ANNEX

AN.1 LOCATION MAP OF STRUCTURAL MEASURES IN 24 VILLAGES

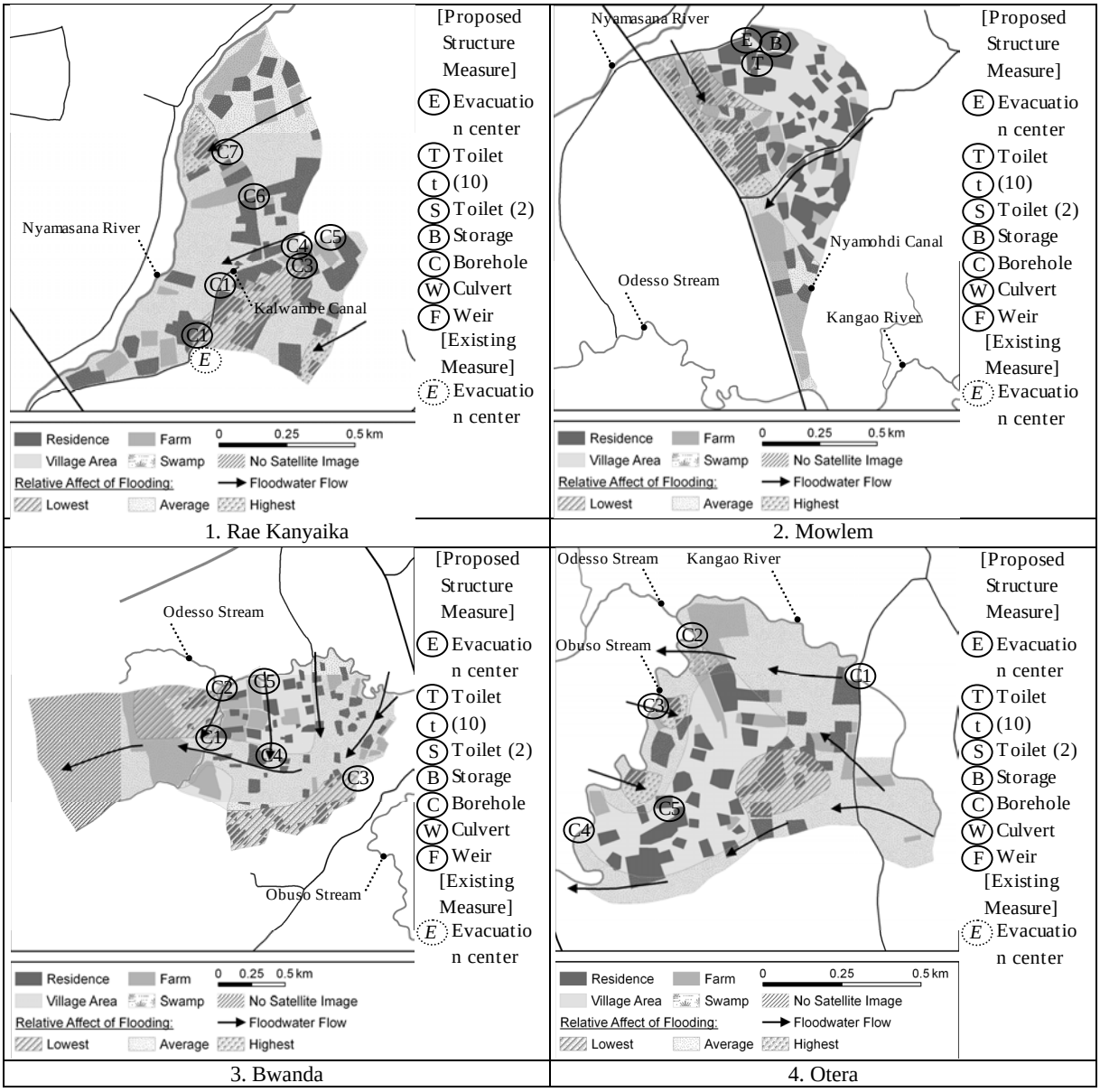


Figure 1.1 Location Map of Structural Measures (1/5)

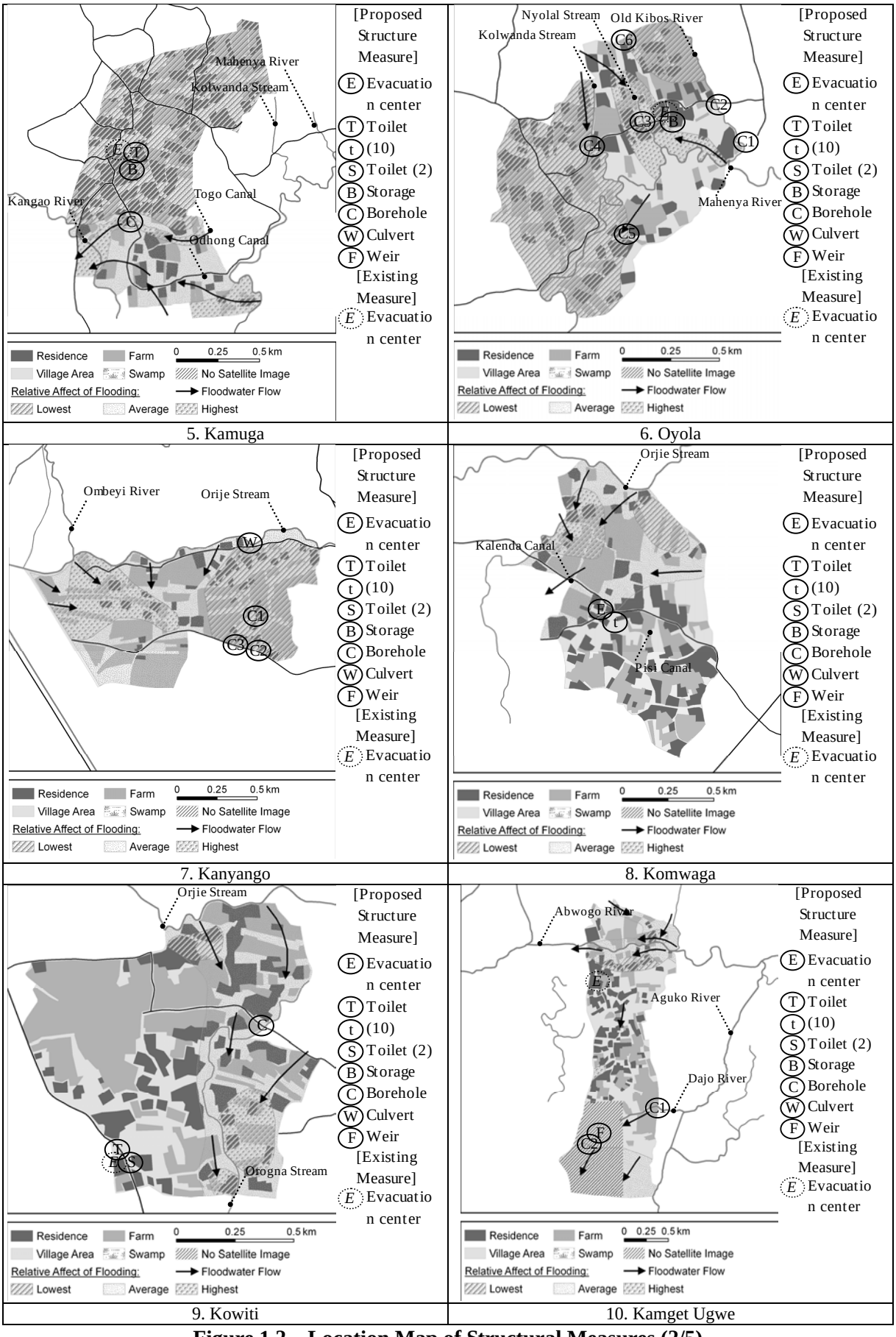


Figure 1.2 Location Map of Structural Measures (2/5)

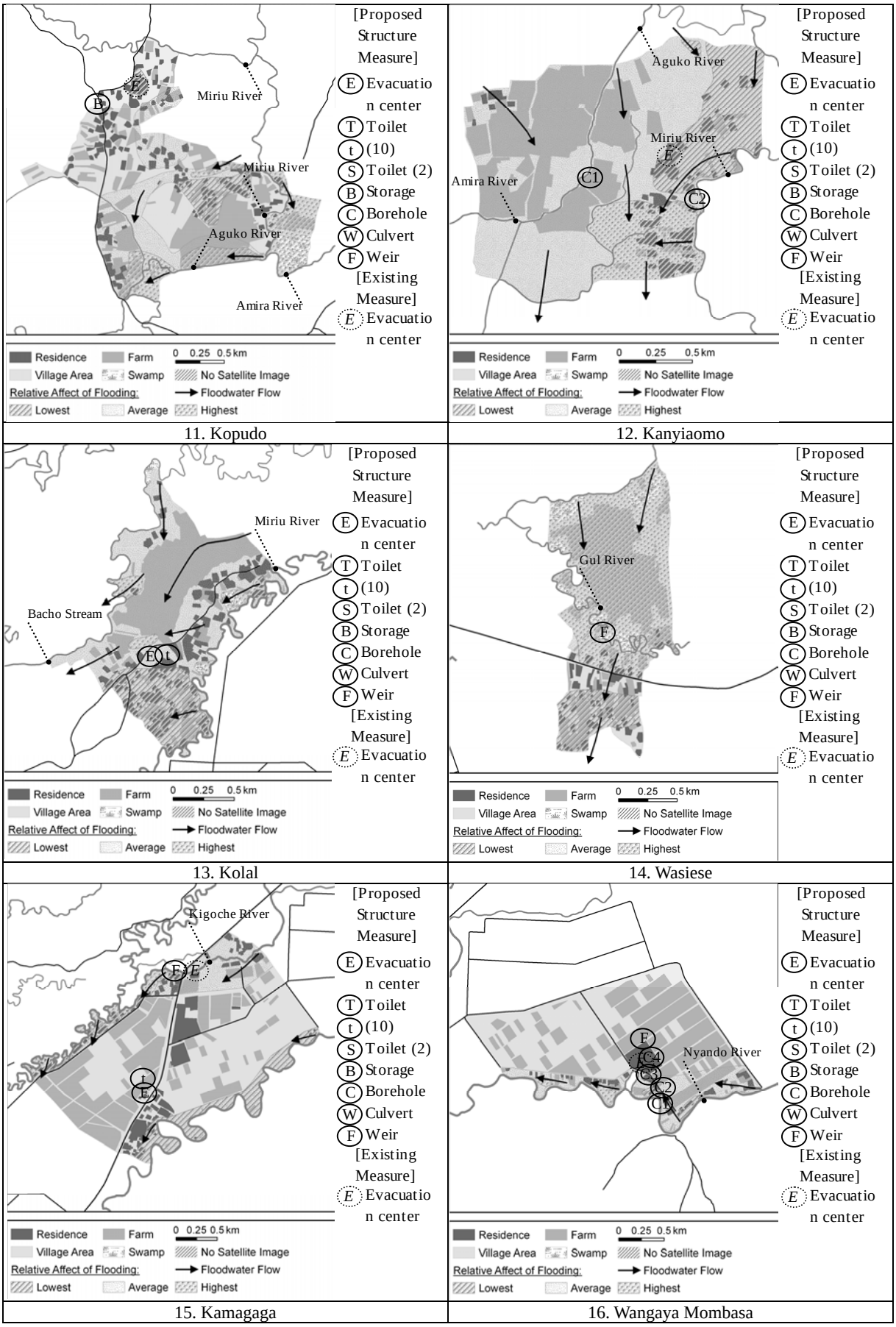


Figure 1.3 Location Map of Structural Measures (3/5)

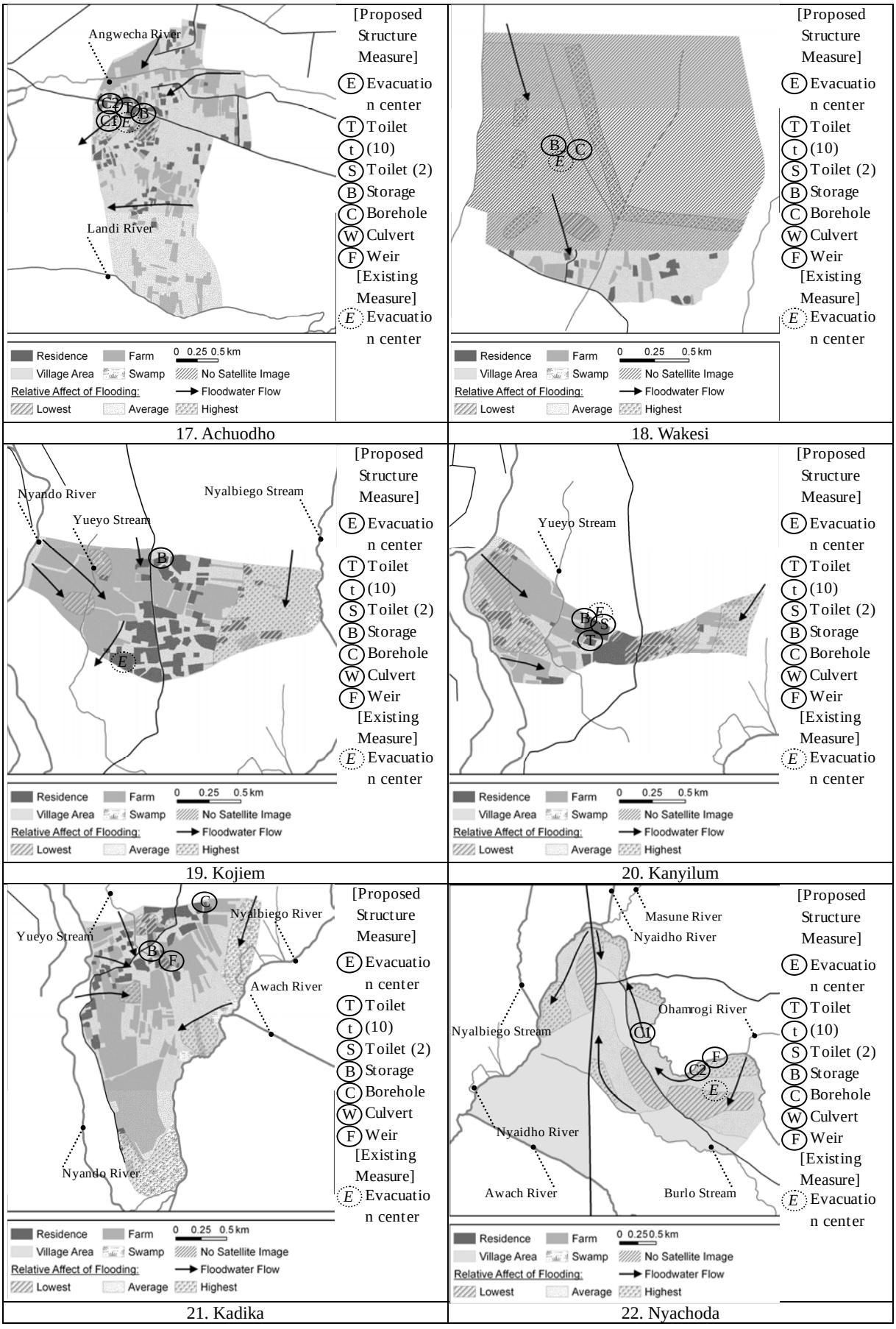
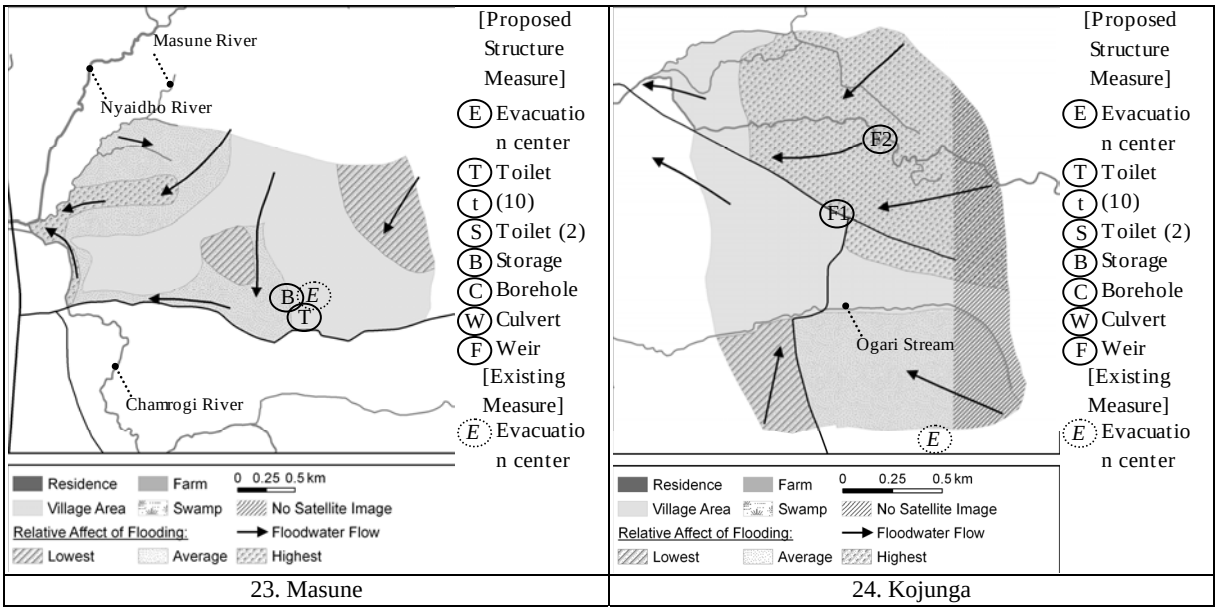


Figure 1.4 Location Map of Structural Measures (4/5)



23. Masune	24. Kojunga

Figure 1.5 Location Map of Structural Measures (5/5)

