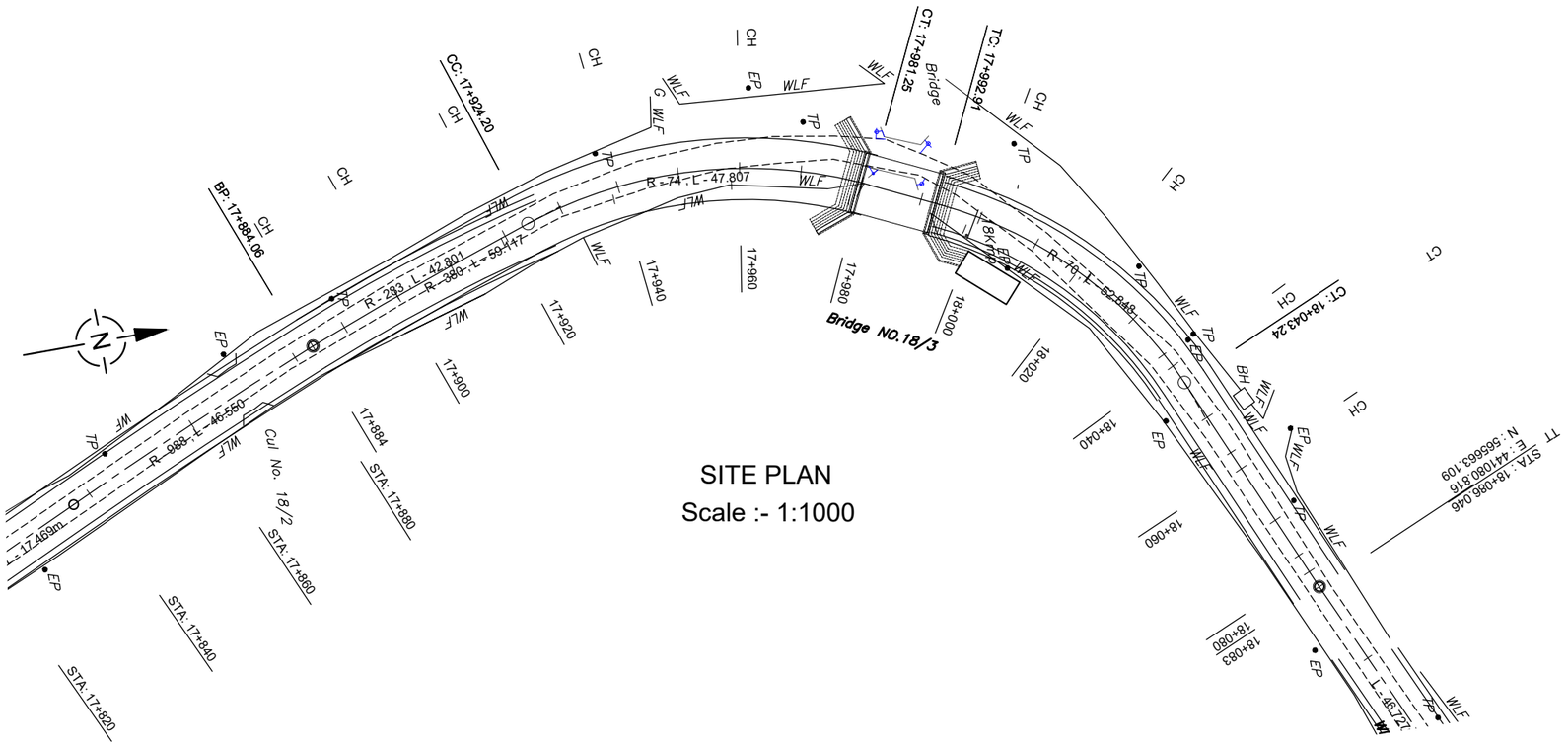
RECONSTRUCTION OF BRIDGE NO 18/3 ON KALUGAMUWA - VILAKATUPOTHA ROAD (B-190) BALANCE WORK

DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF UNIVERSITY EDUCATION & HIGHWAYS

DESIGN OFFICE (NWP),
ROAD DEVELOPMENT AUTHORITY
KURUNEGALA.
TEL : 0372228836 FAX : 0372228076



SITE PLAN

Scale :- 1:1000

RECONSTRUCTION OF BRIDGE NO 18/3 ON
KALUGAMUWA - VILAKATUPOTHA ROAD (B-190) BALANCE WORK

DRAWING TITLE:- PLAN & PROFILE

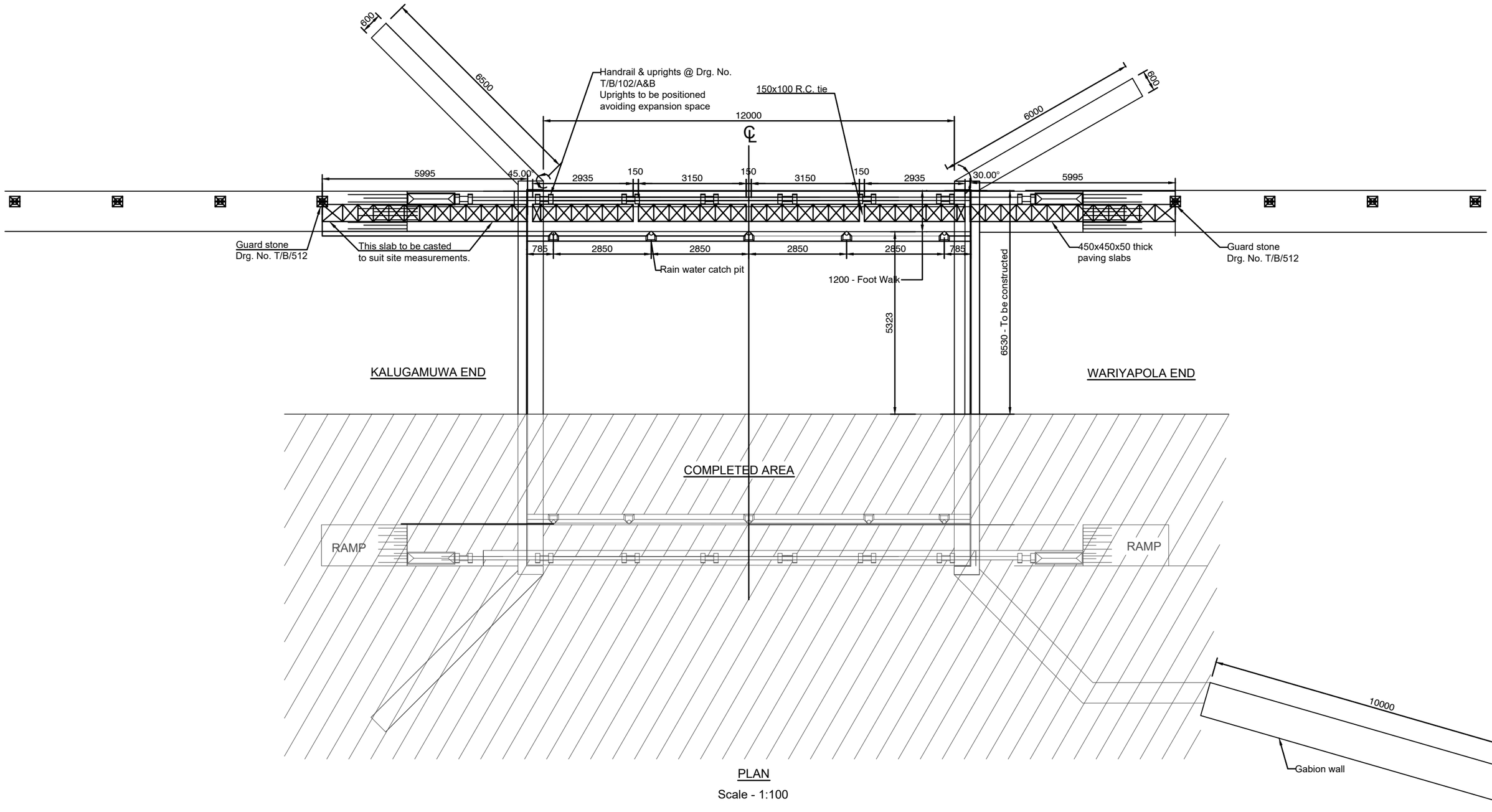
SCALE - 1:1000

REV	DESCRIPTION	BY.	DATE

DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT

DESIGN OFFICE (NWP),
ROAD DEVELOPMENT AUTHORITY
KURUNEGALA.
TEL : 0372228836 FAX : 0372228076

SURVEYED & PLOTTED :	DESIGNED :T. G. S. D. Thannegedara	DRAWN : H. M. R. W. Herath	CHECKED :
C.E. (DESIGN) :	PROVINCIAL DIRECTOR :		DATE : 10-06-2024 DRG.No. : RDA/NWP/T/497-1



PLAN

Scale - 1:100

RECONSTRUCTION OF BRIDGE NO 18/3 ON
KALUGAMUWA - VILAKATUPOTHA ROAD (B-190) BALANCE WORK

DRAWING TITLE:- PLAN VIEW OF BRIDGE

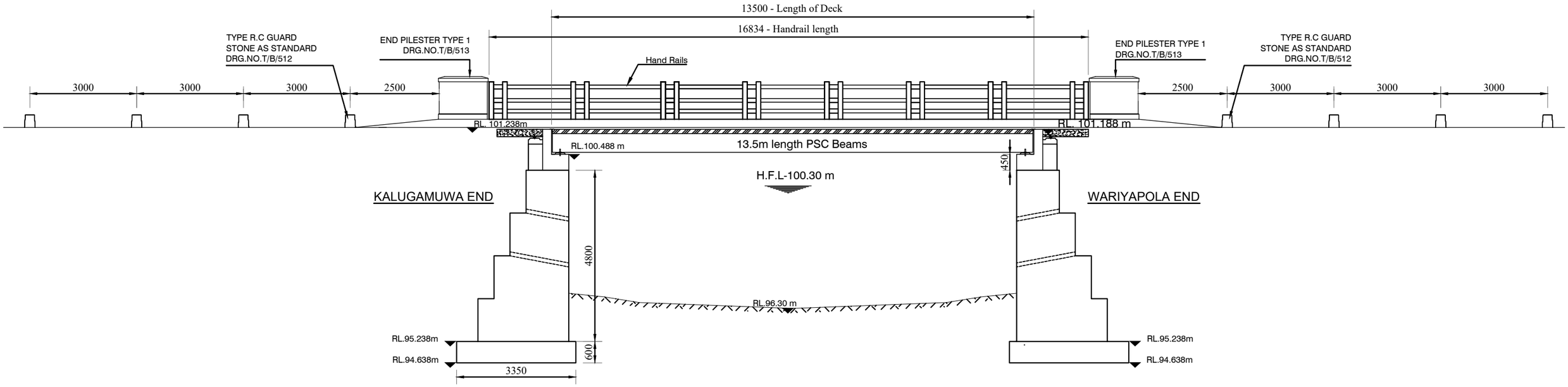
SCALE - 1:100

REV	DESCRIPTION	BY.	DATE

DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT

DESIGN OFFICE (NWP),
ROAD DEVELOPMENT AUTHORITY
KURUNEGALA.
TEL : 0372228836 FAX : 0372228076

SURVEYED & PLOTTED :	DESIGNED : T. G. S. D. Thannegedara	DRAWN : H. M. R. W. Herath	CHECKED :
C.E. (DESIGN) :	PROVINCIAL DIRECTOR :		DATE : 10-06-2024
			DRG.No. : RDA/NWP/T/497-2



