Environmental Planning Statement for

The Creation of Stabilised Slopes and Car Parking at Rabat, Gozo

Your Ref: **PA 05484/03**

Our Ref: **ENV03222/A/07**
ENV32978/A/10

Responses to MEPA and other stakeholders' comments

August 2012

ais environmental ltd.

AIS House, 18 St. John Street,
Fgura FGR 1447 – MALTA
Tel: +356 21803374 Fax: +356 21803434
Website: www.aisenvironmental.com
E-mail: info@ais.com.mt

Comments on the 1st draft of the Environmental Planning Statement –
PA 5484/03: Creation of Stabilised Slopes and Car Parking at Cittadella, Rabat, Gozo

---

1. MEPA Comments

MEPA First coments		AIS Replies	MEPA Further comments – May 2012	AIS Final Replies – June 2012	MEPA Final Comments – August 2012
General Comment (1) – Appropriate Assessment	Reference is made to two emails sent by MEPA to the EIA Coordinator on the 17th March 2010, reading as follows: *Dear Mario,* *Reference is made to EPS in relation to application referred to in caption. MEPA has the following comments on the matter:* *1. Following meeting dated 18/01/2010, kindly note that a digital copy of the EPS can be submitted to MEPA. MEPA will then request hard copies of the documents and provide the delivery note for submission of the copies by the EIA Consultants to the identified stakeholders for review.* *2. In relation to point above, following screening of the proposed development, please note that application also requires further assessment as per Article 19 of L.N. 311 of 2006 (based on Article 6 of the Habitats Directive). You will be soon be receiving correspondence from EPD in this regard.* *Should you have any queries, do not hesitate to contact us.* *Thanks and regards,* *Charlene* --- *Good afternoon,* *Further to email below, kindly find attached formal request for an Appropriate Assessment and Terms of Reference for your perusal. May I kindly bring to your attention the need to forward consultants for MEPAs approval followed by the Area of Influence, which also needs to be approved by MEPA prior to the commencement of the AA.* *Should you have any queries do not hesitate to contact the undersigned.*	**Noted** **Following meeting dated 27th March 2012 it was agreed that following submission of lighting arrangements by the applicant, MEPA may no longer require the need for AA**	**No further comments.** **By way of background, as has been identified in previous EPD correspondence (our email of 6th March) and following our meeting on 27th March 2012, in terms of Regulation 19 of Legal Notice 311 of 2006 as amended (Appropriate Assessment), the proposed car park has raised concerns vis-a-vis impacts of additional lighting on bats. It was also noted that if the applicant can confirm that the car park will not result in an increase in operational lighting over and above the existing situation, then EPD would be in position to ensure that lighting will not result in a significant impact on bats and therefore the integrity of the Natura 2000 site will not be affected and no further assessment as per Regulation 19 of Legal Notice 311 of 2006 as amended will be necessary.**	**The designed lighting lux level contours are considered adequate and no further lighting is required.** **These lux levels are subdued as required in a manner not to affect the bats.** **Kindly refer to Appendix I for revised plans.**	**The revised plans submitted by the architect vis-à-vis lighting are considered acceptable from our end and we have no further requests/comments from an AA point of view.**

	Kind regards, *Monique* Please note that submission of the Appropriate Assessment is still pending.		1. **Following review of submissions related to the proposed lighting scheme, it was noted that no information has been submitted on the amount of lights proposed on each of the car park levels. A plan (block plan) showing proposed location and amount of lights on each level is therefore necessary. Kindly note that an excessive amount of lighting will not be considered favourably;** 2. **Without prejudice to the above, lights on the upper level are considered to be of low-key and therefore acceptable; and,** 3. **With regards to the lights on the lower level, considering the exposed nature and sensitivity of the site, the 4m high poles are considered excessive. The same type of lighting as proposed for the upper level is to be made use of.** **From the above MEPA can therefore conclude that:** **The proposal is not expected to have a significant impact on the integrity of the habitats and species within the Natura 2000 site as long as the following are adhered to:** **1. The amount of lighting poles on both car park levels is kept to a bare minimum – to this effect a block plan indicating location of proposed lighting poles and a justification for the amount of lighting poles used is required;** **2. The lighting poles on the lower level are to be the same as those used on the upper level. Plans should be amended accordingly.** **The conclusion of the AA screening is based on the assumption that the above two**		

			points are adhered to, to the satisfaction of MEPA. Should these recommendations not be taken into consideration the merits of the Appropriate Assessment screening would need to be re-opened.		
General Comment (2) – Planning, Policies and Legislation	The EIA Coordinator is to highlight the relevance of each legislative document in terms of the proposed development.	**This will be amended in the 2nd draft EPS. Please refer to Appendix I.**	**Noted. No further comments.**	***/***	***/***
General Comment (3) – Cultural Heritage	(1) From a cultural heritage point of view, the proposed development will pose significant adverse impacts especially to the cultural/military landscape, archaeology and rubble walls. As detailed in Table 7.2 of the EPS Coordinated report, all the possible impacts are all classified as major (major – the cultural asset or feature will either be completely destroyed or damaged due to an irreversible intervention on the asset itself /or its surrounding landscape or setting). As stated in the baseline studies, the cultural landscape is a significant characteristic of the walled city, the surrounding area, and also of the whole island. Thus, any impacts on the landscape will permanently influence the visual integrity of the site and its relationship with the other cultural features. Additionally, the site has a significant connection with the military landscape especially the city walls. This impact is significant and irreversible. Moreover, simply screening the proposed development by soft landscaping is not deemed acceptable to MEPA since the development will still be visible and since originally there was no form of soft landscaping for military reasons. (2) There is significant concern regarding the proposed rubble walls. Rubble walls are a significant traditional characteristic of the Maltese landscape and their maintenance/restoration/reconstruction is controlled by LN 160/97 and subsequent amendment. The material, method of construction, height and proportions are important elements of rubble walls. Cladding, height and proportions, as proposed in this development, are not traditional and not considered to be traditional rubble walls and will significantly influence the visual integrity of the landscape. Further alternatives are to be explored in order to minimise the impact.	**1) Alternative slopes including stabilized consolidated earth will be prepared instead of the proposed soft landscaping.** **2) Alternative slopes including stabilized consolidated earth will be prepared instead of the rubble walls.** **3) Given that the excavation is largely superficial, the presence of an**	**Further details on these are required. How will these 'alternative slopes' be constructed?** **Comment above refers. More details on this are required.** **MEPA reiterates its concerns vis-à-vis the Class A Scheduled Area of Archaeological Importance.**	**Kindly refer to Appendix II for revised plans. The slopes are in consolidated earth within gabions.** **Once in place they will be pre-disposed for vegetation growth and will render the slopes stable in a way that would be very close to what they were originally.** **It is agreed that prior clearance from SCH is needed. The report had identified the requirement of exploring for the presence and nature of any buried**	**Reference is made to the replies provided by the EIA Coordinator and to email sent by the Superintendence of Cultural Heritage dated 1st August 2012. It is being noted that most of the issues have been tackled positively or resolved.** **Moreover, it should be noted that:** **(1) Archaeology: this is considered to be the responsibility of the Superintendence of Cultural Heritage (SCH) and their latest submission indicates that this will be tackled through monitoring to be administered from their end.** **(2) Rubble walls - It should be ensured that these are built according to L.N. 160 of 1997.** **(3) Shelters - It seems that the shelters will not be impacted by the development.** **However, the visual impact of the proposed project is still considered as being a concern. Further mitigation measures in the form of design, material and landscaping should be explored.**

	(3) The area lies within the Class A Scheduled Area of Archaeological Importance. This area has a significantly high presence of known archaeological remains. Moreover, there is a high degree of possibility of further remains being uncovered. The report proposes the trial investigation of the area so that any remains are uncovered prior to commencement of works. Moreover, the report states that monitoring will be carried out during all stages of the development. Although these are positive, ideally, these investigations are carried out prior to issue of permit so that any changes/amendments in design can be affected and permit issued accordingly. (4) There is significant concern regarding the passage of heavy vehicles during construction. Although some mitigation measures have been proposed (e.g. the covering of the steps), it is of concern that due to the inaccessibility of the WWII shelters these have not been properly assessed. Moreover, their extent is unknown and thus one cannot assess the possible impacts. This should not be a case of doing first and asking questions later.	**SCH approved monitor during such works is considered to be sufficient.** **4) The development will entail minor excavation works away from the WWII shelters. Therefore no impacts are envisaged on the WWII shelters.** **5) Most earthworks will be contained within the site itself.**	**Furthermore, reply from AIS states that there will only be superficial excavation. However, HPU notes that this cannot be considered to be superficial, and in fact SCH comments confirm this.** **Moreover, SCH comments clearly indicate that proposal is objectionable. HPU comments requested that prior clearance from SCH is to be sought. This is still the case.** **MEPA reiterates its concerns vis-à-vis impacts on the WWII shelters.** **MEPA reiterates its concerns on the matter.**	**cultural remains.** **The underground shelters beneath St. Martin's Demi-Bastion are accessible through a small passageway and steps, located close to the hairpin bend on the way up to the Citadel. The shelters have been hand-hewn and extend from St. Martin's Demi-Bastion to the area below the old gate leading into the Citadel where another two openings are located.** **The floor of the shelters is located about 3m below street level at the entrance closest to the hairpin bend. The shelters consist of small rooms (typically 2.0-2.5m wide by 3.0-4.0m deep by approx. 2m high) hewn out of the rock and accessed from a corridor having a width of approximately 2m. There are two such corridors; one running NE-SW parallel to the walls of St. Martin's Demi-Bastion having 11 rooms and another longer corridor running NW-SE having about 20 rooms.** **Since no horizontal excavation in the rock is being proposed, no impact is predicted on the internal system of the shelters. The passage of vehicles can affect the external entrance of**	