AN.2 OUTLINE DESIGN DRAWINGS OF ARCHITECTURAL WORKS

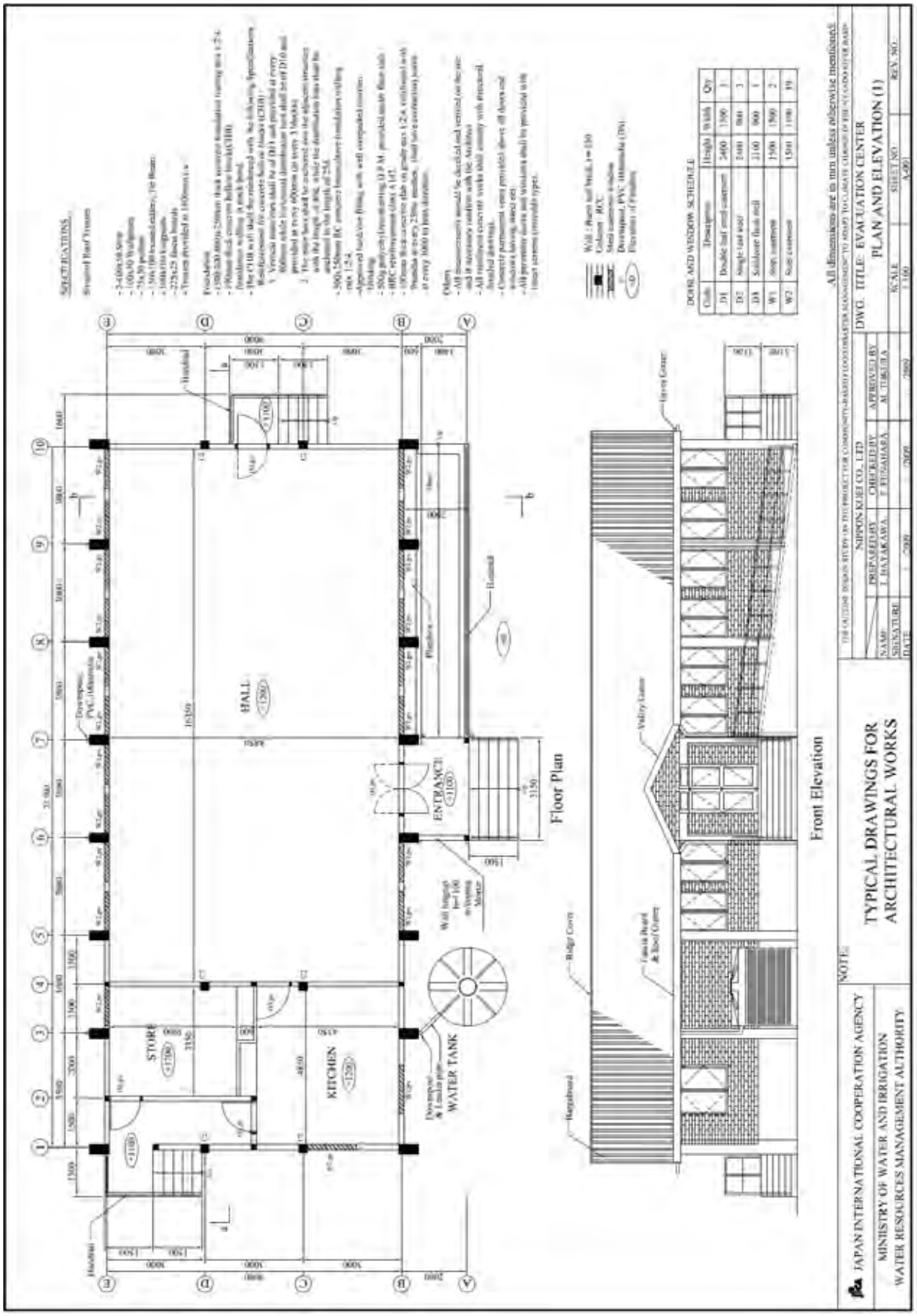


Figure 2.1 Evacuation Center: Plan and Elevation

Figure 2.2 Evacuation Center: Elevation

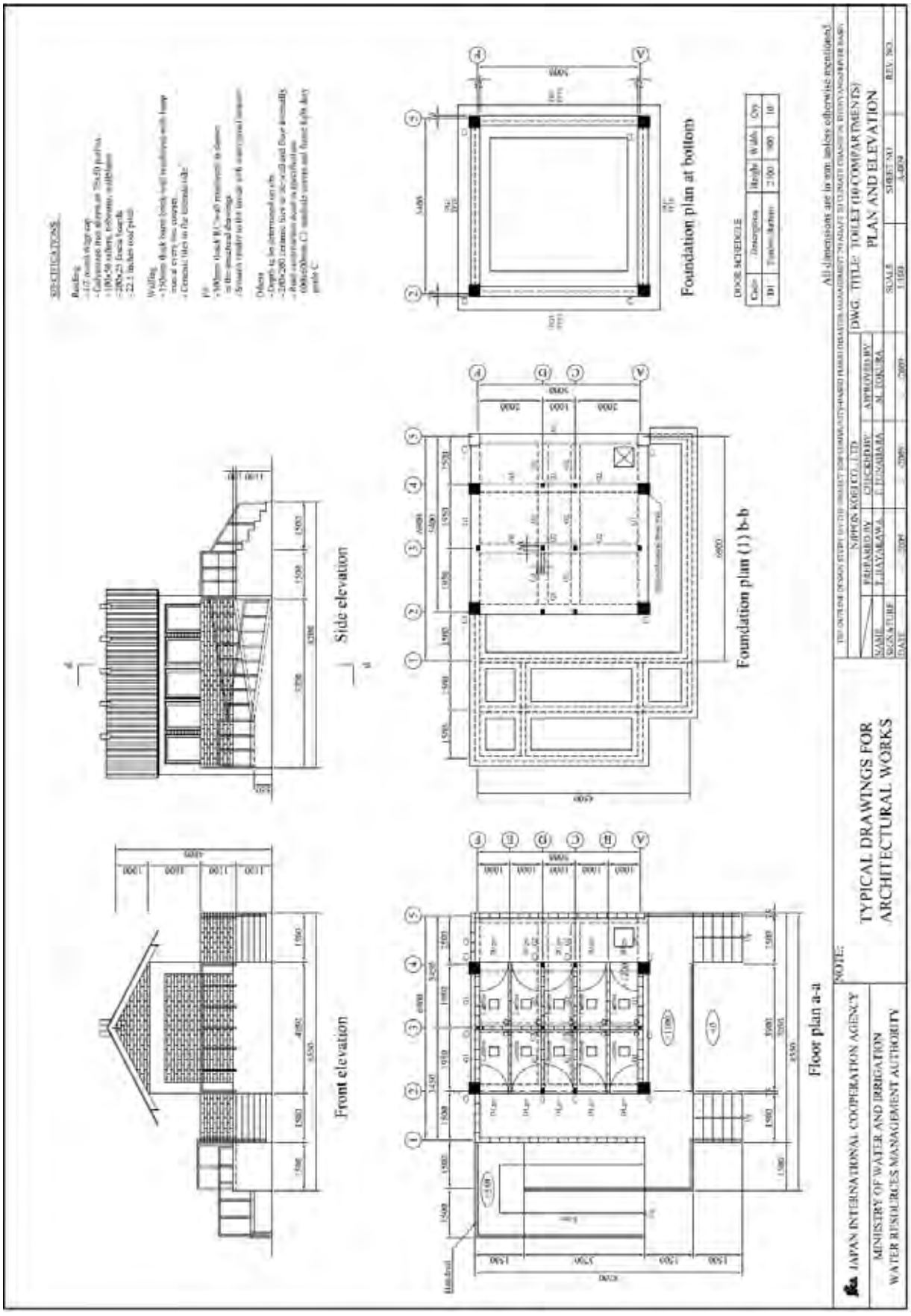


Figure 2.3 Toilet (10 compartments): Plan and Elevation

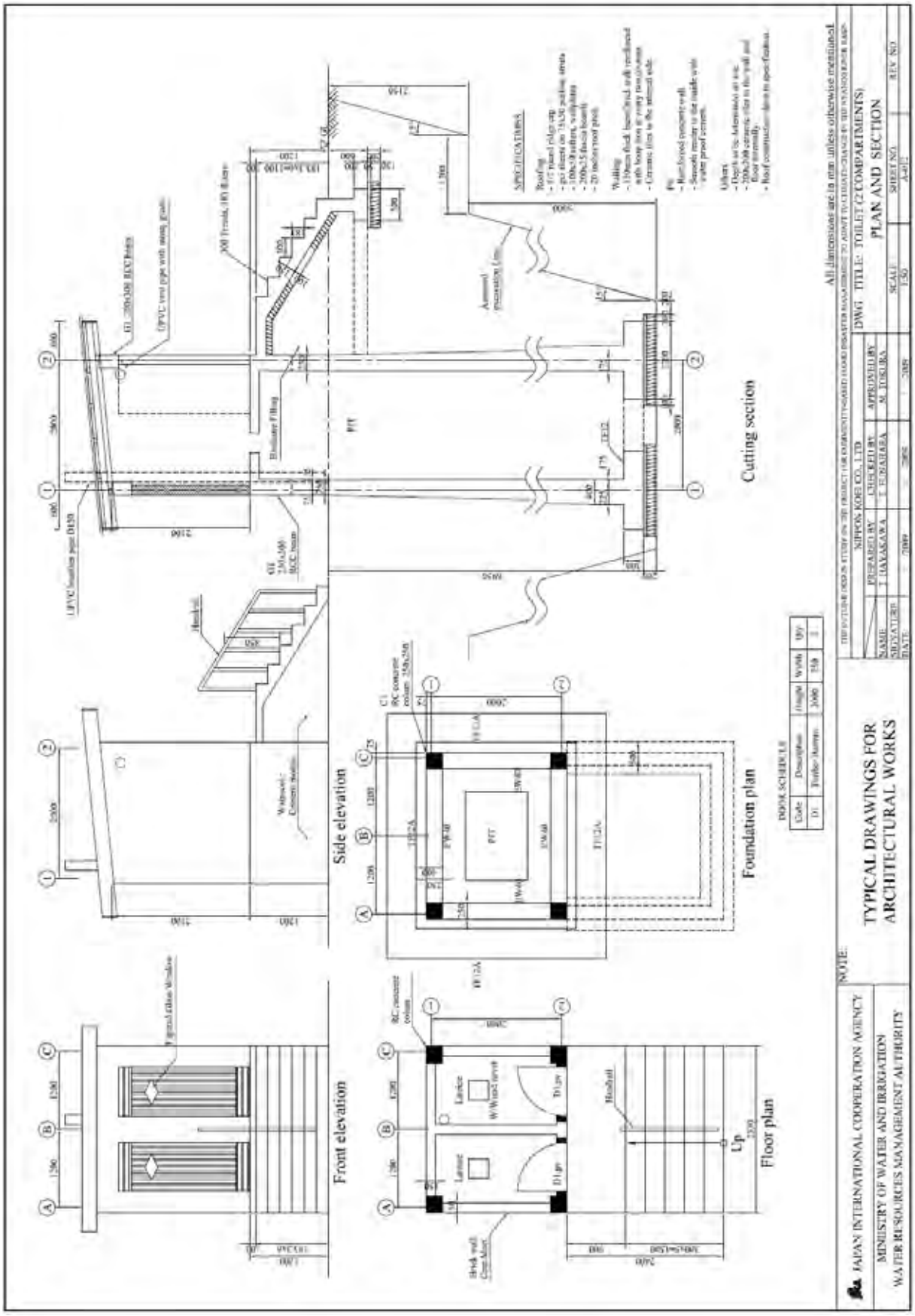


Figure 2.4 Toilet (2 compartments): Plan and Elevation

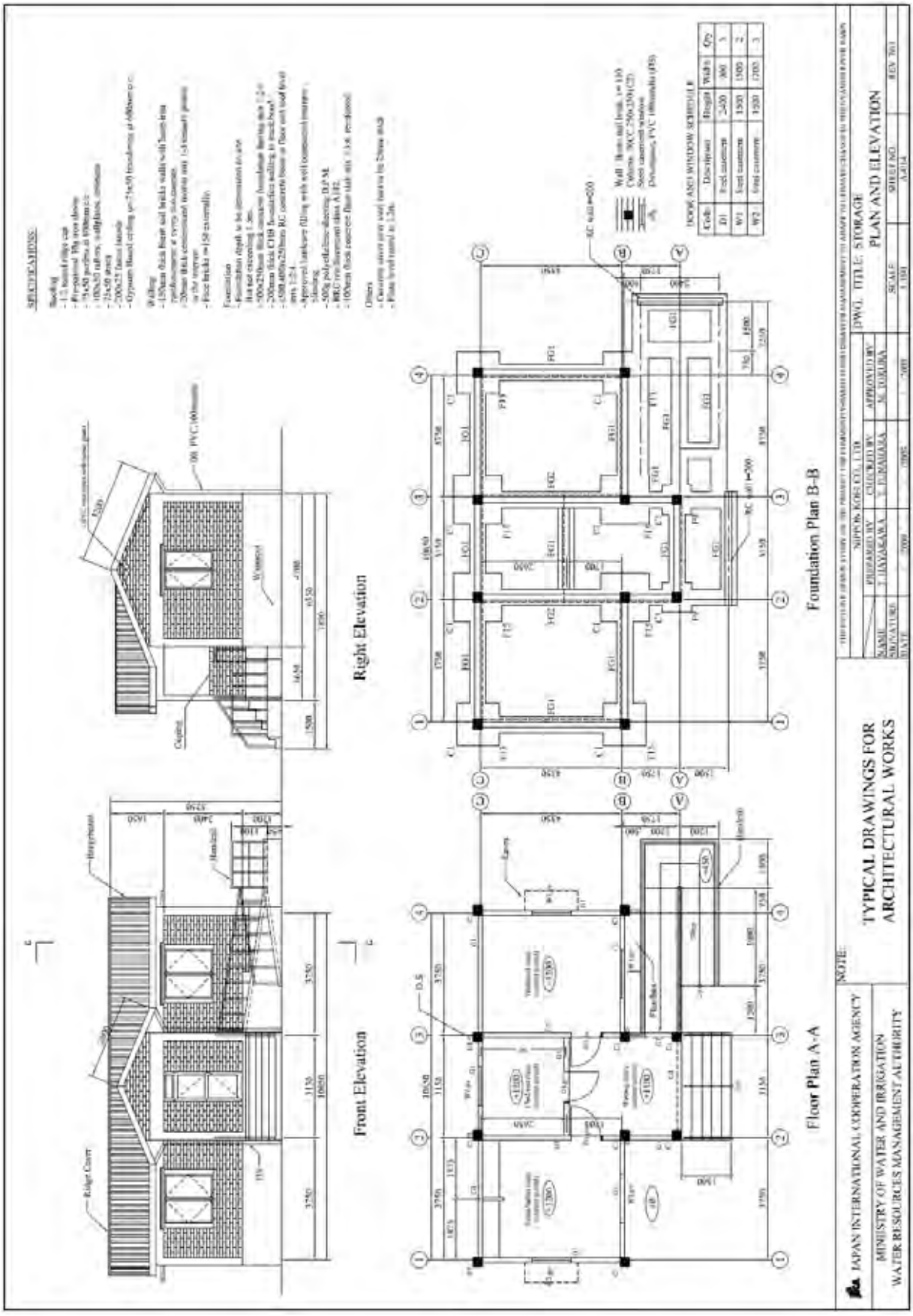


Figure 2.5 Storage Facility: Plan and Elevation

Figure 2.6 Borehole: Plan and Section of Hand Pump Apron

Figure 2.7 Borehole: Location Map and Typical Section

AN.3 OUTLINE DESIGN DRAWINGS OF CIVIL WORKS

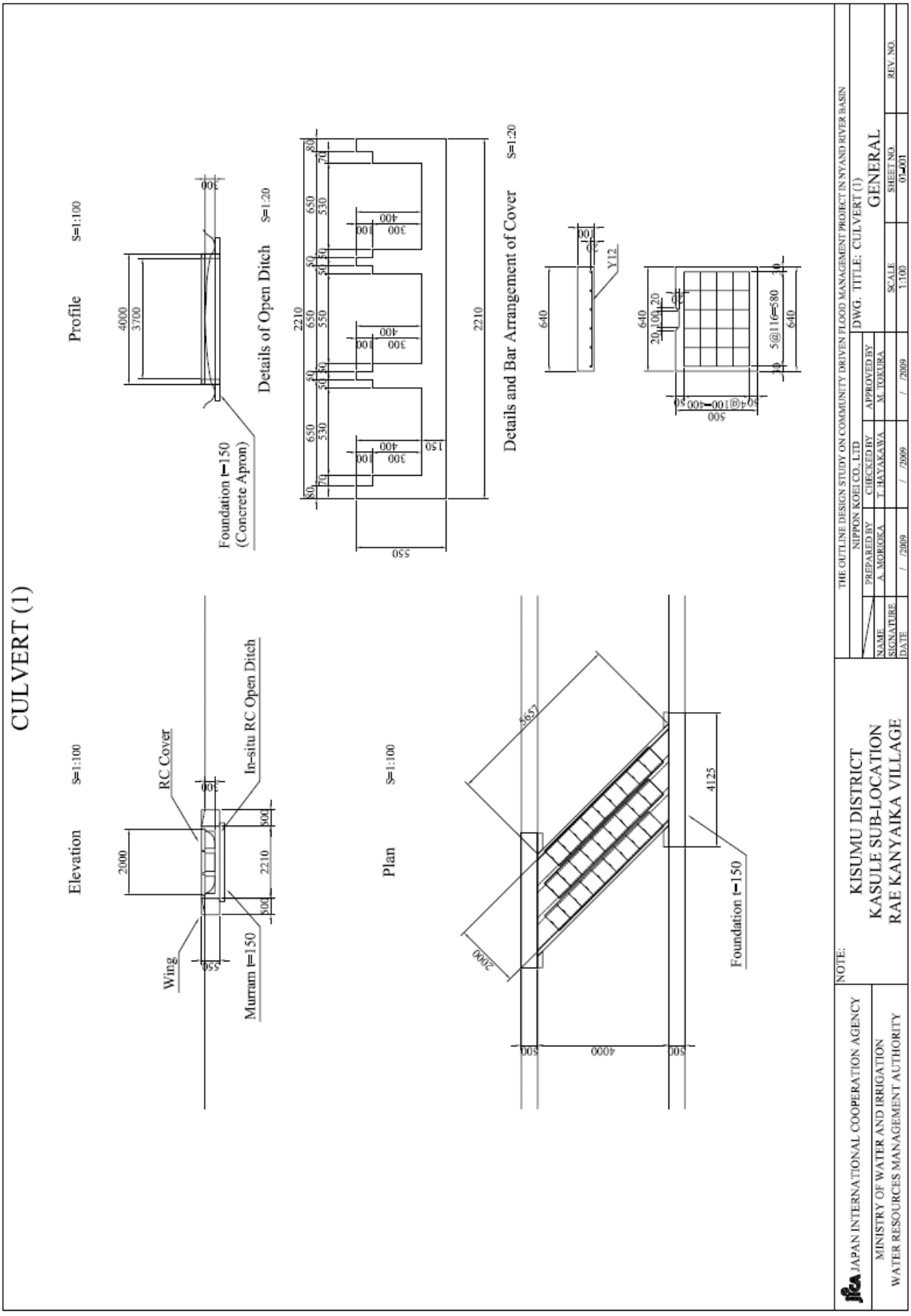


Figure 3.1 Rae Kanyaika: Culvert (1)

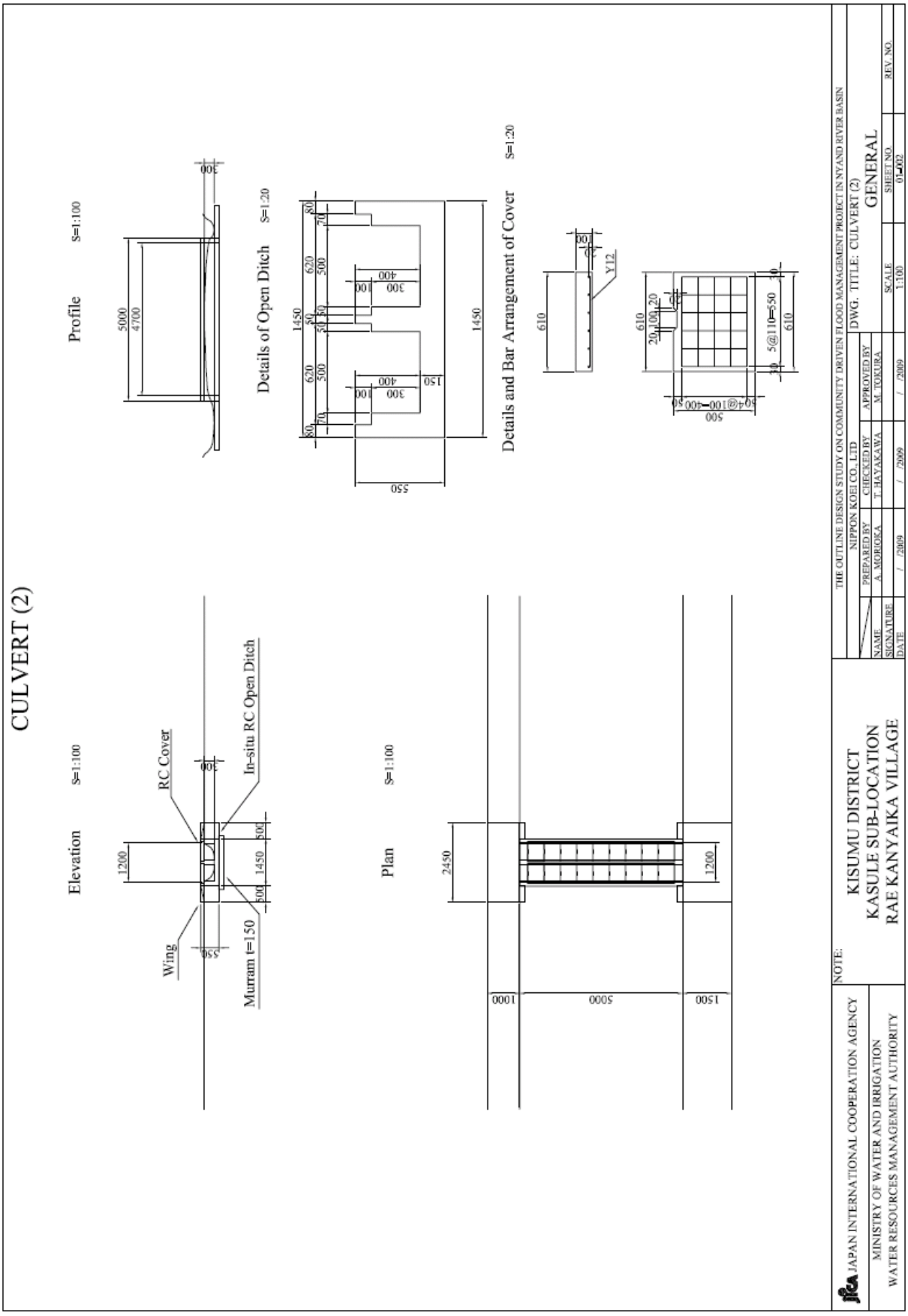


Figure 3.2 Rae Kanyaika: Culvert (2)

Figure 3.3 Rae Kanyaika: Culvert (3)

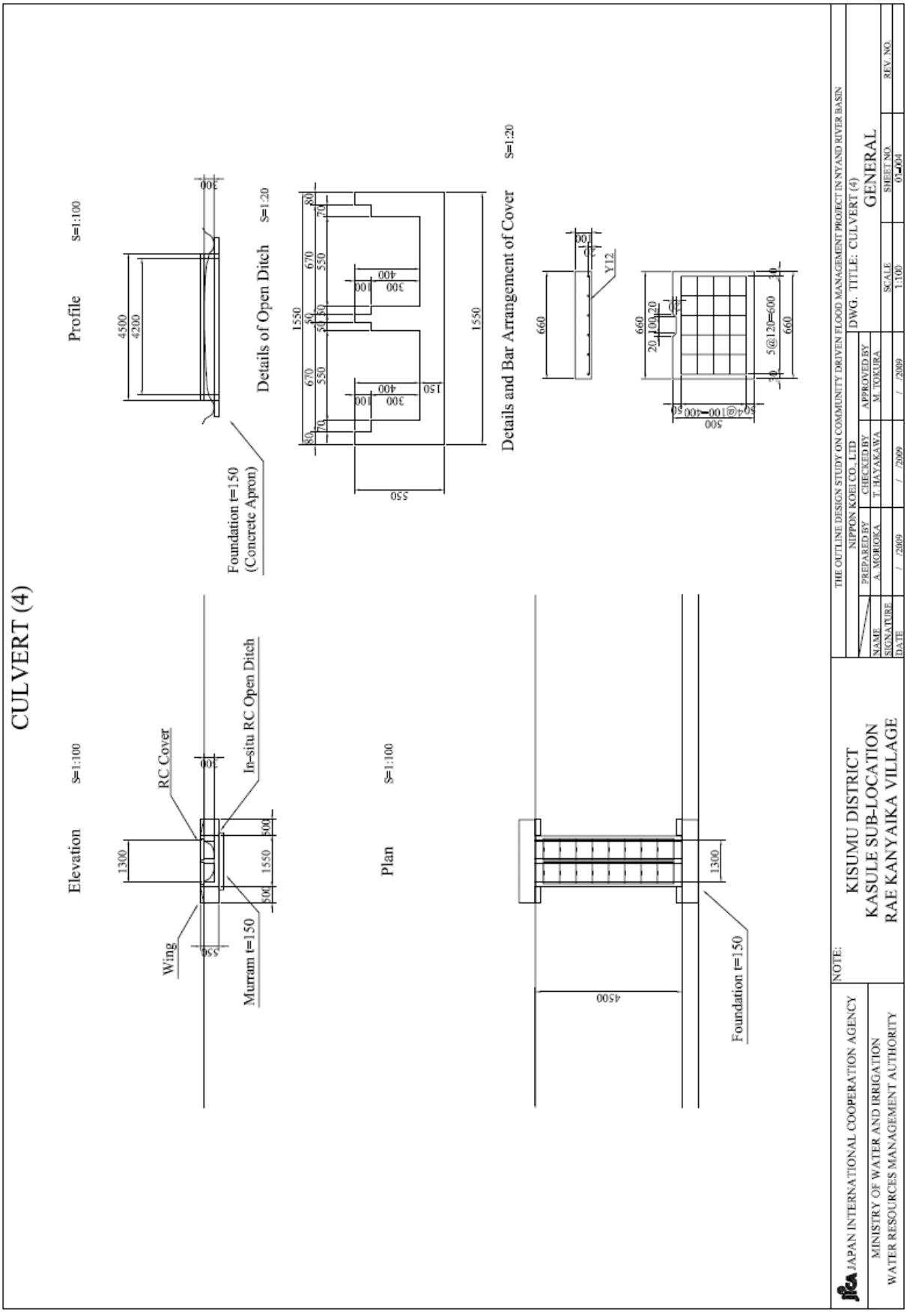


Figure 3.4 Rae Kanyaika: Culvert (4)

