



D.M.Orfila Associates
CHARTERED ARCHITECTS

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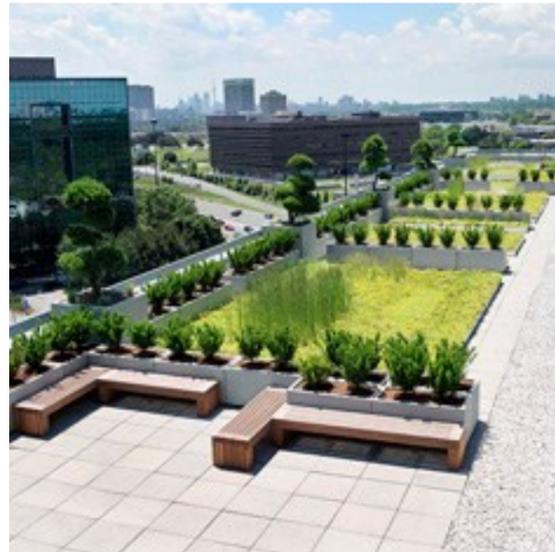
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In association with:



BISHOP FITZGERALD, GIBRALTAR - FEASIBILITY STUDY

- Introduction
- Design Brief
- Site Analysis:
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 - Environmental Considerations
 - Traffic & Pedestrian Circulation
 - Surrounding Building Height Study
 - Technical Considerations
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- Area Schedule
- Sustainability
- Recommendations and Conclusion



PRECEDENTS OF
RAISED GARDEN TERRACES

INTRODUCTION:

Thankfully people in general are living longer than ever before and over the last century, average life expectancy has increased by thirty years. This trend is set to continue and hopefully we too shall form part of the older population of our community. It is therefore important that we prevent social exclusion in later life and build a society for all ages.

Improving the quality of older people's lives should be a top priority for any modern society. As a result it is important that we build a society that meets their needs within this fast changing community.

As we are aware, many of the senior citizens in Gibraltar do not want to move from their familiar surroundings and prefer to stay in their family homes for as long as possible. This of course creates significant under-occupation in many houses. However if elderly people (whether they be single or couples) were given tantalising choices and opportunities to move into tailor-made residential housing that caters for their needs, many would be encouraged to make a move that would definitely enhance their present quality of life. This would free existing family homes/housing which could be used to improve the present housing stock.

On this basis the Gibraltar Government has commissioned us to carry out a design feasibility study that will address the above issues.

The Design objectives are for an 'Albert Risso House' style development that caters entirely for the senior citizens.

The development is to be situated on reclaimed land known as the Bishop Fitzgerald site. The Bishop Fitzgerald School site is an elongated site of approximately 23.5m x 58.5 m, widening slightly at its Eastern end. The site is used for car parking at present, which provision will be kept as part of the design.

Running East West the site is bounded on the South by Europort Avenue and to the North by the school playing fields. We assume at this stage that all mains services are available to and from the site.

The buildings immediately surrounding the site are generally lower level with Eurotowers and Westside rising up to 15 floors. Views from the site will be dramatic on the upper floors.

Our concept is to create a community building that provides interesting communal areas within the building for the residents at the same time as creating an architecturally interesting form which acknowledges its surroundings. As such we have created a footprint with ten flats per floor, using the same module as the Coach park site of 10m x 6m, with a central stair and lift and amenity/drying areas within the internal corners of the building adjacent to escape stairs.

Further common areas are provided by creating raised garden terraces on every second floor which will be open but protected. These will not only give outdoor space to the residents, but will create green areas on the different levels. We hope that this would also give the residents a sense of ownership of these areas and an interest in maintaining them.

The size of building and number of flats is limited, not by height, but by car parking. We have allowed for two additional floors of car parking above ground with a total of 70 spaces with up and down ramps, giving one space per flat in addition to the ground level parking provision.

Entrance to the building is either by drop off at ground level car parking or from the street lay by drop off area and direct street entrance to the lifts.

The housing project will provide the senior citizens with ongoing independence and security, as well as offering opportunities for social engagements and an active life. Their needs and preferences will be privileged, and the focus is on their concerns and lifestyle choices. Moreover, they can build their own community and still engage with the wider community on their own terms.

The design objectives should also have good amenities and infrastructure that will be unique to such a housing complex, such as a library and physiotherapy clinic as well as a gym, multi-purpose hall, advanced security systems e.g. video door phones, panic buttons, and pendant buttons to help in case of emergency.

DESIGN BRIEF

The project is to accommodate a minimum of 70 apartments within the Bishop Fitzgerald site comprising of one Bedroom units together with the additional facilities that are provided from community halls, office wardens, catering facilities etc.

In addition, the project is to accommodate a podium level a 'Respite' facility where patients/users can be dropped off in the mornings by their relatives and picked up at the end of the working day.

The study is to be presented on an A3 document and in PDF electronic format on a CD with the following items addressed:

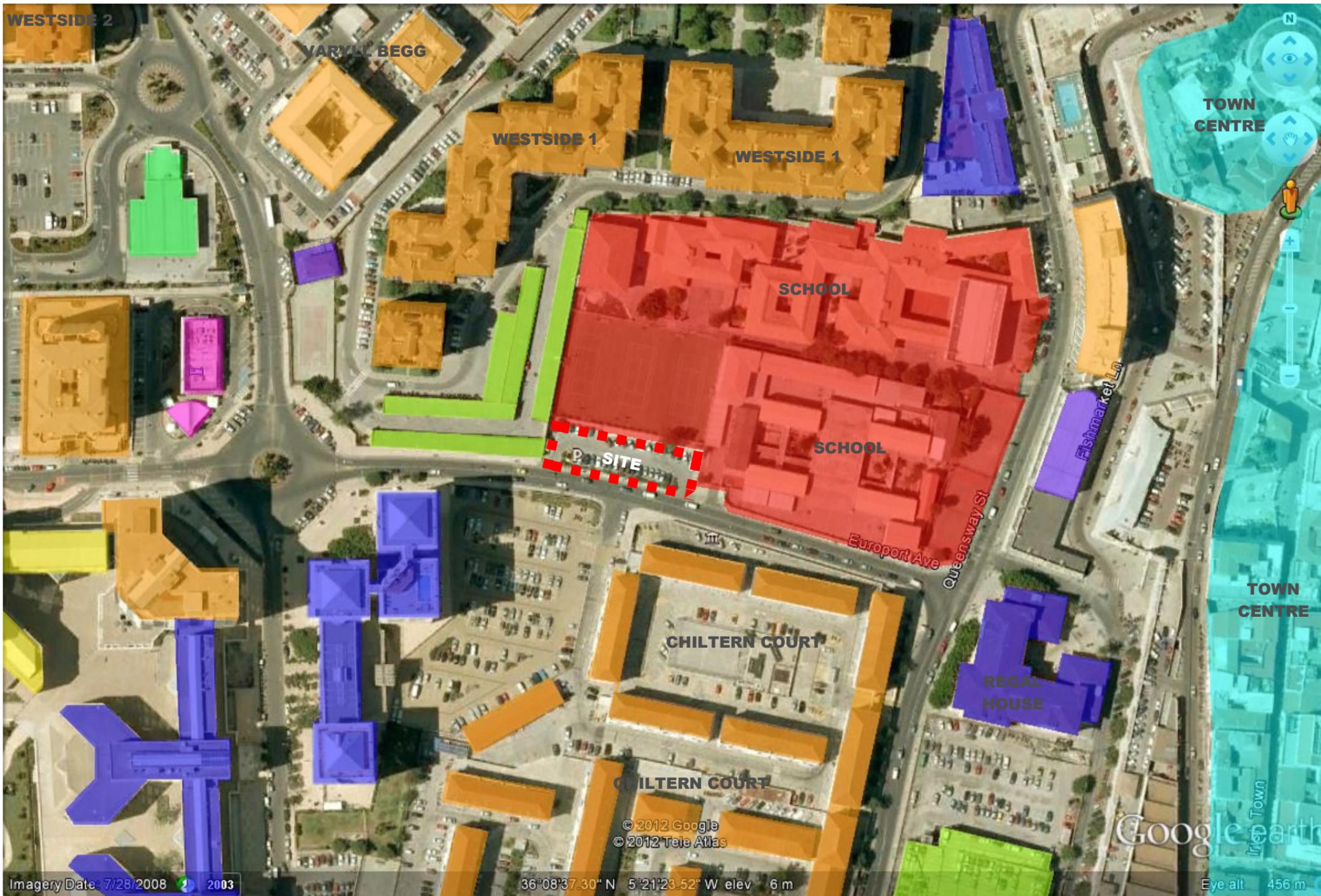
- Site analysis.
 - Photographical survey of the site
 - Surrounding environmental considerations
 - Traffic and pedestrian circulation.
 - Building height study appraisal to include surrounding building heights and airport proximity height restrictions.
 - Site appraisal to include advantages and disadvantages of site and proposals.
 - Appraisal for the elderly residential unit type, layout and composition provided at 'Albert Risso House'.
 - Concept sketch.
 - Precedents.
 - General site massing model of the area.
 - Prepare concept sketch layout to include various optional layouts/configurations, keyed into a master plan to include plans, sections & elevations.
- Area schedule
 - Prepare images/3D visuals to graphically represent the preferred concept option.
 - Prepare a basic schedule of accommodation and area breakdown.
 - Identify any initial technical considerations to include any known environmental sustainability solutions.
 - Report any further recommendations and conclusions.



**BISHOP FITZGERALD SITE - GIBRALTAR
PHOTOGRAPHICAL SURVEY**



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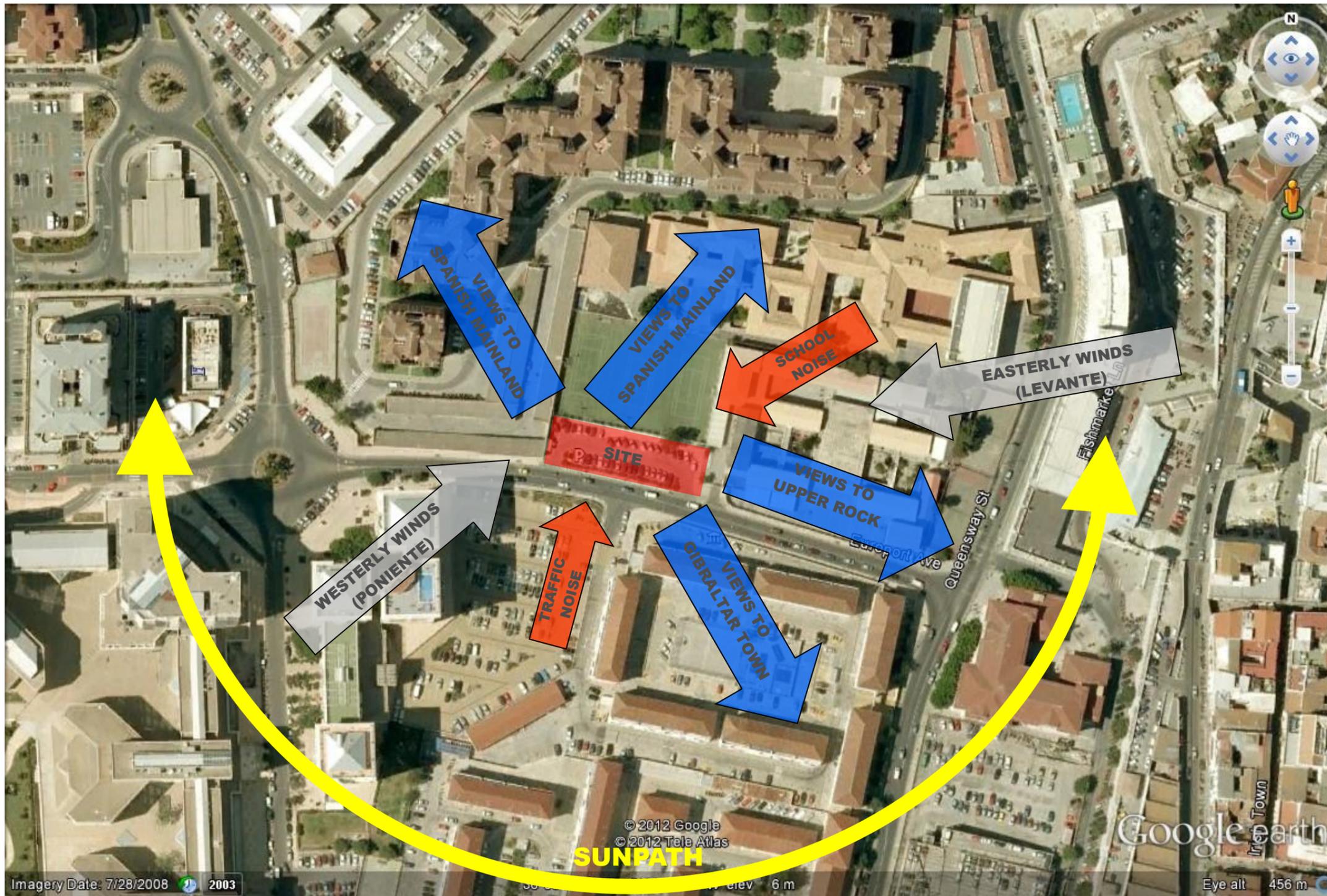


