

AERIAL FARM GOVERNMENT HOUSING PROJECT
DESIGN PROPOSAL STUDY AND COST PLAN



PERSPECTIVE VIEW

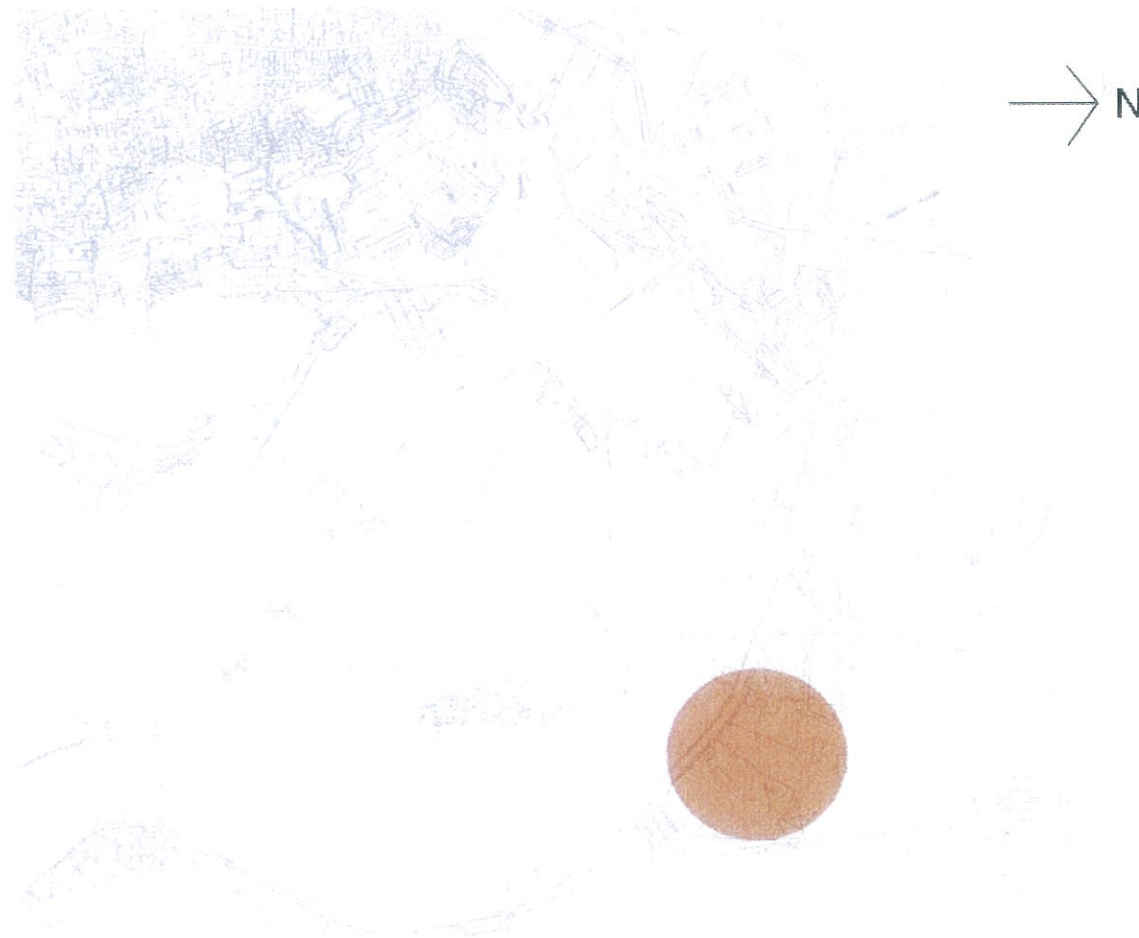
Job No. 212045

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1.0 THE BRIEF

The Government of Gibraltar asked us to prepare a feasibility study for a social housing development with parking and a swimming pool area on a site on Devils Tower Road on the north east side of Gibraltar. The structure should be approximately the same height as the recently completed Filomena House further west on Devils Tower Road. The proposal needs to be accompanied by a budget cost figure for the construction of these new facilities.