Figure 3.5 Rae Kanyaika: Culvert (5)

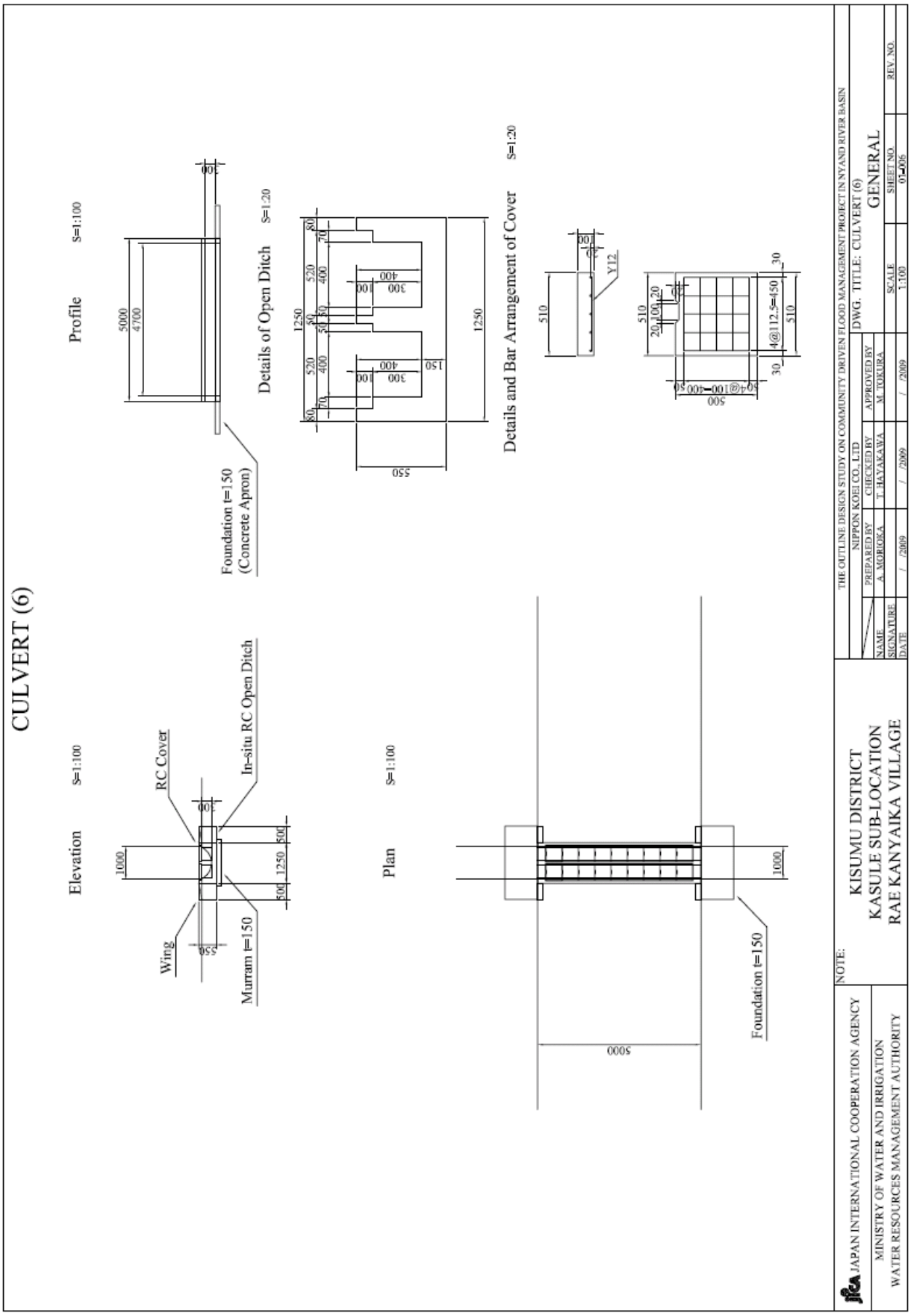


Figure 3.6 Rae Kanyaika: Culvert (6)

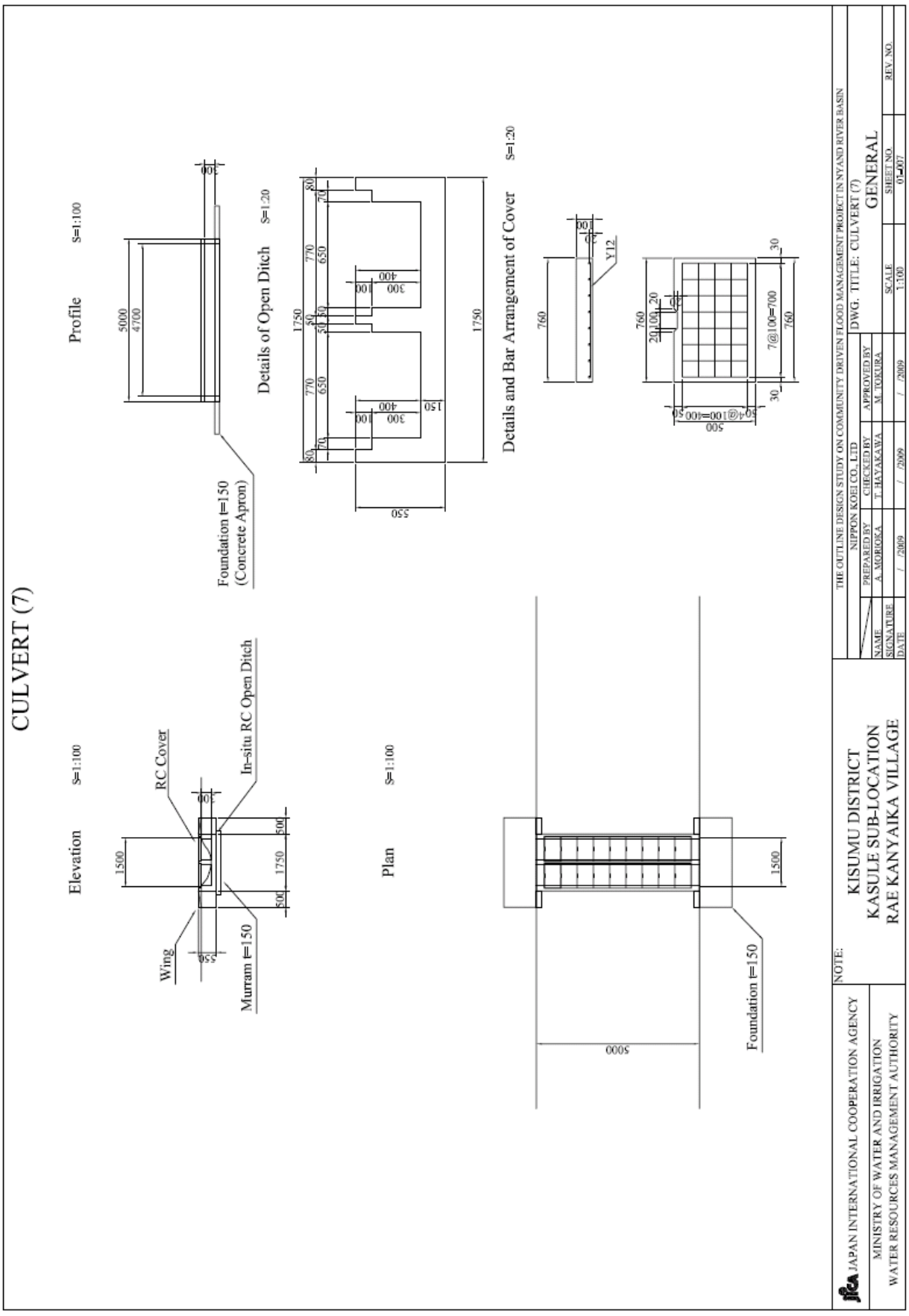


Figure 3.7 Rae Kanyaika: Culvert (7)

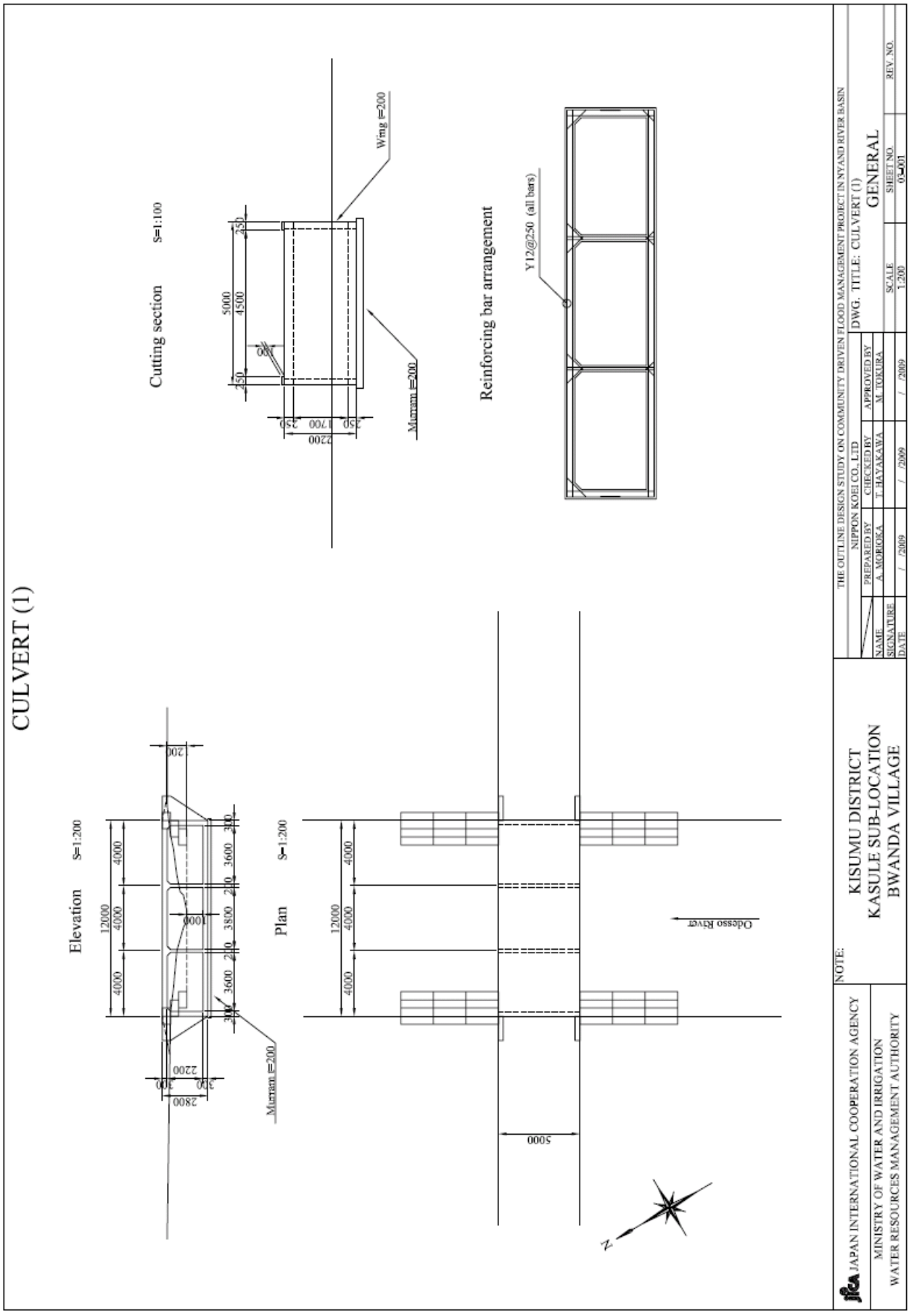


Figure 3.8 Bwanda: Culvert (1)

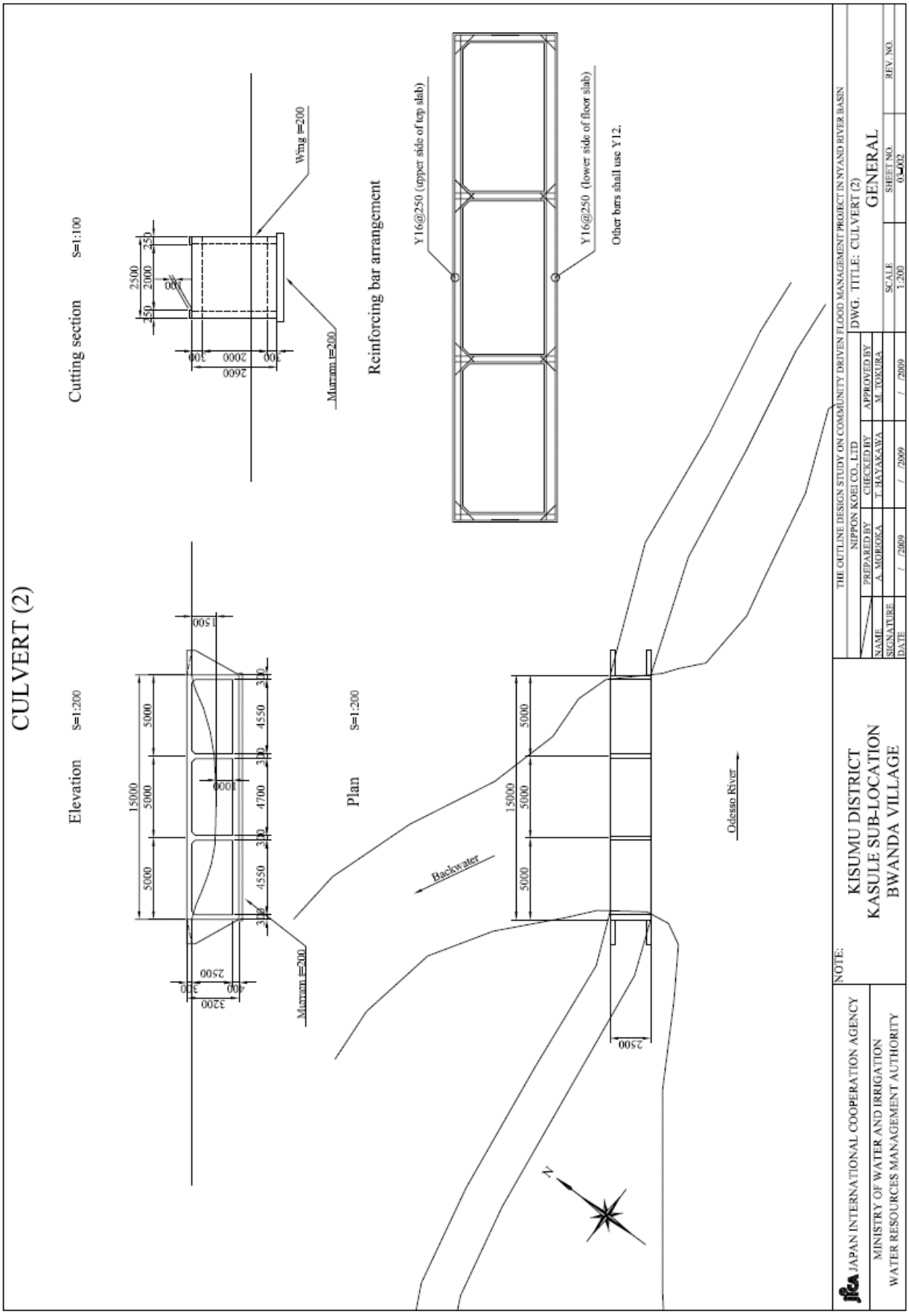


Figure 3.9 Bwanda: Culvert (2)

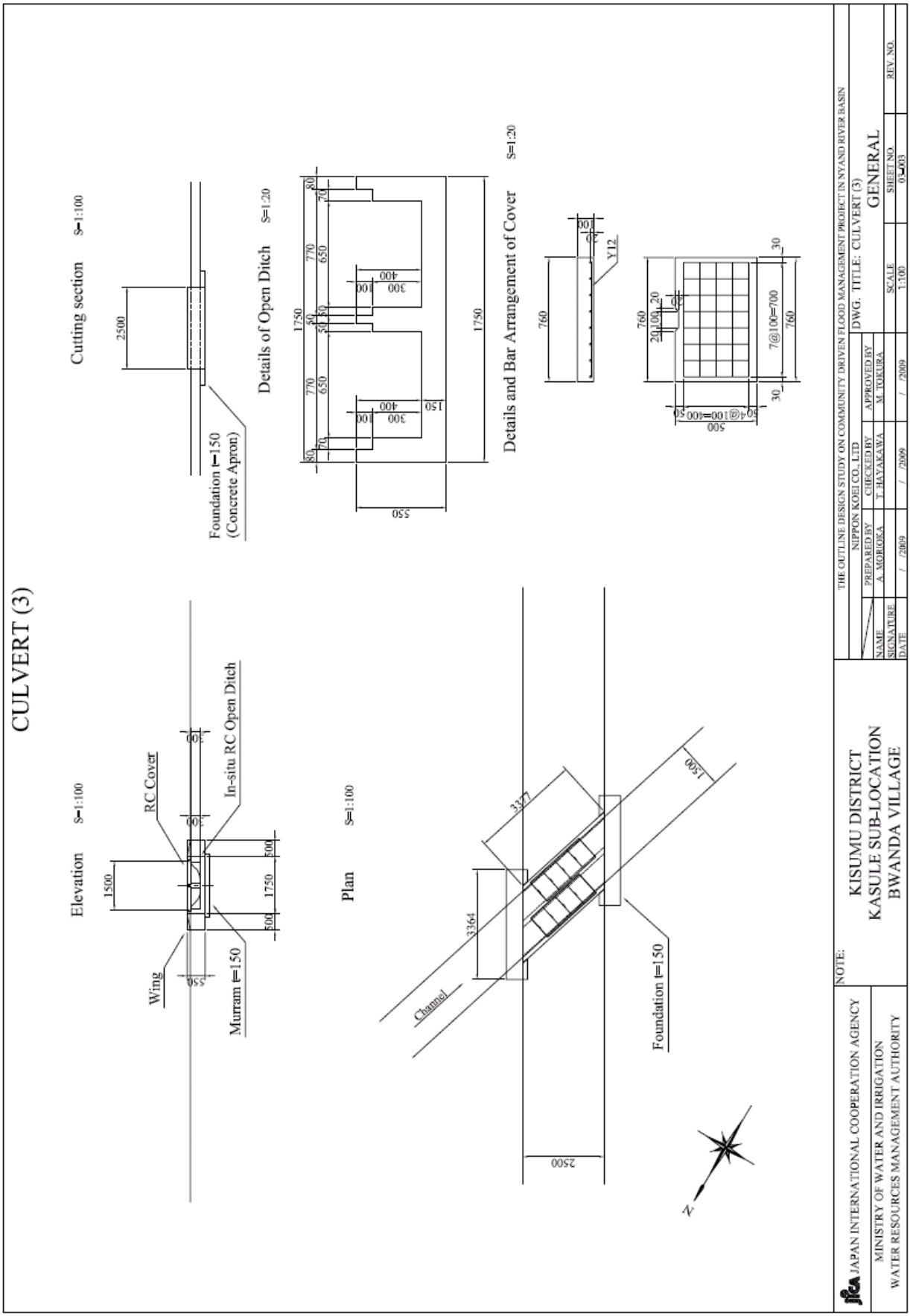


Figure 3.10 Bwanda: Culvert (3)