- KEY:**
- OFFICE
 - RESIDNETIAL
 - INDUSTRIAL
 - CAR PARKING
 - SCHOOL
 - RESTAURANT
 - HOSPITAL
 - PETROL STATION
 - MIXED USE

**BISHOP FITZGERALD SITE - GIBRALTAR
SITE ANALYSIS - SURROUNDING LAND USE**



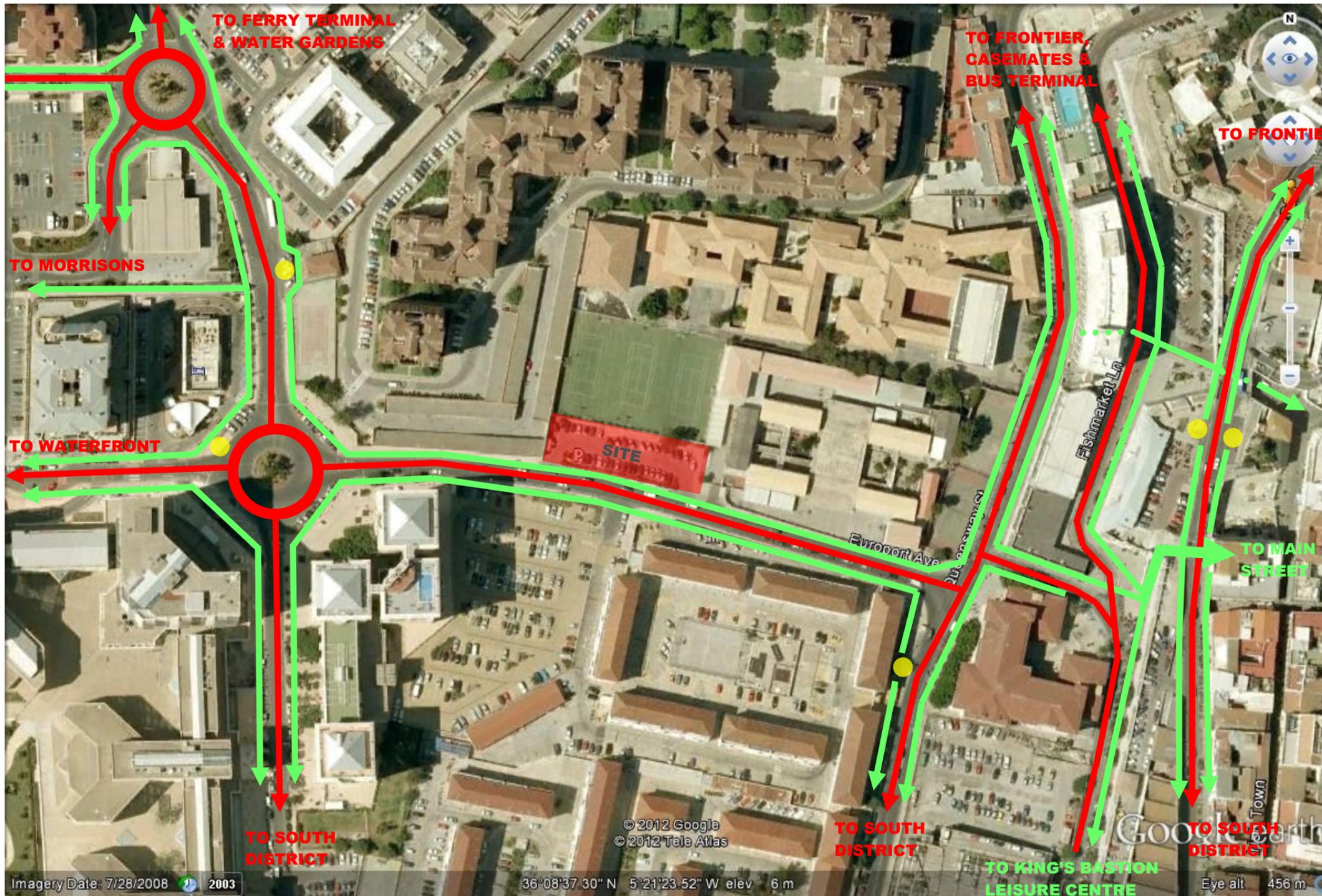
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BISHOP FITZGERALD SITE - GIBRALTAR
SITE ANALYSIS - ENVIRONMENTAL CONSIDERATIONS



