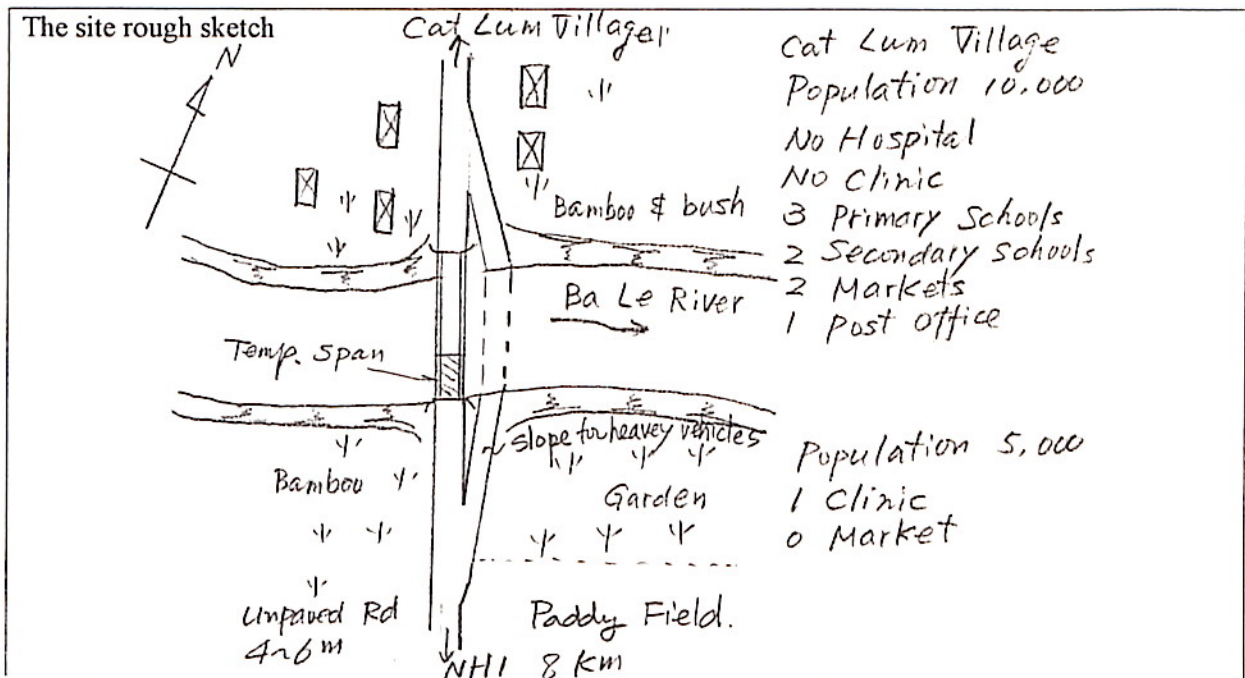


No. 74 Ba Le Bridge -Component A-

(Binh Dinh Province)

Site Information

- 1) The bridge is located on DR634 and constructed in 1965. Half of bridge destroyed by war. The half part repaired with steel deck temporarily in 1968.
- 2) Load limit 4 t only. Therefore trucks (20 No. per day) pass on riverbed. Traffic volume will increase because of commencement of the irrigation dam construction.
- 3) On the right bank (to NH1): population 2,000, clinic 1, market 0.
On the left bank (Cat Lum Village): population 10,000, clinic 0, market 2, elementary school 3, secondary school 2, post office 1. Bridge good for social impact.
- 4) The highest flood level of 1986 = Bridge surface + 1m. Flood of every year = girder bottom
- 5) The location of the new bridge may be appropriate to set the same position in consideration with heavy vehicle passing on the riverbed at the downstream side and existence of houses along the access road on the left bank. The bridge length will be appropriate to set around 40m with 2 spans. 0.5m of freeboard is required.
- 6) No resettlement is required.
- 7) A temporary detour road for pedestrian and vehicles is required during construction. A construction yard is available around 100m away at the left bank next to people committee.



