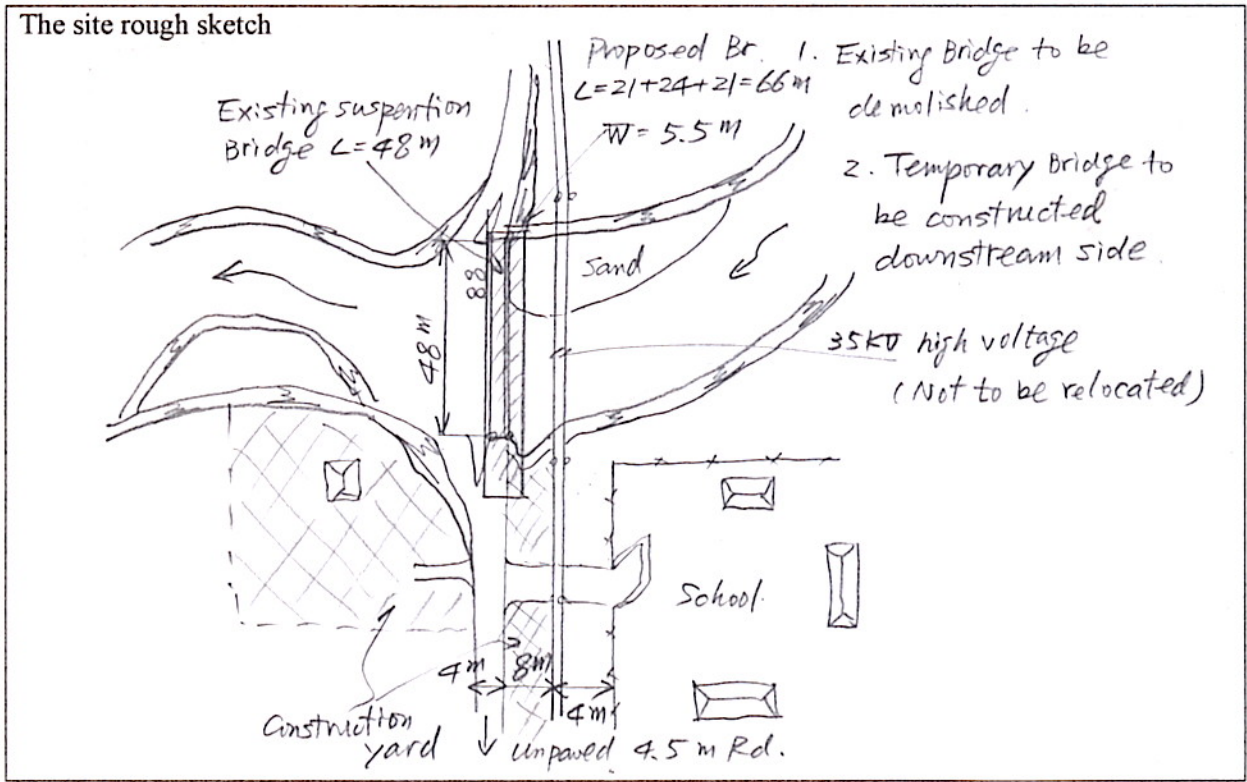


**No. 66 Ngoc Tu Bridge – Component A**

**(Kon Tum Province)**

Site Information
1) Existing suspension bridge (48m long between 2 towers, 1.0m wide) was constructed in 1995. Totally 4 nos. of pile bents ( $\phi$ 0.8m x 2m high) of former bridge built by France are left next to existing bridge.
2) The highest flood level of 1996 = Bridge surface + 0.6m, Flood level of every year = surface – 0.2m. LWL= surface –2.5m. Freeboard:1.0m.
3) The high voltage (35kv) electric cables cannot be relocated. Therefore existing suspension bridge shall be demolished and proposed bridge will be built to match the space left. In order not to hit former piles, proposed bridge length will be 21+24+21=66m. Width is 5.5m.
4) No houses will be removed and no utilities will be relocated.
5) Construction yard will be located on left bank at the space between access road and the school and also space on left-downstream.
6) 8 km access road on left bank is of 4.5m crushed stone surface and reasonable to transport.