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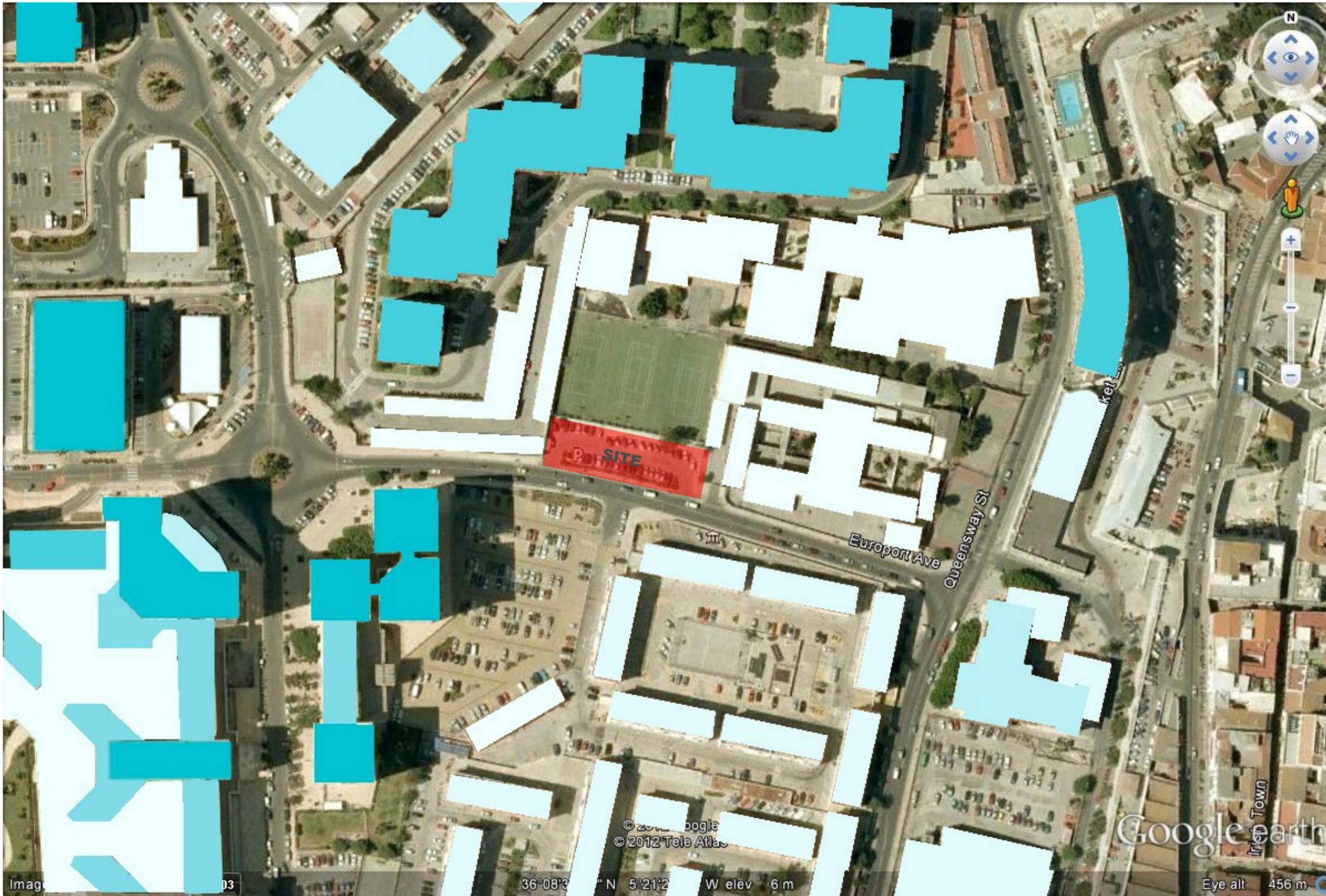


- KEY:**
- Pedestrian Route
 - Vehicular Route (single carriageway)
 - Vehicular Route (Duel carriageway)
 - Bus Stops

BISHOP FITZGERALD SITE - GIBRALTAR
SITE ANALYSIS - TRAFFIC & PEDESTRIAN CIRCULATION



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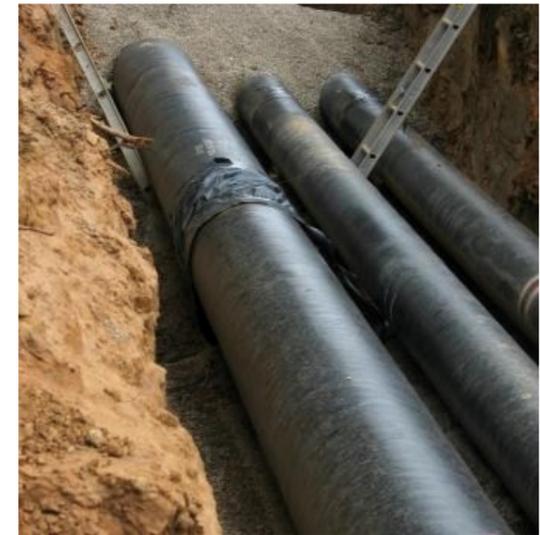
- KEY:**
- 1-2 Floors
 - 3-4 Floors
 - 5-6 Floors
 - 7-8 Floors
 - 9-10 Floors
 - 11 Floors & above



Note:

It is presumed that since the site is located in a central area of Gibraltar all services will be available for the proposed development.

Upon instruction to proceed with the design consultation will take place between the design team and the relevant services providers.





KEY:

- BATHROOM
- BEDROOM
- CIRCULATION
- STORAGE
- LIVING ROOM

Note: Percentage of internal circulation to usable space = 9.5%

BISHOP FITZGERALD SITE - GIBRALTAR
APPRAISAL OF RISSO HOUSE - TYPICAL RESIDENTIAL UNIT



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PROS & CONS REVIEW OF RISSO HOUSE

PROS

Adjacent to existing housing.
Easy access.
Good aspect.
Community facilities provided within building.
Easy connection to existing utilities.
Car parking on site.
Efficient structural grid & space layout.
24/7 warden support.
Flexible support provision or self sufficiency living options.
Good choice of anti corrosive external building fabric.
Low maintenance design (e.g. pitched roof, easy window cleaning access from balconies).
Minimum number of operational staff required.
Minimal excavation required for construction.
Good internal acoustic insulation.
All rooms provided with external windows (no mechanical ventilations requirements).

