



MCA-N # CB-2008-02

90 Irrigation Systems for Tonalá, Chinandega

Addendum No. 1 to Bidding Document

León, Nicaragua
May 23rd, 2008.

According to Clause 8. “Amendment of Bidding Documents”, Sub-Clause 8.1 which states that “At any time prior to the deadline for submission of Bids, MCA-Nicaragua may amend the Bidding Documents by issuing an addendum in writing, by email or fax.”, MCA-Nicaragua communicates the amendment of Bidding Documents for the process MCA-N # CB-2008-02 “90 Irrigation Systems for Tonala, Chinandega”, through the content of the attached Addendum No. 1 and according to paragraph 8.2 of the same Clause 8 “Any addendum issued shall be part of the Bidding Documents”, therefore Bidders shall consider this Addendum No. 1 as mandatory and take it into consideration in the submission of their Bids.

1. The following chart substitutes the chart contained in **Paragraph 1. “Fulfillment of technical specifications...”** of “**Section III. Evaluation and Qualification Criteria**”:

ITEM N°	DESCRIPTION / PARAMETERS	QTY	OFFERED	FULFILL YES / NO
1.	Fixed mini-aspersion irrigation for the cultivation of plantains.	90 (ninety)		
	1. Fixed sprinkler irrigation systems (under tree) with capacity to irrigate an area of 0.70 ha. in two shifts, each of 0.35 ha. .			
	2. The deficit or maximum demand of water = 8mm/day.			
	3. Volume of flow of the sprinkler = 340 Lt/hour as a minimum.			
	4. Space between the lateral irrigation = 9 mts.			
	5. Space between the sprinkler = 10 mts.			
	6. Time of irrigation = 2 hrs / 0.35 ha. Each valve per shift.			
	7. Frequency of irrigation = 1 day.			
	8. Volume flow of the pump = 26.25 m ³ /hour.			
	9. Total dynamic charge = 40 mca.			
	10. Horsepower of the pumping equipment: 10.0 hp.			
	11. Centrifugal pump (diesel) with a capacity to irrigate up to 2.0 ha. Suction hose pipe of up to 8 mts long with filter and check valve in the hose pipe.			
	12. In the irrigation system: a. The filter to be installed in each			

ITEM N°	DESCRIPTION / PARAMETERS	QTY	OFFERED	FULFILL YES / NO
	<p>plot of land should be of a 75 mm (or the equivalent to 3 inches) diameter.</p> <p>b. The maximum volume of flow to filter = 25m³/hour.</p> <p>c. The maximum pressure = 10 bar.</p> <p>d. The area to filter = 465 cm².</p>			
	13. The main pipes should be of PVC, with a 75 mm (or the equivalent to 3 inches) diameter SDR 41. With washing stopper.			
	14. The manifold pipes should be of PVC with a 38.1 mm (or the equivalent to inches) diameter SDR 41. a. The main and manifold pipes should be buried at 0.7 m. deep.			
	15. The lateral irrigation should be 12.5 mm (or the equivalent to half an inch) SDR 13.5 buried at 0.3 m deep.			
	16. The control valve shall have a nominal diameter of 37.5 mm (or the equivalent to inches), located according to the design.			
	17. The air valves shall be of a kinetic anti-vacuum type of 50 mm (equivalent to inches) placed in each irrigation valve.			
	18. Metallic bronze valve. Galvanized iron discharge of 75 mm (or equivalent to 3 inches)			
	19. The sprinklers shall have a volume flow of 340 Lt/hour at a working pressure of 35 PSI.			
	20. Plastic impact or hammer sprinklers.			
	21. The distribution design of the sprinklers shall be according to the frame of the producers' plantations and they should be placed at 10 m x 9 m, thus guaranteeing 78 sprinklers per system.			
	22. Glycerin gauge to check pressure (2), one at the discharge of the pump and the other at the exit of the filter.			
	23. One (1) metallic gate valve should be installed in the line (to facilitate the			

ITEM N°	DESCRIPTION / PARAMETERS	QTY	OFFERED	FULFILL YES / NO
	priming of the pump).			
	24. Install a rapid coupling at the point between the suction hose pipe and the pump.			
	25. The discharge shall be in galvanized 75 mm (or the equivalent to 3 inches) iron (HoGo).			
	26. The system should have a “Venturi” to facilitate the application of liquid fertilizer (ferti-irrigation).			
	27. The system shall have check and drawer valves.			
	28. All of the accessories of the system should be included for the installation, such as valves, filters, pipes, PVC accessories, etc.			
	29. Once the system is installed, a performance test of the irrigation system would be carried out and farmers/users shall be trained on the use and handling of the irrigation system in order to be considered as duly delivered, installed and functioning.			
	30. The Bidder shall be in charge of the field design, installation and location of the ditches that are going to be excavated by the farmer.			

Note: MCA-Nicaragua through its Agriculture Cluster Operator will coordinate and oversee that the farmers comply with the excavation, so as not to incur in delays.