



Government of Karnataka

**PUBLIC WORKS DEPARTMENT,
NATIONAL HIGHWAYS DIVISION, KALBURAGI**



Government of India

Government of India

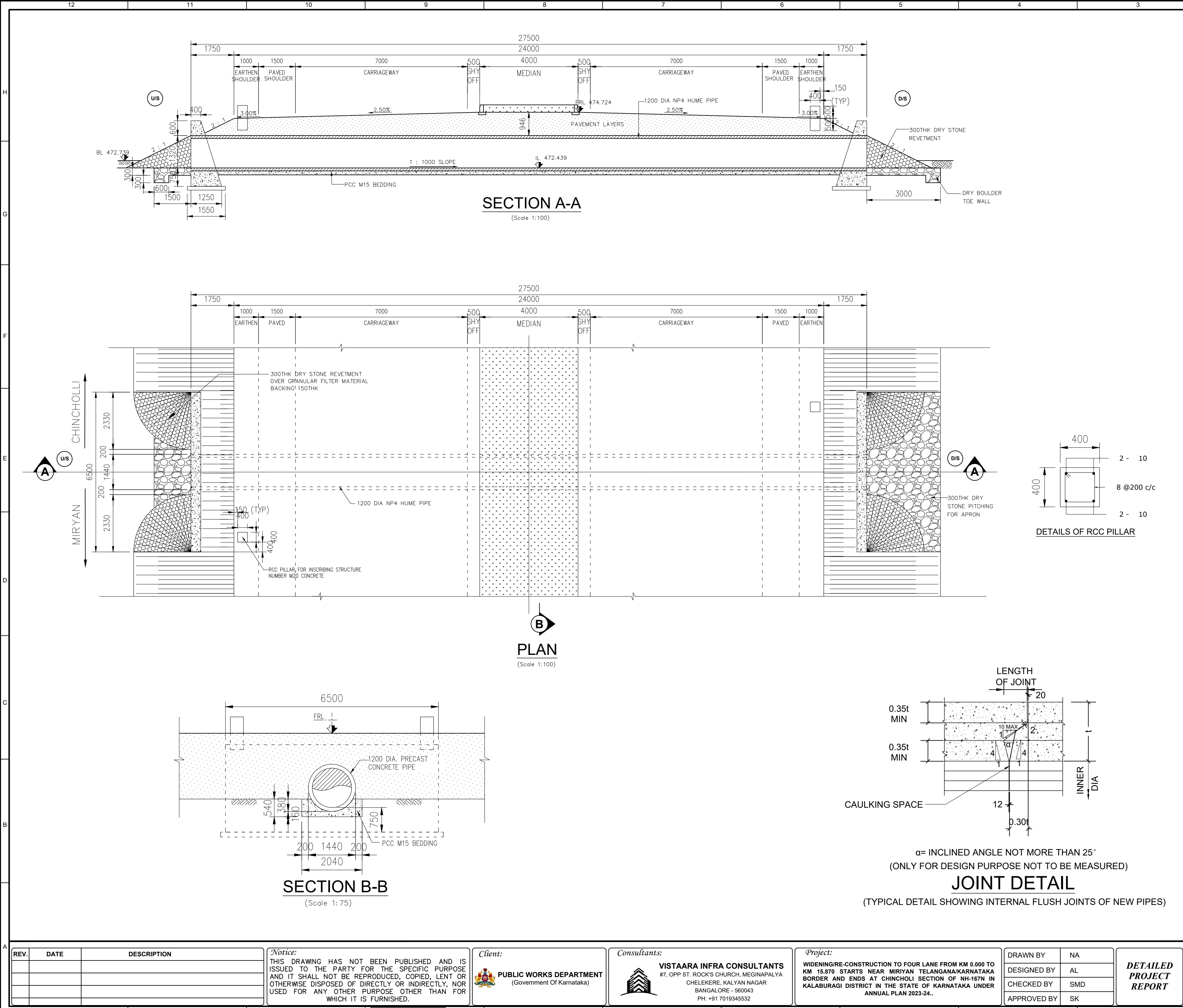
“Widening/Re-Construction to Four Lane from Km 0.000 to Km 15.870 starts near Miriyan Telangana/Karnataka border and ends at Chincholi Section of NH-167N in Kalaburagi District in the State of Karnataka under Annual Plan 2023-24.”

GENERAL ARRANGEMENT DRAWING



VISTAARA INFRA CONSULTANTS
7, Opp St.Rock's Church,
Meginapalya, Chelekere,
Kalyan Nagar, Bangalore - 560043

PIPE CULVERT



< MIRIYAN

CHINCHOLLI >

Details of Structure	
ITEMS	PROPOSED
CHAINAGE	1+130
SPAN	1X1.20
TYPE OF STR.	PIPE CULVERT
PROPOSAL	NEW CONSTRUCTION

KEY PLAN

NOTES:

1. ALL DIMENSIONS ARE IN mm,LEVELS ARE IN mm & CHAINAGE ARE IN Km UNLESS OTHERWISE SPECIFIED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.

2. STRUCTURES LOCATED REFER TO THE CHAINAGE AT STRUCTURE CENTER AND LEVELS AT MEDIAN EDGE.

3. FOR STRUCTURE LOCATION SUPER ELEVATION REFER LATEST APPROVED HIGHWAY DRAWINGS. FOR ANY VARIATION HIGHWAY DRAWING TO BE FOLLOWED.

4. GRADE OF CONCRETE :-
FOR PCC HEAD WALL M15
FOR MARKER POST M20

5. CLASS NP4 NON-PRESSURE CONCRETE PIPES SHALL CONFIRM TO IS: 458.

6. ALL PIPE LAYING WORK SHALL CONFIRM TO MORTH & H SPECIFICATION CL. 2900.

7. LONGITUDINAL SLOPE OF PIPE SHOULD BE 1:1000 MINIMUM.

8. MINIMUM FILL ON PIPE CULVERTS SHALL BE 0.6m. IF REQUIRED FILL IS NOT ACHIEVED ENCASING SHOULD BE DONE.

9. THE BEDDING SURFACE SHALL PROVIDE FIRM FOUNDATION OF UNIFORM OF UNIFORM DENSITY THROUGHOUT THE LENGTH OF THE CULVERT, AND SHALL CONFORM TO CL.2904 OF MORTH SPECIFICATION FOR ROAD & BRIDGE WORKS. LOOSE/UNSTABLE SOIL BELOW CULVERT TO BE REPLACED WITH SUITABLE GRANULAR MATERIAL.

NOTES FOR PITCHING:

1. 300mm THICK DRY STONE REVETMENT SHOULD BE DONE OVER FILTER GRANULAR MATERIAL BACKING OF 150mm THICK.

2. FIRST CLASS BEDDING CAN BE USE IN PLACE OF CRADLE CONCRETE FOR A MAXIMUM HEIGHT OF FILL OF 4METER.

3. 300mm THICK. DRY STONE PITCHING APRON PROVIDED U/S STONE PITCHING APRON SHALL BE OF 1.5m LENGTH AND D/S SHALL BE 3m.

LEGEND:

FRL : FINISHED ROAD LEVEL

U/S : UP STREAM

D/S : DOWN STREAM

CW : CARRIAGEWAY

ES : EARTHEN SHOULDER

PS : PAVED SHOULDER

FP : FOOTPATH

IL : INVERT LEVEL

C/L : CENTER LINE

THK : THICKNESS

TYP : TYPICAL

SO : SHY OFF

REV.

DATE

DESCRIPTION

Notice:

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Client:

PUBLIC WORKS DEPARTMENT
(Government Of Karnataka)

Consultants:

VISTAARA INFRA CONSULTANTS
#7, OPP ST. ROCK'S CHURCH, MEGINAPALYA
CHELEKERE, KALYAN NAGAR
BANGALORE - 560043
PH: +91 7019345532

Project:

WIDENING/RE-CONSTRUCTION TO FOUR LANE FROM KM 0.000 TO KM 15.870 STARTS NEAR MIRIYAN TELANGANA/KARNATAKA BORDER AND ENDS AT CHINCHOLI SECTION OF NH-167N IN KALABURAGI DISTRICT IN THE STATE OF KARNATAKA UNDER ANNUAL PLAN 2023-24..

DRAWN BY

DESIGNED BY

CHECKED BY

APPROVED BY

NA

AL

SMD

SK

DETAILED PROJECT REPORT

Title: New Construction of Pipe Culvert at Ch 1+130

Size

Scale

Drq. No

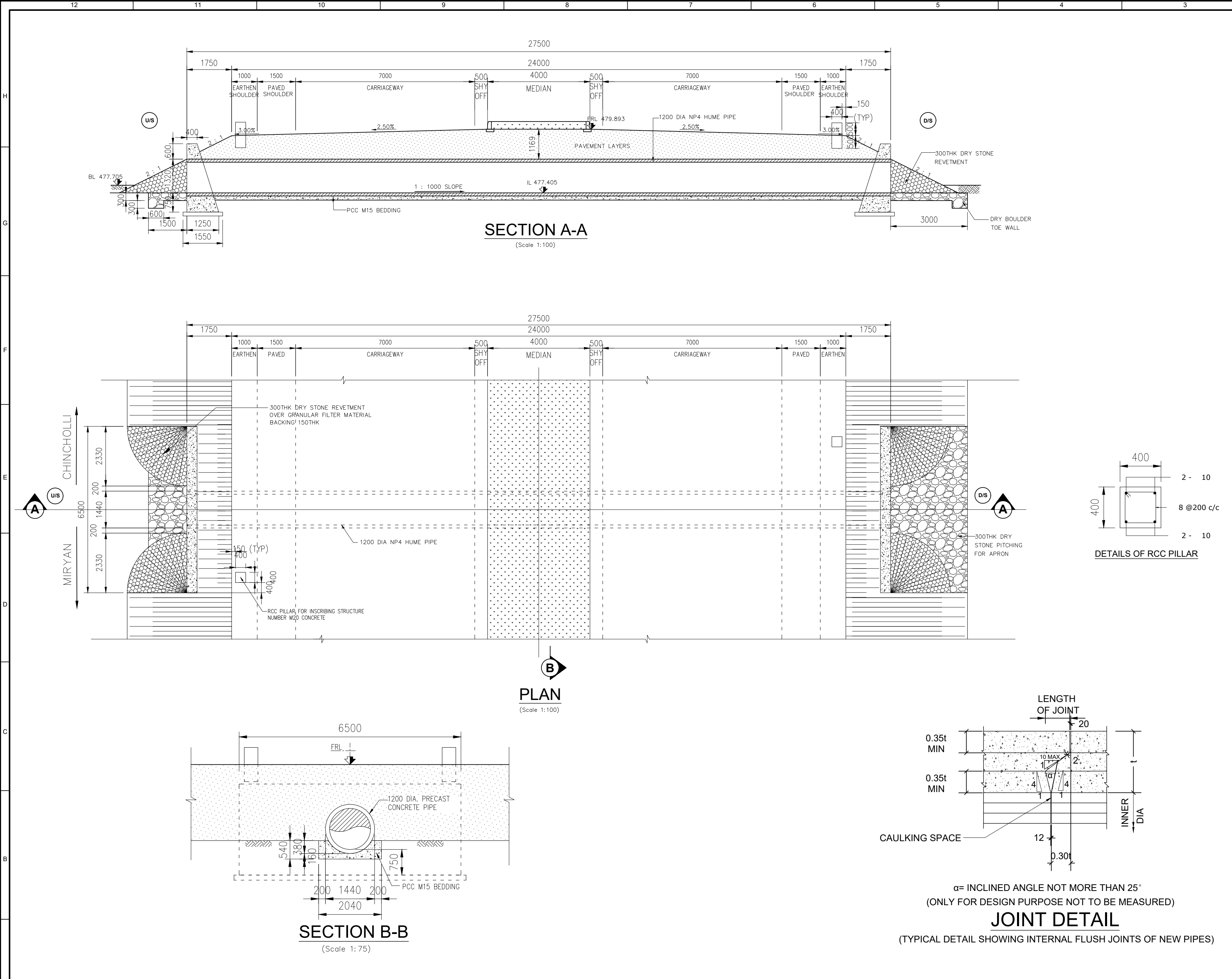
A3

as shown

NH-167N/MC/HW/PC/01

Rev:

R0



< MIRIYAN

CHINCHOLLI >

Details of Structure		[HIP NO. @ CH 3+720.06]	
ITEMS	PROPOSED	N =	E =
CHAINAGE	3+720	1923207.6998	763330.7680
SPAN	1X1.20	R = 5000	Ls = 777m
TYPE OF STR.	PIPE CULVERT	Dc = 0.9701	S = ???
PROPOSAL	NEW CONSTRUCTION	LG = 84.66m	Ts = ???
		IS = 777m	D = 0° 58' 12"
		CS = 777m	A = ???
		V = 100 km/h	e = -2.500

KEY PLAN

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3. FOR STRUCTURE LOCATION SUPER ELEVATION REFER LATEST APPROVED HIGHWAY DRAWINGS. FOR ANY VARIATION HIGHWAY DRAWING TO BE FOLLOWED.

4. GRADE OF CONCRETE :-
FOR PCC HEAD WALL M15
FOR MARKER POST M20

5. CLASS NP4 NON-PRESSURE CONCRETE PIPES SHALL CONFIRM TO IS: 458.

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7. LONGITUDINAL SLOPE OF PIPE SHOULD BE 1:1000 MINIMUM.

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9. THE BEDDING SURFACE SHALL PROVIDE FIRM FOUNDATION OF UNIFORM OF UNIFORM DENSITY THROUGHOUT THE LENGTH OF THE CULVERT, AND SHALL CONFORM TO CL.2904 OF MORTH SPECIFICATION FOR ROAD & BRIDGE WORKS. LOOSE/UNSTABLE SOIL BELOW CULVERT TO BE REPLACED WITH SUITABLE GRANULAR MATERIAL.

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LEGEND:

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D/S : DOWN STREAM

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ES : EARTHEN SHOULDER

PS : PAVED SHOULDER

FP : FOOTPATH

IL : INVERT LEVEL

C/L : CENTER LINE

THK : THICKNESS

TYP : TYPICAL

SO : SHY OFF

REV.	DATE	DESCRIPTION

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CHELEKERE, KALYAN NAGAR
BANGALORE - 560043
PH: +91 7019345532

Project:

WIDENING/RE-CONSTRUCTION TO FOUR LANE FROM KM 0.000 TO KM 15.870 STARTS NEAR MIRIYAN TELANGANA/KARNATAKA BORDER AND ENDS AT CHINCHOLI SECTION OF NH-167N IN KALABURAGI DISTRICT IN THE STATE OF KARNATAKA UNDER ANNUAL PLAN 2023-24..

DRAWN BY	NA
DESIGNED BY	AL
CHECKED BY	SMD
APPROVED BY	SK

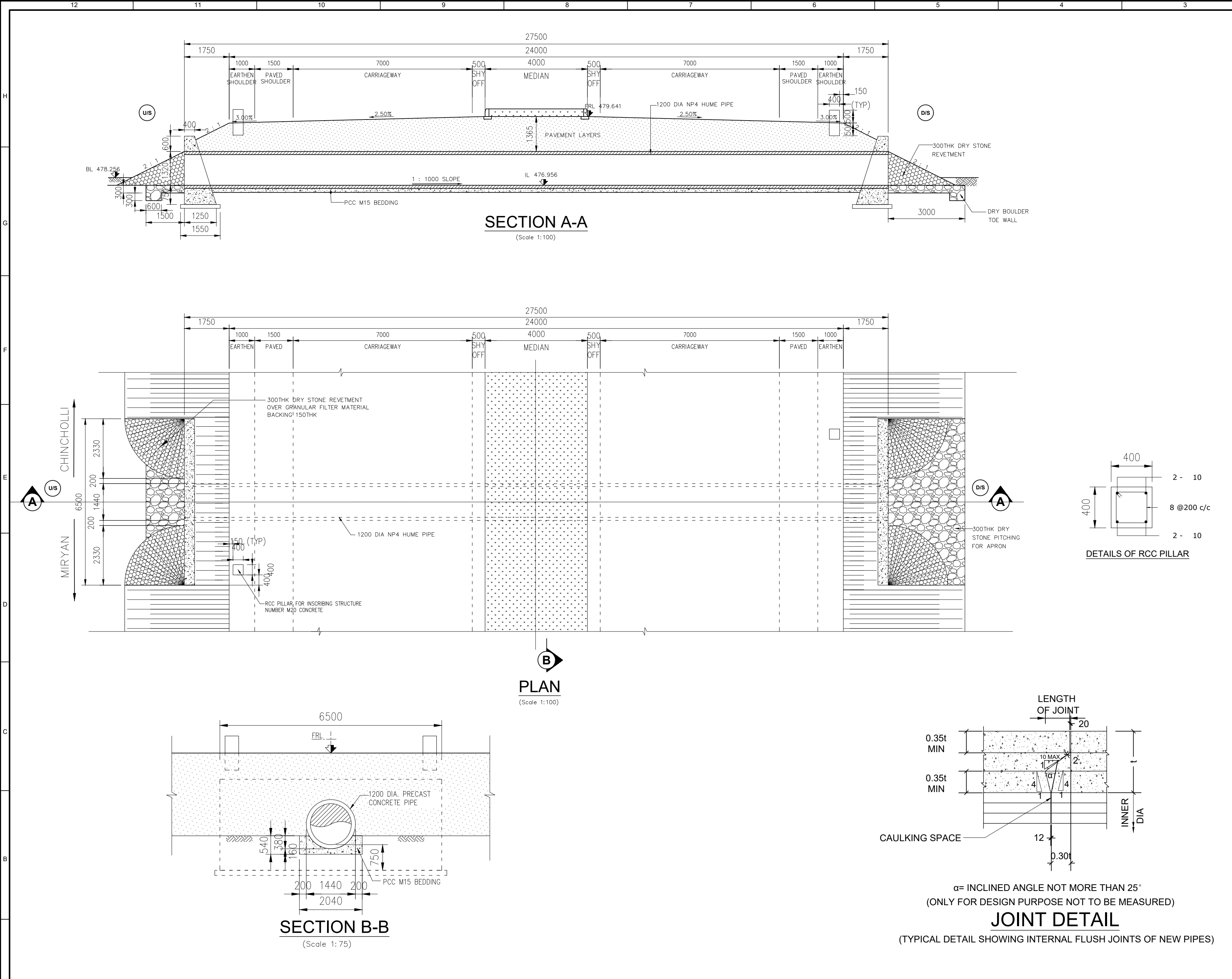
DETAILED PROJECT REPORT

Title: **New Construction of Pipe Culvert at Ch 3+720**

Size	Scale	Drw. No
A3	as shown	NH-167N/MC/HW/PC/02

Rev:

RO



< MIRIYAN

CHINCHOLLI >

Details of Structure	
ITEMS	PROPOSED
CHAINAGE	5+400
SPAN	1X1.20
TYPE OF STR.	PIPE CULVERT
PROPOSAL	NEW CONSTRUCTION

KEY PLAN

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D/S : DOWN STREAM

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ES : EARTHEN SHOULDER

PS : PAVED SHOULDER

FP : FOOTPATH

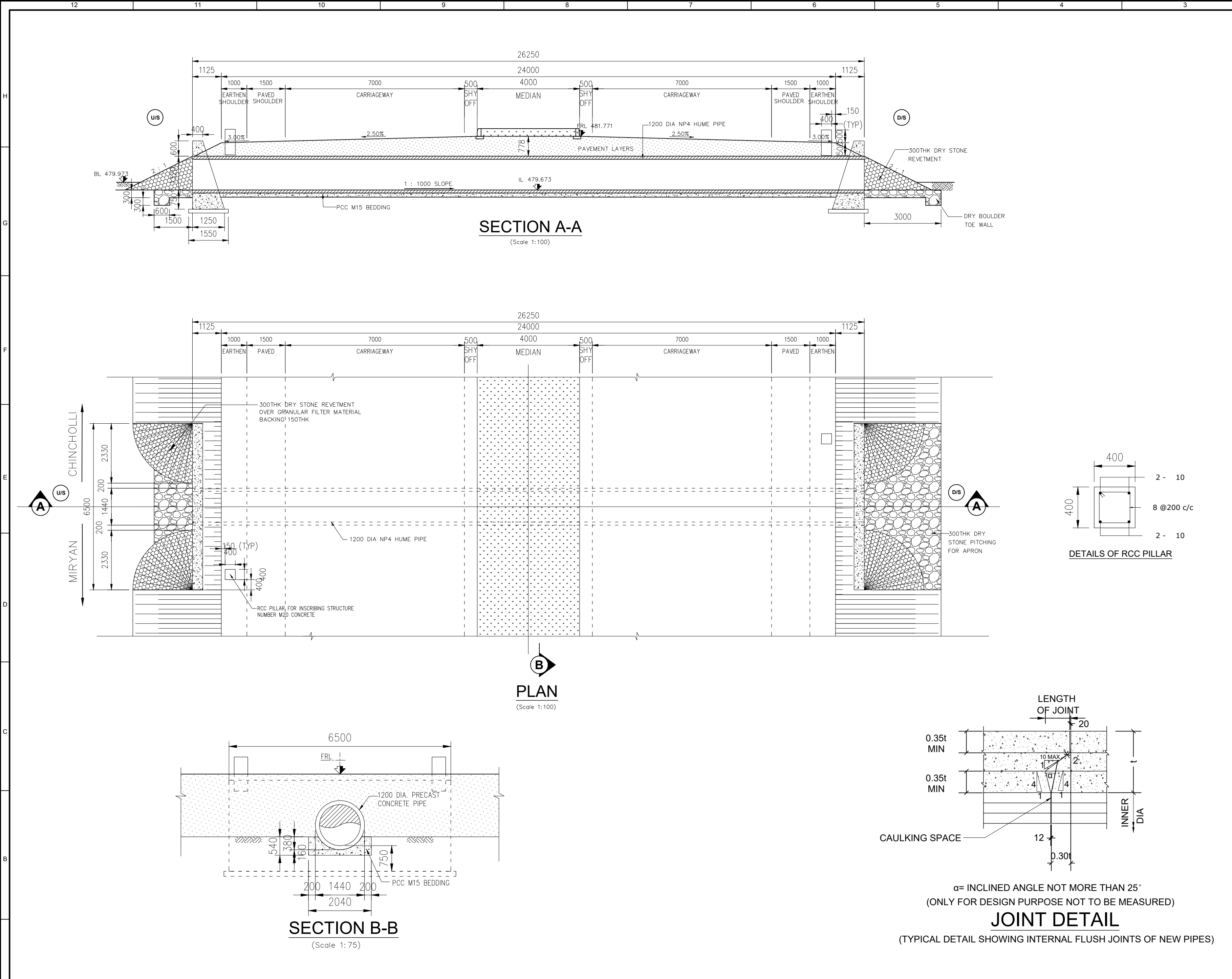
IL : INVERT LEVEL

C/L : CENTER LINE

THK : THICKNESS

TYP : TYPICAL

SO : SHY OFF



< MIRIYAN

CHINCHOLLI >

Details of Structure	
ITEMS	PROPOSED
CHAINAGE	5+630
SPAN	1X1.20
TYPE OF STR.	PIPE CULVERT
PROPOSAL	NEW CONSTRUCTION

KEY PLAN

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FOR PCC HEAD WALL M15
FOR MARKER POST M20
- CLASS NP4 NON-PRESSURE CONCRETE PIPES SHALL CONFIRM TO IS: 458.
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IL : INVERT LEVEL
C/L : CENTER LINE
THK : THICKNESS
TYP : TYPICAL
SO : SHY OFF

Title: New Construction of Pipe Culvert at Ch 5+630			
Size	Scale	Drq. No	Rev: RO
A3	as shown	NH-167N/MC/HW/PC/04	

DETAILED PROJECT REPORT

DRAWN BY	NA
DESIGNED BY	AL
CHECKED BY	SMD
APPROVED BY	SK

Project:

WIDENING/RE-CONSTRUCTION TO FOUR LANE FROM KM 0.000 TO KM 15.870 STARTS NEAR MIRIYAN TELANGANA/KARNATAKA BORDER AND ENDS AT CHINCHOLI SECTION OF NH-167N IN KALABURAGI DISTRICT IN THE STATE OF KARNATAKA UNDER ANNUAL PLAN 2023-24..

Consultants:

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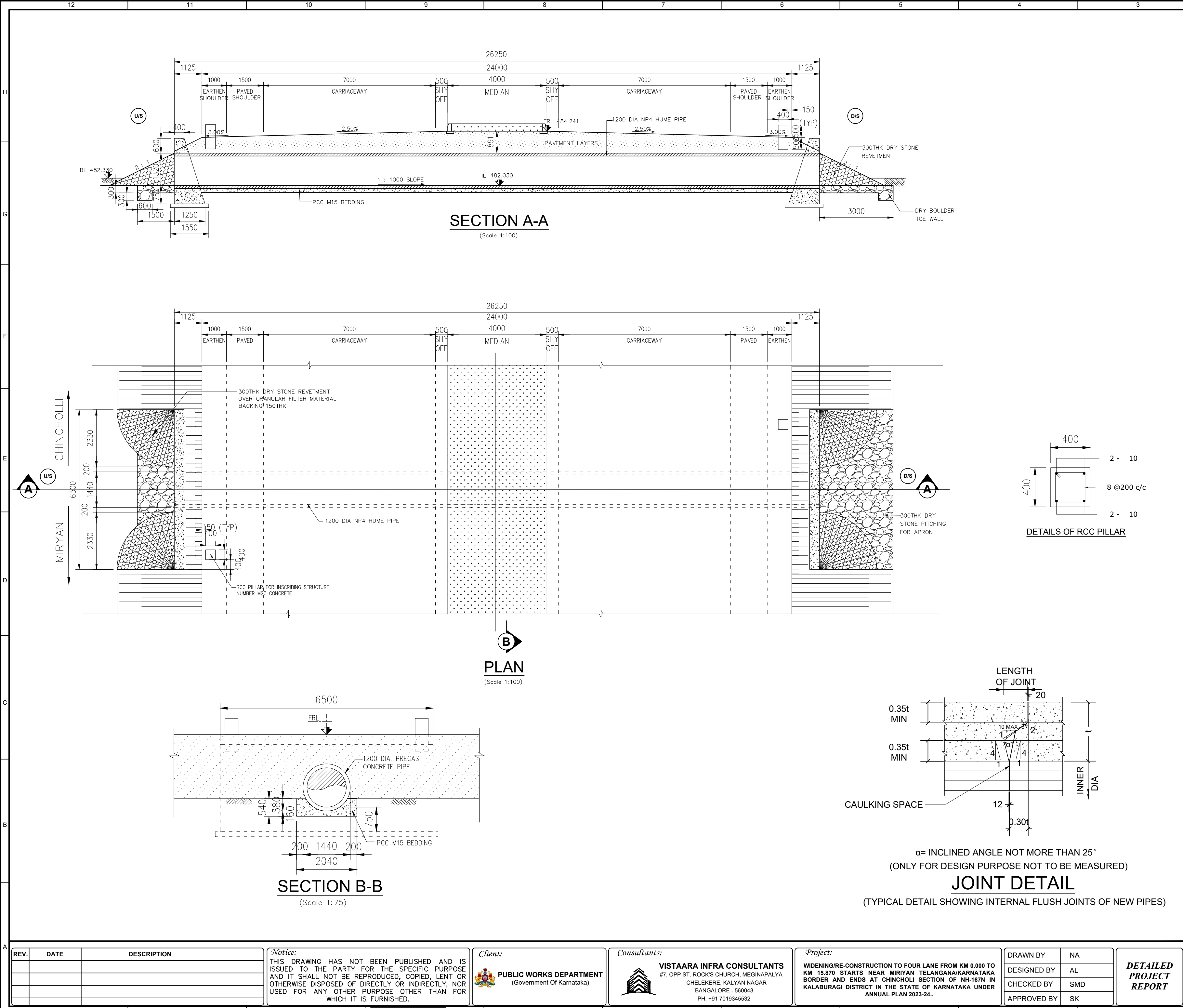
Client:

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REV.	DATE	DESCRIPTION



Details of Structure	
ITEMS	PROPOSED
CHAINAGE	5+950
SPAN	1X1.20
TYPE OF STR.	PIPE CULVERT
PROPOSAL	NEW CONSTRUCTION

KEY PLAN

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FOR PCC HEAD WALL M15
FOR MARKER POST M20

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CHELEKERE, KALYAN NAGAR
BANGALORE - 560043
PH: +91 7019345532

Project:

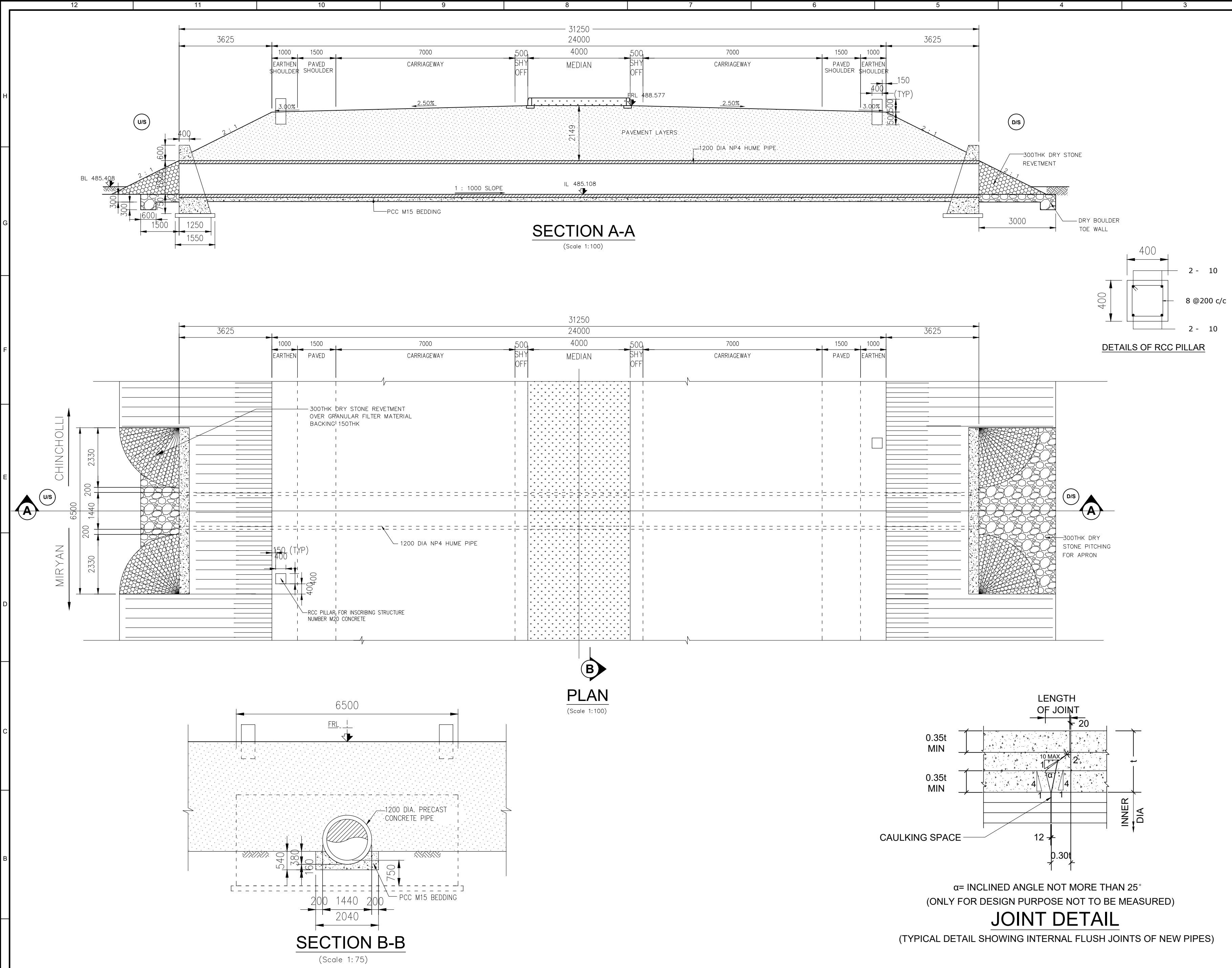
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DRAWN BY	NA
DESIGNED BY	AL
CHECKED BY	SMD
APPROVED BY	SK

DETAILED PROJECT REPORT

Title: New Construction of Pipe Culvert at Ch 5+950

Size	Scale	Drwg. No	Rev.
A3	as shown	NH-167N/MC/HW/PC/05	R0



CHINCHOLLI

MIRYAN

CHINCHOLLI

Details of Structure

ITEMS	PROPOSED
CHAINAGE	10+880
SPAN	1X1.20
TYPE OF STR.	PIPE CULVERT
PROPOSAL	NEW CONSTRUCTION

KEY PLAN

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DRAWN BY

NA

DESIGNED BY

AL

CHECKED BY

SMD

APPROVED BY

SK

DETAILED PROJECT REPORT

Title: New Construction of Pipe Culvert at Ch 10+880

Size

Scale

Drq. No

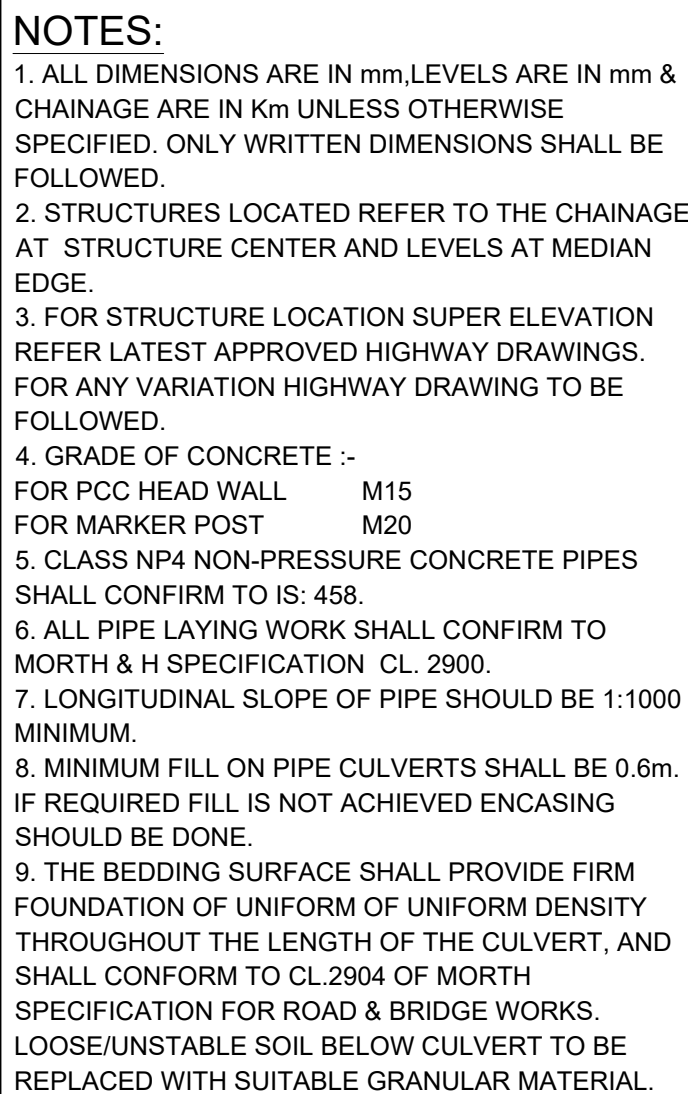
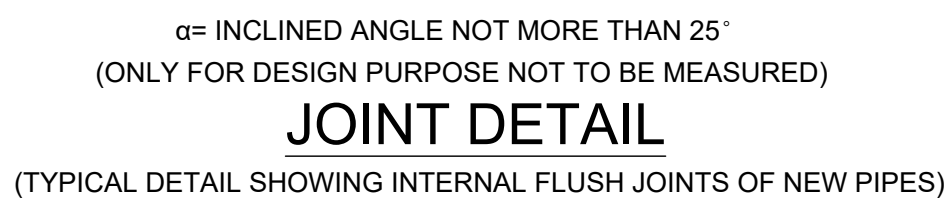
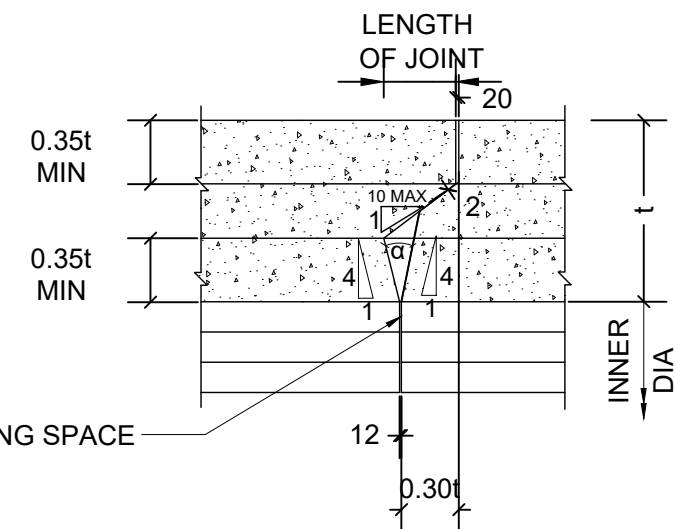
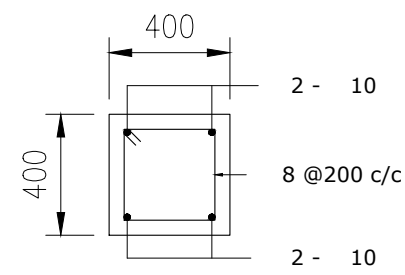
A3

as shown

NH-167N/MC/HW/PC/07

Rev:

R0



Details of Structure	
ITEMS	PROPOSED
CHAINAGE	15+250
SPAN	1X1.2Ø
TYPE OF STR.	PIPE CULVERT
PROPOSAL	NEW CONSTRUCTION

KEY PLAN

NOTES FOR PITCHING:

1. 300mm THICK DRY STONE REVETMENT SHOULD BE DONE OVER FILTER GRANULAR MATERIAL BACKING OF 150mm THICK.
2. FIRST CLASS BEDDING CAN BE USE IN PLACE OF CRADLE CONCRETE FOR A MAXIMUM HEIGHT OF FILL OF 4METER.
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Client:

 **PUBLIC-National Highways**
Kalaburagi Division
(Government Of Karnataka)

Consultants:

 **VISTAARA INFRA CONSULTANTS**
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CHELEKERE, KALYAN NAGAR
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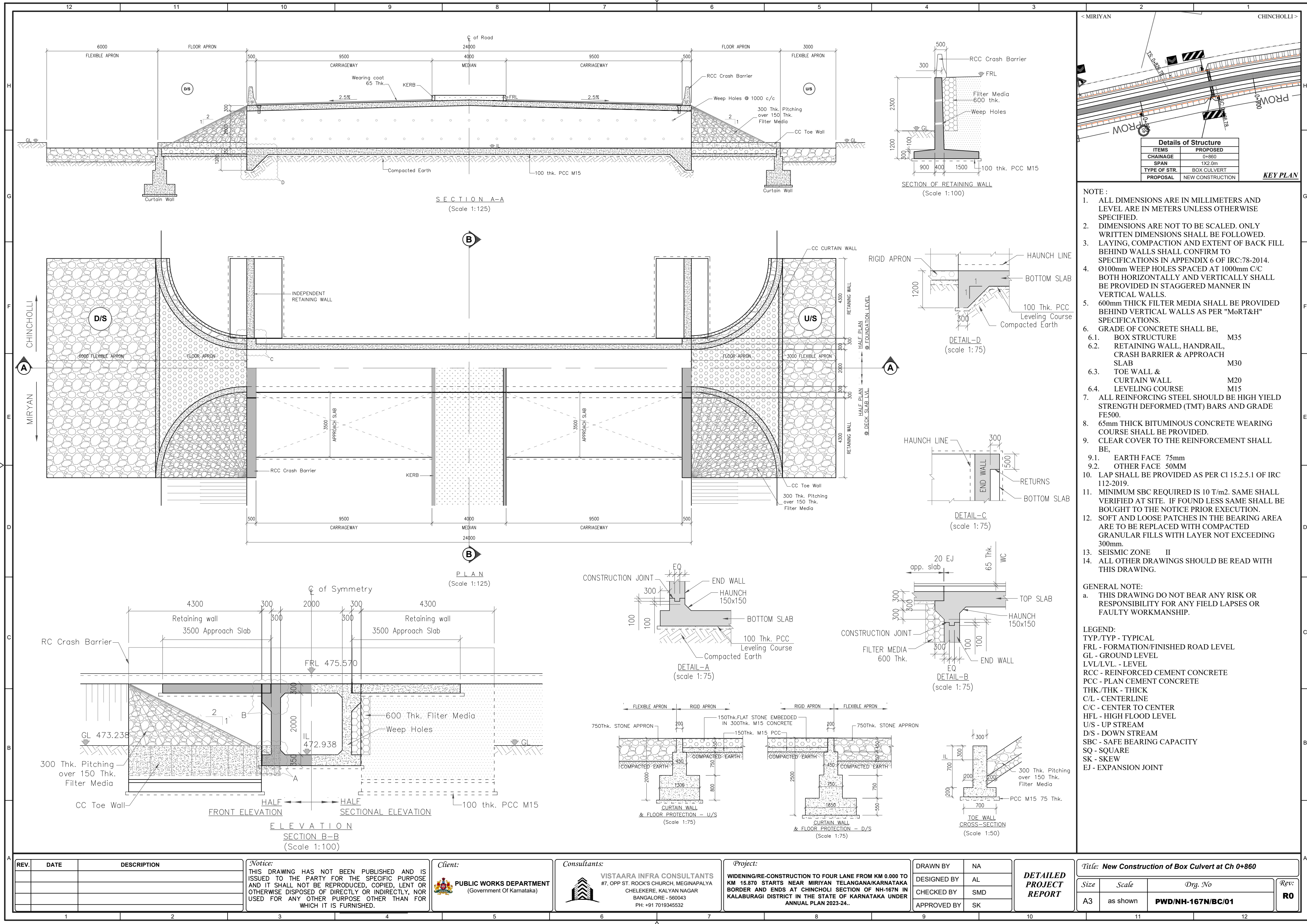
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KALABURAGI DISTRICT IN THE STATE OF KARNATAKA UNDER
ANNUAL PLAN 2023-24..