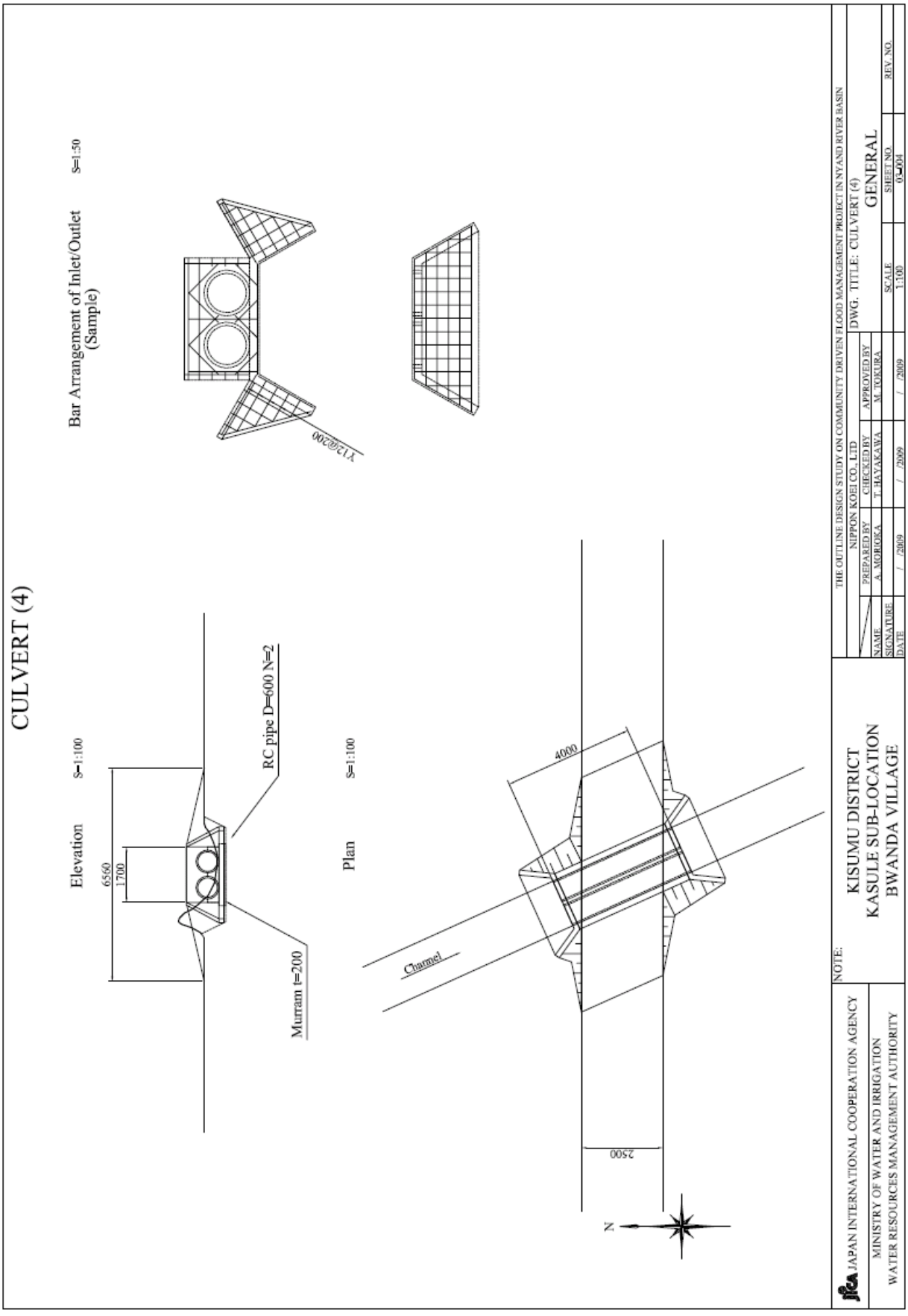


Figure 3.11 Bwanda: Culvert (4)

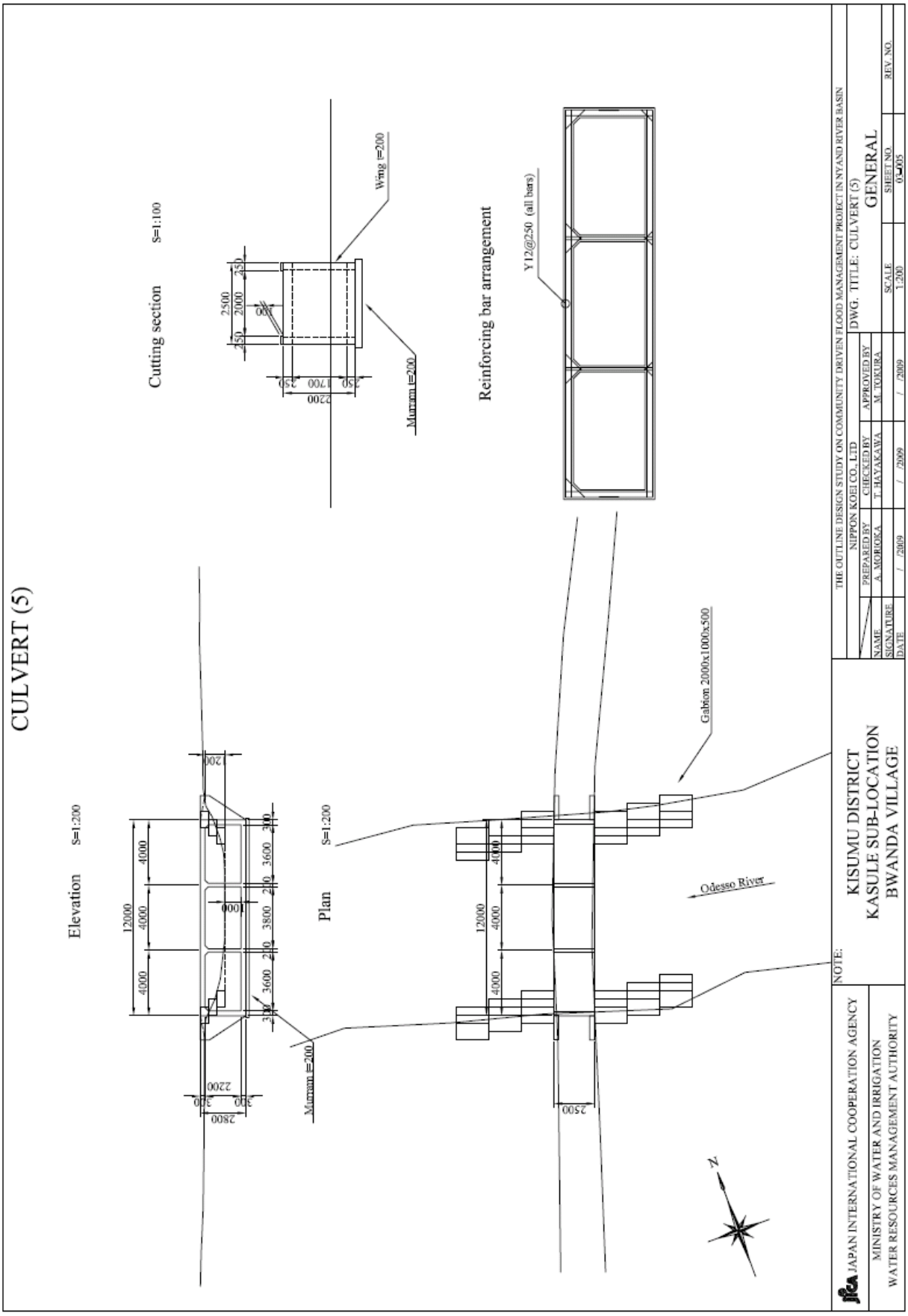


Figure 3.12 Bwanda: Culvert (5)

Figure 3.13 Otera: Culvert (1)

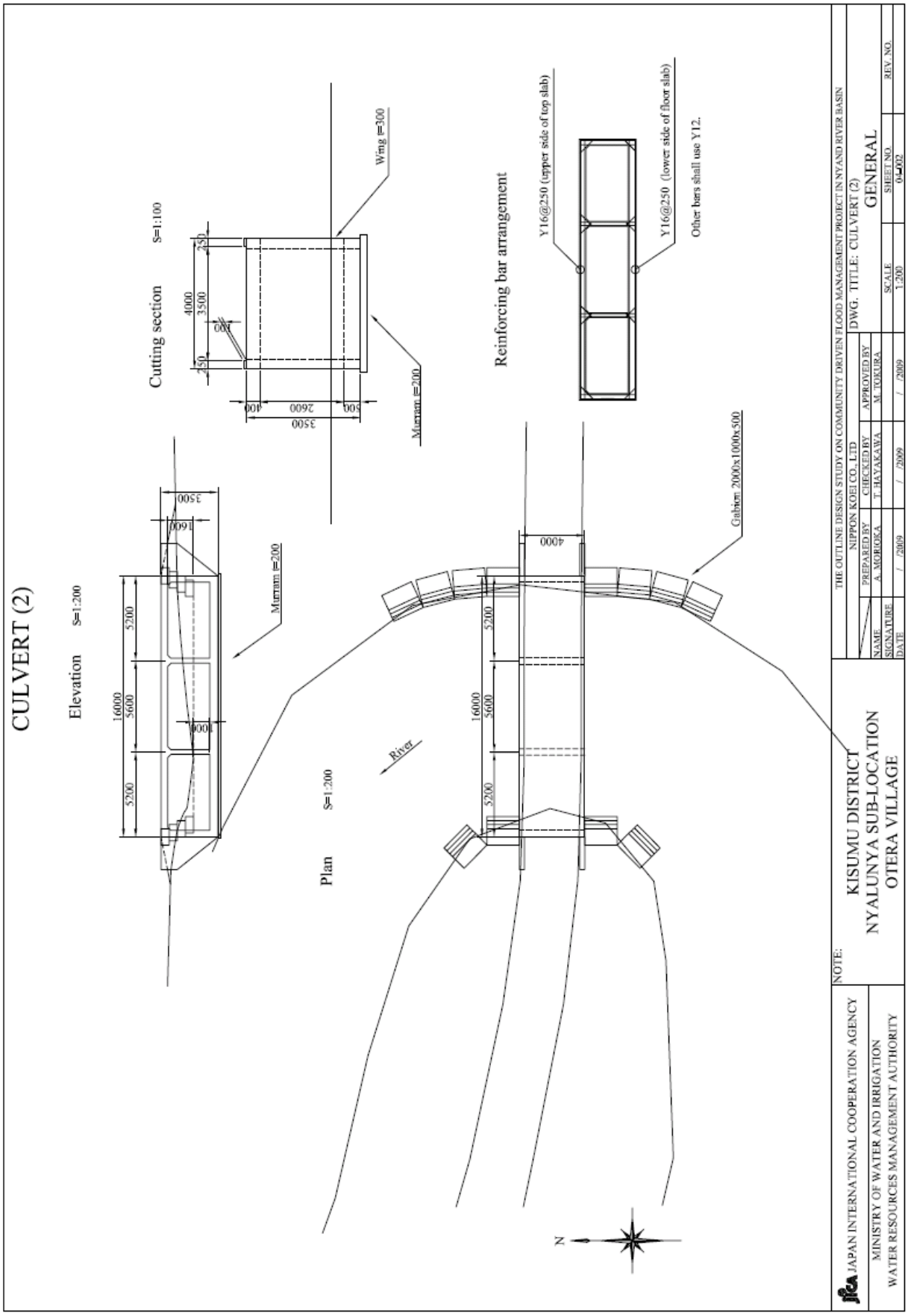


Figure 3.14 Otera: Culvert (2)

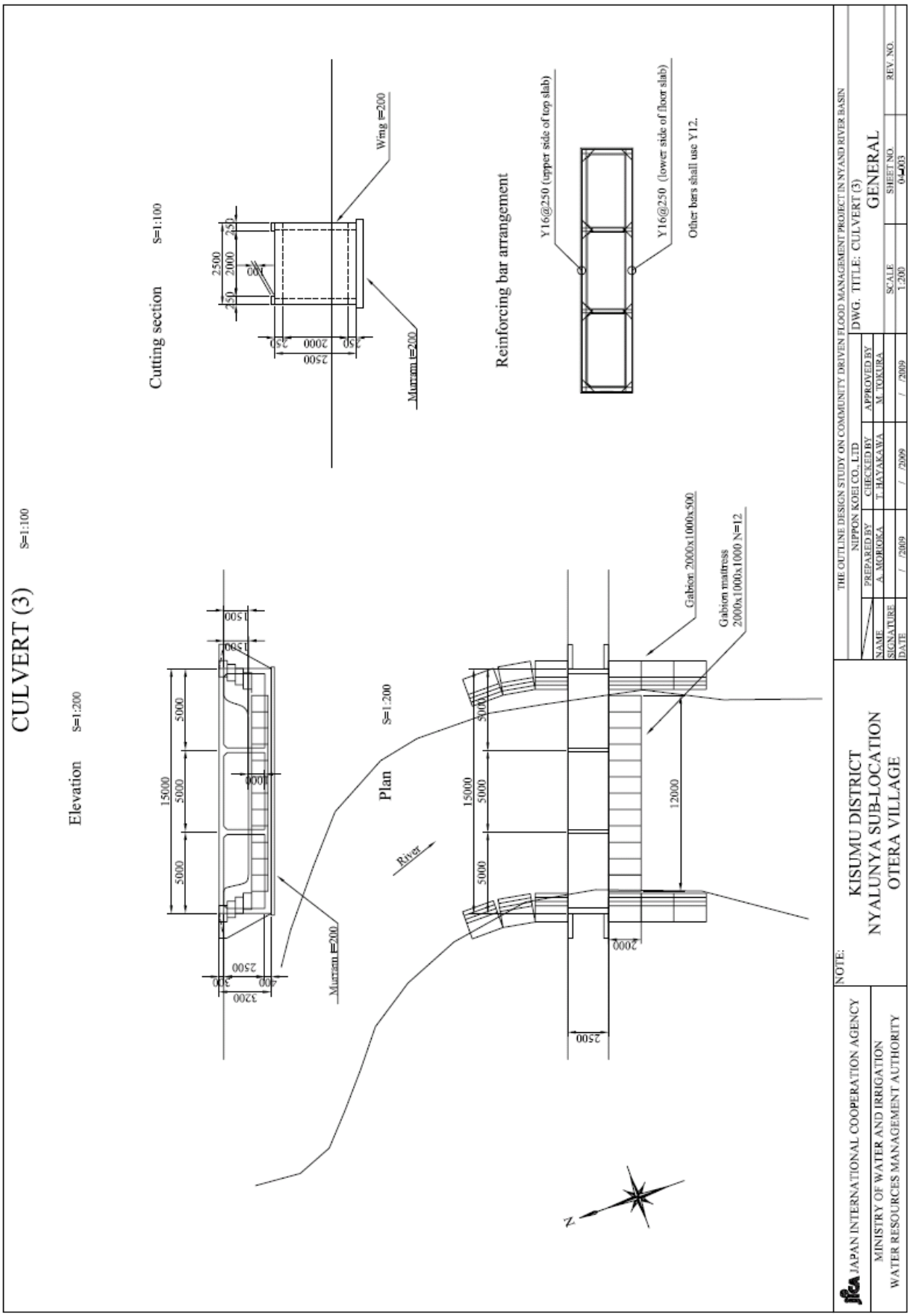


Figure 3.15 Otera: Culvert (3)

Figure 3.16 Otera: Culvert (4)

Figure 3.17 Otera: Culvert (5)

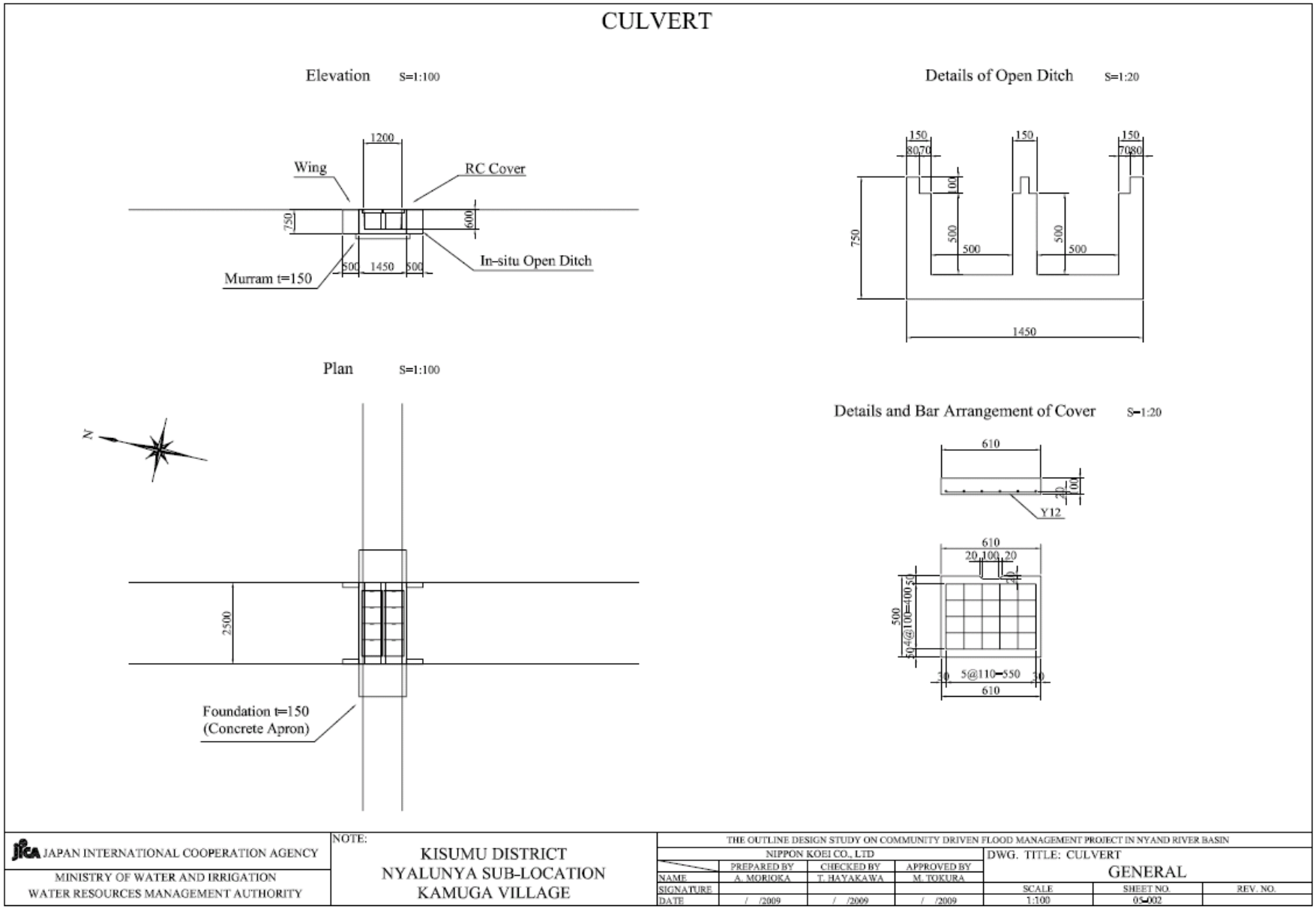


Figure 3.18 Kamuga: Culvert

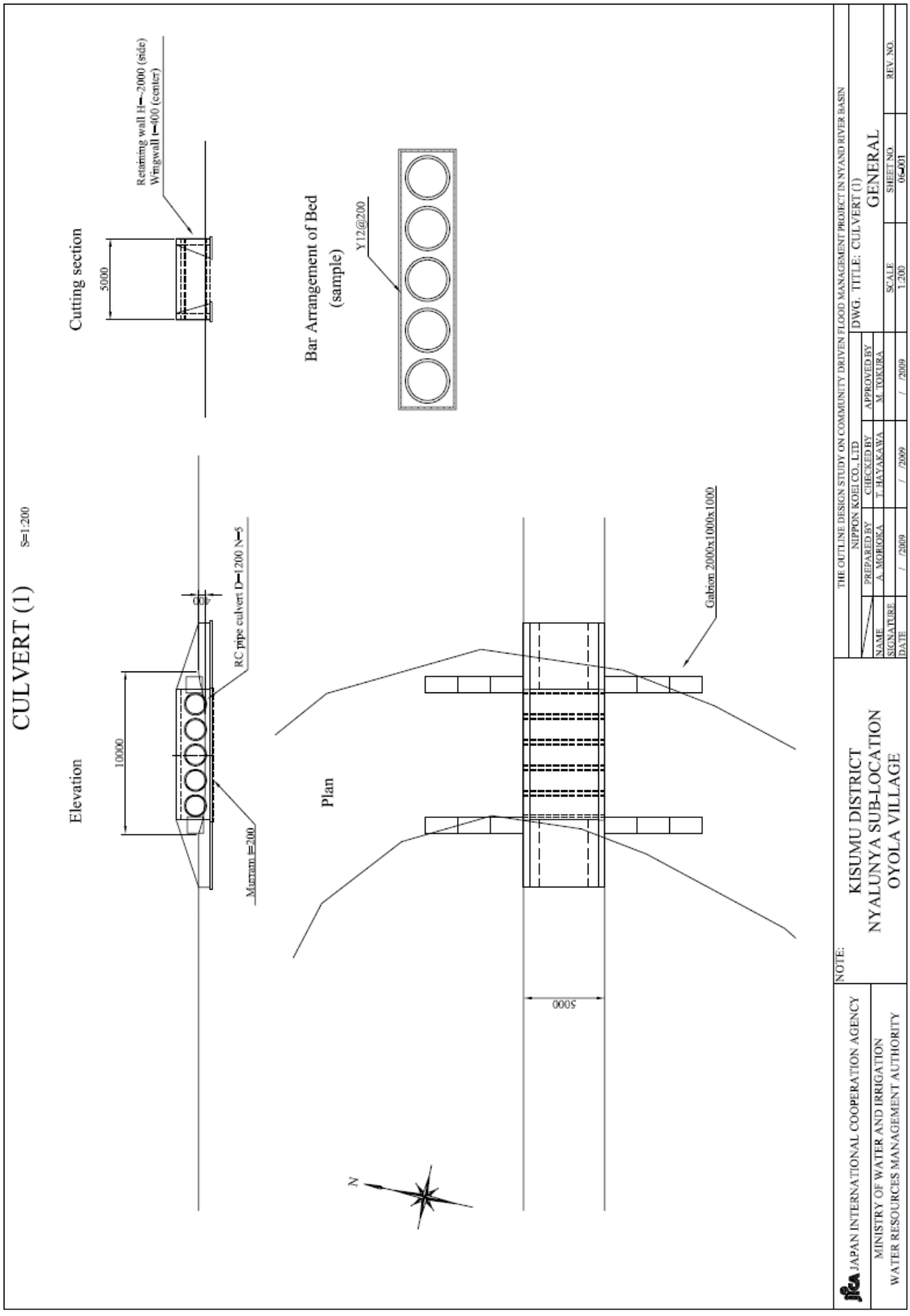


Figure 3.19 Oyola: Culvert (1)

