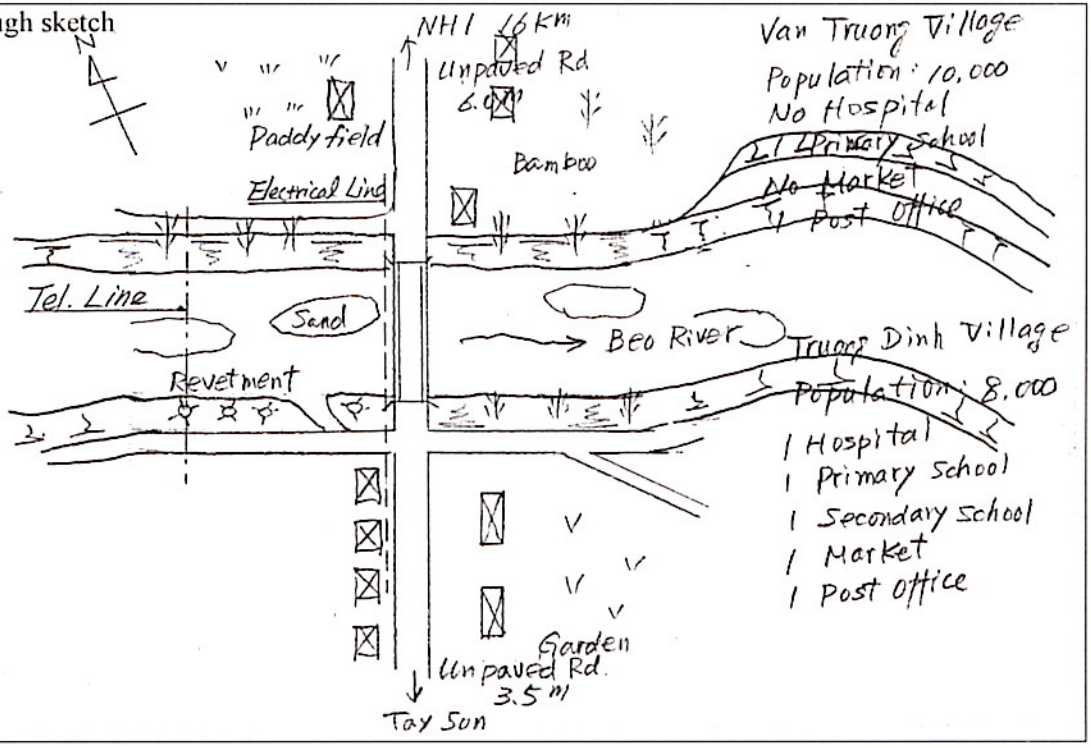
No. 77 Troung Dinh Bridge - Component B - (Binh Dinh Province)

Site Information
1) The existing bridge is located on PR636 and constructed in 1975. Very deteriorated bridge. Load limit 5 ton only. The existing bridge has some angle against the river line.
2) The highest flood level of 1999 = Bridge surface. The flood level of every year = 0.5m below girder bottom. The ordinal river flow is relatively slow.
3) On this side of bank (Truong Dinh Village): population 8,000, hospital 1, elementary school 1, secondary school 1, market 1, post office 1 On the other side (Van Truong village): population 10,000, hospital 0, elementary school 1, secondary school 0, market 0, post office 1. Bridge good for social impact
4) Access roads and bridges on both banks are partially under improvement. The bridge is bottleneck. It is planned to upgrade it as a national road in future.
5) The location of the new bridge is appropriate to set at around 15m from the existing one. The bridge length is around 40m with 2 spans. The new bridge should be set at same angle of the existing bridge due to the alignment of the approach roads. 0.5 m of freeboard is required.
6) 4houses at the left bank will be affected by the approach road construction. The electrical line should be shifted.
7) Paddy fields at the left bank are available as construction yard.

