

# RETHINKING THE RUIN

Redesigning based on values conveyed by locals and tourists in Faro, Portugal

---

# Values-Based Redesign Paper

Technical University of Delft,  
The Netherlands

Master Architecture  
Studio

Msc 4  
Heritage & Architecture  
Revitalizing Heritage: Faro Convention Labs

Krist Van Herck

4631641

Supervisors

Ana Pereira Roders  
Wido Quist  
Bruno Amaral de Andrade

---

---

**ABSTRACT** | This paper describes the method followed in the intervention project following the analysis of façade attributes and value in the neighborhood of Sao Francisco in Faro, Portugal. It is composed of three main parts: Research results, Intervention bases and architectonic project. Following the work described on the research (Herck, van et al. 2022), the paper aims to describe the topic of Value based redesign for heritage in architecture. As described in the previous paper, the framework for the values is set by Tarrafa and Pereira Roders (2012). These values attached to façade attributes set the tone for the intervention along with principles coming from the masterplan for Barrio Sao Francisco and a systematic intervention. Following the value analysis, the current state of the building and the damage it currently presents was mapped and compared with the value plans. The results of the overlaying of information pointed out the challenges, opportunities, and dilemmas in the ensemble. The architectonic proposal feeds from the façade analysis and portrays a system of principles that convey with local regulations, materials and values. The method can be further developed and refined with the possibility of having a broader input from research.

**Keywords** | *value-based redesign, facade attributes, intervention, tourism, São Francisco - Faro*

---

# 1. Introduction

|                         |    |
|-------------------------|----|
| 1. Introduction         | 05 |
| 2. Methodology          | 07 |
| Value plans             | 08 |
| Damage plans            | 09 |
| 3. Project              | 11 |
| Ground Floor            | 12 |
| First Floor             | 14 |
| 4. Conclusion           | 17 |
| Acknowledgements        | 18 |
| References              | 19 |
| Appendix                |    |
| Current Situation Plans |    |
| Value Plans             |    |
| Damage Plans            |    |
| COD Plans               |    |
| Red and Yellow Plans    |    |
| Sections and details    |    |



# 1. Introduction

This paper describes the method and the steps followed in the design stage of the Graduation Studio: Faro: Revitalising Heritage. The Studio had its first half during the first semester of 2022 and included work in site, the development of research methods to identify value in heritage and a research paper as a result.

From the beginning (first paper citation) the main topics around this research was the value perception differences between the local community and the touristic community which plays a particularly important role in the day-to-day life in Faro. The goal was to uncover value related to specific attributes. This is how the answer to the following question became the essence of the research. How do the attributes and values of Faro's heritage in São Francisco, Faro, conveyed by locals and tourists, set the frame for a new masterplan?

Once acknowledged and with the help of municipality specialists and the scraping of social media data manually, the main tool of the research which in this case was a card game was finished. The research had 2 study groups of 60 people each, with the evident circumstance that the first group was local and the second foreign. Once the data was gathered, the analysis of the results pointed out certain group preferences that would give a hint on what people value in very rough terms.

These values, derived from Tarrafa and Pereira (2012) attached to facade attributes in the neighborhood of São Francisco, provide a deeper overview on how the neighborhood could develop forwards. Crossing the information from attributes and values enable the translation of the results into design guidelines.

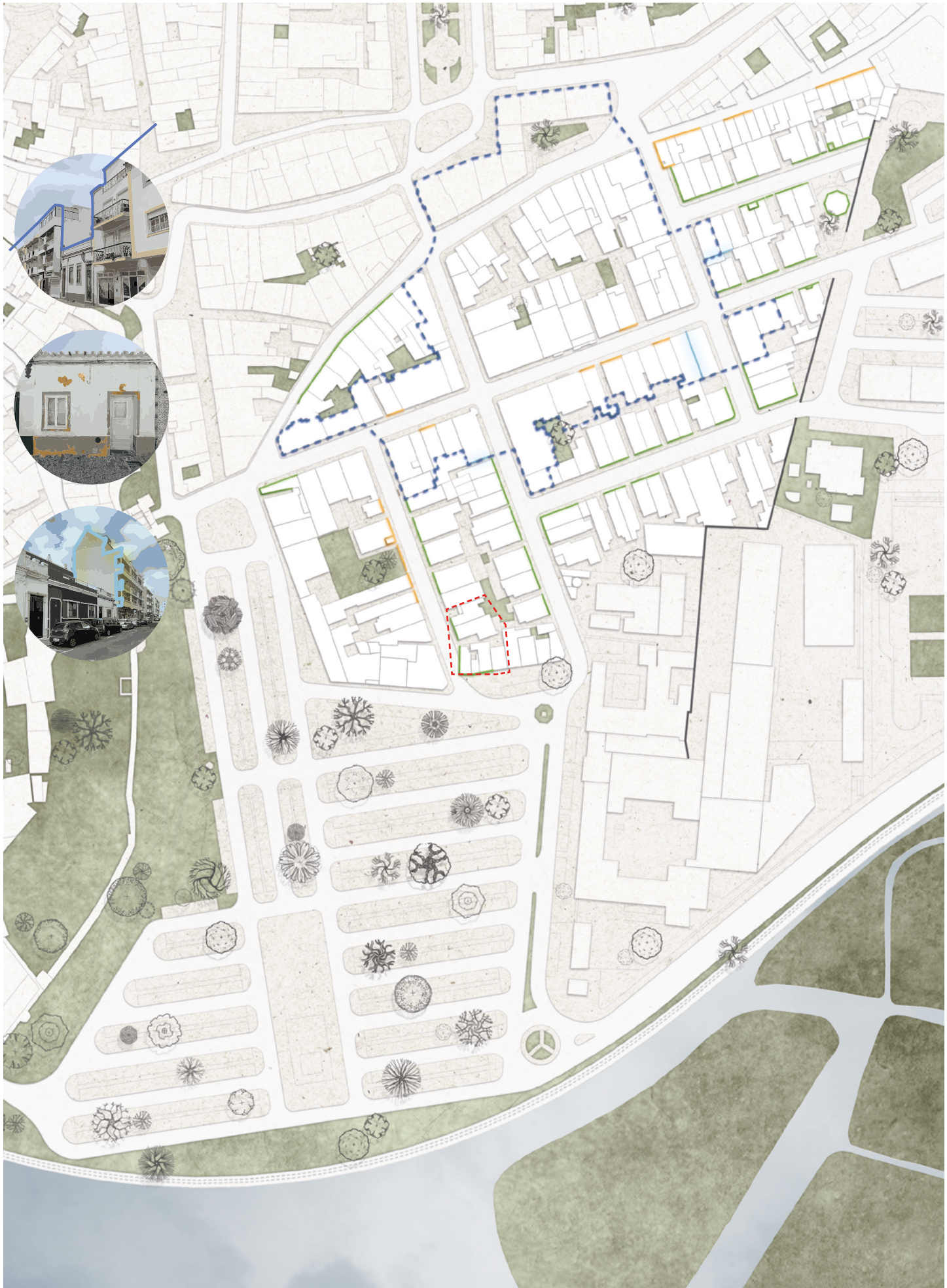
After the acknowledgement of the guidelines that support the masterplan and the potential plot. The state of conservation of it challenges the intervention not to be superficial. It brings to the table an array of considerations that range from mandatory regulations to the main goal which is revitalizing heritage. Through the description of this method the main concept of developing a ruin, starts with its definition. The ruin in this case refers to the terms defined by architect Bob Van Reeth. He describes it as the importance of