DRAWN BY	NA
DESIGNED BY	AL
CHECKED BY	SMD
APPROVED BY	SK

DETAILED PROJECT REPORT

Title: New Construction of Pipe Culvert at Ch 15+250			
Size	Scale	Drg. No	Rev:
A3	as shown	NH-167N/MC/HW/PC/08	R0

BOX CULVERT



Details of Structure	
ITEMS	PROPOSED
CHAINAGE	0+860
SPAN	1X2.0m
TYPE OF STR.	BOX CULVERT
PROPOSAL	NEW CONSTRUCTION

- NOTE :
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 - Ø100mm WEEP HOLES SPACED AT 1000mm C/C BOTH HORIZONTALLY AND VERTICALLY SHALL BE PROVIDED IN STAGGERED MANNER IN VERTICAL WALLS.
 - 600mm THICK FILTER MEDIA SHALL BE PROVIDED BEHIND VERTICAL WALLS AS PER "MoRT&H" SPECIFICATIONS.
 - GRADE OF CONCRETE SHALL BE,
 - BOX STRUCTURE M35
 - RETAINING WALL, HANDRAIL, CRASH BARRIER & APPROACH SLAB M30
 - TOE WALL & CURTAIN WALL M20
 - LEVELING COURSE M15
 - ALL REINFORCING STEEL SHOULD BE HIGH YIELD STRENGTH DEFORMED (TMT) BARS AND GRADE FE500.
 - 65mm THICK BITUMINOUS CONCRETE WEARING COURSE SHALL BE PROVIDED.
 - CLEAR COVER TO THE REINFORCEMENT SHALL BE,
 - EARTH FACE 75mm
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 - SEISMIC ZONE II
 - ALL OTHER DRAWINGS SHOULD BE READ WITH THIS DRAWING.

GENERAL NOTE:

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LEGEND:

TYP./TYP - TYPICAL
FRL - FORMATION/FINISHED ROAD LEVEL
GL - GROUND LEVEL
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RCC - REINFORCED CEMENT CONCRETE
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U/S - UP STREAM
D/S - DOWN STREAM
SBC - SAFE BEARING CAPACITY
SQ - SQUARE
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EJ - EXPANSION JOINT

REV.	DATE	DESCRIPTION

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Client:

PUBLIC WORKS DEPARTMENT
(Government Of Karnataka)

Consultants:

VISTAARA INFRA CONSULTANTS
#7, OPP ST. ROCK'S CHURCH, MEGINAPALYA
CHELEKERE, KALYAN NAGAR
BANGALORE - 560043
PH: +91 7019345532

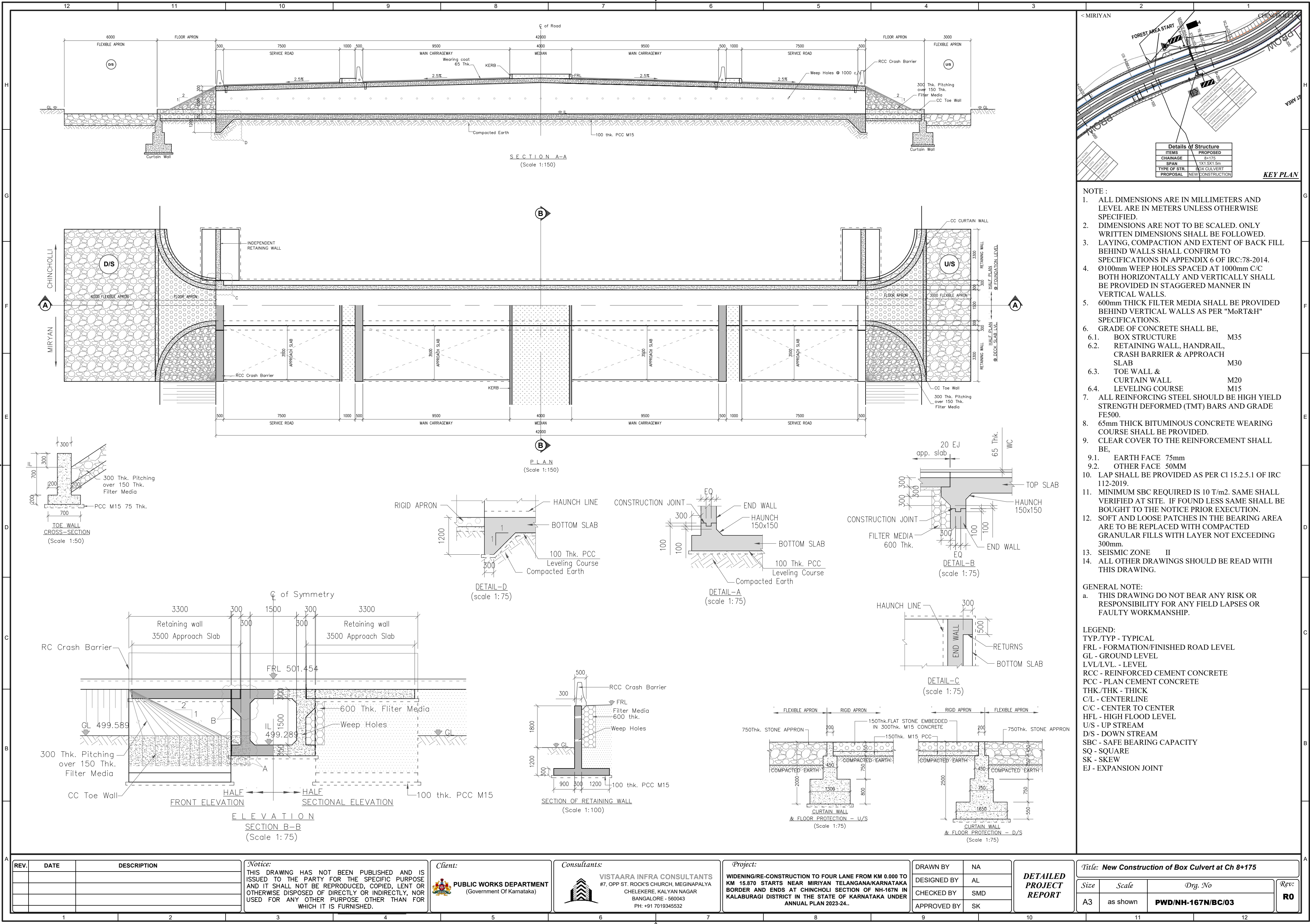
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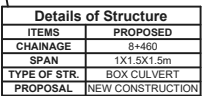
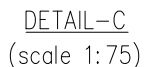
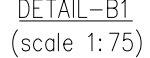
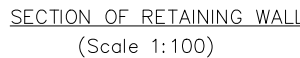
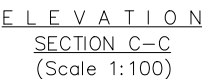
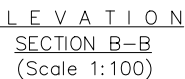
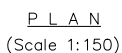
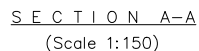
WIDENING/RE-CONSTRUCTION TO FOUR LANE FROM KM 0.000 TO KM 15.870 STARTS NEAR MIRIYAN, TELANGANA/KARNATAKA BORDER AND ENDS AT CHINCHOLI SECTION OF NH-167N IN KALABURAGI DISTRICT IN THE STATE OF KARNATAKA UNDER ANNUAL PLAN 2023-24..

DRAWN BY	NA
DESIGNED BY	AL
CHECKED BY	SMD
APPROVED BY	SK

DETAILED PROJECT REPORT

Title: New Construction of Box Culvert at Ch 0+860				Rev: R0
Size	Scale	Dwg. No		
A3	as shown	PWD/NH-167N/BC/01		





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 - 6.3. TOE WALL & CURTAIN WALL M20
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 - 9.2. OTHER FACE 50MM
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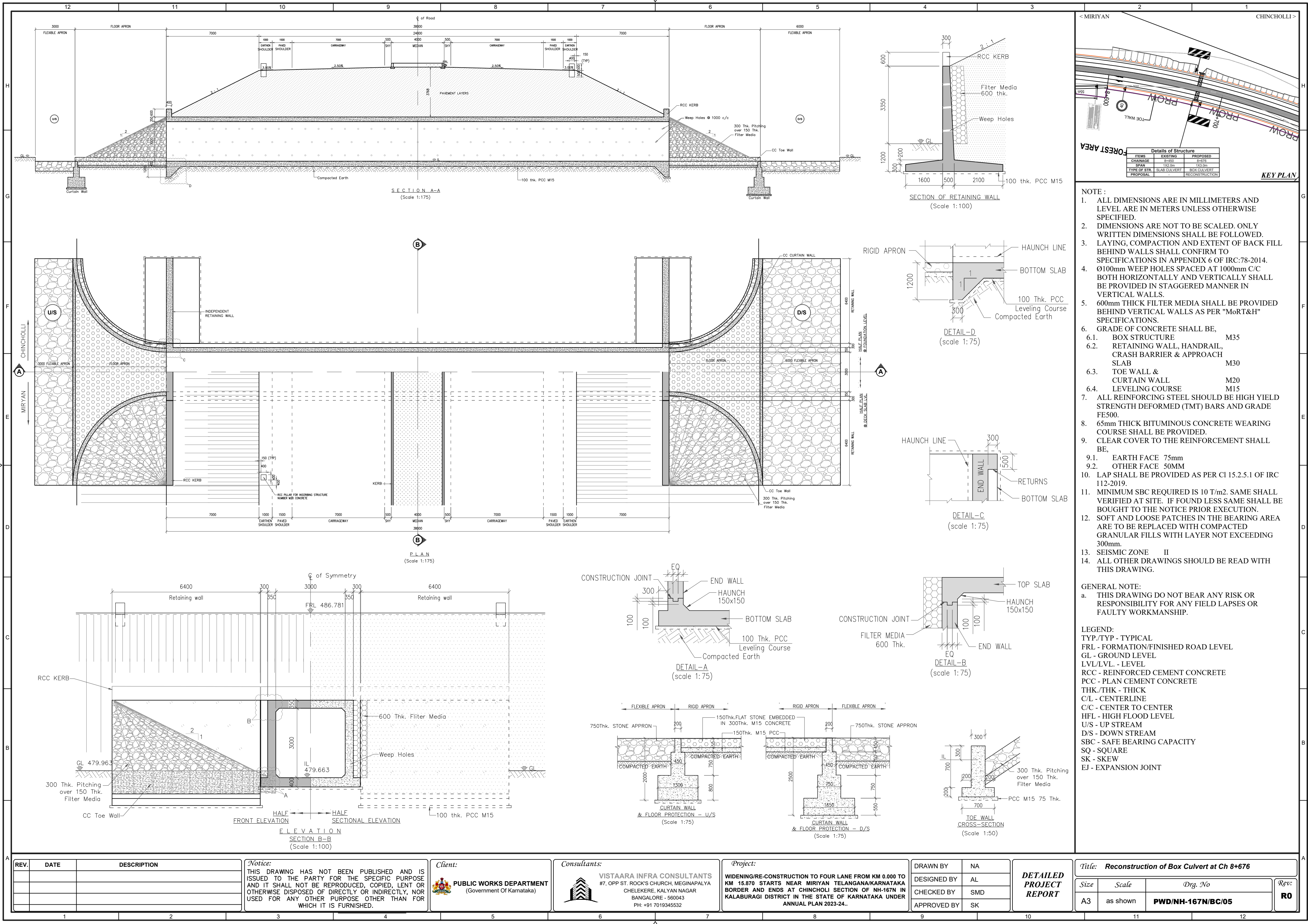
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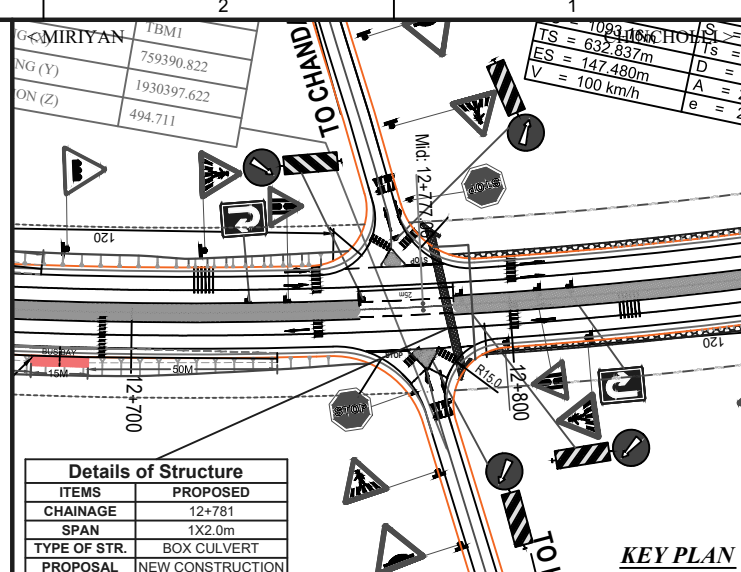
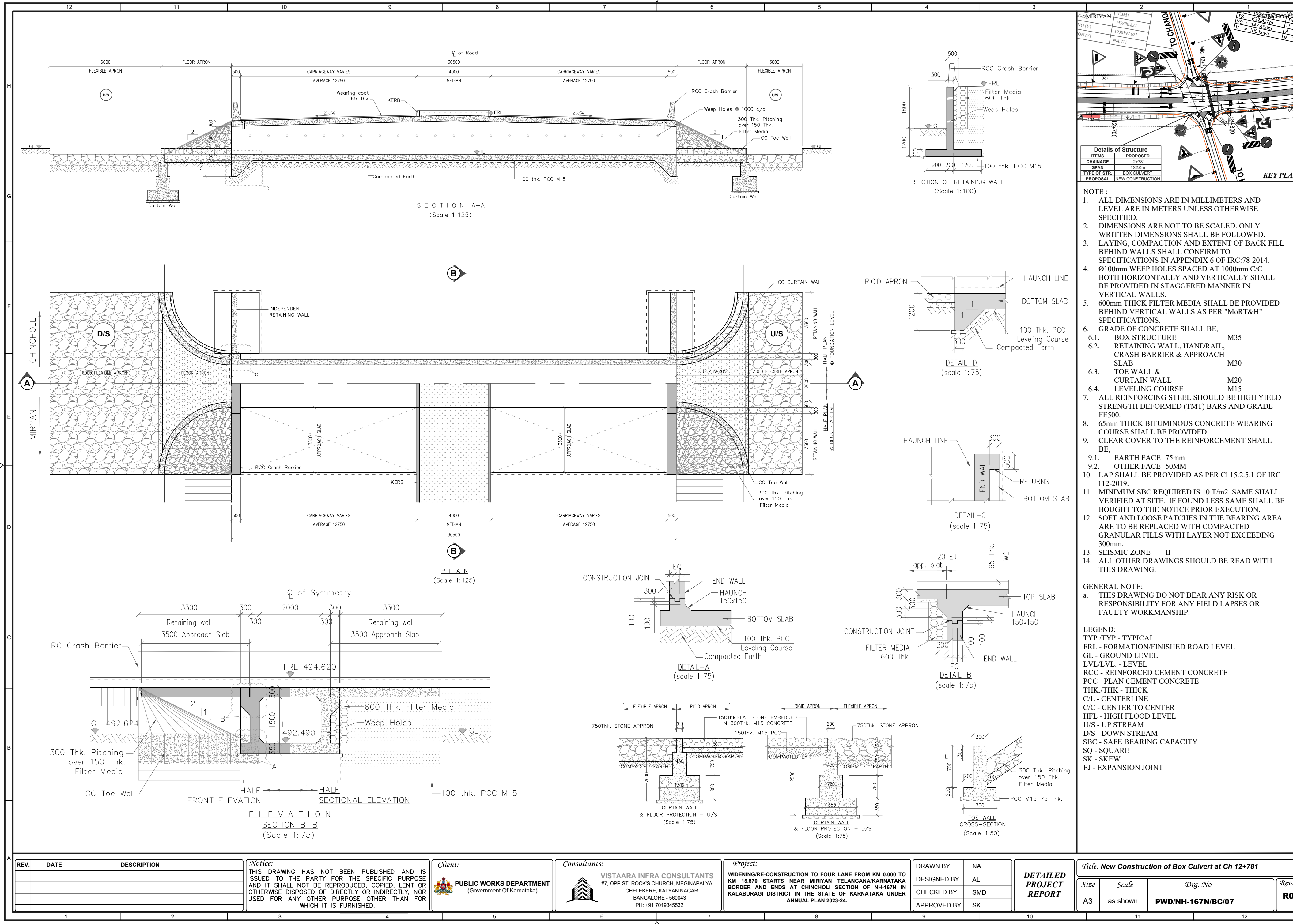
DRAWING

DE
PR
RE

Title: New Construction of Bay Cubert at Ch. 3: 160

Rev.
BO





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REV.	DATE	DESCRIPTION

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Client:

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(Government Of Karnataka)

Consultants:

VISTAARA INFRA CONSULTANTS
#7, OPP ST. ROCK'S CHURCH, MEGINAPALYA
CHELEKERE, KALYAN NAGAR
BANGALORE - 560043
PH: +91 7019345532

Project:

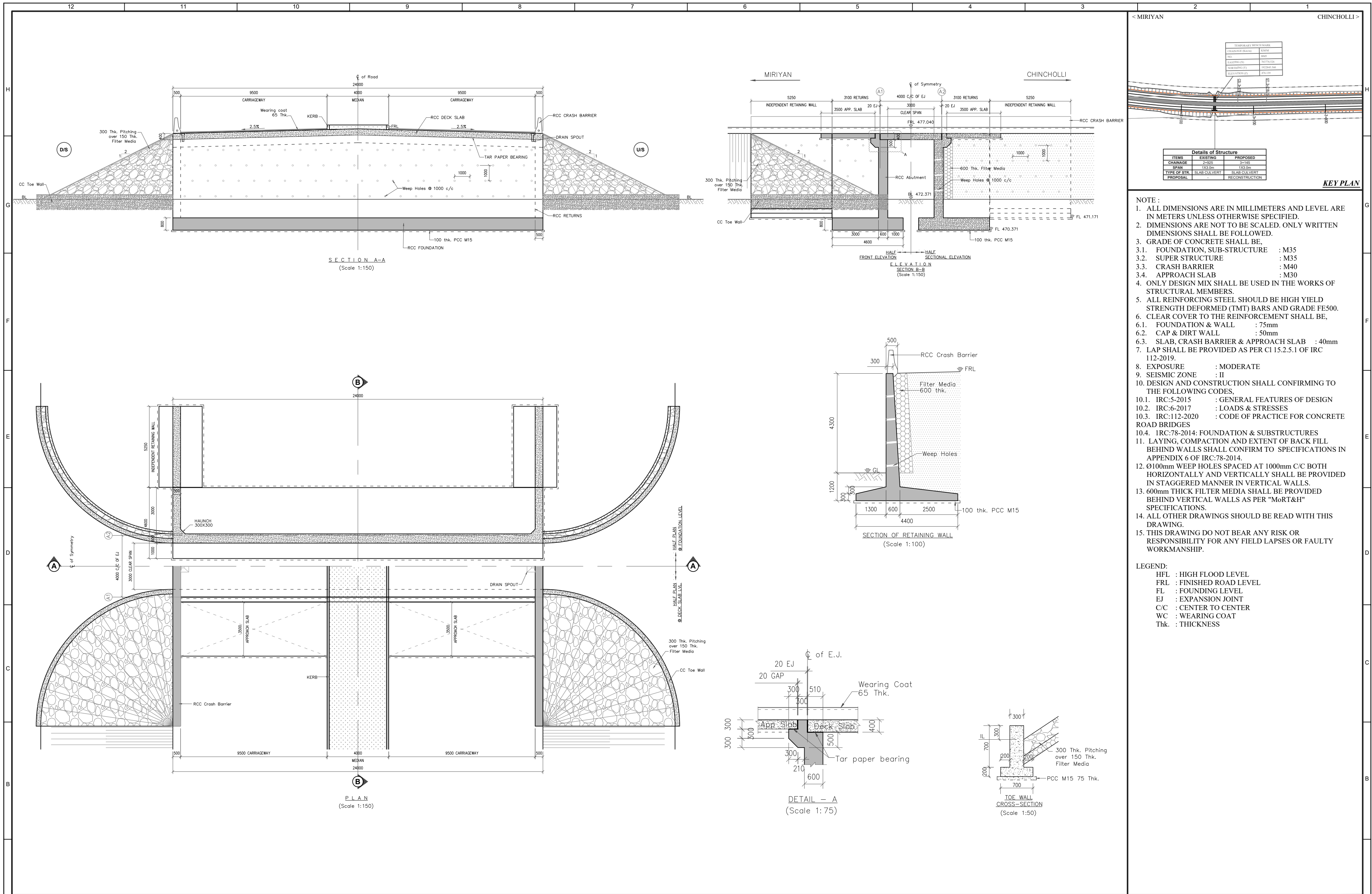
WIDENING/RE-CONSTRUCTION TO FOUR LANE FROM KM 0.000 TO KM 15.870 STARTS NEAR MIRIYAN TELANGANA/KARNATAKA BORDER AND ENDS AT CHINCHOLI SECTION OF NH-167N IN KALABURAGI DISTRICT IN THE STATE OF KARNATAKA UNDER ANNUAL PLAN 2023-24.

DRAWN BY	NA
DESIGNED BY	AL
CHECKED BY	SMD
APPROVED BY	SK

DETAILED PROJECT REPORT

Title: New Construction of Box Culvert at Ch 12+781			
Size	Scale	Dwg. No	Rev: R0
A3	as shown	PWD/NH-167N/BC/07	

SLAB CULVERT



TEMPORARY BENCHMARK		
CHAINAGE (km)	B.M.	REDUCED LEVEL (m)
2+000	B.M.	1075.52
2+050	B.M.	1075.52
2+100	B.M.	1075.52

Details of Structure		
ITEMS	EXISTING	PROPOSED
CHAINAGE	2+025	3+145
SPAN	1X3.0m	1X3.0m
TYPE OF STR.	SLAB CULVERT	SLAB CULVERT
PROPOSAL	-	RECONSTRUCTION

KEY PLAN

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 - CRASH BARRIER : M40
 - APPROACH SLAB : M30
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 - ALL REINFORCING STEEL SHOULD BE HIGH YIELD STRENGTH DEFORMED (TMT) BARS AND GRADE FE500.
 - CLEAR COVER TO THE REINFORCEMENT SHALL BE,
 - FOUNDATION & WALL : 75mm
 - CAP & DIRT WALL : 50mm
 - SLAB, CRASH BARRIER & APPROACH SLAB : 40mm
 - LAP SHALL BE PROVIDED AS PER CI 15.2.5.1 OF IRC 112-2019.
 - EXPOSURE : MODERATE
 - SEISMIC ZONE : II
 - DESIGN AND CONSTRUCTION SHALL CONFIRMING TO THE FOLLOWING CODES,
 - IRC:5-2015 : GENERAL FEATURES OF DESIGN
 - IRC:6-2017 : LOADS & STRESSES
 - IRC:112-2020 : CODE OF PRACTICE FOR CONCRETE ROAD BRIDGES
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LEGEND:

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FRL : FINISHED ROAD LEVEL
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Client:
 **PWD - National Highways**
Kalaburagi Division
(Government Of Karnataka)

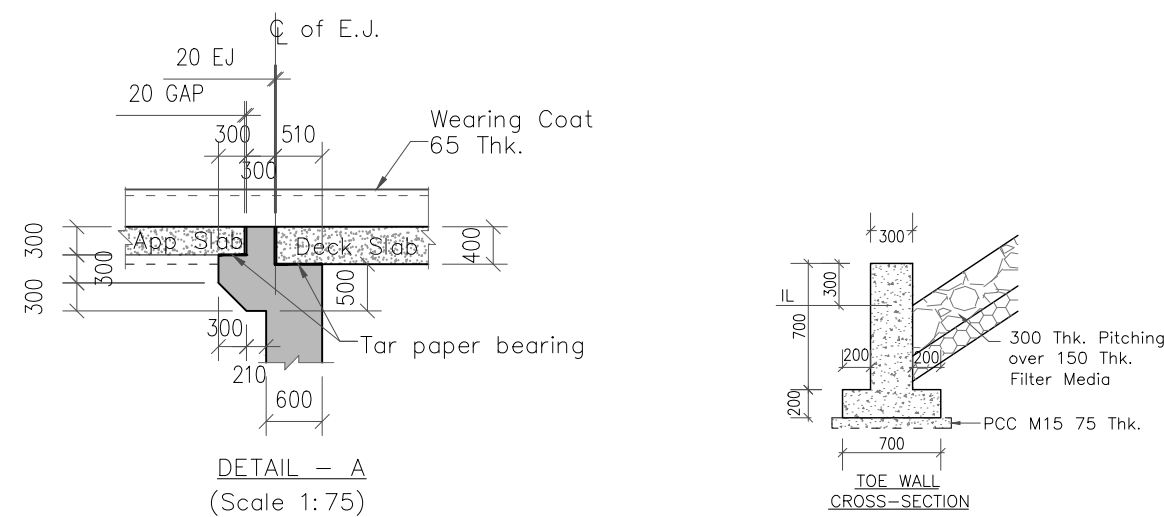
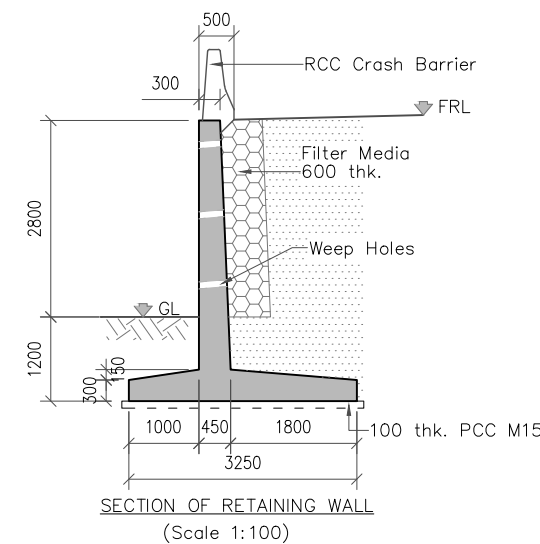
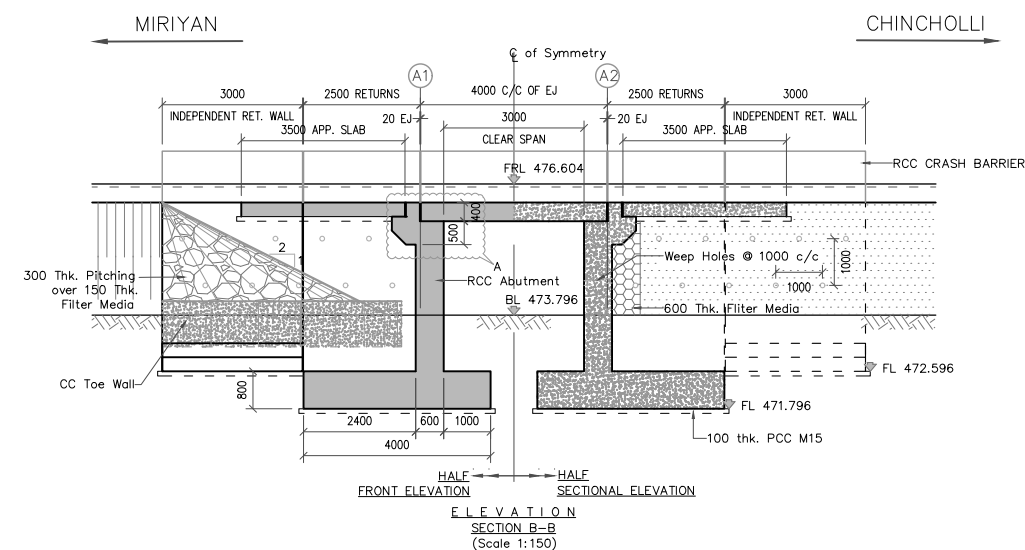
Consultants:
 **VISTAARA INFRA CONSULTANTS**
#7, OPP ST. ROCK'S CHURCH, MEGINAPALYA
CHELEKERE, KALYAN NAGAR
BANGALORE - 560043
PH: +91 7019345532

Project:
WIDENING/RE-CONSTRUCTION TO FOUR LANE FROM KM 0.000 TO KM 15.870 STARTS NEAR MIRIYAN TELANGANA/KARNATAKA BORDER AND ENDS AT CHINCHOLI SECTION OF NH-167N IN KALABURAGI DISTRICT IN THE STATE OF KARNATAKA UNDER ANNUAL PLAN 2023-24.

DRAWN BY	NA
DESIGNED BY	AL
CHECKED BY	SMD
APPROVED BY	SK

**DETAILED
PROJECT
REPORT**

Title: Reconstruction of Slab Culvert at Ch 3+145			
Size	Scale	Drwg. No	Rev.
A3	as shown	NH-167N/MC/HW/SC/01	R0



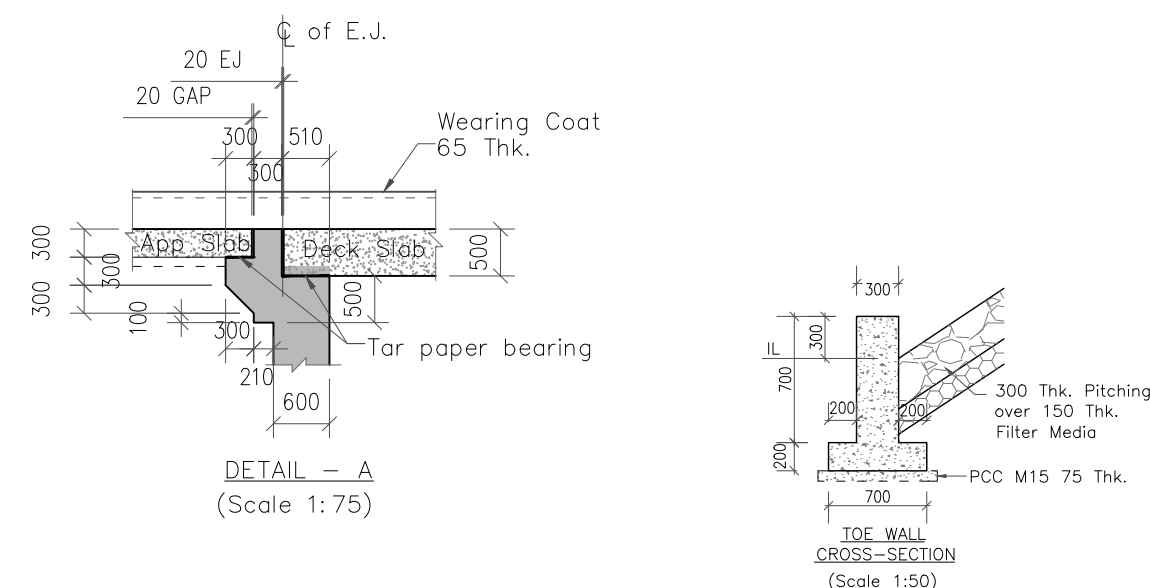
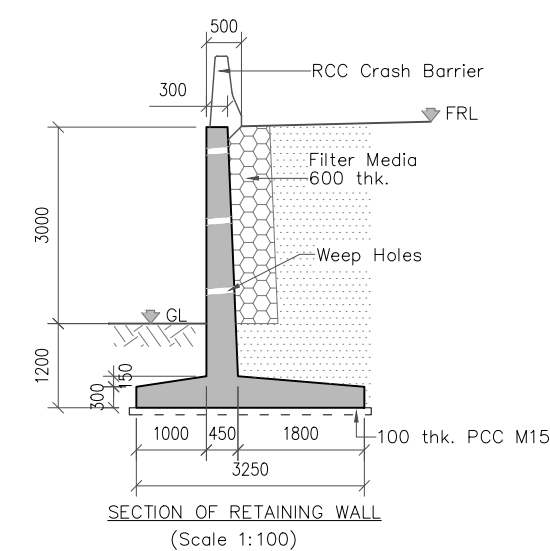
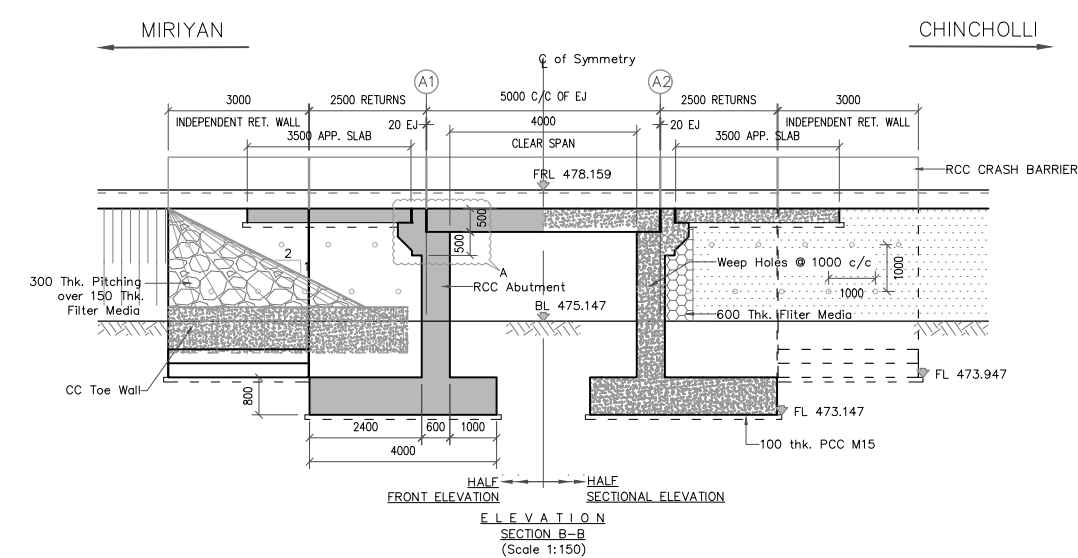
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 - 3.1. FOUNDATION, SUB-STRUCTURE : M35
 - 3.2. SUPER STRUCTURE : M35
 - 3.3. CRASH BARRIER : M40
 - 3.4. APPROACH SLAB : M30
4. ONLY DESIGN MIX SHALL BE USED IN THE WORKS OF STRUCTURAL MEMBERS.
5. ALL REINFORCING STEEL SHOULD BE HIGH YIELD STRENGTH DEFORMED (TMT) BARS AND GRADE FE500.
6. CLEAR COVER TO THE REINFORCEMENT SHALL BE,
 - 6.1. FOUNDATION & WALL : 75mm
 - 6.2. CAP & DIRT WALL : 50mm
 - 6.3. SLAB, CRASH BARRIER & APPROACH SLAB : 40mm
7. LAP SHALL BE PROVIDED AS PER CI 15.2.5.1 OF IRC 112-2019.
8. EXPOSURE : MODERATE
9. SEISMIC ZONE : II
10. DESIGN AND CONSTRUCTION SHALL CONFIRMING TO THE FOLLOWING CODES,
 - 10.1. IRC:5-2015 : GENERAL FEATURES OF DESIGN
 - 10.2. IRC:6-2017 : LOADS & STRESSES
 - 10.3. IRC:112-2020 : CODE OF PRACTICE FOR CONCRETE ROAD BRIDGES
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LEGEND:

HFL	: HIGH FLOOD LEVEL
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									DESIGNED BY		AL	<table><tr><th>Size</th><th>Scale</th><th colspan="2">Drg. No</th><th rowspan="2">Rev: R0 </th></tr><tr><td>A3</td><td>as shown</td><td colspan="2">NH-167N/MC/HW/SC/02</td></tr></table>	Size	Scale	Drg. No		Rev: R0	A3	as shown	NH-167N/MC/HW/SC/02	
Size	Scale	Drg. No						Rev: R0													
A3	as shown	NH-167N/MC/HW/SC/02																			
									CHECKED BY		SMD										
					APPROVED BY	SK															



Details of Structure		
ITEMS	EXISTING	PROPOSED
CHAINAGE	5+040	5+240
SPAN	4X0.9Ø	1X4.0m
TYPE OF STR.	PIPE CULVERT	SLAB CULVERT
PROPOSAL	-	RECONSTRUCTION

KEY PLAN

NOTE :

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PH: +91 7019345532

Project:

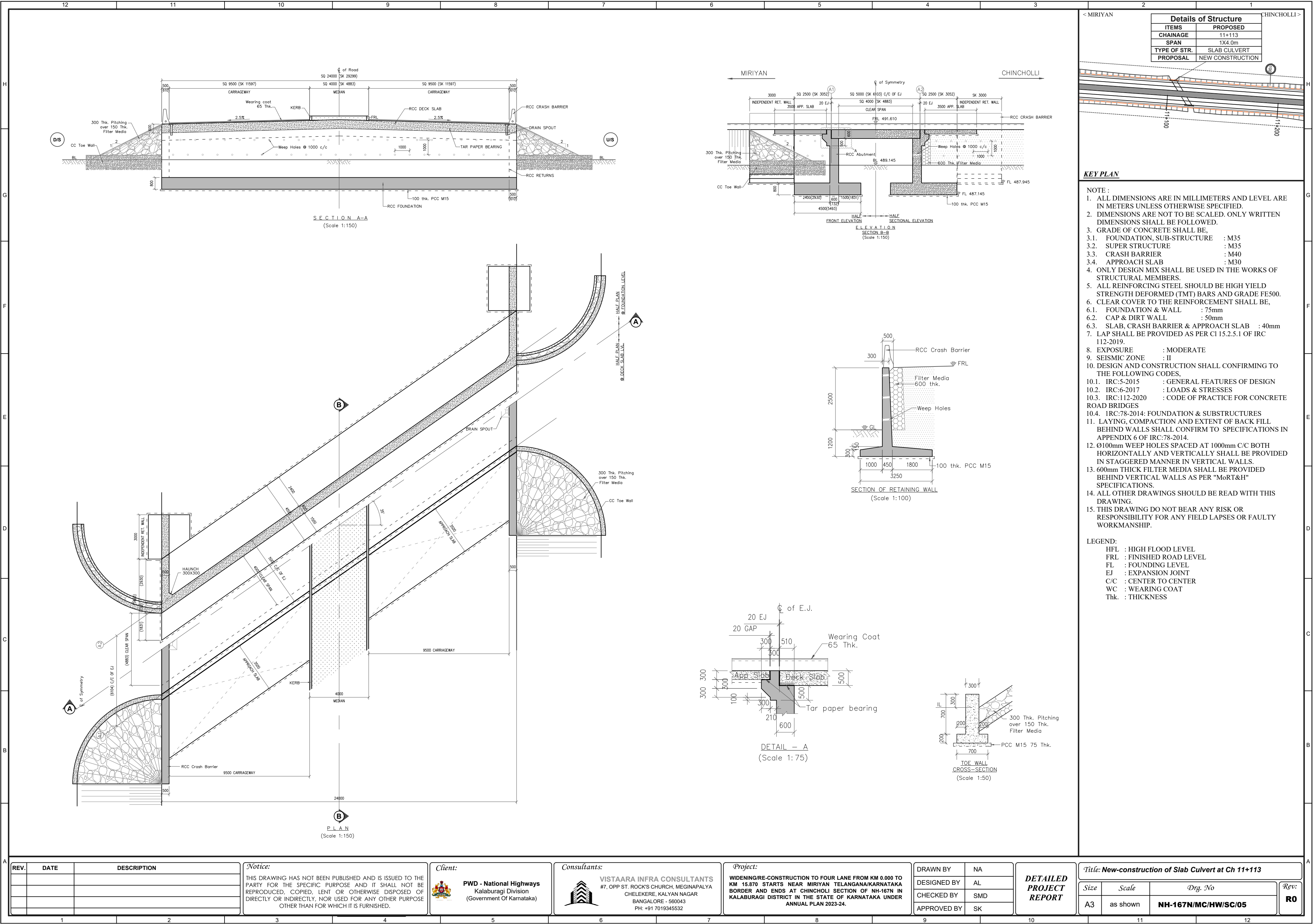
WIDENING/RE-CONSTRUCTION TO FOUR LANE FROM KM 0.000 TO KM 15.870 STARTS NEAR MIRIYAN TELANGANA/KARNATAKA BORDER AND ENDS AT CHINCHOLI SECTION OF NH-167N IN KALABURAGI DISTRICT IN THE STATE OF KARNATAKA UNDER ANNUAL PLAN 2023-24.