PERPENDICULAR SECTIONAL ELEVATION

Scale: 1:100

RECONSTRUCTION OF BRIDGE NO 18/3 ON
KALUGAMUWA - VILAKATUPOTHA ROAD (B-190) BALANCE WORK

DRAWING TITLE:- ELEVATION OF BRIDGE

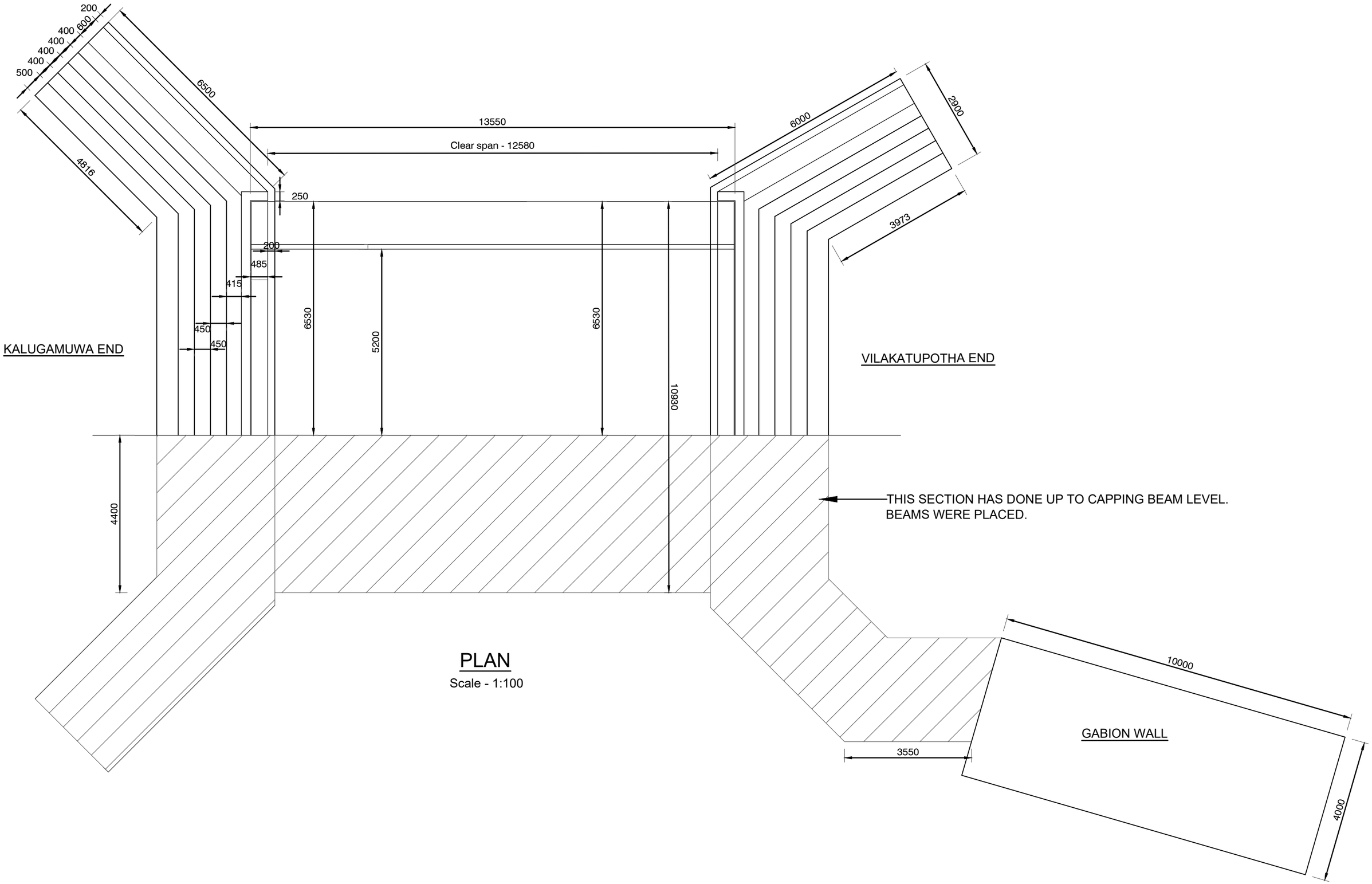
SCALE - 1:100

REV	DESCRIPTION	BY.	DATE

DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT

DESIGN OFFICE (NWP),
ROAD DEVELOPMENT AUTHORITY
KURUNEGALA.
TEL : 0372228836 FAX : 0372228076

SURVEYED & PLOTTED :	DESIGNED : T. G. S. D. Thannegedara	DRAWN : H. M. R. W. Herath	CHECKED :
C.E. (DESIGN) :	PROVINCIAL DIRECTOR :		DATE : 10-06-2024 DRG.No. : RDA/NWP/T/497-3



PLAN

Scale - 1:100

RECONSTRUCTION OF BRIDGE NO 18/3 ON
KALUGAMUWA - VILAKATUPOTHA ROAD (B-190) BALANCE WORK

DRAWING TITLE:-FOUNDATION LAY OUT PLAN

SCALE - 1:100

REV	DESCRIPTION	BY.	DATE

DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT

DESIGN OFFICE (NWP),
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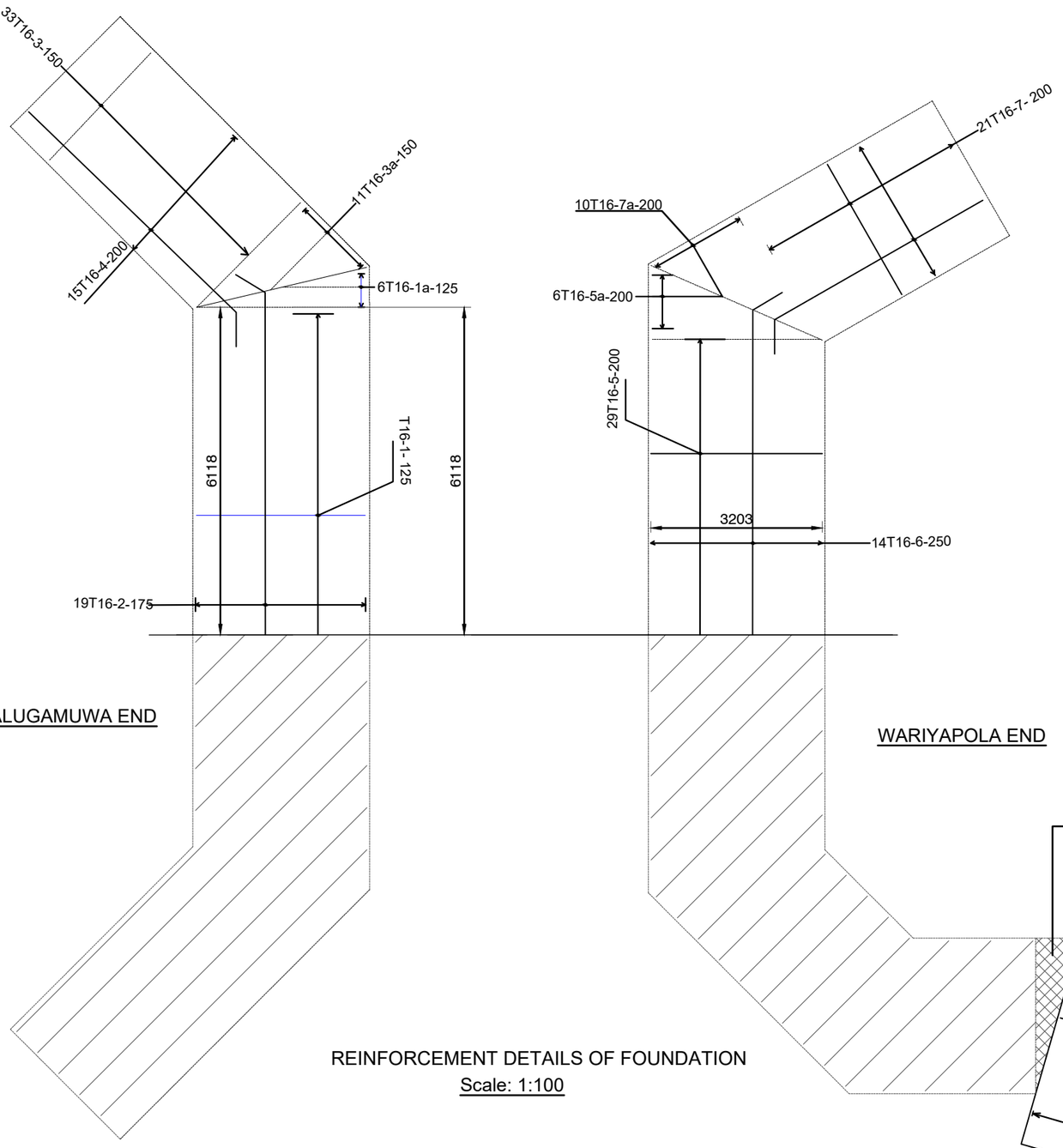
SURVEYED & PLOTTED :	DESIGNED : T. G. S. D. Thannegedara	DRAWN : H. M. R. W. Herath	CHECKED :
C.E. (DESIGN) :	PROVINCIAL DIRECTOR :		DATE : 10-06-2024
			DRG.No. : RDA/NWP/T/497-4



