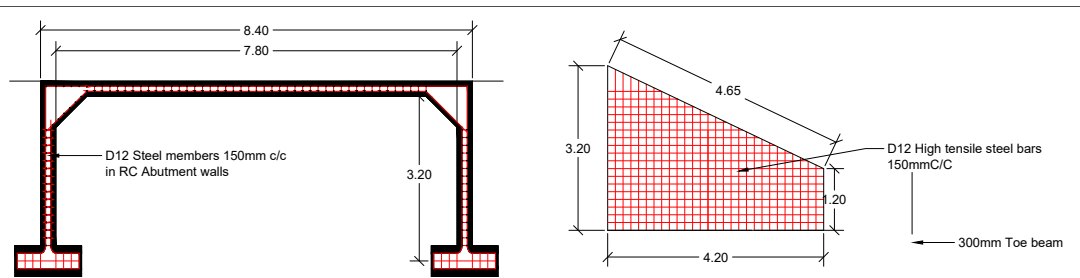
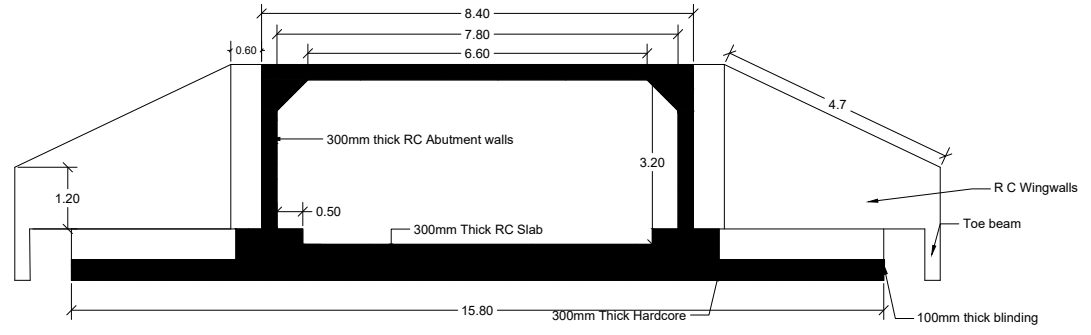


BOX CULVERT PLAN



Section X-X

Section through RC wing walls



FRONT ELEVATION

ESTIMATED EXCAVATION VOLUMES FOR THE STRUCTURE.					
	AREA	VOLUME	No.	TOTAL AREA	TOTAL VOLUME
APRONS	33.48	83.70	2	66.96	167.4
BED	60	90	1	60	90
TOTAL ESTIMATED EXCAVATION VOLUMES FOR THE STRUCTURE.					126.24
ESTIMATED EXCAVATION VOLUMES FOR THE STRUCTURE.					
APRONS	33.48	6.696	2	66.96	13.392
BED	6	1.2	10	60	12
WINGWALLS	9.24	1.848	4	36.96	7.392
ABUTMENT WALLS	34	6.8	2	68	13.6
Decking	6	1.2	10	60	12
Total Volume of concrete required for the structure					58.384

	Bar size	Unit length (m)	No. of bars	Total length (m)
WINGWALLS	D12	4.2	72	302.4
		2.2	176	387.2
		1.55	112	173.6
APRONS AND BED	D12	10	82	820
		6	136	816
		3.6	252	907.2
		9.3	100	930
ABUTMENT WALLS	D12	6	88	528
		3.2	164	524.8
		10	82	820
Decking	D12	10	82	820
		6	136	816
Total length of steel required for the structure			0.889kg/m	6,228.4
Total weight of steel required for the structure			5,537kg	

NOTES:

1. ALL DIMENSIONS ARE IN METERS UNLESS STATED.
2. REINFORCEMENT TO BE AS PER THE BRITISH STANDARDS
3. HARDCORE TO BE OF GOOD SELECTED MATERIAL
4. REINFORCEMENT SHOULD BE PLACED 150MM C/C
5. EXCAVATION DEPTH WILL BE DETERMINED ON SITE.
6. PAYMENT OF THE WORKS WILL BE DONE BASED ON MEASURED WORKS.

CLIENT: KCEP-CRAL MINISTRY OF AGRICULTURE, LIVESTOCK FISHERIES AND IRRIGATION	DRAWN BY D. S TELIENY (P.Eng. Techn)	MUEMBE RIVER CROSSING IN TONGAREN SUB COUNTY PROPOSED SMALL SPAN BOX CULVERT	NOVEMBER 2018
	DRWG NO. 002/2018		NAIMA WAREHOUSE