



CONSTRUCTORA VARGAS NICARAGUA

Building Inspection Rancho Santana – Rivas Nicaragua

Client: Brooks Wilson
Evaluator: Jimmy Ricardo Vargas
Date : Friday, June 24 - 2016

CONTENT

General datas of the evaluator _ _ _ _ _	02
Objective of the inspection _ _ _ _ _	02
Performed activities _ _ _ _ _	03
Type of materials used in the current construction _ _ _ _ _	03
Justification of the roof total replacement _ _ _ _ _	03-06
Proposal to replace the current roof _ _ _ _ _	07
Activities calendar _ _ _ _ _	07
Budget included, inspection, budget, materials and labor _ _ _ _ _	08-10

Brief description of the builder



Jimmy Ricardo Vargas, Nicaraguan, 34 years old, civil engineer and consultant. Post graduate degree in design and evaluation of projects, specialist in housing and building construction. This includes supervising, budgeting, design, inspection, and housing consultation. With more than ten years' experience with NGOs, Private Sector, Government Institutions, and Cooperation Agencies.

Last Experiences Building inspection in Rancho Santana, Gail Geerling's house, proposal to do one total replacement roof, the job is being executed from June 21 to July 10. Change of zinc panels, old tiles, replacement of one part of the wall, sealing window frames and damaged gypsum panels of the ceiling.

Septic Tank construction and design in Malpaisillo Leon, included one treatment system of residual waters, purification filter and distribution system to use the water for agricultural activities

Design of new annexes for some properties located in San Juan del Sur Nicaragua, one little office in playa remanso and one wood deck beside the pool of one property in San Juan del Sur town.

Building Inspection in Apartments: Colinas de Miramar San Juan del Sur, Client: Jean Carr, it was determined if the current construction contains the constructive technical elements of an apartment without risk of collapse, irreversible damage, short-term or destruction caused by forces of nature. Proposals to change some parts in the construction that was not built properly.

Building Inspection in playa Marsella, Client: Karen Weiner, it was determined if the house contained the constructive technical elements of a home without risk of collapse, irreversible damage, short-term or destruction caused by forces of nature. Plan for repairs and maintenance, a calculation of life expectancy of the building, and estimated total replacement costs.

Engineer Supervisor of a project to repair and construct 50 houses for low-income housing in the municipality of Chinandega. Formation and distribution of team project, logistics, and location of construction materials. Contracts and negotiations with homeowners for physical adjustment according to materials available, works of repair or construction, working sessions with staff of the municipality of Chinandega, periodic supervision of workers, gathering data, photos, and reports.

Objective of the evaluation

Check the structure, condition and type of materials used in the current construction, home owned of Brooks Wilson, photographic survey and taking notes, propose to do one roof total replacement, to change the old bricks used in the home façade, elaboration of cover in the ceiling.

Performed Activities

- Exchange of information with the people involved to determine the required needs
- Coordination of the inspection with the client
- Inspection of the site, comments on the materials used, technical specifications of construction, damage, tests and inspections, photographic survey
- Photo editing
- Preparation of report, budget and proposals
- Delivery

Type of materials used in the construction

The materials used in the roof of the house, were corrugated and galvanized zinc panels, apparently of medium quality, with a duration of approximately of four years of use, the colonial tiles used also have four years of use and apparently are handmade tiles, very fragile and much water absorption capacity. The fachaletas or bricks used in some special places in the house have a very flat surface with little ability to adhere well to the mortar and surface wall.

Justification of the roof total replacement

The panels of corrugated and galvanized zinc werent painted or protected properly to prevent corrosion, the tiles used were colonial tiles, fixed with steel wire to hold them firmly, but are very fragile tiles that do not support the weight of the persons to perform maintenance work, the distance between tiles is very short, this causes when it rains with strong winds that the water can penetrate to the zinc surface, there is a part of the roof of the house which is flat, has no water fall, the zinc used in this part of the roof is plastic zinc, the sealant used to avoid leakage is flammable material, when subjected to high temperatures, it becomes a very flexible material, also there is another part of the house, next to the pool where the roof has no zinc, for aesthetic is possible dispense of the use of zinc, but is recommended to put other tiles to protect the wooden structure. The other problem found in the facade of the house was the collapse of some elements of fachaletas type bricks that were placed on the surface of the walls with a mortar and inappropriate procedure, this kind of current construction does not withstand high temperatures from the sun and the elements of the saline humidity which is obviously easily that penetrates the material and damage the joint.

