

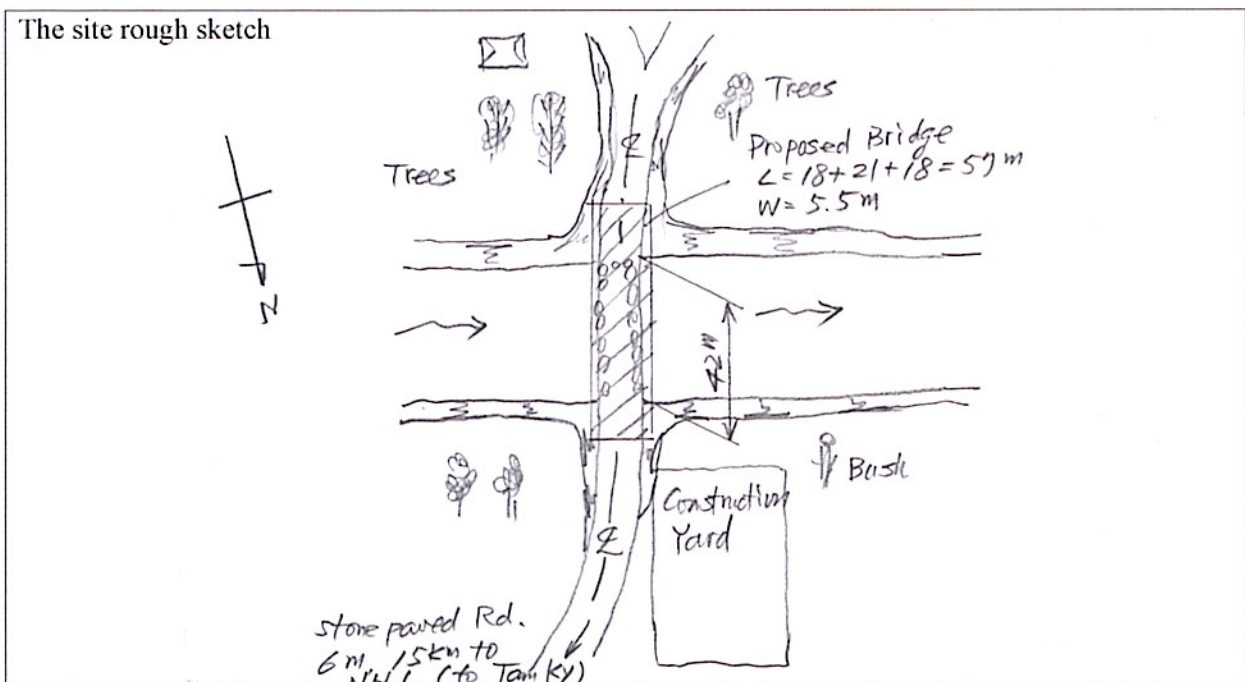
No. 34 Son Quang Bridge – Component B

(Quang Nam Province)

Site Information

- 1) At the bridge location there is at present submersible road. River width is 42m. The slopes to the road in the river are paved properly with stones on both banks.
- 2) The highest flood level: 2.8m above road surface, flood level of every year: 2.0m above it. There are no drifting logs, therefore freeboard is 0.5m.
- 3) The proposed bridge length will be $18+21+18 = 57\text{m}$ and the alignment will be located just on existing submersible road, considering the surrounding terrain and approach roads on both banks. The width of bridge is 5.5m.
- 4) The construction yard, where steel girders are assembled, will be located at the area on right bank-downstream corner. No houses and no utilities will be relocated.
- 5) On the right bank access, there are several bridges, including 10t limit wooden bridge. Width of access is 6m and surface is reasonable.

The site rough sketch



Picture 1: On bridge center line from right to left bank



Picture 2: From downstream

No. 38 Suoi Cat Bridge – Component B -

(Binh Thuan Province)

Site Information

- 1) There is a district center on the left bank of the bridge and the access road is only a road connecting mountain communities with the district center. So the bridge is very important for communities in the mountain area of daily life to carry agricultural production such as sugarcane, cashew nuts, and rubber.
- 2) The bailey-type bridge was constructed in the 1960s. Although no significant damage is observed on the bridge, the load of vehicles is limited to 5 ton. Damages on the points connecting bridge and access roads cause destruction of smooth traffic flow.
- 3) HWL is assumed to be same level of the existing bridge surface according to the interview result.
- 4) The access roads on both banks have been already paved with 5m in width.
- 5) Ethnic minorities such as Cham, K' nor, Dak Lai accounts for around 30% in communities of the mountain area on the right bank.
- 6) A new centerline of the bridge will be appropriate to set around 15m downstream from the existing one. Its length will be around 30m long with one span. Freeboard is required to be 0.5m.
- 7) Two houses at the right bank will be affected by the new approach road.
- 8) The telephone line and water pipe (ϕ 100) should be shifted for construction.