designing buildings for an unknown future. Bob Van Reeth Citation

“In a time of rapid demographic change and constant innovation in domestic and working environments, a truly holistic way of addressing sustainability considers buildings as a series of layers, each with their specific temporal dimension: the structure and urban elements should be built to last for several centuries, while the lifespan of installations, internal layouts and finishes is necessarily much shorter. “

The project must explore a way of coexistence of past and present, while being cheap, sensitive to the past, the regulations and furthermore the requirements of environmental topics. The process shall include the necessary feed from analogues, reinterpreting in some cases strategies, and in some cases deliberately adapting them to experiment. The technical experimental part faces the challenge of local vernacular elements against an intervention that must improve its conditions with inventiveness. To respond to the conditions that future might bring.

São Francisco was chosen because this neighbourhood is facing patterns of fast urbanization, is close to the city center and is also included in an urban rehabilitation area proposed by the municipality of Faro (figure 0). This neighborhood contains a number of buildings with historic value of which some are vacant and is therefore the perfect area to conduct this research and serve as an example.



The Masterplan

- highrise area
- Potential
- Conserve
- Opportunity for street art

Figure 0 20



## 2. Methodology

This method aims to expand on the design process post research. The process consists of steps or principles which could be applied to other cases by modifying some of the variables.

In this scenario the site is formed by 5 different plots in the Sao Francisco neighborhood in Faro, Portugal Figure 1. Each one of these plots has specific circumstances which the design process will tackle by systematizing intervention.



Figure 1

The intervention shall be inversely proportional to the damage it has suffered. This means that if a building is barely standing, the intervention will be deeper and more evident. In the opposite case, if the building is in decent shape, then the intervention must be minimal. Figure 2

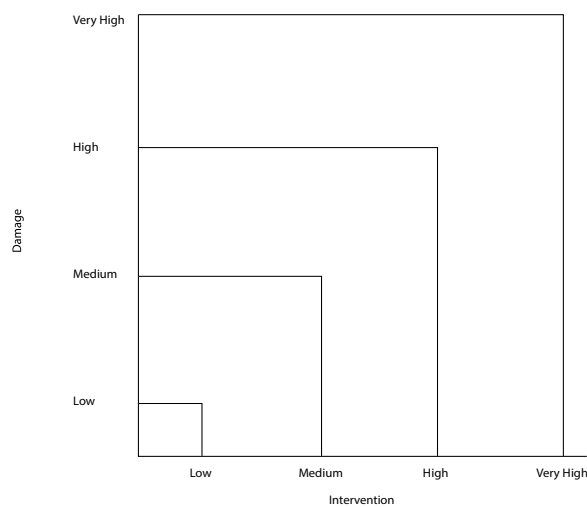


Figure 2

Depending on the damage assessment, the necessary spaces that entail the intervention will have a different materiality to contrast against the original materials. The contrast in this case seeks to frame and highlight the previous layer of the buildings and its main attributes. Figure 3

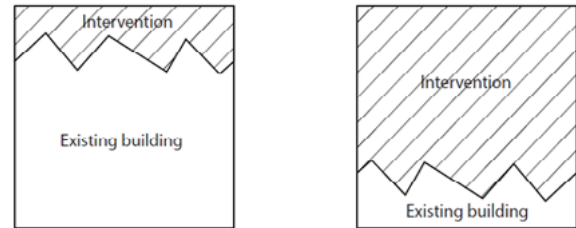


Figure 3

In order to have a clear overview of the situation the project will engage in, the need for a guiding tool that analyzes both value from research and the damage it has sustained, my approach is to have a Challenge-Opportunity and Dilemma Plan. The COD plans are a result of the summarization of the value plans and the damage plans.

