

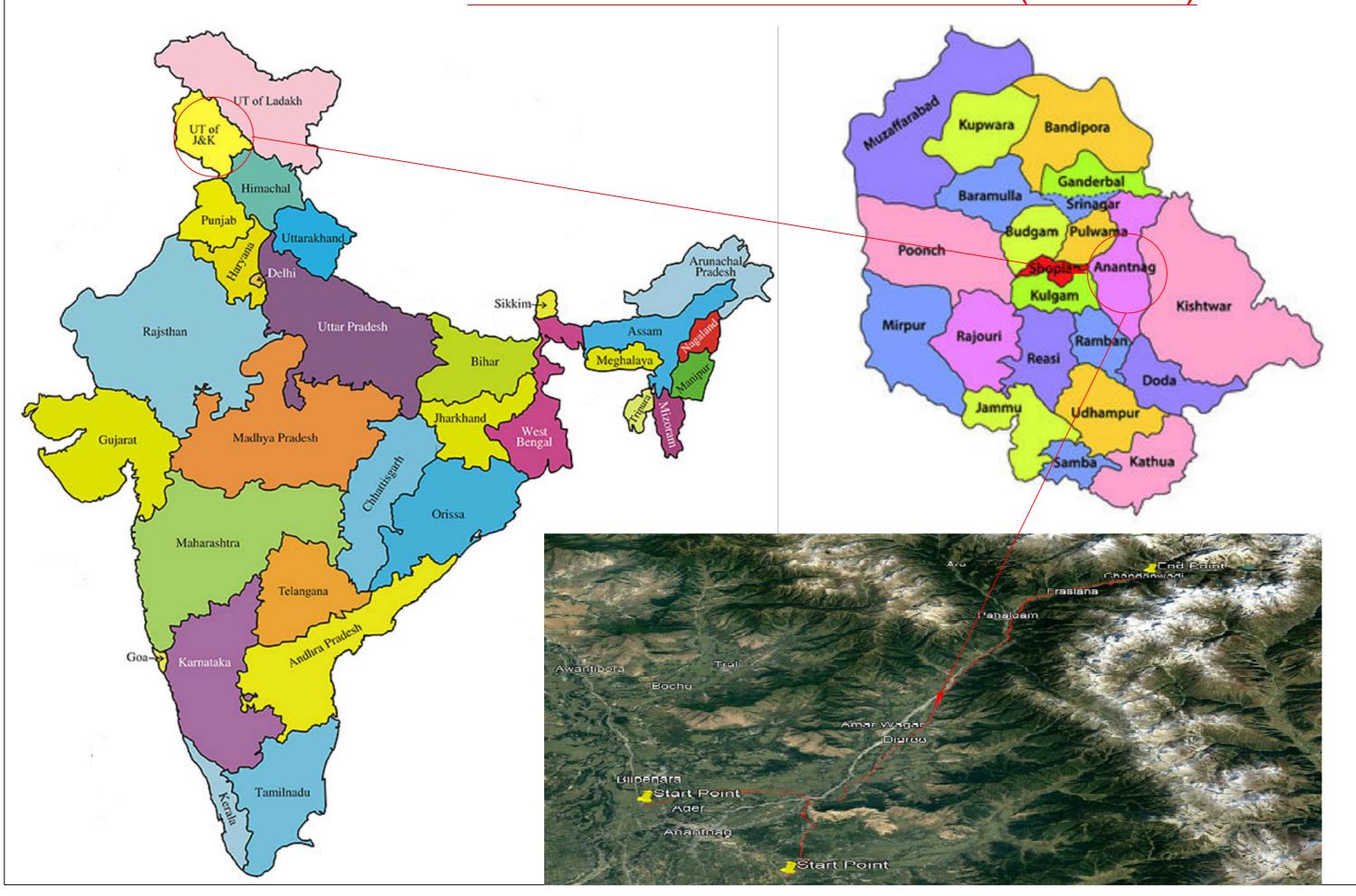
National Highways & Infrastructure Development Corporation Limited Ministry of Road Transport & Highways, Govt. of India

PROJECT:

Consultancy Services for Preparation of Detailed Project Report for 2 Laning of Khanabal – Baltal section on NH-501 (Length - 90km) with paved shoulder in the UT of Jammu & Kashmir.

DETAILED PROJECT REPORT

HORIZONTAL ALIGNMENT AND LONGITUDINAL PROFILE (PACKAGE 124)
VOLUME-IX DRAWINGS VOLUME (CULVERT)



CONSULTANT:



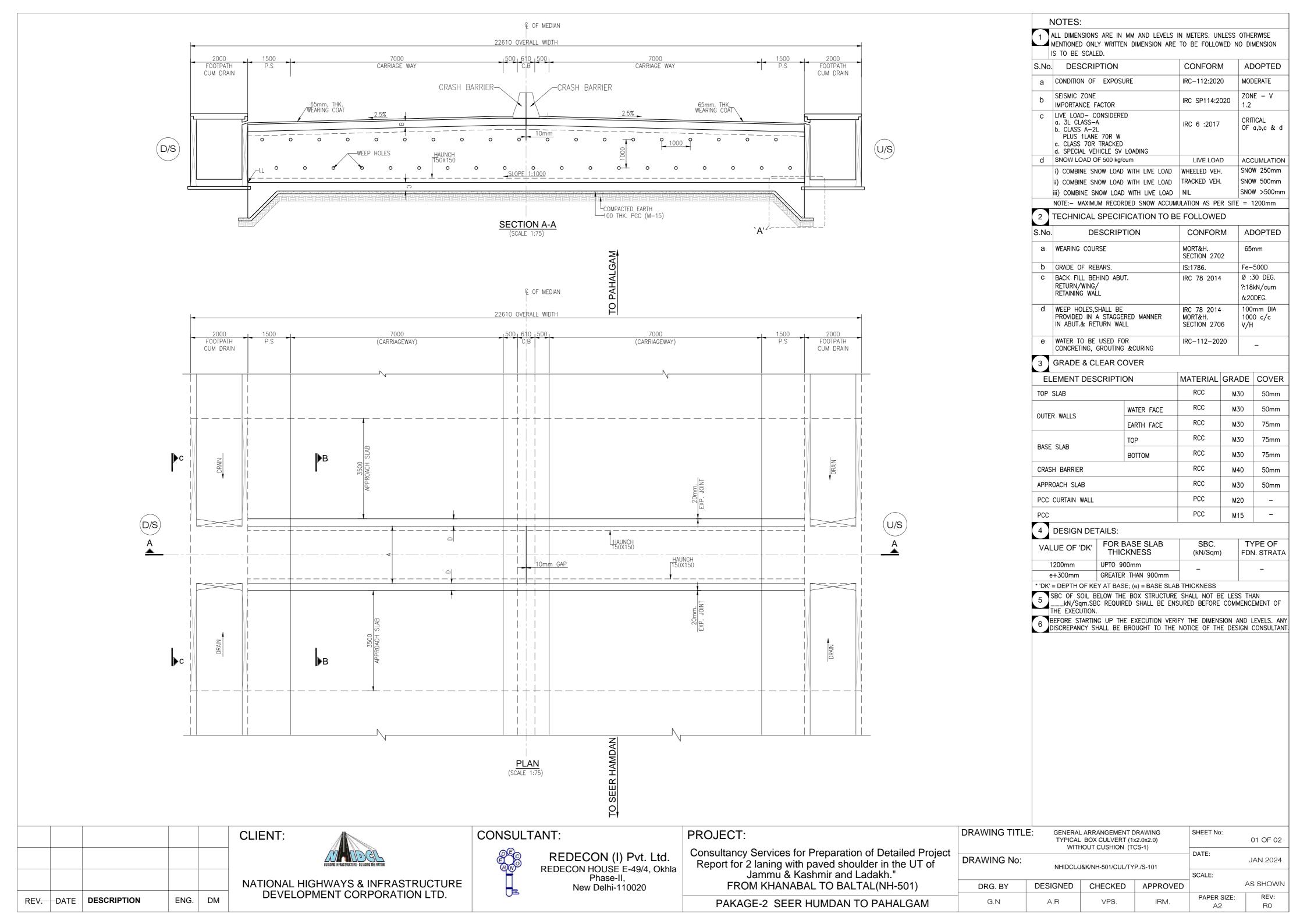
DATE- JAN. 2024

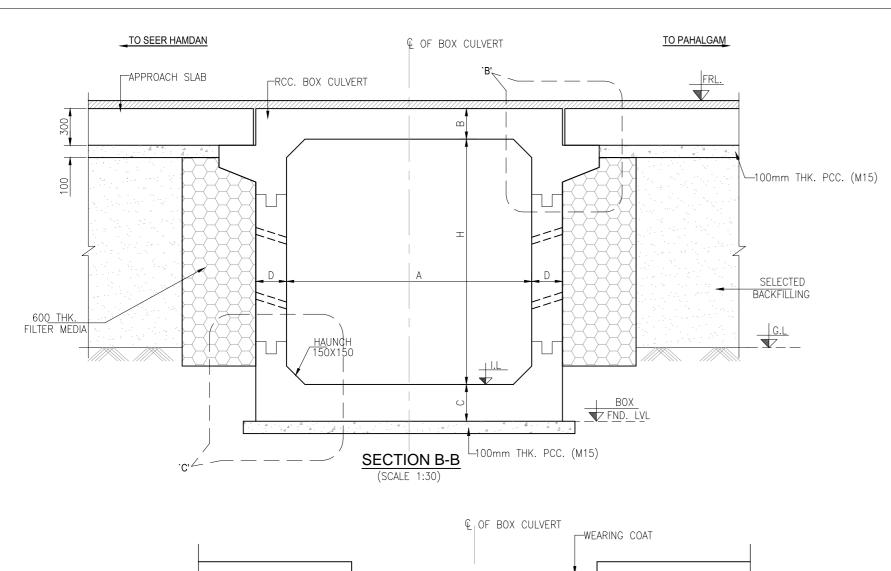
DRAWING INDEX PACKGE 2 SEER HAMDAN TO PAHALGAM

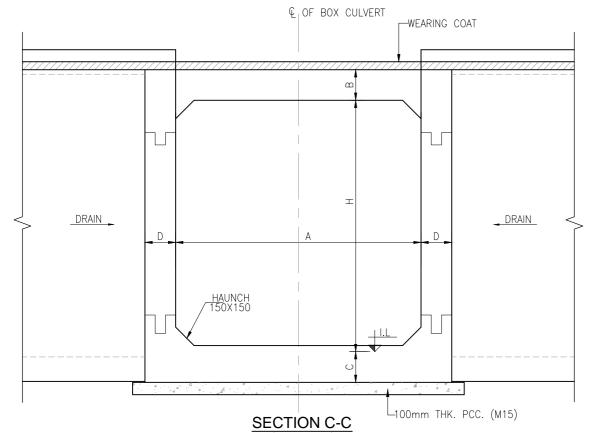
SL.No.	DRAWING TITLE	DRAWING No.	TCS	SHEET	REV.
1	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X2.0X2.0) WITHOUT CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	1	02	R0
2	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X3.0X2.0) WITHOUT CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	1	02	R0
3	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X3.0X3.0) WITHOUT CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	1	02	R0
4	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X4.0X2.0) WITHOUT CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	1	02	R0
5	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X5.0X2.0) WITHOUT CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	1	02	R0
6	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X2.0X2.0) WITHOUT CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	3	02	R0
7	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X2.0X2.0) 1M CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	3	02	R0
8	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X2.0X2.0) 2M CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	3	02	R0
9	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X3.0X3.0) WITHOUT CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	3	02	R0
10	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X4.0X4.0) WITHOUT CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	3	02	R0
11	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X2.0X2.0) WITHOUT CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	4	02	R0
12	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X2.0X2.0) 1M CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	4	02	R0
12	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X3.0X2.0) WITHOUT CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	4	02	R0
14	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X3.0X3.0) WITHOUT CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	4	02	R0
15	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X2.0X2.0) WITHOUT CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	5	02	R0

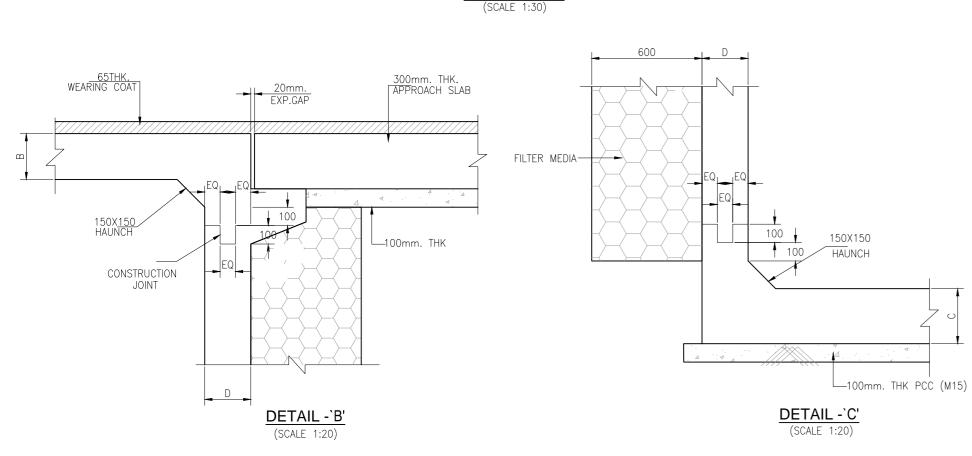
DRAWING INDEX PACKGE 2 SEER HAMDAN TO PAHALGAM TCS-1

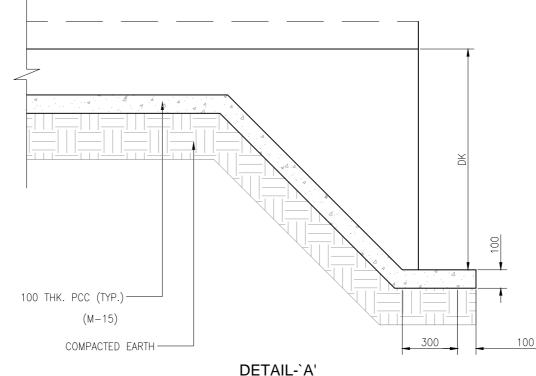
SL.No.	DRAWING TITLE	DRAWING No.	SHEET	REV.
1	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X2.0X2.0) WITHOUT CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	02	R0
2	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X3.0X2.0) WITHOUT CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	02	R0
3	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X3.0X3.0) WITHOUT CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	02	R0
4	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X4.0X2.0) WITHOUT CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	02	R0
5	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X5.0X2.0) WITHOUT CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	02	R0











DETAIL-`A' DETAIL OF SHEAR KEY (SCALE:-1:20)

SR.NO	PROPOSED CHAINAGE	SPAN	TOP SLAB THK.	BOTTOM SLAB THK.	WALL THK.	HAU	NCH	CARRIAGEWAY	TOTAL WIDTH	CLEAR HEIGHT	SKEW
	Chainage	Α	В	С	D	h	v			Н	
1	16+832	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
2	16+903	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
3	16+948	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
4	17+075	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
5	17+114	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
6	17+121	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
7	17+311	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
8	17+472	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
9	17+529	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
10	17+589	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
11	17+825	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
12	17+976	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
13	18+307	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
14	18+449	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
15	18+725	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
16	20+125	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
17	21+812	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
18	22+035	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
19	22+050	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
20	22+135	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
21	22+388	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
22	22+625	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
23	22+946	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
24	23+075	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
25	23+242	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
26	23+457	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
27	23+620	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
28	23+731	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
29	23+937	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
30	25+400	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
31	25+587	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
32	26+046	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
33	26+234	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
34	26+991	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
35	32+658	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
36	32+685	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
37	32+956	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
38	33+026	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
39	33+105	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
40	33+449	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
41	34+161	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
42	34+258	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
43	34+348	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
44	34+442	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0
45	34+532	2	0.25	0.25	0.25	0.15	0.15	2X7	22610	2	Skew 0

REV.	DATE	DESCRIPTION	ENG.	DM

CLIENT:



NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

CONSULTANT:



REDECON (I) Pvt. Ltd. REDECON HOUSE E-49/4, Okhla Phase-II, New Delhi-110020

PROJECT:

Consultancy Services for Preparation of Detailed Project Report for 2 laning with paved shoulder in the UT of

report for 2 farming with paved shoulder in the OT of	
Jammu & Kashmir and Ladakh."	
FROM KHANABAL TO BALTAL(NH-501)	
	_

PAKAGE-2 SEER HUMDAN TO PAHALGAM

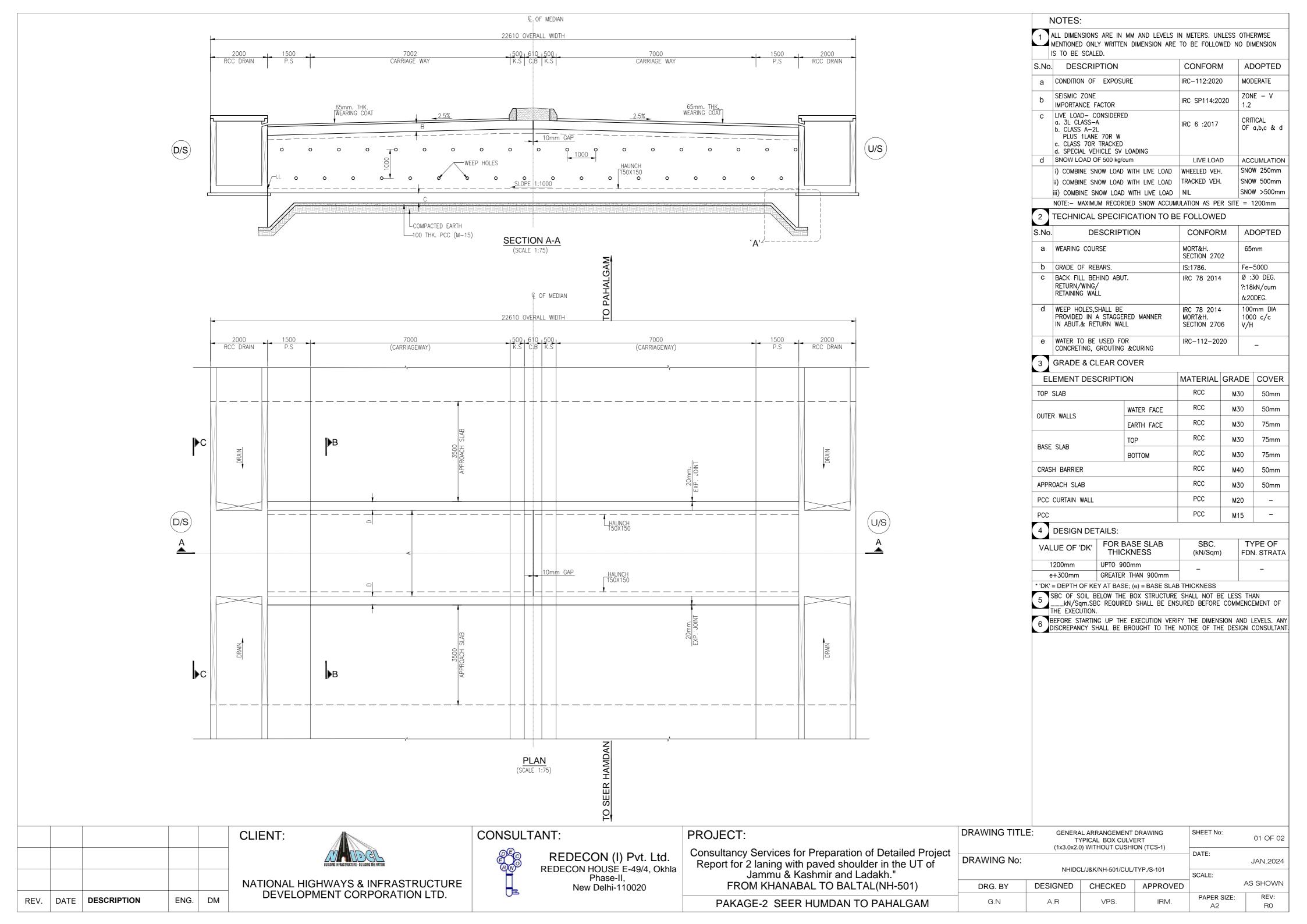
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	WITHOUT GOOTHON (100-1)	DATE:
DRAWING No:	NUID 01 / 10 / / NUI - 50 / / O1 II - TVD / O 40 4	DATE.

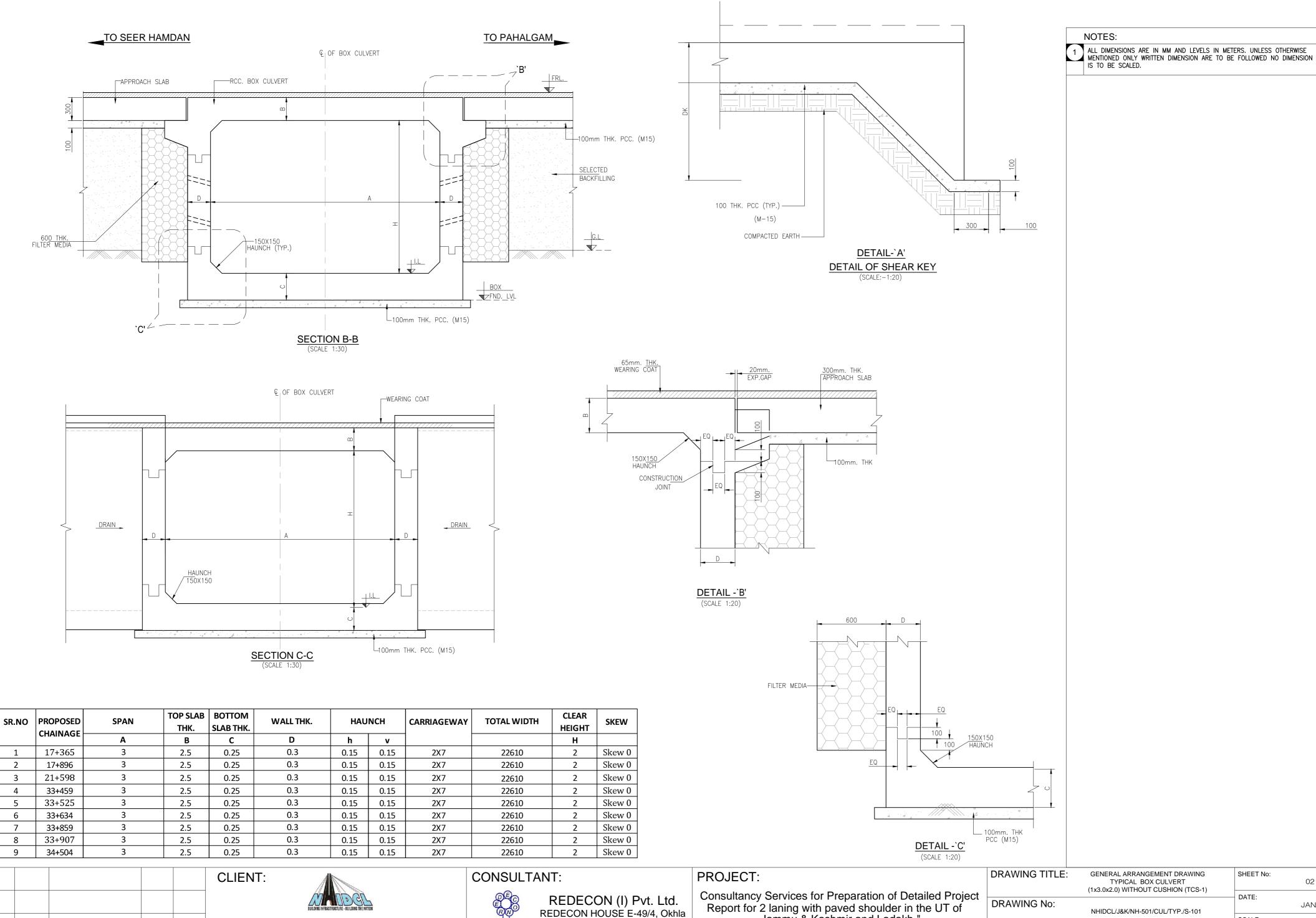
NOTES:

1 ALL DIMENSIONS ARE IN MM AND LEVELS IN METERS. UNLESS OTHERWISE MENTIONED ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED NO DIMENSION IS TO BE SCALED.

				DATE:	
RAWING No:	NHIDCL/J8	kK/NH-501/CUL/TYP		JAN.2024	
				SCALE:	
DRG. BY	DESIGNED	CHECKED	APPROVED	,	AS SHOWN
G.N	A D	VPS.	IRM.	PAPER SIZE:	REV:
G.N	A.R	VPS.	IMIVI.	A2	RO

02 OF 02





Phase-II,

New Delhi-110020

NATIONAL HIGHWAYS & INFRASTRUCTURE

DEVELOPMENT CORPORATION LTD.