			(5) Additionally, no alternative seems to have been explored regarding the passage of heavy vehicles. In this respect, further alternative routes and methods (e.g. use of ex situ cranes for movement of material) should be explored.		**the shelters by accidental abrasion, the latter impact is considered as moderate.** **A detailed survey of the extent of the shelters is recommended to be carried out prior to commencement of works.** **Kindly refer to Appendix IV for Traffic access plan. Regarding the passage of heavy vehicles, there is no alternative way to the site. Considering that the balancing in earthworks will optimise the design, the volume of imports into the site will be kept to a minimum.**	
General Comment (4) – Construction Management Plan (CMP)			Given the constant reference throughout the document to the Construction Management Plan (CMP), MEPA requires a copy of the said document to be submitted as part of the EPS as this set a complete framework in terms of EIA assessment.	**A copy is provided in Appendix II of this document.**	**Noted.**	***/***	***/***
Detailed Comments							
No.	**Page**	**Para.**	**Comment**				
1	15 – Chapter 2 (Proposed Development)	2.2.5	Are impacts on air quality considered to be secondary/consequential impacts from the proposed development in the EPS?	**Yes, air quality emissions are secondary/ consequential principally those associated with combustion of fuel from cars used by the car park users.** ***MEPA Comment: Noted.***	***/***		
2	16 – Chapter 2 (Proposed Development)	2.3.3	Section should make reference to the following: • L.N. 184 of 2011, The Waste Regulations, 2011 as amended by The Waste (Amendment) Regns, 2011 as Legal Notice 441 of 2011. • L.N. 106 of 2007, Waste Management (Activity Registration), Regulations 2007.	**This will be amended in the 2nd draft EPS. Please refer to Appendix I.** ***MEPA Comment: Noted. No further comments.***	***/***		
3	18 – Chapter 2 (Proposed Development)	2.3.4 – Excavation phase	Is there any indication on the intended disposal sites to be used for this project proposal?	**Most earthworks will be contained within the site itself. If required disposal sites will be MEPA approved facilities at the time of construction.** ***MEPA Comment: Noted.***	***/***		
4	24 – Chapter 3 (Policies)	3.2.1 and 3.2.2	References to The Development Planning Act, 1992, and The Environment Protection Act, 2001, should be updated to include Environment and Development Planning Act, 2010.	**Will be amended in the 2nd draft EPS. Please refer to Appendix I.** ***MEPA Comment: Noted.***	***/***		
5	26 – Chapter 3 (Policies)	3.3.1	The proposed development qualified for an EIA as per Regulation 3(7) of the former Environmental Impact Assessment Regulations, 2001. Reference is to be amended accordingly.	**Will be amended in the 2nd draft EPS. Please refer to Appendix I.** ***MEPA Comment: Noted.***	***/***		
6	41 – Chapter 4	4.3.2	What is the significance of the impact related	**The site is currently occupied by a makeshift car**	***/***		

	(Land Use)		to the change in land-use?	**park. Therefore the change in the nature of the land use is minor.** ***MEPA Comment: Noted.***	
7	43 – Chapter 4 (Land Use)	Table 4.2	(1) Reference is made to impact 'Access to site restricted' and to Table 4.1 in pg. 42. It should be noted that the impact significance criteria utilized in the table do not tally, as impact is being identified as 'low' rather than 'minor'. The EIA Coordinator shall ensure that the impact significance is consistent throughout the document. (2) Mitigation measures, residual impacts and their significance should also be discussed in the text, rather than left exclusive to the impact table. This is to be amended accordingly. (3) Reference is made to impacts 'Increase in number of parking spaces on completion of the scheme' and 'Impacts on public amenities within the Cittadella including the Gozo Cathedral, Law Courts and Museums'. Given that no mitigation measures are being proposed, the residual impacts cannot be marked at N/A. No scope for mitigation means that the residual impact from the identified impact remains the same.	**1) Noted. Low will be amended to Minor.** ***MEPA Comment: Noted.*** **2) Noted. This will be amended in the 2nd draft EPS. Please refer to Appendix I.** ***MEPA Comment: Noted.*** **3) Noted. This will be amended in the 2nd draft EPS. Please refer to Appendix I.** ***MEPA Comment: Noted.***	***I***
8	/ - Chapter 5 (Landscape)	Figures 5.3 to 5.18	Figures are also to be provided in A3 format.	**Noted. These will be provided in the 2nd draft EPS. Please refer to Appendix I.** ***MEPA Comment: Noted.***	***I***
9	64 - Chapter 5 (Landscape)	/	Reference is made to 'Landscape effects – Clearance excavation and construction phases' – what is the significance being attributed to this impact?	**The clearance and leveling of the site will change the topography of the area. This is a moderate to major direct adverse change to the landscape.** ***MEPA Comment: Noted.***	***I***

10	100– Chapter 6 (Geology)	6.4.1	The text states that 'further investigations would therefore be required to determine or to eliminate this possibility with more certainty'. It is not clear as to why such investigations have not been carried out at this stage.	**The issue of site stability has been covered in a sufficient level of detail for the purpose of the EPS, The comment being made simply refers to the normal procedure of carrying out further geotechnical investigations during construction carried out on such geological strata.** ***MEPA Comment: Noted.***	
11	116– Chapter 6 (Geology)	/	The text makes reference to 'information that would need to be considered in more detail'. Given the nature of the development, why haven't these issues been studied in detail at this stage?	**The issue of site stability has been covered in a sufficient level of detail for the purpose of the EPS, The comment being made simply refers to the normal procedure of carrying out further geotechnical investigations during construction carried out on such geological strata.** ***MEPA Comment: Noted.***	***/***
12	117– Chapter 6 (Geology)	Figure 6.29	A more legible version is to be provided.	**This will be amended in the 2nd draft EPS. Please refer to Appendix I.** ***MEPA Comment: Noted.***	***/***
13	122- Chapter 7 (Cultural Heritage)	7.1	There is no detailed description of the features identified in Table 7.1. This would need to be discussed in the EPS Coordinated Assessment.	**This has been provided in the Cultural Heritage technical report. A copy of the final version of the CHA (including data cards) is provided in Appendix III of this document.** ***MEPA Comment: Noted.***	***/***
14	125- Chapter 7 (Cultural Heritage)	7.3	The text makes reference to 'a study on the structural integrity of the fortifications should be carried out prior to the commencement of works'. In view of the fact that this relates to the assessment of impacts in Table 7.2, it is not clear as to why the said study hasn't been carried out in conjunction with the EPS.	**This study has been carried out in relation to the Geology technical report** ***MEPA Comment: Noted.***	***/***
15	127 – 133 - Chapter 7 (Cultural Heritage)	Table 7.2	(1) The columns 'Magnitude and Significance' does not provide the significance of the impact being discussed. This needs to be amended accordingly. This applies equally for the other columns in the said table. (2) References to N/A entries should be removed and amended.	**Noted. These will be amended in the 2nd draft EPS. Please refer to Appendix III.** ***MEPA Comment: Noted.***	***/***
16	138 – Chapter 8 Ecology	Figure 8.2	A more legible version is to be provided.	**This will be amended in the 2nd draft EPS. Please refer to Appendix I.** ***MEPA Comment: Noted.***	***/***
17	138 – Chapter 8 Ecology	Drawing 8.2 and Para. 8.2.3	The Area of Influence has been divided into three main areas in Section 8.2.3 (page 137). Drawing 8.2 referred to in Section 8.2.3 clearly shows the different habitats in the Area of Influence, however it fails to	**This will be amended in the 2nd draft EPS. Please refer to Appendix I.** ***MEPA Comment: Noted.***	***/***

			clearly indicate where the three main areas outlined in Section 8.2.3 are. A map defining these three areas is requested in order to clarify the exact locations for the descriptions provided on pages 139 – 149.		
18	145 – Chapter 8 Ecology	/	Drawing 8.4 (mentioned on Page 145) is missing.	**This is a typing error and should refer to Drawing 8.2. This will be amended in the 2nd draft EPS. Please refer to Appendix I.** ***MEPA Comment: Noted.***	***/***
19	156 – Chapter 8 Ecology	Table 8.1 and Assessment of Impacts	(1) The ecology chapter only provides a table (Table 8.1) summarising the impacts and related mitigation measures. The document lacks a clear assessment of the impacts identified, and a discussion on the mitigation measures and any residual impacts. Details and justifications for the conclusions are to be provided accordingly. (2) Table 8.1 on page 156 outlines the following impacts: <u>- Loss of Ermes and thistle fields and associated fauna:</u> The significant impact of this loss on the SAC has been classified as "Major". How will this impact the SAC and why has the residual impact been defined as Major? <u>- Removal of areas with potential regeneration of pseudo-maquis:</u> The significant impact on this loss to the SAC has been defined as "Major". Following mitigation measures which are not likely to be effective, the residual impact is classified as "Minor". How were these conclusions reached? <u>- Damage / Loss of trees protected by LN/12/01 and Annex 1 habitats:</u> What trees are going to be removed or damaged? Why is the residual impact "Minor" if the mitigation measure is not likely to be effective? <u>- Loss of rubble walls and associated flora and fauna:</u> Can the amount of rubble walls be quantified and marked on a map especially since the residual impact is described as major. How will this impact the SAC and why is the residual impact "Major"? <u>- Possible disturbance to bat populations inhabiting / feeding at this area:</u> "Check for the presence of bat roosts and study seasonal variation in bat activity" - Will studies be submitted to MEPA? Have the	**The ecology chapter provides a baseline study on the ecology and a summary of the impacts. The impacts section will be amended in the 2nd draft EPS. Please refer to Appendix I.** ***MEPA Comment: Noted.***	***/***