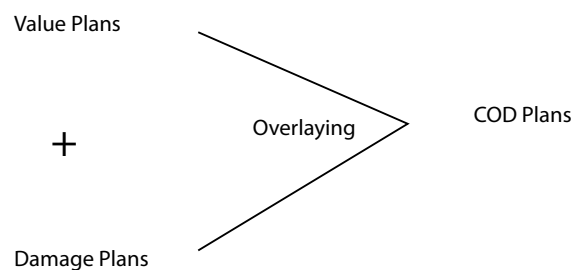


Figure 4

## Value Plans

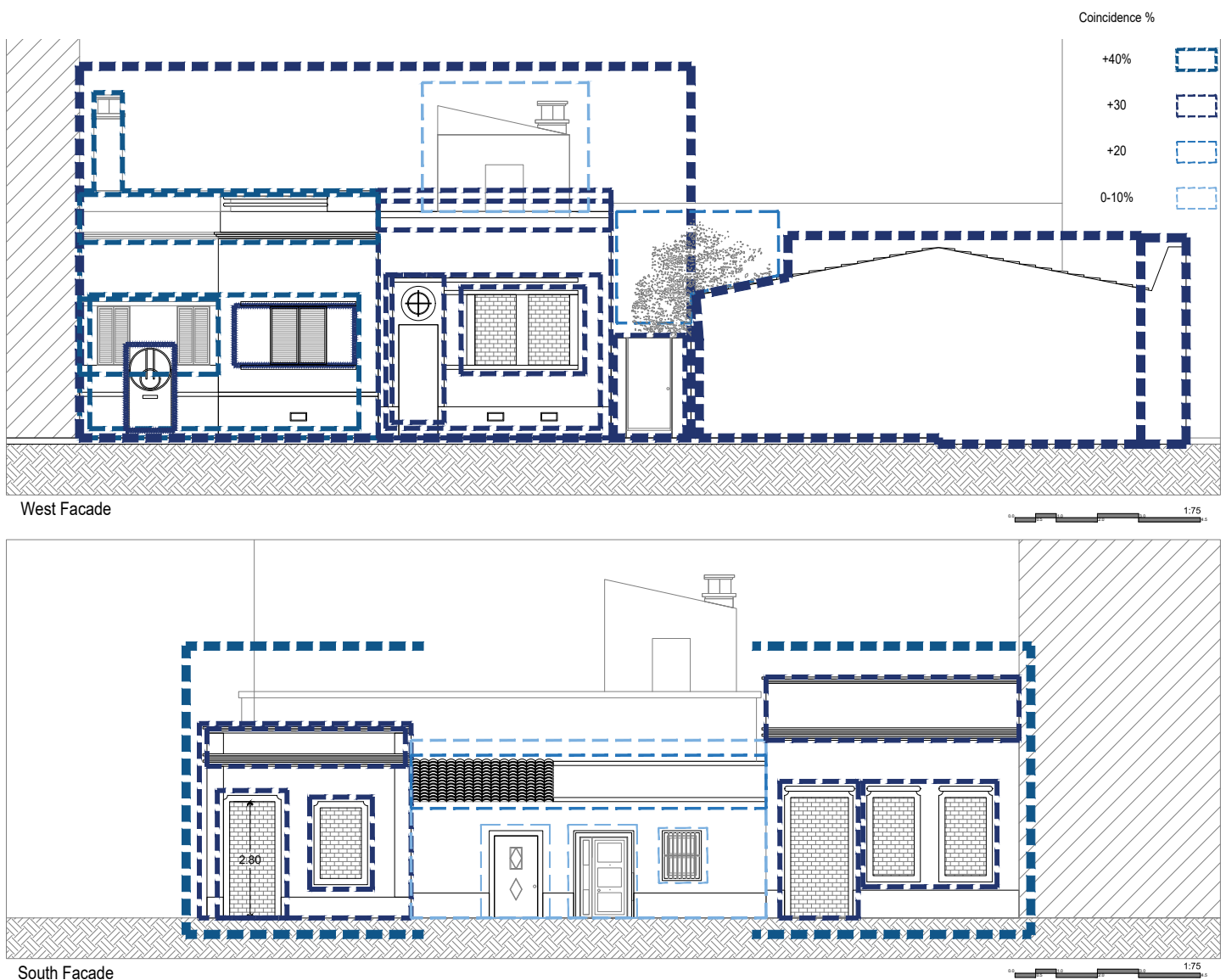
The value plans are a direct implementation of the results from research (first paper citation) graphically explained in façade drawings of the site. The attributes from the facades in site can be matched to the results from research following a complementary step to make the data graphic.

Each one of the five facades share at least 2 attributes from the set of 30 researched. This match entails a set of results in value that was described in the previous chapter. The attribute results converge with the attributes in the current facade to point out the specific value and the coincidence. The coincidence refers to how high on the value-result chart it scored.

To summarize into a graphical plan these coincidences, the attributes are outlined with wide dotted lines in blue. The thickness and the shade of the line depends on the coincidence with the results, the thicker and darker the line, the higher the value it entails. In all cases, values are more than one, but they all have at least one in common. The values match into the attributes in place.