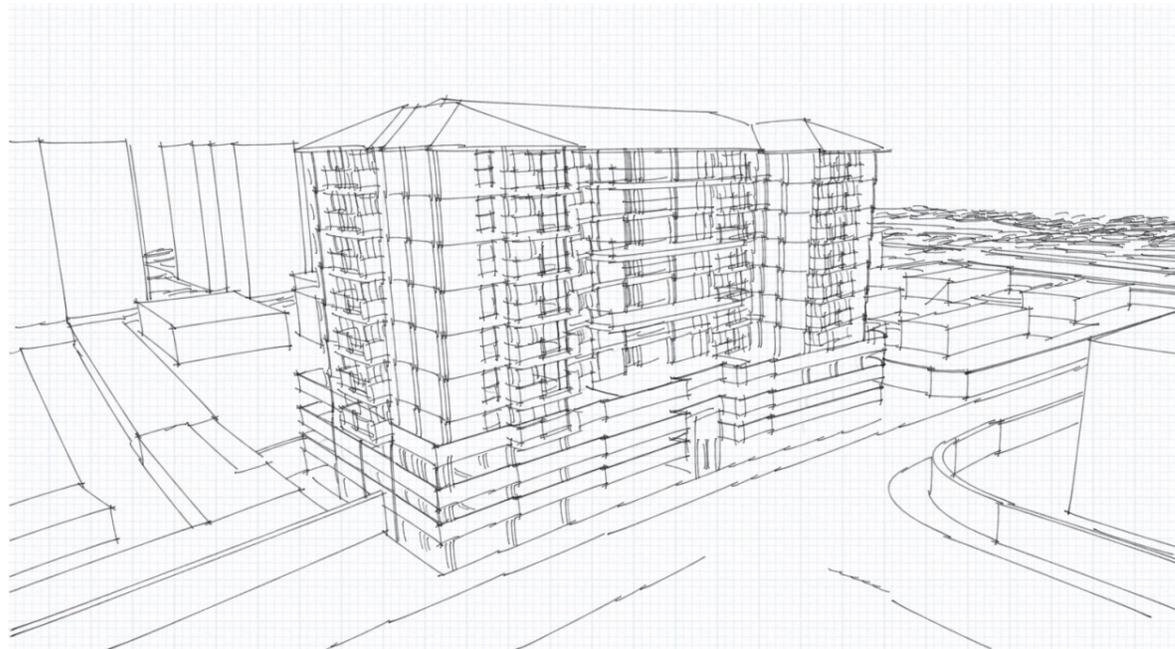
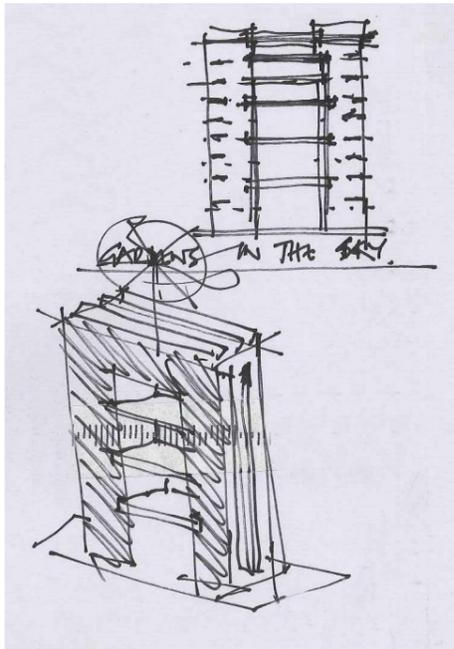
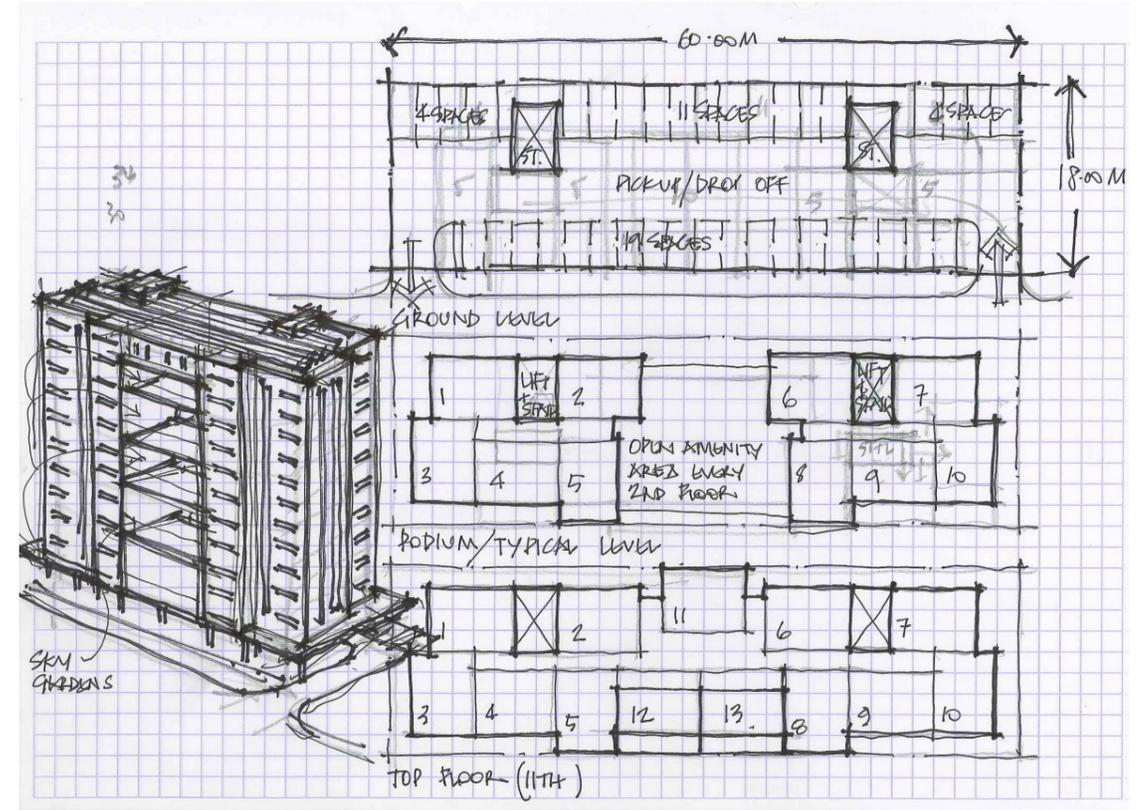
CONS

Long corridors.
Thresholds at balconies and showers.
Access to window opening in kitchens.
Small living room space.
No storage for mobility vehicles.
No A/C or heating.
Noise from external communal courtyard disturbing for residents.
Exposed external space (wind and sun).
Lack of a variety of community spaces / furnishing.
Small balcony limits use.
No sustainable features used.
Inefficient unit layouts (large percentage 'dead' of circulation space).
Dead end access roads.
No advantage taken of the water frontage.
No bridge links between podiums.

CONCLUSIONS

The design team considered Risso House to be a good example of a successful retirement housing scheme in Gibraltar.

The following proposal seeks to draw upon the positive aspects of the Risso House design whilst addressing the perceived shortcoming evident on the adjacent matrix.