KALUGAMUWA END

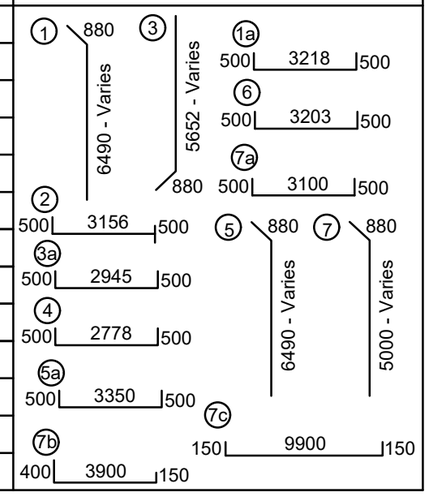
WARIYAPOLA END

REINFORCEMENT DETAILS OF FOUNDATION

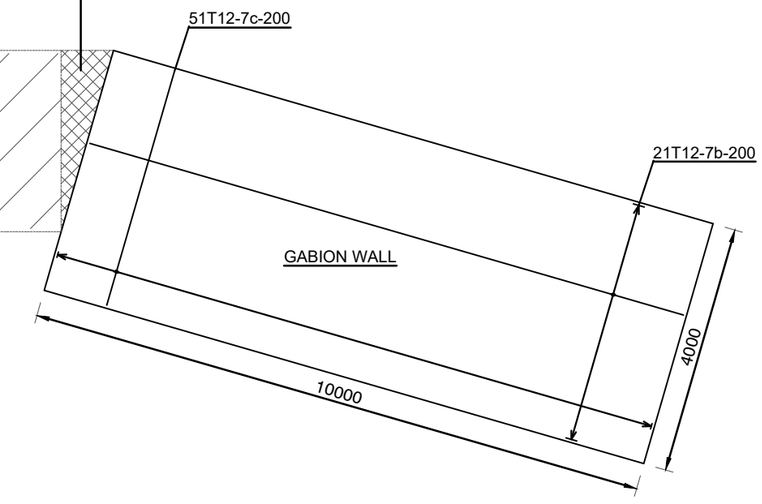
Scale: 1:100

SCHEDULE OF REINFORCEMENT

LOCATION		MARK	TYPE	DIA	NO OFF	CUT .LE. mm	WEIGHT Kg	SHAPE
Foundation slab (Abutment & Wing wall)	Kalugamuwa End	1	T	16	49	7370 VA	570.58	
		1a	T	16	06	4218	44.90	
		2	T	16	19	4156	124.83	
		3	T	16	33	5652 VA	295.35	
		3a	T	16	11	3945	68.75	
		4	T	16	15	3778	90.00	
	Wariyapola End	5	T	16	29	7370 VA	337.85	
		5a	T	16	06	4349	41.40	
		6	T	16	14	4203	93.10	
		7	T	16	21	5880	195.30	
		7a	T	16	10	4100	65.0	
Foundation Slab Gabion wall		7b	T	12	21	4450	82.98	
		7c	T	12	51	10200	461.93	



SHALL BE CONSTRUCTED USING MASS CONCRETE ON THE SAME FOUNDATION AS PER THE ENGINEER'S RECOMMENDATION



NOTES -

MINIMUM COVER TO REINFORCEMENT
FOUNDATIONS - 50 mm
CAPPING BEAM - 40 mm

CONCRETE:

FOUNDATIONS	- G 25 (19)
CAPPING BEAM	- G 25 (19)
ABUTMENT &WING WALL	- G15(37.5)
DECK	- G 40 (19)

RECONSTRUCTION OF BRIDGE NO 18/3 ON
KALUGAMUWA - VILAKATUPOTHA ROAD (B-190) BALANCE WORK

DRAWING TITLE:-REINFORCEMENT DETAILS OF FOUNDATION

SCALE - 1:50

REV	DESCRIPTION	BY	DATE

DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT

DESIGN OFFICE (NWP),
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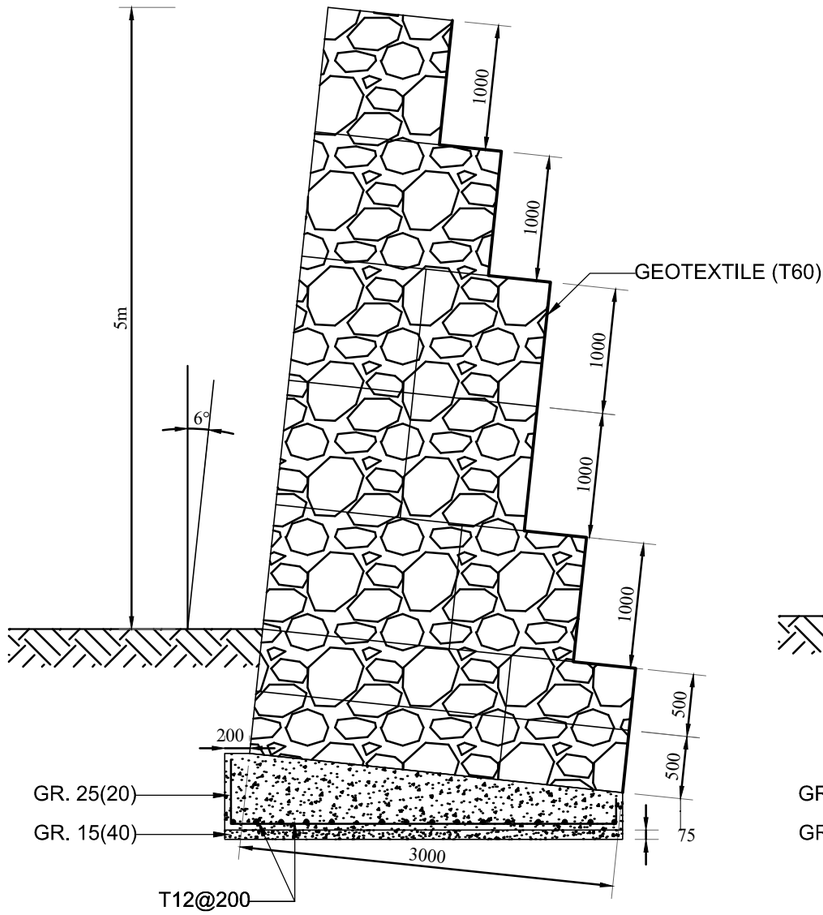
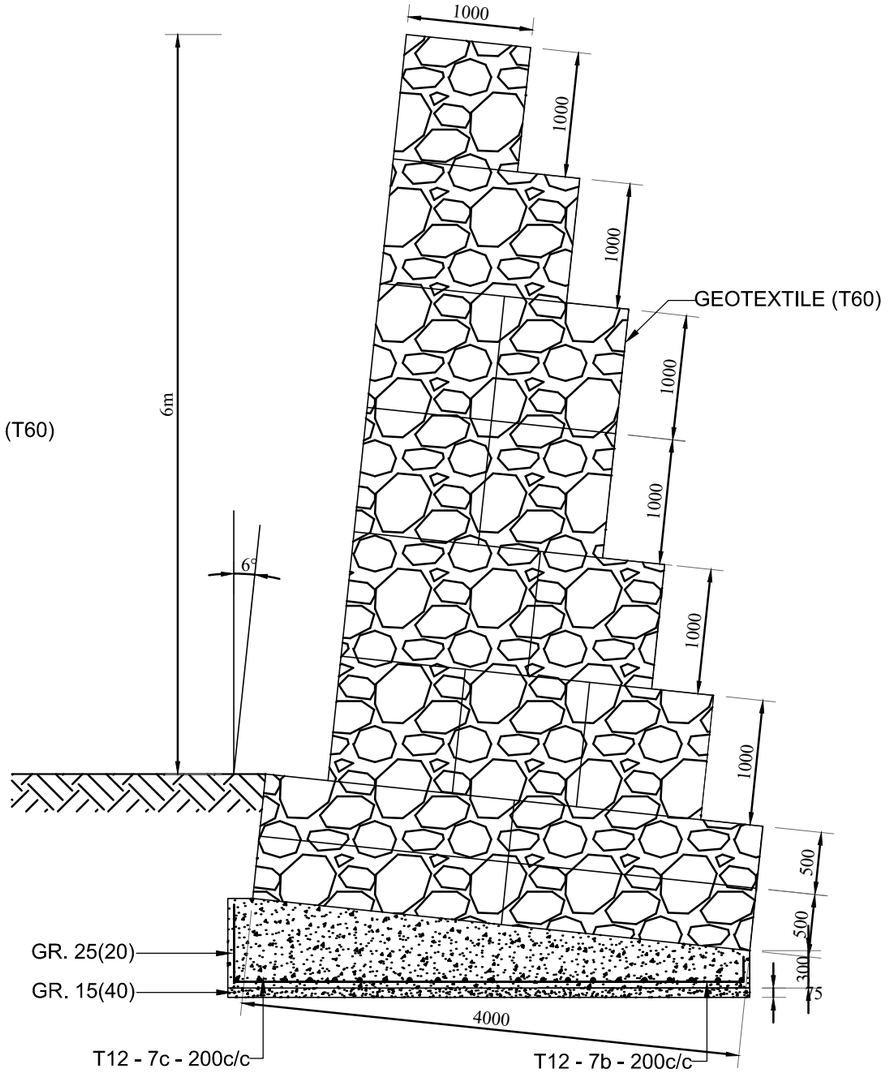
TEL : 0372228836 FAX : 0372228076

SURVEYED & PLOTTED :	DESIGNED :W.M.C.P.K. Wijepala	DRAWN :	CHECKED :
C.E. (DESIGN) :	PROVINCIAL DIRECTOR :	DATE : 22-10-2015	DRG.No. : RDA/NWP/T/497-5



TYPE G.B.R.5

Scale: 1:50



TYPE G.B.R.6

Scale: 1:50

GENERAL NOTES:

a) ALL DIMENSIONS ARE MILLIMETERS UNLESS OTHERWISE

b) ALL MATERIALS AND WORKMANSHIP ARE TO BE IN ACCORDANCE WITH REQUIREMENT OF THE SPECIFICATION.

c) RUBBLE BASE TO BE CONSTRUCTED USING 150mmX225mm RUBBLE WITH 40mm AGGREGATES BY COMPACTING USING 2.5T ROLLER OR PLATE VIBRATOR.

d) NON WOVEN GEOTEXTILE TO BE USED AS FILTER MEDIA FOR BACKSIDE OF THE WALL AS SHOWN IN THE DRAWING.