Picture 1: On the alignment of proposed bridge (after demolition of existing one)



Picture 2: From upstream



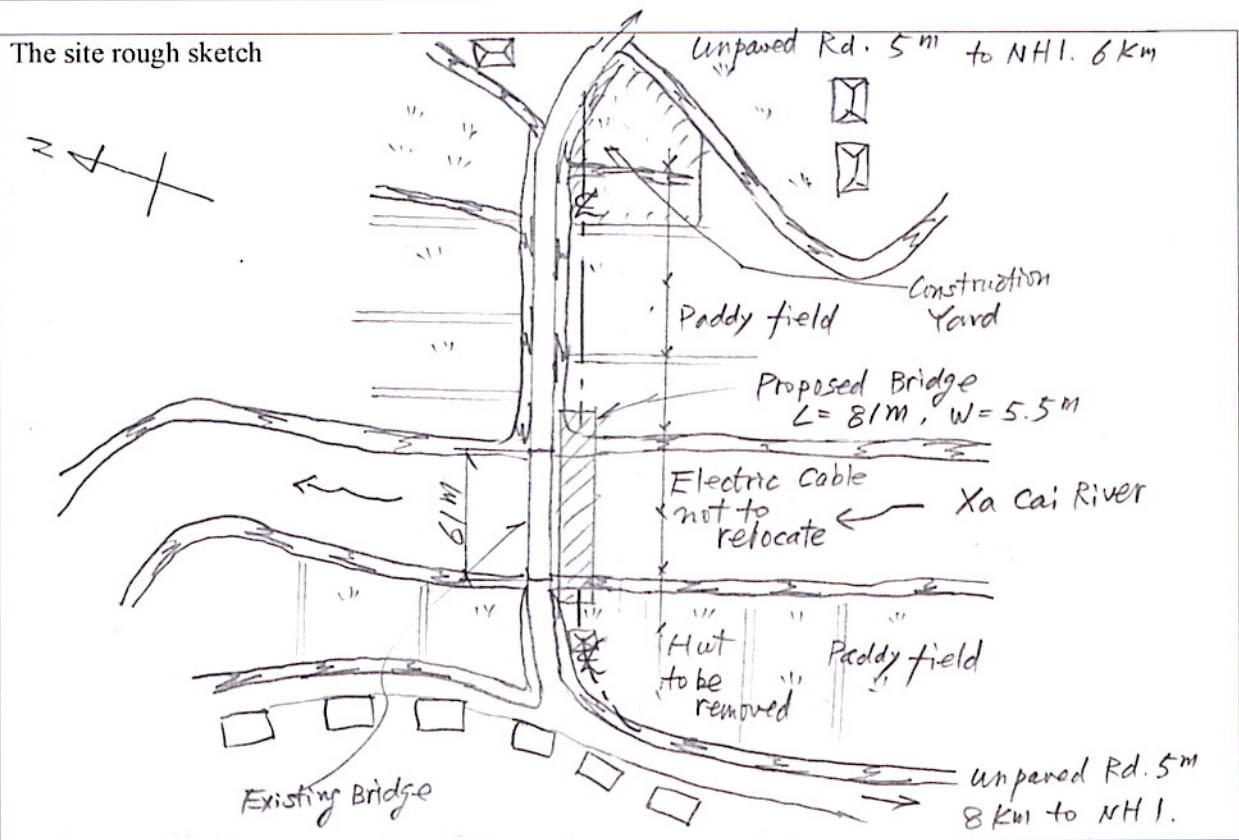
**No. 67 Xa Cai Bridge – Component A**

**(Quang Ngai Province)**

**Site Information**

- 1) Existing bridge is of concrete slab with multi spans and constructed in 1956. It is seriously damaged. Length of existing bridge is 61m.
- 2) Highest flood level of 1999 is 2.5m above bridge surface. Yearly flood level is 1.8m above. Freeboard:0.5m.
- 3) The proposed bridge will be built upstream side next to existing one. Length will be  $3 \times 27 = 81$  m and width will be 5.5m.
- 4) One hut on left bank (upstream on proposed approach road) shall be removed. No utilities will be relocated.
- 5) As construction yard, paddy field on right bank (upstream side) will be used.
- 6) Access roads both on left bank and on right bank are reasonably wide and in good condition.