DATE DESCRIPTION

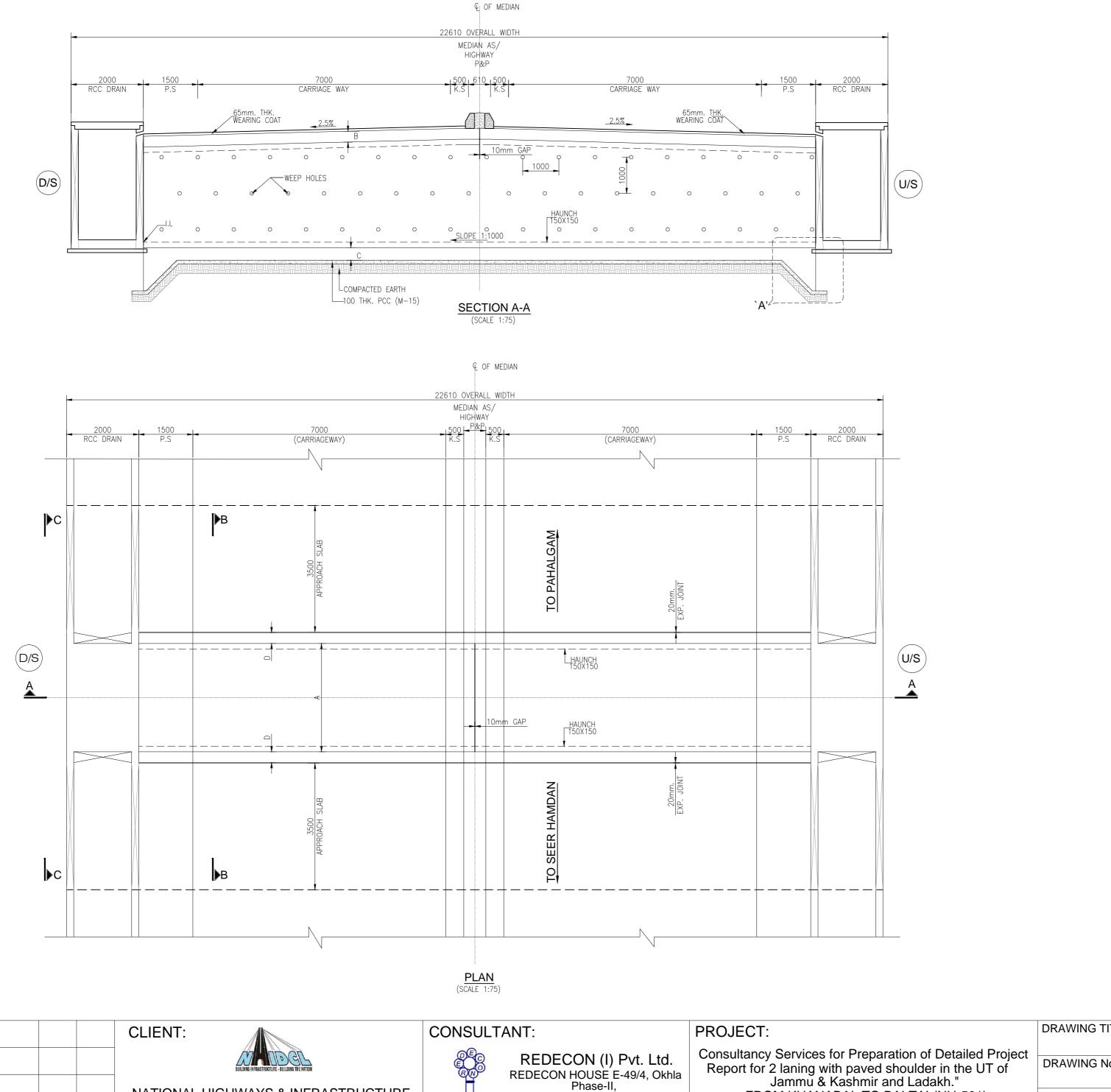
ENG. DM

GENERAL ARRANGEMENT DRAWING TYPICAL BOX CULVERT SHEET No: 02 OF 02 (1x3.0x2.0) WITHOUT CUSHION (TCS-1) DATE: JAN. 2024 NHIDCL/J&K/NH-501/CUL/TYP./S-101 SCALE: AS SHOWN DESIGNED APPROVED DRG. BY CHECKED PAPER SIZE: REV: G.N A.R

Jammu & Kashmir and Ladakh."

FROM KHANABAL TO BALTAL(NH-501)

PAKAGE-2 SEER HUMDAN TO PAHALGAM



New Delhi-110020

NATIONAL HIGHWAYS & INFRASTRUCTURE

DATE DESCRIPTION

ENG. DM

DEVELOPMENT CORPORATION LTD.

NOTES:

ALL DIMENSIONS ARE IN MM AND LEVELS IN METERS. UNLESS OTHERWISE MENTIONED ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED NO DIMENSION IS TO BE SCALED.

S.No.	DESCRIPTION	CONFORM	ADOPTED				
а	CONDITION OF EXPOSURE	IRC-112:2020	MODERATE				
b	SEISMIC ZONE IMPORTANCE FACTOR	IRC SP114:2020	ZONE – V 1.2				
С	LIVE LOAD— CONSIDERED a. 3L CLASS—A b. CLASS A—2L PLUS 1LANE 70R W c. CLASS 70R TRACKED d. SPECIAL VEHICLE SV LOADING	IRC 6 :2017	CRITICAL OF a,b,c & d				
d	SNOW LOAD OF 500 kg/cum	LIVE LOAD	ACCUMLATION				
	i) COMBINE SNOW LOAD WITH LIVE LOAD	WHEELED VEH.	SNOW 250mm				
	ii) COMBINE SNOW LOAD WITH LIVE LOAD	TRACKED VEH.	SNOW 500mm				
	iii) COMBINE SNOW LOAD WITH LIVE LOAD	NIL	SNOW >500mm				
	NOTE:- MAXIMUM RECORDED SNOW ACCUMULATION AS PER SITE = 1200mm						

2	TECHNICAL SPECIFICATION TO BE FOLLOWED						
S.No.	DESCRIPTION	CONFORM	ADOPTED				
а	WEARING COURSE	MORT&H. SECTION 2702	65mm				
b	GRADE OF REBARS.	IS:1786.	Fe-500D				
С	BACK FILL BEHIND ABUT. RETURN/WING/ RETAINING WALL	IRC 78 2014	Ø :30 DEG. ?:18kN/cum Δ:20DEG.				
d	WEEP HOLES,SHALL BE PROVIDED IN A STAGGERED MANNER IN ABUT.& RETURN WALL	IRC 78 2014 MORT&H. SECTION 2706	100mm DIA 1000 c/c V/H				
е	WATER TO BE USED FOR CONCRETING, GROUTING &CURING	IRC-112-2020	_				

ELEMENT DESCRIPTI	ELEMENT DESCRIPTION		GRADE	COVER
TOP SLAB	TOP SLAB		M30	50mm
	WATER FACE	RCC	M30	50mm
OUTER WALLS	EARTH FACE	RCC	M30	75mm
	TOP	RCC	M30	75mm
BASE SLAB	воттом	RCC	M30	75mm
CRASH BARRIER		RCC	M40	50mm
APPROACH SLAB	APPROACH SLAB		M30	50mm
PCC CURTAIN WALL		PCC	M20	_
PCC		PCC	M15	_
4 DESIGN DETAILS:				

VALUE OF 'DK' THICKNESS (kN/Sqm) UPTO 900mm

FOR BASE SLAB

e+300mm GREATER THAN 900mm * 'DK' = DEPTH OF KEY AT BASE; (e) = BASE SLAB THICKNESS

TYPE OF

FDN. STRATA

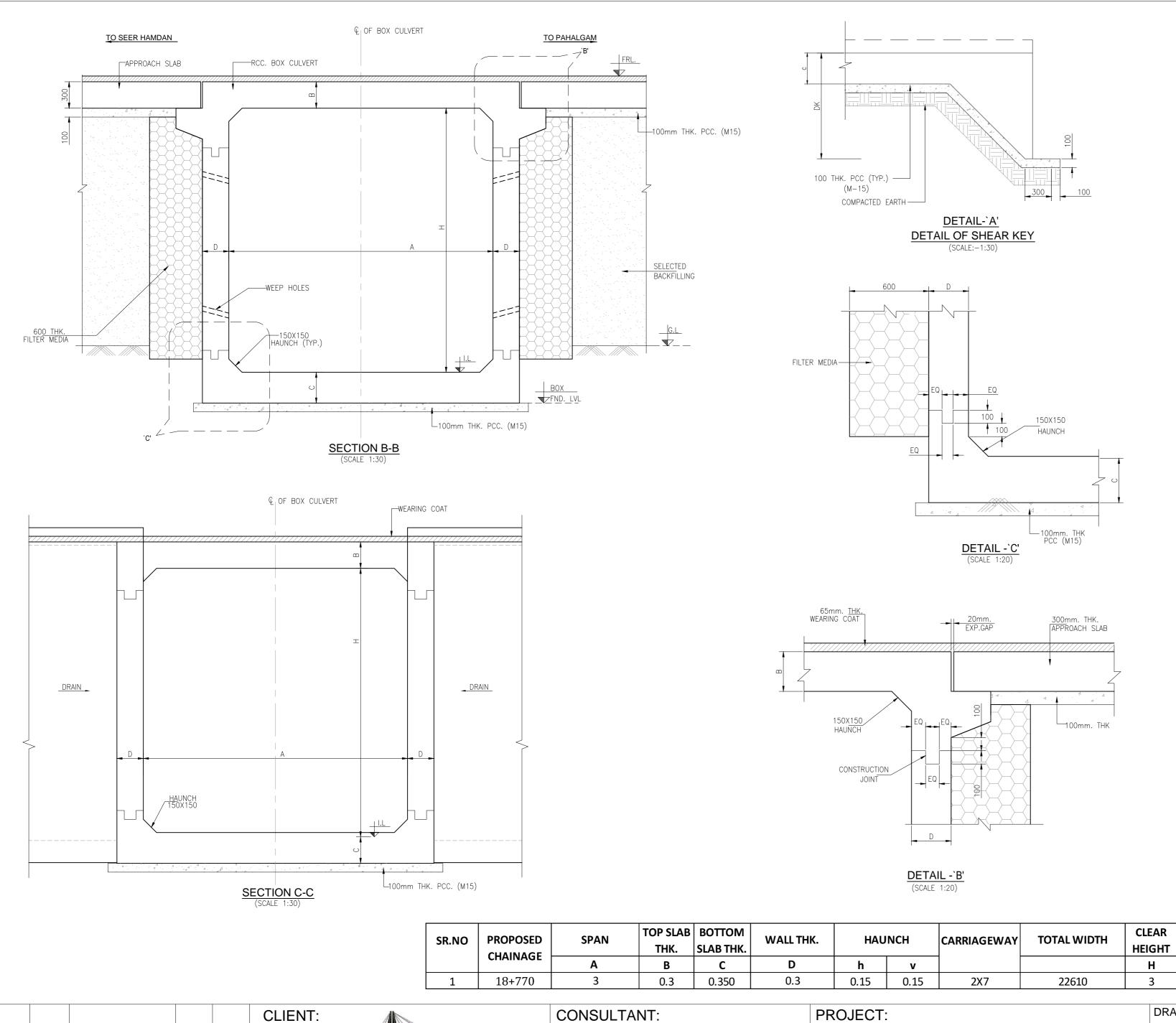
5 SBC OF SOIL BELOW THE BOX STRUCTURE SHALL NOT BE LESS THAN ____kN/sqm.SBC REQUIRED SHALL BE ENSURED BEFORE COMMENCEMENT OF THE EXECUTION.

BEFORE STARTING UP THE EXECUTION VERIFY THE DIMENSION AND LEVELS. ANY DISCREPANCY SHALL BE BROUGHT TO THE NOTICE OF THE DESIGN CONSULTANT.

Jammu & Kashmir and Ladakh." FROM KHANABAL TO BALTAL(NH-501)

PAKAGE-2 SEER HUMDAN TO PAHALGAM

DRAWING TITLE: GENERAL ARRANGEMENT DRAWING SHEET No: TYPICAL BOX CULVERT 01 OF 02 (1x3.0x3.0) WITHOUT CUSHION (TCS-1) DATE: DRAWING No: JAN.2024 NHIDCL/J&K/NH-501/CUL/TYP./S-124 SCALE: AS SHOWN DESIGNED CHECKED APPROVED DRG. BY PAPER SIZE: REV: G.N A.R A2



NATIONAL HIGHWAYS & INFRASTRUCTURE

DEVELOPMENT CORPORATION LTD.

ENG. DM

DATE DESCRIPTION

REDECON (I) Pvt. Ltd.

REDECON HOUSE E-49/4, Okhla

New Delhi-110020

Phase-II,

DRAWING TITLE: GENERAL ARRANGEMENT DRAWING SHEET No: 02 OF 02 TYPICAL BOX CULVERT (1x3.0x3.0) WITHOUT CUSHION (TCS-1) DATE: DRAWING No: JAN.2024 NHIDCL/J&K/NH-501/CUL/TYP./S-124 SCALE: AS SHOWN DESIGNED CHECKED APPROVED DRG. BY REV: PAPER SIZE: G.N A.R VPS. A2 R0

SKEW

Skew 0

Consultancy Services for Preparation of Detailed Project

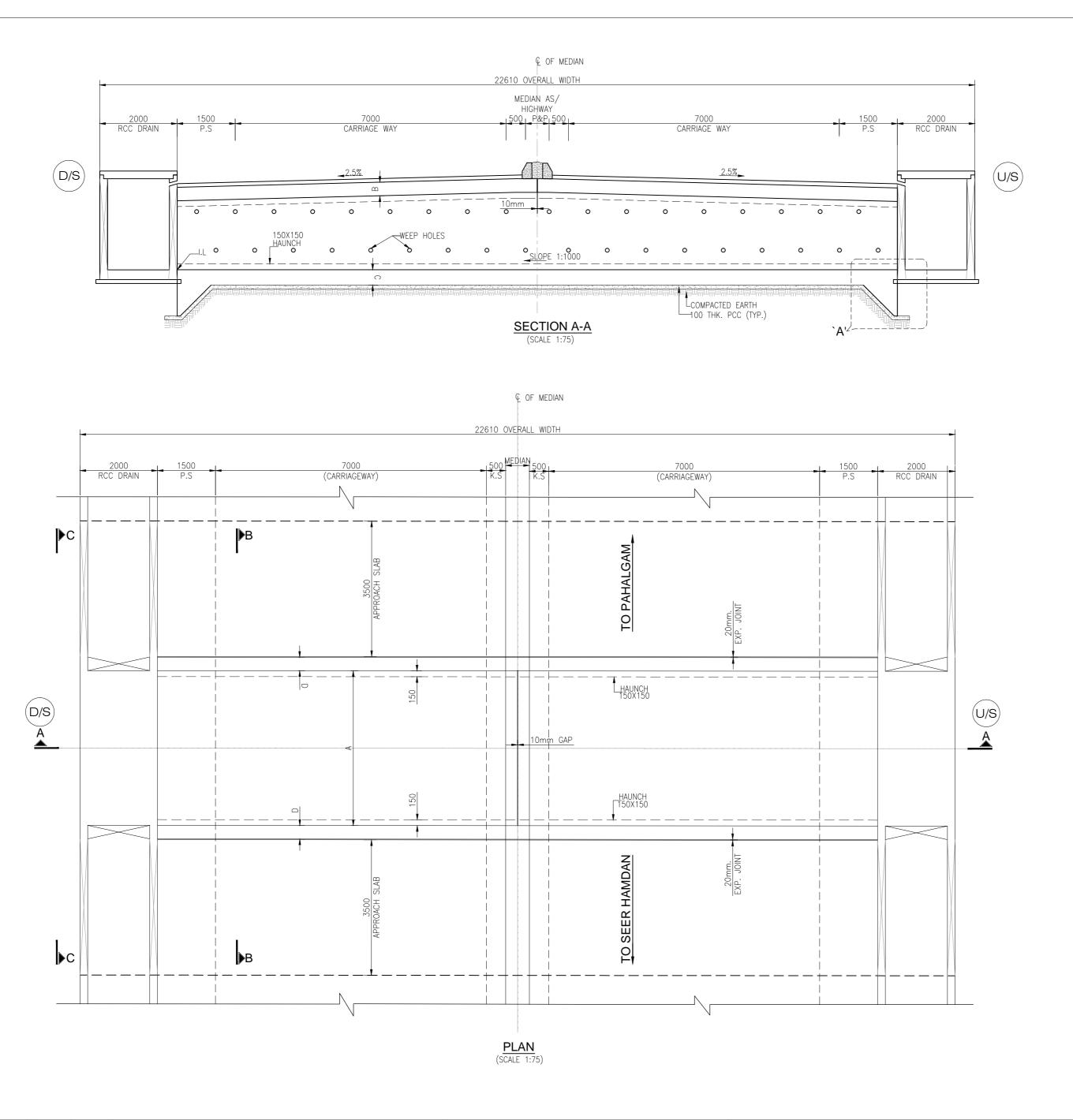
FROM KHANABAL TO BALTAL(NH-501)

PAKAGE-2 SEER HUMDAN TO PAHALGAM

Report for 2 laning with paved shoulder in the UT of Jammu & Kashmir and Ladakh."

NOTES:

ALL DIMENSIONS ARE IN MM AND LEVELS IN METERS. UNLESS OTHERWISE MENTIONED ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED NO DIMENSION IS TO BE SCALED.



CLIENT: CONSULTANT: REDECON (I) Pvt. Ltd. REDECON HOUSE E-49/4, Okhla Phase-II, NATIONAL HIGHWAYS & INFRASTRUCTURE New Delhi-110020 DEVELOPMENT CORPORATION LTD. REV. DATE DESCRIPTION ENG. DM PAKAGE-2 SEER HUMDAN TO PAHALGAM

PROJECT:] [
Consultancy Services for Preparation of Detailed Project Report for 2 laning with paved shoulder in the UT of Jammu & Kashmir and Ladakh."	I
FROM KHANABAL TO BALTAL(NH-501)	
	-

DRAWING TITL	TYF	GENERAL ARRANGEMENT DRAWING TYPICAL BOX CULVERT (1x4.0x2.0) WITHOUT CUSHION (TCS-1)			01 OF 02
DRAWING No:	NHIDCL/	DATE:	JAN.2024		
	SCALE:				
DRG. BY	DESIGNED	CHECKED	APPROVED		AS SHOWN
G.N	A.R	VPS.	IRM.	PAPER SIZE:	REV:
Q.1 V	7 1.1 1	V1 0.	" " " "	A2	R0

NOTES:

IS TO BE SCALED.

S.No. DESCRIPTION

SEISMIC ZONE

a | CONDITION OF EXPOSURE

IMPORTANCE FACTOR

c LIVE LOAD— CONSIDERED a. 3L CLASS—A b. CLASS A—2L

PLUS 1LANE 70R W c. CLASS 70R TRACKED d. SPECIAL VEHICLE SV LOADING

d SNOW LOAD OF 500 kg/cum

a WEARING COURSE

b GRADE OF REBARS.

RETURN/WING/

RETAINING WALL

d | WEEP HOLES,SHALL BE

IN ABUT.& RETURN WALL

e WATER TO BE USED FOR CONCRETING, GROUTING &CURING

3 GRADE & CLEAR COVER

ELEMENT DESCRIPTION

OUTER WALLS

BASE SLAB

CRASH BARRIER

APPROACH SLAB

PCC CURTAIN WALL

VALUE OF 'DK'

4 DESIGN DETAILS:

C BACK FILL BEHIND ABUT.

S.No.

1 ALL DIMENSIONS ARE IN MM AND LEVELS IN METERS. UNLESS OTHERWISE

MENTIONED ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED NO DIMENSION

i) COMBINE SNOW LOAD WITH LIVE LOAD WHEELED VEH.

NOTE:- MAXIMUM RECORDED SNOW ACCUMULATION AS PER SITE = 1200mm

ii) COMBINE SNOW LOAD WITH LIVE LOAD

DESCRIPTION

PROVIDED IN A STAGGERED MANNER

iii) COMBINE SNOW LOAD WITH LIVE LOAD | NIL

2 TECHNICAL SPECIFICATION TO BE FOLLOWED

CONFORM

IRC-112:2020

IRC SP114:2020

IRC 6 :2017

CONFORM

SECTION 2702 IS:1786.

IRC 78 2014

IRC 78 2014

SECTION 2706

IRC-112-2020

RCC

RCC

RCC

RCC

RCC

PCC

PCC

SBC.

(kN/Sqm)

WATER FACE

EARTH FACE

FOR BASE SLAB

GREATER THAN 900mm * 'DK' = DEPTH OF KEY AT BASE; (e) = BASE SLAB THICKNESS

5 SBC OF SOIL BELOW THE BOX STRUCTURE SHALL NOT BE LESS THAN ____kN/Sqm.SBC REQUIRED SHALL BE ENSURED BEFORE COMMENCEMENT OF THE EXECUTION.

6 BEFORE STARTING UP THE EXECUTION VERIFY THE DIMENSION AND LEVELS. ANY DISCREPANCY SHALL BE BROUGHT TO THE NOTICE OF THE DESIGN CONSULTANT.

THICKNESS

UPTO 900mm

MORT&H.

ADOPTED

MODERATE

ZONE - V

CRITICAL

OF a,b,c & d

ACCUMLATION

SNOW 250mm

SNOW 500mm SNOW >500mm

ADOPTED

Fe-500D

Ø :30 DEG.

?:18kN/cum

1000 c/c

50mm

50mm

75mm

75mm

75mm

50mm

TYPE OF

FDN. STRATA

V/H

MATERIAL GRADE COVER

M30

M30

M30

M30

M30

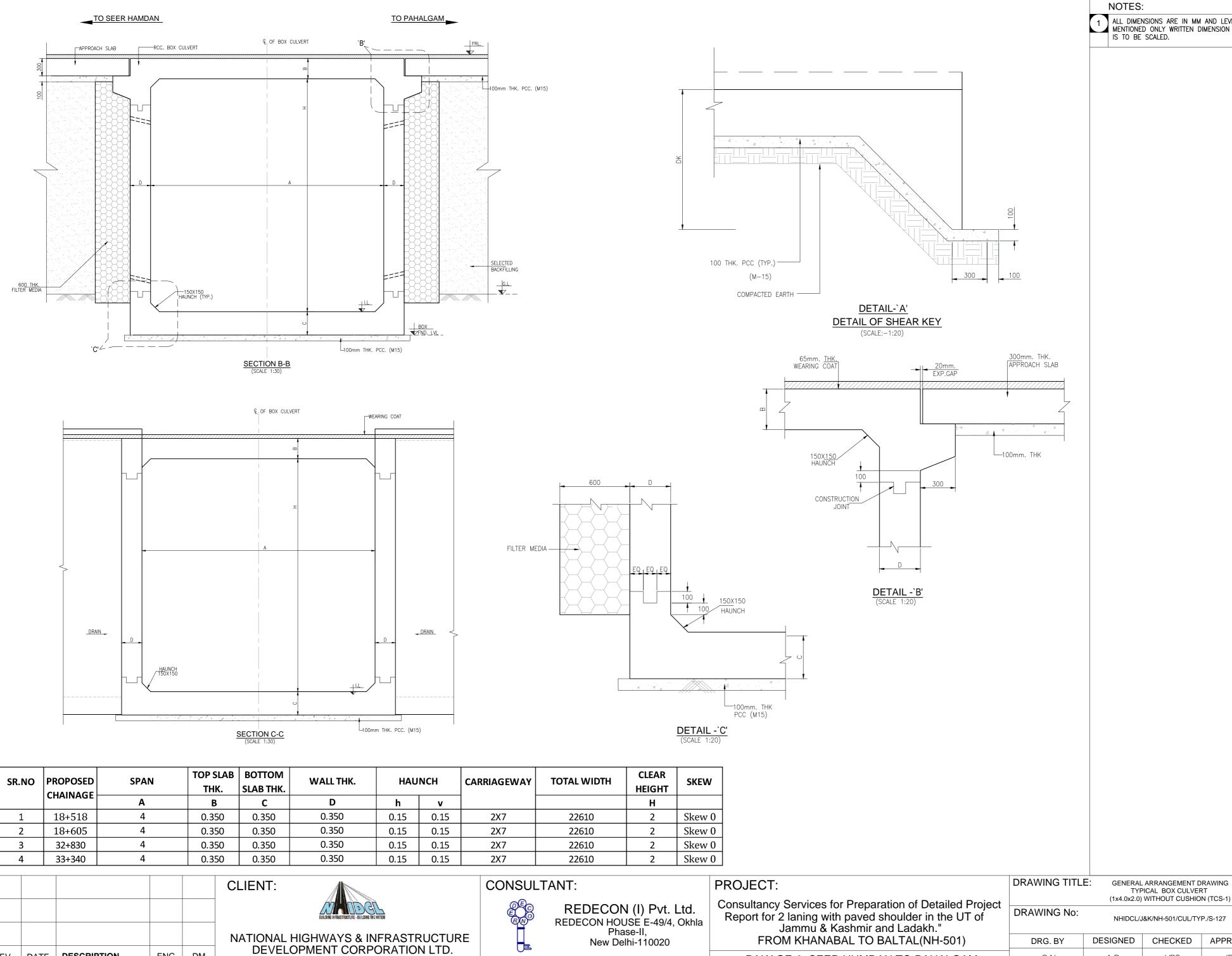
M40

M30

M20

M15

Δ:20DEG. 100mm DIA



DATE DESCRIPTION

ENG. DM

NOTES:

1 ALL DIMENSIONS ARE IN MM AND LEVELS IN METERS. UNLESS OTHERWISE MENTIONED ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED NO DIMENSION IS TO BE SCALED.