RECONSTRUCTION OF BRIDGE NO 18/3 ON
KALUGAMUWA - VILAKATUPOTHA ROAD (B-190) BALANCE WORK

DRAWING TITLE:-DETAILS OF GABION WALL

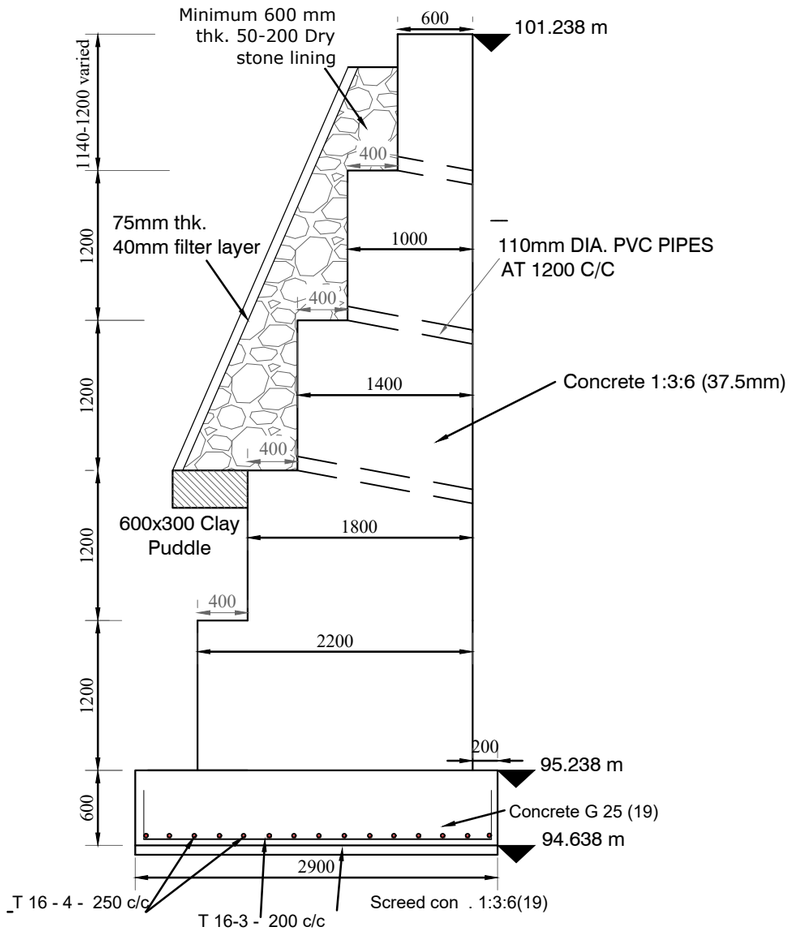
SCALE - 1:50

REV.	DESCRIPTION	BY.	DATE

DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT

DESIGN OFFICE (NWP),
ROAD DEVELOPMENT AUTHORITY
KURUNEGALA.
TEL : 0372228836 FAX : 0372228076

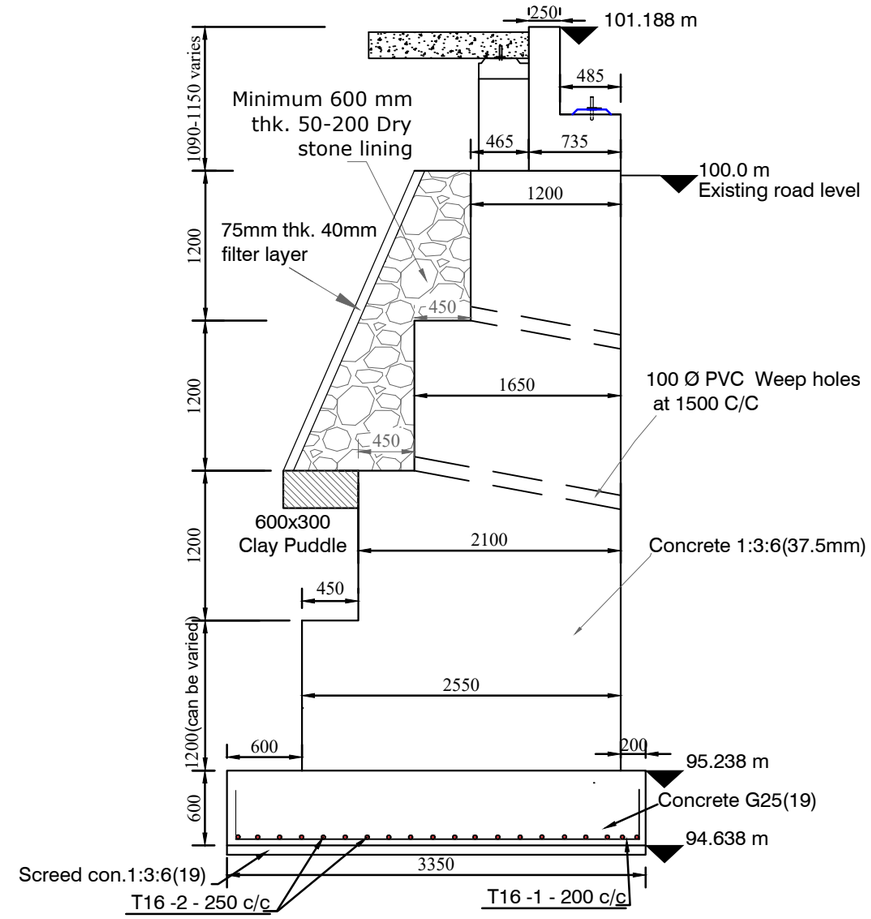
SURVEYED & PLOTTED :	DESIGNED : T. G. S. D. Thannegedara	DRAWN : H. M. R. W. Herath	CHECKED :
C.E. (DESIGN) :	PROVINCIAL DIRECTOR :		DATE : 10-06-2024 DRG.No. : RDA/NWP/T/497-6



CROSS SECTION OF WINGWALL

BOTH ENDS

Scale: 1:50



CROSS SECTION OF ABUTMENT

BOTH ENDS

Scale: 1:50

NOTES -

MINIMUM COVER TO REINFORCEMENT
- FOUNDATIONS - 50 mm
- CAPPING BEAM - 40 mm

CONCRETE:
- FOUNDATIONS - G 25 (19)
- CAPPING BEAM - G 25 (19)
- ABUTMENT &WING WALL - G15(37.5)
- DECK - G 40 (19)

RECONSTRUCTION OF BRIDGE NO 18/3 ON
KALUGAMUWA - VILAKATUPOTHA ROAD (B-190) BALANCE WORK

DRAWING TITLE:-DETAILS OF WING WALL

SCALE - 1:50

REV	DESCRIPTION	BY	DATE

DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT

DESIGN OFFICE (NWP),
ROAD DEVELOPMENT AUTHORITY
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TEL : 0372228836 FAX : 0372228076

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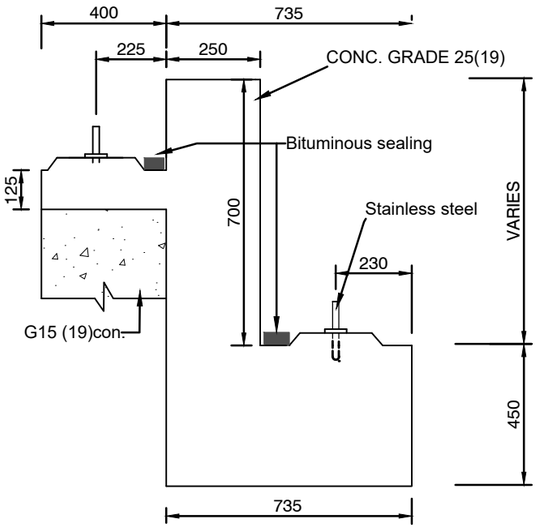
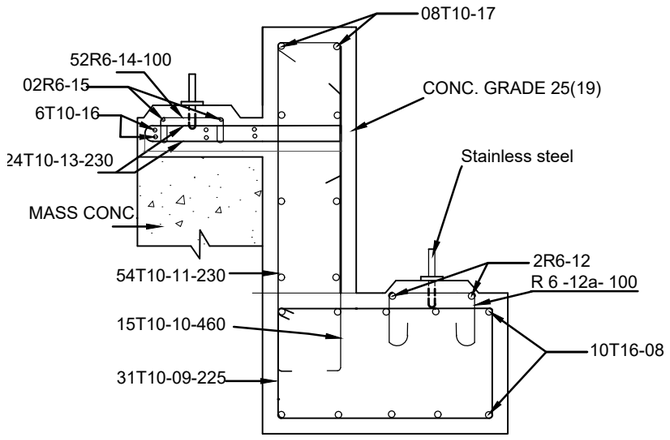
C.E. (DESIGN) :	PROVINCIAL DIRECTOR :	DATE : 10-06-2024	DRG.No. : RDA/NWP/T/497-7