The site rough sketch



Picture 1: On bridge center line

Picture 2: From the side

No. 82 Da Lac Bridge – Component B - (Phu Yen Province)

Site Information
1) PR644, which the bridge is located on, is a primary road connecting PR641with NR1. There is transportation demand to carry agricultural productions such as sugarcane and coconut. There is no bridge in the rainy season. Since Cai stream divides Da Lac Commune into two parts, there are access problems of each side such as school and health post.
2) A wooden bridge is built in a dry season every year.
3) HWL is assumed to be 3.8 m from the riverbed according to the interview results. Flood in rainy season cause local people impassable a few times for 1-2 hours a week. There is no alternative route to cross the river in the vicinity.
4) Access roads will be upgraded with 6.5m in width and it will starts from the end of 2001. It seems no problem to carry heavy equipment and materials at the construction time.
5) Ethnic minorities such as Cham and H'Rai inhabit in Da Lac Commune.
6) The location of the new bridge will be set at the upstream of the existing bridge, which is on the extension line between the access roads on both banks. The bridge length will be set around 40m with 2 spans in consideration with the existing river width. 1m of freeboard is required.
7) No resettlement is required.
7) A corn field at the downstream side of the right bank is available as construction yard.

The site rough sketch

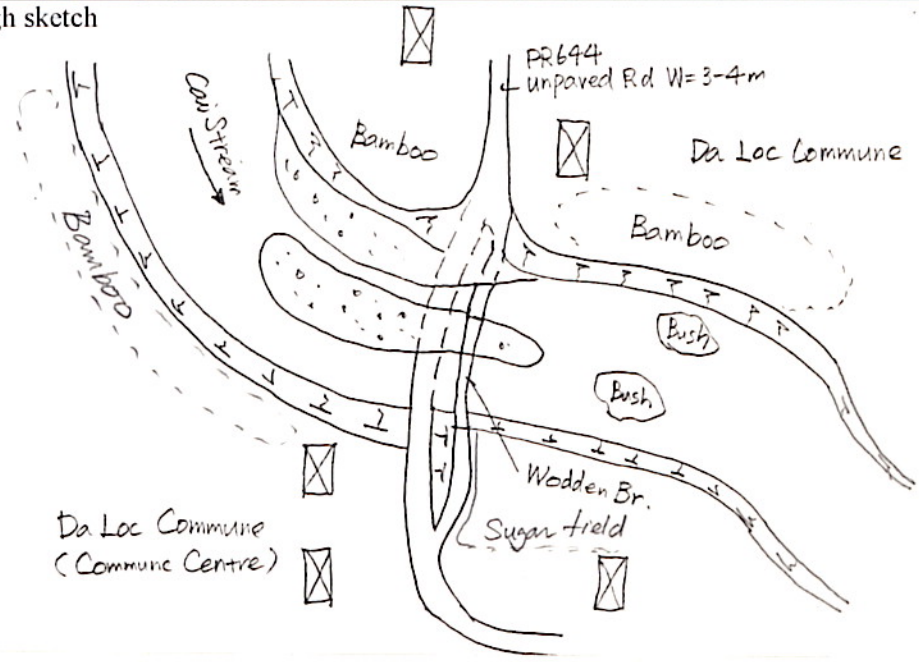


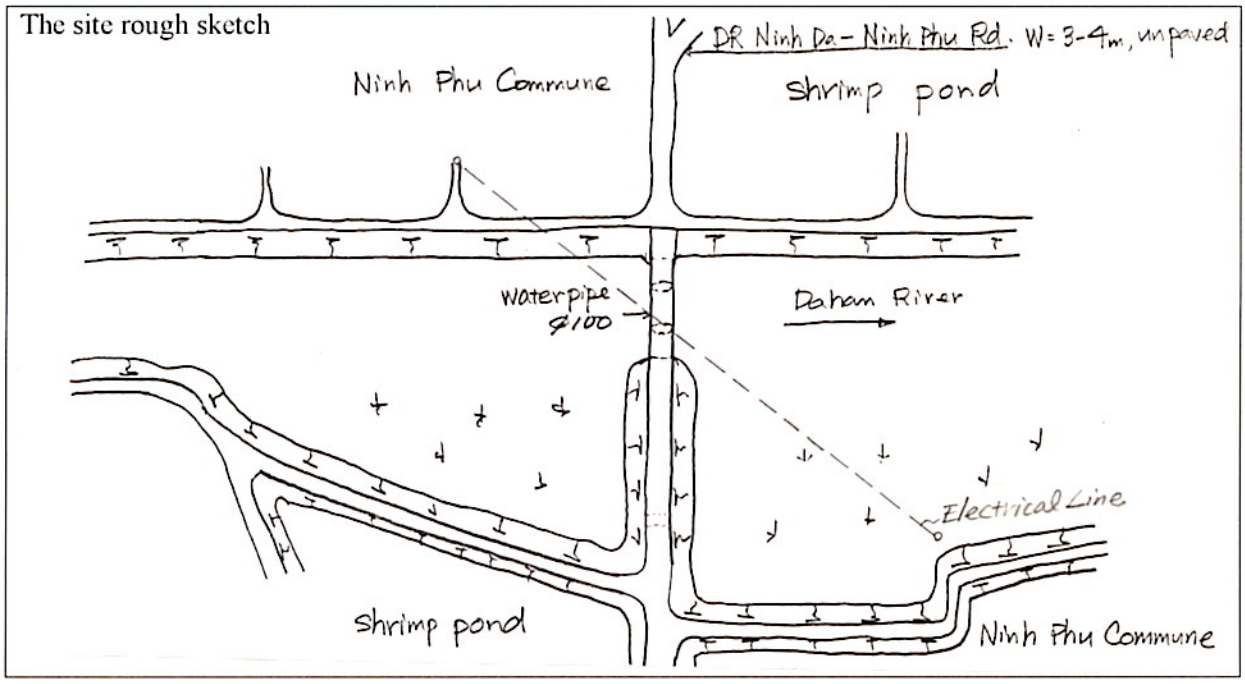
Photo 1:Existing Bridge

