Needs Analysis for Preventive and Corrective Building Maintenance Services at the Suframa Representation Office Building in Boa Vista / RR.

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NETO, Alberto Antônio Tuma. Needs Analysis for Preventive and Corrective Building Maintenance
SUMMARY

The purpose of this program of needs is to support and justify the need to hire a company specialized in preventive and corrective maintenance services to ensure the preservation of the building components as well as the integrity and comfort of the crowded servers in said building. The aspects related to superstructure, hydrosanitary installations, closings, floors and coverings, frames, dishes and metals, equipment, paintings, roof and roof, impermebrialization, as well as electrical installations were analyzed. After the analysis, it was verified the need for maintenance through a specialized company, aiming at extending the useful life of the property, preserving assets, improving the aesthetics of the unit, among other benefits.

Key words: Preventive Preventive Maintenance, Corrective Building Maintenance, Superstructure, Electrical Installations.

1. Introduction

The headquarters building of the Free Trade Area of ??Boa Vista / RR, in the state of Roraima, was completed in August 2015, to replace the old building that had previously served SUFRAMA. And during all this time, two moments were alternated: the validity of a preventive and corrective maintenance contract and, currently, the absence of any maintenance service. Despite this, it is necessary to establish a preventive and corrective maintenance contract to keep the building in perfect condition and in full operation.

Whereas maintenance services are essential and of an ongoing nature. In addition, there are several factors that influence the preservation of the building, factors ranging from the natural aging of the building to the deterioration by accidents, accompanied by the growing dynamics of modernization and technological development, and considering also the needs of the users, is It is necessary to hire a specialized company to provide building maintenance services, guaranteeing the availability and performance of the building systems through repairs, maintenance, operating evaluations with constant replacement of defective components, among others, in order to protect of interruptions not foreseen in Boa Vista / RR LAC activities.

2. Development

According to IBAPE / SP - Brazilian Institute of Engineering Assessments and Expertise in São Paulo
Landslides, fires, marquis façades and façades, leaks, infiltrations and many other evils caused by carelessness with buildings can be avoided with simple, long-term preventive measures, through a planning that begins with the inspection of buildings, subsequent implementation of the maintenance plan, which guarantees the good performance of the building, the safety and comfort of its users. (IBAPE / SP - Brazilian Institute of Engineering Assessments and Expertise of São Paulo, 2005).

Situation surveys, photographic records, analyzes and measurements were carried out, aiming to group all the elements necessary for the elaboration of the Maintenance Project.

Currently the maintenance area exists so that there is no maintenance, or, the current maintenance work is being ennobled and more and more teams must be qualified and prepared to avoid failures or failures and not to correct them, that a company reaches success in the administration of the maintenance areas is
necessary that we carry out a deep maintenance of mentality and posture. (Arcuri, Cabral and Kardek, 2002).

2.1 Needs Assessment

The present study was designed only to attend to the maintenance of the physical state of the building aiming the well-being of the users and servers that work and frequent the place.

Observing the items described in Art. 12 of Law 8666/93:

1. Safety;
2. functionality and suitability to the public interest,
3. economy in execution, conservation and operation,
4. ease of execution, conservation and operation, without prejudice to the durability of the work or service,
5. adoption of Technical Standards,

The needs program was divided into three areas to systematize and understand the proposed services and actions, containing recommendations, solutions and necessary actions.

2.2 Part of the Civil Construction

The building is currently in good structural condition requiring no repairs, however, recurring maintenance is necessary due to its use and the wear caused due to the weather and the environmental characteristics to which it is available.

It should be noted that in the last technical visit carried out on 08/15/2016 it was observed the existence of infiltration points and leaks that came to damage the lining of plaster in some environments.
2.2.1 Superstructure

The building is new and presents no problems related to the structure, however it is necessary to contemplate materials for correction of problems that are the most usual in concrete works.

Recommendation: Reserve materials for correction of structural problems of small sizes, cracks and cracks, using materials such as grout, hydrated lime, sand and cement.

2.2.2 Hydrosanitary installations

Pipes in good condition, but the materials have great wear and have an easy chance of being damaged.

Recommendation: Provide materials to enable exchange in case of damages, such as: piping of various gauges, connections, logs, accessory materials, pit cleaning, disinfection and cleaning of the upper tank and artesian well.

2.2.3 Locks

The rooms and layout divisions are already suitable for the use of the building by the SUFRAMA servers, being built in half masonry with plaster plaster and plaster composed of sand and cement plus lime.
Recommendation: Due to the possibility of future adjustments and to address small repairs, the inclusion of materials: cement, sand, mortar additive, lime and wood.

2.2.4 Floors and coatings

The floors and coatings are in new condition.

Recommendation: Provide for wall, tile and floor covering, mortar, grout, sills and yards for replacement in case of damage.

2.2.5 Squares

External frames are in good condition, however, it is necessary to forecast materials to maintain the building.

Recommendation: Anticipate the necessary materials corrections such as: Gonzo, locks, glasses, metal profiles, welding and welder.

2.2.6 Crockery and metals

Dishes and metals are in a new state of repair.

