

## 9- FINAL REPORT

---

### 8.1 OBSERVATIONS

An important remark to perform is that this building for a month is in the process of rehabilitation.

They are doing the exterior rehabilitation and conditioning of the environment around the building.

Are also removing all the exterior woodwork and changing it by PVC (like the proposal I made in intervention pathology number 2)

### 8.2 CONCLUSIONS

The main conclusions that I have drawn from this project are summarized in the following paragraphs:

The building, object of study in general has several indoor and outdoor pathologies. Many of them are the result of lack of maintenance and other construction defects, some of which arise because this building was built in 1973 so construction methods were much older now and less advanced.

Therefore the recommendation is to conduct the proposed interventions and subsequently perform proper maintenance and building state newspaper.

Not all serious damage are found. For example an important issue to treat would be receiving thermal heating the building, adding that does not comply with the regulations and the status of the main entrances to the building, including ramps and stairs. On the other hand also treat the whole issue of water drainage systems and moisture produced in parts of the facade.

In implementing the project I have put into practice the knowledge acquired over the years, for the making of a building study, diagnostic, and architectural survey constructive intervention study.

This, along with the search for information collection, the study of the building and the current regulations when making interventions and continuous progress of the project, I have acquired the necessary knowledge.

I think the goals I had originally proposed for this project I have kept almost entirely and that the effort was worth it.

### 8.3 BIBLIOGRAPHY

#### Books

BROTÓ, Encyclopedia of pathologies of the construction

CARRIÓ Monjo, J. "Pathology and intervention techniques in structural elements." Munilla-leria. 1998.

RAMIREZ WHITE, M. J. "Intervention techniques in architectural heritage". UPV. 2007.

MANUEL ROCA SUAREZ, JUAN CARRATALA FUENTES, "Sanitation, materials drain network"

#### Notes

Course notes CONSTRUCTION MATERIALS II Engineering building.

Course notes CONSTRUCTION MATERIALS III Engineering building.

Course notes CONSTRUCTION Engineering Building V.

Course notes CONSTRUCTION Engineering Building VI.

#### Regulations:

Technical Building Code (CTE) DB SE - AE Structural Safety: Basis of Calculation and Action in the Building

Technical Building Code (CTE) HS DB Health (2)

Technical Building Code (CTE) DB-HE Energy Savings (1)

Technical Building Code (CTE) DB-SUA and Safety in use accessibility

EHE 2008 Instrucción de Hormigón Estructural

ACI 364.1 R-94 - American Concrete Institute. Guide for Evaluation of Concrete Structures Prior to Rehabilitation (Reapproved 1999) (5)

BS EN 13163:2004 - Thermal insulation products for buildings - products of expanded polystyrene (EPS) products. Specifications. (4)

BS EN 13499: 2005-Thermal insulation products for the construction industry. External thermal insulation composite systems (ETICS) with polystyrene. The specificity. (6)

User ITB No. 334/2002- Jointless insulation system of external walls and Warsaw in 2002

SO 3443-6:1994 - Tolerances in building construction. Basic principles for the assessment and determination. (4)

#### Webs

<http://www.hormipresa.com/prefabricados-de-hormigon/placas-alveolares/>

<https://www.google.com/search?q=placas+alveolares&oq=placas+alveolares&aqs=chrome.0.57j0l2j60j0j62.3825j0&sourceid=chrome&ie=UTF-8>

[http://www.steelbeton.com/fija.php?id\\_pagina=3&cambia\\_idioma=&pagina=16](http://www.steelbeton.com/fija.php?id_pagina=3&cambia_idioma=&pagina=16)

[http://www.generadordeprecios.info/obra\\_nueva/Aislamientos\\_e\\_impermeabilizaciones/Impermeabilizaciones/Muros\\_en\\_contacto\\_con\\_el\\_terreno/NIM102\\_Canaleta\\_de\\_recogida\\_del\\_agua\\_filtr.html](http://www.generadordeprecios.info/obra_nueva/Aislamientos_e_impermeabilizaciones/Impermeabilizaciones/Muros_en_contacto_con_el_terreno/NIM102_Canaleta_de_recogida_del_agua_filtr.html)

#### Others

Concrete repair nad protection SOPRO (8)