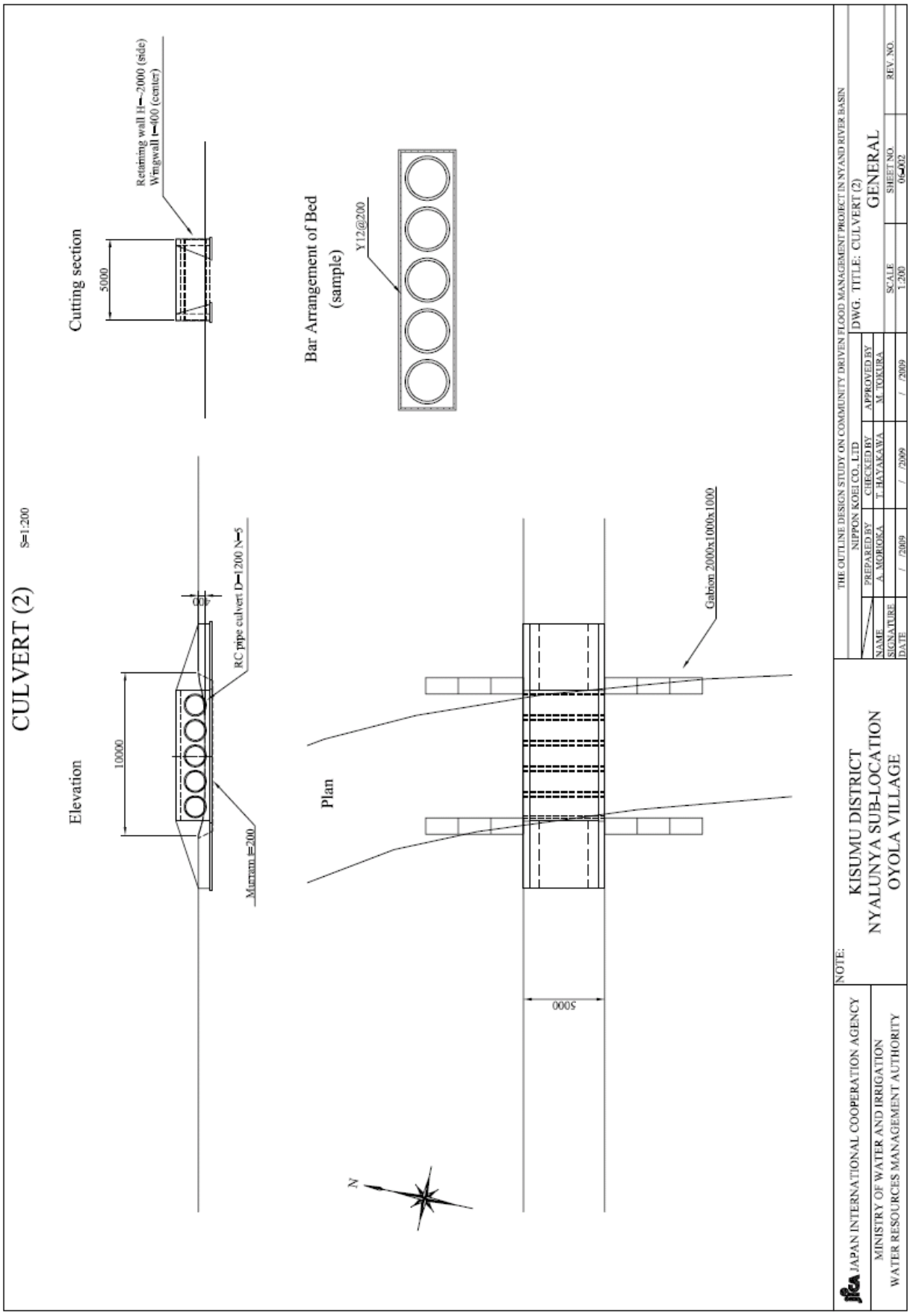


Figure 3.20 Oyola: Culvert (2)

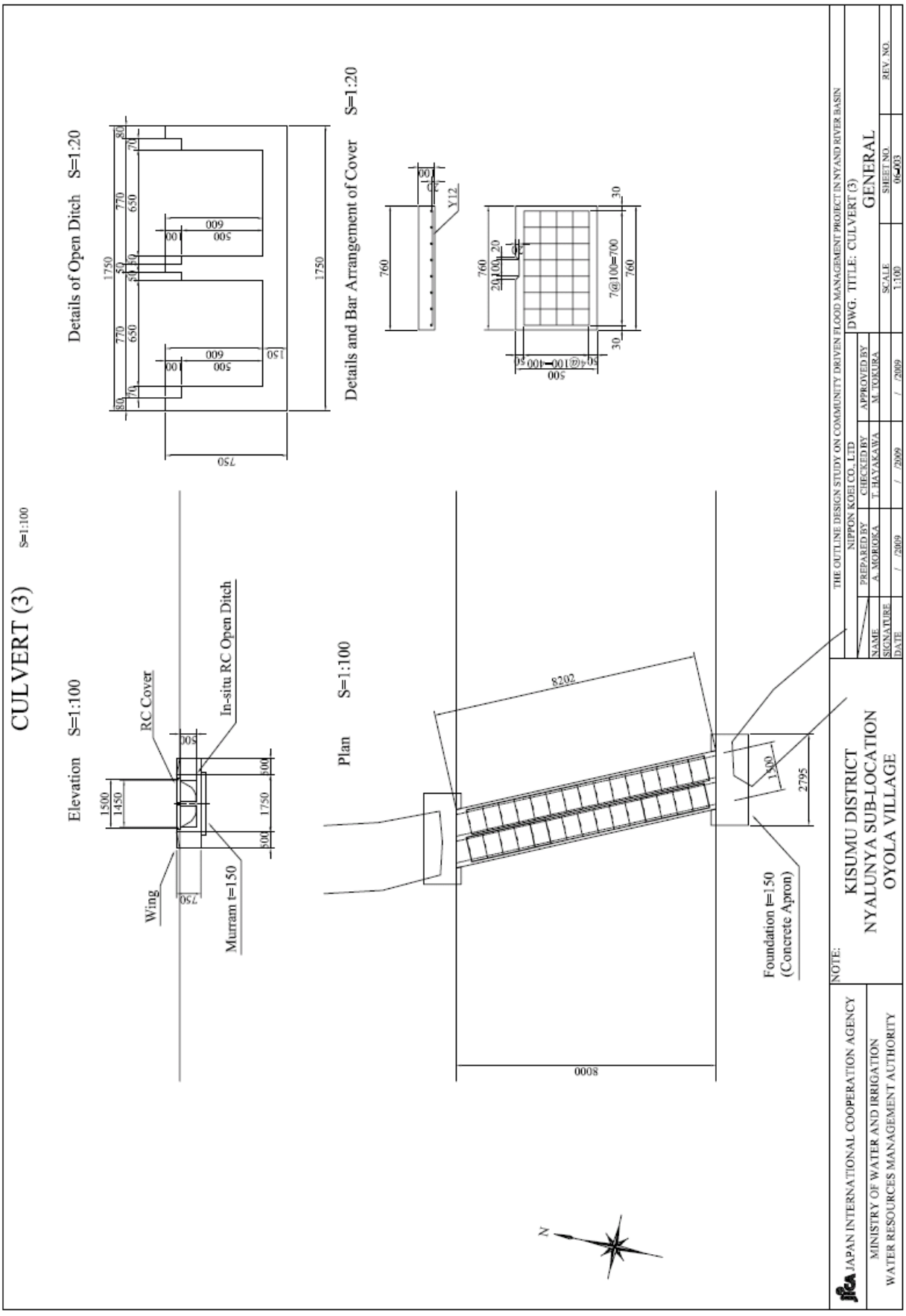


Figure 3.21 Oyola: Culvert (3)

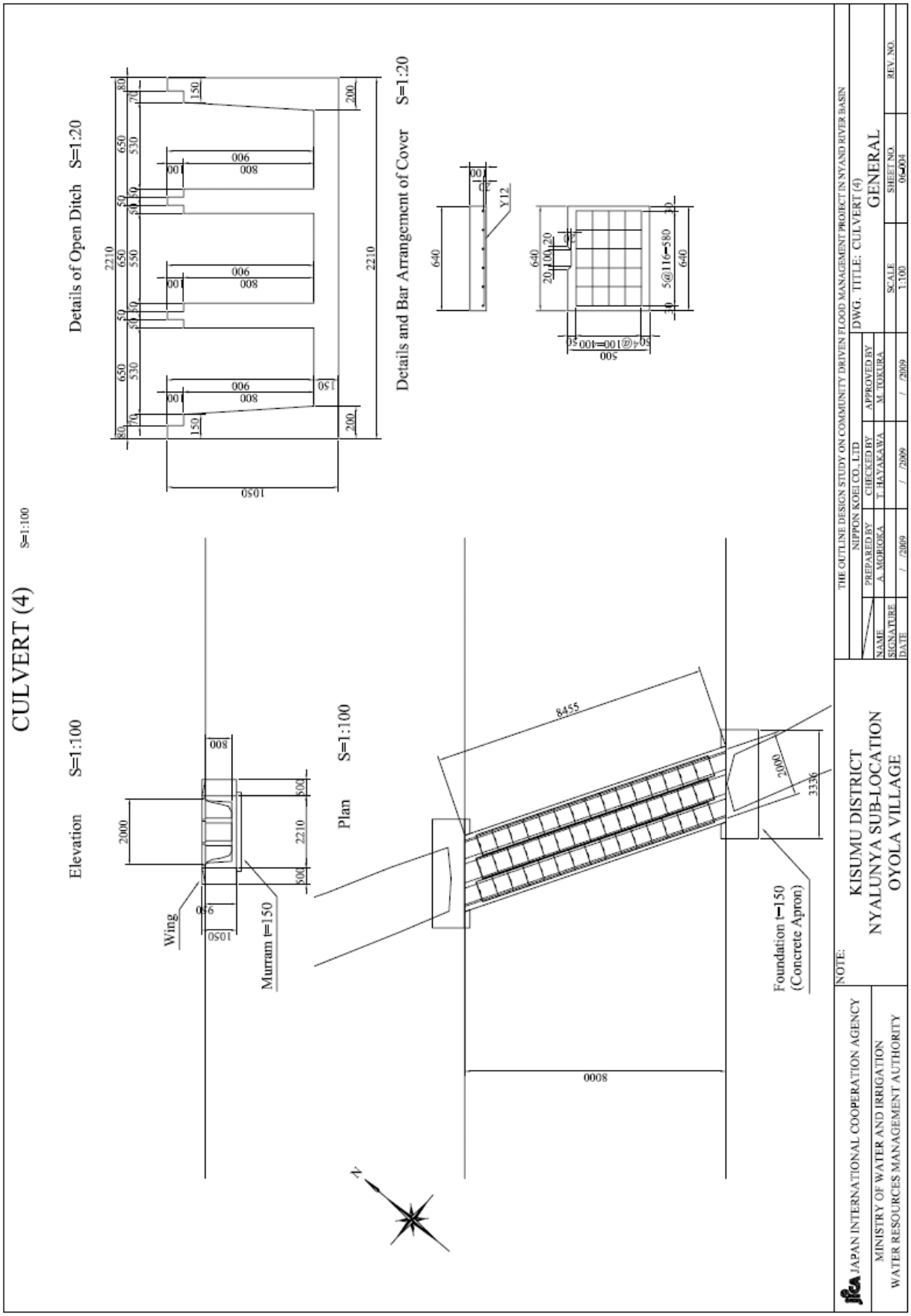


Figure 3.22 Oyola: Culvert (4)

Figure 3.23 Oyola: Culvert (5)

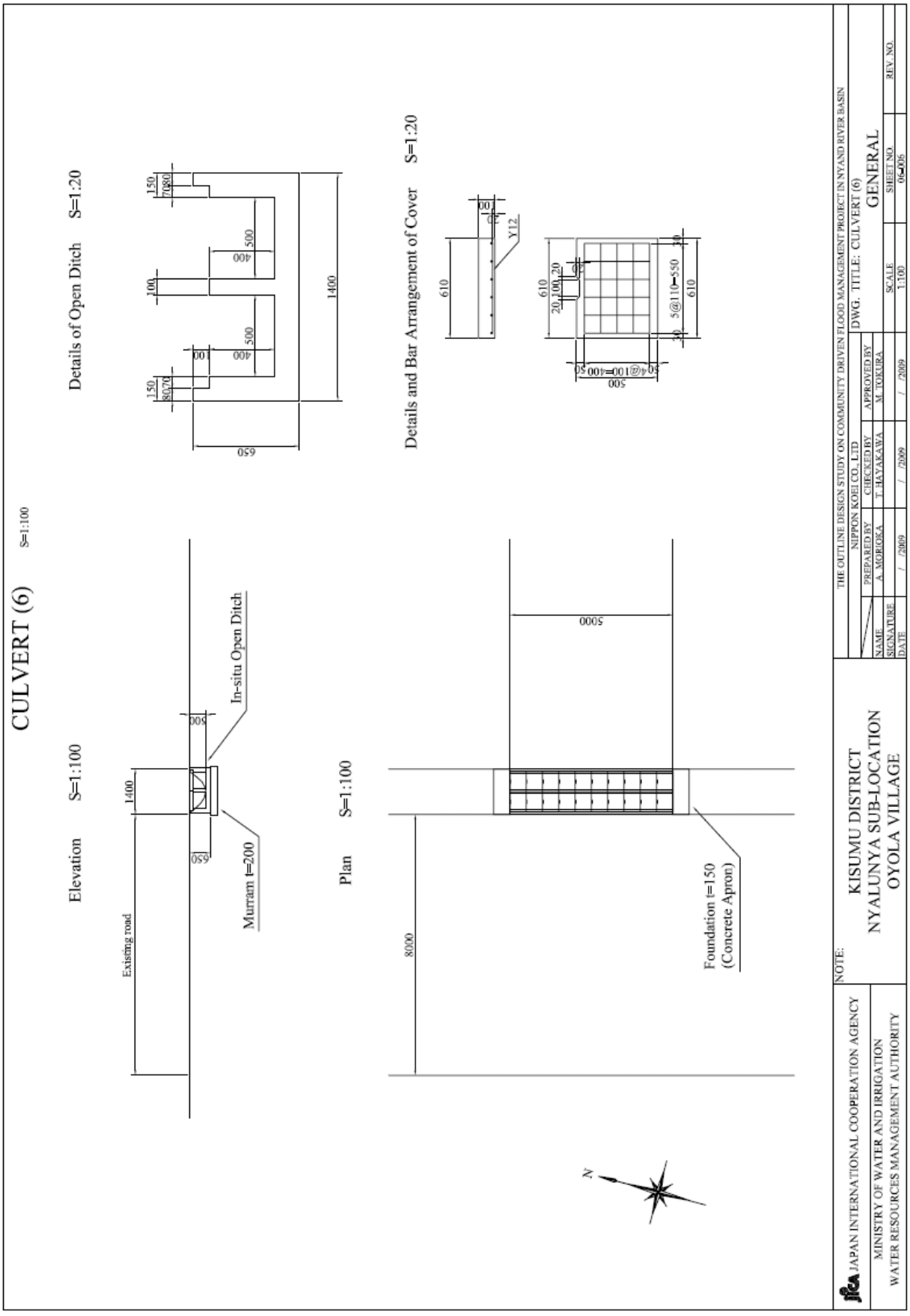


Figure 3.24 Oyola: Culvert (6)

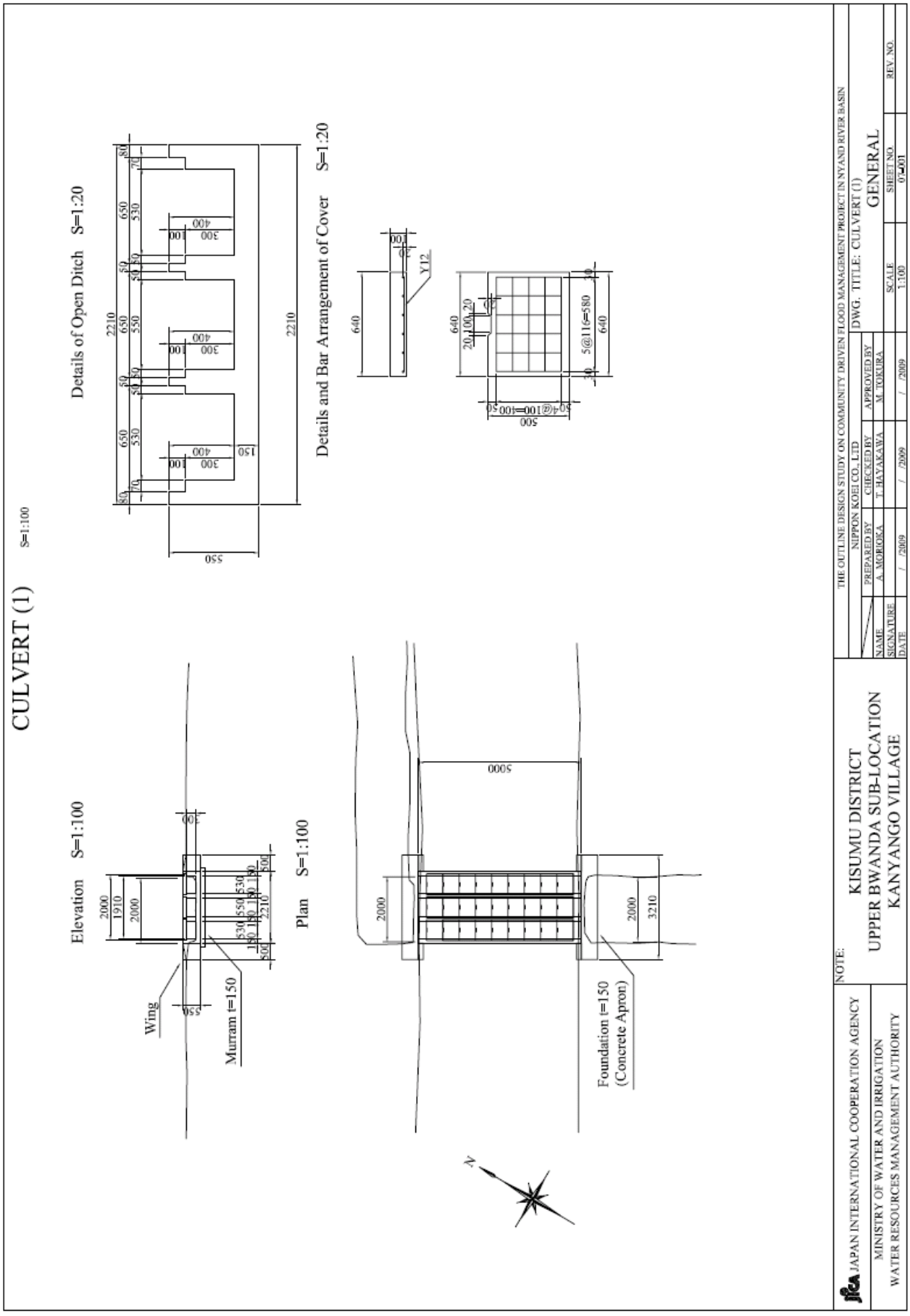


Figure 3.25 Kanyango: Culvert (1)

Figure 3.26 Kanyango: Culvert (2)

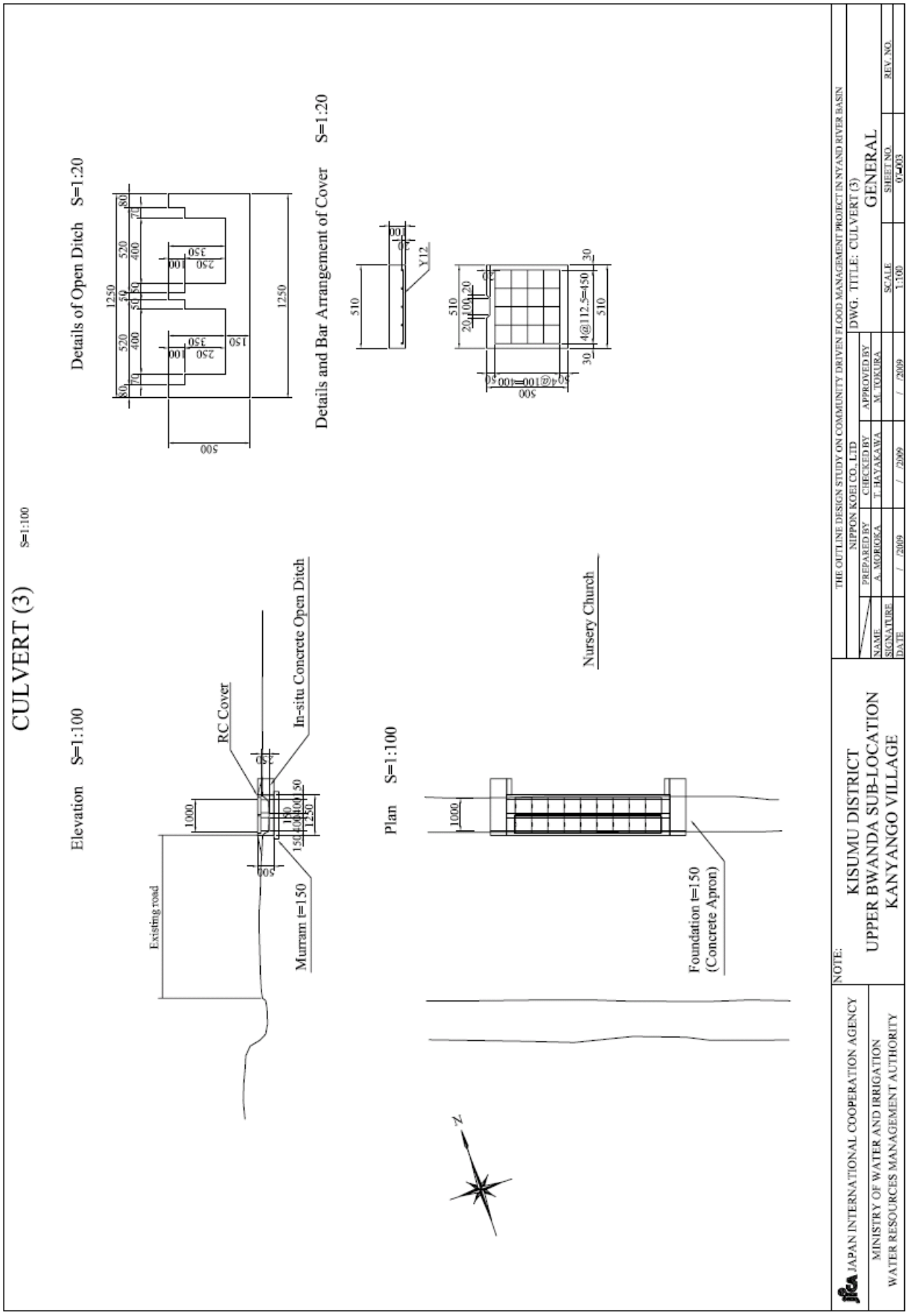


Figure 3.27 Kanyango: Culvert (3)