			roosting periods been established to limit construction during these phases? If the significant impact is described as "Major", the significance of the residual impact will still be major if bat roosts are abandoned. <u>- Light pollution affecting nocturnal fauna:</u> On what basis was the impact determined to be significant? Other details on the lighting to be used as well as the mitigation measures to be implemented are requested. As is, the significance of the residual impact cannot be described as "insignificant". The document also states that "the exact consumption details and lighting arrangements are to be announced along with the finalised CMP" and that design specifications and details will be known only after the tender is awarded (Section 10.2, Page 181). It is important that the specifications which have least negative impact on the bats are defined and these are requested in the Terms of Reference of the contracts. If possible such specifications are assessed and approved by MEPA. <u>- Landscaping by planting of trees and plants:</u> This is the only activity which is described as having a significant major positive impact. On what basis was the impact determined to be significant? Was a detailed landscaping plan submitted? (3) Additional concerns which are not addressed are: Is the land proposed for a car park used as foraging ground by the bats? (4) Will the envisaged increase in the number of visitors have a significant impact on the bats (increased disturbance due to noise and light)?		
20	166 – Chapter 9 (Noise)	9.8.1	EIA Coordinator is to provide details on the identified sensitive receptors.	**Details of the identified sensitive receptors are given in the Noise Baseline Study pg19 to 23. Please refer to Appendix IV.** ***MEPA Comment: Noted.***	***I***
21	167 – Chapter 9 (Noise)	Table 9.6	EIA Coordinator is to indicate how the increase in noise levels was performed. What were the values used in this compilation?	**1. The sound power levels (table 9.5) were used as the baseline.** **2. Their attenuation due to distance for each sensitive receptor was calculated using the equation SPL = SWL - 20log (r) – 11 (namely the effect of geometric spreading of a noise source). The final values were added together with the present background noise to obtain**	***I***

				the total worst value scenario noise level at each sensitive receptor using the equation SPL(TOTAL) = 10log10[10^SPL1/10 + 10^SPL2/10 +... +10^SPLn/10] **where:** **n=total number of sounds to be added** **SPL(TOTAL) = sum of the "n" sounds** ***MEPA Comment: Noted.***	
22	170 – Chapter 9 (Noise)	/	More information is needed on the procedure used with respect with "the Calculation for Road Traffic Noise".	**Kindly refer to the document: Calculation of road traffic noise (1988) for an in depth description of the procedure. Available from: http://www.noiseni.co.uk/calculation_of_road_traffic_noise.pdf** ***MEPA Comment: Noted.***	***I***
23	179 – Chapter 9 (Noise)	Table 9.19	(1) The mitigation measure ''Reduction of likelihood of complaints" cannot be considered as a realistic mitigation measure. How will the said reduction be achieved? (2) The significance of the residual impacts needs to be provided in the table.	**Please refer to the paragraph below table 9.14 which puts forward the following suggestion as a possibility to try reduce the likelihood of complaints: "The predicted noise levels fall with category C. Since the suggested standard guideline value for average outdoor noise levels is 55 dB (A) (as stated by the WHO) it is suggested that measures to mitigate operational noise is carried out. Because of the residential buildings already present at a close distance to the road the most plausible way of doing this is to control the traffic passing through these roads, e.g. reducing speed limits and prohibiting trucks to pass at certain times." The residual impacts will then depend on the allowed speed limit.** ***MEPA Comment: Noted.***	***I***

Original Survey Reports – Volume II

24	219 – Chapter 12 (Secondary & Cumulitave Impacts)	12.2	Are further details on the Cittadella Masterplan currently available? If yes, are there any cumulative impacts being envisaged in this regard?	**Yes details on the Cittadella Masterplan are now available. Any cumulative impacts will be included the 2nd draft EPS.** ***MEPA Comments: Noted.***

/	General Comment – Cultural Heritage Assessment	/	(1) It seems that the presented document is a draft version given that the contents page does not tally with the actual content of the document. (2) Furthermore, Appendix I (Catalogue of Cultural Features) is missing. Does this include the data cards for the cultural heritage features present?	**Noted. A copy of the final version of the CHA (including data cards) is provided in Appendix III of this document.** ***MEPA Comments: Noted.***

2. Consultees' Comments

A. Environmental Health Directorate

Comments	AIS replies
With reference to your e-mail dated 5th December 2011 regarding subject indicated in caption and following review of the EPS submitted, please be informed that this Directorate would like to submit the following comments/recommendations regarding this proposed development : Applicant is to be recommended to adopt best practice methods especially during the site clearance, excavation and construction phases and to implement all proposed mitigation measures to mitigate adverse impacts from noise and vibration on nearby sensitive receptors in the Area of Influence and on the general public. All proposed good site practices should be adopted and preferably works should be carried out during normal working hours to minimise the likelihood of complaints. Working hours may need to be reviewed accordingly so as to minimise noise impacts and inconveniencies. Additional noise and vibration attenuation measures should be implemented if necessary. The proposal that noise levels are monitored throughout the different phases of the construction phase to ensure that noise levels are kept to a minimum should be implemented in view that noise resulting from these activities will last throughout the construction period which as stated in the EPS will span approximately 12 months. The proposed monitoring during the operational phase is also highly recommended. Although it is expected that vibration impacts during the construction phase will not be significant, compliance with SOPs and monitoring are highly recommended so as to ensure that no unforeseen significant vibration impacts will result. Vibration attenuation measures should be implemented if and as necessary. An air quality assessment has not been carried out. However any adverse air pollution impacts on sensitive receptors from dust and especially emissions resulting from heavy vehicles during the construction phase should be taken into consideration and adequate mitigation measures implemented accordingly. A waste management strategy should be adopted and strictly implemented so that all generated waste streams will be contained, separated and disposed of safely through the appropriate facilities and according to the necessary permits/licences. It is also pertinent that storm water runoff be carefully managed and properly channeled and that adequate measures are taken to ensure that no water used for wheel washing and general cleaning runs off the site. The proposal that during the operational phase storm water runoff contaminated with oil residues is passed through an oil separator is also recommended. The recommendation that excavation is carried out during the dry season to minimise adverse impacts from contaminated storm water runoff should be implemented where possible. The drawing up and implementation of a Management Plan for all phases of the project thus ensuring adherence to proper site management practices is of utmost importance in mitigating adverse impacts and nuisances on sensitive receptors in the Area of Influence and on the general public. This should include operational management monitoring of construction works which is highly recommended so as to ensure implementation of all necessary mitigation measures and adherence to work practices throughout all the phases of the project. All soil removed from site is to be disposed off as directed by the competent authority. A traffic management plan should also be implemented to prevent nuisances and adverse impacts, including impacts from construction vehicles disposing waste material during the construction phase. (Although in EPS it is stated that this will be negligible). Regular and proper pest control should also be implemented, should vermin, especially rodents pose a nuisance especially during site clearance and excavation phase. It is recommended that all proposed mitigation measures regarding major impacts arising from this project are to be strictly implemented by applicant to mitigate any significant adverse health effects and nuisances on the Area of Influence and the general public. The possible health effects of any residual impacts that cannot be mitigated should also be taken into consideration. Moreover any other unpredicted impacts and nuisances which may arise from this project and that may have a significant adverse effect on public health should be immediately addressed by the applicant and the necessary mitigation measures taken. All relevant complaints lodged should be investigated and remedial action taken immediately. All complaints lodged and actions taken are to be recorded and such records are to be readily available to the Competent Authorities when requested.	**It is common practice that best practice methods and standards are adopted during all phases of the development. Normally all such issues are included in MEPA permit conditions, therefore the recommendations being sought by Environmental Health Directorate will be complied with accordingly.** ***MEPA Comments:*** ***MEPA Comment: Noted; comments from EHD will be taken into consideration during the compilation of the EPD Report on the EIA.***

It is also recommended that the proposed monitoring plans should also be implemented.	

B. Superintendence of Cultural Heritage

Comments	AIS replies	
Ref. Cultural Heritage Act 2002 (CAP 445) Environment Planning Statement for PA 05484/03 – Site at ir-Raba ta' Wara s-Sur, it-Telgha tal-Belt, Victoria With reference to your Letter of Consultation dated 5 December 2011, the Superintendence draws attention to: • Terms of Reference communicated by the Superintendence on 9 March 2007 • Initial comments and concerns expressed by the Superintendence in correspondence, dated 8 April 2004 and 30 August 2005 • The Environmental Planning Statement (EPS) as received by the Superintendence on 5 December 2011.		
Data Capture It is to be noted that data compilation is almost exclusively limited to published material and desk-top research. A major source seems to be the list of scheduled monuments as compiled by the Malta Environment & Planning Authority. Data collection cards have not been compiled for the individual cultural heritage features or structures.	**A copy of the final version of the CHA (including data cards) is provided in Appendix III of this document.** ***MEPA Comment: Noted.***	
The study does not highlight the cultural heritage value and significance of the terraced fields around the Cittadella. This lacuna erroneously debases the importance of the terracing and incorrectly divorces these from the Cittadella itself. It is already unfortunate that the base of the Cittadella hill has been encroached up by urban sprawl. The slopes around the Cittadella, including the terraced fields, are an integral part of the landscape and have a high cultural heritage value. The study should have prioritised this central matter, thus avoiding the perception of the terraces as potential development plots.	**We think that the concept of cultural landscape has been duly emphasized throughout the report.** ***MEPA Comment: Noted; however comments from HPU detailed above refer.***	
Furthermore, the study misses the point about the illegality of the present ad hoc car park. It is to be remembered that this illegal parking was the result of unauthorized and unmonitored development that amounts to a veritable rape of the cultural landscape of the Cittadella and its environs. This cultural landscape is iconic and renowned. It is one of Gozo's more familiar attractions which is often promoted internationally. The development application seeks to perpetuate the existing illegality of the car park and exponentially increase the damage already caused to the cultural standing of the Cittadella. The very presence of the car park in its current state is senseless, while the proposed increase of the projected extension undermines not only the values of the Cittadella, but also its potential for inscription on the UNESCO World Heritage List. The EIA is weakened by the fact that it misses this point altogether.	**Illegality is considered to be outside the remit of the cultural heritage assessment report of the EPS.** ***MEPA Comment: The consultants need to look into how the baseline situation has evolved before the current illegal development, using the same tools (e.g. aerial photos) used by MEPA for direct investigation of the actual case merits. Using an illegal development as a valid point of departure for the assessment is not acceptable.***	**It was not possible to find any information about the area before this development. MEPA's Orthophoto Map dated 1998 is not clear enough to attest the damage incurred by the said development. The report has been updated to elaborate the aspect of illegality further in Section 2.7 and 3.3 of the report in Appendix III.**
Nevertheless, and despite certain lacunae, the Environment Planning Statement (EPS) gives a strong overview of the cultural heritage assets within and around the Cittadella, of their value and of the impacts upon these assets. The EPS should expedite an informed decision on this application.	**The WH list was mentioned, however not in conjunction with the illegal parking lot.** ***MEPA Comment: Noted; comments from SCH will be taken into consideration during the compilation of the EPD Report on the EIA.***	
Cultural Heritage (Built Heritage) - The EPS lists the Cittadella and historical structures within the Cittadella and its immediate environs, listing in particular those that are protected by scheduling. Such features are tabulated in Table 7.2, which notes that impact by the proposed development on these	**Noted.**	