DRAWN BY	NA
DESIGNED BY	AL
CHECKED BY	SMD
APPROVED BY	SK

**DETAILED
PROJECT
REPORT**

Title: Reconstruction of Slab Culvert at Ch 5+240			
Size	Scale	Drwg. No	Rev
A3	as shown	NH-167N/MC/HW/SC/03	R0

REV.	DATE	DESCRIPTION	<i>Notice:</i> THIS DRAWING HAS NOT BEEN PUBLISHED AND IS ISSUED TO THE PARTY FOR THE SPECIFIC PURPOSE AND IT SHALL NOT BE REPRODUCED, COPIED, LENT OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY, NOR USED FOR ANY OTHER PURPOSE OTHER THAN FOR WHICH IT IS FURNISHED.	<i>Client:</i>  PWD - National Highways Kalaburagi Division (Government Of Karnataka)	<i>Consultants:</i>  VISTAARA INFRA CONSULTANTS #7, OPP ST. ROCK'S CHURCH, MEGINAPALYA CHELEKERE, KALYAN NAGAR BANGALORE - 560043 PH: +91 7019345532	<i>Project:</i> WIDENING/RE-CONSTRUCTION TO FOUR LANE FROM KM 0.000 TO KM 15.870 STARTS NEAR MIRIYAN TELANGANA/KARNATAKA BORDER AND ENDS AT CHINCHOLI SECTION OF NH-167N IN KALABURAGI DISTRICT IN THE STATE OF KARNATAKA UNDER ANNUAL PLAN 2023-24.	DRAWN BY	NA	DETAILED PROJECT REPORT	<i>Title:</i> Reconstruction of Slab Culvert at Ch 6+750			
							DESIGNED BY	AL		<i>Size</i>	<i>Scale</i>	<i>Org. No</i>	<i>Rev:</i> R0
							CHECKED BY	SMD		A3	as shown	NH-167N/MC/HW/SC/04	
							APPROVED BY	SK					



Details of Structure	
ITEMS	PROPOSED
CHAINAGE	11+113
SPAN	1X4.0m
TYPE OF STR.	SLAB CULVERT
PROPOSAL	NEW CONSTRUCTION

KEY PLAN

- NOTE :
- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVEL ARE IN METERS UNLESS OTHERWISE SPECIFIED.
 - DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
 - GRADE OF CONCRETE SHALL BE,
 - FOUNDATION, SUB-STRUCTURE : M35
 - SUPER STRUCTURE : M35
 - CRASH BARRIER : M40
 - APPROACH SLAB : M30
 - ONLY DESIGN MIX SHALL BE USED IN THE WORKS OF STRUCTURAL MEMBERS.
 - ALL REINFORCING STEEL SHOULD BE HIGH YIELD STRENGTH DEFORMED (TMT) BARS AND GRADE FE500.
 - CLEAR COVER TO THE REINFORCEMENT SHALL BE,
 - FOUNDATION & WALL : 75mm
 - CAP & DIRT WALL : 50mm
 - SLAB, CRASH BARRIER & APPROACH SLAB : 40mm
 - LAP SHALL BE PROVIDED AS PER CI 15.2.5.1 OF IRC 112-2019.
 - EXPOSURE : MODERATE
 - SEISMIC ZONE : II
 - DESIGN AND CONSTRUCTION SHALL CONFIRMING TO THE FOLLOWING CODES,
 - IRC:5-2015 : GENERAL FEATURES OF DESIGN
 - IRC:6-2017 : LOADS & STRESSES
 - IRC:112-2020 : CODE OF PRACTICE FOR CONCRETE ROAD BRIDGES
 - IRC:78-2014: FOUNDATION & SUBSTRUCTURES
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 - 600mm THICK FILTER MEDIA SHALL BE PROVIDED BEHIND VERTICAL WALLS AS PER "MoRT&H" SPECIFICATIONS.
 - ALL OTHER DRAWINGS SHOULD BE READ WITH THIS DRAWING.
 - THIS DRAWING DO NOT BEAR ANY RISK OR RESPONSIBILITY FOR ANY FIELD LAPSES OR FAULTY WORKMANSHIP.

LEGEND:

- HFL : HIGH FLOOD LEVEL
FRL : FINISHED ROAD LEVEL
FL : FOUNING LEVEL
EJ : EXPANSION JOINT
C/C : CENTER TO CENTER
WC : WEARING COAT
Thk. : THICKNESS

REV.	DATE	DESCRIPTION

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Kalaburagi Division
(Government Of Karnataka)

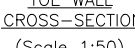
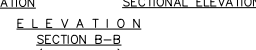
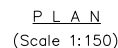
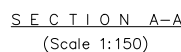
Consultants:
 **VISTAARA INFRA CONSULTANTS**
#7, OPP ST. ROCK'S CHURCH, MEGINAPALYA
CHELEKERE, KALYAN NAGAR
BANGALORE - 560043
PH: +91 7019345532

Project:
WIDENING/RE-CONSTRUCTION TO FOUR LANE FROM KM 0.000 TO KM 15.870 STARTS NEAR MIRIYAN TANGANA/KARNATAKA BORDER AND ENDS AT CHINCHOLI SECTION OF NH-167N IN KALABURAGI DISTRICT IN THE STATE OF KARNATAKA UNDER ANNUAL PLAN 2023-24.

DRAWN BY	NA
DESIGNED BY	AL
CHECKED BY	SMD
APPROVED BY	SK

DETAILED PROJECT REPORT

Title: New-construction of Slab Culvert at Ch 11+113			
Size	Scale	Drwg. No	Rev:
A3	as shown	NH-167N/MC/HW/SC/05	R0



NOTE :

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 - 3.2. SUPER STRUCTURE : M35
 - 3.3. CRASH BARRIER : M40
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5. ALL REINFORCING STEEL SHOULD BE HIGH YIELD STRENGTH DEFORMED (TMT) BARS AND GRADE FE500.
6. CLEAR COVER TO THE REINFORCEMENT SHALL BE,
 - 6.1. FOUNDATION & WALL : 75mm
 - 6.2. CAP & DIRT WALL : 50mm
 - 6.3. SLAB, CRASH BARRIER & APPROACH SLAB : 40mm
7. LAP SHALL BE PROVIDED AS PER CI 15.2.5.1 OF IRC 112-2019.
8. EXPOSURE : MODERATE
9. SEISMIC ZONE : II
10. DESIGN AND CONSTRUCTION SHALL CONFORMING TO THE FOLLOWING CODES,
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 - 10.3. IRC:112-2020 : CODE OF PRACTICE FOR CONCRETE ROAD BRIDGES
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HFL : HIGH FLOOD LEVEL
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 WC : WEARING COAT
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1

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PWD - National Highways
Kalaburagi Division
(Government Of Karnataka)

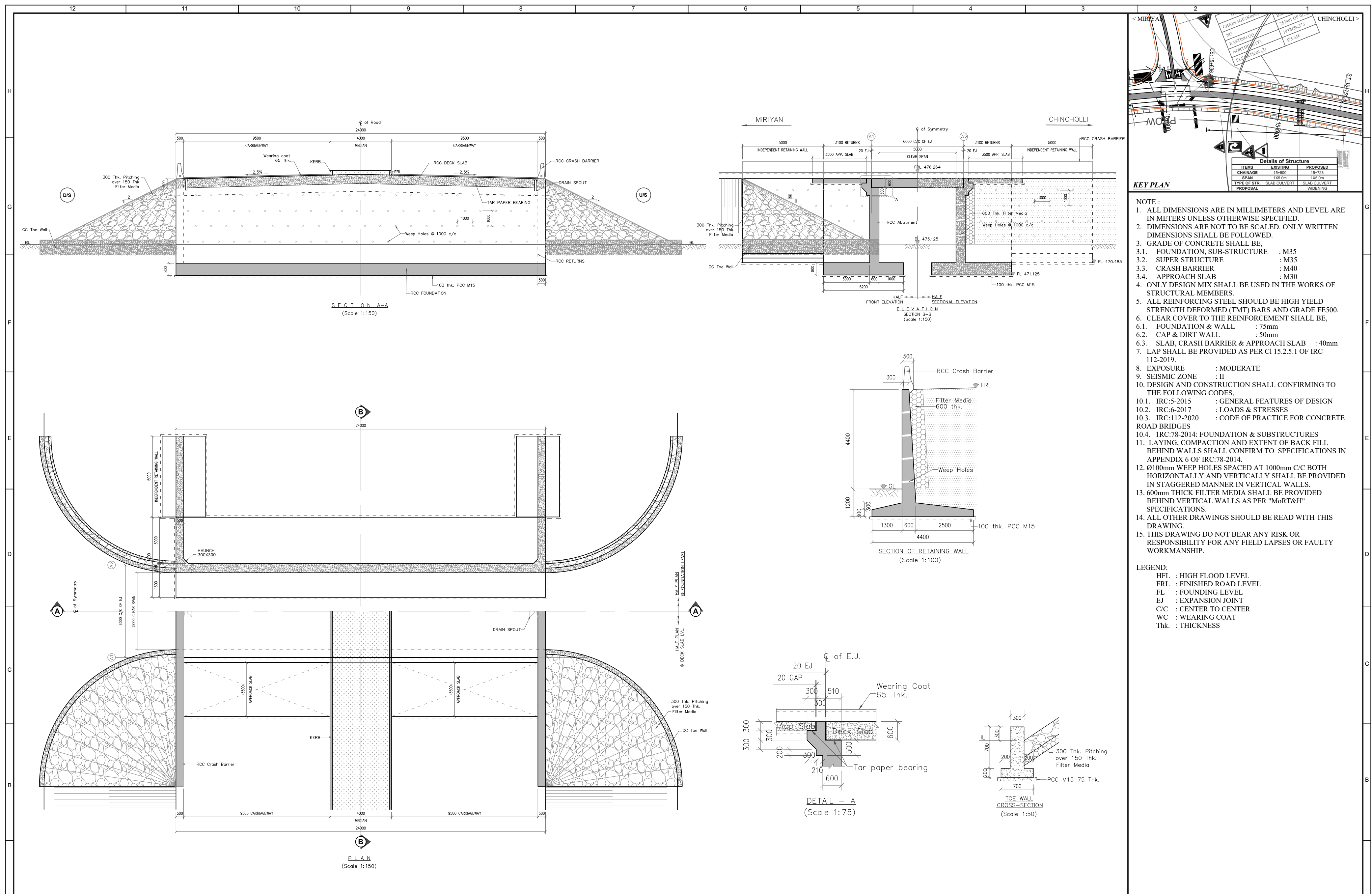
VISTAARA INFRA CONSULTANTS
#7, OPP ST. ROCK'S CHURCH, MEGINAPALYA
CHELEKERE, KALYAN NAGAR
BANGALORE - 560043
PH: +91 7019345532

WIDENING/RE-CONSTRUCTION TO FOUR LANE FROM KM 0.000 TO KM 15.870 STARTS NEAR MIRIYAN TELANGANA/KARNATAKA BORDER AND ENDS AT CHINCHOLI SECTION OF NH-167N IN KALABURAGI DISTRICT IN THE STATE OF KARNATAKA UNDER ANNUAL PLAN 2023-24.

9

10

	11	12
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Client:

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Consultants:

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CHELEKERE, KALYAN NAGAR
BANGALORE - 560043
PH: +91 7019345532

Project:
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BORDER AND ENDS AT CHINCHOLI SECTION OF NH-167N IN
KALABURAGI DISTRICT IN THE STATE OF KARNATAKA UNDER
ANNUAL PLAN 2023-24.

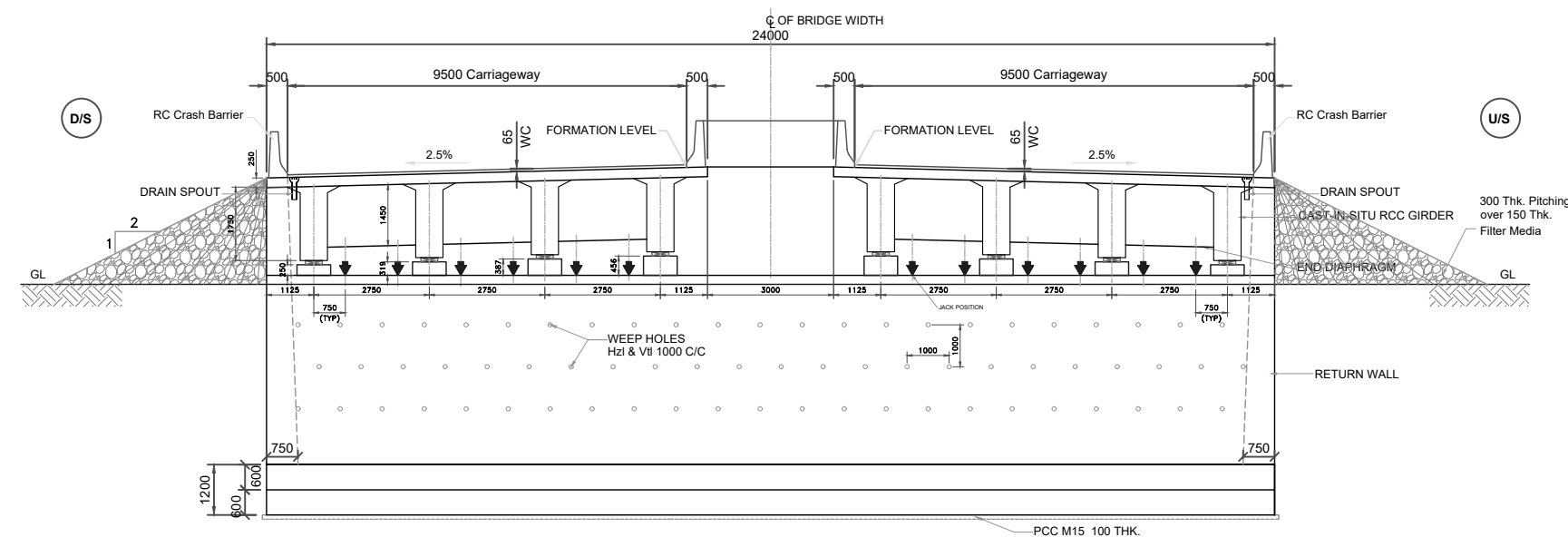
DRAWN BY	NA
DESIGNED BY	AL
CHECKED BY	SMD
APPROVED BY	SK

**DETAILED
PROJECT
REPORT**

Title: **Reconstruction of Slab Culvert at Ch 15+723**

<i>Size</i>	<i>Scale</i>	<i>Drq. No</i>	<i>Rev:</i> R0
A3	as shown	NH-167N/MC/HW/SC/07	

MINOR BRIDGE



Details of Structure	
ITEMS	PROPOSED
CHAINAGE	1+880
SPAN	1X20.0m
TYPE OF STR.	MINOR BRIDGE
PROPOSAL	NEW CONSTRUCTION

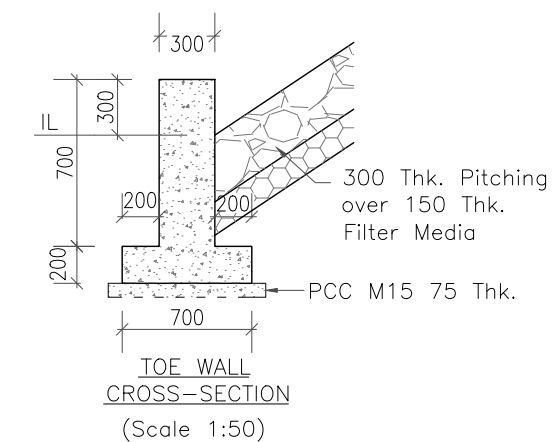
NOTE :

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 - 3.4. APPROACH SLAB : M30
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 - 6.2. CAP & DIRT WALL : 50mm
 - 6.3. SLAB, CRASH BARRIER & APPROACH SLAB : 40mm
7. LAP SHALL BE PROVIDED AS PER CL 15.2.5.1 OF IRC 112-2019.
8. EXPOSURE : MODERATE
9. SEISMIC ZONE : II
10. DESIGN AND CONSTRUCTION SHALL CONFIRMING TO THE FOLLOWING CODES,
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 - 10.2. IRC:6-2017 : LOADS & STRESSES
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Technical drawings of RCC T-girder cross-sections at mid-span and end. The mid-span section shows a 450mm wide base, 1750mm height, and 65mm top flange. The end section shows a 650mm wide base, 1750mm height, and 65mm top flange. Both sections have a 250mm top flange thickness. A haunch of 300 x 150 is indicated between the two sections.

