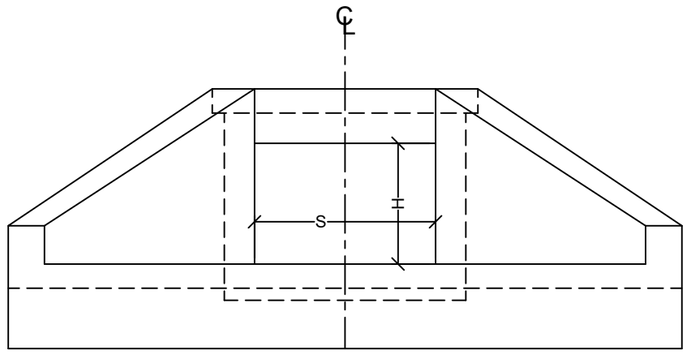
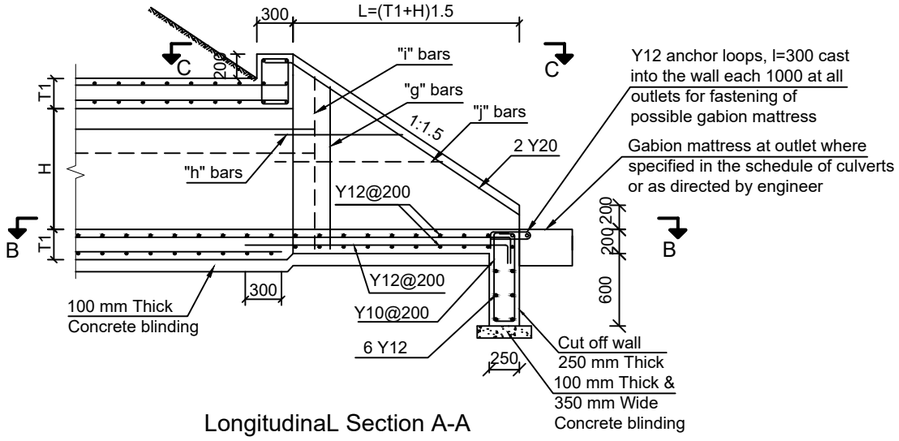
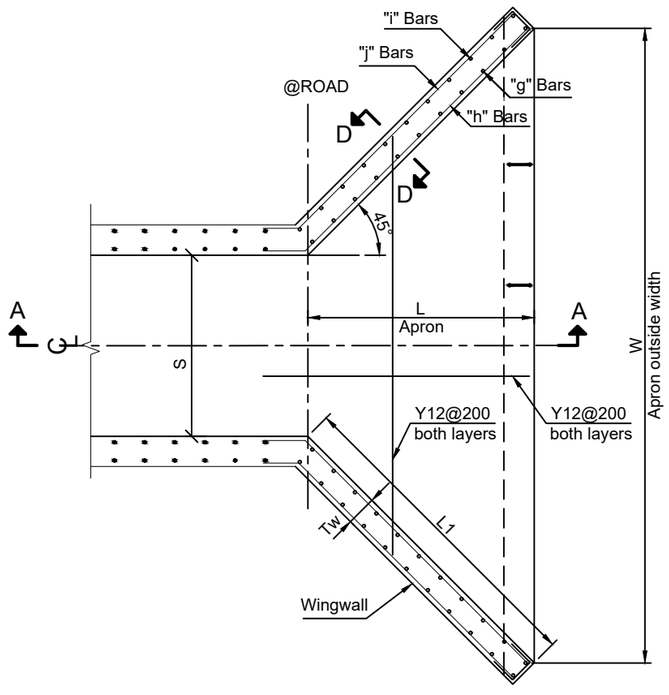