features will be major, adverse and irreversible. These indicated impacts are unacceptable. - The impact as noted includes potential threat to the stability of the slopes and the fortifications. The Superintendence considers that such a threat is unacceptable. The Precautionary Principle should be used to guide planning decisions which should safeguard the stability of the slopes and summit of the Cittadella. **Cultural Heritage (Landscape)** - The study includes a series of photomontages taken from a number of viewpoints in Victoria and the surrounding area. The Superintendence draws particular attention to the views as seen from viewpoints 1, 2, 3 and 6, where the extensive visual and material impact is very evident. Even in their current format, these photomontages show very clearly the extent and depth of the physical impact of the proposed car park, which comes across as a visual aberration. - The mitigation measures suggested in the study are purely cosmetic and totally inadequate because they are designed to hide a car park, whose illegal origin has already damaged the Cittadella environs. The proposed development would have a negative, irreversible and unacceptable impact on the cultural landscape. - Such is the negative impact of the proposed regularization and extension of the illegal car park, that any suggestion of mitigation and cosmetic measure is misleading as these avoid the most obvious need for a thorough reinstatement/restoration of the destroyed terracing. In this, MEPA should lead and use its powers to ensure such reinstatement. The Superintendence notes the statement at Section 6 (Historical and Cultural Heritage) of the Non-Technical Summary, where it is stated that: 'The proposed development will therefore not only irreversibly change the historical fabric and visual integrity of the features close to the area of proposed development and of the Cittadella as a whole, but also of the Gozitan cultural landscape'. The Superintendence is in agreement with this statement, stating further that such a development would have a very negative and totally unacceptable impact on the cultural heritage value of the Cittadella and its environs. This position is sustained by the data and information as compiled in the Environment Planning Statement. The Superintendence objects most strongly to the proposed development. Furthermore, the illegal works as already executed are to be reversed and the site is be rehabilitated. MEPA should ensure that following its refusal of the application a programme to rehabilitate the damaged landscape of the Cittadella is imposed.	***MEPA Comment: Noted*** **Noted.** ***MEPA Comment: Noted; comments from SCH will be taken into consideration during the compilation of the EPD Report on the EIA.*** **Noted.** ***MEPA Comment: Noted; comments from SCH will be taken into consideration during the compilation of the EPD Report on the EIA.*** **Noted.** ***MEPA Comment: Noted; comments from SCH will be taken into consideration during the compilation of the EPD Report on the EIA.***	

"Cutajar Nathaniel at Heritage Superintendence " <nathaniel.cutajar@gov.mt>
01/08/2012 17:40

To <b.fenech@jbamalta.com>, "Pace Anthony at Heritage Superintendence" <anthony.pace@gov.mt>
cc "Smith Charlene at MEPA" <Charlene.Smith@mepa.org.mt>, "Borg Joseph at MEPA" <Joseph.Borg@mepa.org.mt>
bcc
Subject RE: Response following SCH clarification

History: This message has been forwarded.

Dear Perit Fenech,

The Superintendence acknowledges receipt of your note clarifying a number of points raised by this office earlier this year.

The latest plans show a decided improvement on the earlier versions, both in terms of footprint covered and visual impact.

Regarding the potential archaeological impact of these works, the Superintendence notes the developer's intention to avoid entirely impacting potential archaeological remains by 1) avoiding rock-cutting and 2) keeping foundation construction to a minimum depth, impacting only modern debris layers.

This notwithstanding, the possibility of uncovering archaeological remains at this site remains a possibility. Any development permit that may be issued for this proposal should therefore include conditions for:

1) ensure there is constant monitoring for all excavation and levelling works, by an archaeologist approved by the Superintendence of Cultural Heritage. The monitor is to work according to TORs issued by the Superintendence, and is to be funded by the developer.

2) Should any archaeological remains be identified in the course of the works these are to be investigated and documented by the Superintendence at the expense of the developer, and are to be protected in line with existing legislation on the matter.

Nathaniel Cutajar
f/Superintendent of Cultural Heritage

-----Original Message-----
From: b.fenech@jbamalta.com [mailto:b.fenech@jbamalta.com]
Sent: 31 July 2012 13:14
To: Cutajar Nathaniel at Heritage Superintendence; Pace Anthony at Heritage Superintendence
Cc: Smith Charlene at MEPA; Borg Joseph at MEPA
Subject: Response following SCH clarification

Dear all,

Please find attached our response following SCH clarification as requested.

Kind Regards,

Bernard Fenech
JB Associates

Appendix I:

Final Version of the Lighting Plan

(June 2012)

Legend

Energy efficient free standing luminaries @ 5 meters centres
IP65 enclosure activated through a light sensitive
photocell to turn on at dusk and off at dawn or
activated automatically in dark weather.
Luminaires shall be full cut off to avoid light pollution and equipped
with timed dimming during off peak
hours.

Timber vechile containment & pedestrian railing
(crash barrier)

Reinforced soil slope with wrap-around techniquee consisting
in wrapping the reinforcing geogrids around the face in such a
way as to protect it from progressive erosion.
The build slope shall be constructed with an inclination of 80° and
completely vegetated with the use of biomats to prevent soil washout
and for the support of growing plants.

Random rubble wall

N
W E
S

m 0 5 10 15 20 25 30

ft 0 25 50 75 100

Scale 1 : 200 (A1)

Project Title:

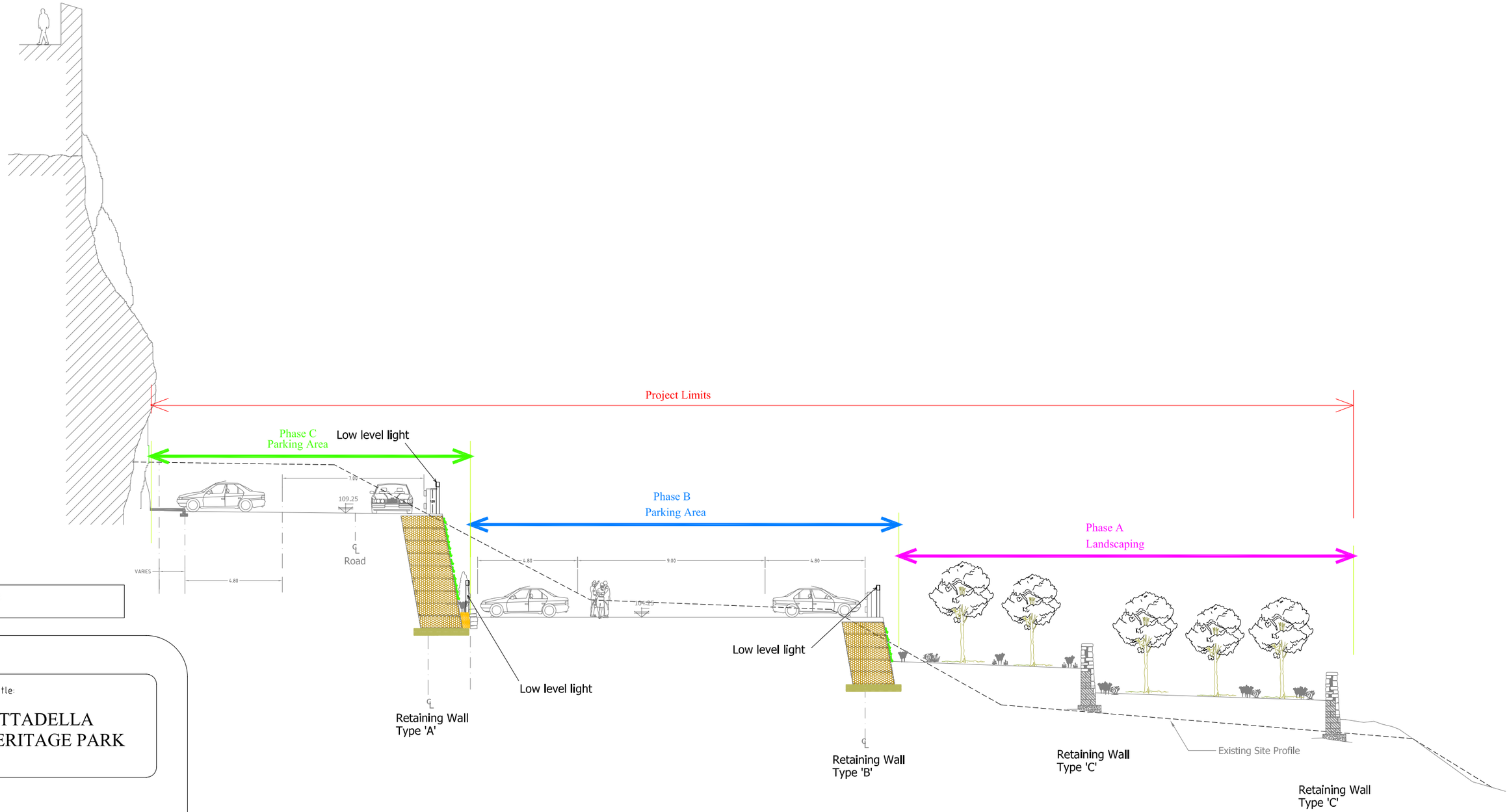
CITTADELLA
HERITAGE PARK

Drawing title:

ACCESS TO SITE

Drawn:	
Date:	
Checked:	
Approved:	
File no:	C P - 01

Joe Bugeja
Associates
'Maple Leaf'
Handaq Road
Handaq Industrial
Estate, Qormi
QRM 4000



Revision - B

Project Title:

CITTADELLA
HERITAGE PARK

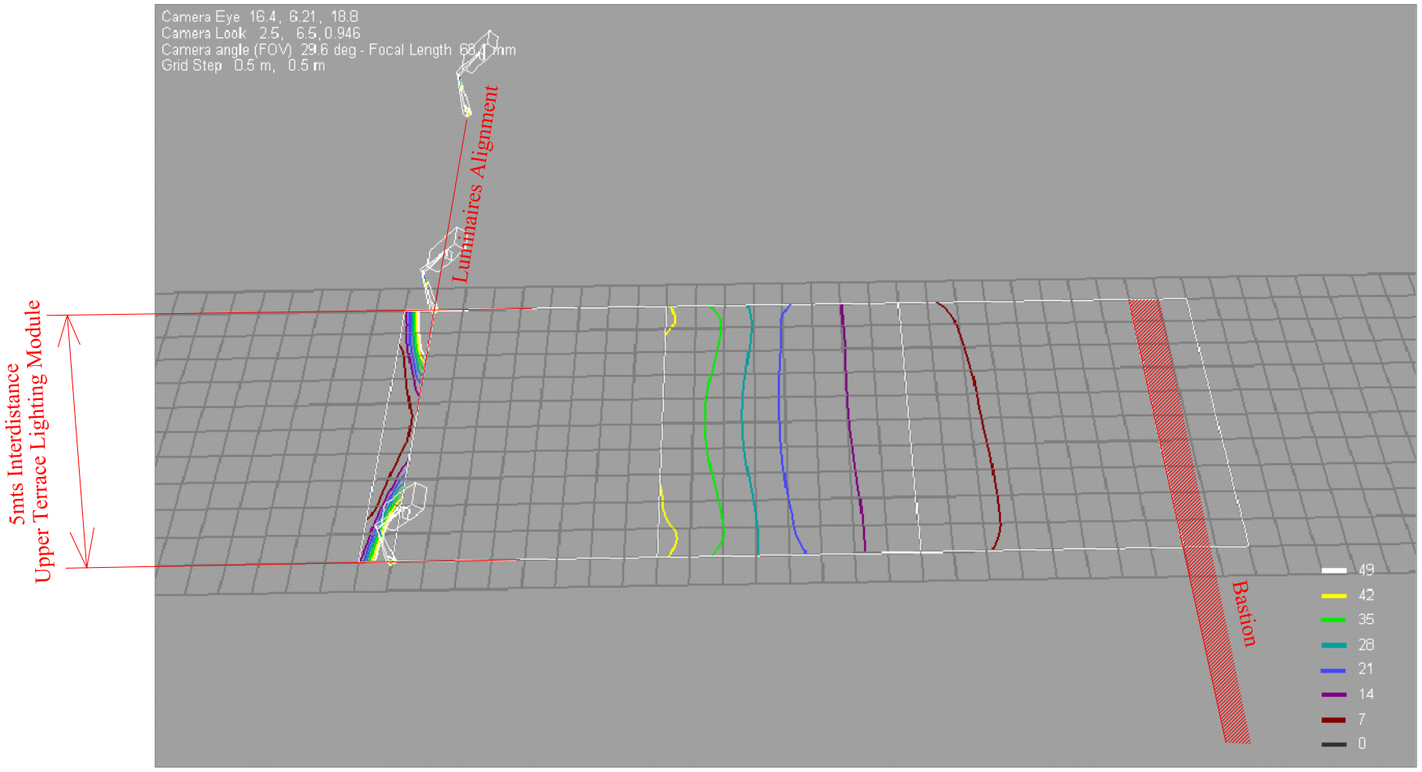
Drawing title:

SECTION

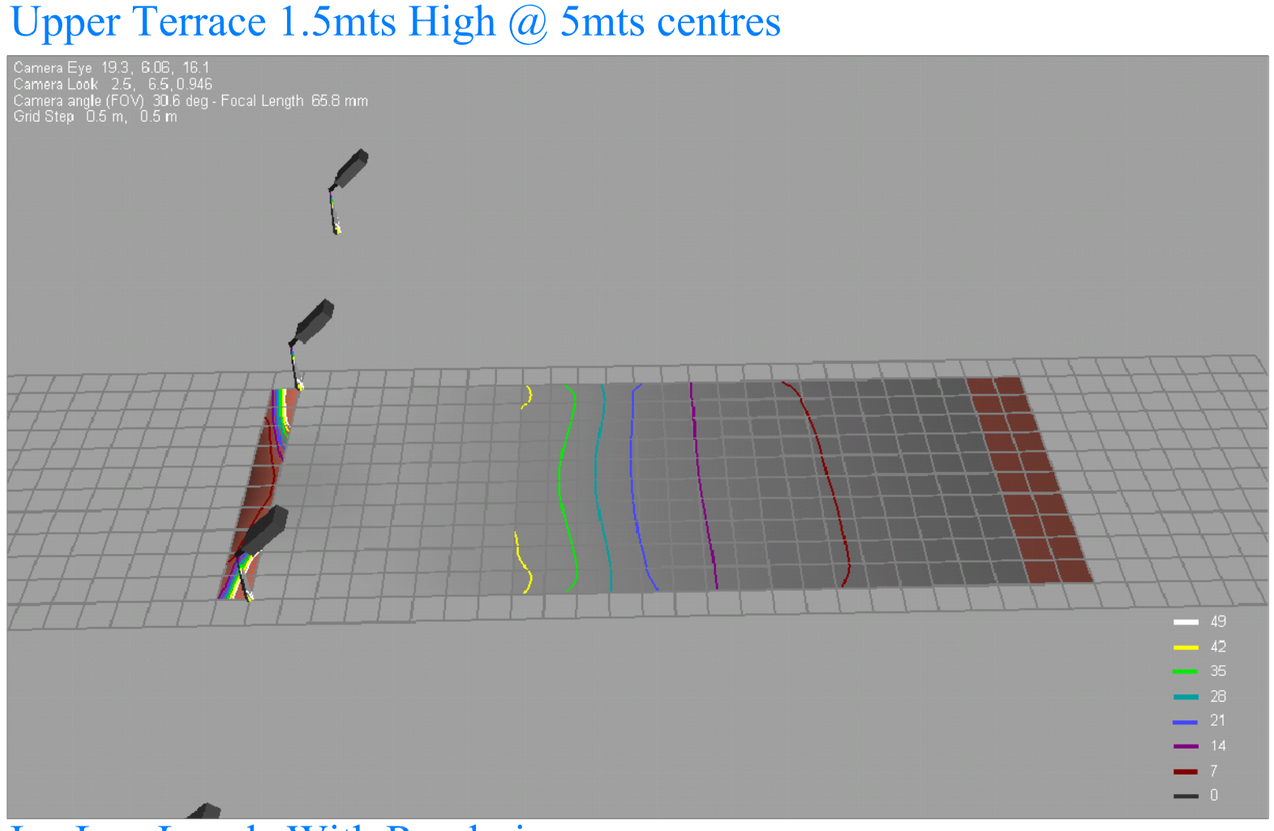
Drawn:	
Date:	
Checked:	
Approved:	
File no:	CS - 01

Joe Bugeja
Associates
'Maple Leaf'
Handaq Road
Handaq Industrial
Estate, Qormi
QRM 4000

Section
Scale 1 : 200



Iso Lux Levels
Upper Terrace 1.5mts High @ 5mts centres



Iso Lux Levels With Rendering
Upper Terrace 1.5mts High @ 5mts centres

Project Title:

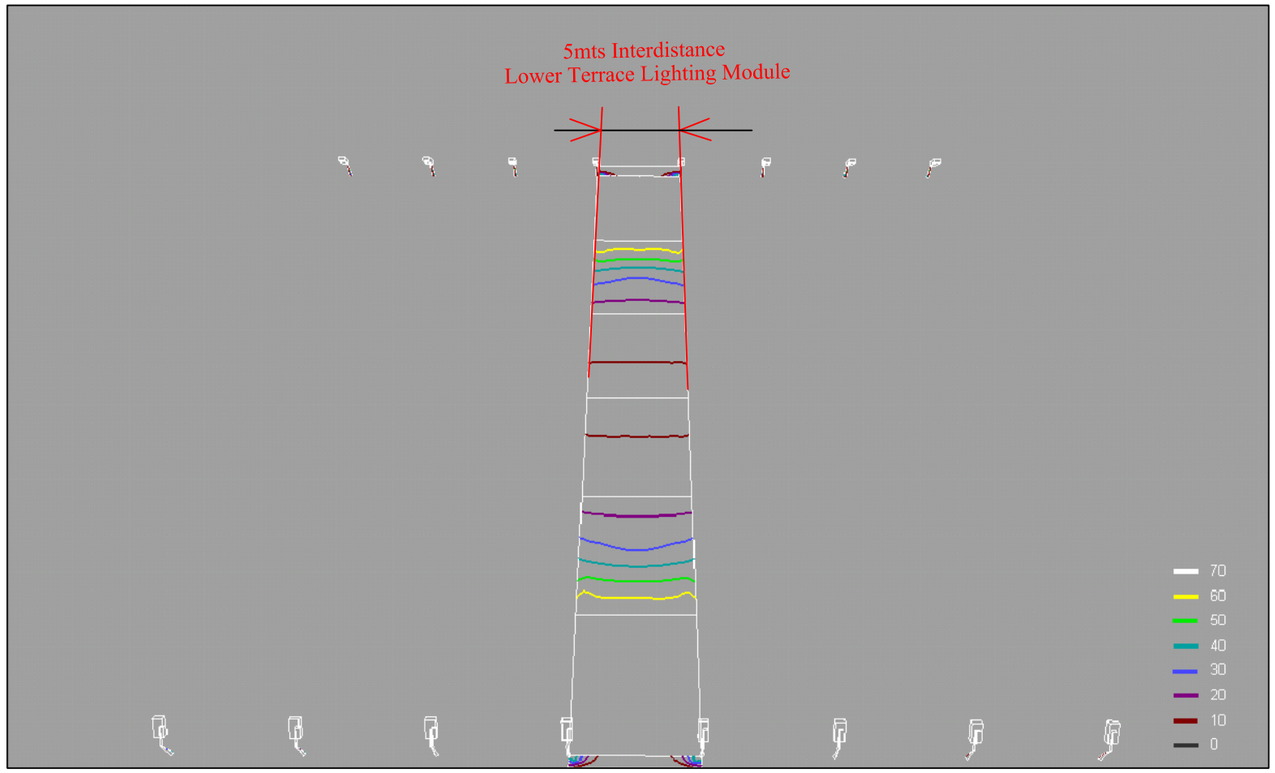
CITTADELLA
HERITAGE PARK

Drawing title:

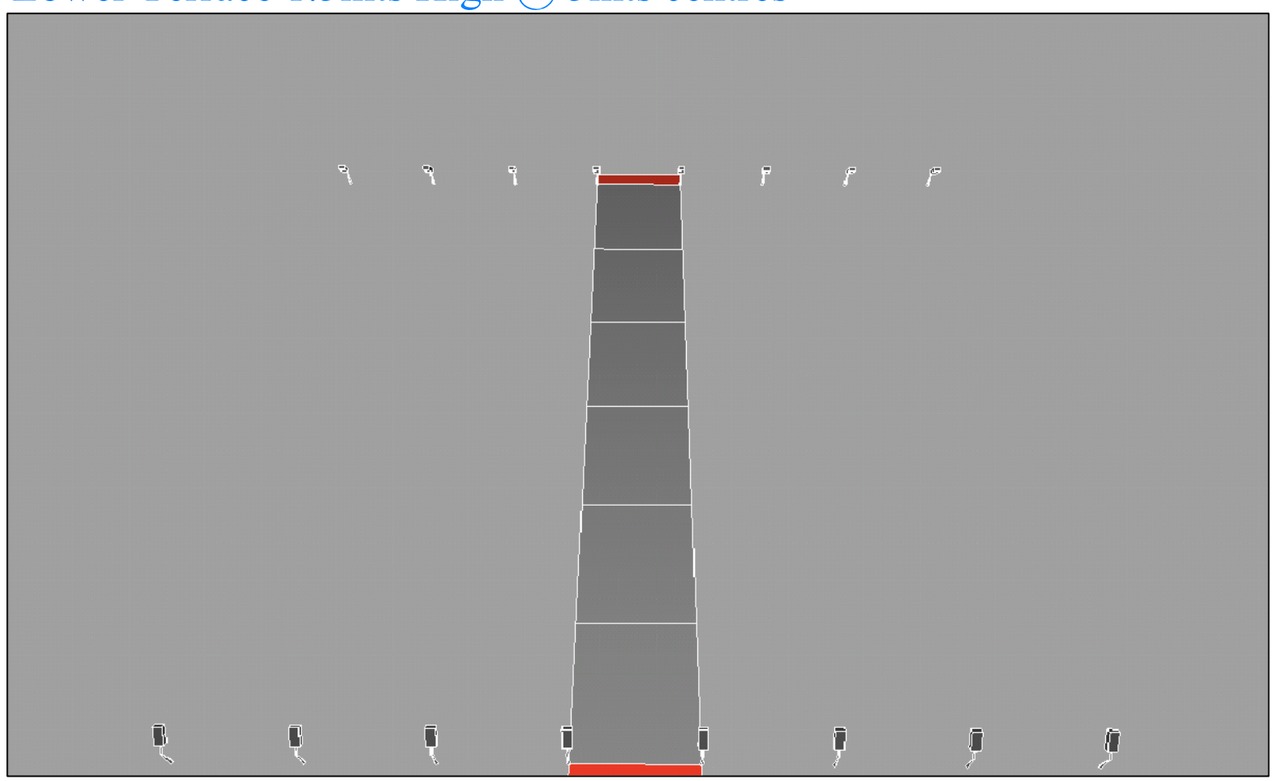
PROPOSED
UPPER TERRACE
LIGHTING LEVELS

Drawn:	
Date:	
Checked:	
Approved:	
File no:	CL - 02

Joe Bugeja
Associates
'Maple Leaf'
Handaq Road
Handaq Industrial
Estate, Qormi
QRM 4000



Iso Lux Levels (5 meters module)
Lower Terrace 1.5mts High @ 5mts centres



Rendering (5 meters module)
Lower Terrace 1.5mts High @ 5mts centres

Revision - B

Project Title:

CITTADELLA
HERITAGE PARK

Drawing title:

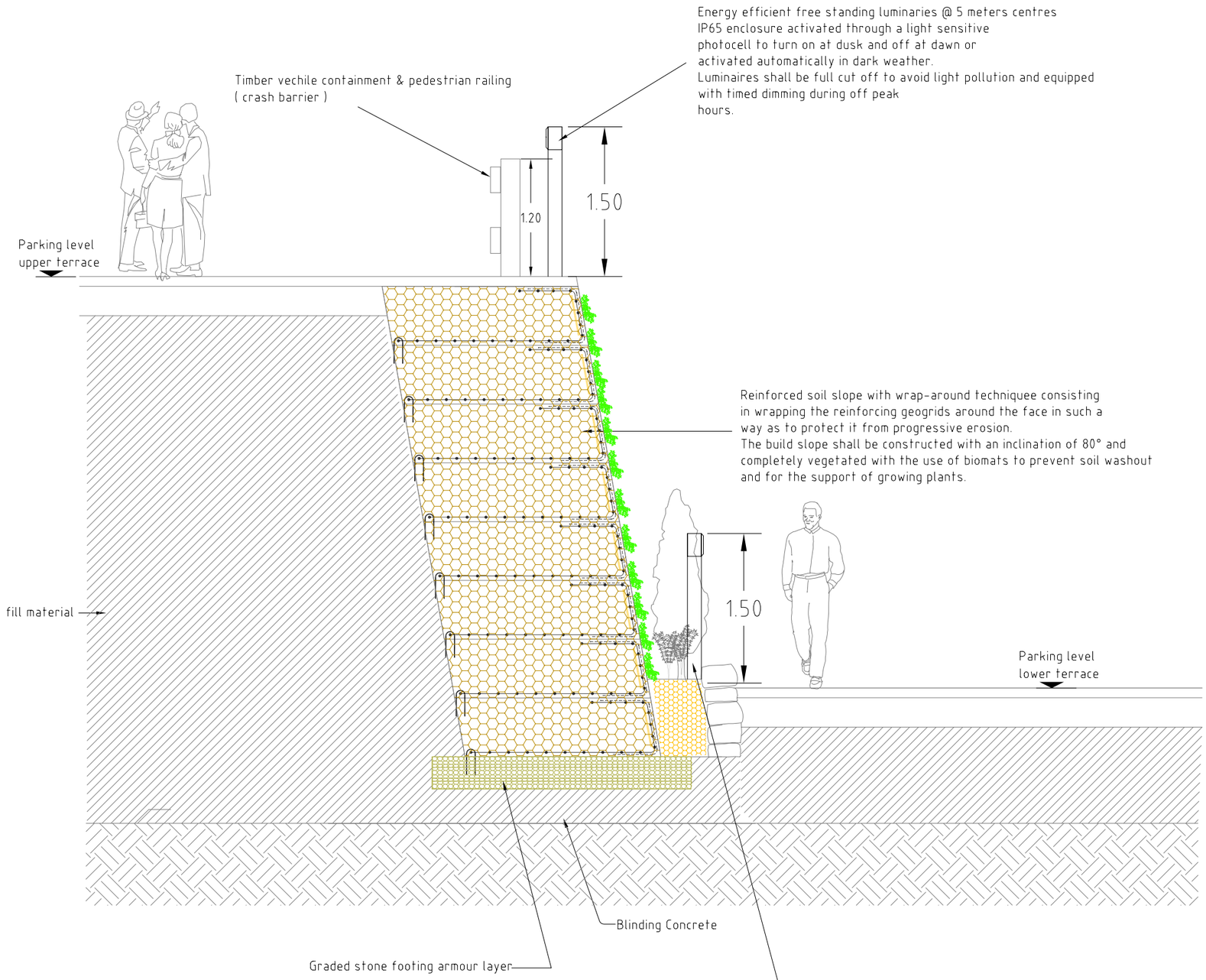
PROPOSED
LOWER TERRACE
LIGHTING LEVELS

Drawn:	
Date:	
Checked:	
Approved:	
File no:	CL - 01

Joe Bugeja
Associates
'Maple Leaf'
Handaq Road
Handaq Industrial
Estate, Qormi
QRM 4000

Appendix II:

Details of Alternative slopes



Retaining Wall Type 'A'

Revision - B

Project Title:

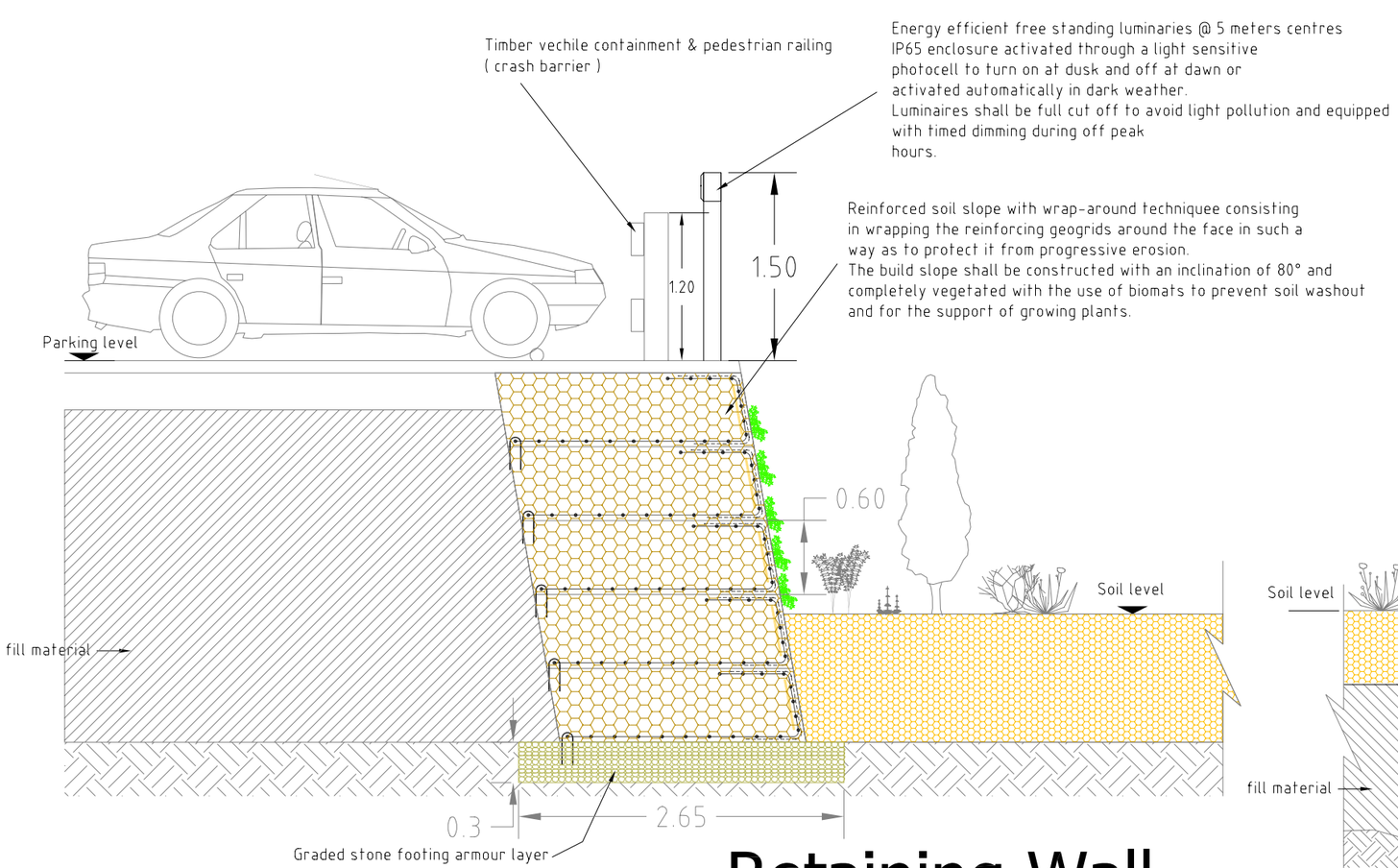
CITTADELLA HERITAGE PARK

Drawing title:

PROPOSED RETAINING WALL TYPE A

Drawn:	
Date:	
Checked:	
Approved:	
File no:	CS - 03

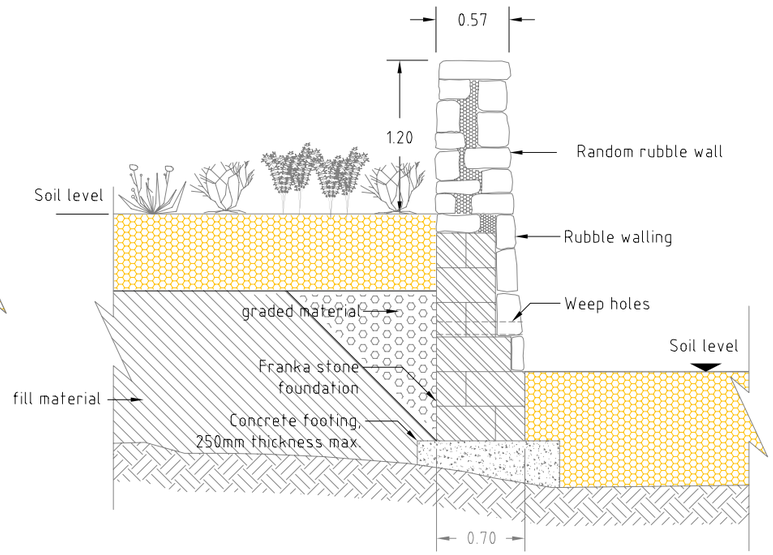
Joe Bugeja Associates
'Maple Leaf'
Handaq Road
Handaq Industrial Estate, Qormi
QRM 4000



Retaining Wall Type 'B'

Shifting and reinstatment of existing soil to construct vegetated retaining wall system.

Sacrificial steel mesh formwork for the geogrid vegetated retaining wall system.



Rubble Retaining Wall Type A

Retaining Wall Type 'C'

Revision - B

Project Title:

CITTADELLA
HERITAGE PARK

Drawing title:

PROPOSED
RETAINING WALL
TYPE B & C

Drawn:	
Date:	
Checked:	
Approved:	
Dwg no:	CS - 02

Joe Bugeja Associates
'Maple Leaf'
Handaq Road
Handaq Industrial Estate, Qormi
QRM 4000

Reinforced soil slopes and walls

TENAX®

Man, Technology, Environment.

LEGEND

A Original profile
B Original embankment profile
C Natural profile
D Profile after failure
E Failure surface
F Pipeline
G TENAX geogrids
H Excavation line
I Reinforced slope profile
J Reinforced embankment
L Reinforced embankment dam
M Unreinforced embankment dam
N Steep reinforced slope
P Existing right of way limit
Q Slope cutting
R Cutting profile
S Right of way saving
T Space gained at crest
U Fill soil saving
V Bridge deck
W Wall face
Z New railway lane

Basic concepts of reinforced soil slopes and walls

Civil engineering has always dealt with the constructions required by mankind for living, producing, moving, communicating. Until few years ago only natural materials were available: soil, rocks, wood, sand, asphalt, iron. Even concrete and steel are just mixtures or alloys of natural material.
Man has always tried to use slopes, shores, cliffs and other sites which are valuable for their aesthetics or geographical position but where constructions are difficult.

Through the centuries man has therefore developed the concept of reinforced soil: the simple idea is to put some "inclusions" in the soil, in such a way to improve its technical characteristics (see Fig. 1a and Fig. 1b).

This concept is very ancient: 3000 years ago the Babylonians used intertwined palm branches to reinforce their "ziggurat".
The Agar-Quf Ziggurat (Fig. 2), in the actual Iraq, was made of clay bricks reinforced with woven mats of reed laid horizontally on a layer of sand and gravel at vertical centres betweeen 0.5 m and 2.0 m. This structure was originally over 80 m high.

The Romans used several types of soil reinforcement. An example (Fig. 3) is the use of timber baulks placed in the soil perpendicular to the face, for building retaining walls.

Fig.1a and 1b: The concept of reinforced soil: tensile inclusions improve the mechanical characteristics of the soil.

Fig.2: The Agar-Quf Ziggurat.

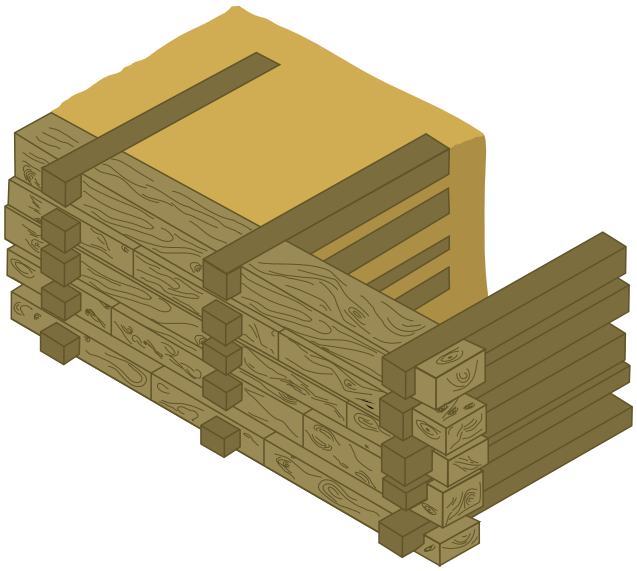


Fig.3: A reinforced soil retaining wall structure built by the Romans for the wharf of Port of Londinium (London), 1st Century B.C.