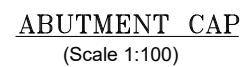
RCC 'T' GIRDER CROSS SECTION @ MID
(CAST IN SITU RCC 'T' GIRDER)
(Scale 1:50)

RCC 'T' GIRDER CROSS SECTION @ END
(CAST IN SITU RCC 'T' GIRDER)
(Scale 1:50)



CROSS-SECTION
(Scale 1:50)

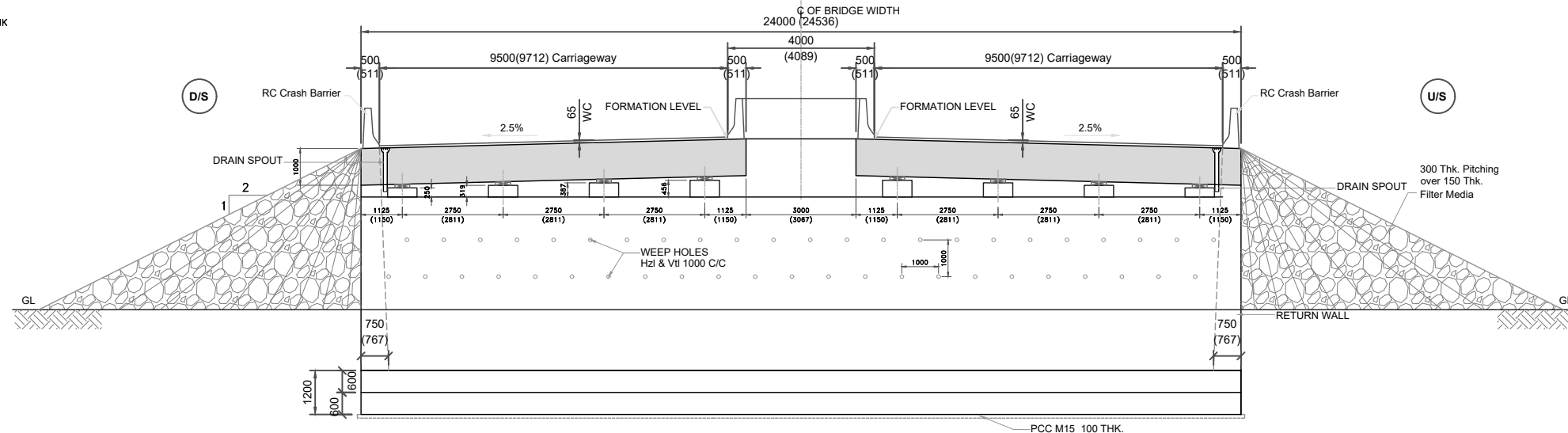
LONGITUDINAL ELEVATION
(Scale 1:200)



RCC 'T' GIRDER CROSS SECTION @ MID
 (CAST IN SITU RCC 'T' GIRDER)
 (Scale 1:50)

RCC 'T' GIRDER CROSS SECTION @ END
 (CAST IN SITU RCC 'T' GIRDER)
 (Scale 1:50)

Title: New-construction of Minor Bridge at Ch 1+880			
Size	Scale	Drg. No	Rev:
A3	as shown	NH-167N/MC/HW/MNB/01	R0



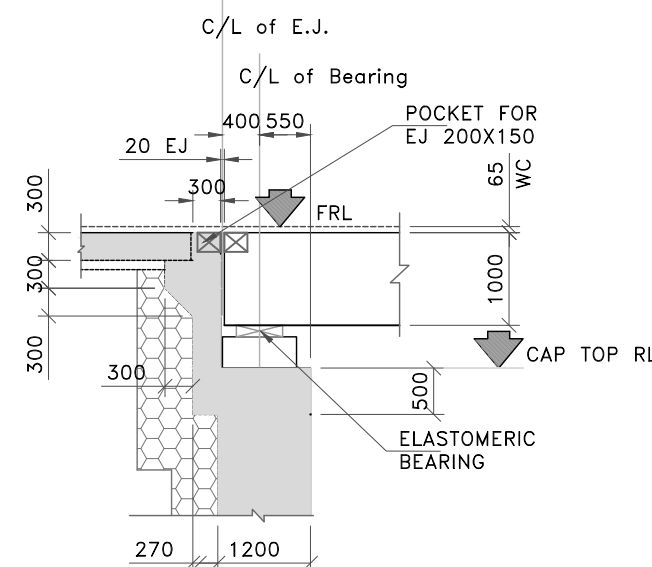
CROSS-SECTION OF ABUTMENT
(Scale 1:150)

Details of Structure	
ITEMS	PROPOSED
CHAINAGE	2+745
SPAN	1X12.0m
TYPE OF STR.	MINOR BRIDGE
PROPOSAL	NEW CONSTRUCTION

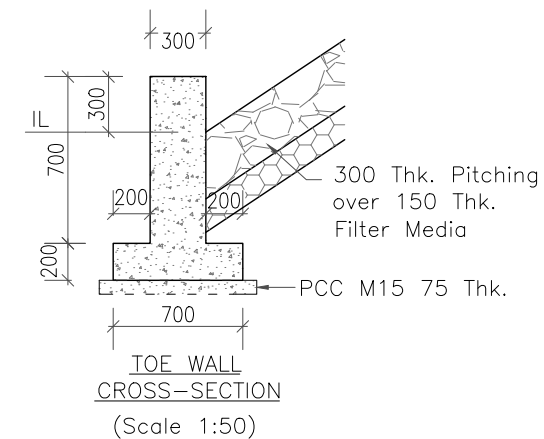
The diagram illustrates the cross-section of a retaining wall with the following details:

- Top Section:** A top width of 500 units. Above the wall is an "RCC Crash Barrier" with a height of 300 units.
- Water Level:** The "FRL" (Free Surface Water Level) is indicated by a horizontal line with an arrow pointing to the right.
- Filter Media:** A layer of "Filter Media 600 thk." (600 units thick) is shown on the right side of the wall, containing "Weep Holes".
- Wall Height and Dimensions:**
 - Total height: 4500 units.
 - Height from base to FRL: 1500 units.
 - Base width: 5200 units.
 - Top width: 500 units.
 - Bottom width: 1800 units.
 - Width of filter media layer: 750 units.
 - Width of base slab: 2650 units.
 - Base slab thickness: 100 thk. PCC M15.
- Ground Level:** The "GL" (Ground Level) is indicated by a horizontal line with an arrow pointing to the left.
- Scale:** (Scale 1:100)

SECTION OF RETAINING WALL
(Scale 1:100)



ABUTMENT CAP
(Scale 1:75)



TOE WALL
CROSS-SECTION
(Scale 1:50)

[illegible]

Client:

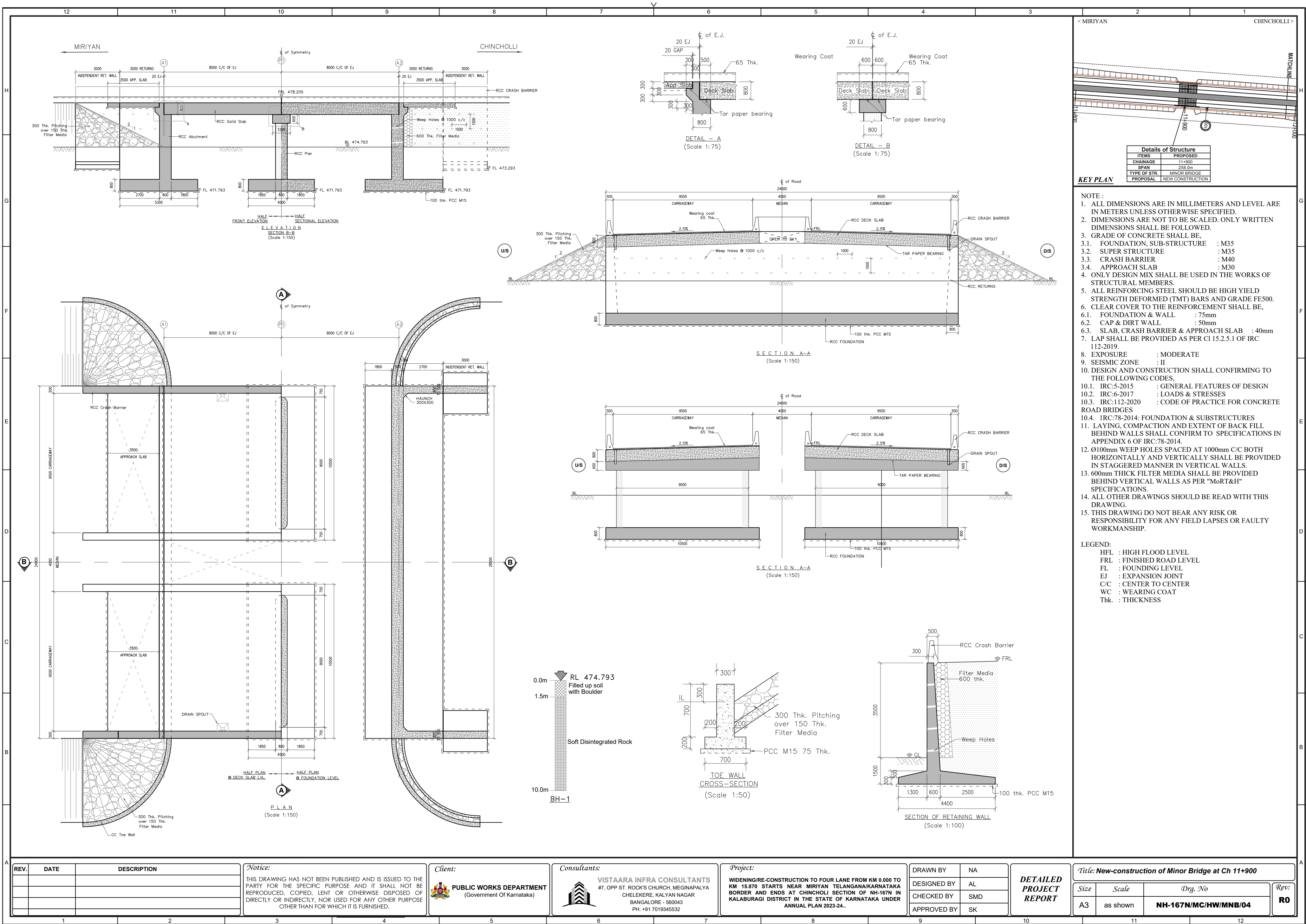
 **PUBLIC WORKS DEPARTMENT**
(Government Of Karnataka)

Project:

WIDENING/RE-CONSTRUCTION TO FOUR LANE FROM KM 0.000 TO KM 15.870 STARTS NEAR MIRIYAN TELANGANA/KARNATAKA BORDER AND ENDS AT CHINCHOLI SECTION OF NH-167N IN KALABURAGI DISTRICT IN THE STATE OF KARNATAKA UNDER ANNUAL PLAN 2023-24..

**DETAILED
PROJECT
REPORT**

<i>Size</i>	<i>Scale</i>	<i>Drg. No</i>	<i>Rev:</i> R0
A3	as shown	NH-167N/MC/HW/MNB/02	



Details of Structure	
ITEMS	PROPOSED
CHAINAGE	11+900
SPAN	2x8.0m
TYPE OF STR.	MINOR BRIDGE
PROPOSAL	NEW CONSTRUCTION

KEY PLAN

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LEGEND:

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FL : FOUNDING LEVEL
EJ : EXPANSION JOINT
C/C : CENTER TO CENTER
WC : WEARING COAT
Thk. : THICKNESS

REV.	DATE	DESCRIPTION

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Client:
 **PUBLIC WORKS DEPARTMENT**
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Consultants:
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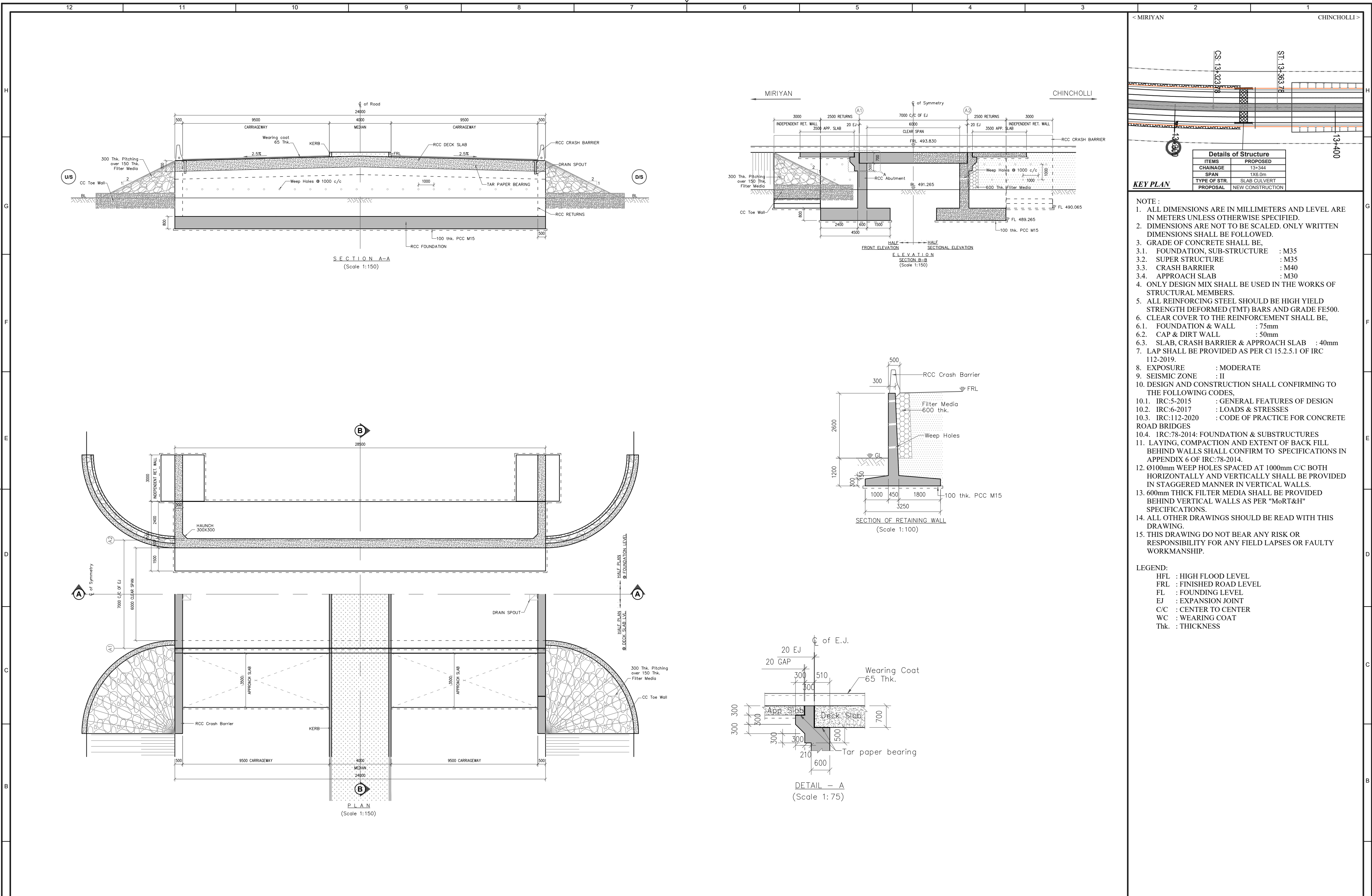
Project:
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DRAWN BY	NA
DESIGNED BY	AL
CHECKED BY	SMD
APPROVED BY	SK

DETAILED
PROJECT
REPORT

Title: **New-construction of Minor Bridge at Ch 11+900**

Size	Scale	Dwg. No	Rev:
A3	as shown	NH-167N/MC/HW/MNB/04	R0



< MIRIYAN CHINCHOLLI >

CS 13+323.9 ST 13+363.76

13+400

Details of Structure	
ITEMS	PROPOSED
CHAINAGE	13+344
SPAN	1X8.0m
TYPE OF STR.	SLAB CULVERT
PROPOSAL	NEW CONSTRUCTION

KEY PLAN

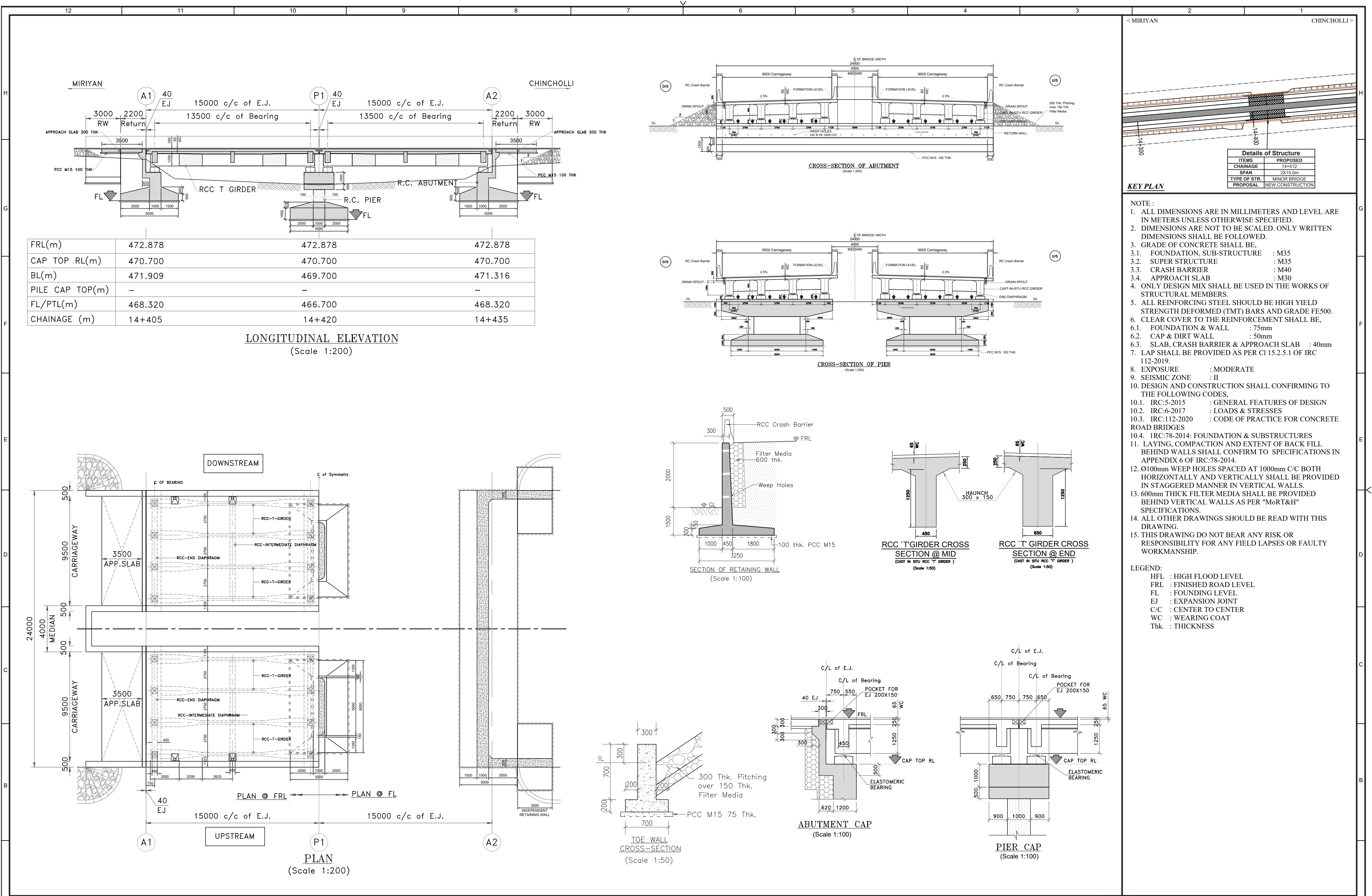
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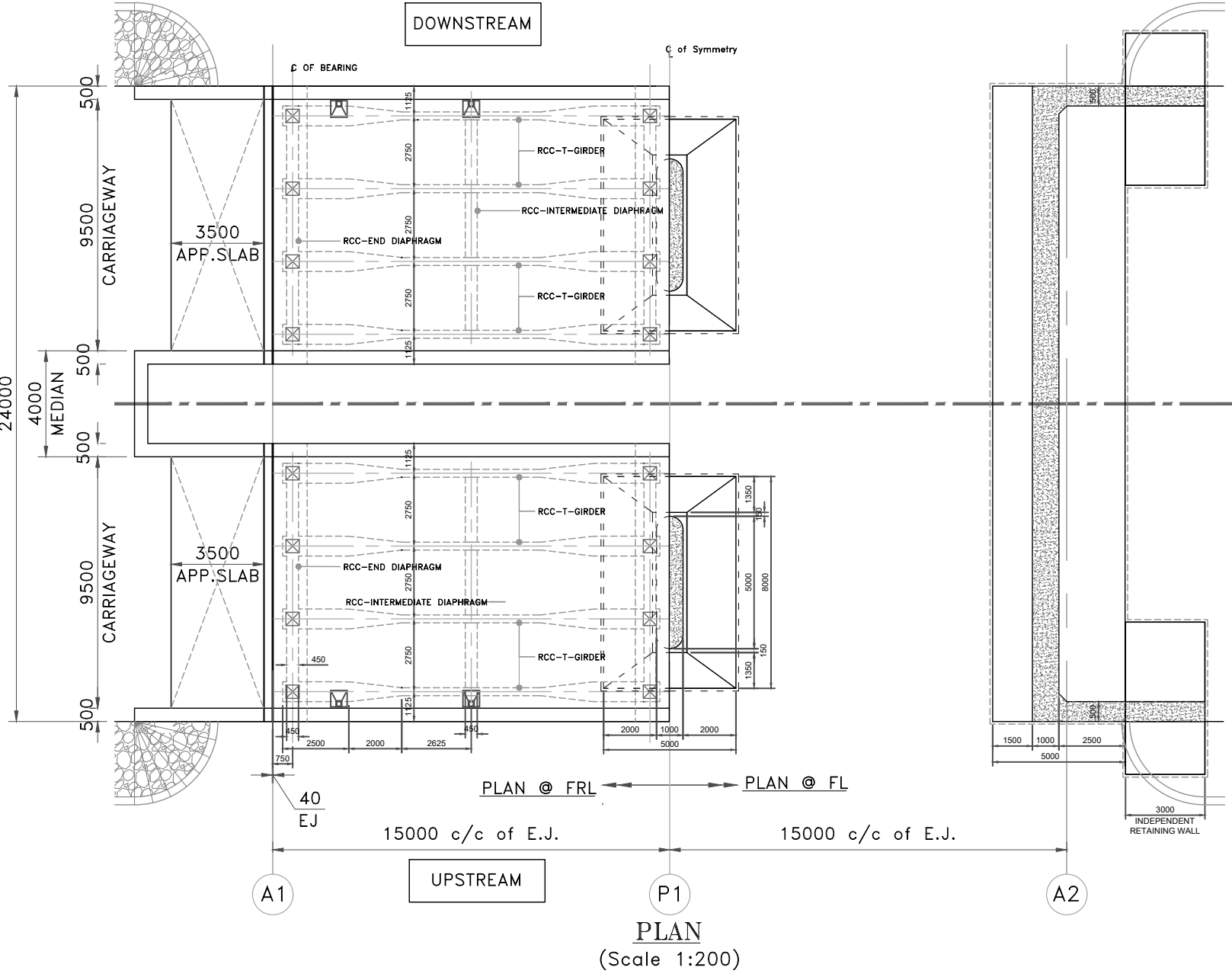
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WC : WEARING COAT
Thk. : THICKNESS