Recommendation: Prognostic materials for replacement in case of damage, such as: sink faucet, sink, toilet, siphon, coupling and valves.

2.2.7 Equipment

Due to the nature of renovation and continuous inspection it is necessary to access roof and work places in height. Observe the preventive maintenance of the artesian well and the submerged pump.

Recommendation: Indicate scaffolding and PPE equipment in the budget, with due observance of current norms and laws; Provide for the possibility of recovery and exchange of the submerged pump.

2.2.8 Paintings

The building has been completely painted and is in good condition in the painting part.

Recommendation: Make a rotation of areas with touches of paint to ensure the integrity and maintenance
of the paint throughout the year, reserving materials: paint, sealant, zarcon, acrylic mass, PVA mass, plaster, brushes and brushes.

2.2.9 Roof and roof

The seat has some infiltration points caused by rain.

Recommendation: Due to the high pluviometric index of the locality, to predict: New tiles, Lumber, nails, ridge and flange.

2.2.10 Waterproofing

Wet and exposed areas are waterproofed.

Recommendations: Due to the high rainfall index of the locality, provide: asphalt blanket, waterproofing additive, flexible polymer membrane and sealing gutter and sealing compound.

The type of building planning, represented by the detailed forecast of the work methods to be implemented in the building, depends on the intended purpose, available funds and information to be correctly elaborated. (Gomide, Neto and Pujadas, 2006).

2.3 Electrical Installations

Preventive maintenance is necessary to monitor load balancing, re-establish contacts, check ground resistance, install split type appliances, check the quality of energy supplied by the utility and other activities that contribute to the electrical appliances, observing the precepts and the one recommended in NBR 5410: 2004, corrected in 2008, and NR 10 - which deals with Safety in Facilities and Services in Electricity. According to fire department statistics (2007), in the state of São Paulo, electrical installations are the second largest cause of fire.

Associated are the conditions found lack of maintenance of the basic conditions of safety and preservation, as well as recurrent maintenance, in addition to the risk of fire in the building.

All electrical wiring, switchboxes, light fixtures and power supplies have been recently installed, including the grounding loop.

Recommendation: To reserve cabling materials, boxes, luminaires, connectors and copper wire, for exchange possibility in case of damages with a short circuit in the electric network.
2.3.1 Polyphase Electric Power Input and Grounding Loop

Periodic measurements and actions of maintenance of the phases of the distribution board of electric energy as well as of the transformer, requiring periodic monitoring in the measurement and verification of the electrical contacts, avoiding the heating and bad contacts, and consequently minimizing the risk and outbreaks at the facility.

2.3.2 Lamps

Accomplishment of contracting of a specialized company of preventive and corrective maintenance, as well as the exchange of parts and equipment that can fail along the use, giving preference to the LED lamps, aiming at the saving of energy and wear of the cabling.

2.3.3 External lighting in the surroundings

To be part of the services in preventive and corrective property maintenance, aiming to guarantee the night security, preservation of the assets and patrimony of the Autarchy, and the servers and employees allocated to the Boa Vista / RR ALC.

The solutions presented for these items will contribute to a greater degree of deterioration of the electrical and electronic equipment, the safety and comfort of the servers, service providers, and for this to be observed and providing the perfect functioning of the luminaires with lamp forecast and replacement of some in case of irreversible damage, observing the precepts of NR 10 - which deals with Security in Facilities and Services in Electricity.

2.4 Mechanical Installations

The maintenance contract included the installation of the refrigeration equipment by a specialized preventive and corrective maintenance company, respecting the balance of the loads in the electric panel, as well as their maintenance during the time of use that is included in the maintenance period of the Term of reference.

The usual materials to be used in the repairs and preventive maintenance of the air conditioning unit equipment must be included in the budget.

Consideration must be given to the correct and continuous operation, as well as cleaning of the conditioners and evaporators, observing the installation recommendations contained in the Installation, Operation and Maintenance Manual and the standards pertinent to the services, including the reference
term a list of materials used in the repair of air conditioners.

2.5 Fire Fighting Installations

Fire-fighting facilities are composed of a fire hydrant located outside the building and fire extinguishers that are recharged and within the validity period.
Figure 3 - Fire extinguishers (2015)

Recommendation: Provide spare parts for damaged parts such as fire hoses, squirts, storz switches, storz adapters, quick release couplings, emergency signals, fire extinguishers, etc.
Figure 4 - Cabinet for fire hose (2015)
Conclusion

From the above descriptions, the needs of services and materials are presented, justifying the need to establish a preventive and corrective maintenance contract in the Boa Vista / RR LAC building, aiming to extend the useful life of the property, preservation of the improving the aesthetics of the unit, providing better working conditions and greater safety to employees and the public, meeting the minimum requirements contained in this program. It should be emphasized that maintenance must be performed independently of the state of conservation of the property, since its purpose is to preserve the existing structure and functionality.

It is added that the periodicity and definition of preventive and corrective maintenance should be part of the Term of Reference. The maintenance of the fire extinguishers must be counted in a budget to provide the necessary security for the proper functioning of the public office.

As mentioned in the present study, the requirements of the relevant ABNT / NBR Technical Standards were observed.

REFERENCES


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