SHEET No:

DATE:

SCALE:

PAPER SIZE:

APPROVED

TYPICAL BOX CULVERT

CHECKED

A.R

G.N

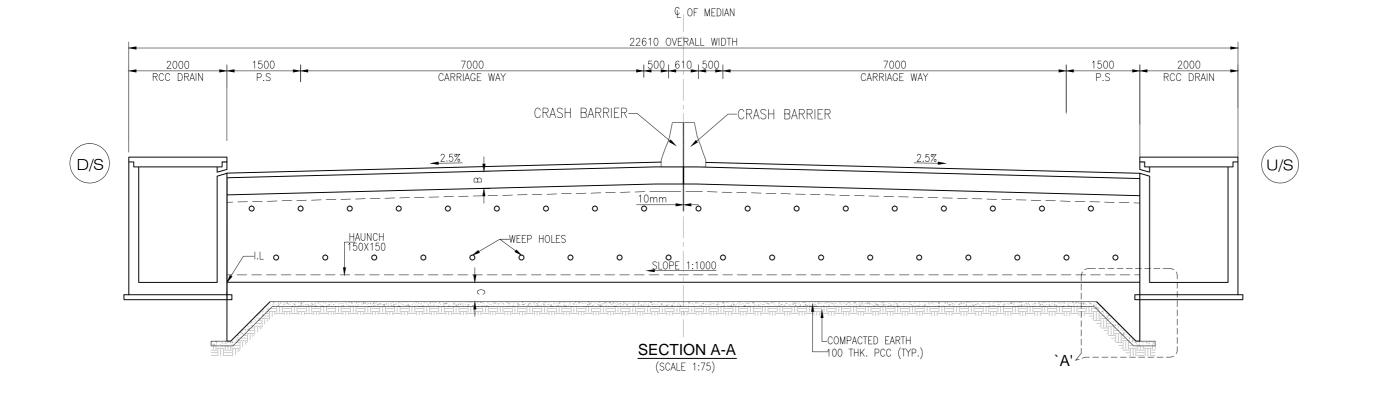
PAKAGE-2 SEER HUMDAN TO PAHALGAM

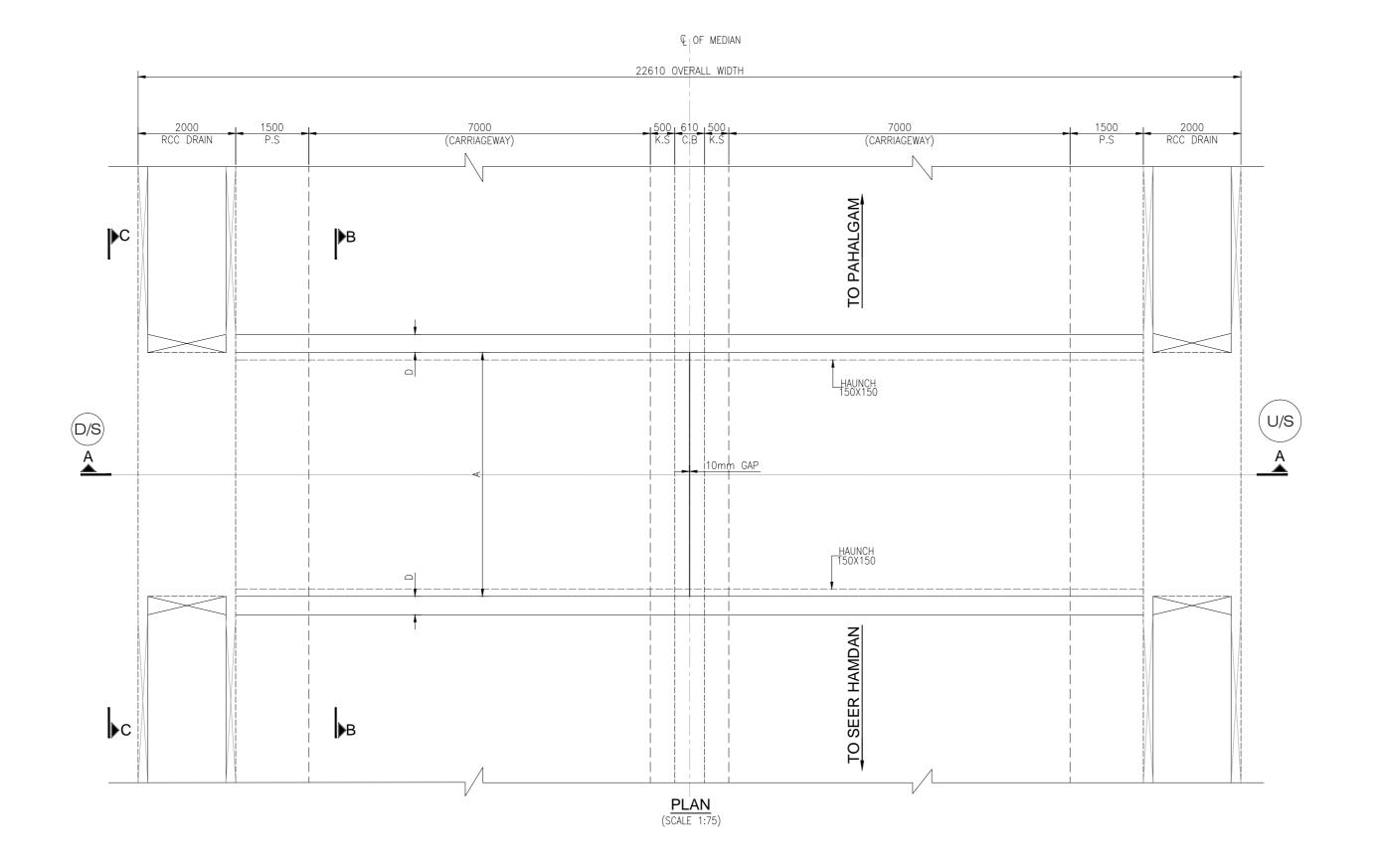
02 OF 02

JAN. 2024

AS SHOWN

REV:





1 ALL DIMENSIONS ARE IN MM AND LEVELS IN METERS. UNLESS OTHERWISE MENTIONED ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED NO DIMENSION IS TO BE SCALED.

S.No.	DESCRIPTION	CONFORM	ADOPTED
а	CONDITION OF EXPOSURE	IRC-112:2020	MODERATE
b	SEISMIC ZONE IMPORTANCE FACTOR	IRC SP114:2020	ZONE - V 1.2
С	LIVE LOAD— CONSIDERED a. 3L CLASS—A b. CLASS A—2L PLUS 1LANE 70R W c. CLASS 70R TRACKED d. SPECIAL VEHICLE SV LOADING	IRC 6 :2017	CRITICAL OF a,b,c & d
d	SNOW LOAD OF 500 kg/cum	LIVE LOAD	ACCUMLATION
	i) COMBINE SNOW LOAD WITH LIVE LOAD	WHEELED VEH.	SNOW 250mm
	ii) COMBINE SNOW LOAD WITH LIVE LOAD	TRACKED VEH.	SNOW 500mm
	iii) COMBINE SNOW LOAD WITH LIVE LOAD	NIL	SNOW >500mm
	NOTE:- MAXIMUM RECORDED SNOW ACCUMU	JLATION AS PER SITE	= 1200mm

2	TECHNICAL SPECIFICATION TO BE	FOLLOWED				
S.No.	DESCRIPTION	CONFORM	ADOPTED			
а	WEARING COURSE	MORT&H. SECTION 2702	65mm			
b	GRADE OF REBARS.	IS:1786.	Fe-500D			
С	BACK FILL BEHIND ABUT. RETURN/WING/ RETAINING WALL	IRC 78 2014	Ø :30 DEG. ?:18kN/cum Δ:20DEG.			
d	WEEP HOLES,SHALL BE PROVIDED IN A STAGGERED MANNER IN ABUT.& RETURN WALL	IRC 78 2014 MORT&H. SECTION 2706	100mm DIA 1000 c/c V/H			
е	WATER TO BE USED FOR CONCRETING, GROUTING &CURING	IRC-112-2020	_			

3 GRADE & CLEAR CO	OVER			
ELEMENT DESCRIPTION	ON	MATERIAL	GRADE	COVE
TOP SLAB		RCC	м30	50mm
OUTED WALLS	WATER FACE	RCC	M30	50mm
OUTER WALLS	EARTH FACE	RCC	M30	75mm
DAGE CLAD	ТОР	RCC	M30	75mm
BASE SLAB	воттом	RCC	M30	75mm
CRASH BARRIER		RCC	M40	50mm
APPROACH SLAB		RCC	М30	50mm
PCC CURTAIN WALL		PCC	M20	_

4 DESIGN DETAILS:						
VALUE OF 'DK'	FOR BASE SLAB THICKNESS	SBC. (kN/Sqm)	TYPE OF FDN. STRATA			
1200mm	UPTO 900mm	_	_			
e+300mm	GREATER THAN 900mm					

M15

PCC

* 'DK' = DEPTH OF KEY AT BASE; (e) = BASE SLAB THICKNESS

SBC OF SOIL BELOW THE BOX STRUCTURE SHALL NOT BE LESS THAN _____kN/sqm.SBC REQUIRED SHALL BE ENSURED BEFORE COMMENCEMENT OF THE EXECUTION.

BEFORE STARTING UP THE EXECUTION VERIFY THE DIMENSION AND LEVELS. ANY DISCREPANCY SHALL BE BROUGHT TO THE NOTICE OF THE DESIGN CONSULTANT.

REV.	DATE	DESCRIPTION	ENG.	DM

CLIENT:



NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

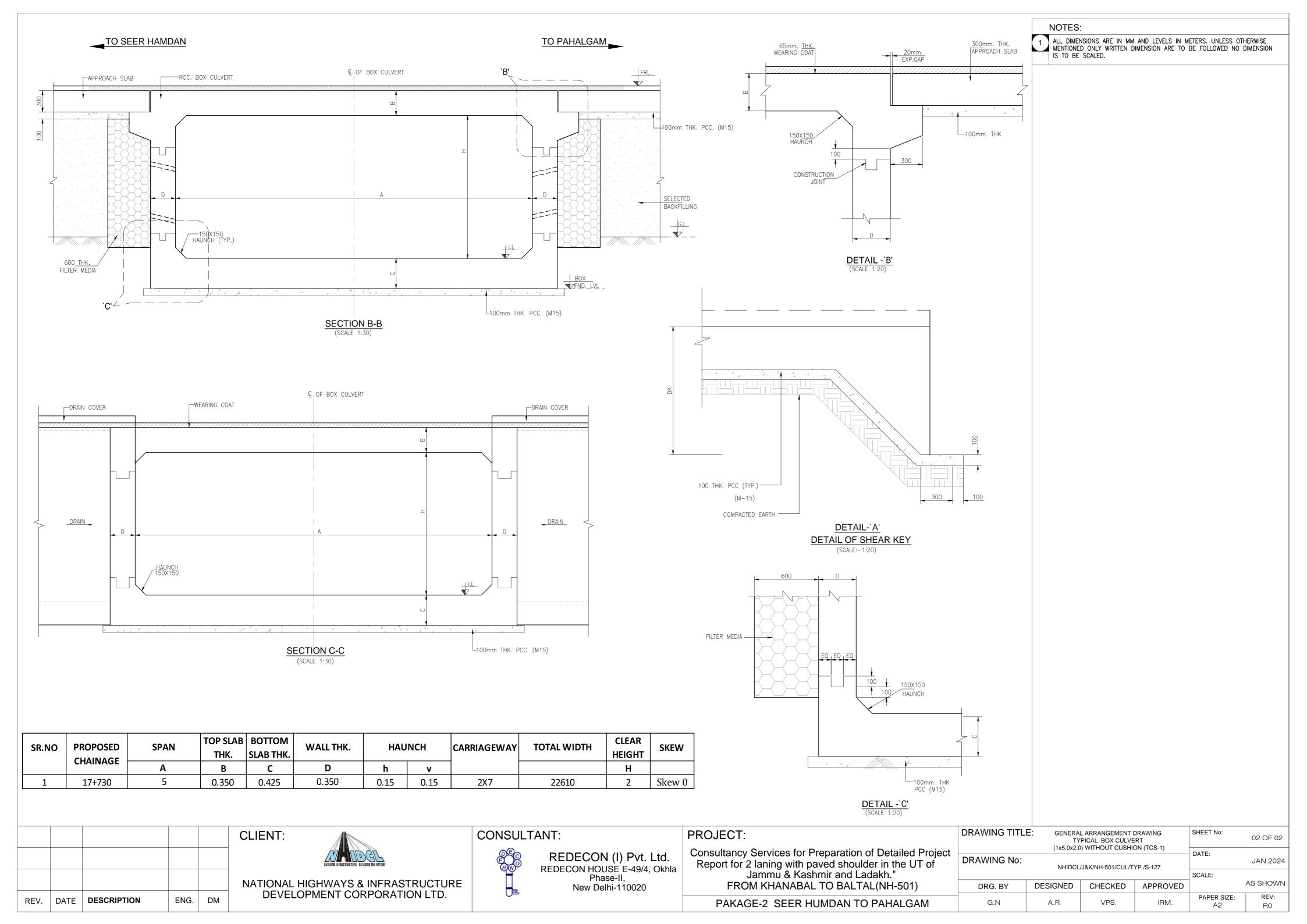
CONSULTANT:



PROJECT: Consultancy Services for Preparation of Detailed Project Report for 2 laning with paved shoulder in the UT of Jammu & Kashmir and Ladakh." FROM KHANABAL TO BALTAL(NH-501)

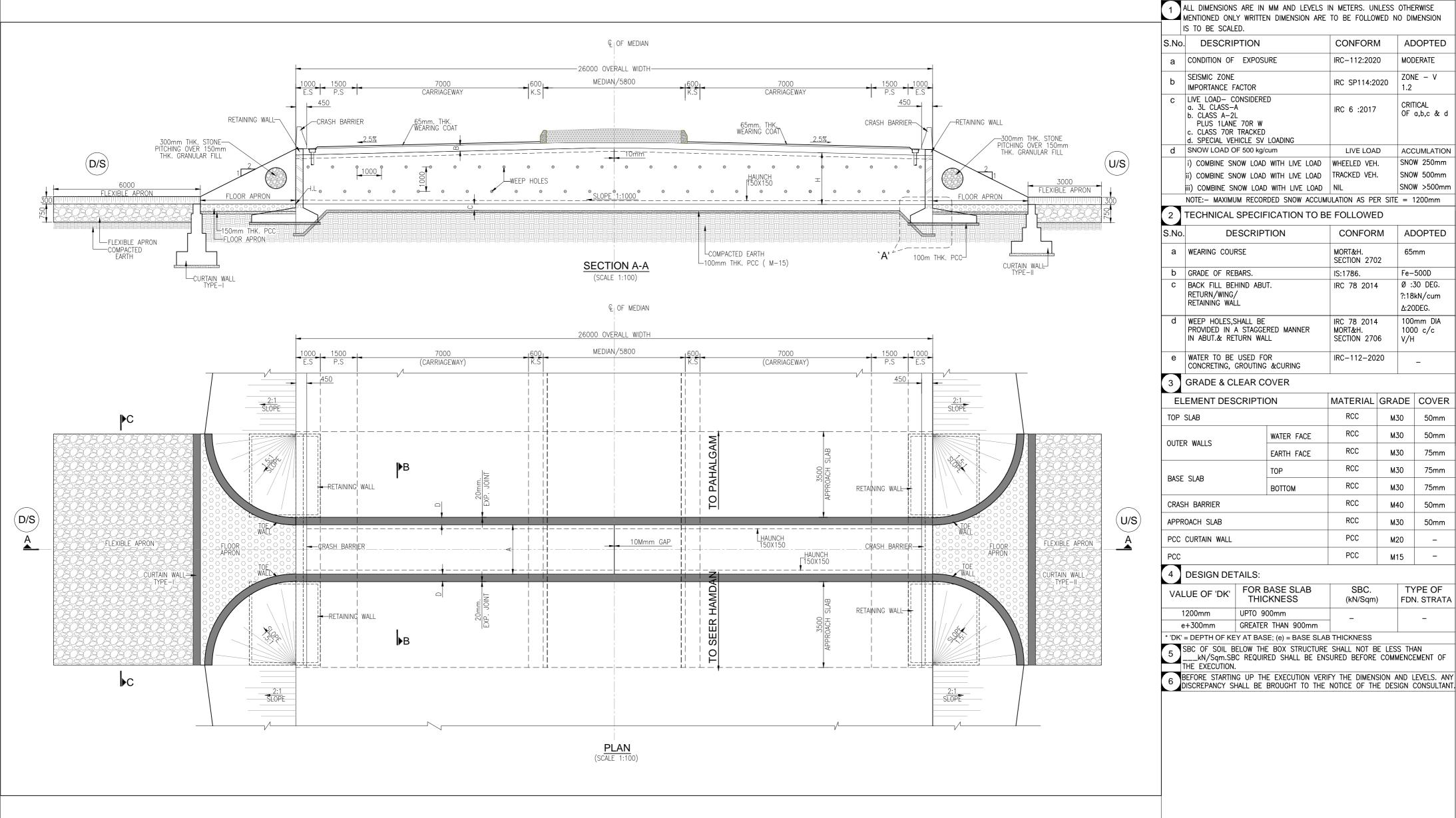
PAKAGE-2 SEER HUMDAN TO PAHALGAM

DRAWING TITLE	Τ'	AL ARRANGEMENT YPICAL BOX CULVI D) WITHOUT CUSHI	ERT	SHEET No:	01 OF 02
DD AMAINIO NI-	(170.072.0	3) WITHOUT COOT!!		DATE:	
DRAWING No:	NHIDCL/	J&K/NH-501/CUL/TY		JAN.2024	
				SCALE:	
DRG. BY	DESIGNED	CHECKED	APPROVED		AS SHOWN
GN	AR	VPS	IRM	PAPER SIZE:	REV:



DRAWING INDEX PACKGE 2 SEER HAMDAN TO PAHALGAM TCS-3

SL.No.	DRAWING TITLE	DRAWING No.	SHEET	REV.
1	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X2.0X2.0) WITHOUT CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	02	R0
2	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X2.0X2.0) 1M CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	02	R0
3	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X2.0X2.0) 2M CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	02	R0
4	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X3.0X3.0) WITHOUT CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	02	R0
5	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X4.0X4.0) WITHOUT CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	02	R0



SR.NO	PROPOSED CHAINAGE	SPAN	TOP SLAB THK.	BOTTOM SLAB THK.	WALL THK.	HAUNCH		CARRIAGEWAY	TOTAL WIDTH	CLEAR HEIGHT	SKEW
	CHAINAGE	Α	В	С	D	h	v			Н	
1	24+750	2	0.25	0.25	0.25	0.15	0.15	2X7	26000	2	Skew 0

DATE DESCRIPTION ENG. DM

CLIENT:



NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

CONSULTANT:

REDECON (I) Pvt. Ltd.
REDECON HOUSE E-49/4, Okh
Phase-II,
New Delhi-110020

PROJECT:

Consultancy Services for Preparation of Detailed Project Report for 2 laning with paved shoulder in the UT of Jammu & Kashmir and Ladakh." FROM KHANABAL TO BALTAL(NH-501) PAKAGE-2 SEER HAMDAN TO PAHALGAM

DRAWING TITLE	TYPICAL	GENERAL ARRANGEMENT DRAWING TYPICAL BOX CULVERT (1x2.0x2.0) WITHOUT CUSHION (TCS-3)			01 OF 02
DRAWING No:	NHIDCL/J	DATE:	JAN.2024		
	5526		SCALE:	AS SHOWI	
DRG. BY	DESIGNED	CHECKED	APPROVED	•	40 0110 VVI
G.N	A.R	VPS.	IRM.	PAPER SIZE:	REV:

NOTES:

DESCRIPTION

ADOPTED

MODERATE

ZONE - V

CRITICAL

OF a,b,c & d

ACCUMLATION

SNOW 250mm

SNOW 500mm

SNOW >500mm

ADOPTED

65mm

Fe-500D

Ø :30 DEG.

?:18kN/cum

100mm DIA

50mm

50mm

75mm

75mm

50mm

TYPE OF

FDN. STRATA

1000 c/c

V/H

MATERIAL GRADE COVER

M30

M30

M30

M30

M30

M40

M30

M20

M15

Δ:20DEG.

CONFORM

IRC-112:2020

IRC SP114:2020

LIVE LOAD

CONFORM

SECTION 2702

IRC 78 2014

IRC 78 2014

SECTION 2706

IRC-112-2020

RCC

RCC

RCC

RCC

RCC

RCC

RCC

PCC

PCC

(kN/Sqm)

WATER FACE

EARTH FACE

воттом

FOR BASE SLAB

GREATER THAN 900mm

THICKNESS

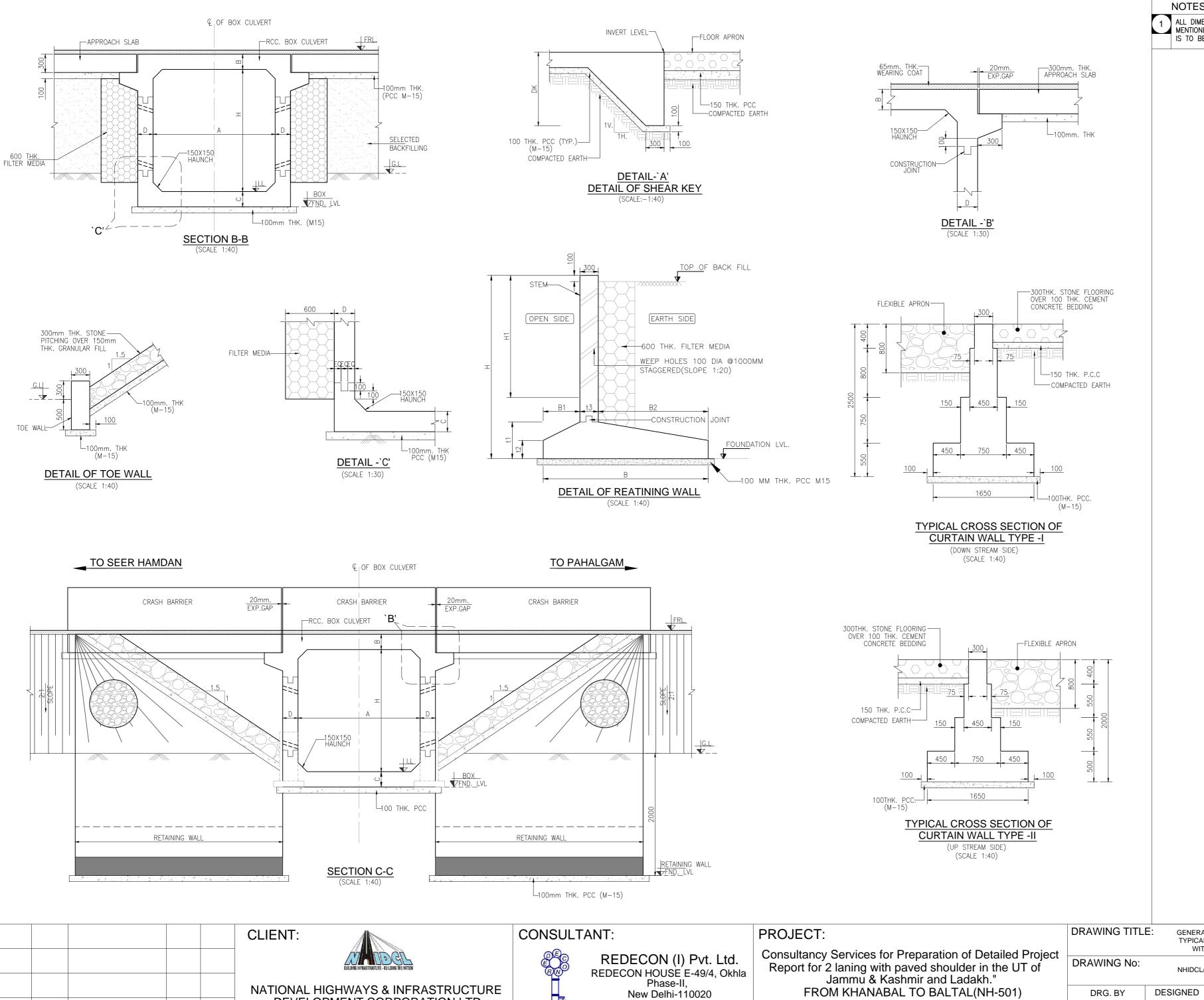
UPT0 900mm

MORT&H.

MORT&H.

IS:1786.

IRC 6 :2017



DEVELOPMENT CORPORATION LTD.

DATE DESCRIPTION

ENG.