To differentiate the value recorded from the two communities researched (locals and tourists), the plan shows each community's value score in pink for the tourists and blue for the locals. According to this color-coded plans the tolerance for change will be set for each attribute

An example of for the local set of results. Figure 5



## Damage Plans

The Damage Plans (Figure 6) are a result of observation in site, archival research at local municipality offices, pictures, and GIS plans provided also by the municipality of Faro. These plans are based on the research done by Kuipers, M., & de Jonge, W. (2017). In their thesis “Designing from Heritage Strategies for Conservation and Conversion”, they describe the methodology used in practice in the Netherlands as follows:

“Whatever the type of heritage building, and the goal of treatment (repair, conservation, restoration or reuse) will be, the investigations have to result in a purposefully illustrated report with a synthesis of the findings. It must be visualized in an objective manner to indicate the main phases of the construction history and the still visible features that are relevant to the heritage character.” COD plans (scheme)

By setting strict parameters based on the sources previously mentioned a scale of damage is set. These plans differ in color code from the value plans to make the overlaying easier.

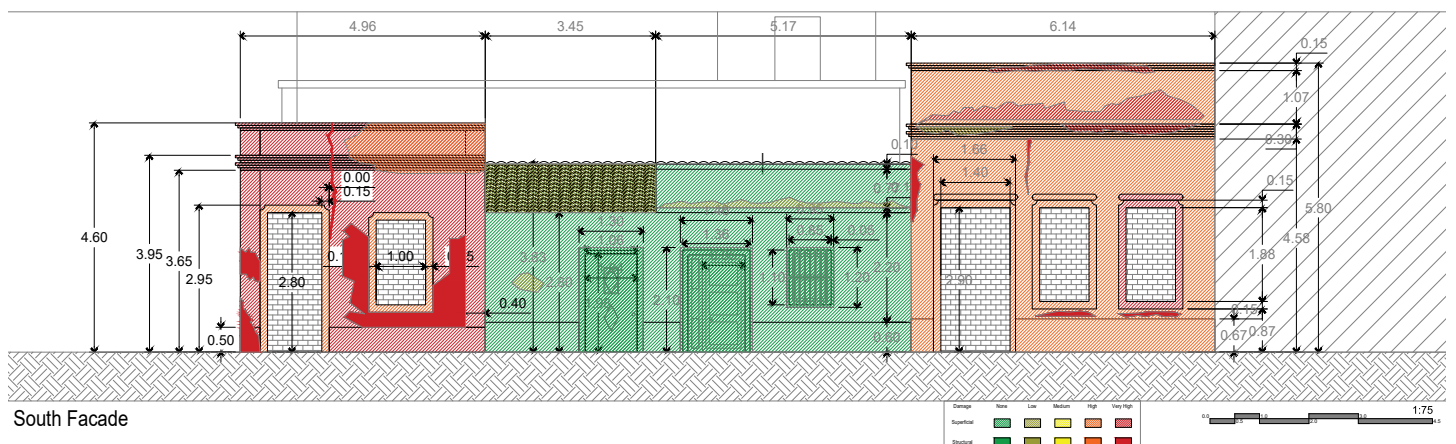


Figure 6



## Overlaying of plans

The COD plans (Challenges, Opportunities and Dilemmas) are the result of different layers of information that show the overview on what needs to be decided. The categorization into three main themes: Challenges (red), Opportunities (green) and Dilemmas (yellow). Aims to point out the beginning of any experimental intervention.

It supports the decisions based not only on research on site, but on the current Regulations in place (RGEU). These regulations are not only mandatory for the accountability of the process, but they also bring another set of challenges that in different ways must be met along the project through detailing and Building Technology of the project.



Figure 7

### 3. Project

Once described every part of the method, the following scheme (Figure 9) describes the process and implementation of the strategies previously described. The project summarizes the intentions and the approach taking a position derived from the design guidelines pointed out by the COD plans. The description per plot follows a numerical order. Always starting with plot 1 and 2 located in the north.

#### Plot 1 – 2 Twin Single Family Houses

Due to the clear focus of the research values, the façades are the defining part of the consequent design, these design guidelines are complemented by the damage analysis and the current regulations in the RGEU.

Being a typology that shares the central load-bearing wall. The intervention is also seen as a single element divided into two. Lot 1 is currently inhabited and in use, Lot 2 is abandoned.

According to the current state of both buildings (see damage plan), plot 2 presents slightly more considerable damage than plot 1 due to its state of neglect and the consequent lack of maintenance. The intervention aims to optimize the current state of both façades.

Regarding the potential extension area (COD plans), the idea is that the space is a flexible functional extension. In addition to maintaining the intervention behind the protagonist. A functional intervention for the future of heritage.

With this objective, a platform that complements the program of the original house without directly

touching the facade of the building at the pedestrian level. The footprint of the intervention starts from the line of sight of a pedestrian on the other side of the street. The platform is raised with the intention of lightly touching the current building and helping in its conservation.

