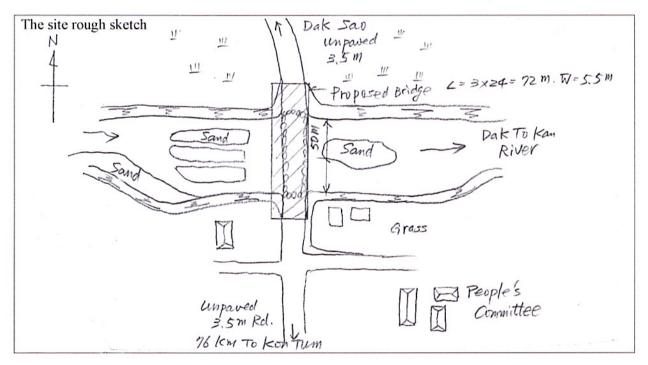
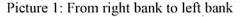
No. 64 Dak To Kan Bridge Component B

Site Information

- 1) Submergible road was constructed in 1996 with provincial fund. River width is 50m.
- 2) The highest flood level of 1996 = Road surface + 2.5 m, Flood level of every year = surface + 1.5m. Freeboard:1.0m.
- 3) The proposed bridge will be constructed on the alignment of existing submersible road. Bridge length: 3x24=72m. (river width: 50m), width: 5.5m
- 4) Construction site (assembling area of steel girder) will be located on right and downstream area at bridge site.
- 5) No houses and no utilities will be relocated.
- 6) Access road on right bank (3.5m earth) from Dak To (NH14) is not good.





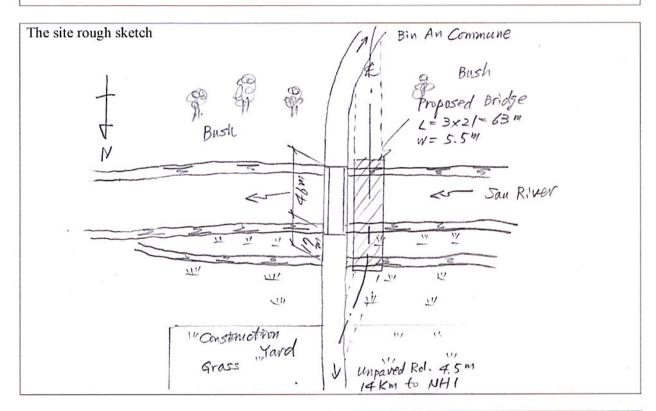




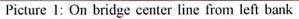
Picture 2: From the side (from down to up)

Site Information

- Existing bridge of I girders with timber deck was constructed in 1980 with provincial fund. However existing conditions are very bad.
- 2) The highest flood level of 1999 = bridge surface + 2m, Flood level of every year = bridge surface + 1.5m. Freeboard:0.5m.
- 3) Proposed bridge will be built on upstream end of existing one. The length will be 3x21=63m to cover 46m existing bridge including 17m wide paddy filed on flooded river area.
- 4) No houses will be removed and no utilities will be relocated
- 5) Construction yard will be located higher grass field on left downstream side.
- 6) Access road from NH1 (about 2km to bridge site) has rough surface and therefore it is bad and muddy and slippery







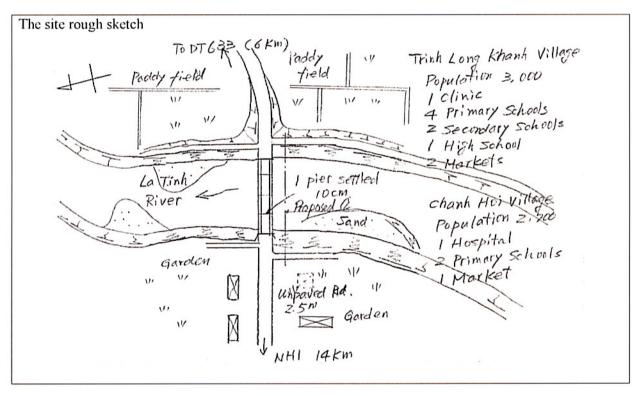


Picture 2: From upstream. The paddy field on flooded river area is seen on the left end of photo.

No. 76 Dao Long Bridge - Component B -

Site Information

- 1) The existing bridge is located on a commune road and constructed in 1991. The 1st pier from NH1 side, settled by 0.1m. Steel girders are very rusty and decreased cross sectional area.
- 2) Load limit 2 t. Width 2.1m only. Just enough to small trucks.
- 3) 4 km access next to the bridge from NH1 width 2~3m only and surface is very rough. It is necessary to improve it for material/equipment delivery.
- 4)The highest flood level = 0.5m below girder bottom. Flood level of every year = 1.5m below. Water level in dry season is relatively high.(1-2m)
- 5) There is no information of access road improvement.
- 6) The location of the new bridge is appropriate to set at around 15m upstream of the existing one. The bridge length is assumed around 50m with 3 spans. 0.5m of freeboard is required.
- 7) No resettlement is required.
- 8) Paddy fields are available at the right bank as construction yard. An issue on girder transportation due to poor access roads should be reflected to bridge design.









Picture 2: From the side