DM

NOTES:

1 ALL DIMENSIONS ARE IN MM AND LEVELS IN METERS. UNLESS OTHERWISE MENTIONED ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED NO DIMENSION

GENERAL ARRANGEMENT DRAWING TYPICAL BOX CULVERT (1x2.0x2.0) WITHOUT CUSHION (TCS-3)

CHECKED

02 OF 02 DATE: JAN.2024 NHIDCL/J&K/NH-501/CUL/TYP./S-101 SCALE: AS SHOWN APPROVED

SHEET No:

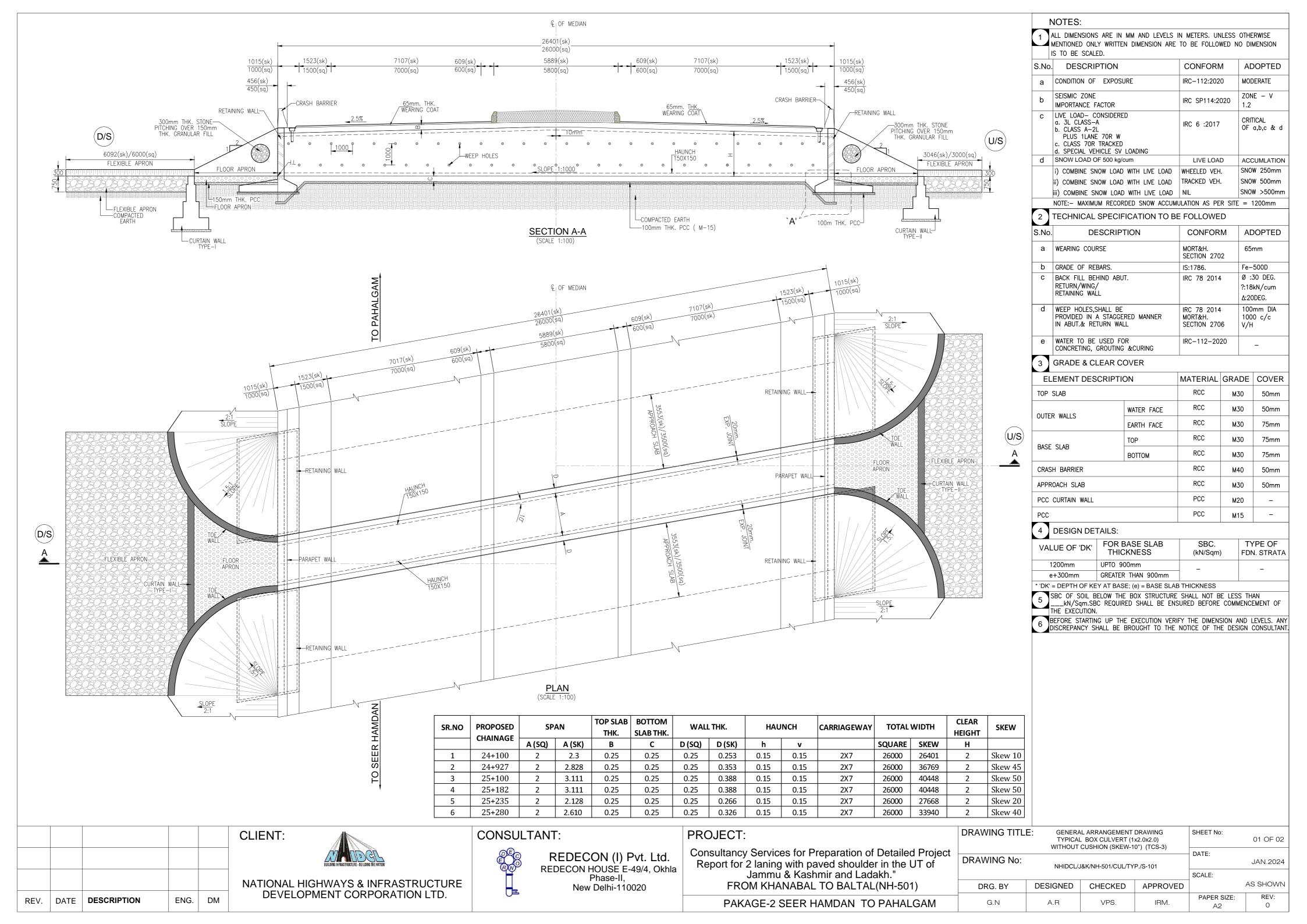
PAKAGE-2 SEER HAMDAN TO PAHALGAM

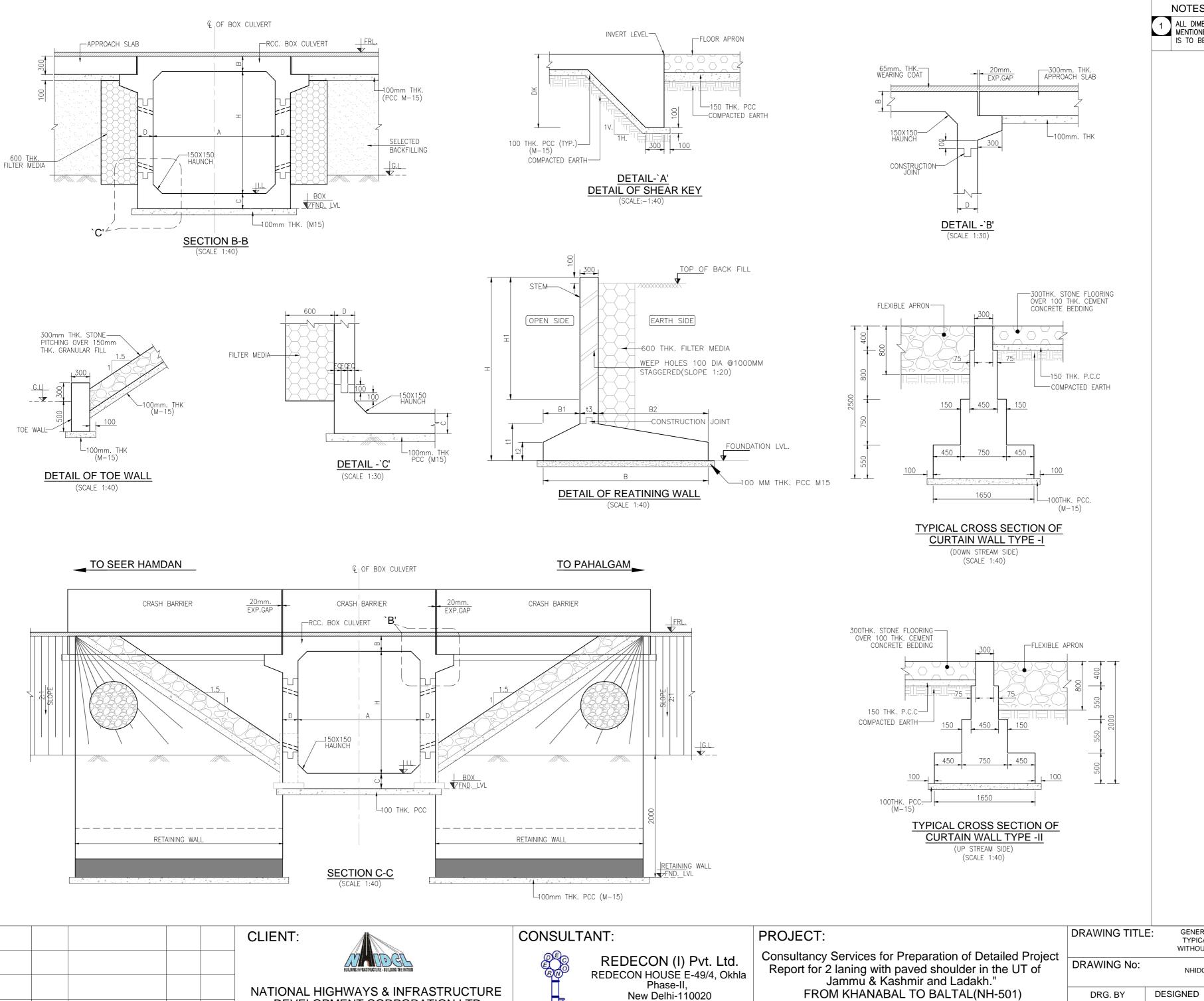
G.N

A.R VPS.

IRM.

PAPER SIZE: REV:





DEVELOPMENT CORPORATION LTD.

DATE DESCRIPTION

ENG.

DM

NOTES:

1 ALL DIMENSIONS ARE IN MM AND LEVELS IN METERS. UNLESS OTHERWISE MENTIONED ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED NO DIMENSION

GENERAL ARRANGEMENT DRAWING TYPICAL BOX CULVERT (1x2.0x2.0) WITHOUT CUSHION(SKEW-10°) (TCS-3) NHIDCL/J&K/NH-501/CUL/TYP./S-101

CHECKED

VPS.

A.R

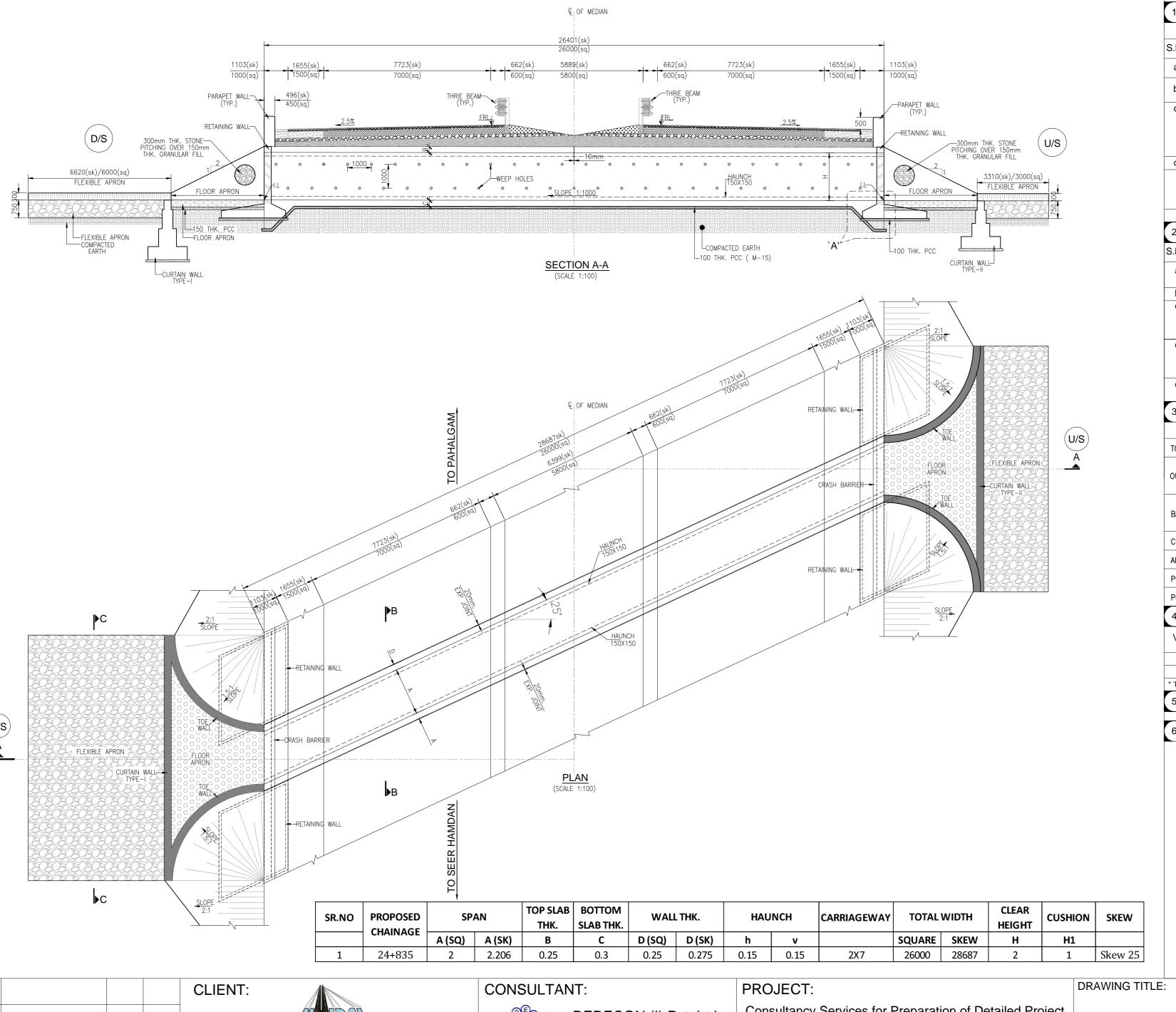
02 OF 02 DATE: JAN.2024 SCALE: AS SHOWN APPROVED REV: PAPER SIZE:

A2

SHEET No:

PAKAGE-2 SEER HAMDAN TO PAHALGAM

G.N



1 ALL DIMENSIONS ARE IN MM AND LEVELS IN METERS. UNLESS OTHERWISE MENTIONED ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED NO DIMENSION IS TO BE SCALED.

S.No.	DESCRIPTION	CONFORM	ADOPTED				
а	CONDITION OF EXPOSURE	IRC-112:2020	MODERATE				
b	SEISMIC ZONE IMPORTANCE FACTOR	IRC SP114:2020	ZONE - V 1.2				
С	LIVE LOAD— CONSIDERED a. 3L CLASS—A b. CLASS A—2L PLUS 1LANE 70R W c. CLASS 70R TRACKED d. SPECIAL VEHICLE SV LOADING	IRC 6 :2017	CRITICAL OF a,b,c & d				
d	SNOW LOAD OF 500 kg/cum	LIVE LOAD	ACCUMLATION				
	i) COMBINE SNOW LOAD WITH LIVE LOAD	WHEELED VEH.	SNOW 250mm				
	ii) COMBINE SNOW LOAD WITH LIVE LOAD iii) COMBINE SNOW LOAD WITH LIVE LOAD	TRACKED VEH.	SNOW 500mm SNOW >500mm				
	NOTE:- MAXIMUM RECORDED SNOW ACCUMULATION AS PER SITE = 1200mm						
	A TECHNICAL OPECIFICATION TO BE FOLLOWED						

2 TECHNICAL SPECIFICATION TO BE FOLLOWED

S.No.	DESCRIPTION	CONFORM	ADOPTED
а	WEARING COURSE	MORT&H. SECTION 2702	65mm
b	GRADE OF REBARS.	IS:1786.	Fe-500D
С	BACK FILL BEHIND ABUT. RETURN/WING/ RETAINING WALL	IRC 78 2014	Ø :30 DEG. ?:18kN/cum Δ:20DEG.
d	WEEP HOLES, SHALL BE PROVIDED IN A STAGGERED MANNER IN ABUT.& RETURN WALL	IRC 78 2014 MORT&H. SECTION 2706	100mm DIA 1000 c/c V/H
е	WATER TO BE USED FOR CONCRETING, GROUTING &CURING	IRC-112-2020	_
3	GRADE & CLEAR COVER		

ELEMENT DESCRIPTI	MATERIAL	GRADE	COVER	
TOP SLAB	TOP SLAB		M30	50mm
OUTED WALLS	WATER FACE	RCC	M30	50mm
OUTER WALLS	EARTH FACE	RCC	M30	75mm
DACE CLAD	ТОР	RCC	M30	75mm
BASE SLAB	воттом	RCC	M30	75mm
CRASH BARRIER		RCC	M40	50mm
APPROACH SLAB		RCC	М30	50mm
PCC CURTAIN WALL		PCC	M20	_
PCC		PCC	M15	_

4 DESIGN DETAILS:

VALUE OF 'DK'	FOR BASE SLAB THICKNESS	SBC. (kN/Sqm)	TYPE OF FDN. STRATA
1200mm	UPTO 900mm	_	_
e+300mm	GREATER THAN 900mm		

 * 'DK' = DEPTH OF KEY AT BASE; (e) = BASE SLAB THICKNESS

SBC OF SOIL BELOW THE BOX STRUCTURE SHALL NOT BE LESS THAN ___kN/Sqm.SBC REQUIRED SHALL BE ENSURED BEFORE COMMENCEMENT OF

BEFORE STARTING UP THE EXECUTION VERIFY THE DIMENSION AND LEVELS. ANY DISCREPANCY SHALL BE BROUGHT TO THE NOTICE OF THE DESIGN CONSULTANT.

REV.	DATE	DESCRIPTION	ENG.	DM



NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.



REDECON (I) Pvt. Ltd. REDECON HOUSE E-49/4, Okhla Phase-II, New Delhi-110020

Consultancy Services for Preparation of Detailed Project Report for 2 laning with paved shoulder in the UT of Jammu & Kashmir and Ladakh." FROM KHANABAL TO BALTAL(NH-501)

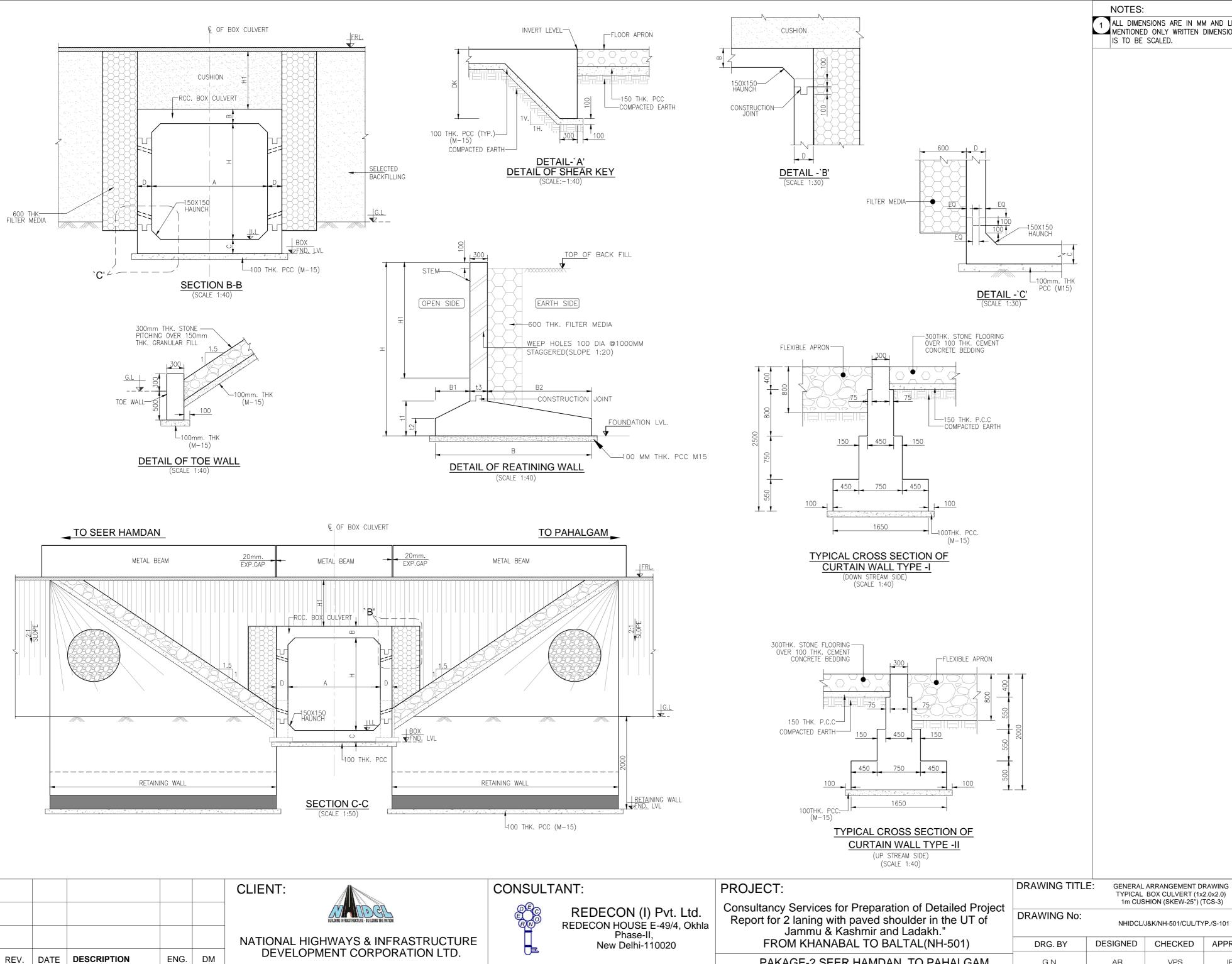
PAKAGE-2 SEER HAMDAN TO PAHALGAM

DRAWING TITL	TYPICAL	TYPICAL BOX CULVERT (1x2.0x2.0)			01 OF 02
1m CUSHION (SKEW-25°) (TCS-3) DRAWING No: NHIDCL/J&K/NH-501/CUL/TYP./S-101			DATE:	JAN. 2024	
	SCALE:	40.011014/11			
DRG. BY	DESIGNED	CHECKED	APPROVED	AS SHC	
0.11	4.0) /D0	IDN 4	PAPER SIZE:	REV:

IRM.

VPS.

AR.



ALL DIMENSIONS ARE IN MM AND LEVELS IN METERS. UNLESS OTHERWISE MENTIONED ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED NO DIMENSION

SHEET No:

DATE:

SCALE:

PAPER SIZE:

A2

APPROVED

AR.

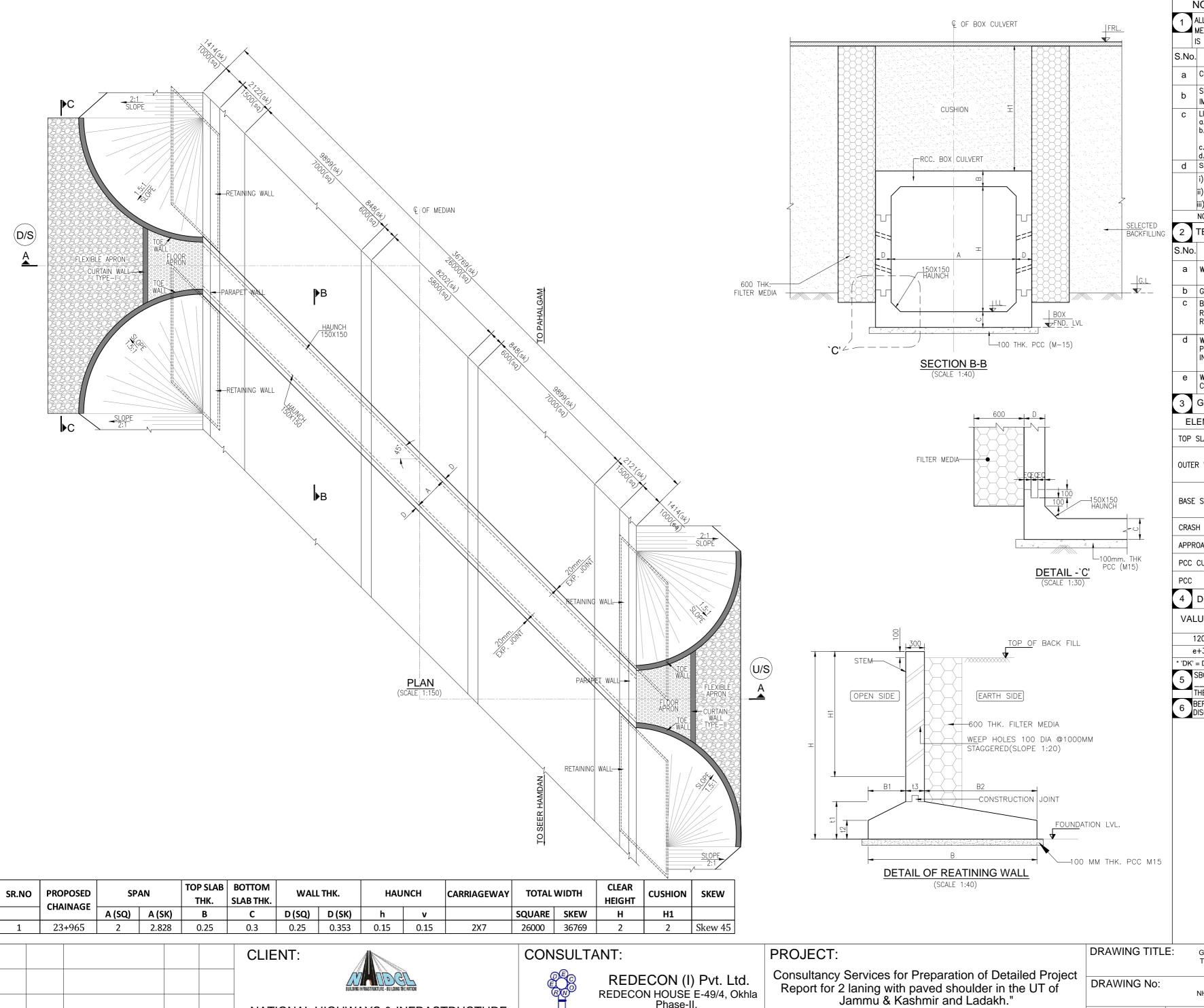
PAKAGE-2 SEER HAMDAN TO PAHALGAM

02 OF 02

JAN.2024

AS SHOWN

REV:



1 ALL DIMENSIONS ARE IN MM AND LEVELS IN METERS. UNLESS OTHERWISE MENTIONED ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED NO DIMENSION IS TO BE SCALED.

- 1								
S.No.	DESCRIPTION	CONFORM	ADOPTED					
а	CONDITION OF EXPOSURE	IRC-112:2020	MODERATE					
b	SEISMIC ZONE IMPORTANCE FACTOR	IRC SP114:2020	ZONE – V 1.2					
С	LIVE LOAD— CONSIDERED a. 3L CLASS—A b. CLASS A—2L PLUS 1LANE 70R W c. CLASS 70R TRACKED d. SPECIAL VEHICLE SV LOADING	IRC 6 :2017	CRITICAL OF a,b,c & d					
d	SNOW LOAD OF 500 kg/cum	LIVE LOAD	ACCUMLATION					
	i) COMBINE SNOW LOAD WITH LIVE LOAD ii) COMBINE SNOW LOAD WITH LIVE LOAD iii) COMBINE SNOW LOAD WITH LIVE LOAD	WHEELED VEH. TRACKED VEH. NIL	SNOW 250mm SNOW 500mm SNOW >500mm					
	NOTE:- MAXIMUM RECORDED SNOW ACCUMULATION AS PER SITE = 1200mm							

2 TECHNICAL SPECIFICATION TO BE FOLLOWED

4			
No.	DESCRIPTION	CONFORM	ADOPTED
а	WEARING COURSE	MORT&H. SECTION 2702	65mm
b	GRADE OF REBARS.	IS:1786.	Fe-500D
С	BACK FILL BEHIND ABUT. RETURN/WING/ RETAINING WALL	IRC 78 2014	Ø :30 DEG. ?:18kN/cum Δ:20DEG.
d	WEEP HOLES, SHALL BE PROVIDED IN A STAGGERED MANNER IN ABUT.& RETURN WALL	IRC 78 2014 MORT&H. SECTION 2706	100mm DIA 1000 c/c V/H
е	WATER TO BE USED FOR CONCRETING, GROUTING &CURING	IRC-112-2020	-
-			

3 GRADE & CLEAR COVER

ELEMENT DESCRIPTION		MATERIAL	GRADE	COVER
TOP SLAB		RCC	м30	50mm
OUTER WALLS	WATER FACE	RCC	M30	50mm
OUTER WALLS	EARTH FACE	RCC	M30	75mm
DACE CLAD	ТОР	RCC	M30	75mm
BASE SLAB	воттом	RCC	M30	75mm
CRASH BARRIER		RCC	M40	50mm
APPROACH SLAB	RCC	М30	50mm	
PCC CURTAIN WALL		PCC	M20	_
PCC		PCC	M15	_

4 DESIGN DETAILS:

VALUE OF 'DK'	FOR BASE SLAB THICKNESS	SBC. (kN/Sqm)	TYPE OF FDN. STRATA
1200mm	UPTO 900mm	_	_
e+300mm	GREATER THAN 900mm		

* 'DK' = DEPTH OF KEY AT BASE; (e) = BASE SLAB THICKNESS

SBC OF SOIL BELOW THE BOX STRUCTURE SHALL NOT BE LESS THAN ___kN/Sqm.SBC REQUIRED SHALL BE ENSURED BEFORE COMMENCEMENT OF THE EXECUTION.

6 BEFORE STARTING UP THE EXECUTION VERIFY THE DIMENSION AND LEVELS. ANY DISCREPANCY SHALL BE BROUGHT TO THE NOTICE OF THE DESIGN CONSULTANT.

FROM KHANABAL TO BALTAL(NH-501)

PAKAGE-2 SEER HAMDAN TO PAHALGAM

SHEET No: GENERAL ARRANGEMENT DRAWING 01 OF 02 TYPICAL BOX CULVERT (1x2.0x2.0) 2m CUSHION (SKEW-45°) (TCS-3) DATE: JAN.2024 NHIDCL/J&K/NH-501/CUL/TYP./S-101 SCALE: AS SHOWN DESIGNED CHECKED **APPROVED** DRG. BY REV: PAPER SIZE: AR.