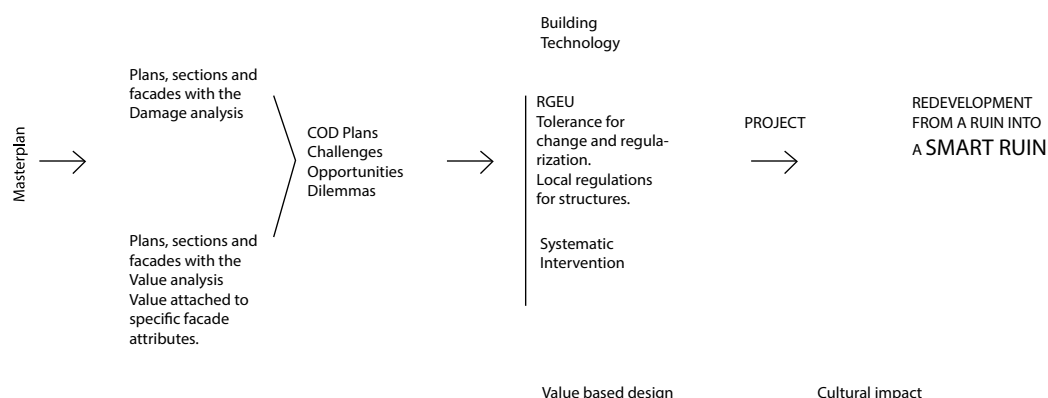
This platform is planted at a height of 50 cm above the current slab level, it is supported by a concrete skeleton that in turn is supported at 4 points in each lot. These points will be reinforced from their foundations and linked together at a minimum depth of one meter. The concrete skeleton and does not change the current configuration of the program of each house.

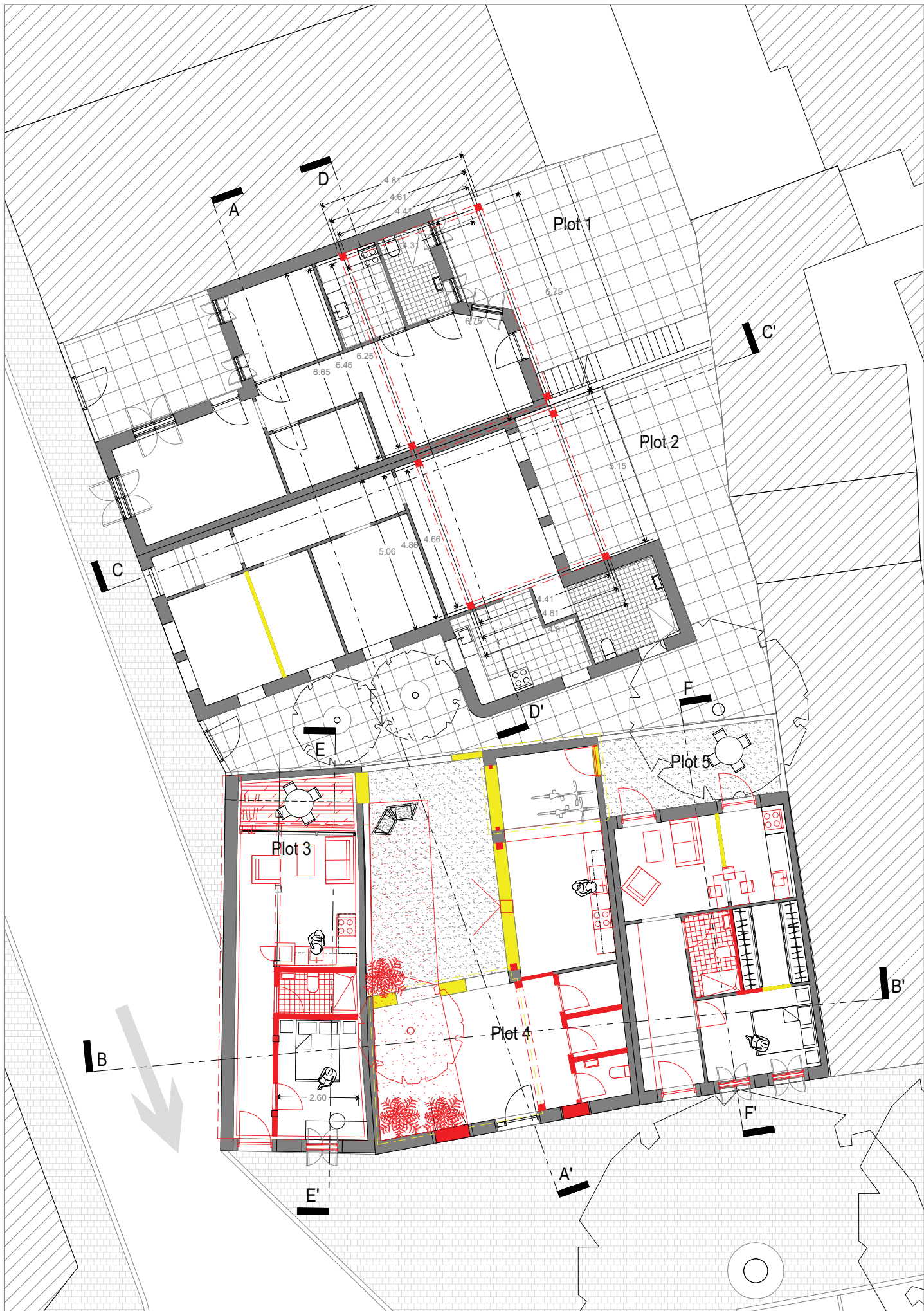
On the new concrete platform, a wooden structure anchored with ironwork to the slab seeks to lighten the total load of the extension. The fixture includes a full bathroom. This bathroom has a drain that connects to the current fixtures.

The climatic criterion requires the treatment of sunlight by means of a shade mesh and a 2-meter canopy on the Southwest facades. The canopy is enough to provide shade within the extension. The shades provide shade in the outer space of the platform. Cross ventilation along the platform ensures natural regulation of high summer temperatures.

The use of common sections of wood, total thermal insulation and its correct treatment is crucial in an environment close to the sea.

The patio of plot 2 connects with the communal patio.