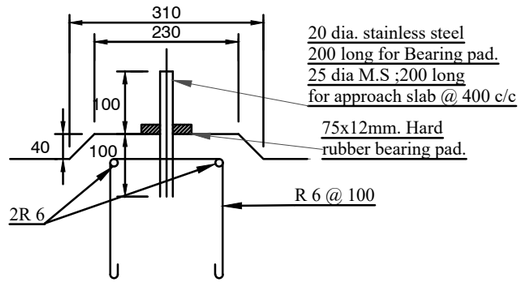
DETAIL OF CAPPING BEAM

Scale - 1:20



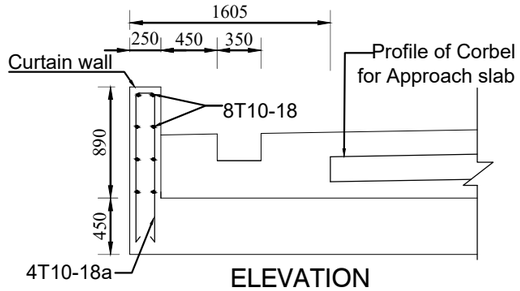
R/F DETAIL OF CAPPING BEAM

Scale - 1:20



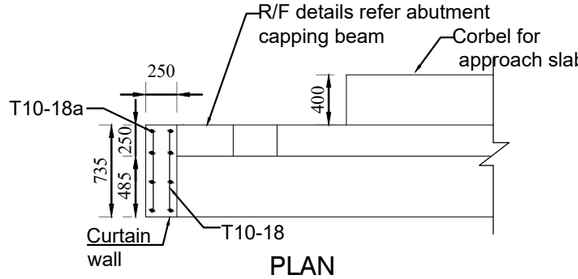
R.C. DETAIL OF BEARING SEAT

SCALE -1:10



ELEVATION

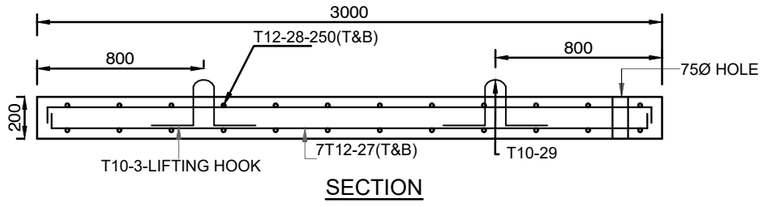
Scale: 1:50



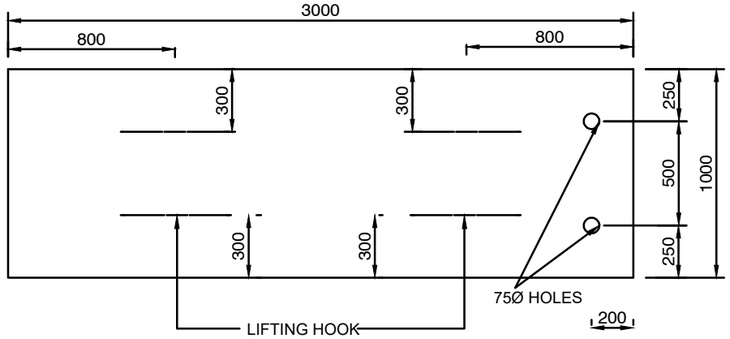
PLAN

Scale: 1:50

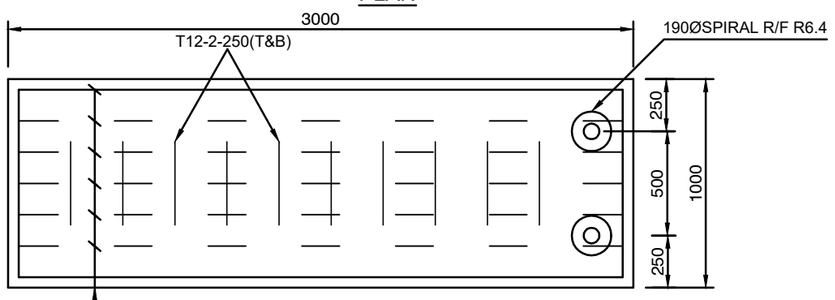
DETAILS OF CURTAIN WALL



SECTION



PLAN



SECTIONAL PLAN OF APPROACH SLAB

Scale: 1:30

SCHEDULE OF REINFORCEMENT

LOCATION	MARK	TYPE	DIA	NO OFF	CUT .LE. mm	WEIGHT Kg	SHAPE
CAPPING BEAM	8	T	10	31x2	2120	81.00	75, 350, 635
	9	T	16	31x2	6700	656.33	6700
	10	T	10	15x2	1245	26.00	200, 1045
	11	T	10	31x2	1045	40.00	1045
	12	R	6	02x2	6430	5.70	6430
	12a	R	6	66x2	700	20.52	250, 150, 75
	13	T	10	24x2	1575	46.65	600, 75, 150
	14	R	6	52x2	700	16.20	250, 150, 75
	15	R	6	02x2	5095	4.52	5095
	16	R	6	06x2	5095	13.60	5095
	17	T	10	08x2	6705	66.20	6705
CURTAIN WALL	18	T	10	08x2	635	6.27	635
	18a	T	10	04x2	2530	12.50	150, 1190

RECONSTRUCTION OF BRIDGE NO 18/3 ON
KALUGAMUWA - VILAKATUPOTHA ROAD (B-190) BALANCE WORK

DRAWING TITLE:-CAPPING BEAM DETAILS

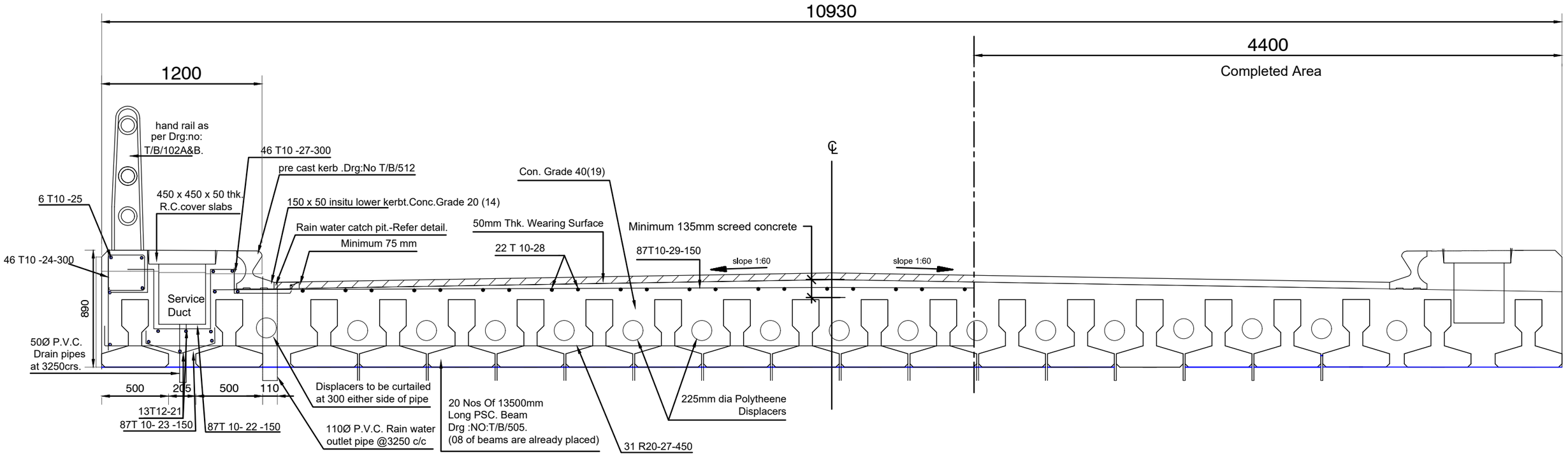
SCALE - AS SHOWN

REV	DESCRIPTION	BY:	DATE

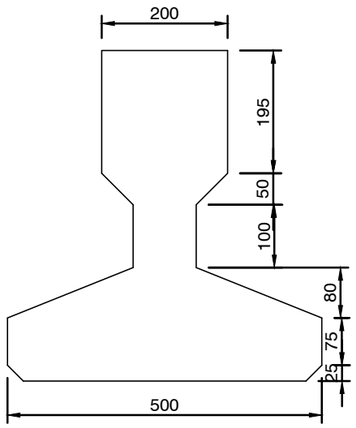
DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT

DESIGN OFFICE (NWP),
ROAD DEVELOPMENT AUTHORITY
KURUNEGALA.
TEL : 0372228836 FAX : 0372228076

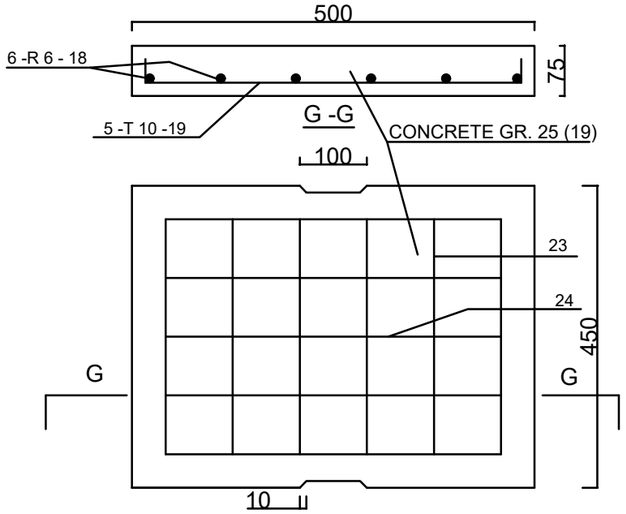
SURVEYED & PLOTTED :	DESIGNED : T. G. S. D. Thannegedara	DRAWN : H. M. R. W. Herath	CHECKED :
C.E. (DESIGN) :	PROVINCIAL DIRECTOR :	DATE : 10-06-2024	DRG.No. : RDA/NWP/T/497-8



CROSS SECTION OF DECK
Scale: 1:30



SECTION OF BEAM
Scale -1:10

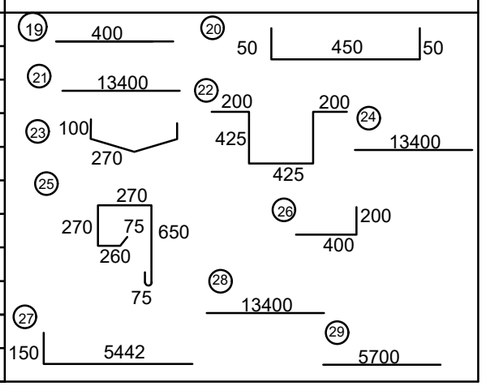


PLAN

▶ DETAIL OF COVER SLAB

SCHEDULE OF REINFORCEMENT

LOCATION	MARK	TYPE	DIA	NO OFF	CUT .LE. mm	WEIGHT Kg	SHAPE
COVER SLAB	19	R	6	6	400	0.53	
	20	T	10	5	500	1.54	
FOOT WALK & DECK	21	T	12	26	13400	309.4	
	22	T	10	182	1675	188.1	
	23	T	10	182	740	83.1	
	24	T	10	12	13400	99.22	
	25	T	10	92	1600	90.82	
	26	T	10	92	600	34.06	
	27	R	20	16	5592	220.10	
	28	T	10	22	13400	197.82	
	29	T	10	39	5700	150.00	



RECONSTRUCTION OF BRIDGE NO 18/3 ON
KALUGAMUWA - VILAKATUPOTHA ROAD (B-190) BALANCE WORK

DRAWING TITLE:- DETAILS OF DECK

SCALE - AS STATED

REV.	DESCRIPTION	BY.	DATE

DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
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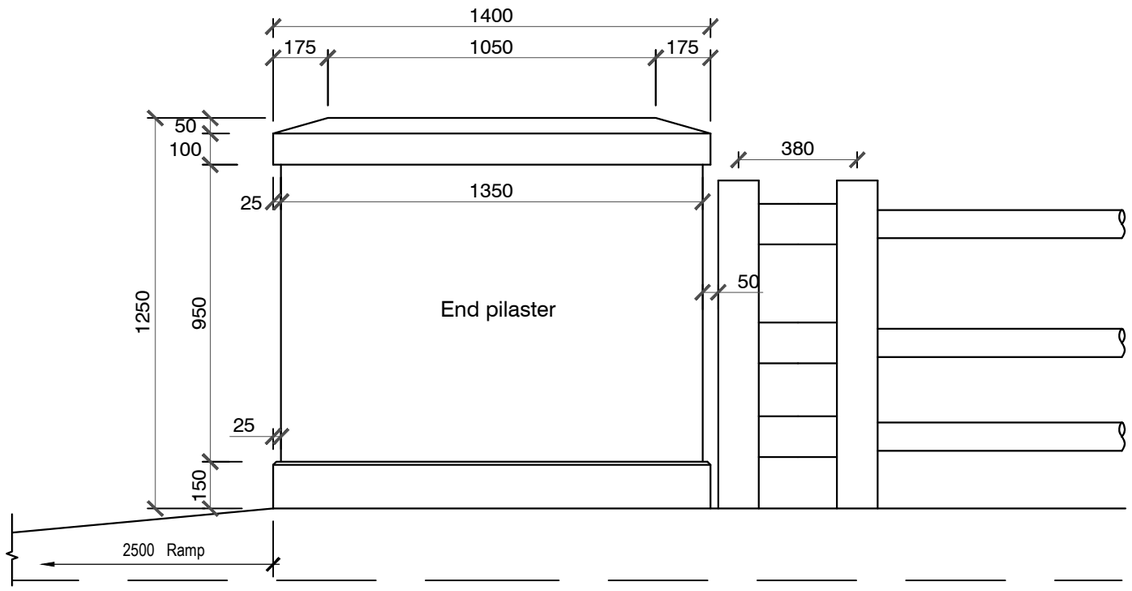
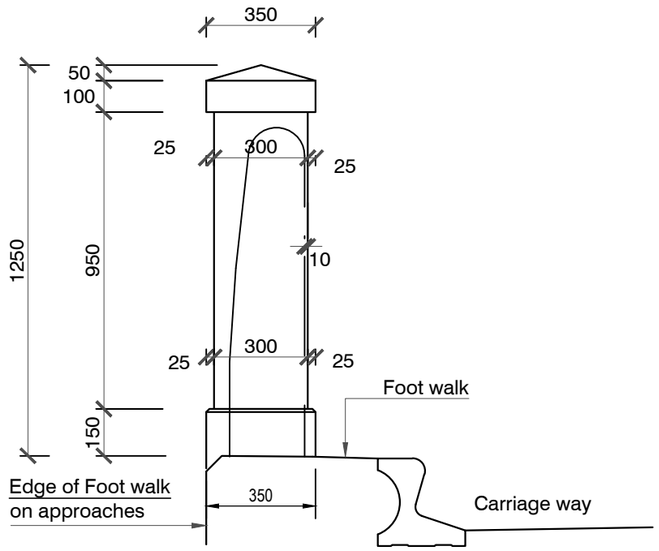
KURUNEGALA.
TEL : 0372228836 FAX : 0372228076