A2

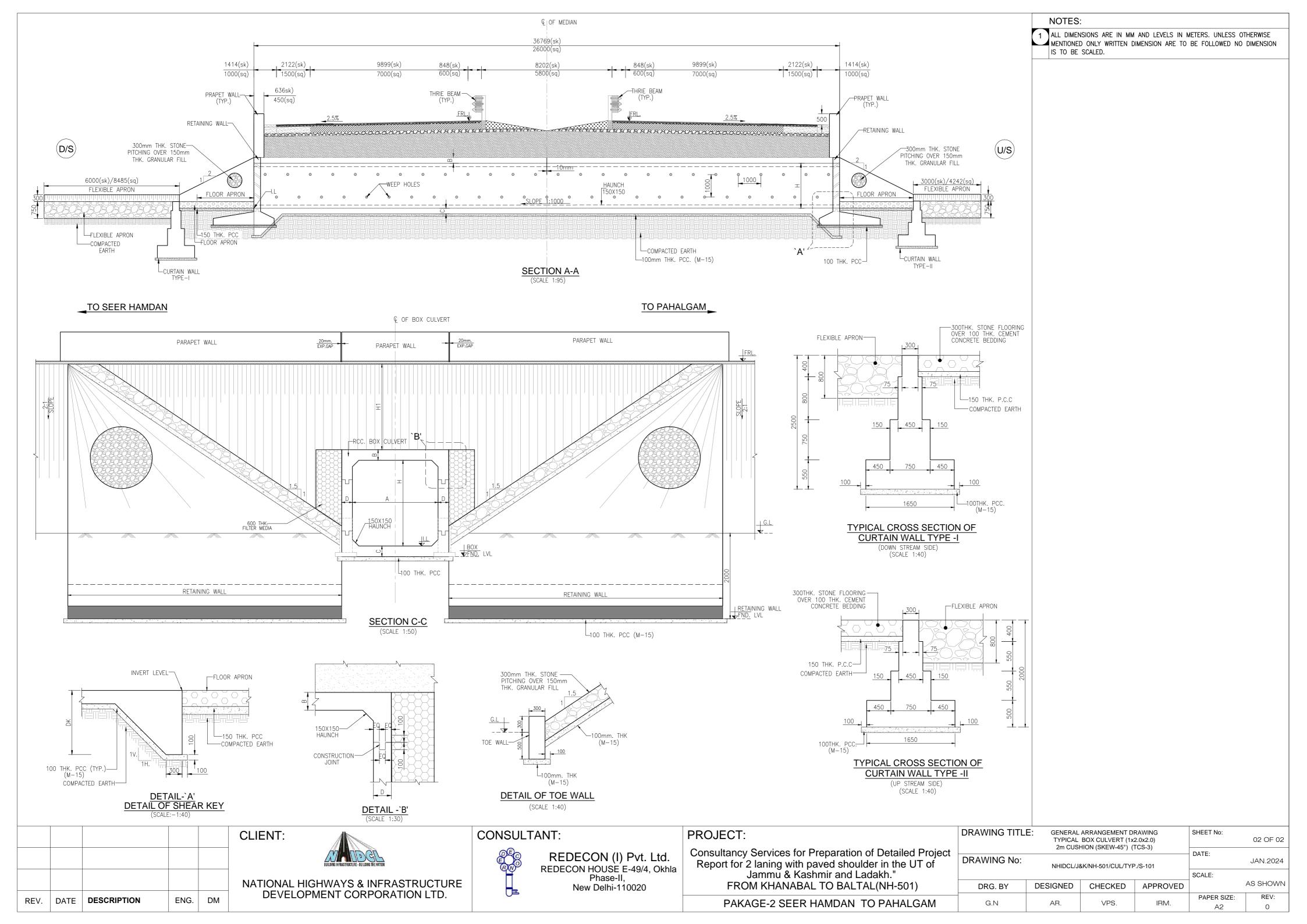
NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

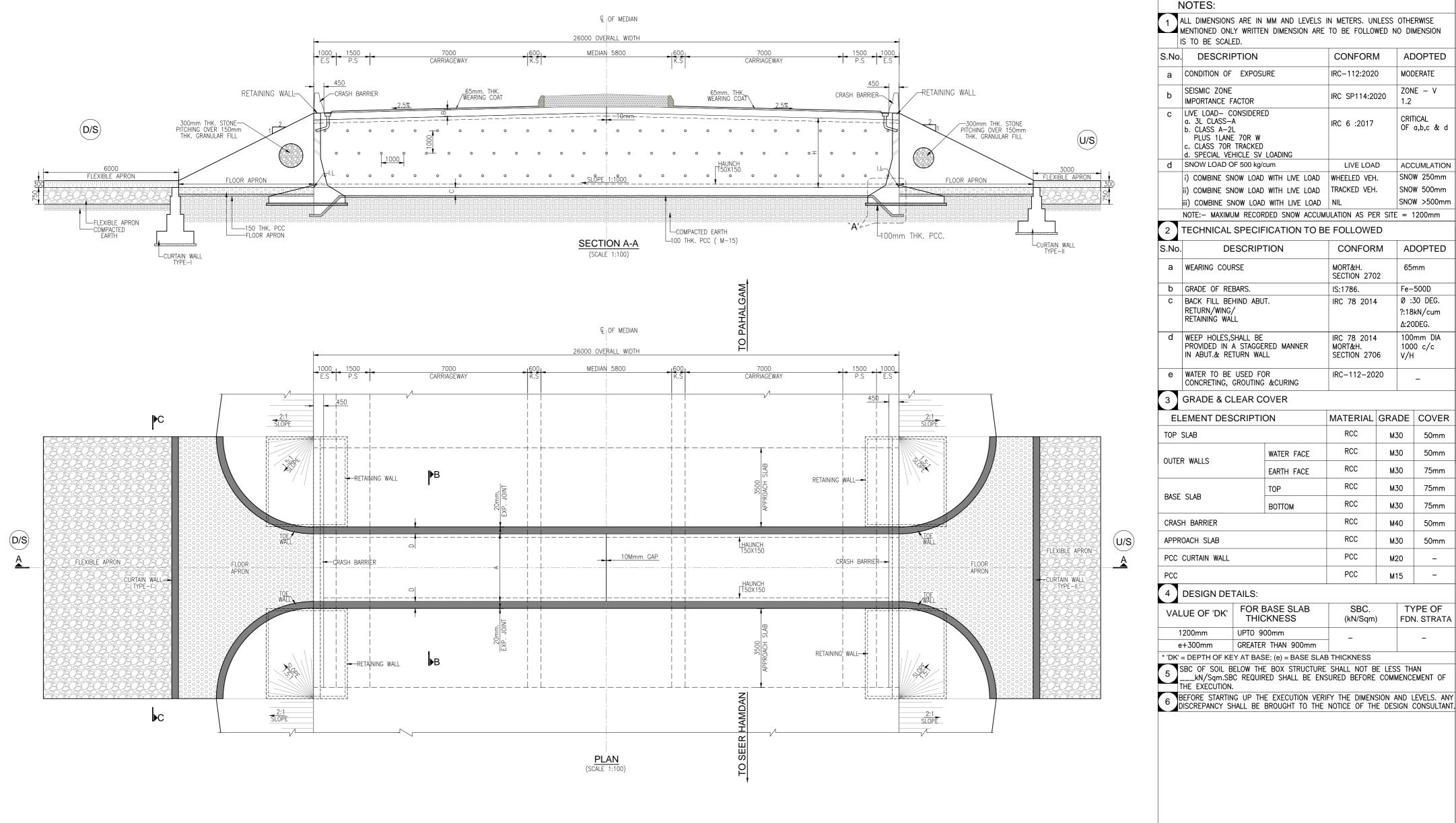
DATE DESCRIPTION

ENG.

DM

Phase-II, New Delhi-110020





SR.NO	PROPOSED CHAINAGE	SPAN	TOP SLAB THK.	BOTTOM SLAB THK.	WALL THK.	HAU	INCH	CARRIAGEWAY	TOTAL WIDTH	CLEAR HEIGHT	SKEW
	CHAINAGE	Α	В	С	D	h	v			Н	
1	24+715	3	0.3	0.350	0.3	0.15	0.15	2X7	26000	3	Skew 0
2	24+737	3	0.3	0.350	0.3	0.15	0.15	2X7	26000	3	Skew 0

REV.	DATE	DESCRIPTION	ENG.	DM

CLIENT:



NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

CONSULTANT:



REDECON (I) Pvt. Ltd. REDECON HOUSE E-49/4, Okhla Phase-II, New Delhi-110020

PROJECT:

Consultancy Services for Preparation of Detailed Project Report for 2 laning with paved shoulder in the UT of Jammu & Kashmir and Ladakh." FROM KHANABAL TO BALTAL(NH-501)

PAKAGE-2 SEER HAMDAN TO PAHALGAM

DRAWING TITLI	RAWING TITLE: GENERAL ARRANGEMENT DRAWING TYPICAL BOX CULVERT (1x3.0x3.0) WITHOUT CUSHION (TCS-3)			SHEET No:	01 OF 02
DRAWING No:	NHIDCL/J	DATE:	JAN.2024		
	SCALE:				
DRG. BY	DESIGNED	CHECKED	APPROVED		AS SHOWN
GN	ΔR	\/PS	IRM	PAPER SIZE:	REV:

ADOPTED

MODERATE

ZONE - V

CRITICAL

OF a,b,c & d

ACCUMLATION

SNOW 250mm

SNOW 500mm

SNOW >500mm

ADOPTED

65mm

Fe-500D Ø :30 DEG.

?:18kN/cum

100mm DIA

50mm

50mm

75mm

75mm

50mm

TYPE OF

FDN. STRATA

1000 c/c

V/H

MATERIAL GRADE COVER

M30

M30

M30

M30

M30

M40

M30

M20

M15

Δ:20DEG.

CONFORM

IRC-112:2020

IRC SP114:2020

IRC 6 :2017

LIVE LOAD

CONFORM

SECTION 2702

IRC 78 2014

IRC 78 2014

SECTION 2706

IRC-112-2020

RCC

RCC

RCC

RCC

RCC

RCC

RCC

PCC

PCC

(kN/Sqm)

MORT&H.

MORT&H.

IS:1786.

CONDITION OF EXPOSURE

SEISMIC ZONE

a. 3L CLASS—A

WEARING COURSE

RETURN/WING/

RETAINING WALL

b. CLASS A-2L PLUS 1LANE 70R W

IMPORTANCE FACTOR

c. CLASS 70R TRACKED d. SPECIAL VEHICLE SV LOADING

i) COMBINE SNOW LOAD WITH LIVE LOAD WHEELED VEH.

ii) COMBINE SNOW LOAD WITH LIVE LOAD TRACKED VEH.

TECHNICAL SPECIFICATION TO BE FOLLOWED

WATER FACE

EARTH FACE

воттом

FOR BASE SLAB

GREATER THAN 900mm

___kN/Sqm.SBC REQUIRED SHALL BE ENSURED BEFORE COMMENCEMENT OF

THICKNESS

UPTO 900mm

1200mm

NOTE:- MAXIMUM RECORDED SNOW ACCUMULATION AS PER SITE = 1200mm

iii) COMBINE SNOW LOAD WITH LIVE LOAD | NIL

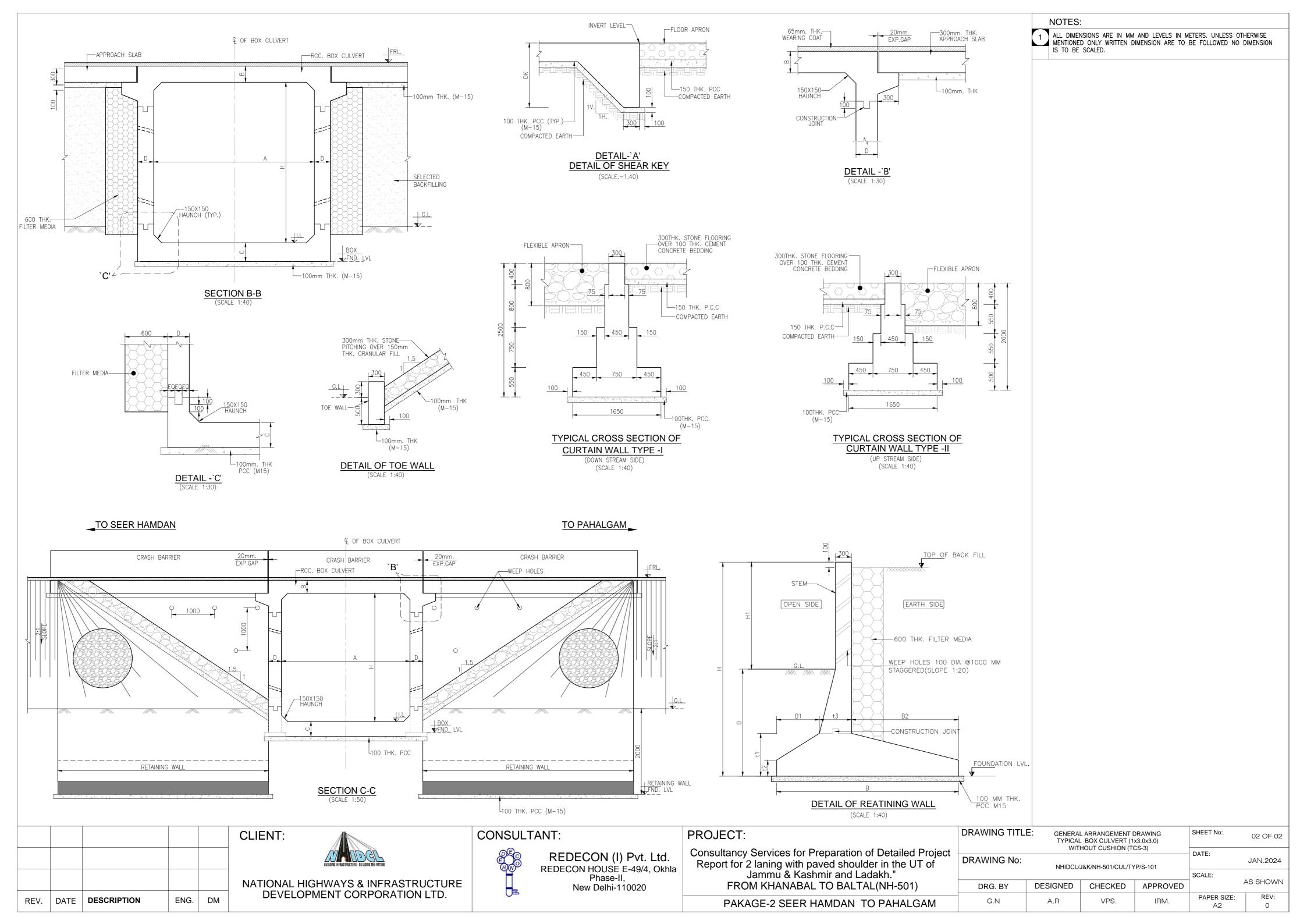
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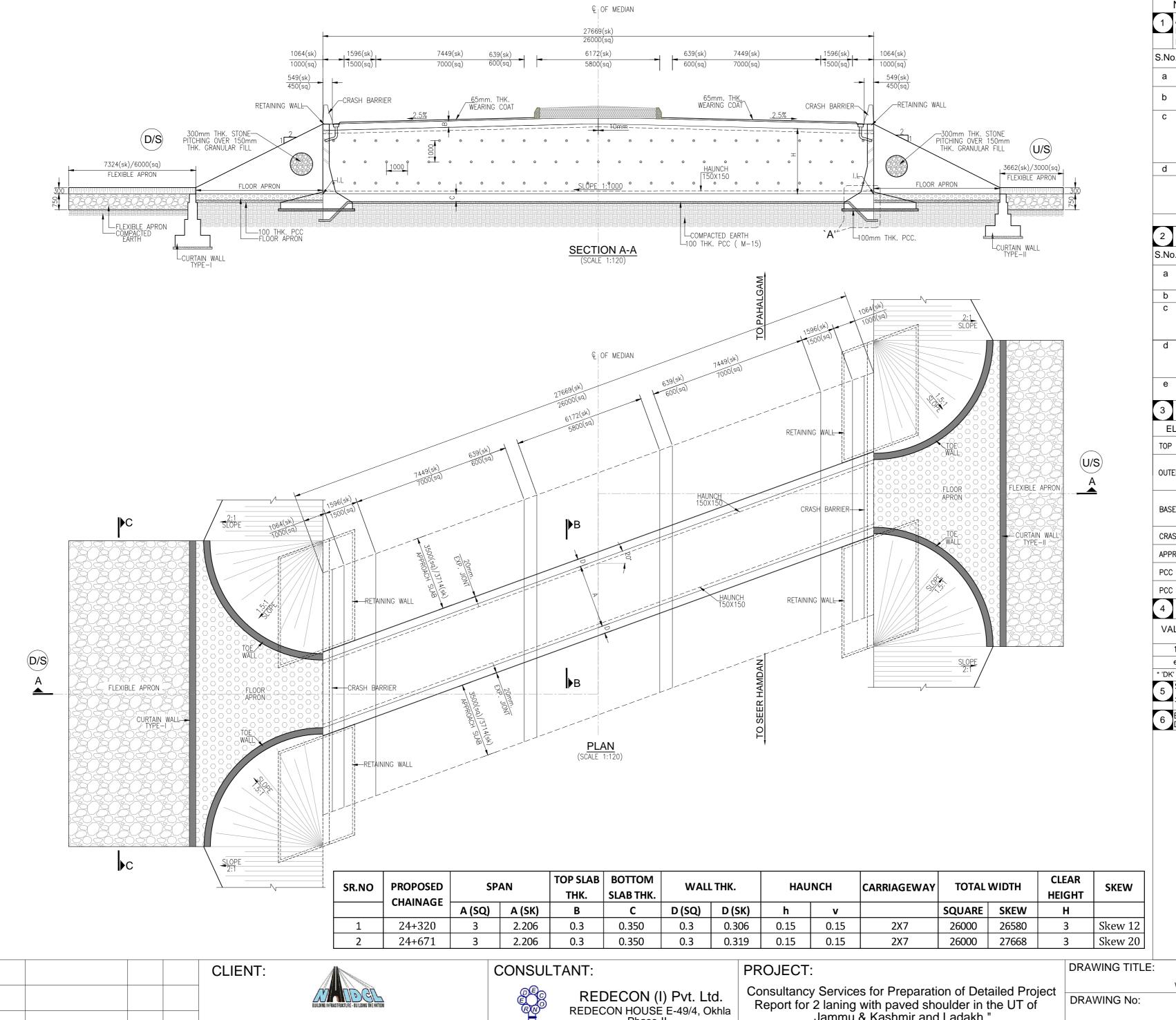
PROVIDED IN A STAGGERED MANNER

CONCRETING, GROUTING &CURING

GRADE & CLEAR COVER

IN ABUT.& RETURN WALL





1 ALL DIMENSIONS ARE IN MM AND LEVELS IN METERS. UNLESS OTHERWISE MENTIONED ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED NO DIMENSION IS TO BE SCALED.

S.No.	DESCRIPTION	CONFORM	ADOPTED
а	CONDITION OF EXPOSURE	IRC-112:2020	MODERATE
b	SEISMIC ZONE IMPORTANCE FACTOR	IRC SP114:2020	ZONE – V 1.2
С	LIVE LOAD— CONSIDERED a. 3L CLASS—A b. CLASS A—2L PLUS 1LANE 70R W c. CLASS 70R TRACKED d. SPECIAL VEHICLE SV LOADING	IRC 6 :2017	CRITICAL OF a,b,c & d
d	SNOW LOAD OF 500 kg/cum	LIVE LOAD	ACCUMLATION
	i) COMBINE SNOW LOAD WITH LIVE LOAD ii) COMBINE SNOW LOAD WITH LIVE LOAD iii) COMBINE SNOW LOAD WITH LIVE LOAD	WHEELED VEH. TRACKED VEH. NIL	SNOW 250mm SNOW 500mm SNOW >500mm
	NOTE:- MAXIMUM RECORDED SNOW ACCUMU	JLATION AS PER SITE	= 1200mm

1		
	່າ	TECHNICAL SPECIFICATION TO BE FOLLOWED
·	_	I LECHNICAL SPECIFICATION TO BE POLLOWED

S.No.	DESCRIPTION	CONFORM	ADOPTED
а	WEARING COURSE	MORT&H. SECTION 2702	65mm
b	GRADE OF REBARS.	IS:1786.	Fe-500D
С	BACK FILL BEHIND ABUT. RETURN/WING/ RETAINING WALL	IRC 78 2014	Ø :30 DEG. ?:18kN/cum Δ:20DEG.
d	WEEP HOLES, SHALL BE PROVIDED IN A STAGGERED MANNER IN ABUT.& RETURN WALL	IRC 78 2014 MORT&H. SECTION 2706	100mm DIA 1000 c/c V/H
е	WATER TO BE USED FOR CONCRETING, GROUTING &CURING	IRC-112-2020	-
	00405 0 01540 001/50		

3 GRADE & CLEAR COVER

	ELEMENT DESCRIPTION		MATERIAL	GRADE	COVER
	TOP SLAB		RCC	M30	50mm
	OUTED WALLS	WATER FACE	RCC	M30	50mm
	OUTER WALLS	EARTH FACE	RCC	M30	75mm
	BASE SLAB	TOP	RCC	M30	75mm
		воттом	RCC	M30	75mm
	CRASH BARRIER		RCC	M40	50mm
	APPROACH SLAB		RCC	M30	50mm
	PCC CURTAIN WALL		PCC	M20	_
	PCC		PCC	M15	_
- 1					

4 DESIGN DETAILS:

VALUE OF 'DK'	FOR BASE SLAB THICKNESS	SBC. (kN/Sqm)	TYPE OF FDN. STRATA
1200mm	UPTO 900mm	_	_
e+300mm	GREATER THAN 900mm		
			•

* 'DK' = DEPTH OF KEY AT BASE; (e) = BASE SLAB THICKNESS

SBC OF SOIL BELOW THE BOX STRUCTURE SHALL NOT BE LESS THAN ___kN/Sqm.SBC REQUIRED SHALL BE ENSURED BEFORE COMMENCEMENT OF THE EXECUTION.

BEFORE STARTING UP THE EXECUTION VERIFY THE DIMENSION AND LEVELS. ANY DISCREPANCY SHALL BE BROUGHT TO THE NOTICE OF THE DESIGN CONSULTANT.



NATIONAL HIGHWAYS & INFRASTRUCTURE

DEVELOPMENT CORPORATION LTD.