Photo 2: Existing Bridge

No. 86 Tien Du Bridge - Component B- **(Khan Hoa Province)**

Site Information
1) A district road, which the bridge is located on, is an only access to the district center of Ninh Hoa from fishing communes along Dam Nha Phu Bay. There is much transportation demand for shrimp farms and fish production.
2) The existing bridge is a H-beam type constructed in 1984. Although outer beams suffer serious damages by corrosion, substructures look still sound. The load of vehicles is limited to 3.5 ton.
3) The access roads have been partially paved but have partially poor surface with 3-4m in width. Those roads will be upgraded with 6.5 m in width and asphalt pavement. Improvement of alignment and the raise of the road level should be required because there are some areas inundated by flooding.
4) HWL is assumed to be 0.3m over the bridge surface. The river under the bridge is affected by tide. Its ordinal flow is slow.
5) The centerline of the new bridge will be set at the same location because it will be expensive to compensate shrimp ponds for approach roads. The location of abutment on the right bank should be determined in consideration with the river width but bridge length will be around 50m. 0.5m of freeboard is required.
6) The telephone and electrical lines, and water pipe should be shifted before construction.
7) Paddy fields 50m away from the bridge at the right bank will be utilized as construction yard.

The site rough sketch



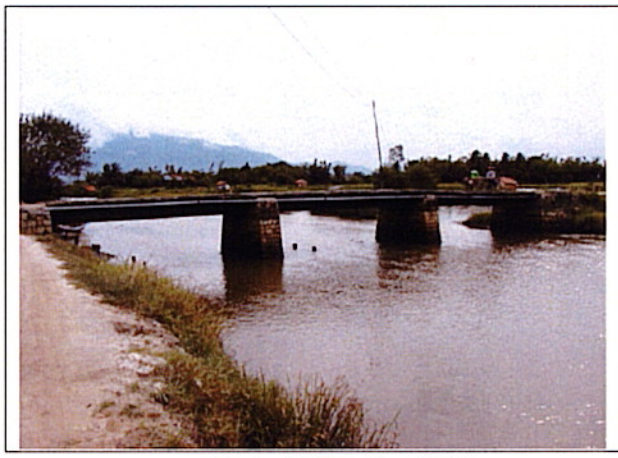


Photo 1: Existing Bridge

Photo 2: Existing Bridge