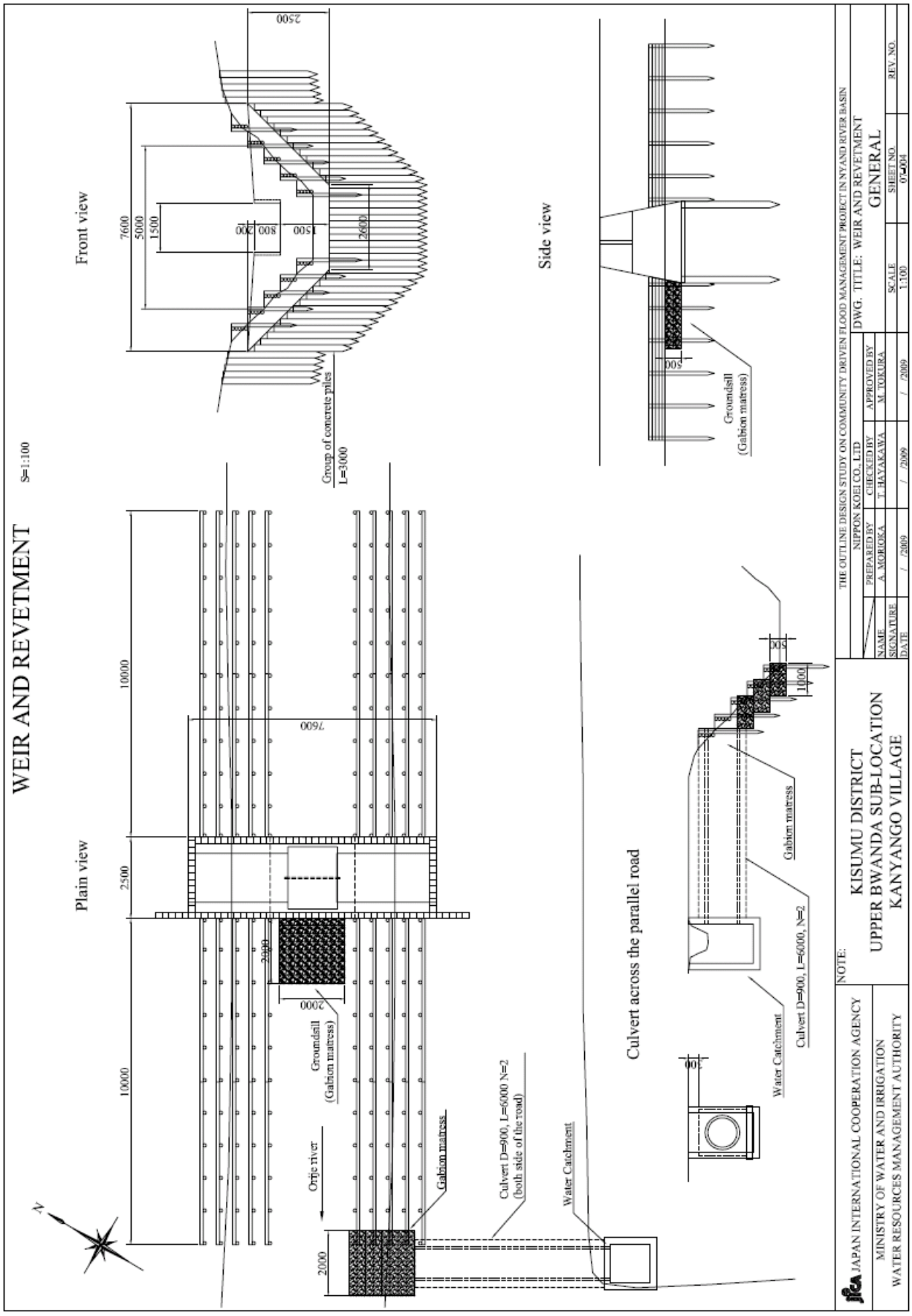


Figure 3.28 Kanyango: Weir

Figure 3.29 Kowiti: Culvert

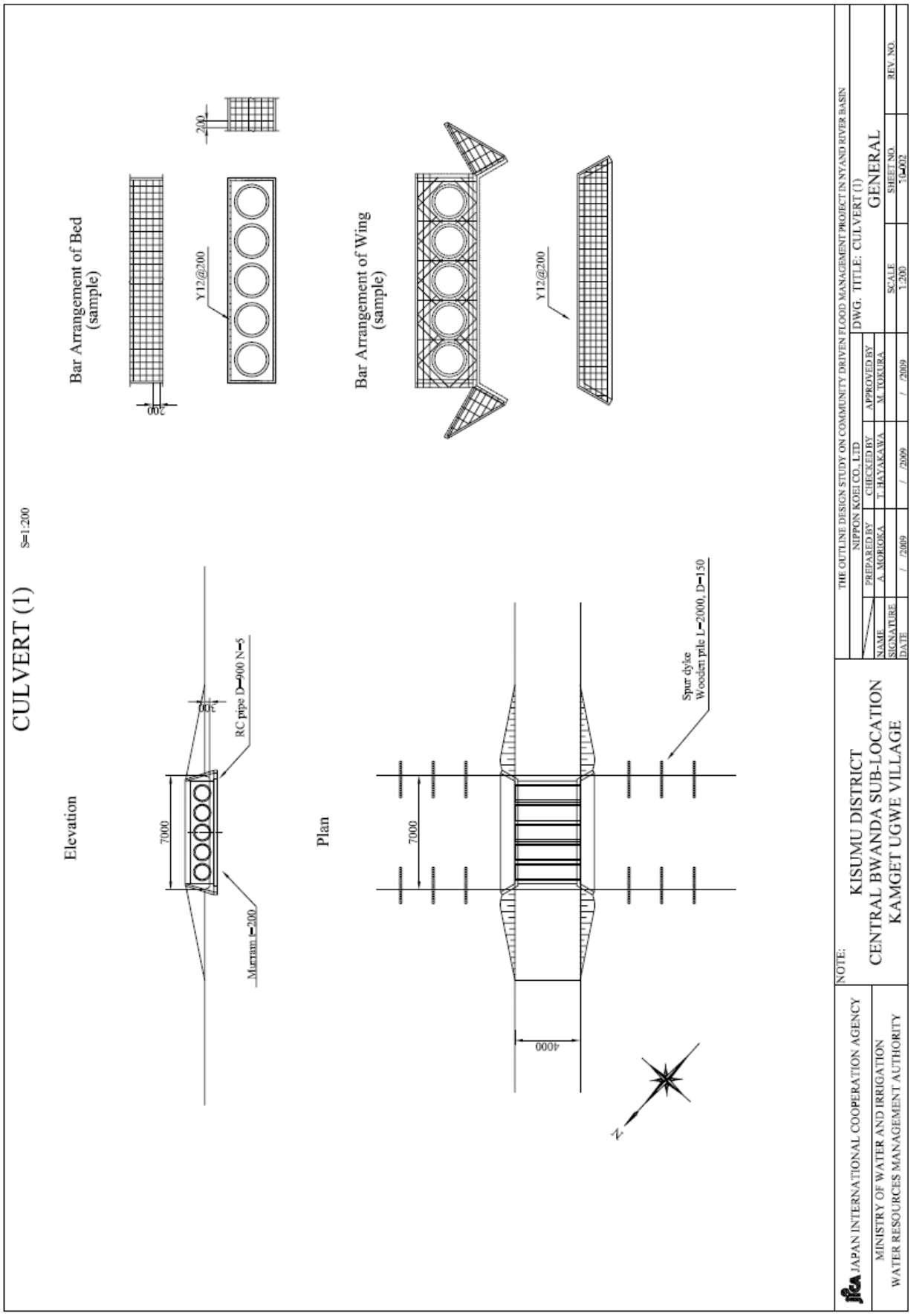


Figure 3.30 Kamget Ugwe: Culvert (1)

Figure 3.31 Kamget Ugwe: Culvert (2)

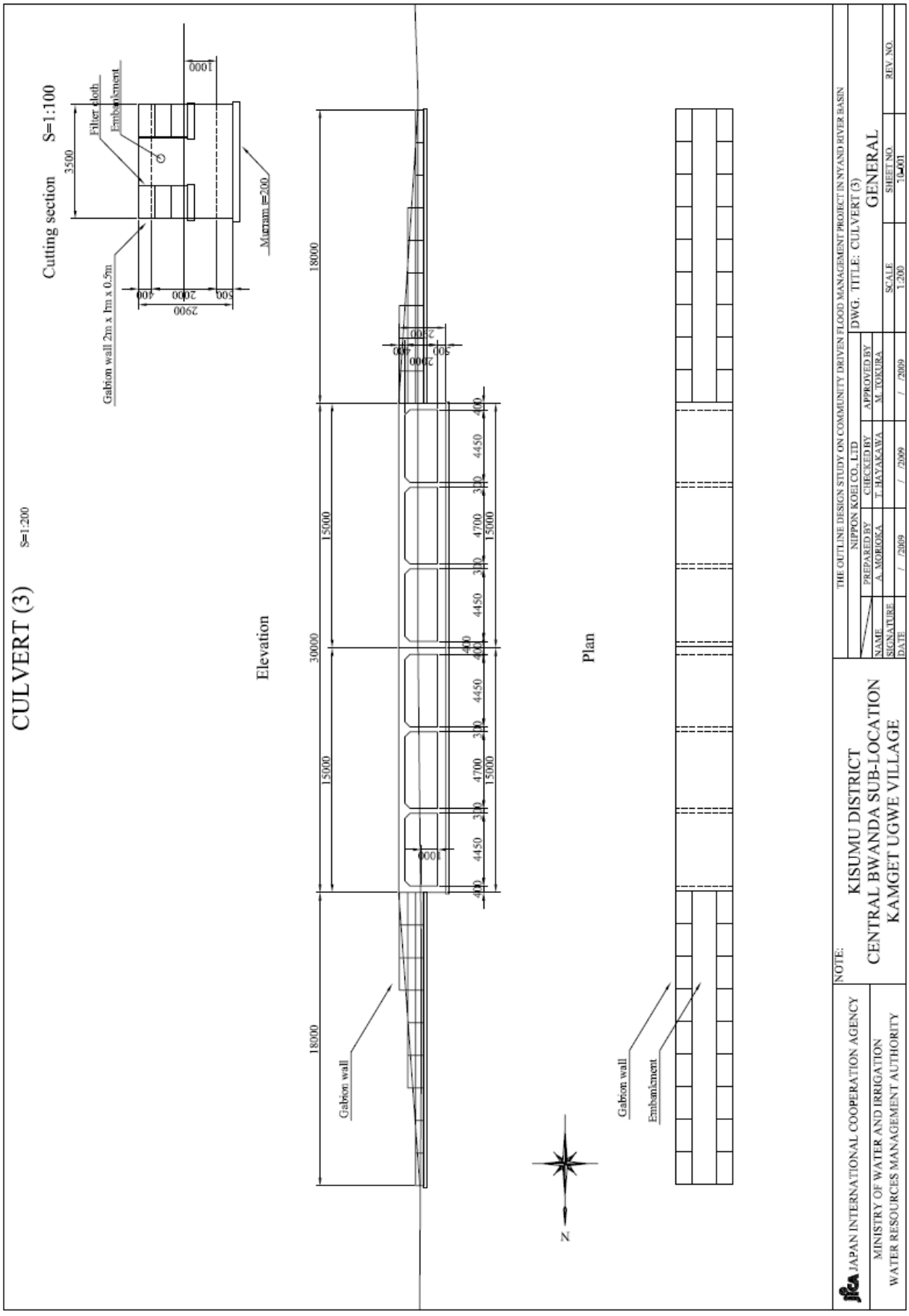


Figure 3.32 Kamget Ugwe: Culvert (3)

Figure 3.33 Kanyiaomo: Culvert (1)

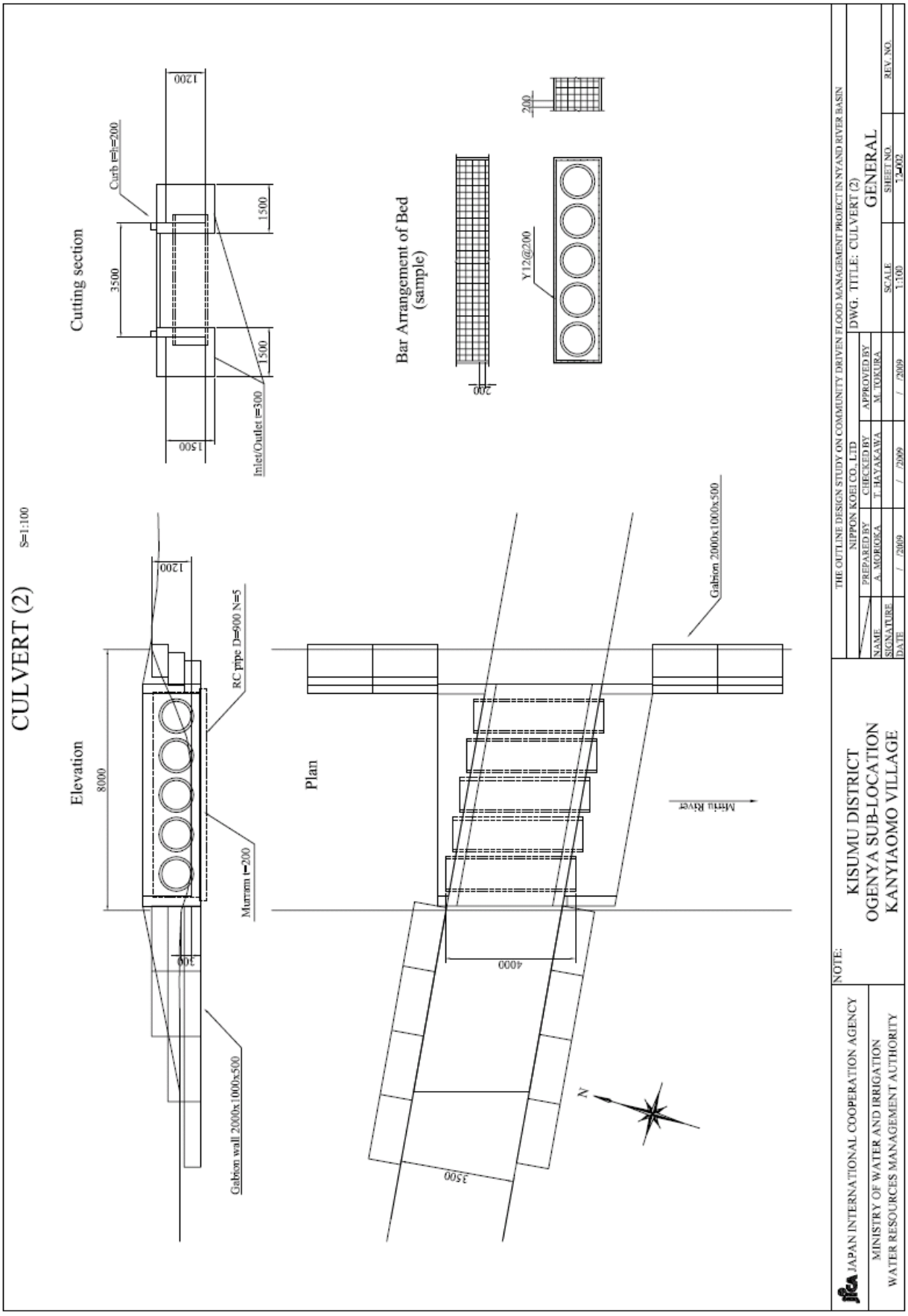


Figure 3.34 Kanyiaomo: Culvert (2)