Elevation

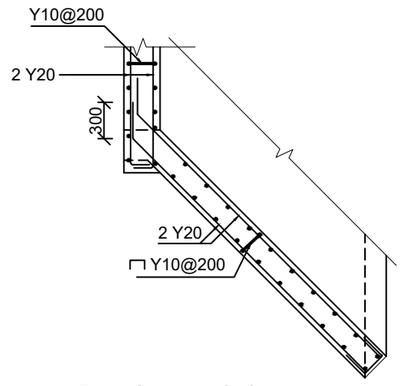


LongitudinaL Section A-A



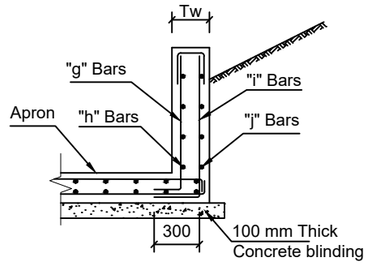
Plan Section B-B

ORTHOGONAL CROSSING SHOWN



Plan Section C-C

Head beam and top of wingwall



Section D-D

NOTES:

1. Dimensions: All dimensions are in millimeters.
2. Materials: Concrete Grade - C25/30
   Blinding Concrete - C12/15
   Reinforced ribbed Bars - Specified Characteristic value of minimum yield strength ≥ 500 N/mm^2
3. Cover to reinforcement
   Earth face 75mm
   Non earth face 40mm
4. External edges to be chamfered 20x20 mm.

NO.	AMENDMENTS	DATE

CLIENT:

REPUBLIC OF KENYA
MINISTRY OF ROADS AND TRANSPORT
P.O. BOX 30260-00100
NAIROBI

STANDARD DRAINAGE DRAWINGS

TYPICAL SINGLE CELL RCC BOX CULVERTS WINGWALL DETAILS

DRAWING NO.: RDM/4/1/2/04

Date: Jan. 2024 | Scale: N.T.S. | Sheet No.: 1/2

DIMENSIONS & REINFORCEMENT

FOR ONE END STRUCTURE FOR ORTHOGONAL CROSSING
DIMENSIONS ARE IN M

APRON, CUTOFF WALL AND WING WALL DETAILS (SINGLE CELL BOX)																										
SPAN, S	m	2.00					2.00					3.00					3.00					3.00				
BOX HEIGHT, H	m	1.50					2.00					1.50					2.00					3.00				
MAX FILL ON TOP SLAB	m	1.00	2.00	3.00	4.00	5.00	1.00	2.00	3.00	4.00	5.00	1.00	2.00	3.00	4.00	5.00	1.00	2.00	3.00	4.00	5.00	1.00	2.00	3.00	4.00	5.00
BOX SLAB THICKNESS, T1	m	0.3	0.3	0.3	0.35	0.35	0.3	0.3	0.3	0.35	0.35	0.4	0.4	0.4	0.45	0.45	0.4	0.4	0.4	0.45	0.45	0.4	0.4	0.4	0.45	0.45
WING WALL THICKNESS, Tw	m	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.3	0.3	0.3	0.3	0.3
APRON LENGTH, L	m	2.70	2.70	2.70	2.78	2.78	3.45	3.45	3.45	3.53	3.53	2.85	2.85	2.85	2.93	2.93	3.60	3.60	3.60	3.68	3.68	5.10	5.10	5.10	5.18	5.18
APRON OUTSIDE WIDTH, W	m	7.40	7.40	7.40	7.55	7.55	8.90	8.90	8.90	9.05	9.05	8.70	8.70	8.70	8.85	8.85	10.20	10.20	10.20	10.35	10.35	13.20	13.20	13.20	13.35	13.35
WING WALL LENGTH, L1	m	3.82	3.82	3.82	3.92	3.92	4.88	4.88	4.88	4.99	4.99	4.03	4.03	4.03	4.14	4.14	5.09	5.09	5.09	5.20	5.20	7.21	7.21	7.21	7.32	7.32
"g" BARS		T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200
"h" BARS		T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200
"i" BARS		T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T16 @200	T16 @200	T16 @200	T16 @200	T16 @200
"j" BARS		T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T16 @200	T16 @200	T16 @200	T16 @200	T16 @200