Black Red and Yellow Plan 1:75 Ground Floor



Figure 9



### **Plot 3 Short stay housing**

The Plot 3 presents characteristics that make it the involuntary icon of this ensemble. This is the example for a short stay home focused on tourism that is not detrimental to Faro's current situation De Jesus (2012). The location in a narrow corner, the facade elements and their value within the analysis, the dimensions available within the walls, the absence of a roof, among others. This series of characteristics force us to experiment within the established design guidelines that seek the contrast between the new intervention, highlight the attributes with higher values, and provide a functional space to inhabit.

The façade, being the protagonist of the intervention, requires a new door and window in natural wood for the window frames and dark green for the shutters. The new platform within the walls rises half a meter above the sidewalk level, and is detached 10 cm from the perimeter walls. The foundation is a concrete box at a depth of 60 cm with an axis in the center for the columns.

In addition to this, it is important to emphasize that the intervention on the inside contemplates keeping the state of the walls intact. The new roof therefore responds to the need to protect the wall and the future house. The structure of this roof is planted in 5 double wooden columns along a central axis. Each column supports a wooden frame that supports the different layers of the roof.

The trusses are reconnected to the columns above deck level by means of turnbuckles. The 5 frames and columns are joined longitudinally by wooden beams. The program within the structure includes a kitchen, a complete bathroom, living room,

dining room, patio and a bedroom for two people. The services are concentrated in a central nucleus. Box in a Box.

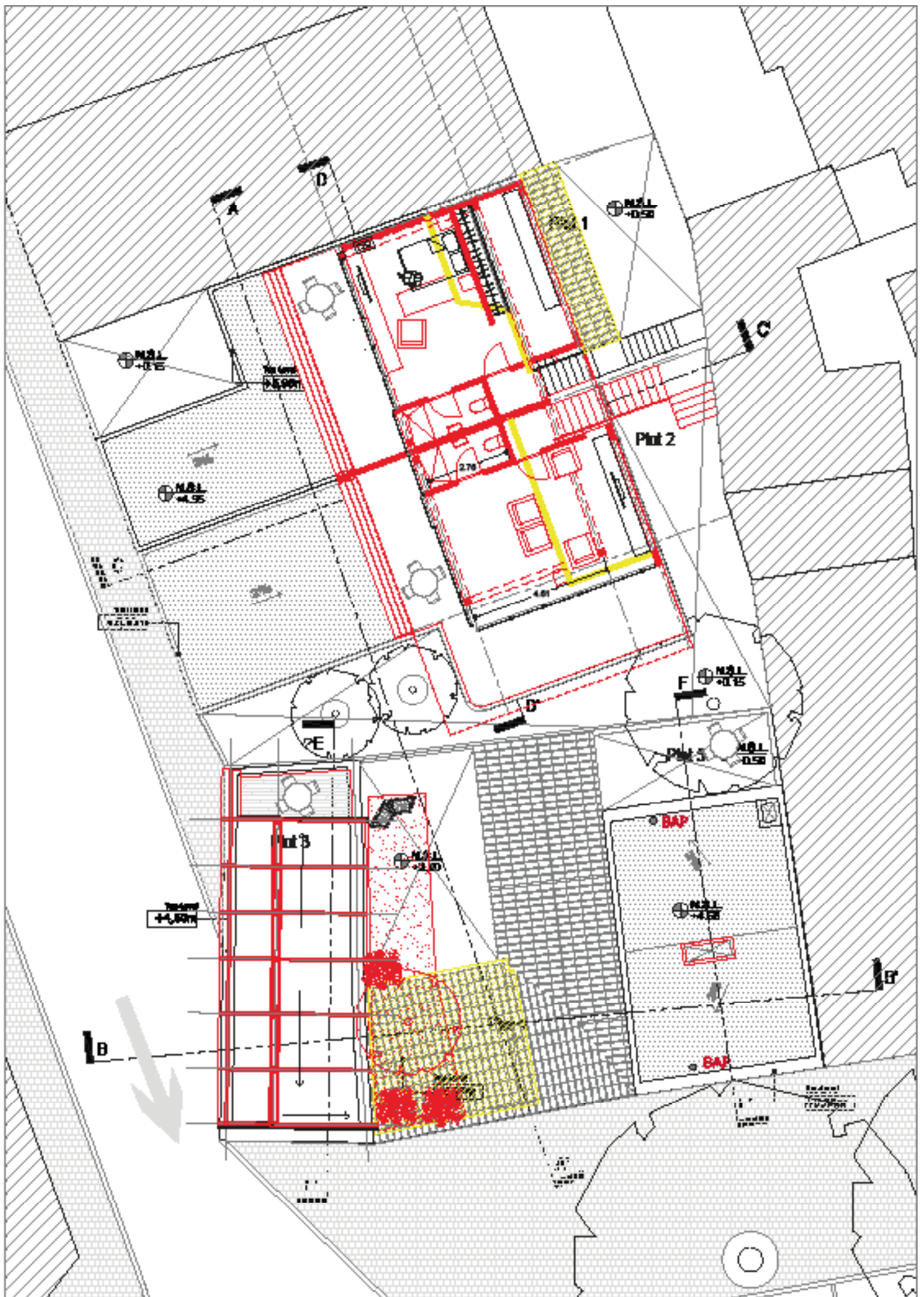
The patio of the house connects with the communal patio described below.