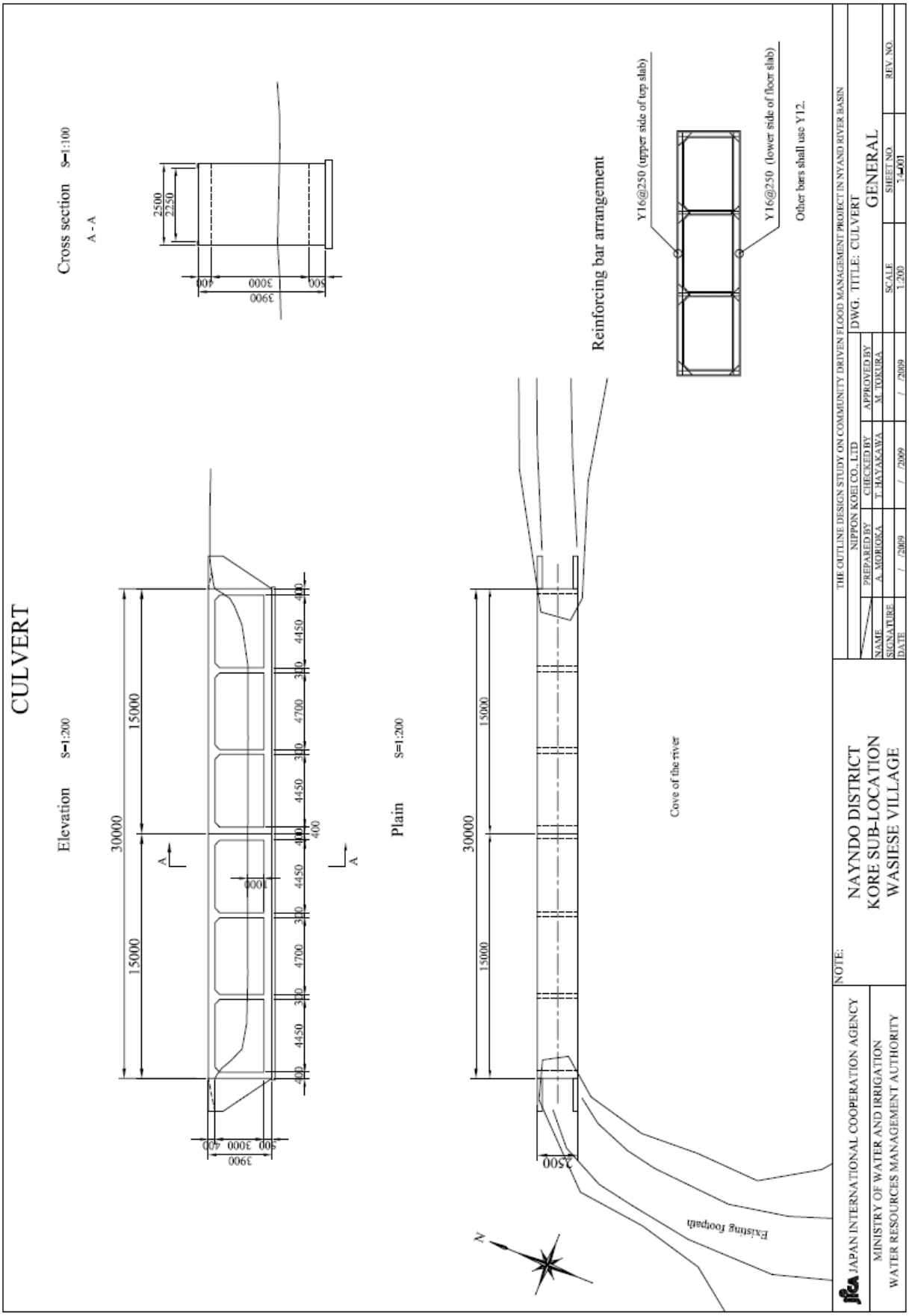


Figure 3.35 Wasiese: Culvert

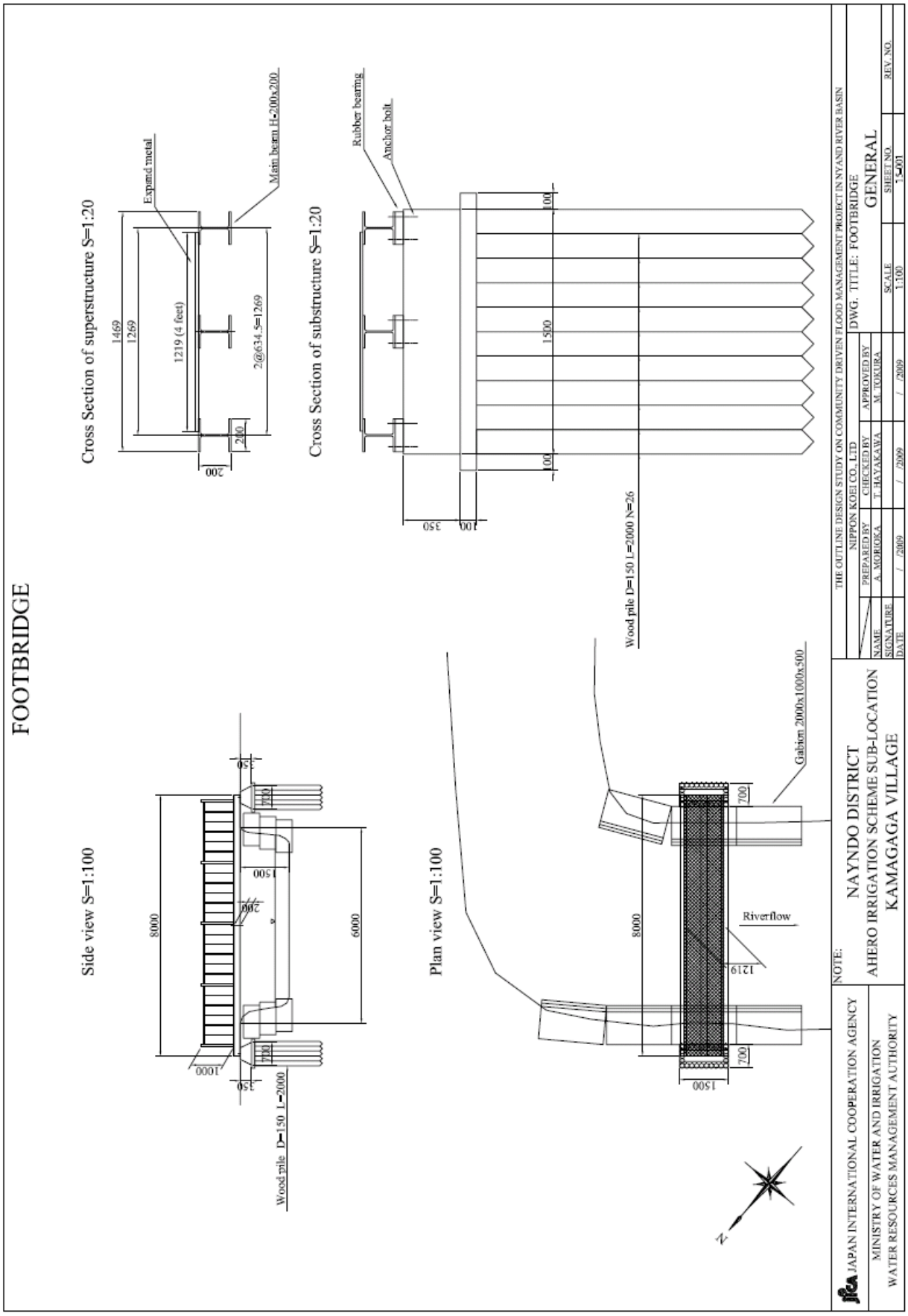


Figure 3.36 Kamagaga: Footbridge

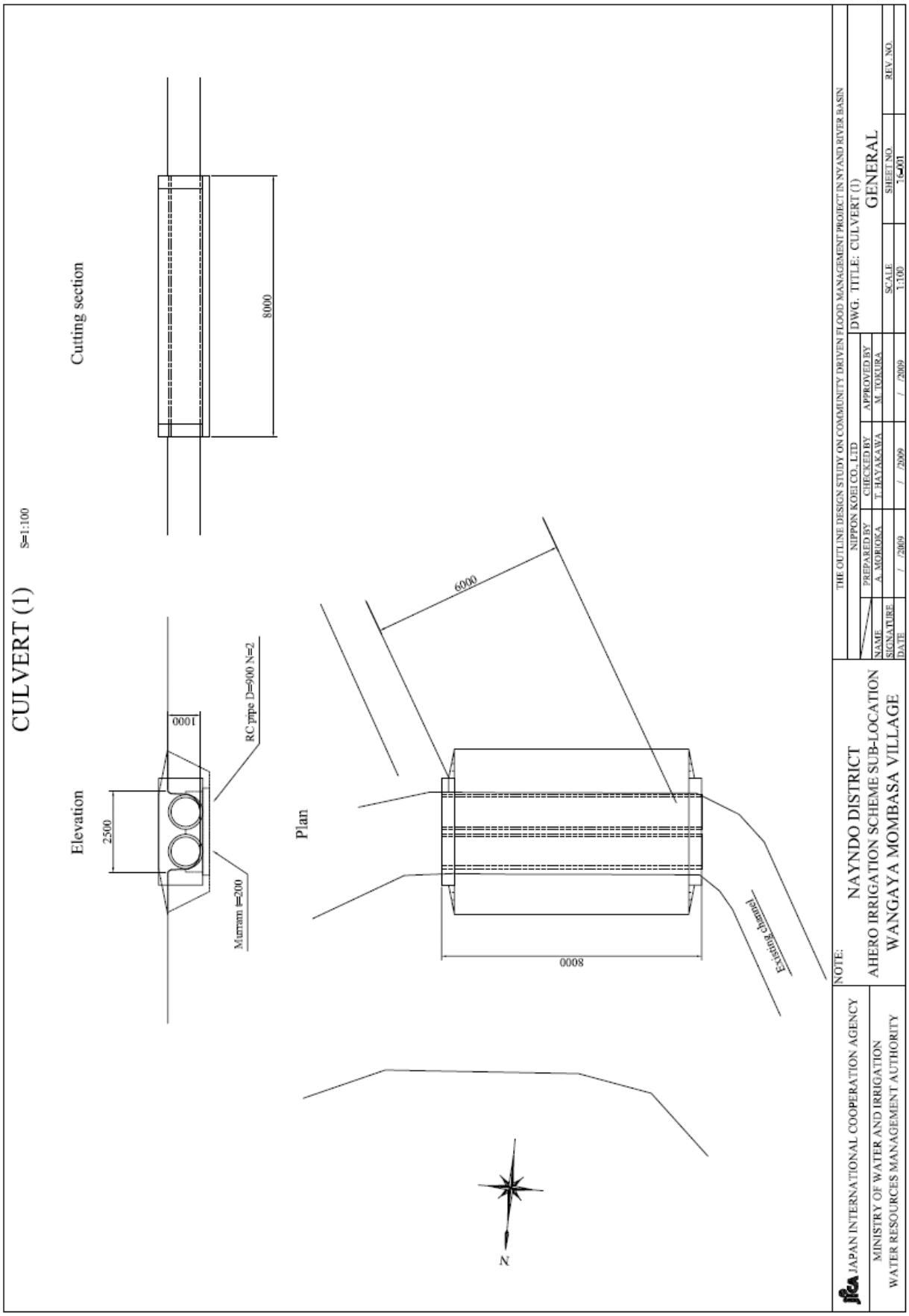


Figure 3.37 Wangaya Mombasa: Culvert (1)

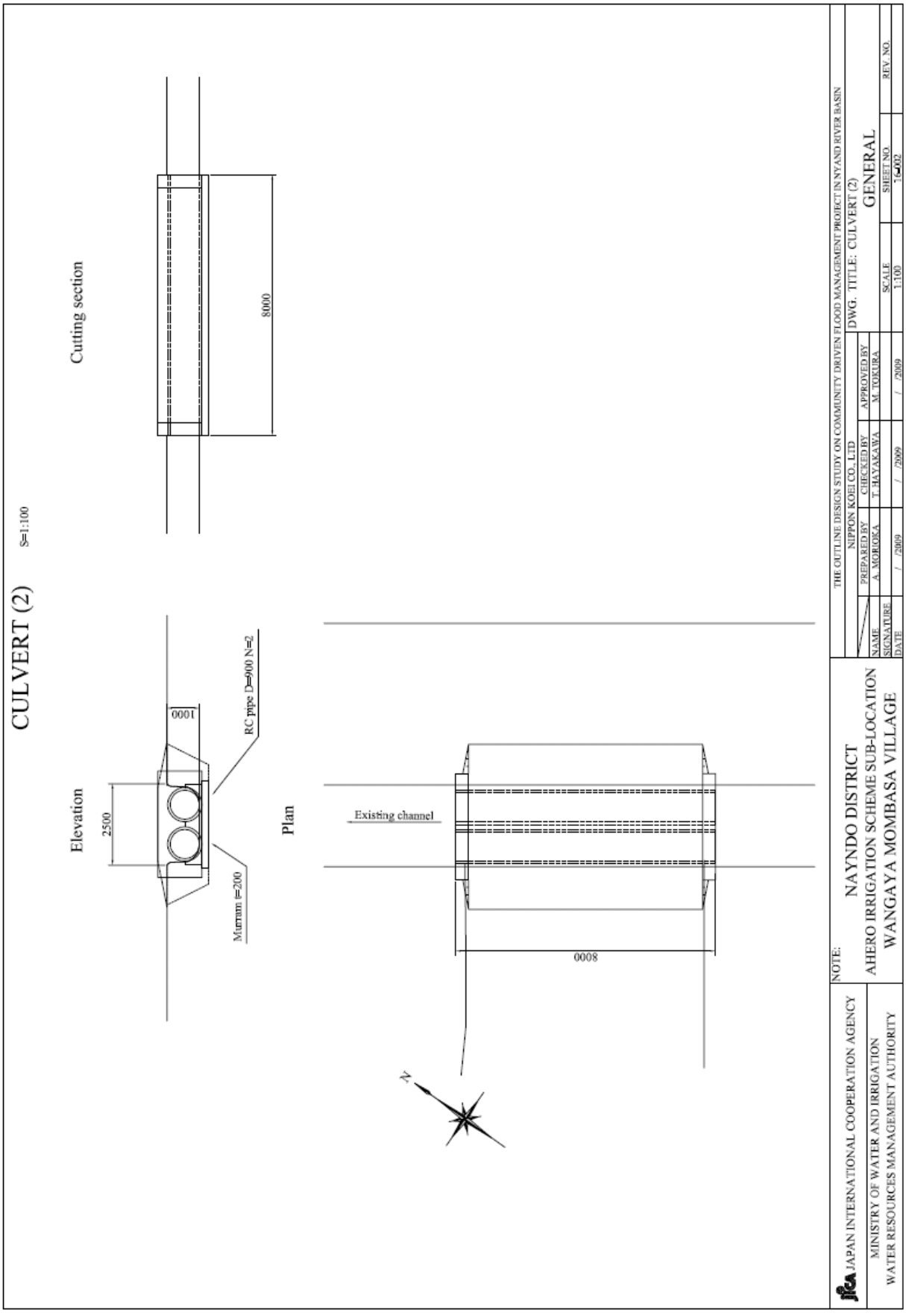


Figure 3.38 Wangaya Mombasa: Culvert (2)

Figure 3.39 Wangaya Mombasa: Culvert (3)

Figure 3.40 Wangaya Mombasa: Culvert (4)

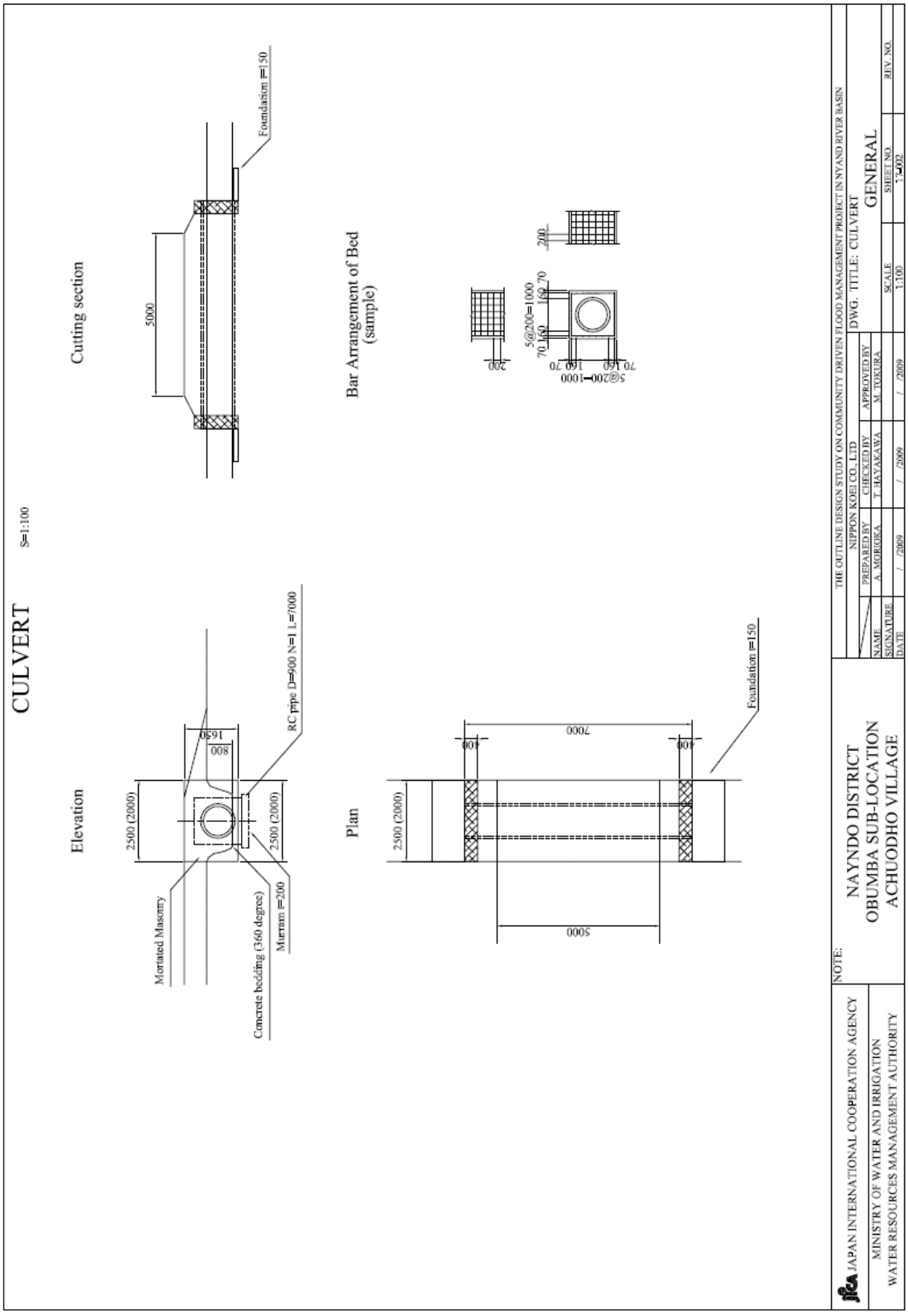


Figure 3.41 Achuodho: Culvert (1)

Figure 3.42 Achuodho: Culvert (2)

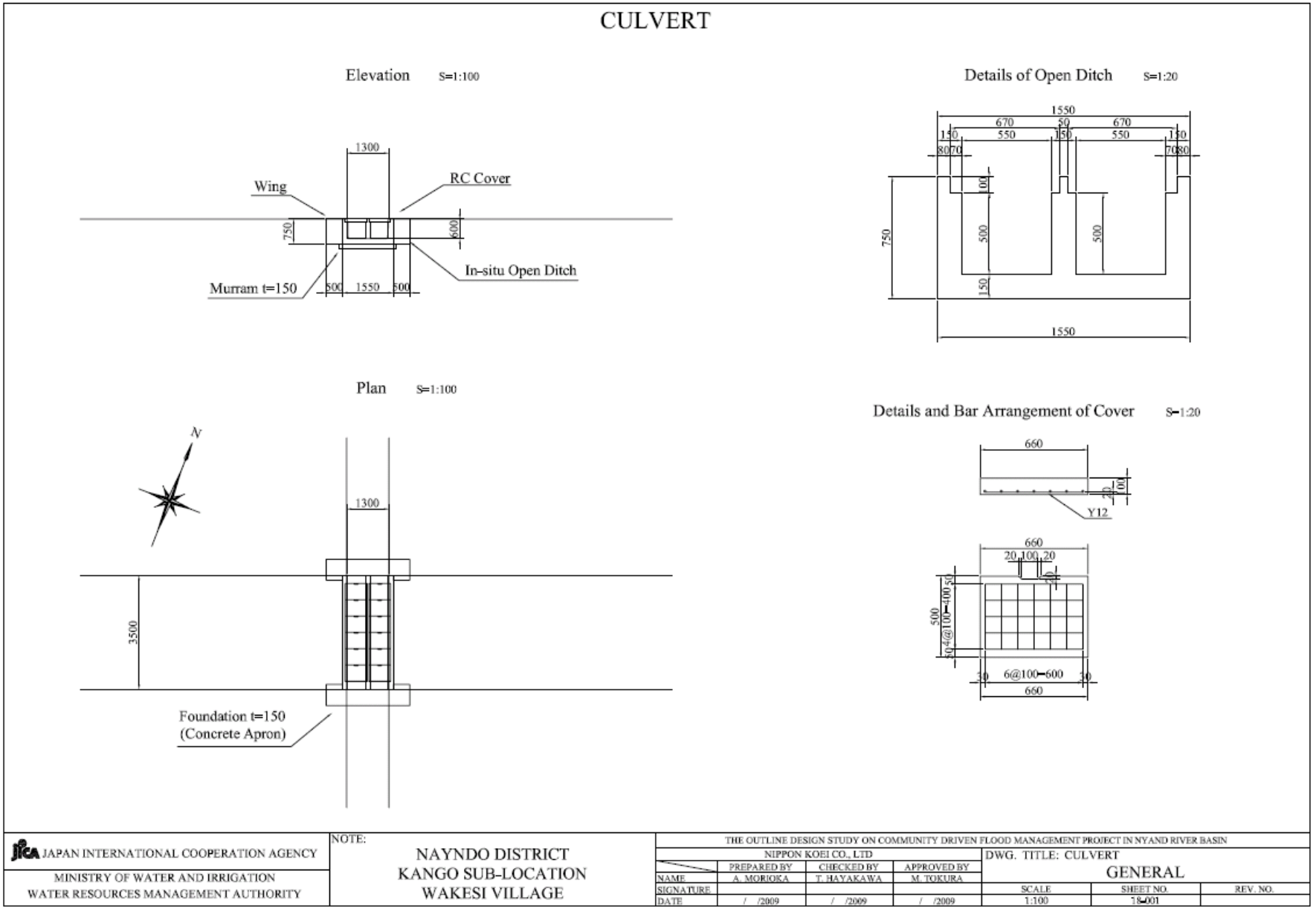


Figure 3.43 Wakesi: Culvert

Figure 3.44 Kadika: Culvert

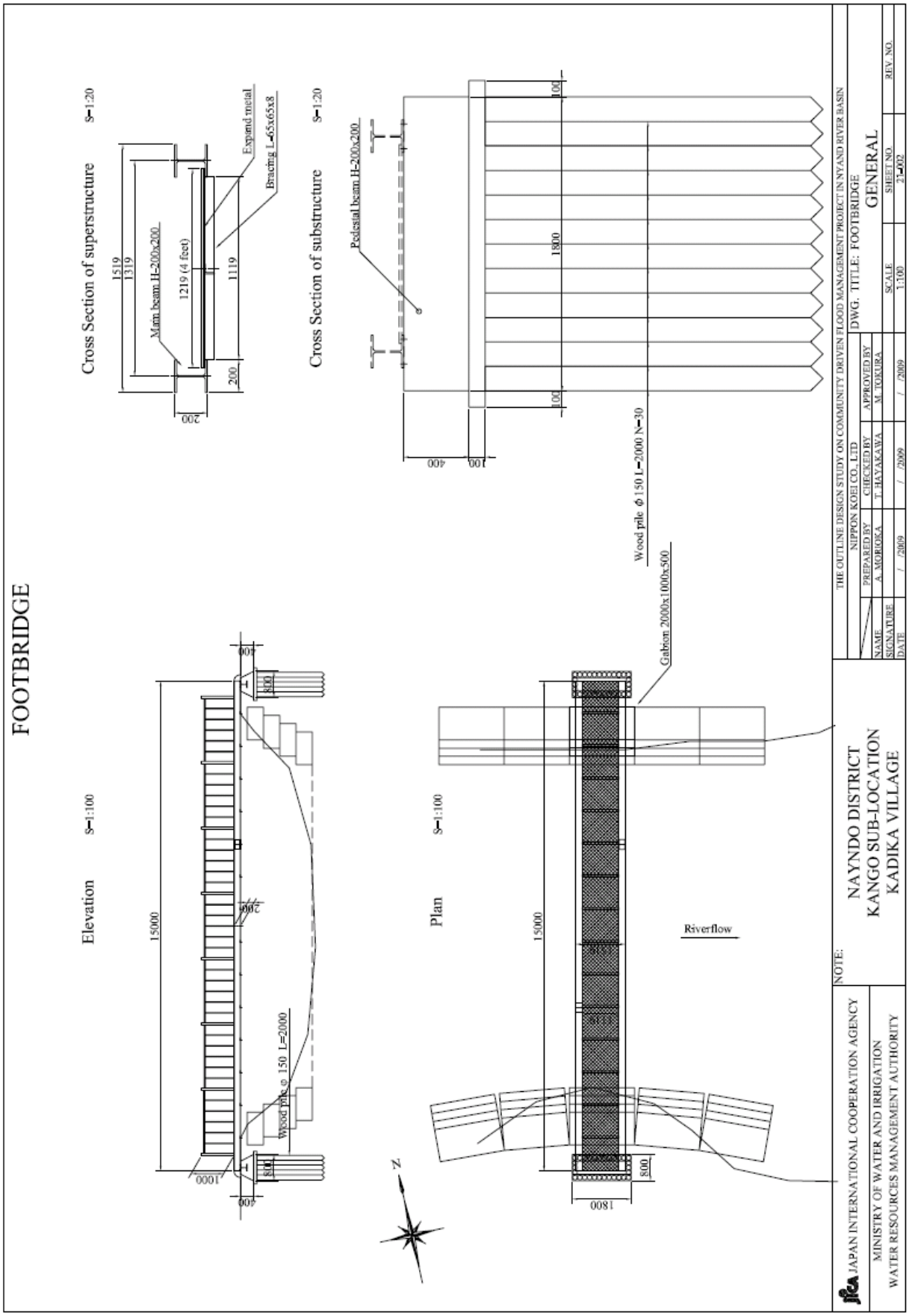


Figure 3.45 Kadika: Footbridge

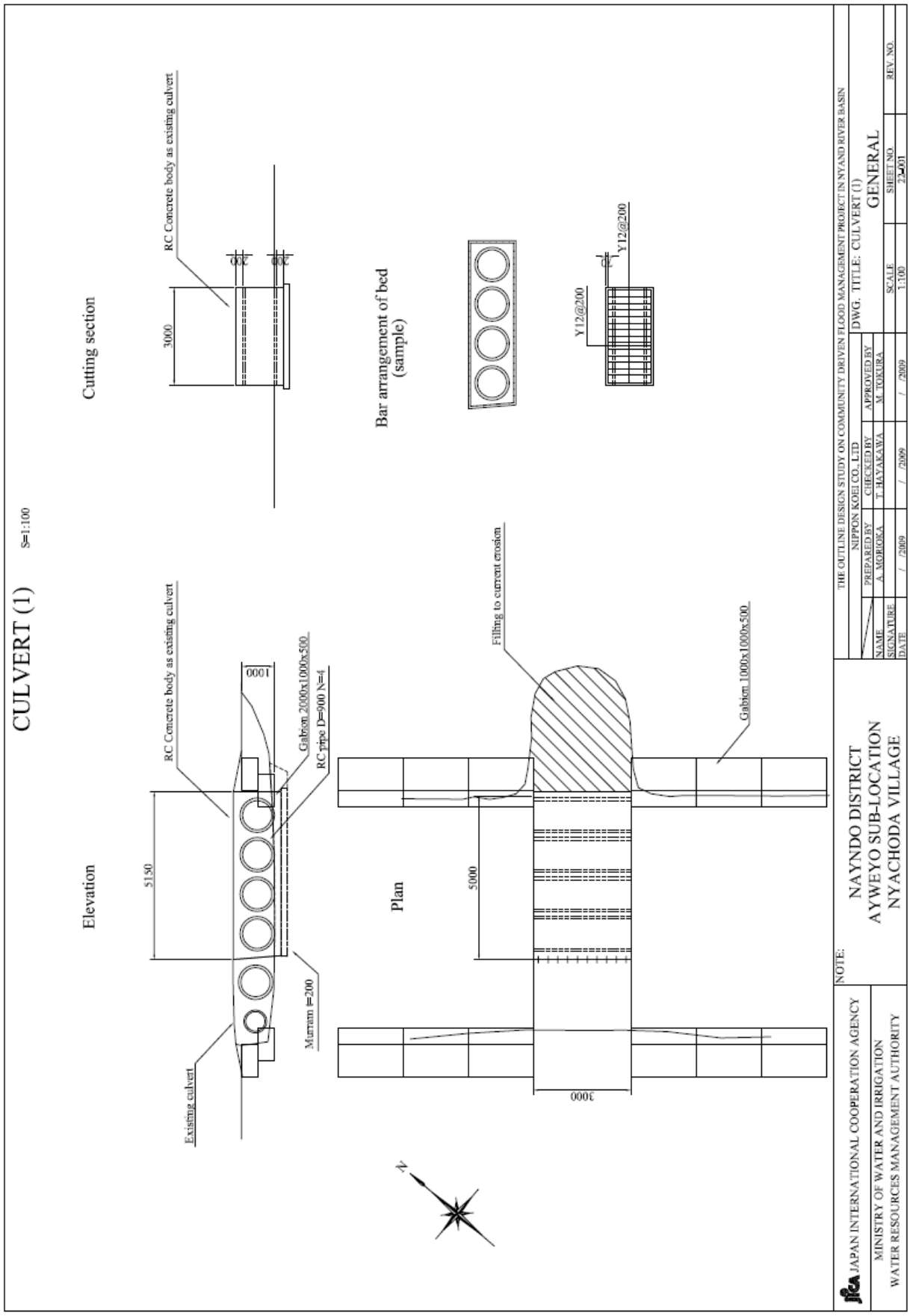


Figure 3.46 Nyachoda: Culvert (1)