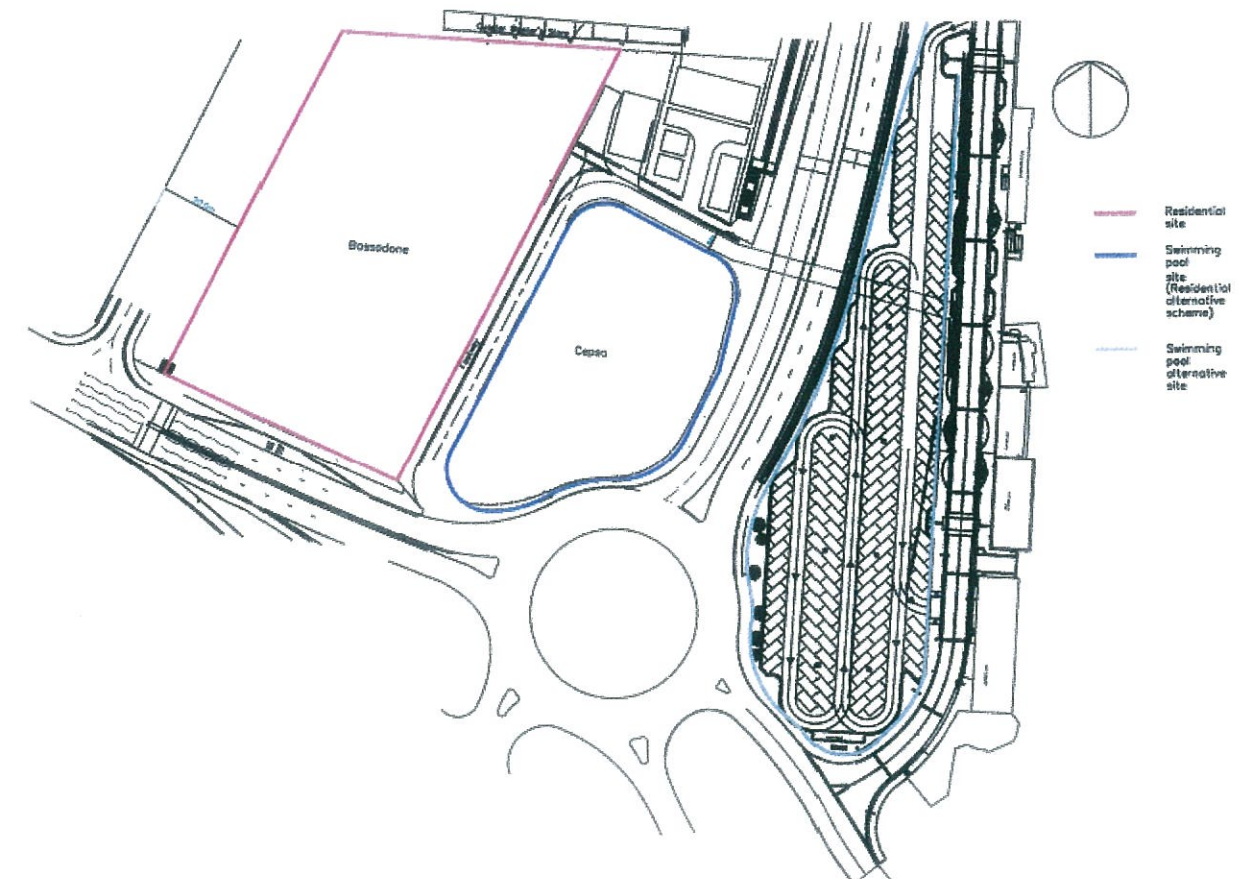
SITE LOCATION PLAN

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2.0 THE SITE

The site is situated to the north east of Gibraltar at the eastern end of Devil's Tower Road, between the airport runway, Eastern Beach and the northern face of the Rock. The site identified by the client to be developed for housing is 5937m² and the adjacent site nearer to the beach identified for a pool area is 2860m².

The rock mass to the south of the site rises up to a height of around 400m above sea level, while the site itself is only around 2.5m above sea level, so the site is often in shadow particularly during the winter months when it is in shadow typically from at least midday onwards. Devils Tower Road is a busy dual carriage way and may at some point in the future become even busier with the opening of the new airport tunnel meaning increased noise and air pollution. The site has good access to Eastern Beach and is within walking distance to the centre of Town. There are also regular buses that pass along Devils Tower Road. To the north is the airport which currently only hosts a few daily flights but which is due to host more with the opening of the new airport, and is another source of noise and air pollution. Gibraltar has two prevailing winds, one being the Levante from the east, and the other is the Poniente from the west. This site experiences both of these winds as it is not protected from the Rock so apartments at higher levels will be exposed to these elements.



SITE PLAN

3.0 DESIGN PROPOSALS

The first decision was to use the lower floors for parking which is logical for accessibility and also allows the residential part of the building to be raised above the level of Devils Tower Road which will create slightly less of a shadow over the building from the Rock to the south and also lift the residential areas up above the level of the noisy traffic circulation below.

We then looked at various block models to look at their massing and to see how they would be affected by the shadow from the Rock which led us to the conclusion that two individual towers in a splayed east west orientation would give the most amount of natural sunlight to the residents, and because of the distance between the two towers, the southern tower should not have more than approximately 12 levels. Having a space between the two towers allows more daylight to reach the facades that face each other, and the splayed arrangement enhances this as well as avoiding apartments facing each other directly. The towers are set back from the edge of the car park podium below to avoid an overly oppressive aspect at street level and to create usable terrace space at for the ground floor residents. The intention is to retain a buffer zone of private terrace space at the base of each tower to eliminate these areas from any communal maintenance responsibility, and to ensure that residents' privacy is respected. The remaining podium areas can be used to house plant, communal recreation areas, and any other communal requirements.