REV.		DATE		DESCRIPTION		Notice: THIS DRAWING HAS NOT BEEN PUBLISHED AND IS ISSUED TO THE PARTY FOR THE SMALL NOT BE REPRODUCED, COPIED, LENT OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY, NOR USED FOR ANY OTHER PURPOSE OTHER THAN FOR WHICH IT IS FURNISHED.		Client:  PWD - National Highways Kalaburagi Division (Government Of Karnataka)		Consultants:  VISTAARA INFRA CONSULTANTS #7, OPP ST. ROCK'S CHURCH, MEGINAPALYA CHELEKERE, KALYAN NAGAR BANGALORE - 560043 PH: +91 7019345532		Project: WIDENING/RE-CONSTRUCTION TO FOUR LANE FROM KM 0.000 TO KM 15.870 STARTS NEAR MIRIYAN TELANGANA/KARNATAKA BORDER AND ENDS AT CHINCHOLI SECTION OF NH-167N IN KALABURAGI DISTRICT IN THE STATE OF KARNATAKA UNDER ANNUAL PLAN 2023-24..		DRAWN BY NA		DETAILED PROJECT REPORT		Title: New-construction of Minor Bridge at Ch 13+344							
				DESIGNED BY AL		Size A3		Scale as shown		Drw. No NH-167N/MC/HW/MNB/05		Rev: R0													
				CHECKED BY SMD																					
				APPROVED BY SK																					
1				2		3		4		5		6		7		8		9		10		11		12	

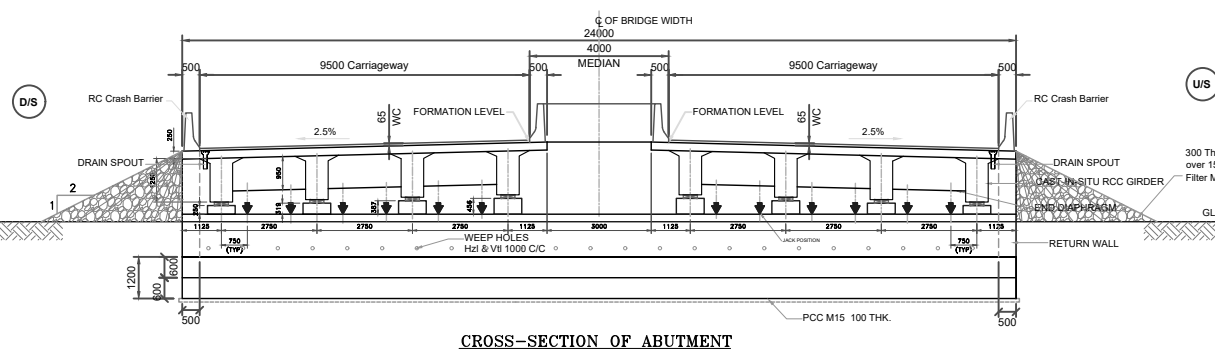


FRL(m)	472.878	472.878	472.878
CAP TOP RL(m)	470.700	470.700	470.700
BL(m)	471.909	469.700	471.316
PILE CAP TOP(m)	—	—	—
FL/PTL(m)	468.320	466.700	468.320
CHAINAGE (m)	14+405	14+420	14+435

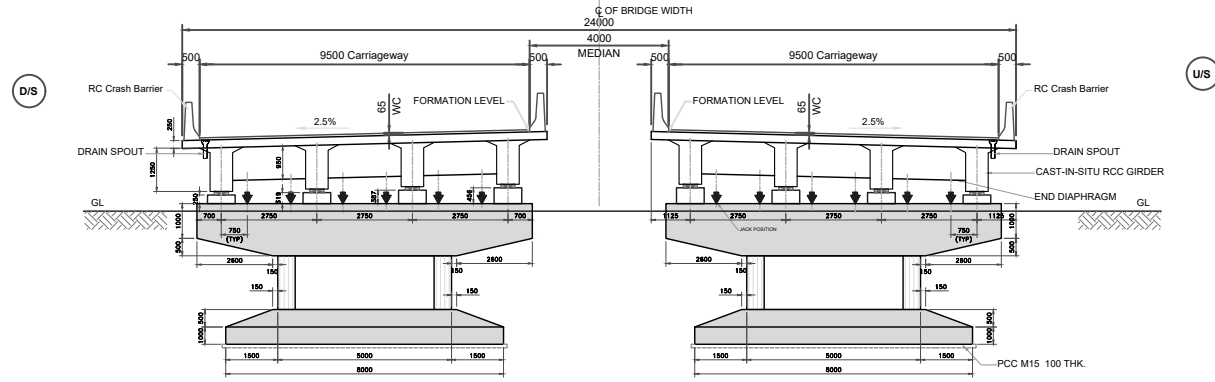
LONGITUDINAL ELEVATION
(Scale 1:200)



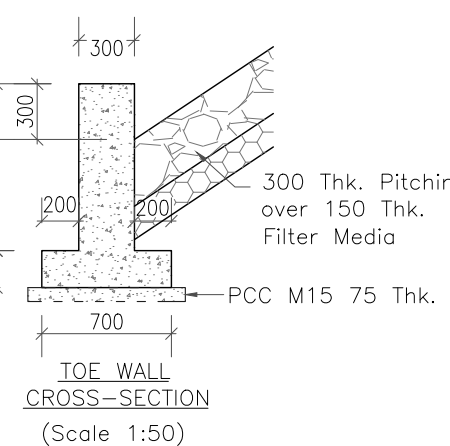
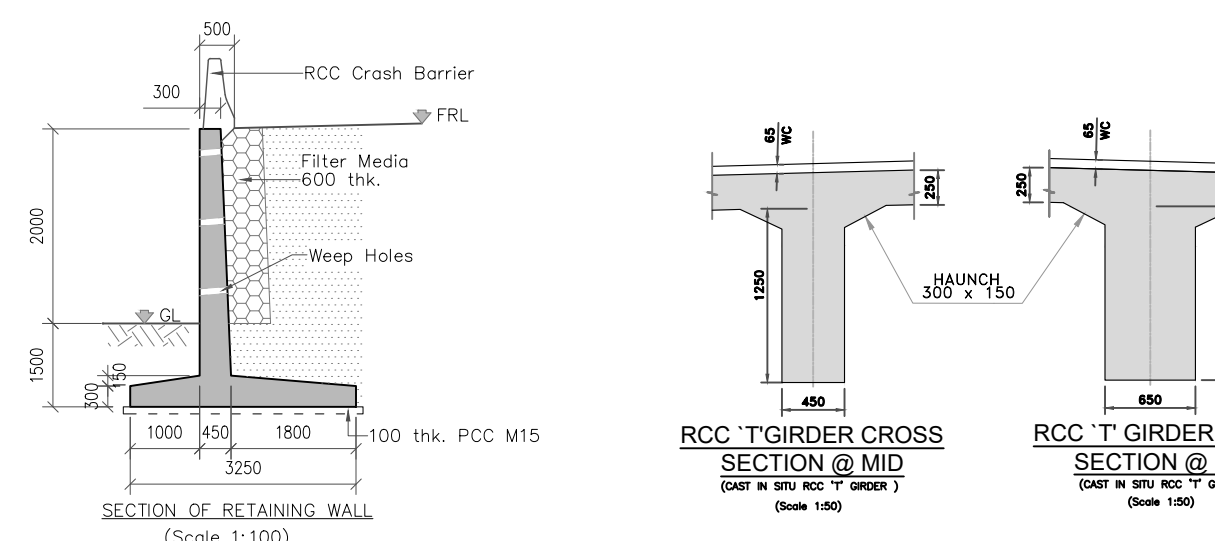
PLAN
(Scale 1:200)



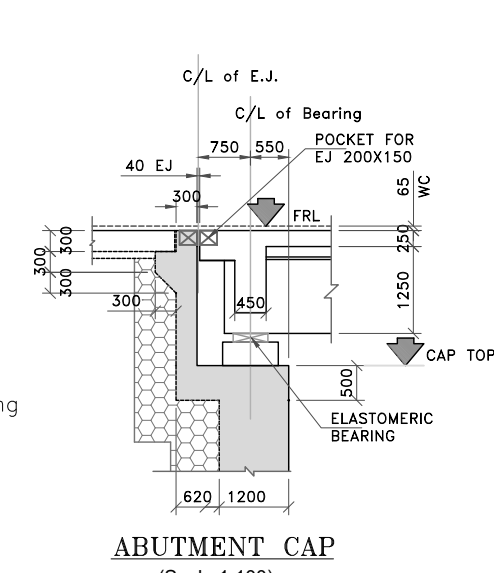
CROSS-SECTION OF ABUTMENT
(Scale 1:200)



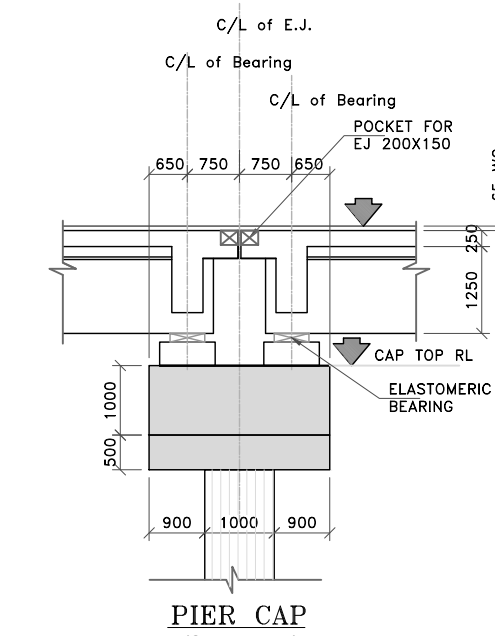
CROSS-SECTION OF PIER
(Scale 1:200)



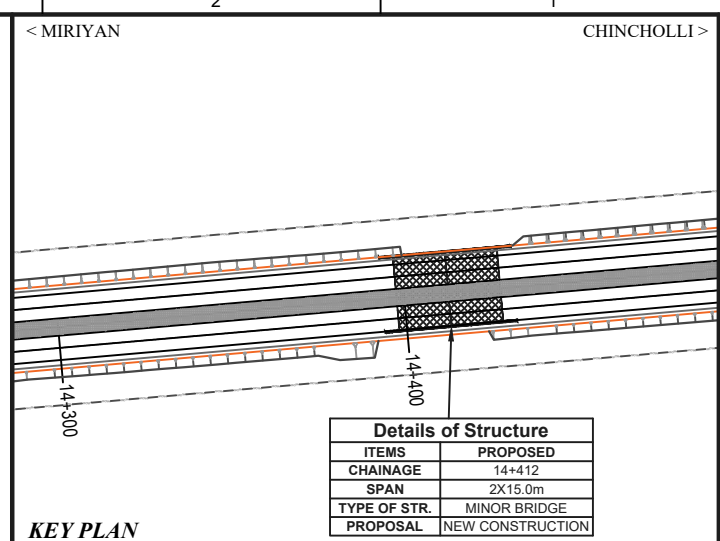
TOE WALL
CROSS-SECTION
(Scale 1:50)



ABUTMENT CAP
(Scale 1:100)



PIER CAP
(Scale 1:100)

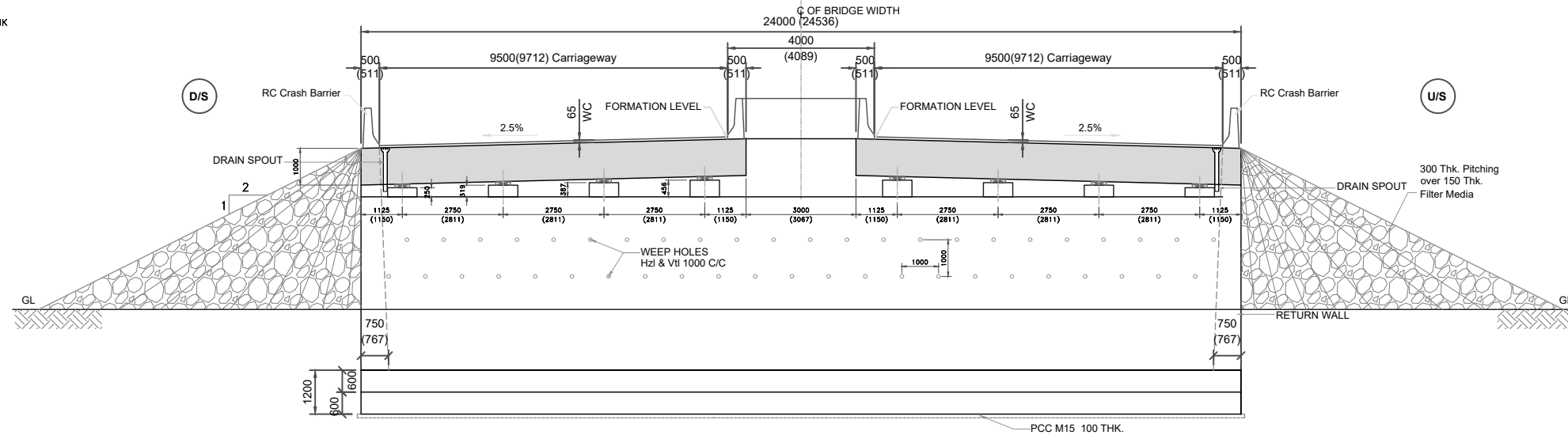


KEY PLAN

- NOTE :
- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVEL ARE IN METERS UNLESS OTHERWISE SPECIFIED.
 - DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
 - GRADE OF CONCRETE SHALL BE.
 - FOUNDATION, SUB-STRUCTURE : M35
 - SUPER STRUCTURE : M35
 - CRASH BARRIER : M40
 - APPROACH SLAB : M30
 - ONLY DESIGN MIX SHALL BE USED IN THE WORKS OF STRUCTURAL MEMBERS.
 - ALL REINFORCING STEEL SHOULD BE HIGH YIELD STRENGTH DEFORMED (TMT) BARS AND GRADE FE500.
 - CLEAR COVER TO THE REINFORCEMENT SHALL BE,
 - FOUNDATION & WALL : 75mm
 - CAP & DIRT WALL : 50mm
 - SLAB, CRASH BARRIER & APPROACH SLAB : 40mm
 - LAP SHALL BE PROVIDED AS PER CI 15.2.5.1 OF IRC 112-2019.
 - EXPOSURE : MODERATE
 - SEISMIC ZONE : II
 - DESIGN AND CONSTRUCTION SHALL CONFIRMING TO THE FOLLOWING CODES.
 - IRC-5-2015 : GENERAL FEATURES OF DESIGN
 - IRC-6-2017 : LOADS & STRESSES
 - IRC-112-2020 : CODE OF PRACTICE FOR CONCRETE ROAD BRIDGES
 - IRC-78-2014: FOUNDATION & SUBSTRUCTURES
 - LAYING, COMPACTION AND EXTENT OF BACK FILL BEHIND WALLS SHALL CONFIRM TO SPECIFICATIONS IN APPENDIX 6 OF IRC-78-2014.
 - Ø100mm WEEP HOLES SPACED AT 1000mm C/C BOTH HORIZONTALLY AND VERTICALLY SHALL BE PROVIDED IN STAGGERED MANNER IN VERTICAL WALLS.
 - 600mm THICK FILTER MEDIA SHALL BE PROVIDED BEHIND VERTICAL WALLS AS PER "MoRT&H" SPECIFICATIONS.
 - ALL OTHER DRAWINGS SHOULD BE READ WITH THIS DRAWING.
 - THIS DRAWING DO NOT BEAR ANY RISK OR RESPONSIBILITY FOR ANY FIELD LAPSES OR FAULTY WORKMANSHIP.