SURVEYED & PLOTTED :	DESIGNED : T. G. S. D. Thannegedara	DRAWN : H. M. R. W. Herath	CHECKED :
C.E. (DESIGN) :	PROVINCIAL DIRECTOR :	DATE : 10-06-2024	DRG.No. : RDA/NWP/T/497-9

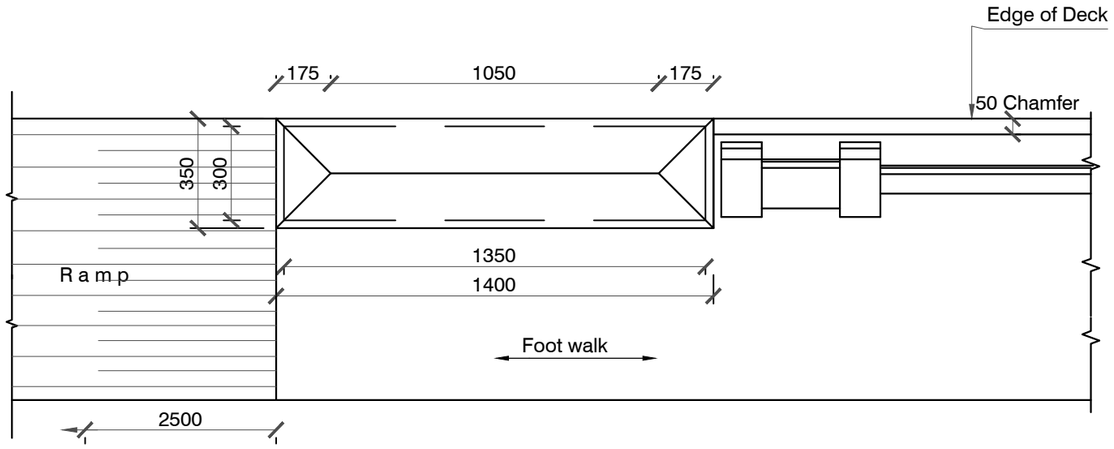
END PILLASTER TYPE : 1



ELEVATION



END ELEVATION



PLAN

NOTES :

1. Dimensions shall not be obtained by scaling.
2. All workmanship and materials are to be in accord with requirements of the specification and by laws of the authority.
3. All dimensions are in millimeters.
4. Clear cover to reinforcement 50mm. unless otherwise stated.
5. All exposed surfaces to be of smooth finish.

RECONSTRUCTION OF BRIDGE NO 18/3 ON
KALUGAMUWA - VILAKATUPOTHA ROAD (B-190) BALANCE WORK

DRAWING TITLE:-DETAILS OF END PILASTER

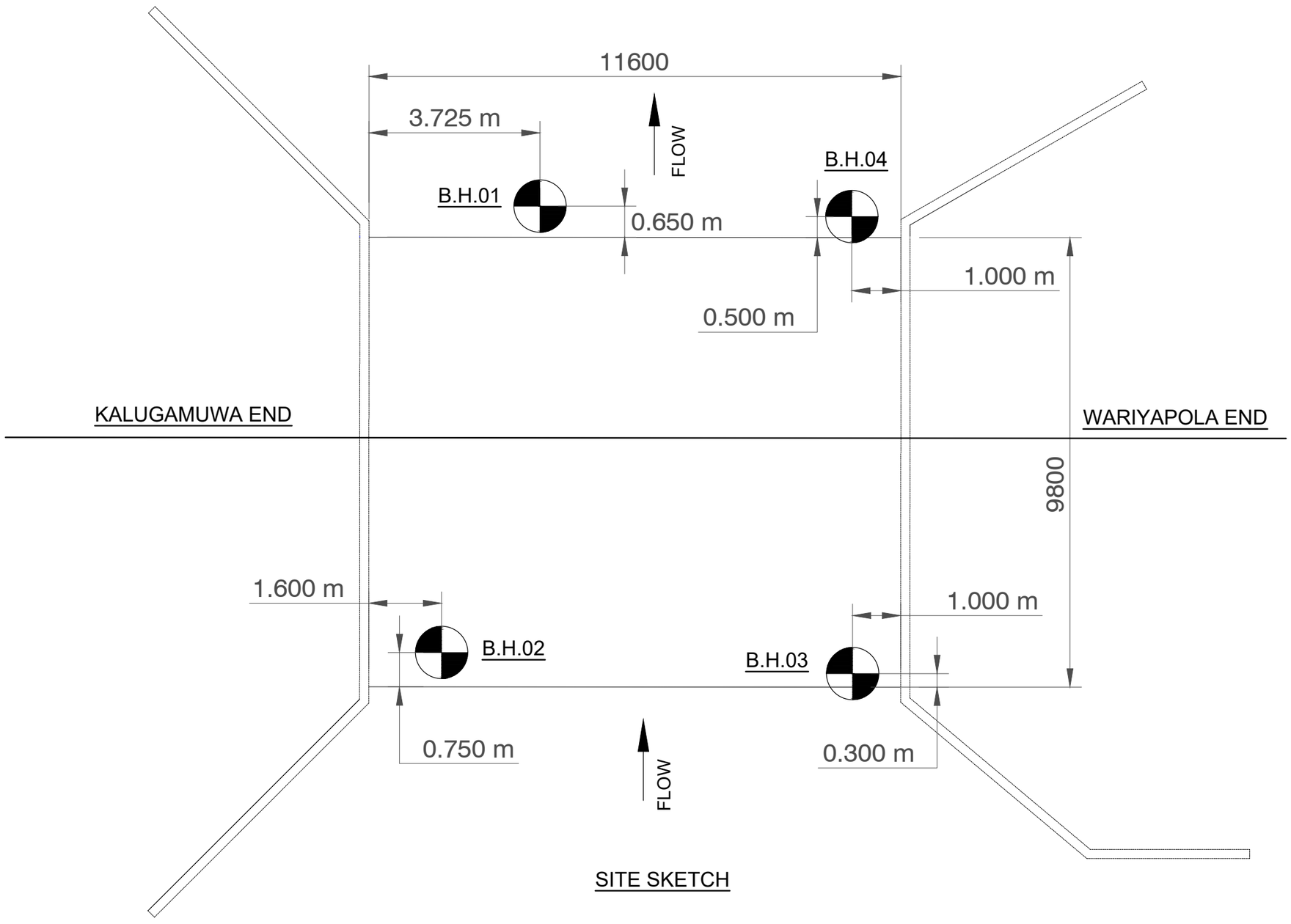
SCALE - 1:20

REV.	DESCRIPTION	BY.	DATE

DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT

DESIGN OFFICE (NWP),
ROAD DEVELOPMENT AUTHORITY
KURUNEGALA.
TEL : 0372228836 FAX : 0372228076

SURVEYED & PLOTTED :	DESIGNED : T. G. S. D. Thannegedara	DRAWN : H. M. R. W. Herath	CHECKED :
C.E. (DESIGN) :	PROVINCIAL DIRECTOR :		DATE : 10-06-2024 DRG.No. : RDA/NWP/T/497-10



SITE SKETCH

RECONSTRUCTION OF BRIDGE NO 18/3 ON
KALUGAMUWA - VILAKATUPOTHA ROAD (B-190) BALANCE WORK

DRAWING TITLE:- BORE HOLE PLAN

SCALE - Not to scale

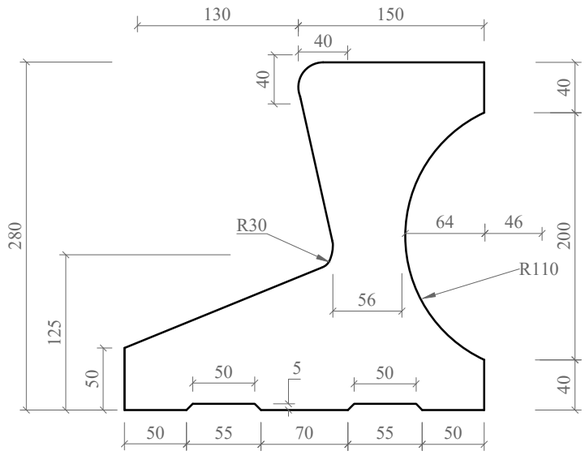
REV.	DESCRIPTION	BY.	DATE

DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT

DESIGN OFFICE (NWP),
ROAD DEVELOPMENT AUTHORITY
KURUNEGALA.
TEL : 0372228836 FAX : 0372228076

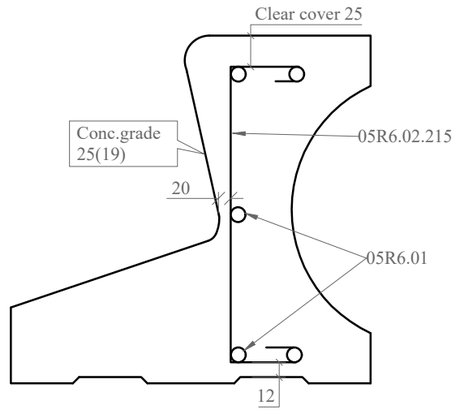
SURVEYED & PLOTTED :	DESIGNED : T. G. S. D. Thannegedara	DRAWN : H. M. R. W. Herath	CHECKED :
C.E. (DESIGN) :	PROVINCIAL DIRECTOR :		DATE : 10-06-2024
			DRG.No. : RDA/NWP/T/497-11