**BISHOP FITZGERALD SITE - GIBRALTAR
CONCEPT SKETCHES**



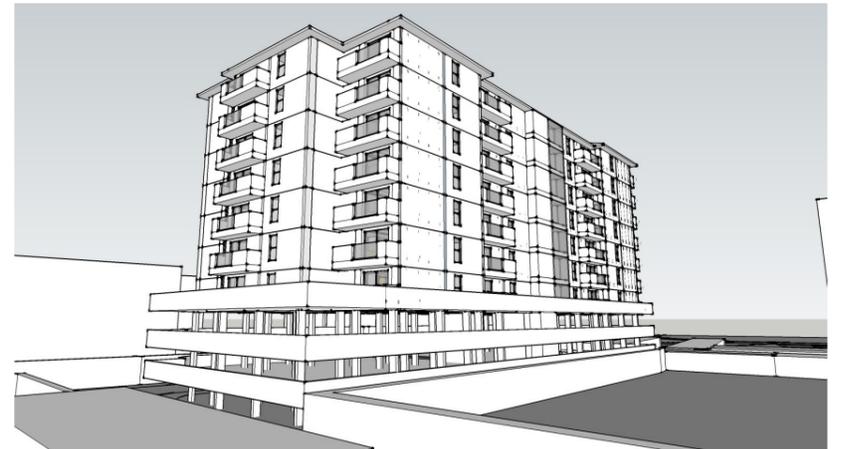
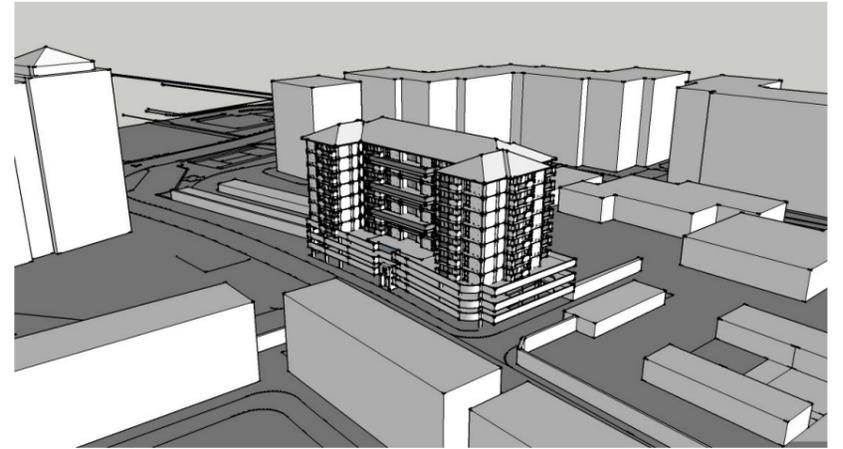
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BISHOP FITZGERALD SITE - GIBRALTAR
PRECEDENTS - RISSO HOUSE / WATERPORT TERRACES



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BISHOP FITZGERALD SITE - GIBRALTAR
SITE MASSING MODEL



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TYPE 'A' - UNIT LAYOUT

- KEY:
- BATHROOM
 - BEDROOM
 - LOBBY (CIRCULATION)
 - STORAGE
 - LIVINGROOM
 - KITCHEN
 - BALCONY



Type 'A' Typical Unit Layout

ROOM NAME	Length	Width	Area
LOBBY	1850	2750	5.11 M2
BATHROOM	2150	1850	4.02 M2
BEDROOM	3900	3200	12.36 M2
STORE	600	750	0.46 M2
KITCHEN	3900	2400	9.12 M2
LIVINGROOM	5950	4900	25.33 M2
BALCONY	1600	4950	7.66 M2
			64.07 M2

TYPE 'B' - UNIT LAYOUT

- KEY:
- BATHROOM
 - BEDROOM
 - LOBBY (CIRCULATION)
 - STORAGE
 - LIVINGROOM
 - KITCHEN
 - BALCONY



Type 'B' Typical Unit Layout

ROOM NAME	Length	Width	Area
LOBBY	1850	2750	5.11 M2
BATHROOM	2150	1850	4.02 M2
BEDROOM	3900	3200	12.36 M2
STORE	600	1650	0.93 M2
KITCHEN	3150	1800	5.57 M2
LIVINGROOM	5950	4900	28.98 M2
BALCONY	1600	4950	7.66 M2
			64.63 M2

TYPE 'D' - UNIT LAYOUT

- KEY:
- BATHROOM
 - BEDROOM
 - LOBBY (CIRCULATION)
 - STORAGE
 - LIVINGROOM
 - KITCHEN
 - BALCONY



Type 'D' Typical Unit Layout

ROOM NAME	Length	Width	Area
LOBBY	2650	2200	4.94 M2
BATHROOM	2800	1550	4.28 M2
STORE	1100	650	0.61 M2
BEDROOM	2800	4250	11.64 M2
KITCHEN	3100	2250	6.89 M2
LIVINGROOM	4750	5900	27.98 M2
BALCONY	1600	4950	7.66 M2
			63.91 M2

TYPE 'C' - UNIT LAYOUT

- KEY:
- BATHROOM
 - BEDROOM
 - LOBBY (CIRCULATION)
 - STORAGE
 - LIVINGROOM
 - KITCHEN
 - BALCONY



Type 'C' Typical Unit Layout

ROOM NAME	Length	Width	Area
LOBBY	2000	1850	3.78 M2
BATHROOM	2150	1850	4.02 M2
BEDROOM	3900	3200	12.36 M2
STORE	1900	600	1.11 M2
LIVINGROOM	4050	6650	23.76 M2
KITCHEN	2500	4900	12.10 M2
BALCONY	1600	4950	7.66 M2
			64.78 M2