SPAN, S	m	4.00					4.00					4.00					4.00					5.00				
BOX HEIGHT, H	m	1.50					2.00					3.00					4.00					1.50				
MAX FILL ON TOP SLAB	m	1.00	2.00	3.00	4.00	5.00	1.00	2.00	3.00	4.00	5.00	1.00	2.00	3.00	4.00	5.00	1.00	2.00	3.00	4.00	5.00	1.00	2.00	3.00	4.00	5.00
BOX SLAB THICKNESS, T1	m	0.45	0.45	0.45	0.5	0.5	0.45	0.45	0.45	0.5	0.5	0.45	0.45	0.45	0.5	0.5	0.45	0.45	0.45	0.5	0.5	0.5	0.5	0.5	0.55	0.55
WING WALL THICKNESS, Tw	m	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.25	0.25	0.25	0.25	0.25
APRON LENGTH, L	m	2.93	2.93	2.93	3.00	3.00	3.68	3.68	3.68	3.75	3.75	5.18	5.18	5.18	5.25	5.25	6.68	6.68	6.68	6.75	6.75	3.00	3.00	3.00	3.08	3.08
APRON OUTSIDE WIDTH, W	m	9.85	9.85	9.85	10.00	10.00	11.35	11.35	11.35	11.50	11.50	14.35	14.35	14.35	14.50	14.50	17.35	17.35	17.35	17.50	17.50	11.00	11.00	11.00	11.15	11.15
WING WALL LENGTH, L1	m	4.14	4.14	4.14	4.24	4.24	5.20	5.20	5.20	5.30	5.30	7.32	7.32	7.32	7.42	7.42	9.44	9.44	9.44	9.55	9.55	4.24	4.24	4.24	4.35	4.35
"g" BARS		T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200
"h" BARS		T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200
"i" BARS		T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T16 @200	T16 @200	T16 @200	T16 @200	T16 @200	T16 @180	T16 @180	T16 @180	T16 @180	T16 @180	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200
"j" BARS		T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T16 @200	T16 @200	T16 @200	T16 @200	T16 @200	T16 @180	T16 @180	T16 @180	T16 @180	T16 @180	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200

SPAN, S	m	5.00					5.00					5.00					5.00				
BOX HEIGHT, H	m	2.00					3.00					4.00					5.00				
MAX FILL ON TOP SLAB	m	1.00	2.00	3.00	4.00	5.00	1.00	2.00	3.00	4.00	5.00	1.00	2.00	3.00	4.00	5.00	1.00	2.00	3.00	4.00	5.00
BOX SLAB THICKNESS, T1	m	0.5	0.5	0.5	0.55	0.55	0.5	0.5	0.5	0.55	0.55	0.5	0.5	0.5	0.55	0.55	0.6	0.6	0.6	0.65	0.65
WING WALL THICKNESS, Tw	m	0.25	0.25	0.25	0.25	0.25	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5
APRON LENGTH, L	m	3.75	3.75	3.75	3.83	3.83	5.25	5.25	5.25	5.33	5.33	6.75	6.75	6.75	6.83	6.83	8.40	8.40	8.40	8.48	8.48
APRON OUTSIDE WIDTH, W	m	12.50	12.50	12.50	12.65	12.65	15.50	15.50	15.50	15.65	15.65	18.50	18.50	18.50	18.65	18.65	21.80	21.80	21.80	21.95	21.95
WING WALL LENGTH, L1	m	5.30	5.30	5.30	5.41	5.41	7.42	7.42	7.42	7.53	7.53	9.55	9.55	9.55	9.65	9.65	11.88	11.88	11.88	11.99	11.99
"g" BARS		T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200
"h" BARS		T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T12 @200
"i" BARS		T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T16 @200	T16 @200	T16 @200	T16 @200	T16 @200	T16 @180	T16 @180	T16 @180	T16 @180	T16 @180	T16 @150	T16 @150	T16 @150	T16 @150	T16 @150
"j" BARS		T12 @200	T12 @200	T12 @200	T12 @200	T12 @200	T16 @200	T16 @200	T16 @200	T16 @200	T16 @200	T16 @180	T16 @180	T16 @180	T16 @180	T16 @180	T16 @150	T16 @150	T16 @150	T16 @150	T16 @150

NO.	AMENDMENTS	DATE

CLIENT:

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P.O. BOX 30260-00100
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STANDARD DRAINAGE DRAWINGS

TYPICAL SINGLE CELL RCC BOX CULVERTS WINGWALL DETAILS

DRAWING NO.: RDM/4/1/2/04

Date: Jan. 2024 | Scale: N.T.S. | Sheet No.: 2/2