Leak / bedroom



Leak / bedroom



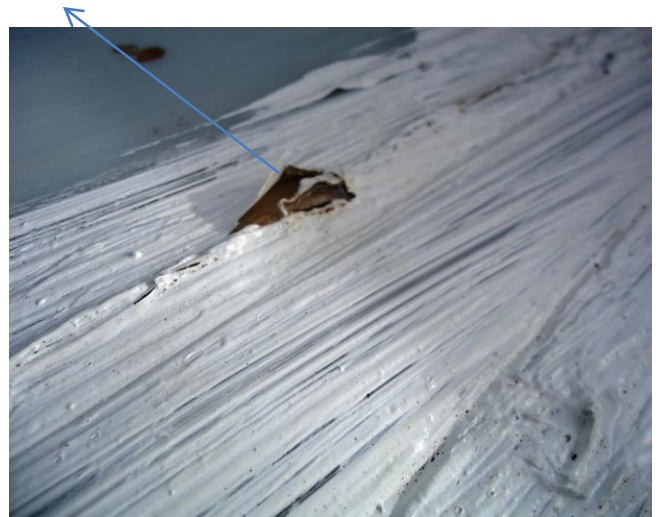
Tiles / Swimming pool



Top space / Ceiling



Damaged leak sealer



Plastic zinc



Silicon / not properly fixed



Fachaletas / fallen

Proposal to replace the current roof

The recommended work in the property is the roof total replacement, remove the tiles and zinc panels, check if the roof structure is well distributed, determine the type of material and the current condition on it, placing new zinc panels of top quality, properly painted with anticorrosive and protected with special material, placing gutters, downspouts, ridgepoles and other necessary elements to work roofs, placing new tiles with other construction characteristics, in the part of the roof where is being used plastic zinc, to give the new construction an inclination to prevent accumulation of water on the surface, also to change the plastic transparent panels by new zinc of polycarbonate material, using a sealant of long lasting and life, to replace the fachaletas on the walls and to place new fachaletas or special decorated bricks according customer preferences, ensuring the new placement of the facade elements, proper fixation and proper procedure, ensuring one larger life expectancy, to avoid that the heat and humidity can come again to destroy the joint of the elements, a new cap in the ceiling hole will be build to guarantee the future maintenance and repairs activities.

Activities Calendar (30 days)

Junio 2016						
Dom	Lun	Mar	Mié	Jue	Vie	Sáb
19	20	21	22	23 Exchange of information with the people involved to determine the required needs	24 Inspection visit	25
26 Inspection report delivery	27	28	29	30	Notes:	

Note:

The transportation will be assigned to the workers, this means that they will not be able to enter into Rancho Santana individually and / or in different times, to arrive and to leave Rancho Santana, the contratist will guarantee the transportation, food and lodging for the workers, the workers assigned to this job will have to give one police record before the first day of labors.

Once removed the old elements, the contratist will have to carry out the total cleaning up in the property will give use, reuse or total waste of the materials in permitted places. Perform cleaning area between the ceiling and roof structure before placing the new zinc panels.

Julio 2016						
Dom	Lun	Mar	Mié	Jue	Vie	Sáb
					1 Work day	2 Work day
3 Work day	4 Work day	5 Work day	6 Work day	7 Work day	8 Work day	9 Work day
10 Work day	11 Work day	12 Work day	13 Work day	14 Work day	15 Work day	16 Work day
17	18 Work day	19 Work day	20 Work day	21 Work day	22 Work day	23 Work day
24 Work day	25 Work day	26 Work day	27 Work day	28 Work day	29 Work day	30 Work day
31 Work day	Notes:					

Teja Española



- Largo 45 cm
- Ancho 30 cm
- Alto 9 cm



Spanish tiles

Painted zinc

Ceramic facade

Budget (Total replacement) 30 days

No	Descripción	Unidad de medida	Cantidad	Precio Unitario	Total
1	Zinc troquelado	Unidad	140	483	67,620.00
2	Zinc transparente	Unidad	2	400	800.00
2	Tejas	Unidad	2700	33	89,100.00
3	Cumbreras	Unidad	25	300	7,500.00
4	Cemento	Saco	25	350	8,750.00
5	Fachaletas o ladrillos	Metro cuadrado	120	500	60,000.00
6	Arena	Mts3	1	500	500.00
7	Pernos para zinc	Unidad	2000	2	4,000.00
8	Impermiabilizante de zinc	Galón	6	800	4,800.00
9	Malla	Metro	2	50	100.00
10	Silicón	Tubo	20	350	7,000.00
15	Pintura anticorrosiva	Galón	30	400	12,000.00
16	Diluyente acrílico	Litro	10	100	1,000.00
17	Brochas	Unidad	3	100	300.00
19	Pernos para tejas españolas	Unidad	2700	2	5,400.00
20	Lápiz de carpintería	Unidad	2	20	40.00
21	Crayones permanentes	Unidad	3	20	60.00
22	Disco para cortar metal	Unidad	2	200	400.00
23	Disco de concreto	Unidad	1	200	200.00
24	Zinc liso	Unidad	14	350	4,900.00
25	Clavos 2 1/2	Libra	5	25	125.00
26	Clavos 4	Libra	10	20	200.00
31	Madera	Unidad	10	200	2,000.00
32	Gypsum	Unidad	1	400	400.00
TOTAL CORDOBAS					277,195.00
TOTAL DOLARES U\$					9,794.00

LABOR COSTS U\$	3,000.00
INSPECTION VISIT AND BUDGET U\$	100.00

TOTAL NETO	12,894.00
-------------------	------------------

Atefirmante:

 Jimmy Ricardo Vargas