The site rough sketch

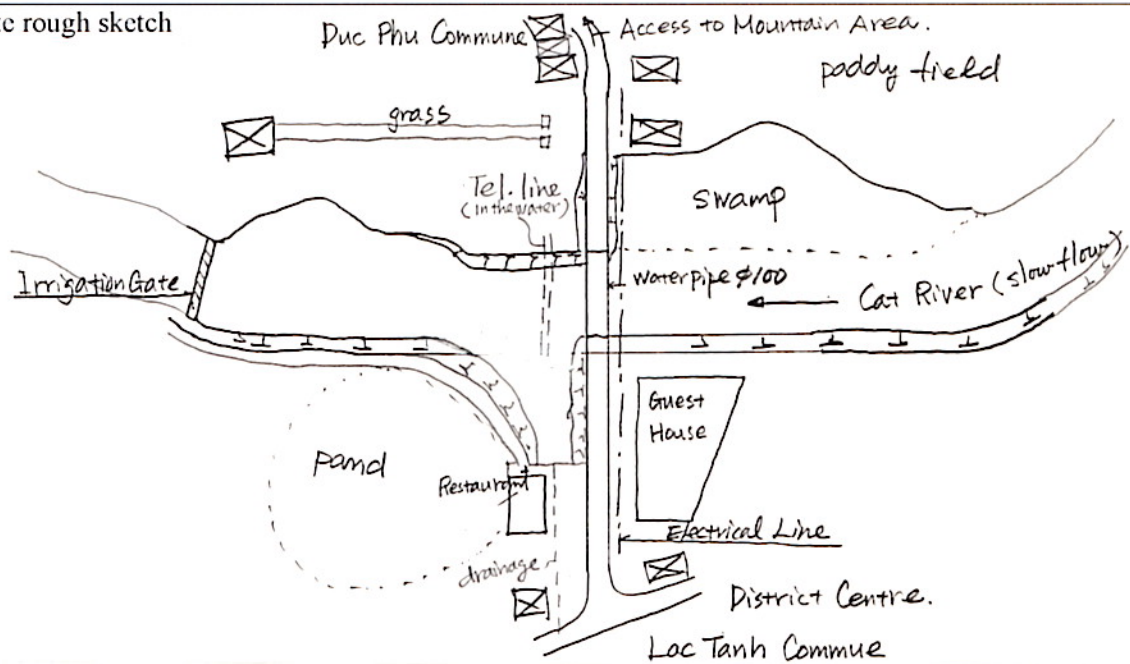


Photo1: Existing Bridge



Photo 2: Existing Bridge

No.42 Tuan Tu Bridge - Component B -

(Ninh Thuan Province)

Site Information

- 1) There are much traffic demand on the bridge because shrimp farming has been developing on the left bank side as well as it connects with the district center on the right bank side.
- 2) The existing bridge is a RC slab type built in 1978. Since the slab and piers have suffered damages from flooding and heavy vehicles, the vehicle load is limited to 2 ton and heavy vehicles pass in the river during low tide.
- 3) The bridge becomes impassable for one to two weeks a year due to flooding. HWL is assumed to be 0.5m over the bridge surface according to interview results. The water level of the river at the bridge site is affected by tide and its difference is around 1m.
- 4) The access roads are narrow(W=3-4m) and deteriorated. These roads are planed to upgrade to concrete pavement by the World Bank fund by 2002.
- 5) Ethnic minority, Cham tribe, accounts for 40 % in the surrounding communes.
- 6) It is appropriate that the new centerline of the bridge is set at 15m downstream from the existing one in consideration with road alignment. Its length will be similar of the existing one, 63m long with 3 spans. The freeboard is required to be 0.5m.
- 7) The new approach road at the right bank should be connected with the spillway. A small and narrow bridge on the access road, 30m away from the existing one at the left bank, will be improved in the upgrade work of the access road by Vietnamese side.
- 8) A grass field at the left bank will be utilized as construction yard.

The site rough sketch

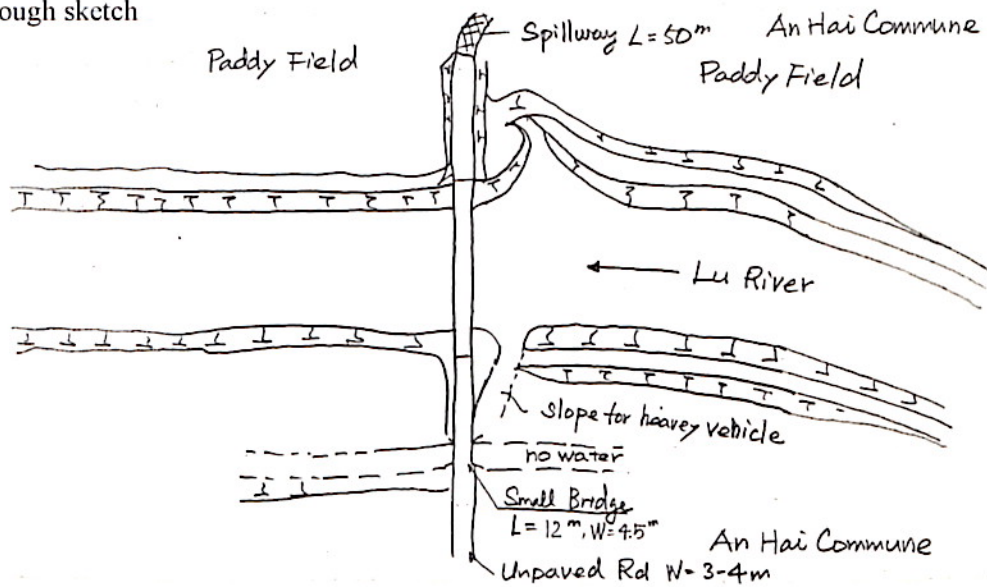


Photo 1: Existing Bridge



Photo 2: Upstream View