DETAILS OF PRE CAST KERB



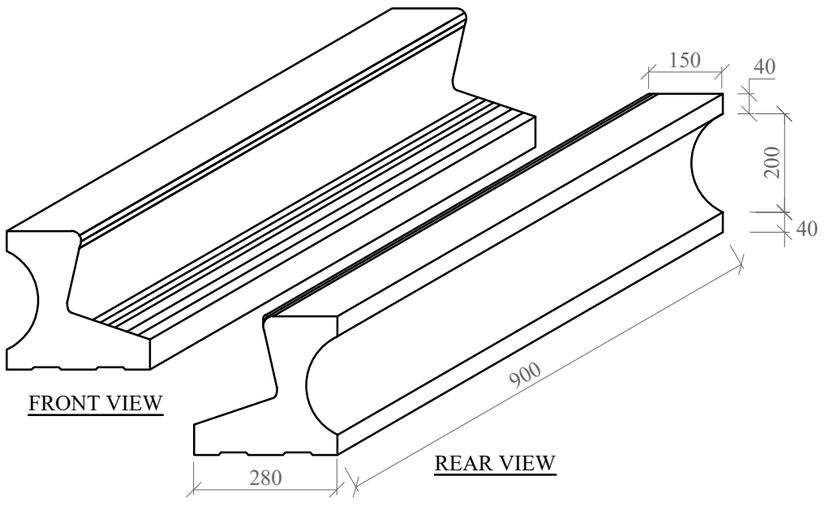
SECTION

Scale 1:5



R.C.DETAIL

Scale 1:5



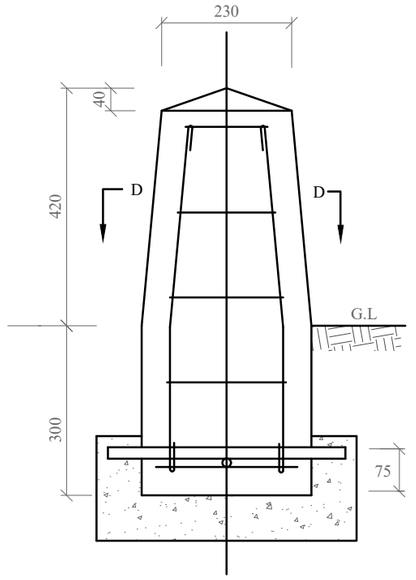
ISOMETRIC VIEW

GENERAL NOTES.

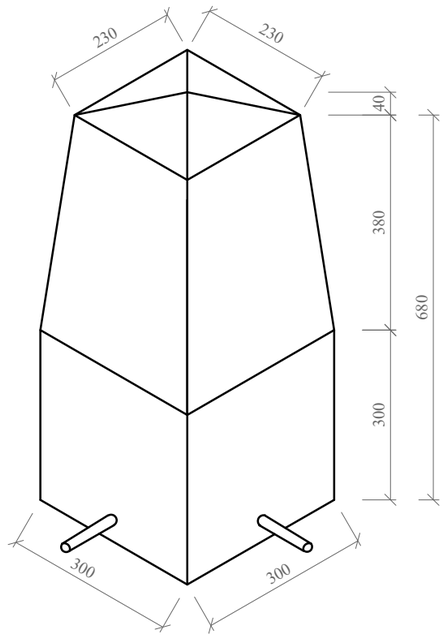
1. Dimentions shall not be obtained by scaling.
2. All workmanship and materials are to be in accord with requirement of the specification and by laws of the authority
3. All dimensions are in millimeters.
4. All bars marked 'R' shall be hot rolled mild steel plain bars.
5. All bars marked 'T" shall be tor steel.
6. Clear cover to reinforcement 50mm unless otherwise stated.
7. All exposed surfaced to be of smooth finish.

SCHEDULE OF R/F FOR PRE CAST KERB					
Mark	Dia	Type	No of bars	Cut length	Bending
1	6	R	05	850	850
2	6	R	05	410	50, 35, 240

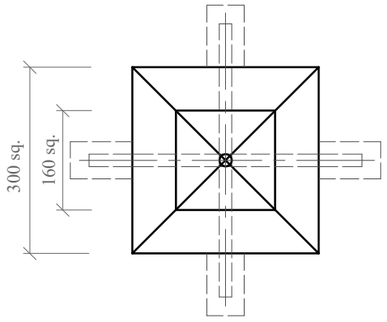
DETAILS OF GUARD STONE



SECTIONAL ELEVATION

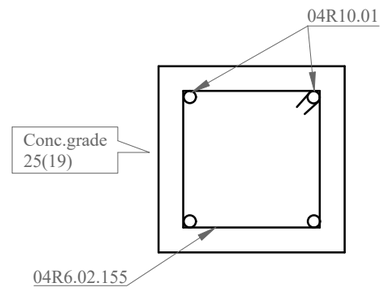


ISOMETRIC VIEW



PLAN

Scale 1:10



D-D

Scale 1:10

SCHEDULE OF R/F FOR PRE CAST GUARD STONE					
Mark	Dia	Type	No of bars	Cut length	Bending
1	10	R	04	800	260, 90, 360, 90, ①
2	6	R	02	1035	240, 240, ②
3	6	R	01	995	230, 230, ③
4	6	R	01	875	200, 200, ④
5	6	R	01	755	170, 170, ⑤

NOTE-GUARD STONE;

1. Guard stone to be placed on 75 thick screed concrete grade 15(40).
2. 16 Dia.bars 450 long to be inserted to 20 Dia holes provided at bottom of guard stone.
3. Protruding end of bars to be encased in concrete of grade 15(40).

RECONSTRUCTION OF BRIDGE NO 18/3 ON
KALUGAMUWA - VILAKATUPOTHA ROAD (B-190) BALANCE WORK

DRAWING TITLE:- TYPE PRECAST KERB & GUARD STONE

SCALE - 1:2

REV.	DESCRIPTION	BY.	DATE

DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT

DESIGN OFFICE (NWP),
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KURUNEGALA.
TEL : 0372228836 FAX : 0372228076

SURVEYED & PLOTTED :
DESIGNED : T. G. S. D. Thannegedara
DRAWN : H. M. R. W. Herath
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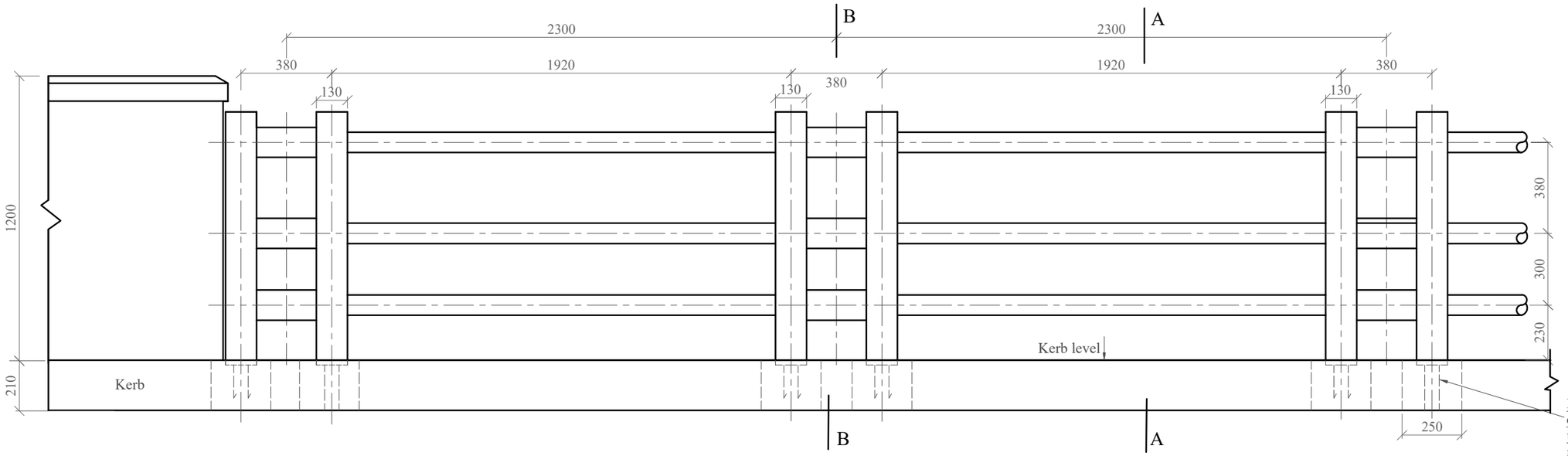
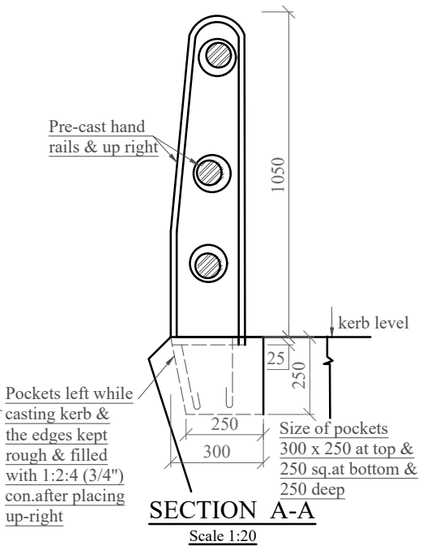
C.E. (DESIGN) :
PROVINCIAL DIRECTOR :
DATE : 10-06-2024
DRG.No. : RDA/NWP/T/497-12