DATE DESCRIPTION

ENG. DM

Phase-II, New Delhi-110020

Jammu & Kashmir and Ladakh." FROM KHANABAL TO BALTAL(NH-501)

PAKAGE-2 SEER HAMDAN TO PAHALGAM

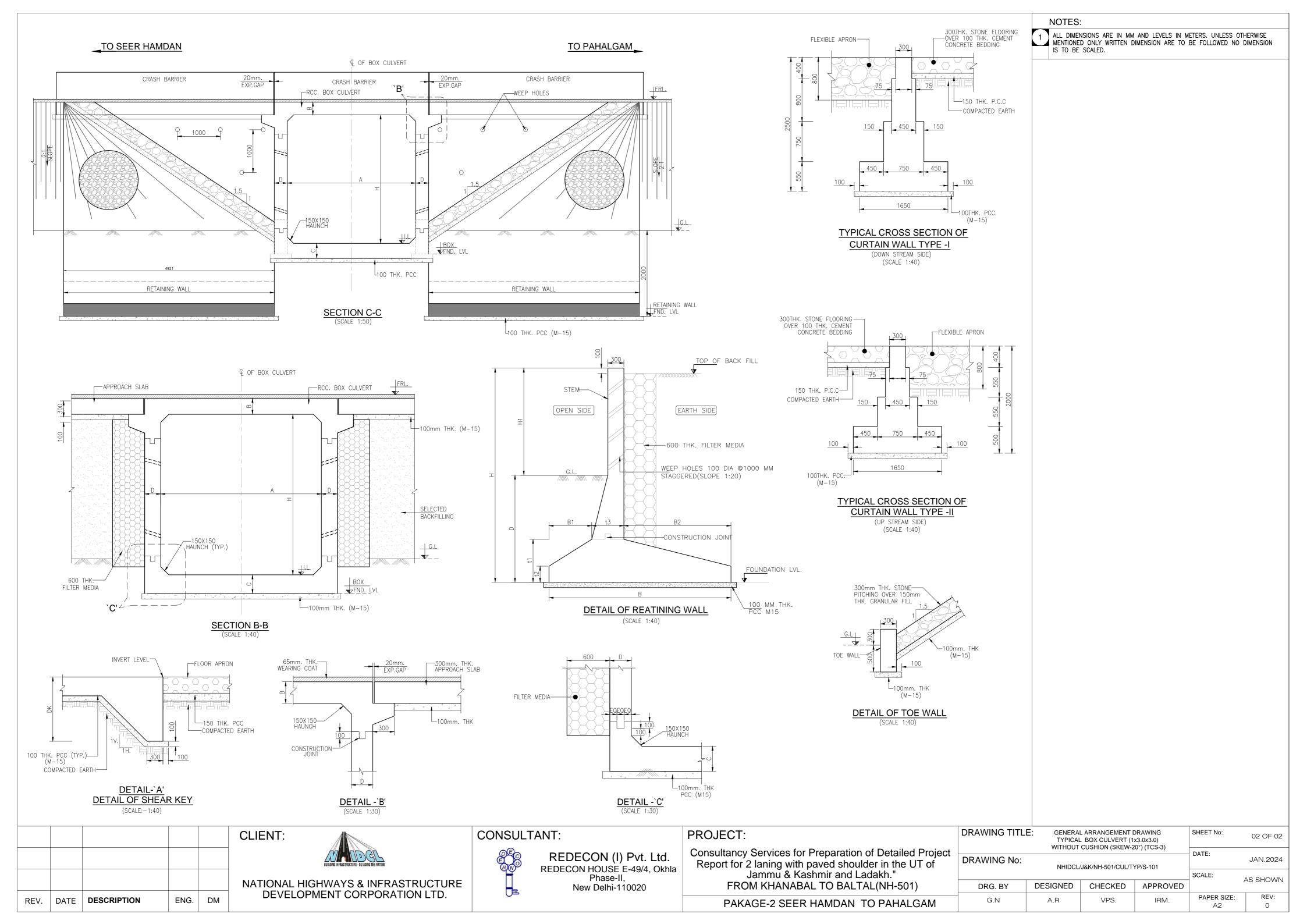
DRAWING TITL	TYPICAL	L ARRANGEMENT D BOX CULVERT (1: CUSHION (SKEW-2)	x3.0x3.0)	SHEET No:	01 OF 02
	WITHOUT	CUSHION (SKEW-2)	0)(103-3)	DATE:	
DRAWING No: NHIDCL/J&K/NH-501/CUL/TYP/S-101				JAN.2024	
	Nilloci	338101011-3017COL71	1173-101	SCALE:	AS SHOWN
DRG. BY	DESIGNED	CHECKED	APPROVED		AS SHOWIN
G N	AR	VPS	IRM	PAPER SIZE:	REV:

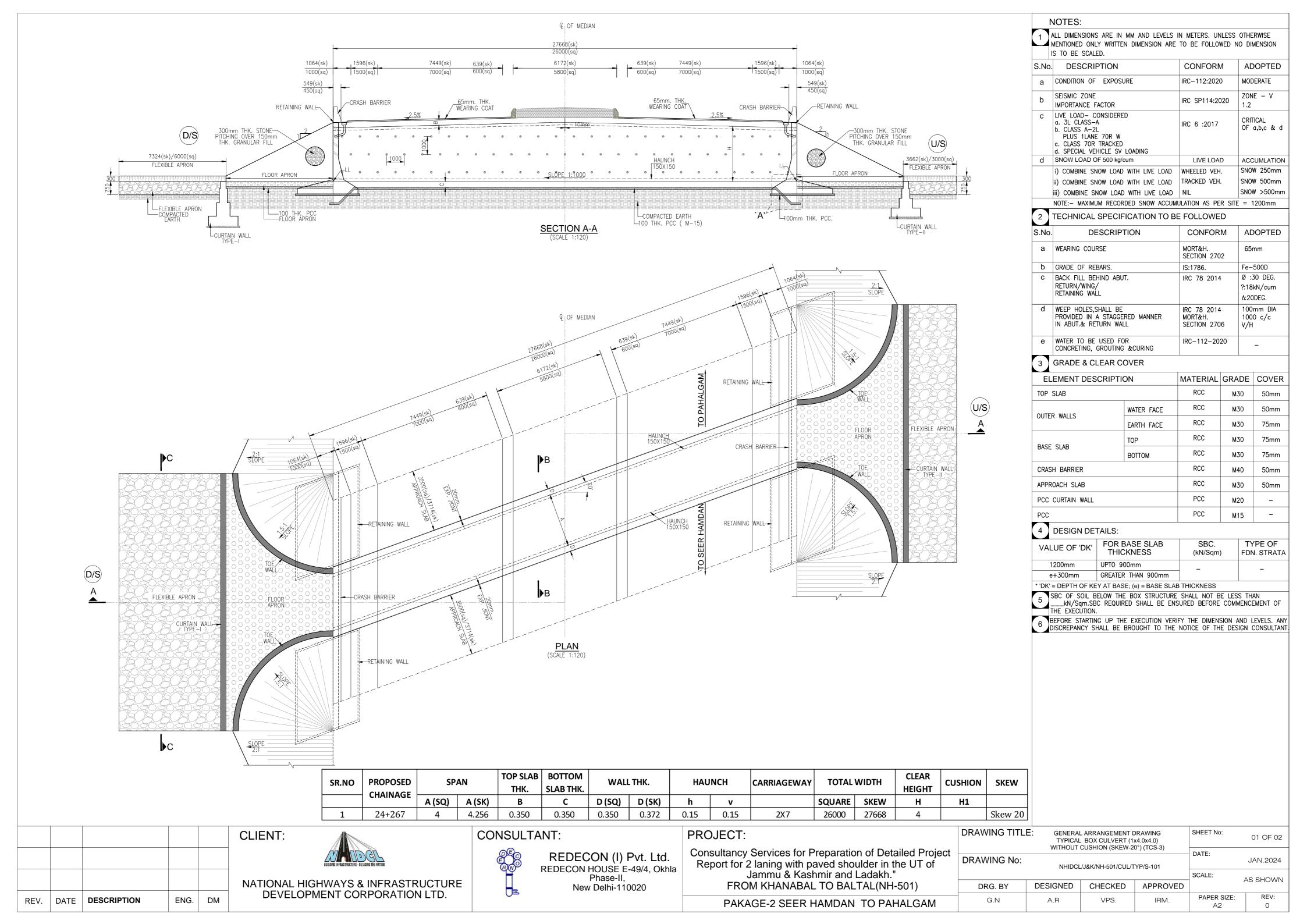
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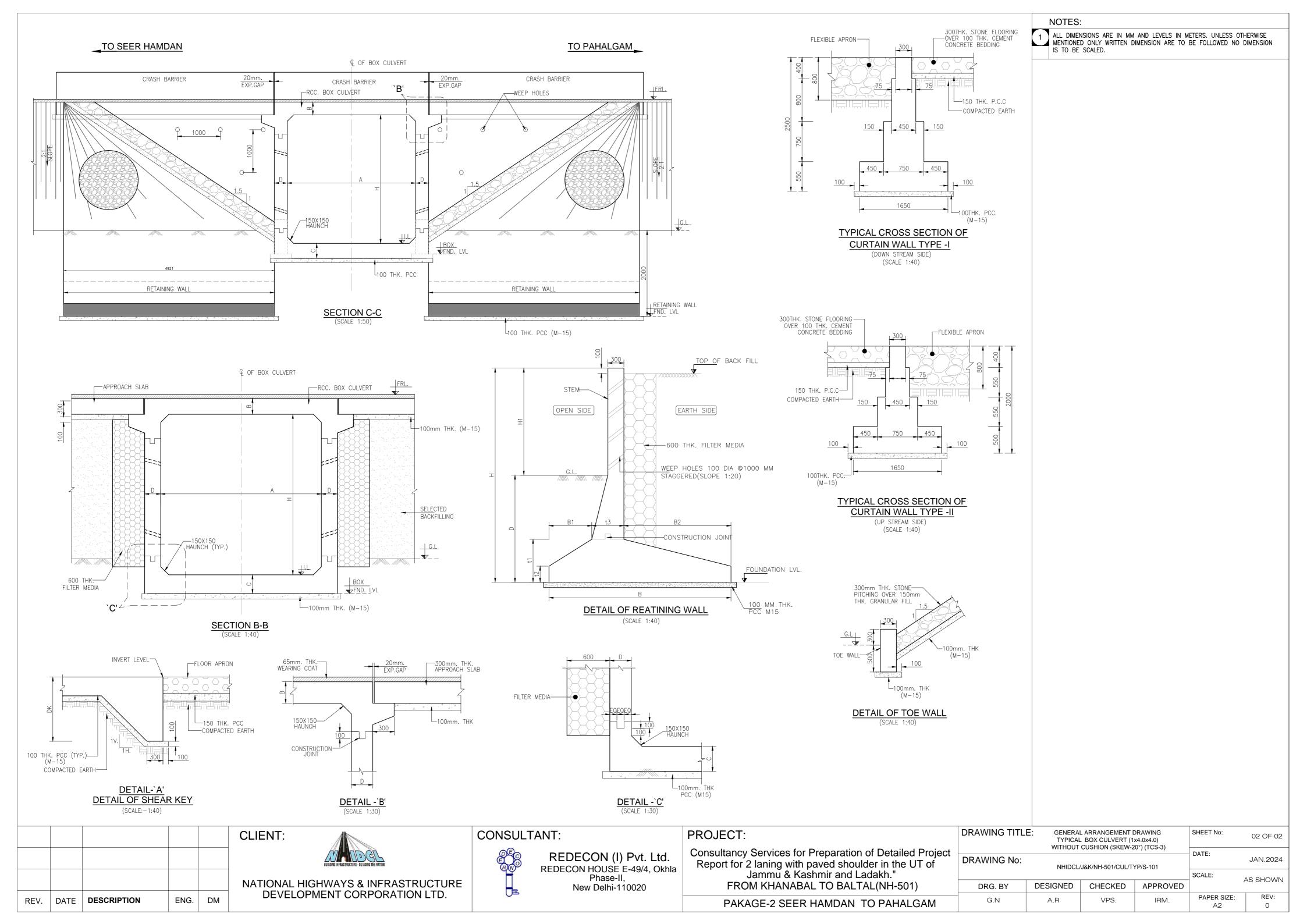
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A.R

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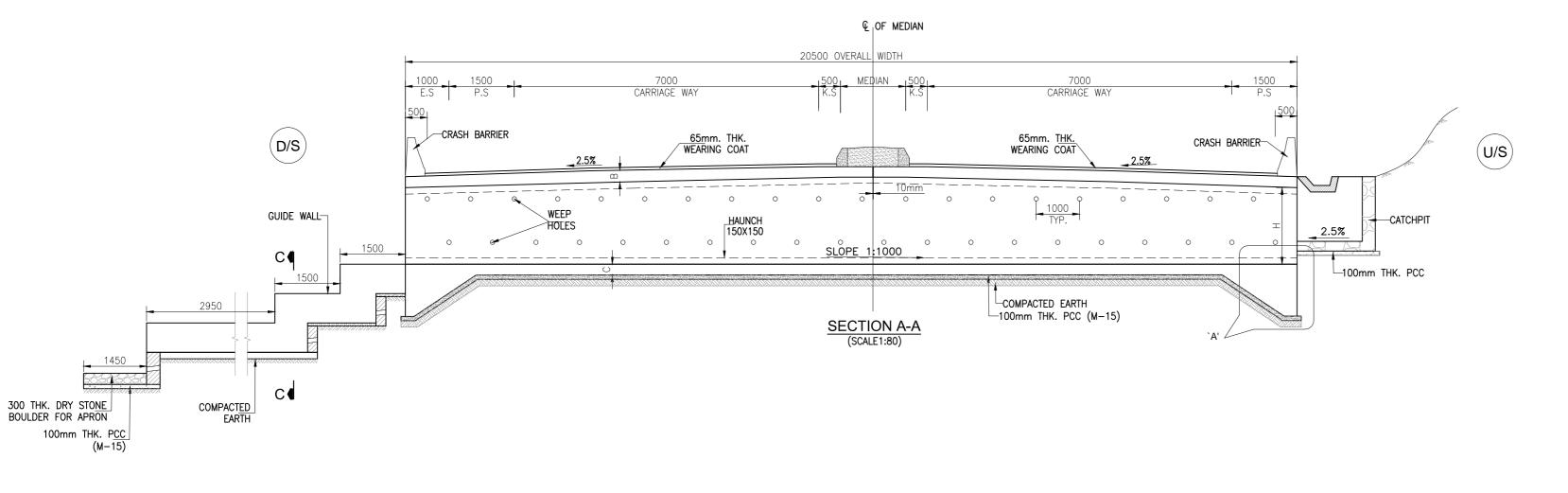


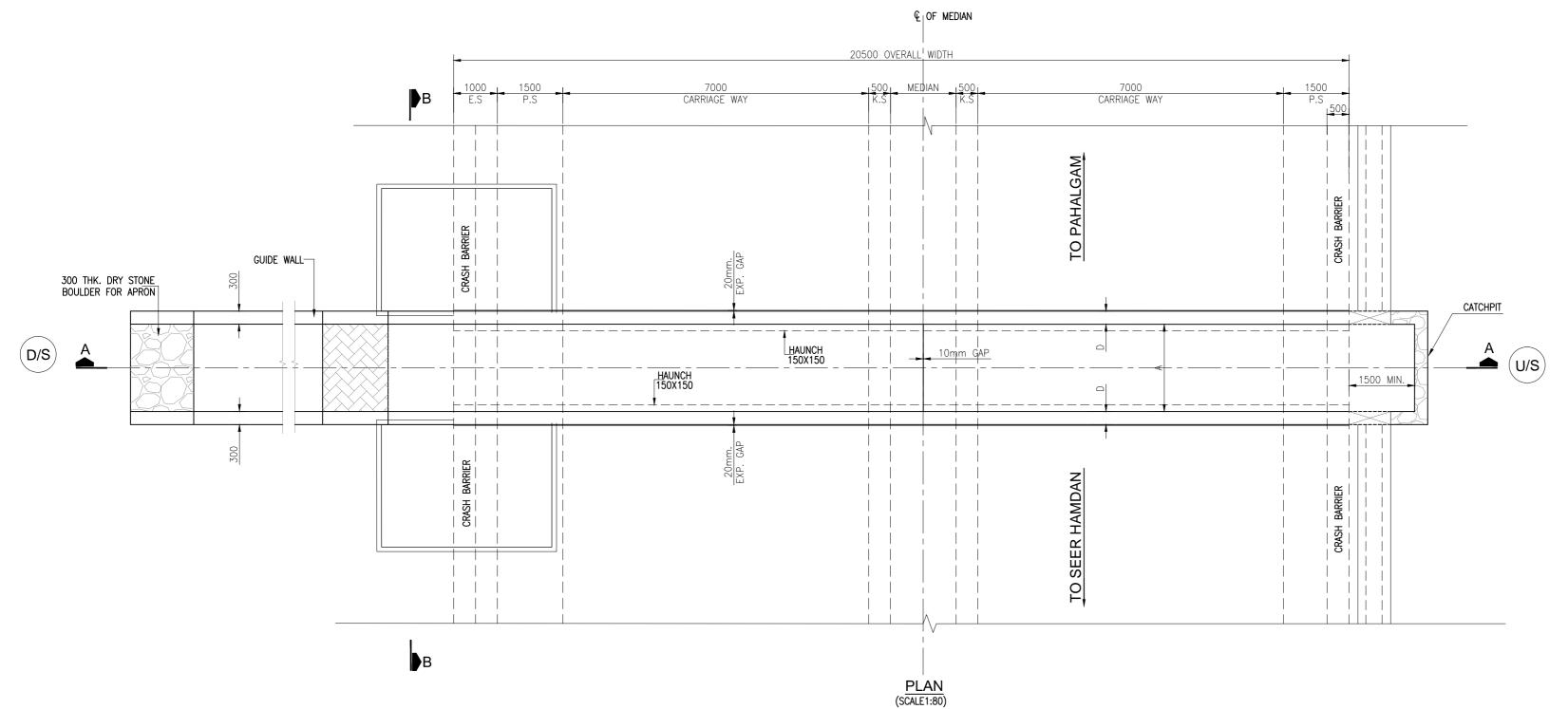




DRAWING INDEX PACKGE 2 SEER HAMDAN TO PAHALGAM TCS-4

SL.No.	DRAWING TITLE	DRAWING No.	SHEET	REV.
1	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X2.0X2.0) WITHOUT CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	02	R0
2	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X2.0X2.0) 1M CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	02	R0
3	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X3.0X2.0) WITHOUT CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	02	R0
4	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X3.0X3.0) WITHOUT CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	02	R0





1 ALL DIMENSIONS ARE IN MM AND LEVELS IN METERS. UNLESS OTHERWISE MENTIONED ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED NO DIMENSION IS TO BE SCALED.

5.NO.	DESCRIPTION	CONFORM	ADOPTED		
а	CONDITION OF EXPOSURE	IRC-112:2020	MODERATE		
b	SEISMIC ZONE IMPORTANCE FACTOR	IRC SP114:2020	ZONE – V 1.2		
С	LIVE LOAD— CONSIDERED a. 3L CLASS—A b. CLASS A—2L PLUS 1LANE 70R W c. CLASS 70R TRACKED d. SPECIAL VEHICLE SV LOADING	IRC 6 :2017	CRITICAL OF a,b,c & d		
d	SNOW LOAD OF 500 kg/cum	LIVE LOAD	ACCUMLATION		
	i) COMBINE SNOW LOAD WITH LIVE LOAD	WHEELED VEH.	SNOW 250mm		
	ii) COMBINE SNOW LOAD WITH LIVE LOAD	TRACKED VEH.	SNOW 500mm		
	iii) COMBINE SNOW LOAD WITH LIVE LOAD	NIL	SNOW >500mm		
	NOTE:- MAXIMUM RECORDED SNOW ACCUMULATION AS PER SITE = 1200mm				

TECHNICAL SPECIFICATION TO BE FOLLOWED

S.1	S.No. DESCRIPTION		CONFORM	ADOPTED
á	а	WEARING COURSE	MORT&H. SECTION 2702	65mm
k	b	GRADE OF REBARS.	IS:1786.	Fe-500D
С	C	BACK FILL BEHIND ABUT. RETURN/WING/ RETAINING WALL	IRC 78 2014	Ø :30 DEG. ?:18kN/cum Δ:20DEG.
(d	WEEP HOLES, SHALL BE PROVIDED IN A STAGGERED MANNER IN ABUT.& RETURN WALL	IRC 78 2014 MORT&H. SECTION 2706	100mm DIA 1000 c/c V/H
•	е	WATER TO BE USED FOR CONCRETING, GROUTING &CURING	IRC-112-2020	_
	7		•	•

3 GRADE & CLEAR COVER

	ELEMENT DESCRIPTION	NC	MATERIAL	GRADE	COVER
	TOP SLAB		RCC	M30	50mm
	OUTED WALLS	WATER FACE	RCC	M30	50mm
	OUTER WALLS	EARTH FACE	RCC	M30	75mm
	BASE SLAB	TOP	RCC	M30	75mm
		воттом	RCC	M30	75mm
	CRASH BARRIER		RCC	M40	50mm
	APPROACH SLAB		RCC	M30	50mm
	PCC CURTAIN WALL		PCC	M20	-
	PCC		PCC	M15	_
		·	·	·	

4 DESIGN DETAILS:

VALUE OF 'DK'	FOR BASE SLAB THICKNESS	SBC. (kN/Sqm)	TYPE OF FDN. STRATA
1200mm	UPTO 900mm	_	_
e+300mm	GREATER THAN 900mm		

* 'DK' = DEPTH OF KEY AT BASE; (e) = BASE SLAB THICKNESS

5 SBC OF SOIL BELOW THE BOX STRUCTURE SHALL NOT BE LESS THAN ___kN/Sqm.SBC REQUIRED SHALL BE ENSURED BEFORE COMMENCEMENT OF THE EXECUTION.

BEFORE STARTING UP THE EXECUTION VERIFY THE DIMENSION AND LEVELS. ANY DISCREPANCY SHALL BE BROUGHT TO THE NOTICE OF THE DESIGN CONSULTANT.

DATE DESCRIPTION

CLIENT:

ENG. DM



NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

CONSULTANT:

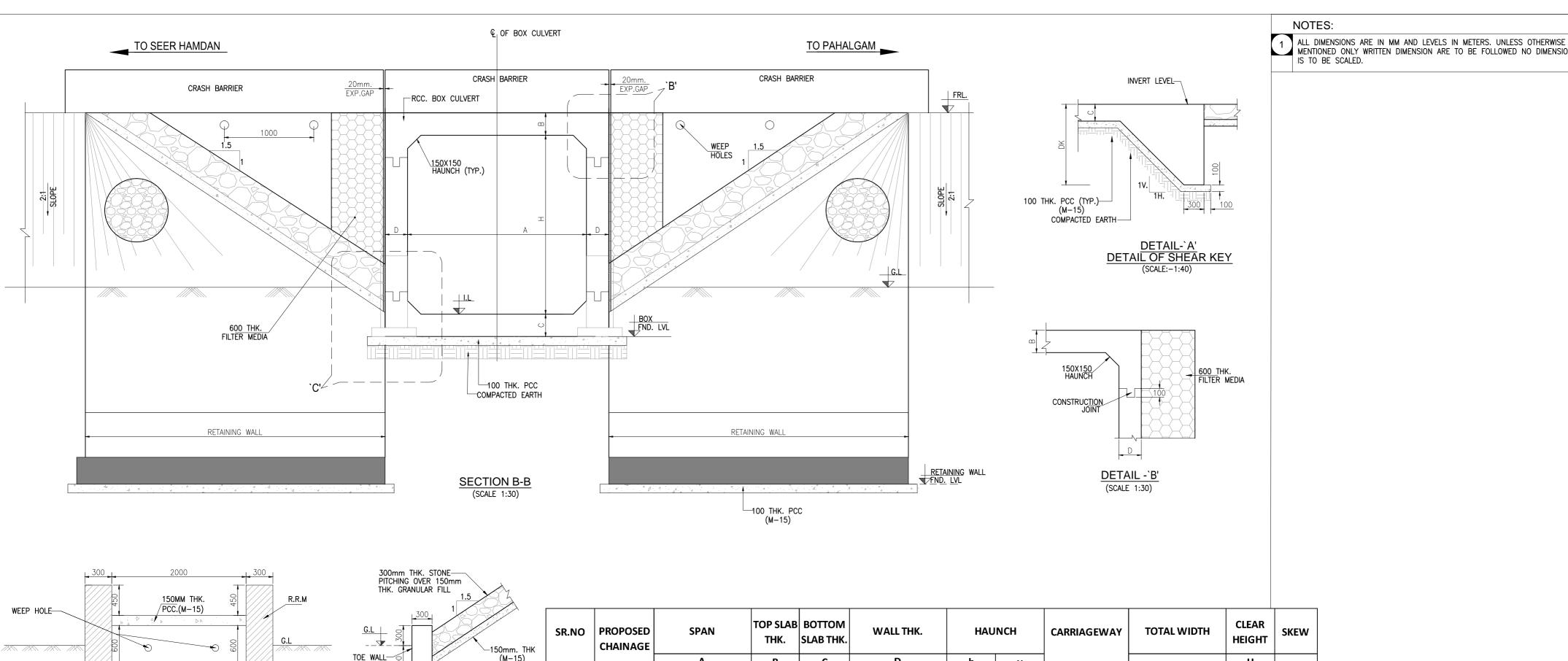


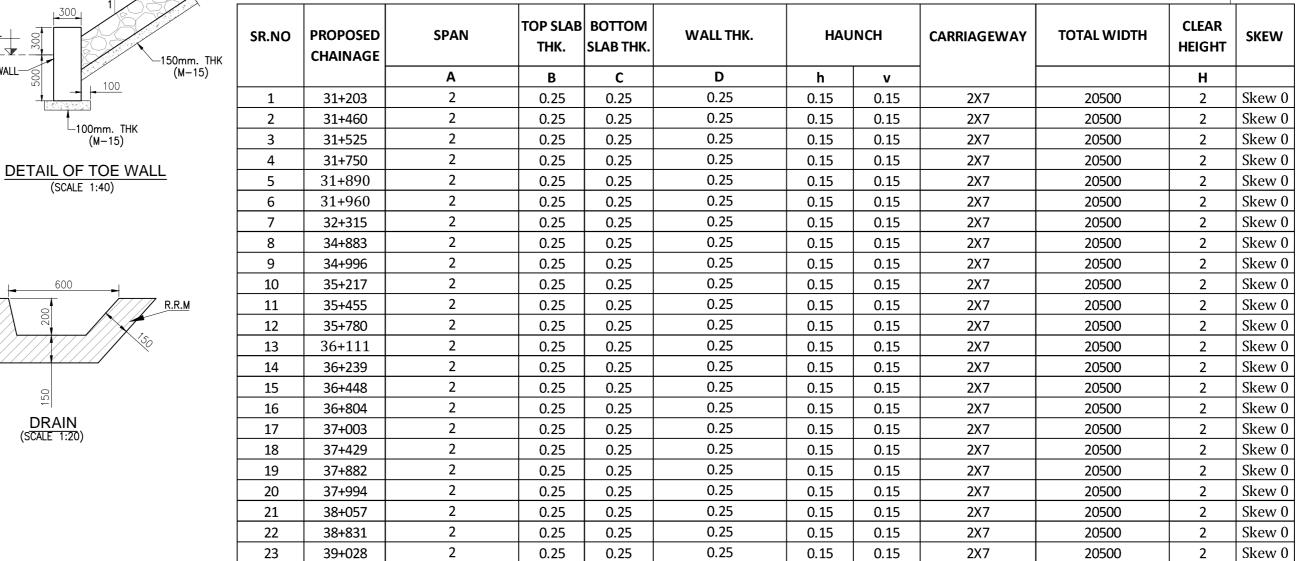
REDECON (I) Pvt. Ltd. REDECON HOUSE E-49/4, Okhla Phase-II, New Delhi-110020

PROJECT: Consultancy Services for Preparation of Detailed Project Report for 2 laning with paved shoulder in the UT of Jammu & Kashmir and Ladakh." FROM KHANABAL TO BALTAL(NH-501)

PAKAGE- 2 SEER HAMDAN TO PAHALGAM

DRAWING TITLI	TY	AL ARRANGEMENT PICAL BOX CULVE	:RT	SHEET No:	01 OF 02
DRAWING No:	•) WITHOUT CUSHIC	,	DATE:	JAN. 2024
				SCALE:	
DRG. BY	DESIGNED	CHECKED	APPROVED		AS SHOWN
G.N	AR	VPS.	IRM.	PAPER SIZE:	REV:
G.N	A.n	VF3.	IDIVI.	A2	0







COMPACTED

FILTER MEDIA

SECTION C-C

HAUNCH

–100mm. ['] THK

PCC (M15)

(SCALE 1:40)

DETAIL -`C'

(SCALE 1:30)

CLIENT:

150MM THK

PCC.(M-15)



DRAIN (SCALE 1:20)

-100mm, THK

(SCALE 1:40)

NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

CONSULTANT:



REDECON (I) Pvt. Ltd. REDECON HOUSE E-49/4, Okhla Phase-II, New Delhi-110020

PROJECT:

Consultancy Services for Preparation of Detailed Project Report for

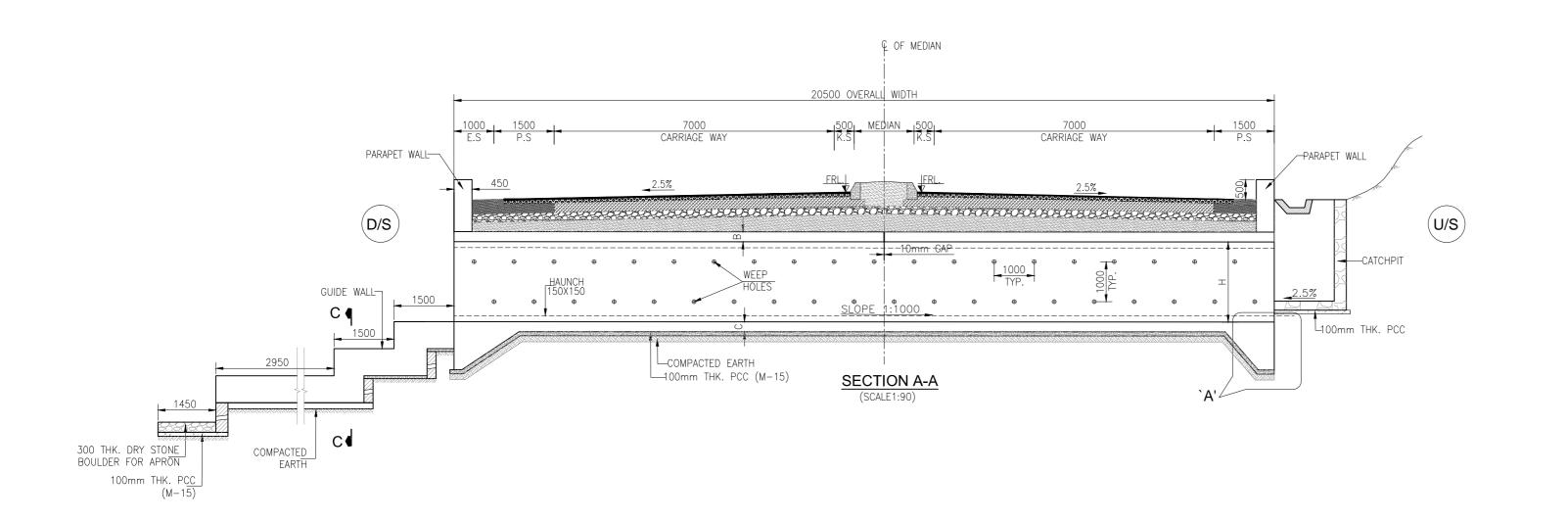
PAKAGE- 2 SEER HAMDAN TO PAHALGAM

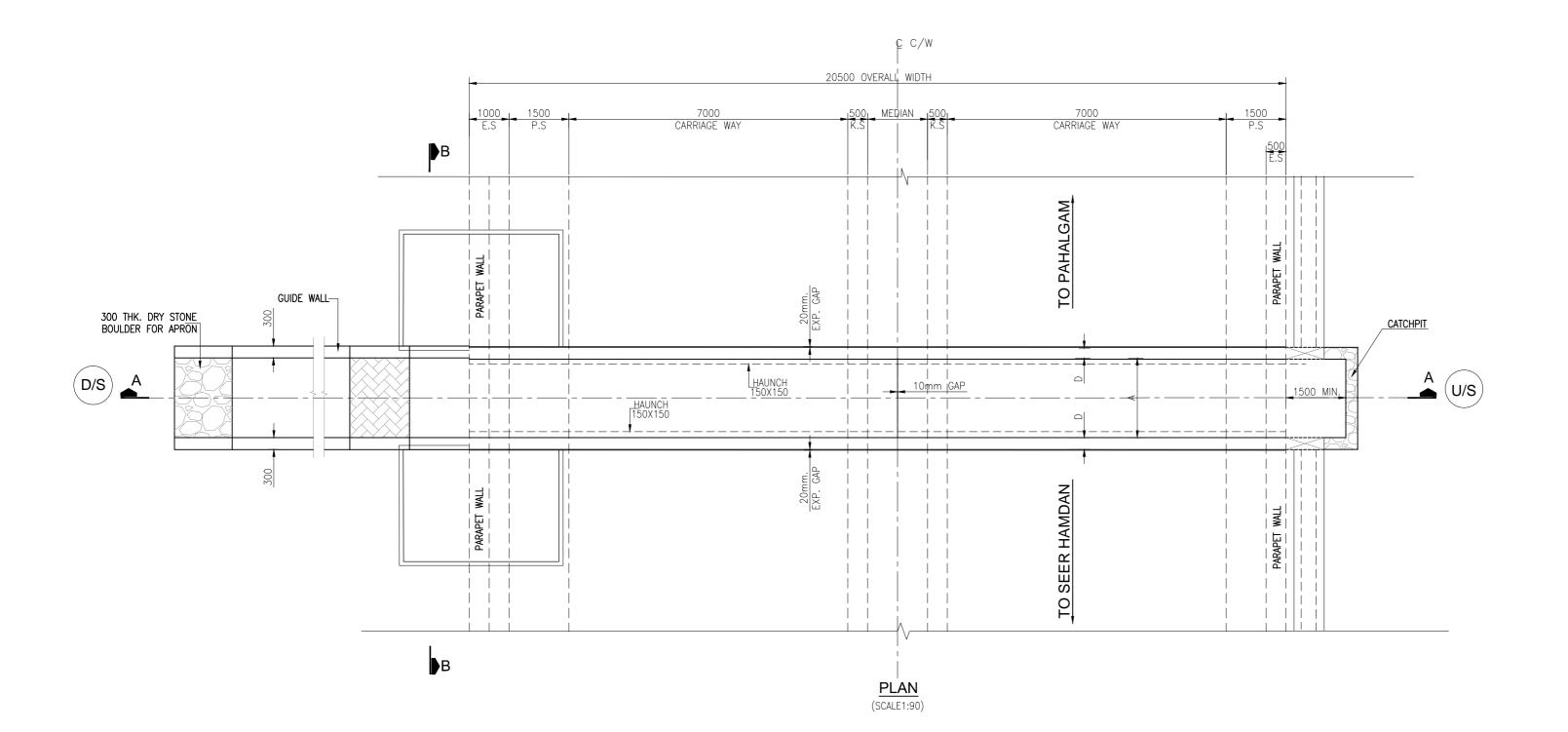
2 laning with paved shoulder in the UT of	
Jammu & Kashmir and Ladakh."	
OM KHANABAL TO BALTAL(NH-501)	

		GENERAL ARRANGEMENT DRAWING TYPICAL BOX CULVERT (1x2.0x2.0) WITHOUT CUSHION (TCS-4)		SHEET No:	02 OF 02	
	DRAWING No:	`	NHIDCL/J&K/NH-501/CUL/TYP./S-101			JAN. 2024
					SCALE:	
	DRG. BY	DESIGNED	CHECKED	APPROVED		AS SHOWN
	G.N	A.R	VPS.	IRM.	PAPER SIZE:	REV:

NOTES:

MENTIONED ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED NO DIMENSION





1 ALL DIMENSIONS ARE IN MM AND LEVELS IN METERS. UNLESS OTHERWISE MENTIONED ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED NO DIMENSION IS TO BE SCALED.

S.No.	DESCRIPTION	CONFORM	ADOPTED
а	CONDITION OF EXPOSURE	IRC-112:2020	MODERATE
b	SEISMIC ZONE IMPORTANCE FACTOR	IRC SP114:2020	ZONE – V 1.2
С	LIVE LOAD— CONSIDERED a. 3L CLASS—A b. CLASS A—2L PLUS 1LANE 70R W c. CLASS 70R TRACKED d. SPECIAL VEHICLE SV LOADING	IRC 6 :2017	CRITICAL OF a,b,c & d
d	SNOW LOAD OF 500 kg/cum	LIVE LOAD	ACCUMLATION
	i) COMBINE SNOW LOAD WITH LIVE LOAD	WHEELED VEH.	SNOW 250mm
	ii) COMBINE SNOW LOAD WITH LIVE LOAD	TRACKED VEH.	SNOW 500mm
	iii) COMBINE SNOW LOAD WITH LIVE LOAD	NIL	SNOW >500mm
	NOTE:- MAXIMUM RECORDED SNOW ACCUMU	JLATION AS PER SITE	= 1200mm

TECHNICAL SPECIFICATION TO BE FOLLOWED S.No. ADOPTED DESCRIPTION CONFORM WEARING COURSE MORT&H. 65mm SECTION 2702 b GRADE OF REBARS. IS:1786. Fe-500D Ø :30 DEG. C BACK FILL BEHIND ABUT. IRC 78 2014 ?:18kN/cum RETURN/WING/ RETAINING WALL Δ:20DEG. IRC 78 2014 d WEEP HOLES,SHALL BE 100mm DIA PROVIDED IN A STAGGERED MANNER MORT&H. 1000 c/c IN ABUT.& RETURN WALL SECTION 2706 V/H e WATER TO BE USED FOR IRC-112-2020

GRADE & CLEAR COVER

CONCRETING, GROUTING &CURING

ELEMENT DESCRIPTION		MATERIAL	GRADE	COVER
TOP SLAB		RCC	M30	50mm
OUTER WALLS	WATER FACE	RCC	M30	50mm
OUTER WALLS	EARTH FACE	RCC	M30	75mm
DACE CLAD	ТОР	RCC	M30	75mm
BASE SLAB	воттом	RCC	M30	75mm
CRASH BARRIER	CRASH BARRIER		M40	50mm
APPROACH SLAB		RCC	M30	50mm
PCC CURTAIN WALL		PCC	M20	_
PCC		PCC	M15	_

,	4	DESIGN DE	TAILS:		
$\perp V\Delta I I I \vdash () \vdash I) K \mid I \mid I$		LUE OF 'DK'	FOR BASE SLAB THICKNESS	SBC. (kN/Sqm)	TYPE OF FDN. STRATA
		1200mm	UPTO 900mm	_	_
		e+300mm	GREATER THAN 900mm		

* 'DK' = DEPTH OF KEY AT BASE; (e) = BASE SLAB THICKNESS

5 SBC OF SOIL BELOW THE BOX STRUCTURE SHALL NOT BE LESS THAN 5 ____kN/Sqm.SBC REQUIRED SHALL BE ENSURED BEFORE COMMENCEMENT OF THE EXECUTION.

6 BEFORE STARTING UP THE EXECUTION VERIFY THE DIMENSION AND LEVELS. ANY DISCREPANCY SHALL BE BROUGHT TO THE NOTICE OF THE DESIGN CONSULTANT.

REV.	DATE	DESCRIPTION	ENG.	DM

CLIENT:



NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

CONSULTANT:

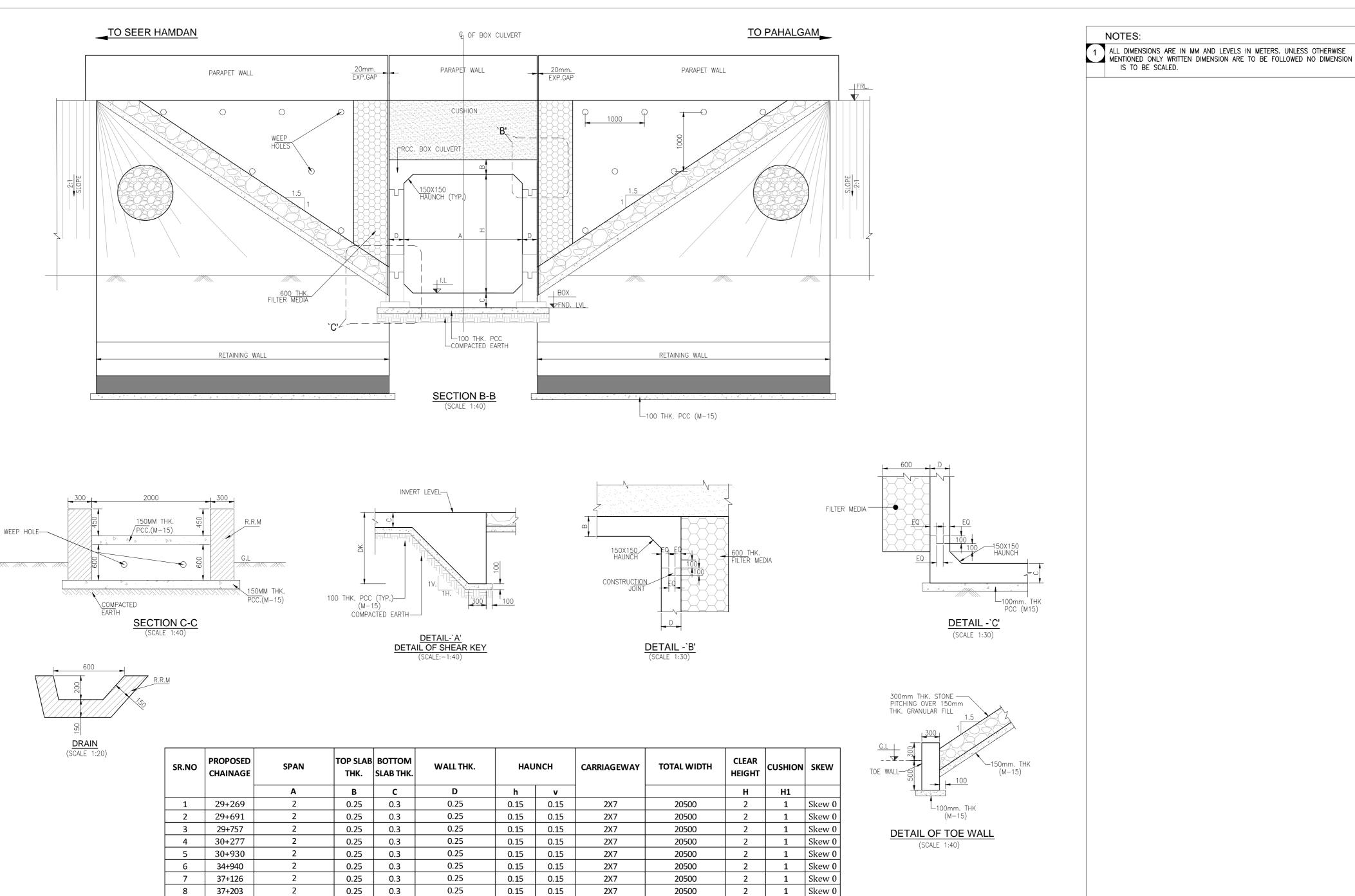


REDECON (I) Pvt. Ltd. REDECON HOUSE E-49/4, Okhla Phase-II, New Delhi-110020

PROJECT: Consultancy Services for Preparation of Detailed Project Report for 2 laning with paved shoulder in the UT of Jammu & Kashmir and Ladakh." FROM KHANABAL TO BALTAL(NH-501)

PAKAGE- 2 SEER HAMDAN TO PAHALGAM

DRAWING TITL	TY	L ARRANGEMENT 'PICAL BOX CULVE x2.0) 1m CUSHION	RT	SHEET No:	01 OF 02
DRAWING No:	•	/J&K/NH-501/CUL/T	,	DATE:	JAN. 2024
				SCALE:	
DRG. BY	DESIGNED	CHECKED	APPROVED	,	AS SHOWN
G.N	A.R	VPS.	IRM.	PAPER SIZE: A2	REV:



REV.	DATE	DESCRIPTION	ENG.	DM

CLIENT:



NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

CONSULTANT:



REDECON (I) Pvt. Ltd. REDECON HOUSE E-49/4, Okhla Phase-II, New Delhi-110020

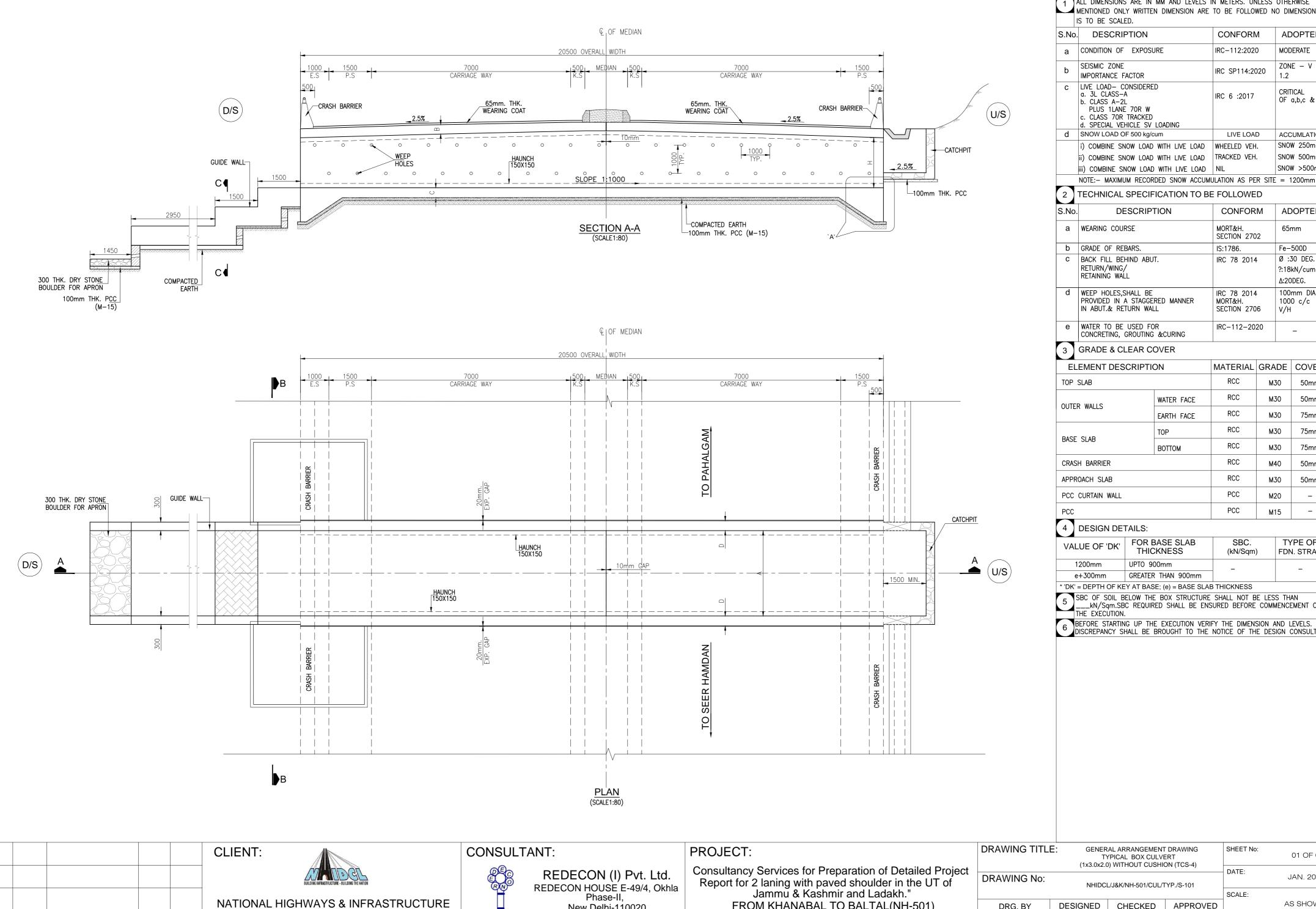
PROJECT:

Consultancy Services for Preparation of Detailed Project Report for 2 laning with paved shoulder in the UT of Jammu & Kashmir and Ladakh."

FROM KHANABAL TO BALTAL(NH-501)	
PAKAGE- 2 SEER HAMDAN TO PAHALGAM	

DRAWING TITL	TY	L ARRANGEMENT I	RT	SHEET No:	02 OF 02
DRAWING No:	`	(1x2.0x2.0) 1m CUSHION (TCS-4) NHIDCL/J&K/NH-501/CUL/TYP./S-101			JAN. 2024
				SCALE:	
DRG. BY	DESIGNED	CHECKED	APPROVED		AS SHOWN
G.N	A.R	VPS.	IRM.	PAPER SIZE: A2	REV: 0

NOTES:



New Delhi-110020

DEVELOPMENT CORPORATION LTD.

DATE **DESCRIPTION**

ENG.

DM

NOTES:

1 ALL DIMENSIONS ARE IN MM AND LEVELS IN METERS. UNLESS OTHERWISE MENTIONED ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED NO DIMENSION

S.No.	DESCRIPTION	CONFORM	ADOPTED
а	CONDITION OF EXPOSURE	IRC-112:2020	MODERATE
b	SEISMIC ZONE IMPORTANCE FACTOR	IRC SP114:2020	ZONE – V 1.2
С	LIVE LOAD— CONSIDERED a. 3L CLASS—A b. CLASS A—2L PLUS 1LANE 70R W c. CLASS 70R TRACKED d. SPECIAL VEHICLE SV LOADING	IRC 6 :2017	CRITICAL OF a,b,c & d
d	SNOW LOAD OF 500 kg/cum	LIVE LOAD	ACCUMLATION
	i) COMBINE SNOW LOAD WITH LIVE LOAD	WHEELED VEH.	SNOW 250mm
	ii) COMBINE SNOW LOAD WITH LIVE LOAD	TRACKED VEH.	SNOW 500mm
	iii) COMBINE SNOW LOAD WITH LIVE LOAD	NIL	SNOW >500mm

2 TECHNICAL SPECIFICATION TO BE FOLLOWED

	TESTINIONE SI ESII ISANISIN IS BE	. TOLLOWED	
S.No.	DESCRIPTION	CONFORM	ADOPTED
а	WEARING COURSE	MORT&H. SECTION 2702	65mm
b	GRADE OF REBARS.	IS:1786.	Fe-500D
С	BACK FILL BEHIND ABUT. RETURN/WING/ RETAINING WALL	IRC 78 2014	Ø :30 DEG. ?:18kN/cum Δ:20DEG.
d	WEEP HOLES,SHALL BE PROVIDED IN A STAGGERED MANNER IN ABUT.& RETURN WALL	IRC 78 2014 MORT&H. SECTION 2706	100mm DIA 1000 c/c V/H
е	WATER TO BE USED FOR CONCRETING, GROUTING &CURING	IRC-112-2020	_

3 GRADE & CLEAR COVER

	ELEMENT DESCRIPTION	MATERIAL	GRADE	COVER		
	TOP SLAB		RCC	M30	50mm	
	OUTER WALLS	WATER FACE	RCC	M30	50mm	
	OUTER WALLS	EARTH FACE	RCC	M30	75mm	
		TOP	RCC	M30	75mm	
	BASE SLAB	воттом	RCC	M30	75mm	
	CRASH BARRIER	CRASH BARRIER				
	APPROACH SLAB		RCC	M30	50mm	
	PCC CURTAIN WALL	PCC	M20	_		
	PCC	PCC	M15	_		
- 1						

4 DESIGN DETAILS:

DESIGNED

A.R

DRG. BY

G.N

FROM KHANABAL TO BALTAL(NH-501)

PAKAGE- 2 SEER HAMDAN TO PAHALGAM

VALUE OF 'DK'	FOR BASE SLAB THICKNESS	SBC. (kN/Sqm)	TYPE OF FDN. STRATA
1200mm	UPTO 900mm	_	_
e+300mm	GREATER THAN 900mm		

* 'DK' = DEPTH OF KEY AT BASE; (e) = BASE SLAB THICKNESS

5 SBC OF SOIL BELOW THE BOX STRUCTURE SHALL NOT BE LESS THAN ____kN/Sqm.SBC REQUIRED SHALL BE ENSURED BEFORE COMMENCEMENT OF THE EXECUTION.

BEFORE STARTING UP THE EXECUTION VERIFY THE DIMENSION AND LEVELS. ANY DISCREPANCY SHALL BE BROUGHT TO THE NOTICE OF THE DESIGN CONSULTANT.

SHEET No:

DATE:

SCALE:

PAPER SIZE:

APPROVED

CHECKED

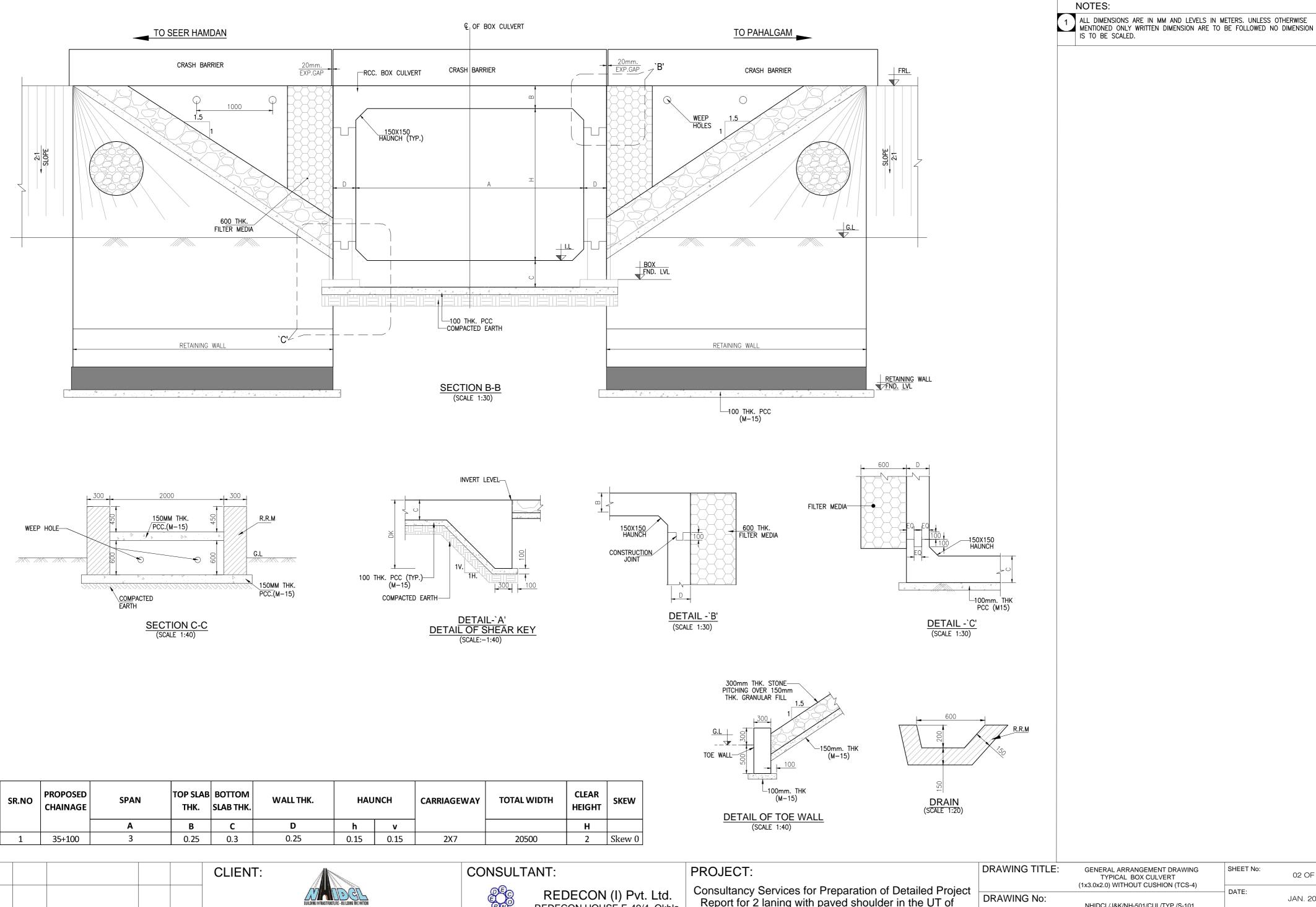
VPS.