### **Plot 4 Communal Courtyard**

From the analysis of the COD plans, the great dilemma represented by lot 4 within the complex is evident. Some of its characteristics suggest that the building is not part of any original typology. In summary, its attributes do not match the attributes of the neighborhood typologies, the heights do not meet the basic regulations of the RGEU and its position between two highly valued buildings make it an opportunity to enhance the habitability for the residents.

This implies that the decision on the intervention of lot 4 is for the benefit of the whole ensemble. A sacrifice for the greater good. This building would in any case provide its materials for reusing in the new layout. The program for this space will support the adjacent houses. Therefore, the spaces will be warehouses, a half bathroom, bicycle parking, barbecue, kitchen, communal room and garden. The garden responds to the absence and consequent need for vegetation to refresh the environment of this space.

In summary, plot 4 seeks to articulate the ensemble with an open space, for coexistence and complementary to the houses, in addition to being part of common life, it is a utilitarian and cohesive element.



Black Red and Yellow Plan 1:75 First Floor



Figure 10

Following the parameters established in the previous interventions, the objective is a minimal intervention that provides the building with the necessary qualities for its habitability. The intervention seeks to respect the original scheme of the house that continues to be efficient with the modernization of its services. As in the case of Plot 3, the façade requires new doors and windows in natural wood for the window frames and dark green for the shutters. In addition to this, internal insulation is not necessary due to the thermal mass of the perimeter walls. Figure 11.

15

## Climate design and energy

The four interventions respond to the warm climate of Faro with vernacular techniques and materials that outperform the intervention in the aspect of climatic design. To optimize this behavior, the insulation of the walls will be improved to make the most of their thermal mass. This, together with the ventilation that crosses the building from north to south, seeks the passivity of the system as a whole.

Regarding the average energy consumption of a house. According to the National Statistics Institute in Portugal (INE, 2020), the average daily consumption in a Portuguese single family home is 9 kWh, at a cost of 1.35 euros/day. This is equivalent to an average electricity cost of 270 kWh per month and about 3,272 kWh per year.

Regarding the number of panels, Faro is a privileged place for the use of this type of energy.

For example, in the province of Malaga the value of the average energy that affects throughout the year is 1700 kWh per m<sup>2</sup>, while in the province

of Lugo it is 1270 kWh per m<sup>2</sup>. Thus, in Lugo we would need between 1 and 3 additional modules to obtain the same energy as in Malaga. For Faro 1800 kWh / m<sup>2</sup>

Therefore, we can deduce that 6 panels cover the consumption of an average home. 8 are recommended to compensate for pitch and location issues.