**BISHOP FITZGERALD SITE - GIBRALTAR
TYPICAL UNIT LAYOUT OPTIONS**



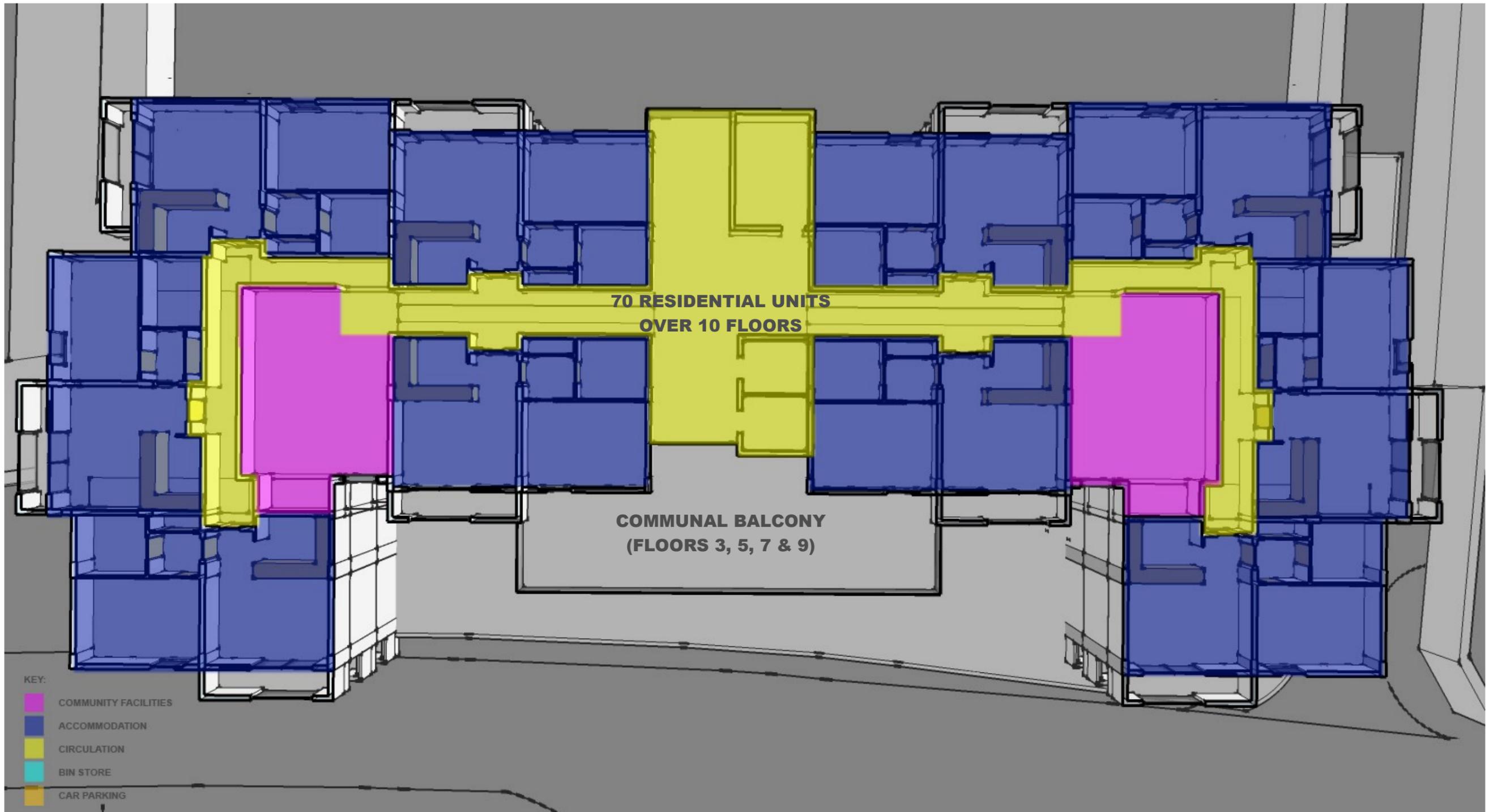
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**BISHOP FITZGERALD SITE - GIBRALTAR
TYPICAL FLOOR PLANS - LOWER LEVEL PARKING**



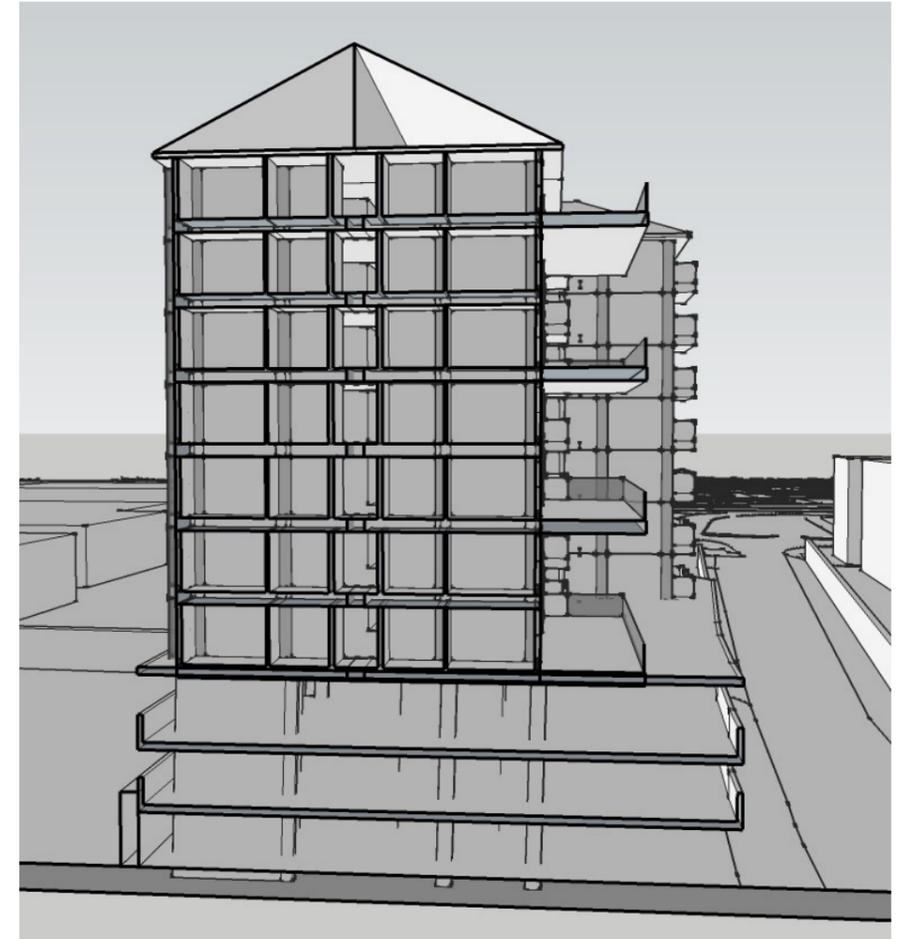
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BISHOP FITZGERALD SITE - GIBRALTAR
TYPICAL FLOOR PLANS - THIRD TO NINTH FLOORS



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**BISHOP FITZGERALD SITE - GIBRALTAR
SECTIONS**



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Use	No. of resi. floors	No. of units per floor	Total No. of Units	GEA of resi. unit	Total GEA of resi. units	Circulation & communal space per floor (GEA)	Total circulation & communal space (GEA)	Total GEA
Residential	7	10	70	63,08	4415,88			4415,88
Circulation space per floor						187,94	1315,58	1315,58
Stairs and Lifts						62,64	438,48	438,48
Amenity Areas						62,04	434,28	434,28
Ground floor car parking		30						1386,38
Upper Level car parking		35						1386,38
Second level car parking		35						1386,38
Grand Total			70		4415,88		2188,34	10763,36
<i>Landscaped Podium Area and Sky Gardens</i>								547,47

**BISHOP FITZGERALD SITE - GIBRALTAR
AREA SCHEDULE**



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SUSTAINABILITY

Sustainability is an over-arching principle which seeks to influence various aspects of all proposed developments throughout the world.