01 OF 02

JAN. 2024

AS SHOWN

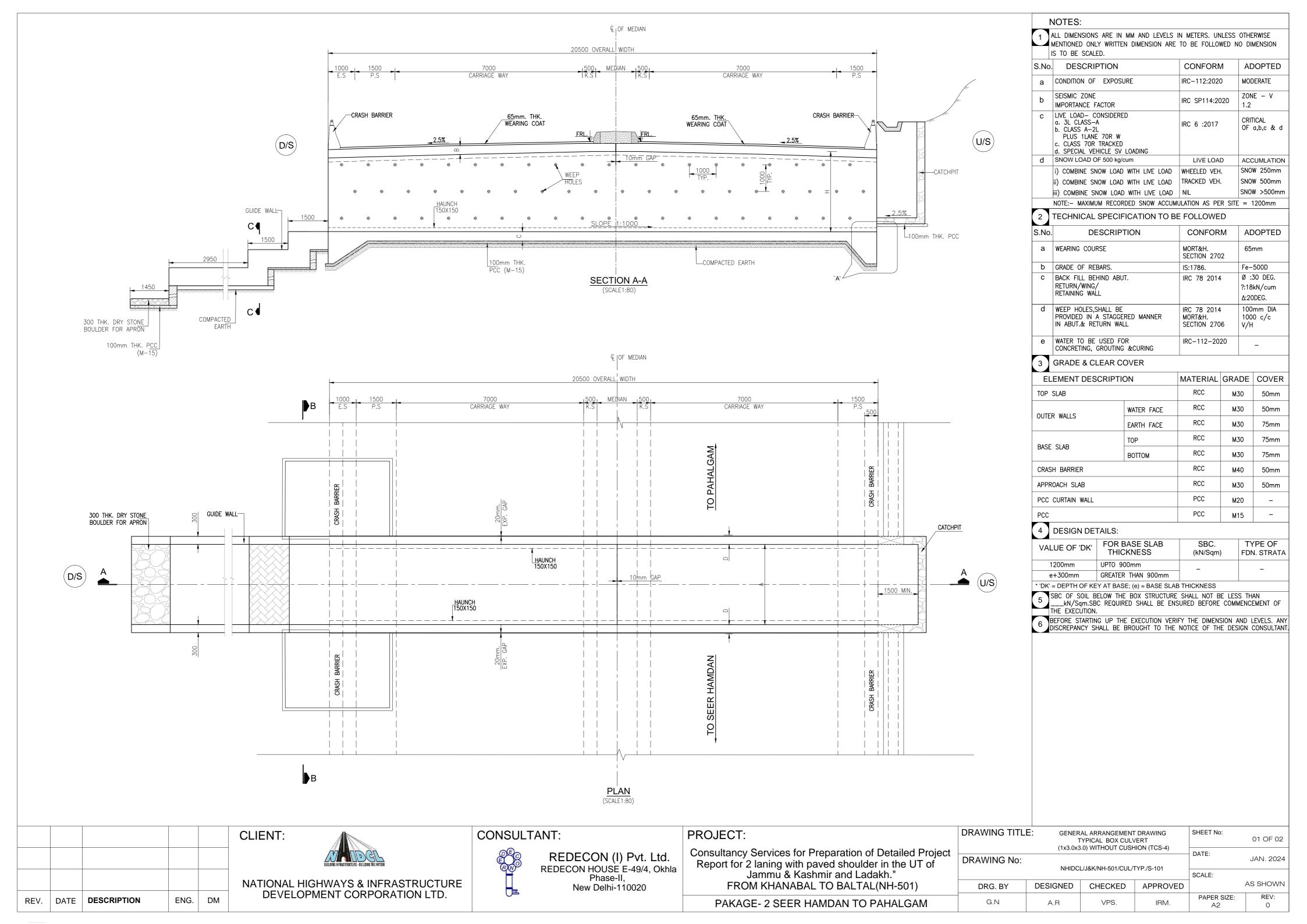
REV:

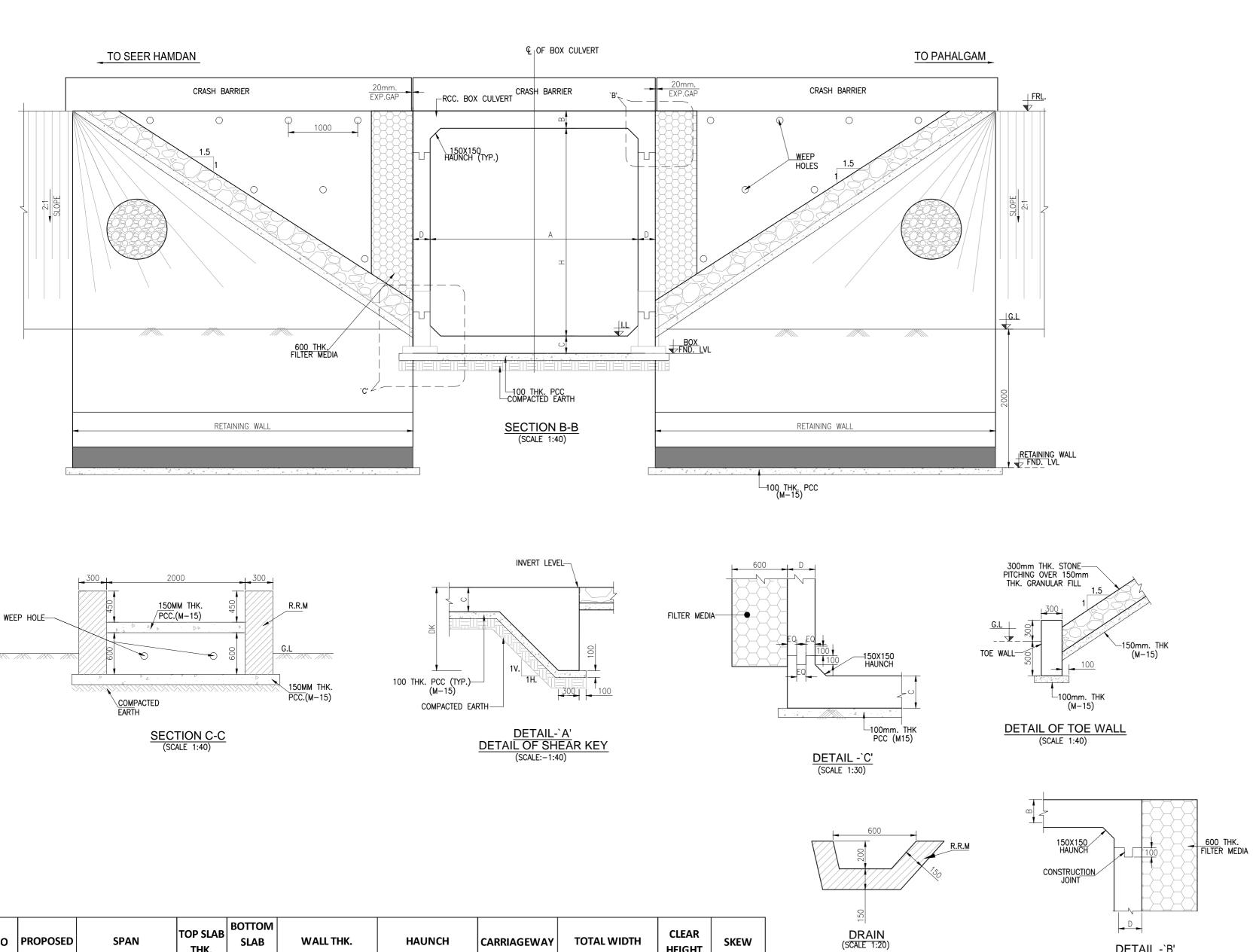


SHEET No: GENERAL ARRANGEMENT DRAWING 02 OF 02 TYPICAL BOX CULVERT (1x3.0x2.0) WITHOUT CUSHION (TCS-4) DATE: JAN. 2024 Report for 2 laning with paved shoulder in the UT of NHIDCL/J&K/NH-501/CUL/TYP./S-101 REDECON HOUSE E-49/4, Okhla Jammu & Kashmir and Ladakh." SCALE: Phase-II, NATIONAL HIGHWAYS & INFRASTRUCTURE FROM KHANABAL TO BALTAL(NH-501) DESIGNED AS SHOWN CHECKED APPROVED DRG. BY New Delhi-110020 DEVELOPMENT CORPORATION LTD. PAPER SIZE: DATE DESCRIPTION ENG. DM PAKAGE- 2 SEER HAMDAN TO PAHALGAM G.N VPS. A.R A2

NOTES:

REV:





SR.NO	PROPOSED CHAINAGE		TOP SLAB THK.	BOTTOM SLAB THK.	WALL THK.	HAUNCH		HAUNCH		CARRIAGEWAY	TOTAL WIDTH	CLEAR HEIGHT	SKEW
		Α	В	С	D	h	v			Н			
1	37+627	3	0.3	0.350	0.3	0.15	0.15	2X7	20500	3	Skew 0		
2	38+928	3	0.3	0.350	0.3	0.15	0.15	2X7	20500	3	Skew 0		
3	39+068	3	0.3	0.350	0.3	0.15	0.15	2X7	20500	3	Skew 0		

REV.	DATE	DESCRIPTION	ENG.	DM

CLIENT:



NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

CONSULTANT:



REDECON (I) Pvt. Ltd. REDECON HOUSE E-49/4, Okhla Phase-II, New Delhi-110020

PROJECT:

Consultancy Services for Preparation of Detailed Project Report for 2 laning with paved shoulder in the UT of

PAKAGE- 2 SEER HAMDAN TO PAHALGAM

DETAIL -`B' (SCALE 1:30)

Report for 2 larning with paved shoulder in the OT of
Jammu & Kashmir and Ladakh."
FROM KHANABAL TO BALTAL(NH-501)

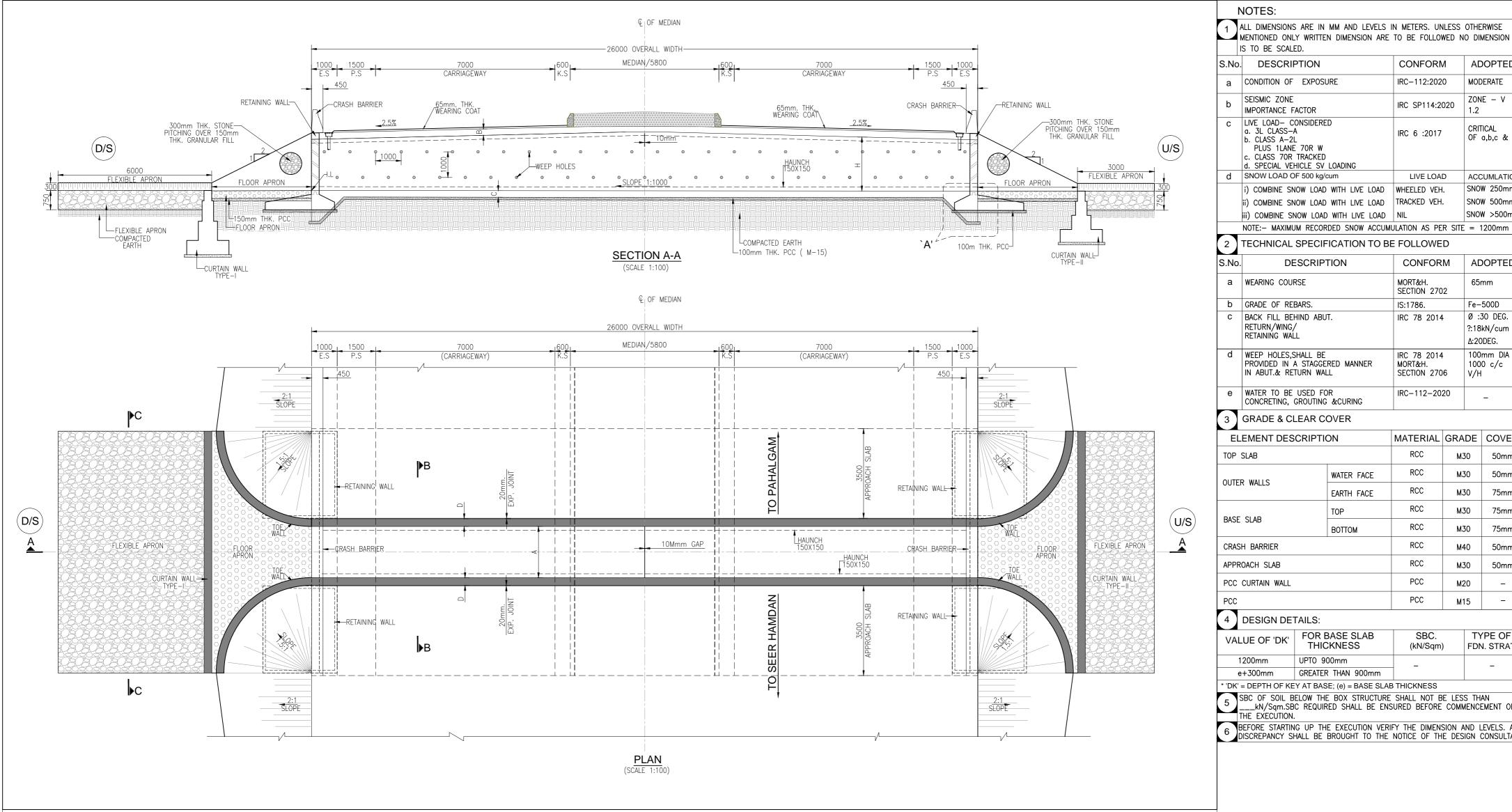
DRAWING TITL	TY	L ARRANGEMENT I PICAL BOX CULVE I) WITHOUT CUSHI	SHEET No:	02 OF 02	
DRAWING No:		J&K/NH-501/CUL/TY		DATE:	JAN. 2024
				SCALE:	
DRG. BY	DESIGNED	CHECKED	APPROVED		AS SHOWN
G.N	A.R	VPS.	IRM.	PAPER SIZE: A2	REV: 0

NOTES:

1 ALL DIMENSIONS ARE IN MM AND LEVELS IN METERS. UNLESS OTHERWISE MENTIONED ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED NO DIMENSION IS TO BE SCALED.

DRAWING INDEX PACKGE 2 SEER HAMDAN TO PAHALGAM TCS-5

SL.No	DRAWING TITLE	DRAWING No.		REV.	
1	TYPICAL GENERAL ARRANGEMENT DRAWING FOR BOX CULVERT (1X2.0X2.0) WITHOUT CUSHION	NHIDCL / J&K / NH-501 / CUL / TYP. / S-101	02	R0	



		└─CUF	RTAIN WALL				(SCALE 1	:100)								[
			rtain wall Type—i													a WEARING COURS	SE	MORT&H. SECTION 2702	65m	nm
							€ C	F MEDIAN								b GRADE OF REB	ARS	IS:1786.	Fe-5	500D
							į									C BACK FILL BEH		IRC 78 2014		O DEG.
				-			26000 OVERA	LL WIDTH					<u> </u>			RETURN/WING/				kN/cum
				1000 1500	7000	ec	OO, MEDIAN/	5800	600		7000	1500	1000			RETAINIŃG WALL	•		Δ:20[DEG.
			T	1000 1500 E.S P.S	7000 (CARRIAGEW)	AY) 60 K.	S NEDIATY	5000	600 K.S		7000 (CARRIAGEWAY)		E.S			d WEEP HOLES,SH PROVIDED IN A IN ABUT.& RETU	IALL BE STAGGERED MANNER URN WALL	IRC 78 2014 MORT&H. SECTION 2706	- 100n	mm DIA D c/c
	N .O			1									2:1 SLOPE	_			ROUTING &CURING	IRC-112-202	<u>'</u> 0	_
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										Şİ	,	,				ELEMENT DESC	RIPTION	MATERIAL	GRADE	COVER
					I ▶B					TIG/						TOP SLAB		RCC	M30	50mm
				///	I	JOINT	li l			AHA	350					OUTER WALLS	WATER FACE	RCC	M30	50mm
				/ I I I I I I I I I I I I I I I I I I I	VALL	20m XP				/A C		É RETAINING WALE					EARTH FACE	RCC	M30	75mm
D/S									<u>li i</u>	<u> </u>		i			(U/S)	BASE SLAB	ТОР	RCC	M30	75mm
		505050 505051	DOO OO OO CTOE		-				i¦ ¦		T		TOE O WALL	000000000000000000000000000000000000000			воттом	RCC	M30	75mm
A	FLEXIBLE APRON		FLOOR O O O O O O O O O O O O O O O O O O	crash barrier	?		<u> </u>	10Mmm	GAP		150X150	CRASH_BARR		FLOOR FLEXIBLE	APRON	CRASH BARRIER		RCC	M40	50mm
			TOE.			· - - -					HAUNCH 150X150 		I OOC TOE			APPROACH SLAB		RCC	М30	50mm
	0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-	AIN WALL			1				11		1		1	CURTAIN	WALL -	PCC CURTAIN WALL		PCC	M20	_
						MINT.				JAN	a d	 			5050)5050 -050	PCC		PCC	M15	_
	05			RETAINING W	WALL	XP	li i			Ψ	0 =	RETAINING WALLS				4 DESIGN DET				
					▶B					되	35					VALUE OF 'DK'	FOR BASE SLAB THICKNESS	SBC. (kN/Sqm)		PE OF I. STRATA
					,, <u> </u>					Ш		Ī				1200mm	UPTO 900mm	+		
			<u></u>				_			<mark>- 0</mark>			<u> </u>		20203	e+300mm	GREATER THAN 900mm			-
	▶ C									임						* 'DK' = DEPTH OF KEY	Y AT BASE; (e) = BASE SLA	AB THICKNESS		
	<i>y</i>			2:1 OPE						•			2:1 SLOPE	_		5 SBC OF SOIL BE kN/Sqm.SBC	ELOW THE BOX STRUCTURI C REQUIRED SHALL BE EN	E SHALL NOT BE NSURED BEFORE	E LESS THA COMMENCE	AN EMENT OF
														-		THE EXECUTION.	LIP THE EXECUTION VE	PIEY THE DIMENS	SION AND I	FVFIS ANY
		_														DISCREPANCY SHA	G UP THE EXECUTION VER IALL BE BROUGHT TO THE	NOTICE OF THE	E DESIGN C	CONSULTANT.
							PL/	١N												
							PLA (SCALE	:100)												
			TOD 6: 13					0												
9	SR.NO PROPOSED SF	AN	TOP SLAB BOT THK. SLAB	WALLIEK.	HAUNCH	CARRIAGEWAY	TOTAL WIDTH	HEIGHT	SKEW											
			D 4	.	<u> </u>	\dashv		 	 											

	SR.NO	PROPOSED CHAINAGE	SPAN	TOP SLAB THK.	BOTTOM SLAB THK.	WALL THK.	HAUNCH		CARRIAGEWAY	TOTAL WIDTH	CLEAR HEIGHT	SKFW
			Α	В	С	D	h	v			Н	
	1	20+529	2	0.25	0.25	0.25	0.15	0.15	2X7	21500	2	Skew 0
	2	20+856	2	0.25	0.25	0.25	0.15	0.15	2X7	21500	2	Skew 0
Ī	3	21+100	2	0.25	0.25	0.25	0.15	0.15	2X7	21500	2	Skew 0

REV.	DATE	DESCRIPTION	ENG.	DM	

CLIENT:

NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

CONSULTANT:

REDECON (I) Pvt. Ltd. REDECON HOUSE E-49/4, Okhla Phase-II, New Delhi-110020

PROJECT: Consultancy Services for Preparation of Detailed Project Report for 2 laning with paved shoulder in the UT of Jammu & Kashmir and Ladakh." FROM KHANABAL TO BALTAL(NH-501)

PAKAGE-2 SEER HAMDAN TO PAHALGAM

	DRAWING TITLE	SHEET No:	01 OF 02			
	DRAWING No:	DATE:	JAN.2024			
		5020	&K/NH-501/CUL/TY	.,.	SCALE:	AS SHOWI
	DRG. BY	DESIGNED	CHECKED	APPROVED		AS SHOWI
ſ	GN	ΔR	\/PS	IRM	PAPER SIZE:	REV:

CONFORM

IRC-112:2020

IRC 6 :2017

IRC SP114:2020

LIVE LOAD

CONFORM

DESCRIPTION

PLUS 1LANE 70R W

DESCRIPTION

ADOPTED

MODERATE

ZONE - V

CRITICAL

OF a,b,c & d

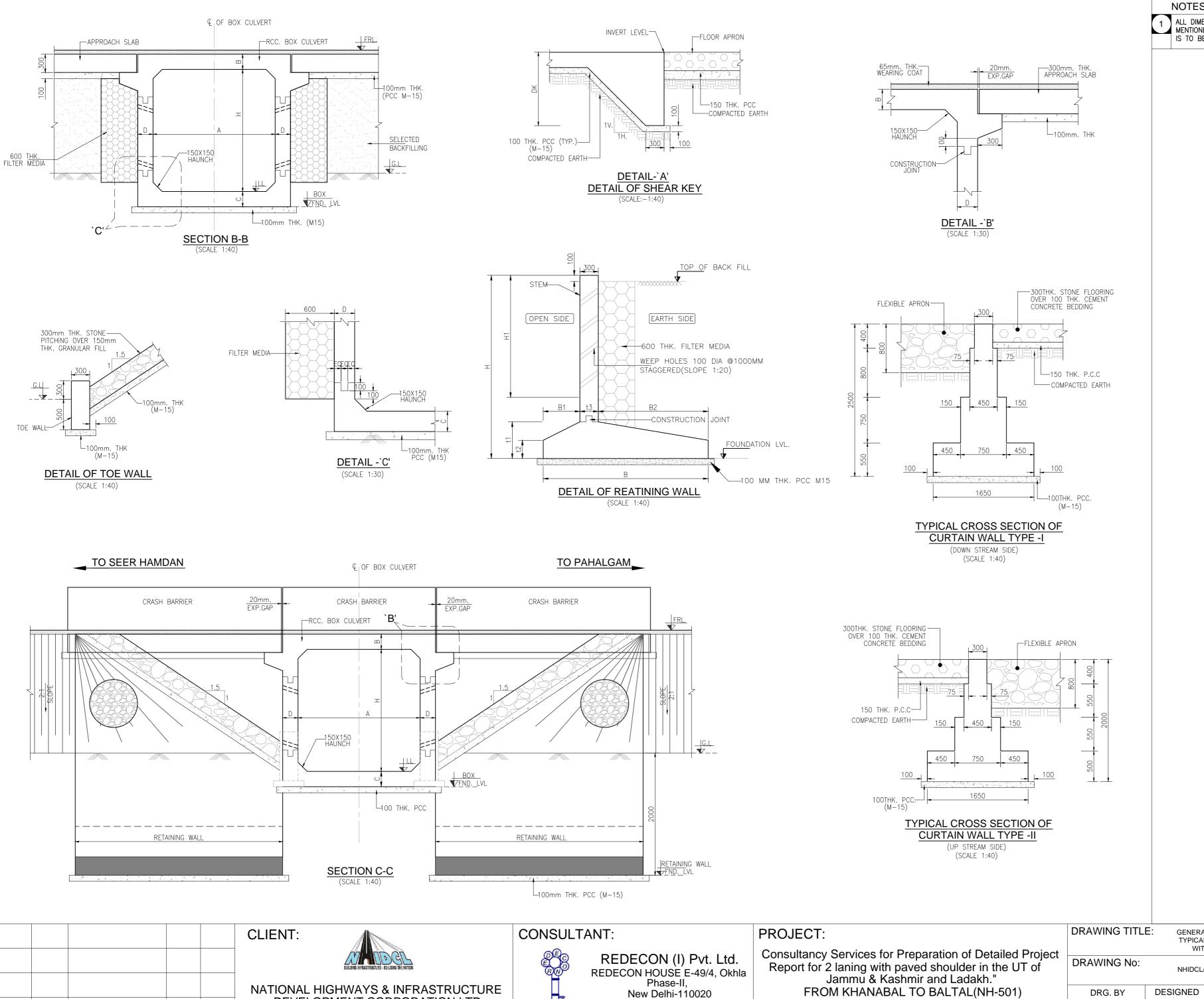
ACCUMLATION

SNOW 250mm

SNOW 500mm

SNOW >500mm

ADOPTED



DEVELOPMENT CORPORATION LTD.

DATE DESCRIPTION

ENG.

DM

NOTES:

1 ALL DIMENSIONS ARE IN MM AND LEVELS IN METERS. UNLESS OTHERWISE MENTIONED ONLY WRITTEN DIMENSION ARE TO BE FOLLOWED NO DIMENSION

SHEET No:

DATE:

SCALE:

PAPER SIZE:

APPROVED

IRM.

02 OF 02

JAN.2024

AS SHOWN

REV:

GENERAL ARRANGEMENT DRAWING

TYPICAL BOX CULVERT (1x2.0x2.0) WITHOUT CUSHION (TCS-5)

NHIDCL/J&K/NH-501/CUL/TYP./S-101

CHECKED

VPS.

A.R

G.N

PAKAGE-2 SEER HAMDAN TO PAHALGAM