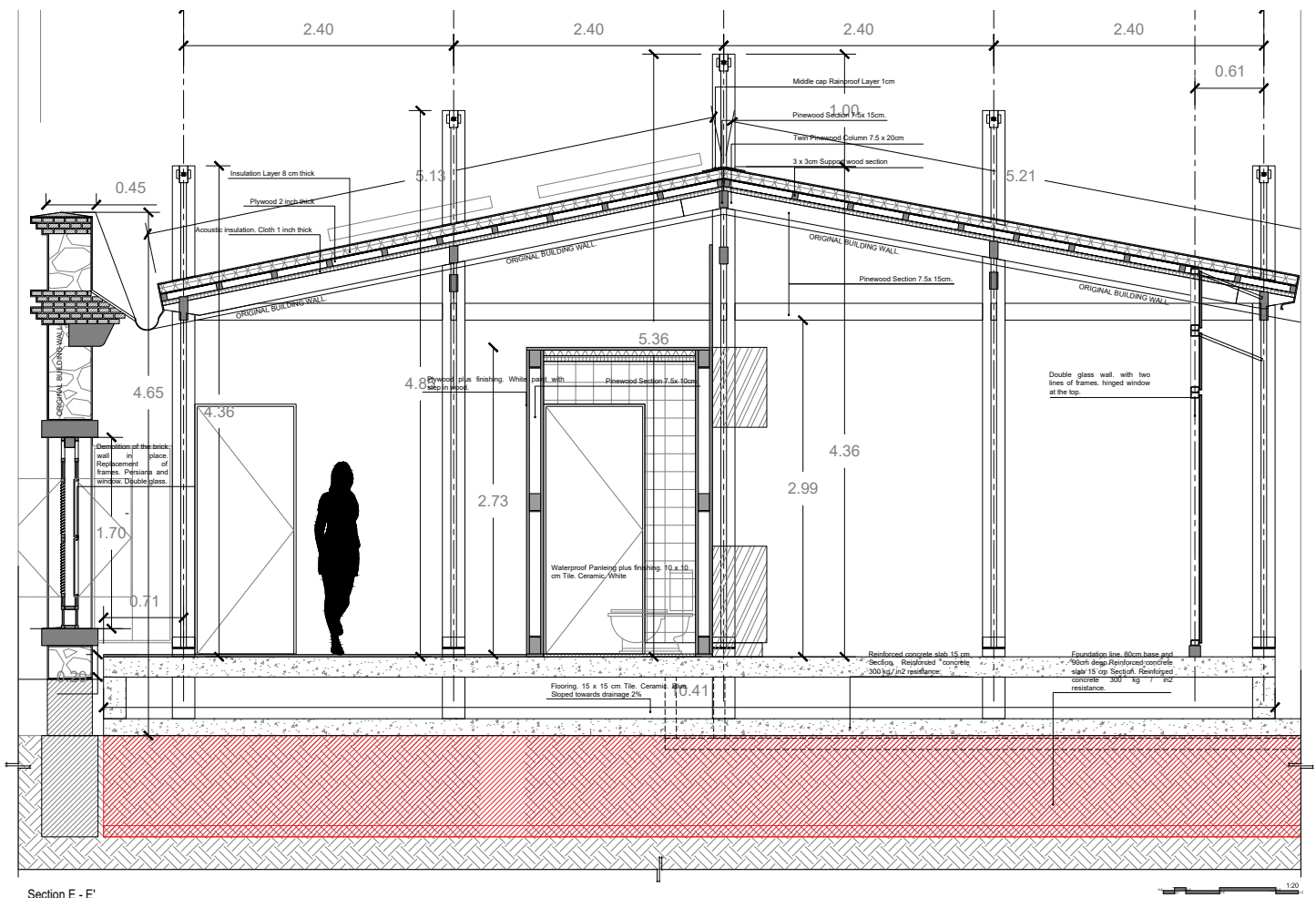


Figure 11

## 4. Conclusion

The intervention derived from the valuation of the attributes of the facades challenges us to think about an intervention in different terms. These attributes are valued with different magnifying glasses that point to certain collective criteria on heritage.

In a context like the one that Faro faces in the future, it is necessary to make decisions based on evidence. This evidence, which was previously reserved for experts and academia, can be more inclusive and therefore cover more aspects and be enriched in the process. The plurality gives strength to the arguments and builds a clearer idea for the design guides.

Although this process depends on individuals, a system that takes into account more opinions is closer to the majority. Based on this valuable information, limits are drawn that respect the voice of the collective and respond to common sense.

This is the search for a systematization of parameters applicable to the cases studied and that, with adjustments, adapts to different conditions. These parameters defined the intervention in each case, always seeking contrast, the minimum footprint and the highest possible reward.

Each plot responds to housing but different types of housing to adapt to different needs. The houses of plots 1 and 2 with a larger area can be single-family houses for local inhabitants comfortably.

The case of plot 3 due to its prominence in the corner and the complex seeks to be the house that responds to the other half of the investigation; tourists. Therefore this case will be for a short stay, so popular in Faro and that would be a different experience due to its proximity to the city center and the fact of being able to live in a typical Farense house with all the comforts of today.

Plot 4 is the articulator of the complex, providing exterior complements to the program of plots 1, 2 and 3. It also takes a step back on the façade to

portray the two original façades of the complex. Plot 5 contemplates a house for couples. Although it is the smallest of the interventions in terms of volume, it retains most of its walls intact and services are optimized.

The intervention seeks to form part of the resistance against apartment buildings, promoting the reuse of revitalized typical typologies. The adaptation of these houses demonstrates the potential of two typologies that are highly appreciated by locals and tourists alike.

## **Acknowledgements**

First we thank the Technical University of Delft's tutors of the master studio: Revitalizing Heritage, for which this research was conducted: Ana Pereira Roders, Wido Quist and Bruno Andrade.

I thank the staff from the Municipality of Faro for their support during the fieldwork period. In particular Patricia Malobbia , Ana Teresa and Ana Tarrafa who helped us crucially in Faro and shared their city with us.

## References

De Jesus, Silvia, 2012. "Tourism in the territory and territorial planning. Case study: The municipality of Faro". Mestrado em Gestão e Desenvolvimento de Destinos Turísticos. From: [https://sapientia.ualg.pt/bitstream/10400.1/3110/1/TESE\\_Final\\_SCabrita.pdf](https://sapientia.ualg.pt/bitstream/10400.1/3110/1/TESE_Final_SCabrita.pdf)

Van Herck, K., Sahin, E., Swinkels, R., Pereira Roders, A., De Andrade, B., Tarrafa Silva, A. (2022). Revealing built heritage through social media. (Unpublished)

Ginzarlya, Manal & Pereira Roders, Ana & Teller, Jacques, 2021. "Mapping historic urban landscape values through social media". *Journal of Cultural Heritage* 36 (2019) pp 1–11

Tarrafa Silva, A., & Pereira Roders, A. (2012, januari). Cultural Heritage Management and Heritage (Impact) Assessments. International Conference on Facilities Management, Cape Town, South Africa. From: [https://www.researchgate.net/publication/323783537\\_Cultural\\_Heritage\\_Management\\_and\\_Heritage\\_Impact\\_Assessments](https://www.researchgate.net/publication/323783537_Cultural_Heritage_Management_and_Heritage_Impact_Assessments)

Tarrafa Silva, A., & Pereira Roders, A. (2012, januari). Cultural Heritage Management and Heritage (Impact) Assessments. International Conference on Facilities Management, Cape Town, South Africa. From: [https://www.researchgate.net/publication/323783537\\_Cultural\\_Heritage\\_Management\\_and\\_Heritage\\_Impact\\_Assessments](https://www.researchgate.net/publication/323783537_Cultural_Heritage_Management_and_Heritage_Impact_Assessments)

Kuipers, M., & de Jonge, W. (2017). *Designing from Heritage: Strategies for Conservation and Conversion*. Delft University of Technology.

Van Reeth: colloquium :Hedendaagse architectuur in historische omgeving (APA citation required)

Clarke, N., Kuipers, M., & Stroux, S. (2019). Embedding built heritage values in architectural design education. *International Journal of Technology and Design Education*, 30 (2020), 867–883. <https://doi.org/10.1007/s10798-019-09534-4>

Yubin Luo & Luhui Qi (2019) Construction and practice of a conservation plan implementation evaluation system for historic villages, *Journal of Asian Architecture and Building Engineering*, 18:4, 351-361, DOI: 10.1080/13467581.2019.1661843