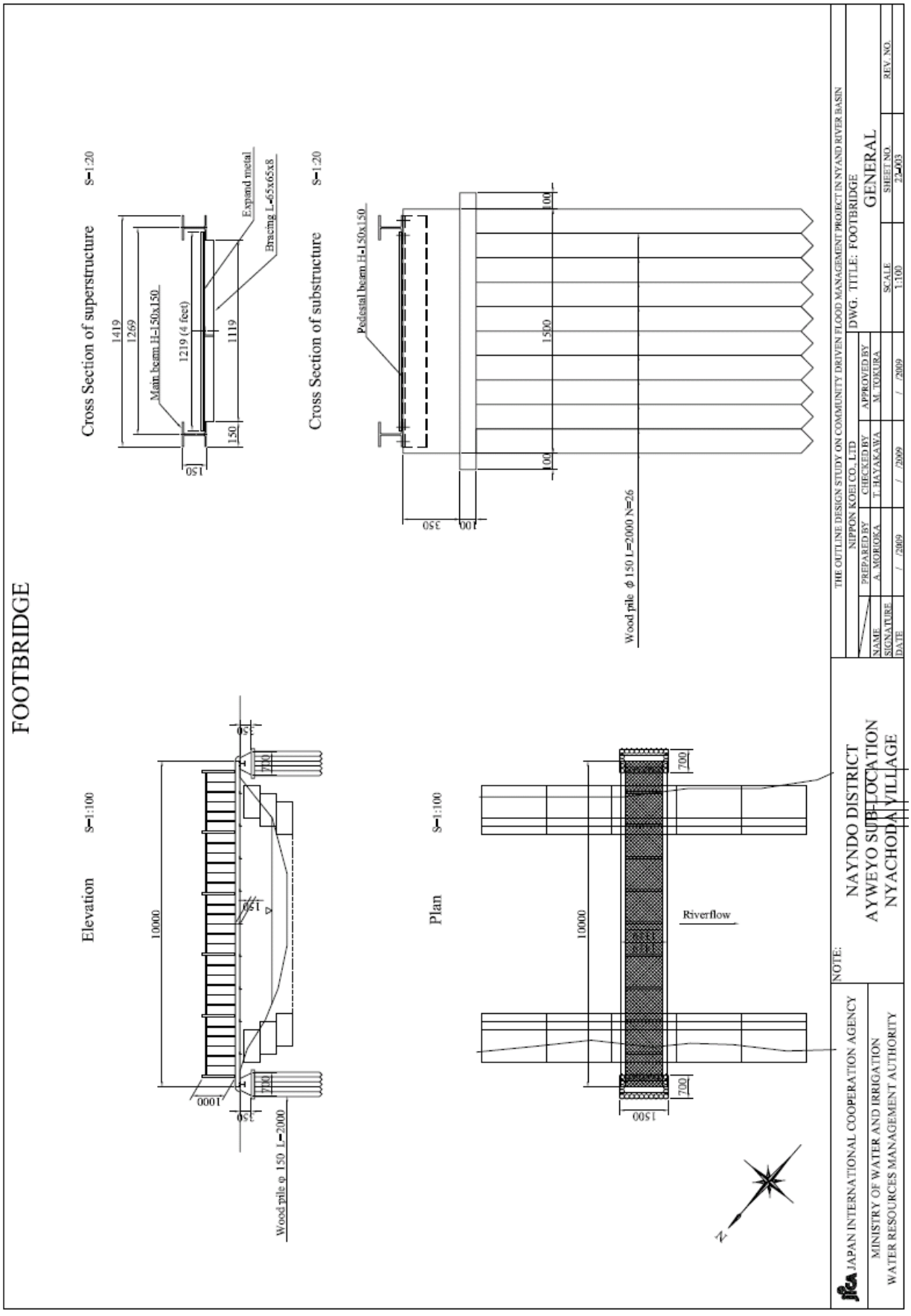


Figure 3.47 Nyachoda: Culvert (2)

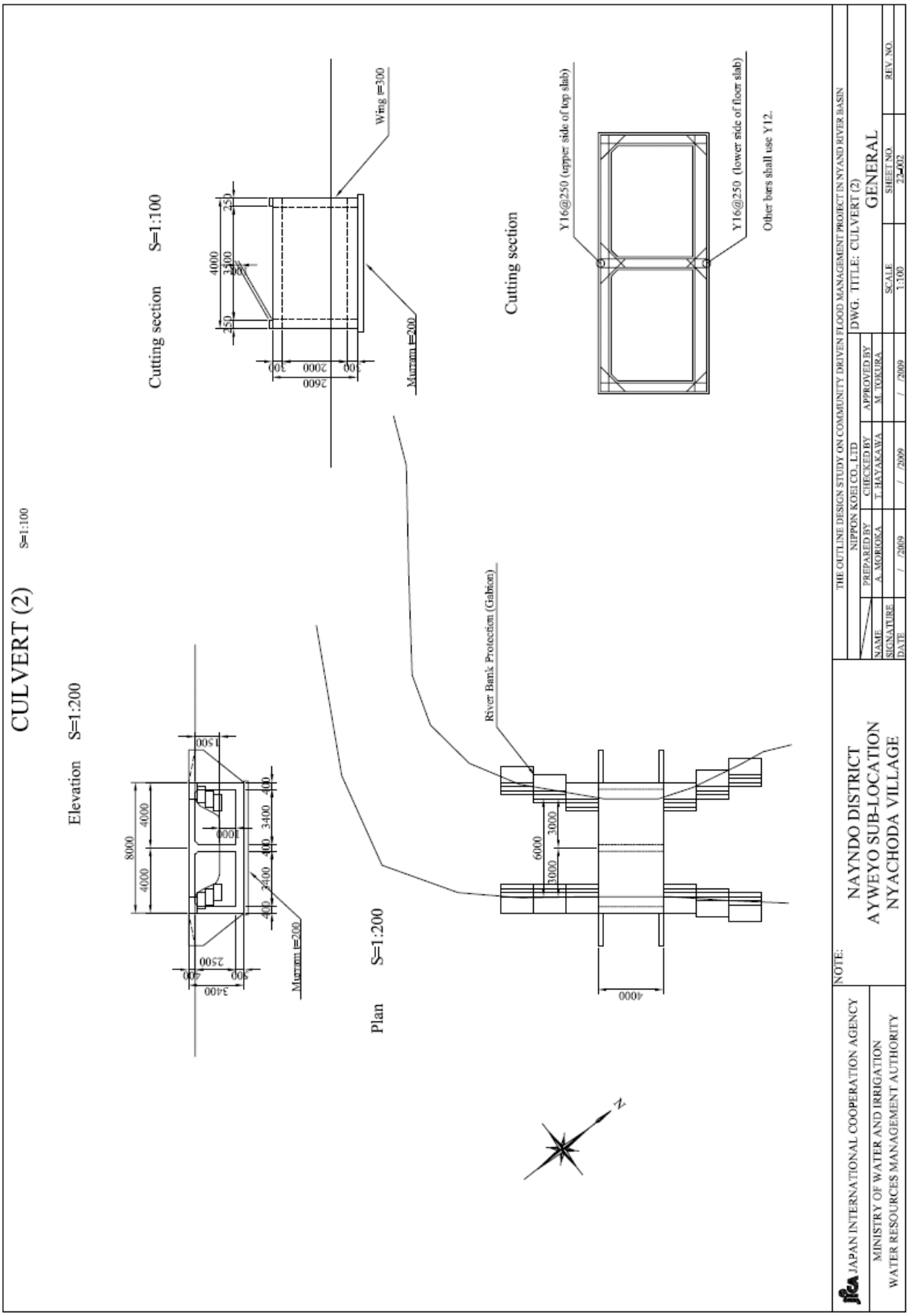


Figure 3.48 Nyachoda:: Footbridge

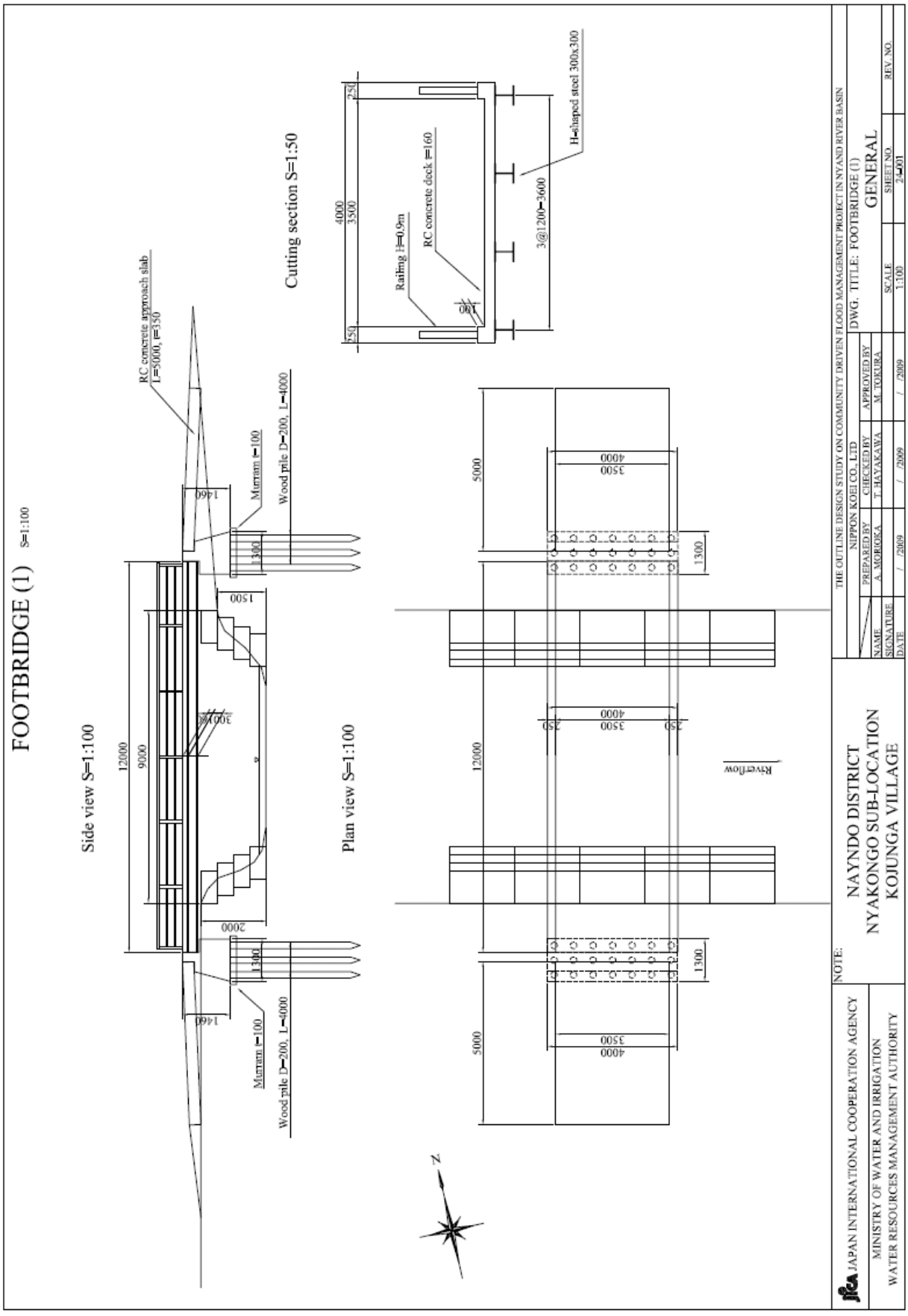


Figure 3.49 Kojunga: Footbridge (1)

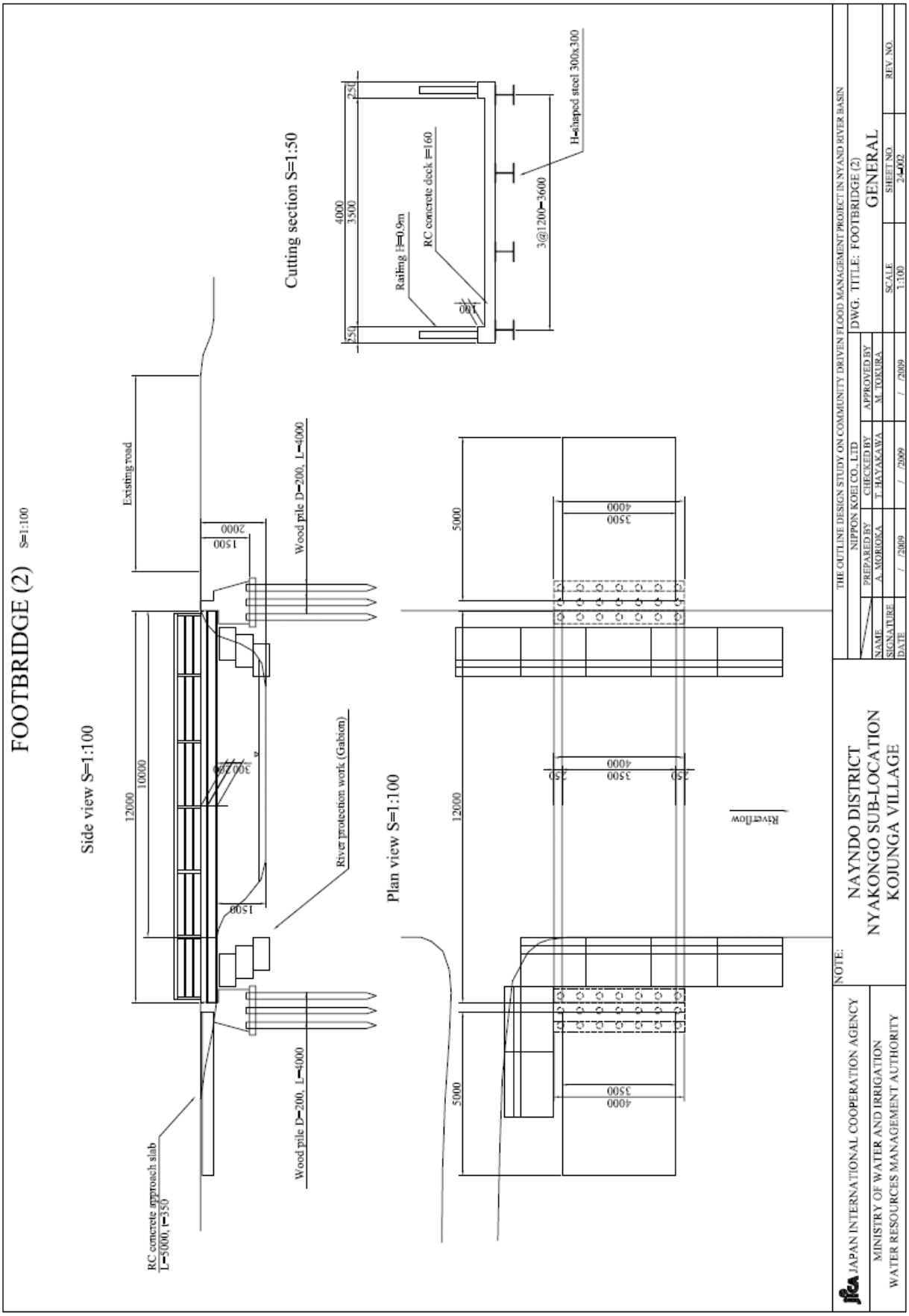


Figure 3.50 Kojunga: Footbridge (2)

AN.4 PROJECT DESIGN MATRIX FOR NON-STRUCTURAL MEASURES

The Project Design Matrix for Non-structural measures is formulated as shown in the next page.

Project Design Matrix for Non-Structural Measures

Project Name : The Programme for Community-Based Flood Disaster Management to Adapt to Climate Change in the Nyando River Basin in the Republic of Kenya

Target Area : 24 Villages in Kisumu District and Nyando District of Nyanza Province in Kenya
(12 Villages in Kisumu District: Rae Kanyaika, Mowlem, Bwanda, Otera, Kamuga, Oyola, Kanyango, Komwaga, Kowiti, Kamget Ugwe, Kopudo, and Kanyiaomo)
(12 Villages in Nyando District: Kolal, Wasiese, Kamagaga, Wangaya Mombasa, Achuodho, Wakesi, Kojiem, Kanyilum, Kadika, Nyachoda, Masune, and Kojunga)

Duration : 23 months after the signing of Exchange of Notes

Target Group : Community Based Flood Management Organizations of 24 villages

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
OVERALL GOAL Capacity for the flood management to adapt to the climate change is strengthened in the Nyando River Basin.	1 Number of affected people from flood disasters is reduced. 2 Flood management is replicated throughout the Nyando River Basin.	1 Record of flood damage 2 Questionnaire survey	1 GOK will replicate the experiences of the Project to other villages.
PROJECT PURPOSE Capacity for the flood management is strengthened in 24 villages.	Capacity for the flood management is strengthened by the CFMOs.	1 Questionnaire survey in Lessons Learned Meeting 2 Number of residents registered in CFMOs	
OUTPUTS 1 Community Based Flood Management Organizations are established and strengthened in the Project Area.	1.1 By-laws is formulated for each CFMO. 1.2 Financial plan is formulated for each CFMO.	1.1.1 By-laws of each CFMO 1.1.2 Number of meetings and participants 1.2.1 Financial plan of each CFMO 1.2.2 Manual for writing proposals for fundraising of each CFMO 1.2.3 Number of meetings and participants	1 Unexpected heavy rainfall will not occur, due to the climate change. 2 Security conditions are maintained.
2 CFMO becomes capable to conduct O&M for constructed structural measures.	2 O&M manual is formulated for each CFMO.	2.1 O&M manuals of each CFMO 2.2 Number of lectures, on-site trainings, and participants 2.3 Questionnaire survey	
3 CFMO becomes capable to implement flood disaster management activities.	3.1 Community flood management manual is formulated for each CFMO. 3.2 Evacuation plan is formulated for each CFMO.	3.1 Community flood management manual of each CFMO 3.2 Number of participants in the evacuation drills	
4 Public awareness is widely promoted in the Project Area.	4.1 Education programs for disaster prevention is formulated and carried out in the targeted 16 schools. 4.2 Radio programs about flood management are broadcasted continuously. 4.3 Posters about flood management are prepared and used for the public relation activities.	4.1.1 Number of teaching manuals 4.1.2 Number of textbooks for pupils 4.1.3 Result of assessment for teaching practice 4.1.4 Questionnaire survey of the pupils having received the education programs 4.1.5 Number of pupils 4.2.1 Record of broadcasted long and short radio programs 4.2.2 Questionnaire survey of listeners 4.3 Number of distributed posters	

ACTIVITIES	INPUTS		PRE-CONDISTIONS
1.1 Organizing trainings for CFMOs 1.2 Financial trainings for CFMOs 1.3 O&M trainings for CFMOs 2.1 Community Flood management Manual for CFMOs 2.2 Evacuation drills for CFMOs 3.1 Education programs for disaster prevention 3.2 Radio programs about flood management 3.3 Posters about flood management	Japanese Side 1 Procure the experts for supervising the non-structural measures 1.1 Japanese expert (12MM) 1.2 Local expert (2 persons and 42MM in total) 2 Procure the local NGOs to implement the non-structural measures 3 Provide equipment 3.1 O&M equipment 3.2 3 kinds of signboards to show hazard map, evacuation route, and evacuation place 3.3 Equipment for evacuation drill	Kenyan Side Assign a full-time counterpart of the Project	1 GOK policy on disaster management will continue to be highlighted. 2 GOK will support the CFMOs through WRUAs.