









AMAZON COOPERATION TREATY ORGANIZATION - ACTO

Y

NATIONAL WATER AND SANITATION AGENCY - ANA Brazil

AMAZON PROJECT: REGIONAL ACTION IN THE AREA OF WATER RESOURCES - PHASE II

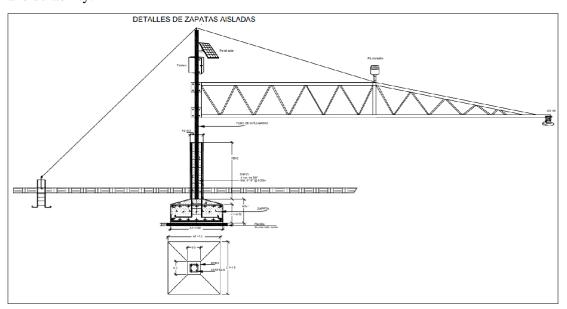
ANNEX II

DETAILING OF CIVIL WORKS

I work to be carried out, material cost, labor cost, other costs, and responsible for the execution of the works.

DATA FOR THE TRUSS STRUCTURE FOR THE RADAR LEVEL SENSOR (CAMIACO)

Considering the soil conditions and the natural river channel's erosion, it is proposed a structure designed to absorb the soil stresses resulting from the tension generated by the metal truss torque. The following outlines the schematic design and itemized cost for this alternative, ensuring not only the installation but also the subsequent maintenance and data discharge. The structure incorporates hinges at various points in the superstructure to enhance flexibility and durability.



DATA FOR INSTALLATION AND WORKFORCE FOR STRUCTURE TYPE 1 - CAMIACO (METAL TRUSS)

IT E M	DESCRIPTION	UNI T.	QUAN TITY
1	PRELIMINARY ACTIVITIES		
1.	LAYOUT AND DESIGN	GLB	1.00











1.			
1. 2.	GEOTECHNICAL TESTING	PUN TO	2.00
	SUBTOTAL PRELIMINARY		
	ACTIVITIES		
2	STRUCTURE		
2.	EXCAVATION FOR STRUCTURES	M3	5.31
1.	(FOOTINGS)	1013	3.31
2.	STRUCTURE BACKFILLING	M3	6.60
2.			
2.	BACKFILLING WITH SELECTED	M3	1.67
3.	MATERIAL	WIS	1.07
2.	REINFORCED CONCRETE	M3	5.36
4.	REINFORCED CONCRETE		
2.	TRANSPORT OF MATERIAL	DÍA	15.00
5.	(TRUCK)	DIA	15.00
2.	POSTS, STEEL TRUSSES AND	PIEC	1.00
6.	ACCESSORIES	E	1.00
2.	METAL TENSORES	PIEC	1.00
7.	METAL TENSORES	E	
2.	STRUCTURE ASSEMBLY	DAY	1.00
8.	STRUCTURE ASSEMBLT		1.00
2.	TRANSPORT OF MATERIAL	DAY	4.00
9.	(TRUCK)	DAI	4.00

The station type is unique; consequently, the site cost for the station in the locality of Camiaco

DATA FOR THE STRUCTURE ATTACHED TO A BRIDGE FOR THE HYDROLOGICAL SYSTEM

The installation scheme is outlined, encompassing all its components, ensuring not only a seamless installation but also facilitating subsequent maintenance and data discharge, structured as follows:

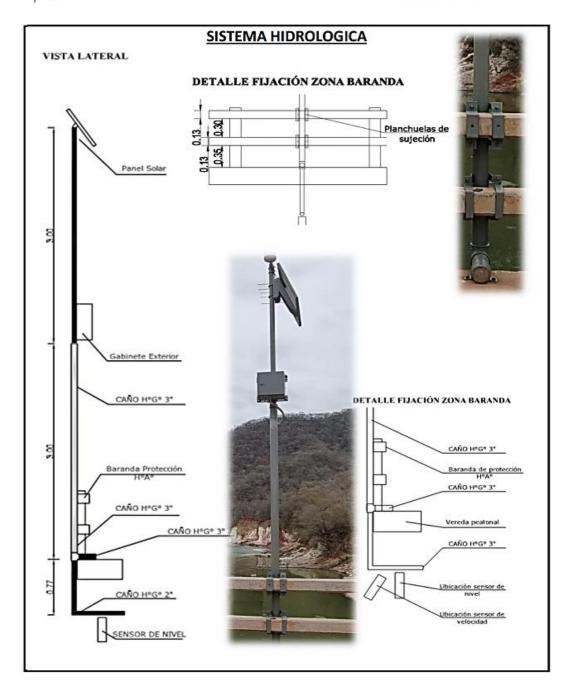












DATA FOR INSTALLATION AND LABOR FOR STRUCTURE TYPE 2 - POST ATTACHED TO THE RAILING

IT E M	DESCRIPTION	UNIT.	QUANT ITY
1	STRUCTURE		
1.1.	CONSTRUCTION MATERIAL	PIECE	1.00
1.2.	OUTDOOR CABINET (PROTECTION)	PIECE	1.00













1.3.	2" H°G° PIPE	PIECE	3.00
1.4.	3" H°G° PIPE	PIECE	1.00
1.5.	SECURING STRAPS	PIECE	6.00
1.6.	SCREW BOLTS	PIECE	12.00
1.7.	STRUCTURE ASSEMBLY	PIECE	1.00
1.8.	TRANSPORT OF MATERIAL (VAN)	DAY	4.00

The specified station type is slated for installation at four hydrological stations (El Porvenir, El Sena, Peña Amarilla, and Abapó). Consequently, the site cost for each station in the mentioned localities will be applicable.