The most widely recognised definition of sustainable development is that of the Brundtland definition '87, which states:

“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs”

We believe that sustainability is crucial to the success of this project.

Not just in terms of ecologically conscious design, but also in terms of the life cycle costing for the Government and Investors over the lifetime of the buildings.

Well thought through, sustainable design can lower the maintenance costs and the energy costs of the buildings by a significant margin and should be central to the design ethos of all public buildings.

The following point should be given consideration and addressed as part of any new build programme.

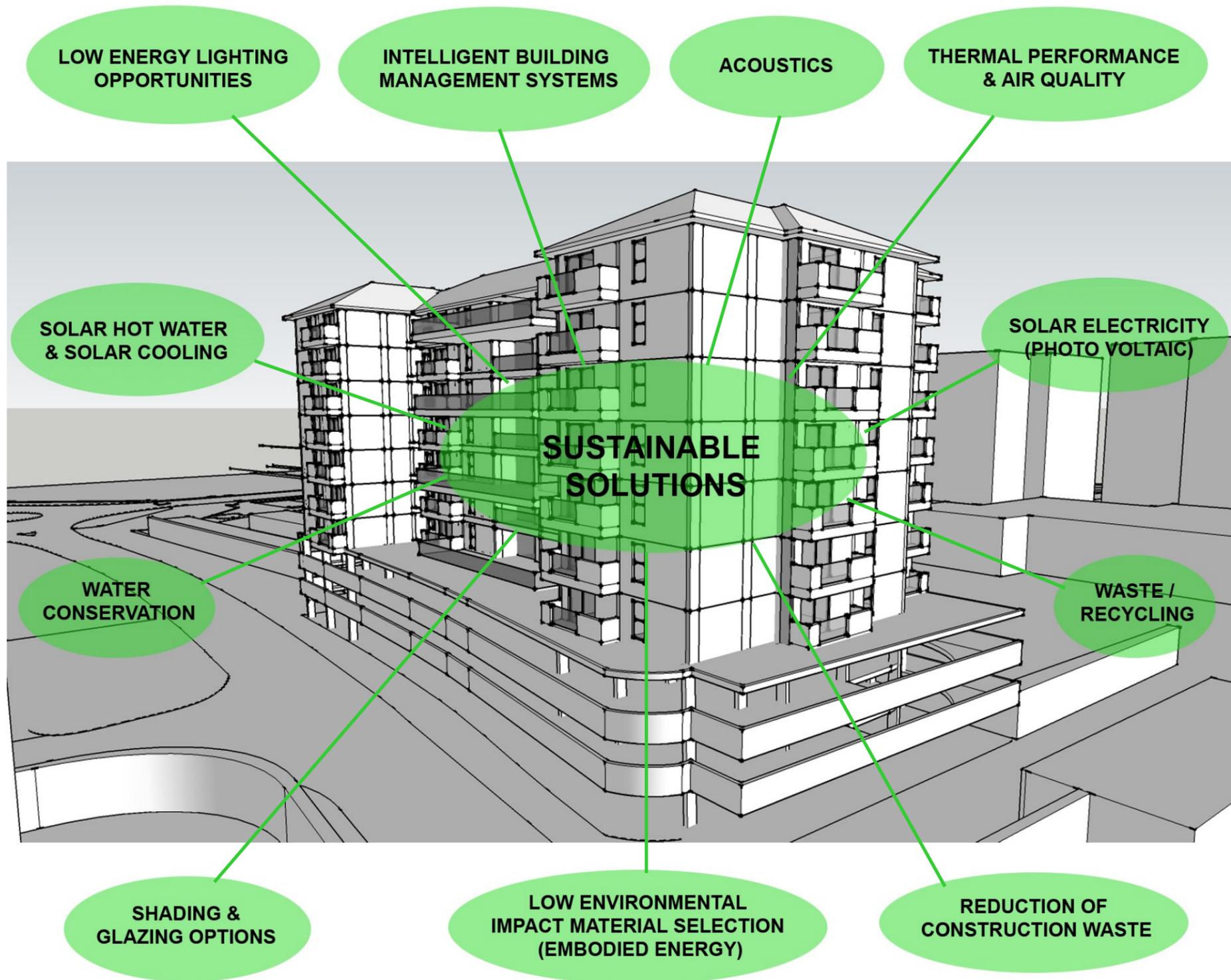
- Low Energy Lighting Opportunities
- Intelligent Building Management Systems
- Acoustics
- Thermal Performance and Air Quality
- Solar Hot Water and Solar Cooling
- Solar Electricity (Photo Voltaic)
- Water Conservation
- Waste / Recycling Storage
- Shading and Glazing Options
- Low Environmental Impact Material Selection (Embodied Energy)
- Reduction of Construction Waste



BISHOP FITZGERALD SITE - GIBRALTAR
SUSTAINABILITY



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**BISHOP FITZGERALD SITE - GIBRALTAR
SUSTAINABILITY**



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CONCLUSION

Positive planning for an ageing population will help to provide a range of specialised housing needs for those older people for whom it is appropriate and will assist in delivering an important range of housing, social welfare, health and planning issues.

Because the elderly population is increasing there is no doubt that there will be a greater demand for the need of adequate housing. Our elderly citizens deserve well designed facilities that will address their needs for today and tomorrow.

It is important to highlight that when senior citizens are relocated they will want to live as near as possible to amenities and familiar surroundings. They will be more accepting with the relocation if other residents within the complex have the same interest as themselves and a 'safe' environment is established. This will make them feel protected, well looked after and a sense of community spirit will develop.

There is nothing worse than feeling useless and if we are able to help senior citizens feel that they can be independent and useful we are on the way to creating a very happy community of Senior Citizen's.

The design product must therefore entail careful planning consideration so that the senior citizens of our society will be able to live independently and with a higher quality of life and sense of well-being. It will also significantly decrease the sense of being institutionalised and over-dependent.

If their needs are addressed this will make them feel more independent and better about themselves.

It is very important to look after our ageing population without forgetting that we shall fill in their shoes one day.