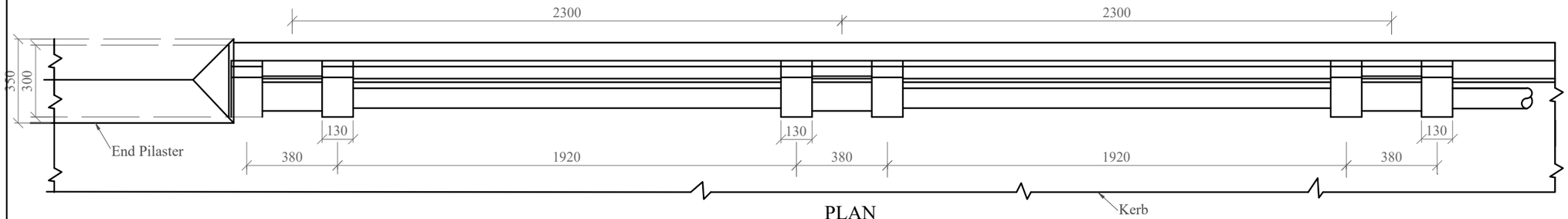
ELEVATION

Scale 1:20



SECTION A-A

Scale 1:20

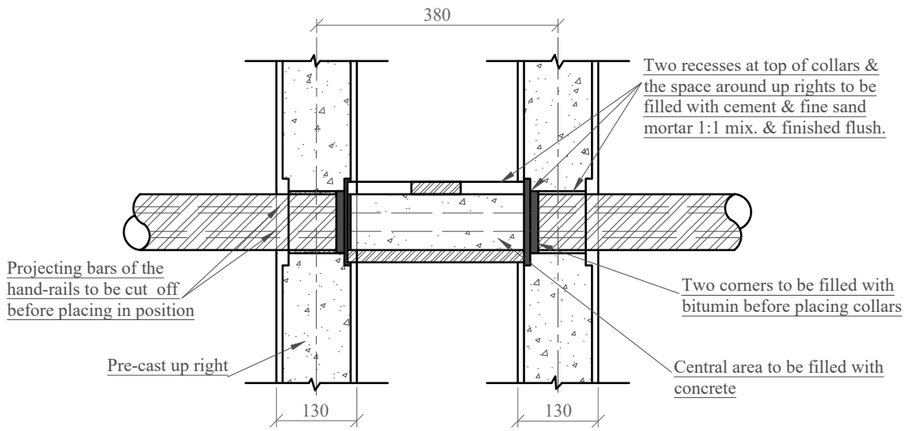


PLAN

Scale 1:20

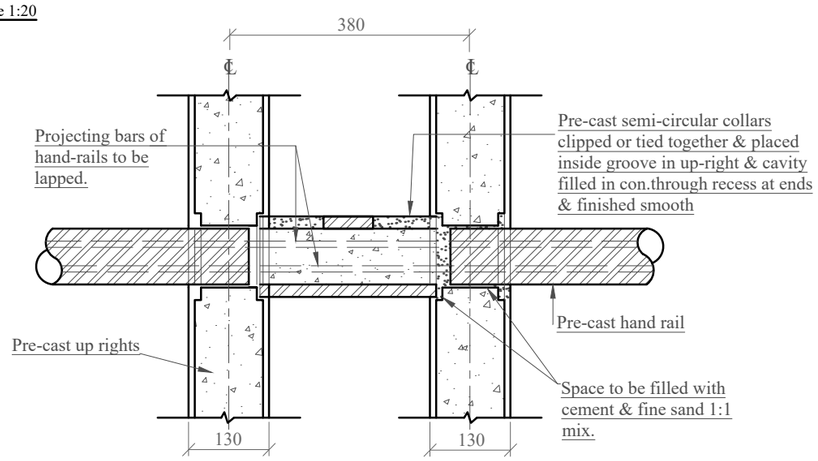
SECTION B-B

Scale 1:20



DETAILS OF FIXING PRE CAST HAND RAILS & CENTRAL COLLARS TO UP RIGHTS AT THE EXPANSION SPACE BAY

Scale 1:10



DETAILS OF FIXING HAND RAILS & CENTRAL PRE CAST COLLARS TO UP RIGHTS

Scale 1:10

Notes

1. Fixing of posts & hand rails to be done such that the alignment & finish lines of rails to match with camber of bridge deck.
2. For details of pre-cast units refer Drg.No T/B/023/A.

RECONSTRUCTION OF BRIDGE NO 18/3 ON KALUGAMUWA - VILAKATUPOTHA ROAD (B-190) BALANCE WORK

DRAWING TITLE:- TYPE HAND RAILS AND UPRIGHTS

SCALE - 1:2

REV.	DESCRIPTION	BY.	DATE

DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS & ROAD DEVELOPMENT

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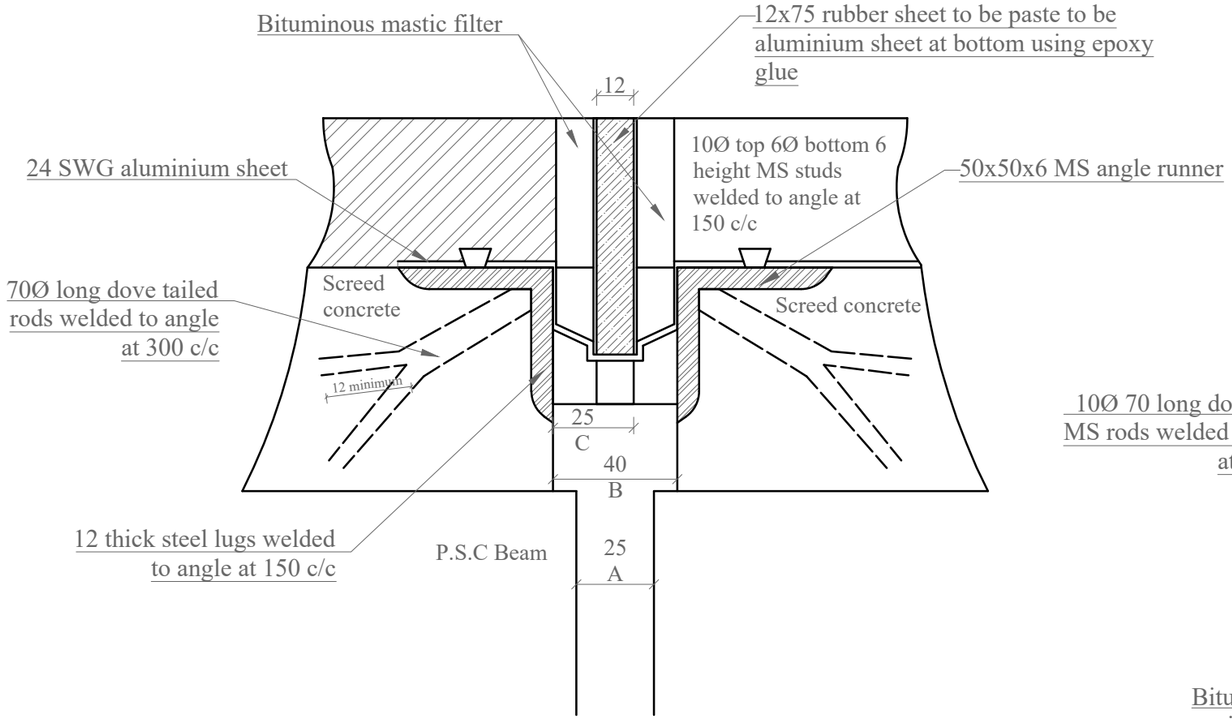
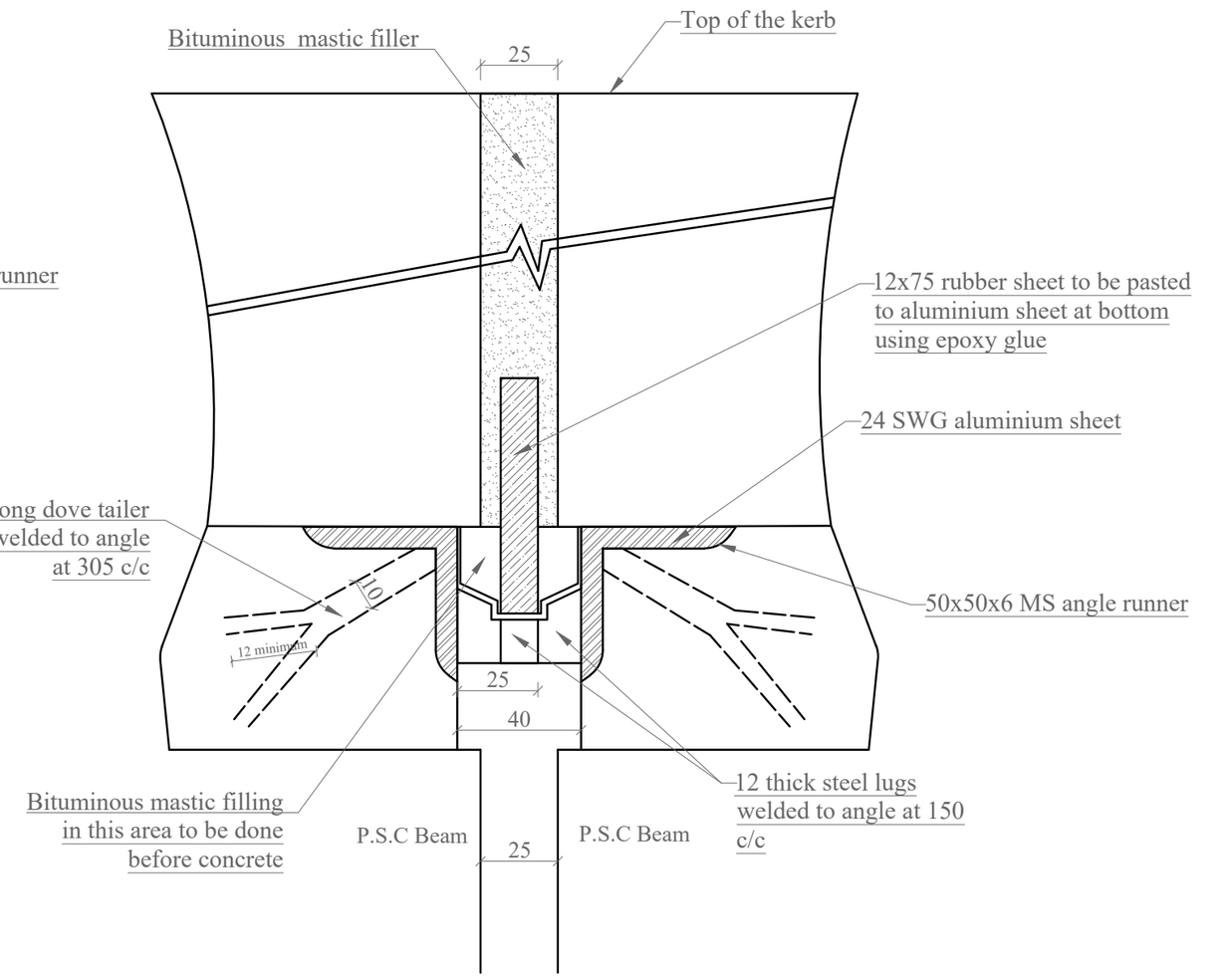


SECTION C-C

Scale 1:2



SECTION R-R

Scale 1:2

50 mm Expansion joint

The dimensions marked A,B,C,D,E are to be read as follows for the 50mm expansion joint

A=50 B=50 C=30 D=18 E=50

RECONSTRUCTION OF BRIDGE NO 18/3 ON KALUGAMUWA - VILAKATUPOTHA ROAD (B-190) BALANCE WORK

DRAWING TITLE:- TYPE EXPANSION JOINT FOR BRIDGE DECKS

SCALE - 1:2

REV.	DESCRIPTION	BY.	DATE

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SURVEYED & PLOTTED :	DESIGNED : T. G. S. D. Thannegedara	DRAWN : H. M. R. W. Herath	CHECKED :
C.E. (DESIGN) :	PROVINCIAL DIRECTOR :		DATE : 10-06-2024
			DRG.No. : RDA/NWP/T/497-14