Picture 1: On bridge center line



Picture 2: From the side

Site Information

- 1) The access road to the bridge is a primary road connecting Phu Yen Province with Binh Ninh Province, which complement NR1.
- 2) The existing bridge is a H-beam type without slab constructed in 1985. The previous box culvert collapsed before.
- 3) The existing bridge crosses over the branch stream close to meeting point of the main river. HWL is assumed to be 2.6m over the bridge surface according to the interview result. The bridge suffers 0.2-0.3m of overflow every year. The impassable duration lasts for a few hours at flood.
- 4) Access roads have been upgraded by the provincial fund with 6.5m in width. The access roads close to NR1 suffer inundation from flooding. Even the upgraded allow the overflow at flooding time.
- 5) The location of the new bridge will be appropriate to set at almost same location in consideration with right of way for the railway. The bridge length will be around 30m without pier because of rapid flow at flooding. 1m of freeboard is required. The location of abutments should be set in consideration with the direction of river flow. Bank protection work is also required.
- 6) The right of way for railway should be well considered in the design of all structures for new bridge
- 7) No resettlement is required.
- 8) A temporary detour road during construction should be set between the existing road ant Co River in order to ensure the space for construction yard.

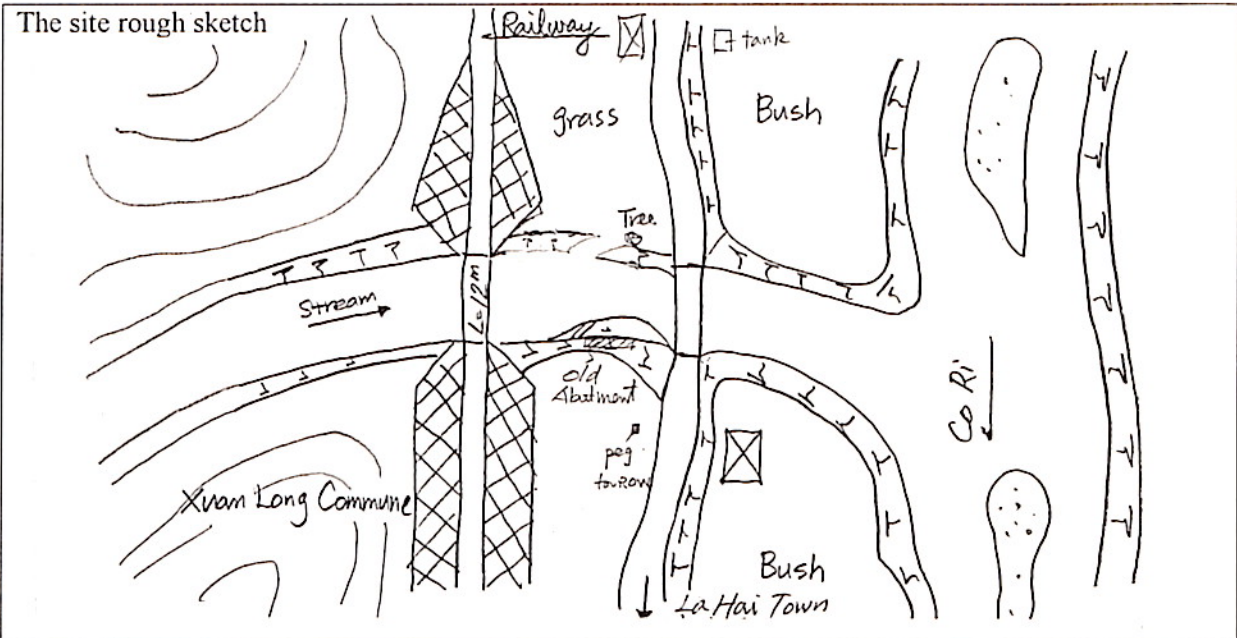


Photo 1: Existing Bridge



Photo 2: Existing Bridge

Site Information

- 1) The proposed bridge is located on an access road from 4 communities in the mountain area to the district center, La Hai. There is transportation demand to carry agricultural productions such as sugarcane and coconuts. Tra Buong River also divides Xuan Phouc commune into two parts and the proposed bridge will play an important role to access school and health post.
- 2) There is no bridge crossing over the river at this point. The impassable situation occurs approximately 8 times lasting a week a year and it prevents students from going to school. HWL reaches 6m from the riverbed.
- 3) The existing access roads are under upgrading by ADB fund with 6.5m in width and asphalt concrete pavement and it will complete by 2002.
- 4) The location of the new bridge will be set on the extension line of access roads on both banks. Its length will be around 60m with 3 spans. 1m of freeboard is required. An appropriate bridge plan will be required in consideration with HWL and its usability for people due to extremely high HWL.
- 5) The electrical and telephone lines may be required to relocate depending on the level of approach road at the right bank.
- 6) A vacant field at upstream side on the right bank is available as construction yard.

The site rough sketch

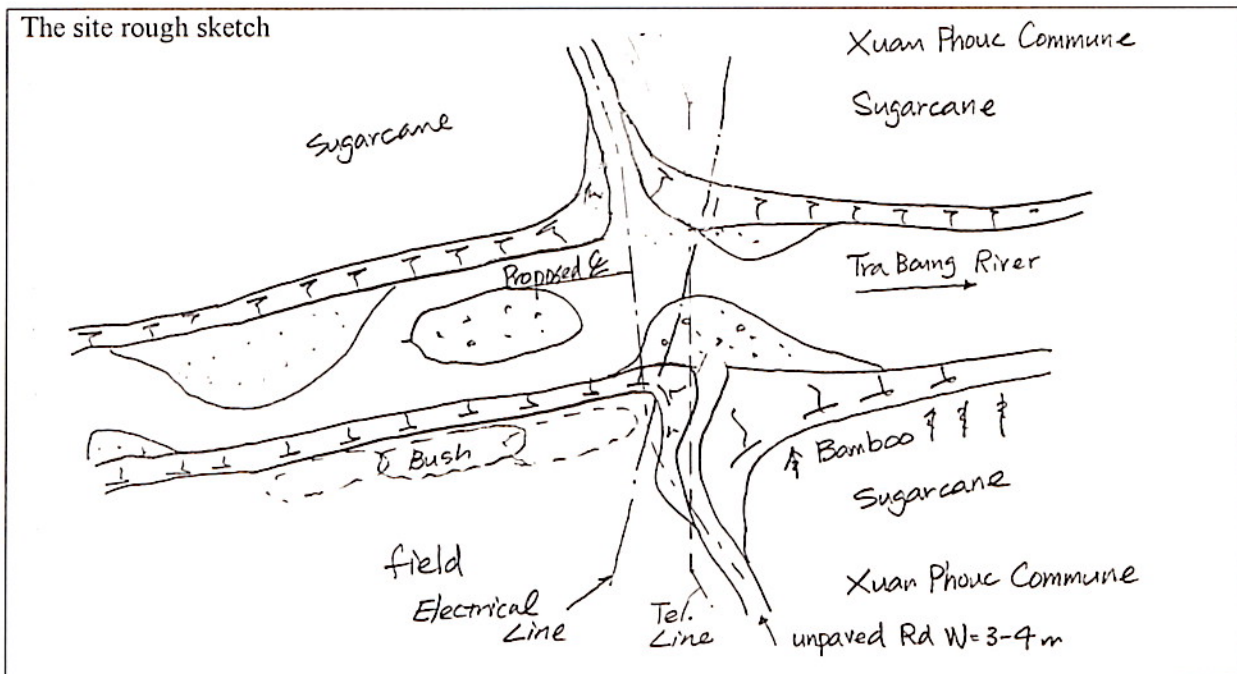


Photo 1: Crossing Point



Photo 2: Downstream side