- LEGEND:
- HFL : HIGH FLOOD LEVEL
 - FRL : FINISHED ROAD LEVEL
 - FL : FOUNDING LEVEL
 - EJ : EXPANSION JOINT
 - C/C : CENTER TO CENTER
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REV.	DATE	DESCRIPTION	<i>Notice:</i> THIS DRAWING HAS NOT BEEN PUBLISHED AND IS ISSUED TO THE PARTY FOR THE SPECIFIC PURPOSE AND IT SHALL NOT BE REPRODUCED, COPIED, LENT OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY, NOR USED FOR ANY OTHER PURPOSE OTHER THAN FOR WHICH IT IS FURNISHED.	<i>Client:</i>  PUBLIC WORKS DEPARTMENT (Government Of Karnataka)	<i>Consultants:</i>  VISTAARA INFRA CONSULTANTS #7, OPP ST. ROCK'S CHURCH, MEGINAPALYA CHELEKERE, KALYAN NAGAR BANGALORE - 560043 PH: +91 7019345532	<i>Project:</i> WIDENING/RE-CONSTRUCTION TO FOUR LANE FROM KM 0.000 TO KM 15.870 STARTS NEAR MIRIYAN TELANGANA/KARNATAKA BORDER AND ENDS AT CHINCHOLI SECTION OF NH-167N IN KALABURAGI DISTRICT IN THE STATE OF KARNATAKA UNDER ANNUAL PLAN 2023-24..	DRAWN BY	NA	DETAILED PROJECT REPORT	<i>Title: New-construction of Minor Bridge at Ch 14+412</i>			
							DESIGNED BY	AL		<i>Size</i>	<i>Scale</i>	<i>Drg. No</i>	<i>Rev:</i> R0
							CHECKED BY	SMD					
							APPROVED BY	SK					



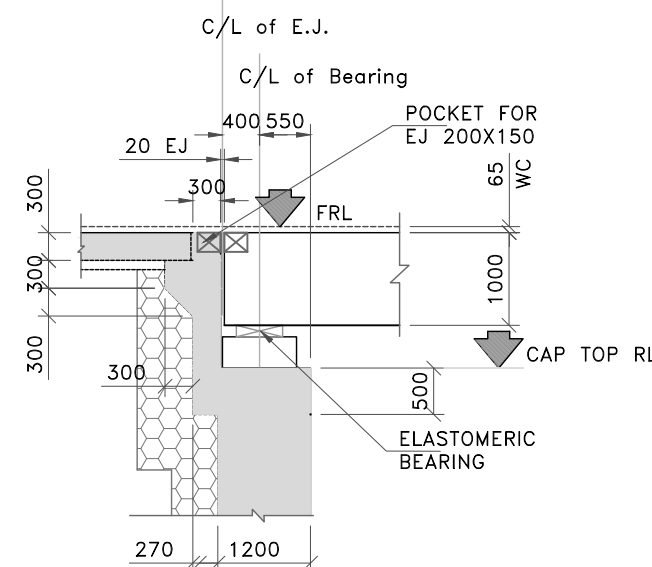
CROSS-SECTION OF ABUTMENT
(Scale 1:150)

The diagram illustrates the cross-section of a retaining wall with the following details:

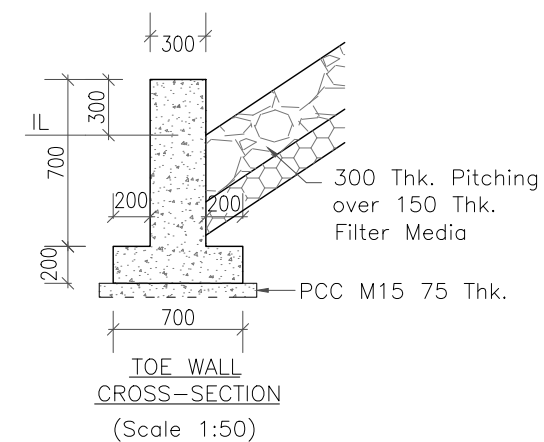
- Dimensions:**
 - Top width: 500
 - Top parapet width: 300
 - Wall height above FRL: 4500
 - Height from GL to base of stem: 1500
 - Base width of stem: 750
 - Base width of toe: 1800
 - Base width of heel: 2650
 - Total base width: 5200
 - Toe thickness: 300
 - Heel thickness: 450
 - Foundation thickness: 100
- Components and Materials:**
 - RCC Crash Barrier at the top.
 - Filter Media (600 thk.) on the heel.
 - Weep Holes in the stem.
 - 100 thk. PCC M15 at the base.
- Reference Levels:**
 - FRL (Free Surface Level) indicated by a triangle.
 - GL (Ground Level) indicated by a triangle.

SECTION OF RETAINING WALL
(Scale 1:100)

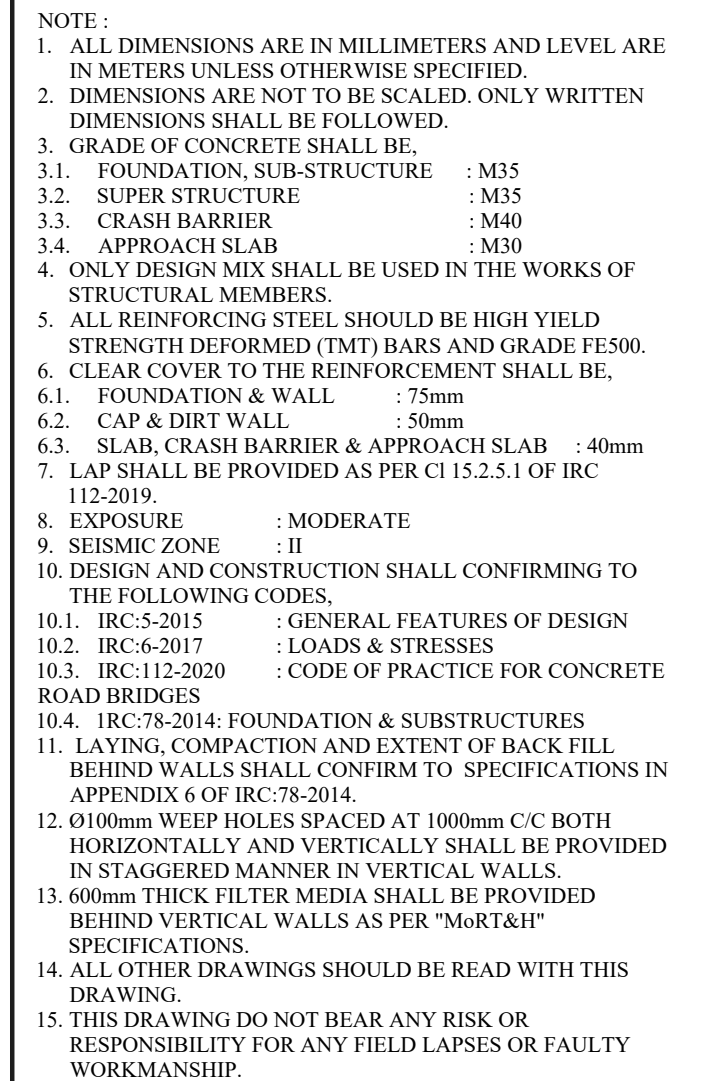
SECTION OF RETAINING WALL
(Scale 1:100)



ABUTMENT CAP
(Scale 1:75)



TOE WALL
CROSS-SECTION
(Scale 1:50)

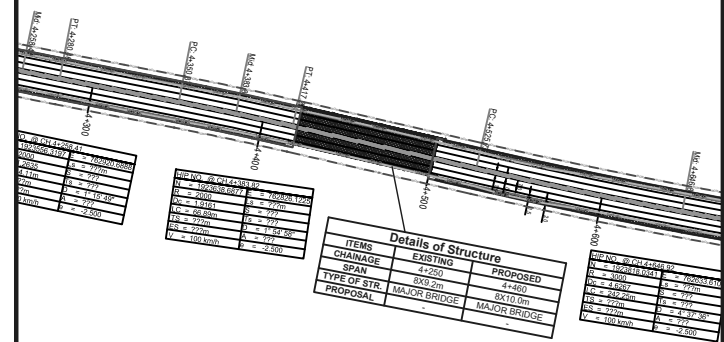


LEGEND:

HFL	: HIGH FLOOD LEVEL
FRL	: FINISHED ROAD LEVEL
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EJ	: EXPANSION JOINT
C/C	: CENTER TO CENTER
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Thk.	: THICKNESS

Title: New-construction of Minor Bridge at Ch 14+930			
Size	Scale	Drwg. No	Rev:
A3	as shown	NH-167N/MC/HW/MNB/07	R0

MAJOR BRIDGE



NOTE :

1. ALL DIMENSIONS ARE IN MILLIMETERS AND LEVEL ARE IN METERS UNLESS OTHERWISE SPECIFIED.
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3. GRADE OF CONCRETE SHALL BE,
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 - 3.2. SUPER STRUCTURE : M35
 - 3.3. CRASH BARRIER : M40
 - 3.4. APPROACH SLAB : M30
4. ONLY DESIGN MIX SHALL BE USED IN THE WORKS OF STRUCTURAL MEMBERS.
5. ALL REINFORCING STEEL SHOULD BE HIGH YIELD STRENGTH DEFORMED (TMT) BARS AND GRADE FE500.
6. CLEAR COVER TO THE REINFORCEMENT SHALL BE,
 - 6.1. FOUNDATION & WALL : 75mm
 - 6.2. CAP & DIRT WALL : 50mm
 - 6.3. SLAB, CRASH BARRIER & APPROACH SLAB : 40mm
7. LAP SHALL BE PROVIDED AS PER CL 15.2.5.1 OF IRC 112-2019.
8. EXPOSURE : MODERATE
9. SEISMIC ZONE : II
10. DESIGN AND CONSTRUCTION SHALL CONFORMING TO THE FOLLOWING CODES,
 - 10.1. IRC-5-2015 : GENERAL FEATURES OF DESIGN
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 - 10.4. IRC-78-2014: FOUNDATION & SUBSTRUCTURES
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12. 0100mm WEEP HOLE SPACED AT 1000mm C/C BOTH HORIZONTALLY AND VERTICALLY SHALL BE PROVIDED IN STAGGERED MANNER IN VERTICAL WALLS.
13. 600mm THICK FILTER MEDIA SHALL BE PROVIDED BEHIND VERTICAL WALLS AS PER "MORT&H" SPECIFICATIONS.
14. ALL OTHER DRAWINGS SHOULD BE READ WITH THIS DRAWING.
15. THIS DRAWING DO NOT BEAR ANY RISK OR RESPONSIBILITY FOR ANY FIELD LAPSES OR FAULTY WORKMANSHIP.

Title: **Widening of Major Bridge at Ch 4+460**

Rev.
RO

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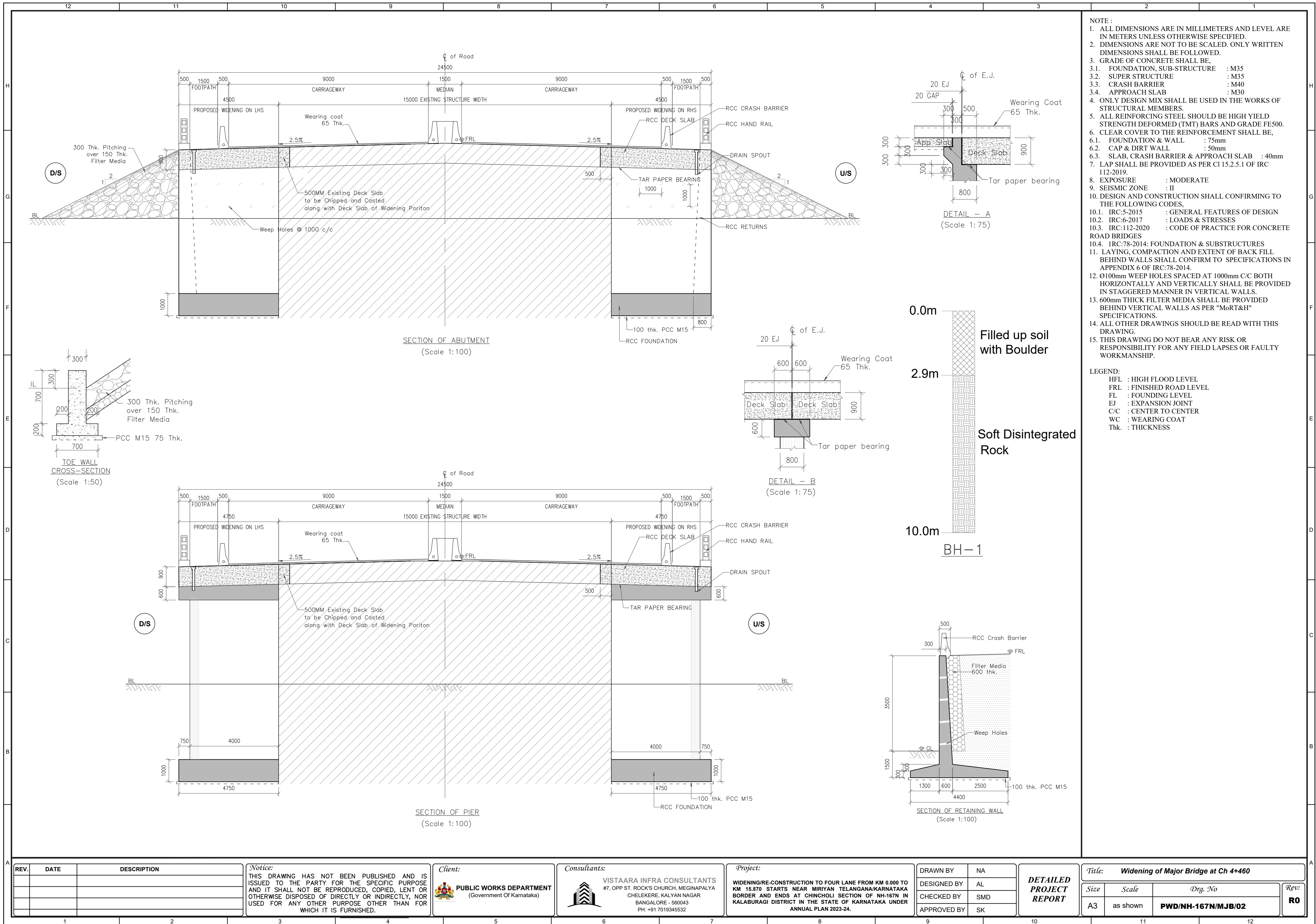


Project:

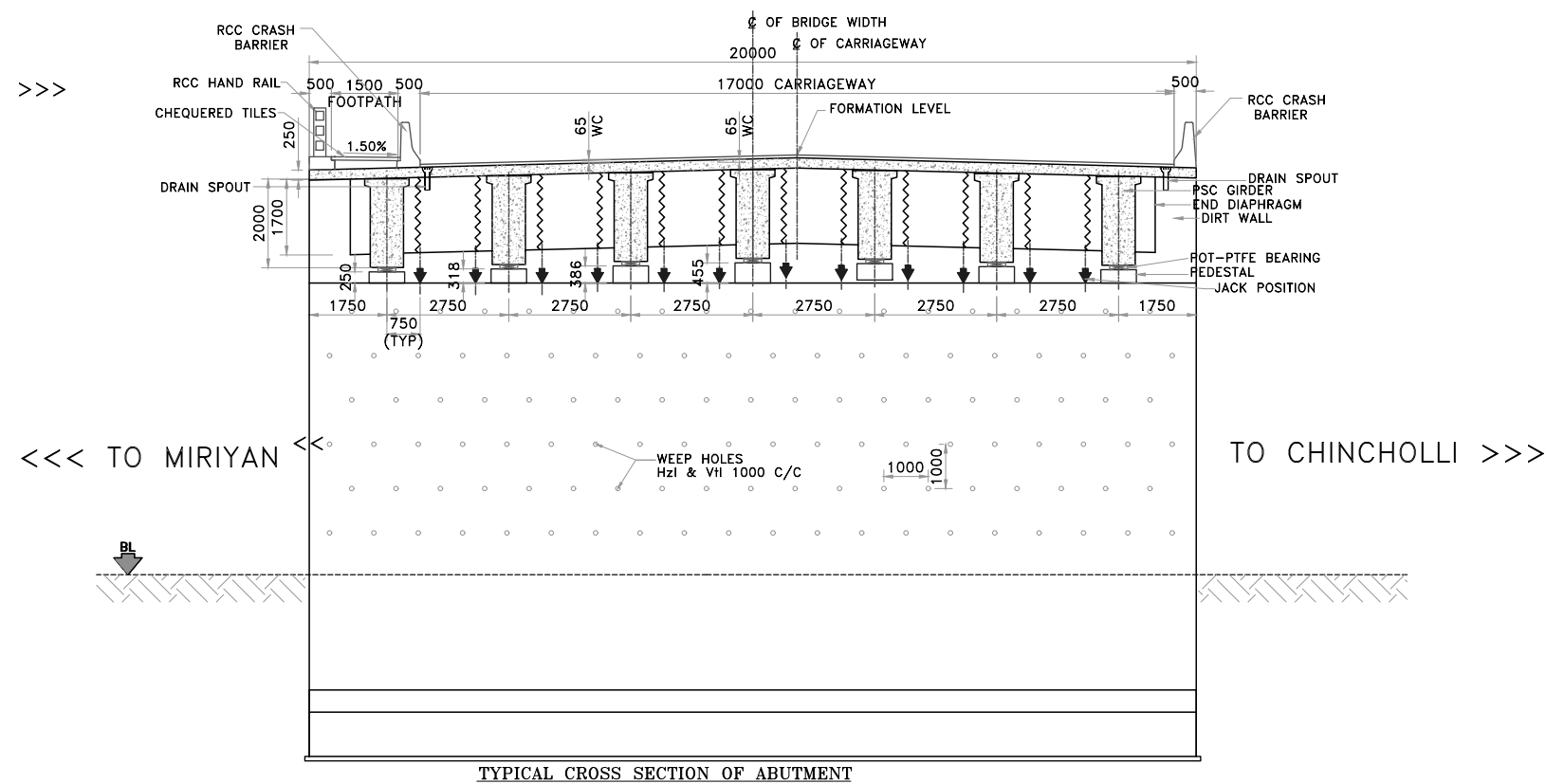
WIDENING/RE-CONSTRUCTION TO FOUR LANE FROM KM 0.000 TO KM 15.870 STARTS NEAR MIRIYAN TELANGANA/KARNATAKA BORDER AND ENDS AT CHINCHOLI SECTION OF NH-167N IN KALABURAGI DISTRICT IN THE STATE OF KARNATAKA UNDER ANNUAL PLAN 2023-24.

DETAILED PROJECT REPORT

Title: Widening of Major Bridge at Ch 4+460			
Size	Scale	Drwg. No	Rgv:
A3	as shown	PWD/NH-167N/MJB/01	RO



VOP



KEY PLAN

Details of Structure

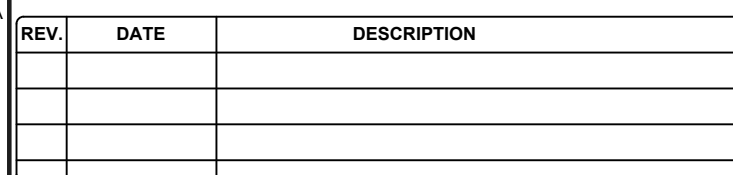
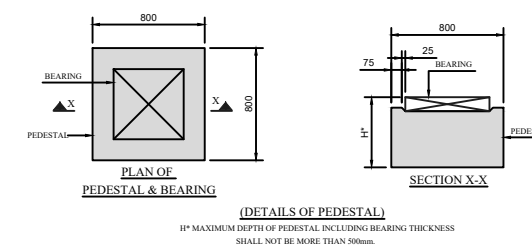
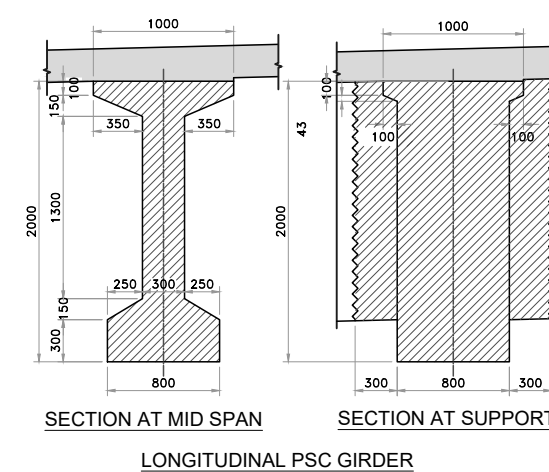
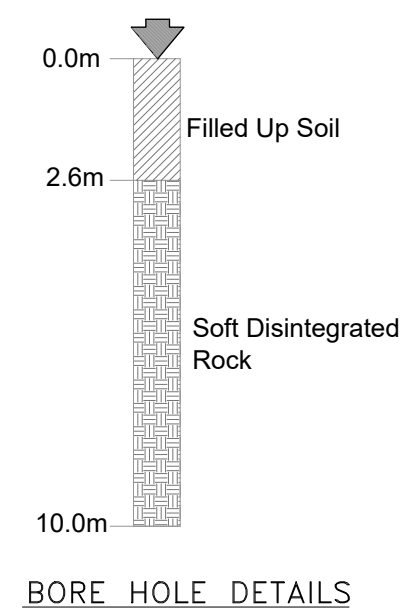
ITEMS	PROPOSED
CHAINAGE	7+650
SPAN	10.30m
TYPE OF STR.	VOP
PROPOSAL	NEW CONSTRUCTION

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Legend:

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 **PUBLIC WORKS DEPARTMENT**
(Government Of Karnataka)



WIDENING/RE-CONSTRUCTION TO FOUR LANE FROM KM 0.000 TO KM 15.870 STARTS NEAR MIRIYAN TELANGANA/KARNATAKA BORDER AND ENDS AT CHINCHOLI SECTION OF NH-167N IN KALABURAGI DISTRICT IN THE STATE OF KARNATAKA UNDER ANNUAL PLAN 2023-24..

**DETAILED
PROJECT
REPORT**

<i>Size</i>	<i>Scale</i>	<i>Drq. No</i>	<i>Rev:</i>
A3	as shown	NH-167N/MC/HW/VOP/01	R0