**The site rough sketch**



Picture 1: On bridge center line from right bank.



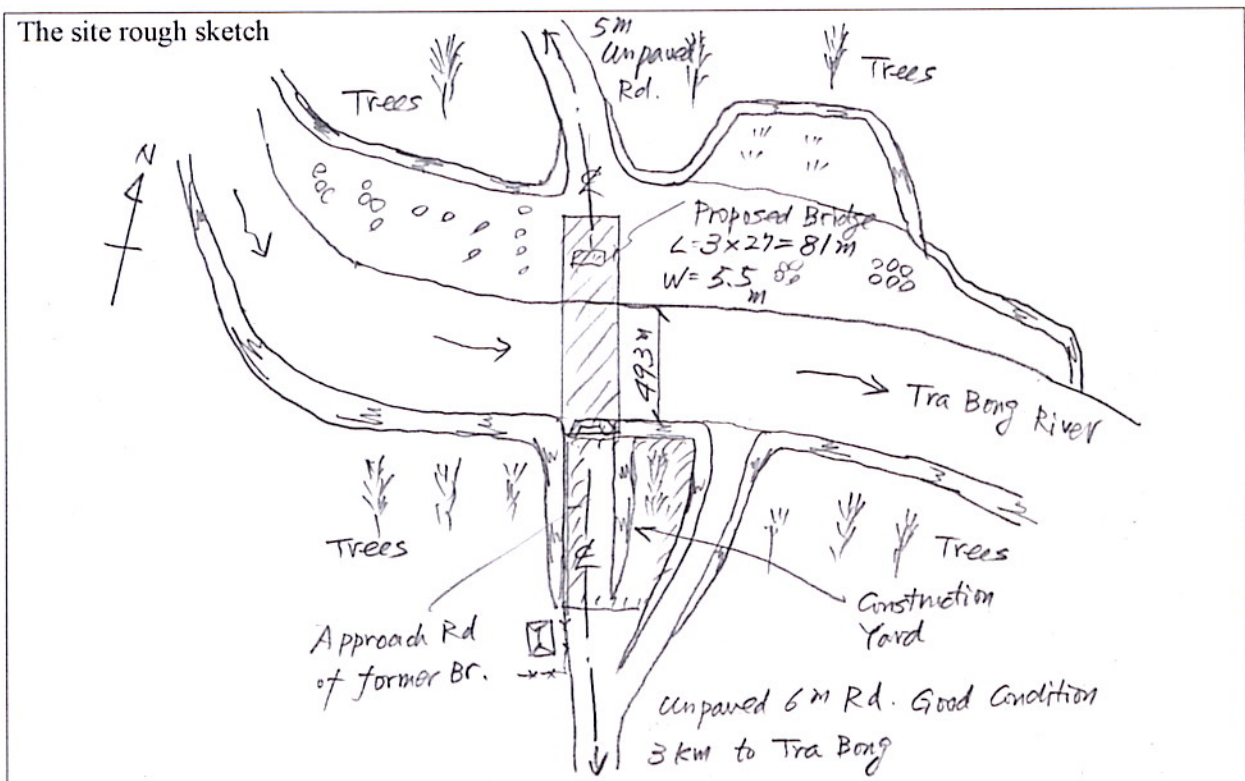
Picture 2: From left bank, look upstream on the the proposed center line.



**No 70 Do Bridge – Component A**

**(Quang Ngai Province)**

Site Information
1) The former bridge (52m long) was swept away by flood in 1964, since then no bridge.
2) Highest flood level of 1999 = Old abutment top- 1.5m, every year flood level = abut top - 2.0m. Freeboard:0.5m.
3) On right bank former approach road are left. The space can be used as a construction yard. Therefore the proposed bridge will be built on former bridge alignment. The length will be $3 \times 27 = 81\text{m}$ . Width is 5.5m.
4) No houses shall be removed and no utilities are relocated.
5) Construction yard will be located on right bank including former approach road.
6) Access road from NH1 under improvement, 2 new bridges completed recently, 3 bridges under construction.



Picture 1: On bridge center line (former and proposed)  
From right bank



Picture 2: From down stream. On right bank  
abutment of former bridge (washed  
Away) is seen.