 (L)
PROPOSED MEDIAN
PROPOSED CARRIAGEWAY
PROPOSED PAVED SHOULDER
PROPOSED EARTHEN SHOULDER
PIPE CULVERT
CHAINAGE | SCB 310+880 | D: 310+655
SIDE | LHS | RHS
PROPOSAL | NEW | NEW
No x Dia | 1 X1.2ø | 1 X1.2ø
IL-64.669 (LHS)
IL-64.620 (RHS)
DATUM LEVEL
Proposed Road Level at Median Edge -Left Carriageway (m)
Proposed Road Level at Median Edge -Right Carriageway (m)
Existing Ground/Road Level at Median Edge -Left Carriageway (m)
Existing Ground/Road Level at Median Edge -Right Carriageway (m)
Ground Level at 25m to Left of Proposed Median C/L (m)
Ground Level at 25m to Right of Proposed Median C/L (m)
Existing Centre Road Level
Proposed Vertical Alignment - Left Carriageway
Proposed Vertical Alignment - Right Carriageway
Proposed Horizontal Alignment at Median C/L
Superelevation/Crossfall (%)
Cross Section Type
CBR | Subgrade/Borrow Area
Pavement | Overlay
Pavement | Widening/New Construction
Design Chainage (Km)
R=700.000m
R=-700.000m
L=345.492m
L=55.000m
L=87.330m
L=38.788m
L=297.932m
L=44.745m
e=2.500
e=4.063
Type - 1
Type - 6
CBR (10%)
BC=50mm, DBM=60mm/Partial Reconstruction*
BC=50mm, DBM=90mm, WMM=250mm, GSB=200 mm

1. DETAILS OF DRAINS WILL BE PROVIDED ALONG WITH DRAINAGE PLAN & PROFILE.
2. PAVEMENT CRUST DETAILS TO BE ADOPTED AS PER PAVEMENT DESIGN REPORT.
3. LME = LEFT MEDIAN EDGE
   RME = RIGHT MEDIAN EDGE
4. MEDIAN OPENING LOCATION IS TENTATIVE WHICH IS TO BE FINALISED AT SITE DURING EXECUTION.
5. SEPARATE DRAWING FOR DETAILING OF MINIOR & MAJOR JUNCTION,BUS BAYS, MEDIAN OPENING SHALL BE PROVIDED SEPARATELY.
6. DRAWING FOR CULVERTS, MINOR BRIDGE & FO SHALL BE PROVIDED SEPARATELY.
7. SEPARATE DRAWING SHALL BE PROVIDED FOR MEDIAN OPENING COMING INTO JUNCTIONS.

* Pavement layers thickness in Partial Reconstruction area (Overlay Side) shall be as per detail Cross Section.

Rev.	Date	Description on Revisions
R2	June 2018	Profile updated as per site condition, bus bay incorporated.
R1	Nov. 2017	Revised as per AE comment dated 09 Oct. 2017

Revisions

CLIENT:-
NATIONAL HIGHWAYS
& INFRASTRUCTURE
DEVELOPMENT
CORPORATION LTD.

AUTHORITY'S ENGINEER:
STUP Consultants P. Ltd
&
Ayoleeza Consultants P. Ltd.
AUTHORISED SIGNATORY | DATE

PROOF CHECKED CONSULTANT:-
CE TESTING Company Pvt. Ltd
13/7/18
AUTHORISED SIGNATORY | DATE

SAEFTY CONSULTANT:-
Chaitanya Projects Consultancy Pvt. Ltd
NEW DELHI
AUTHORISED SIGNATORY | DATE

PROJECT:
FOUR LANING OF NH-37 FROM RANGAGARA TO KALIABOR TINIALI (CH: 297.000 KM TO CH: 315.315 KM) IN NAGAON DISTRICT IN THE STATE OF ASSAM UNDER SARDP-NE, PHASE A ON EPC MODE

EPC CONTRACTOR:-
SIMPLEX INFRASTRUCTURES LIMITED
27, SHAKESPEARE SARANI, KOLKATA-17, INDIA

CONSULTANTS:-
AECOM
9th Floor, Infinity Tower C DLF Cyber City
DLF Phase II, Gurgaon-122002, Haryana, India
DRAWN | DESIGN | CHECKED BY (SL, Team Leader) | APPROVED BY (MSK, Design Director)

SCALE:-
HOR- 1 : 2000
VER- 1 : 200

TITLE:-
PLAN AND PROFILE
FROM Km. 310+000 To Km. 311+000

DRAWING NO.:- AECOM-DELD15159-DD-DWG-PP- 0114
REV. R2