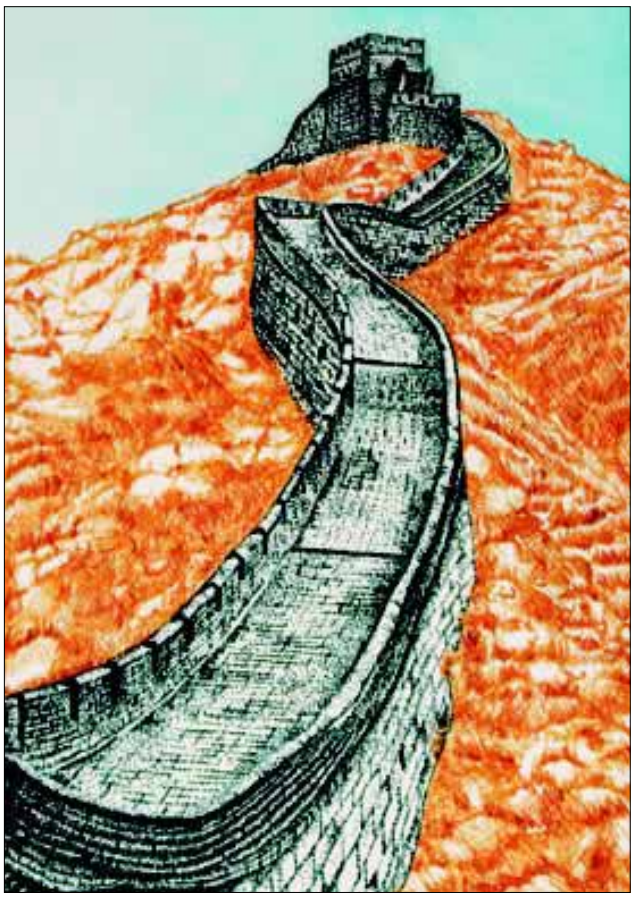


Fig.4: The Great Wall of China

The Great Wall of China (Fig. 4), built more than 2000 years ago, contains some sections where clay and gravel were reinforced with tamarisk branches.

More recently, in 1822 Colonel Pasley introduced in the British Army a form of reinforced soil, demonstrating by a series of trials that the lateral pressure on a retaining wall could be reduced if the backfill was reinforced by horizontal layers of brushwood, wooden plants or canvas.

In this long tradition the problem has always been that the natural materials used as inclusions have usually a limited durability and a very large and uncontrollable variability in their technical characteristics.

The reinforced soil concept has got a huge momentum with the development of Geogrids (Fig. 5). These plastic products, specifically engineered for soil reinforcement, provide civil engineers with factory controlled characteristics, uniform behaviour, very limited variability and very high durability.

Geogrids allow the construction of reinforced soil slopes and walls in a much more reliable, fast, safe and economic way than with the natural materials used in the past.

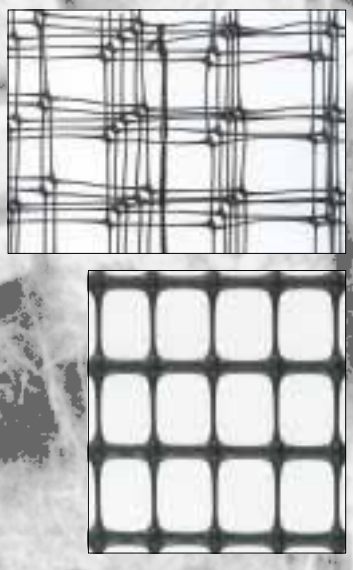


Fig.5: Geogrids afford factory controlled characteristics, uniform behaviour, very limited variability and very high durability.

Experience, quality, durability, reliability

TENAX reinforced soil structures

The geogrid reinforced soil is a composite material made up of two components:

- **the soil** which can resist compression and shear;
- **the geogrids** (the tensile inclusions) which provide tensile resistance.

The combination of the tensile and the compressive resistance of the soil and of the geogrids improve the global strength of the composite material - the reinforced soil - similar to concrete and steel producing reinforced concrete.
And like reinforced concrete, the geogrid reinforced soil is used in structural applications (Fig. 6), therefore:

Fig.6: This reinforced embankment, 18 m tall and at 80° slope, carries a highway.

- **the use of geogrid reinforced soil requires a proper design;**
- **design and construction of geogrid reinforced soil involve liability for engineers and contractors.**

Geogrid reinforced soil structures are used for both temporary and permanent applications, but often for long term projects, with a design life even in excess of 100 years.

Therefore proven design methods and accurate investigation of geogrids performances are fundamental.

TENAX provides design methods and software for geogrid reinforced soil slopes and walls (Fig. 7) which are based on internationally accepted theories and on experience gained all over the world, where TENAX engineers designed some of the most impressive reinforced soil structures in operation today.

Fig.7: The TENAX Software for design and stability analysis of geogrid reinforced slopes and walls.

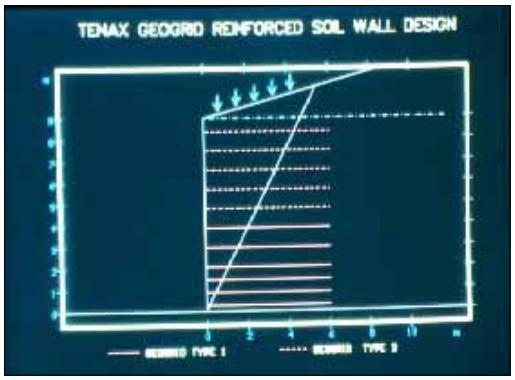


Fig.8: The creep testing facility at the TENAX Testing Laboratory.

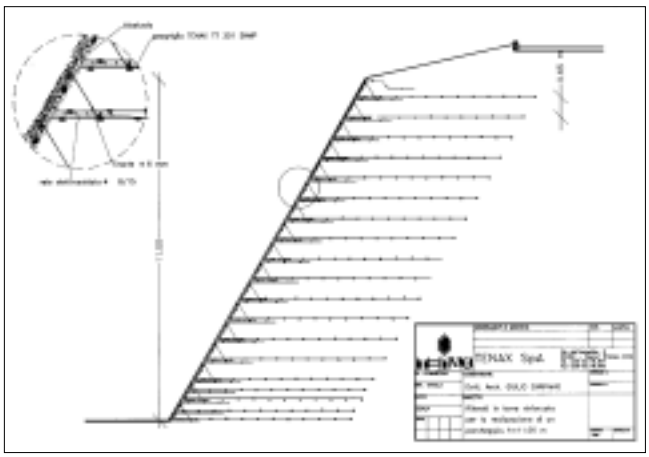


Fig.9: TENAX can provide design suggestions for any engineering solution.

Fig.10: TENAX geogrids are strong yet flexible: the junctions can withstand local bending without breaking. Hence TENAX **TT SAMP** geogrids are almost unaffected by construction damages.

Fig.11: The works for the construction of TENAX geogrid reinforced slopes and walls are made inside the reinforced block.

TENAX provides state-of-the-art procedures to qualify its products: TENAX developed the TENAX Testing Laboratory, one of the most advanced geosynthetics laboratories in the world, carrying out research and extensive index and performance testing (Fig. 8); TENAX produces geogrids according to **ISO 9002** quality control procedures; TENAX provides design and specification suggestions, field supervision, studies and researches to solve new problems (Fig.9).

The TENAX production process yields the unique characteristics of TENAX geogrids (Fig. 10): flexibility, ductility, strength, low creep, high modulus, chemical-biological-U.V. resistance, minimum susceptibility to construction damages.

TENAX engineers work with the Design Engineer, the Client, the Contractor, to find the best solution to any kind of design and construction problems, taking into account all the technical, practical, economical and environmental issues.

TENAX geogrid reinforced soil structures provide proven durability and reliability, low cost and resistance to seismic and dynamic loads.
The construction of TENAX geogrid reinforced soil structures requires neither special foundations nor particular machinery.

The construction of TENAX geogrids reinforced slopes and walls is carried out by working inside the reinforced block (Fig. 11), thus respecting the right-of-way limits and avoiding the disturbance of road traffic and human or natural activity in front of the working area.

TENAX Geosynthetics

TENAX has developed a complete range of geosynthetics, which are used in applications of soil reinforcement, soil stabilisation, drainage, erosion control and others.
Some of the TENAX geosynthetic products are used to solve the problems associated with the reinforcement of slopes and walls, namely:

Fig.12: TENAX **TT SAMP** geogrids have been engineered for the reinforcement of soil, providing very high tensile strength in their longitudinal direction.

Mono-oriented geogrids

TENAX **TT SAMP** mono-oriented geogrids (Fig. 12 and Fig. 13) are two-dimensional structures produced from High Density Polyethylene (HDPE) using an extrusion process followed by a monodirectional stretching. This unique process yields a monolithic structure with a uniform distribution of long ellyptical apertures, having high tensile strength and high tensile modulus in the longitudinal direction. The structure of these geogrids provides an optimal interlocking system with the soil.
TENAX **TT SAMP** geogrids are completely inert to chemical and biological conditions which normally occur in soils, posses high tensile strength, and are specifically engineered for the reinforcement of soil.
TENAX **TT SAMP** geogrids are available with tensile strengths in excess of 150 kN/m.
TENAX **TT SAMP** geogrids provide a solution to many soil reinforcement problems involving all types of fill material. TENAX **TT SAMP** geogrids allow the construction of slopes and walls with both vegetated face (Fig. 14) and concrete face (Fig. 15).

Fig.13: TENAX **TT SAMP** geogrids are light, flexible, strong, durable and very easy to install.

Fig.14: TENAX **TT SAMP** geogrids allow an easy growth of the vegetation at the face of reinforced soil structures.

Fig.15: TENAX **TT SAMP** geogrids are designed to be connected to concrete elements (panels, blocks, exhisting walls etc.), thus allowing to build retaining wall structures.

Fig.16: TENAX **LBO SAMP** bi-oriented geogrids have been engineered to provide strength in both directions.

Bi-oriented geogrids

TENAX **LBO SAMP** and TENAX **MS** bi-oriented geogrids (Fig. 16 and Fig. 17) are two-dimensional structures manufactured from polypropylene, chemically inert and with homogeneous and uniform characteristics, manufactured by an extrusion process and then stretched longitudinally and transversely.
Bi-oriented geogrids can be used for the reinforcement of small slopes and as a secondary reinforcement, complementary to the primary reinforcement provided by TENAX **TT** mono-oriented geogrids.

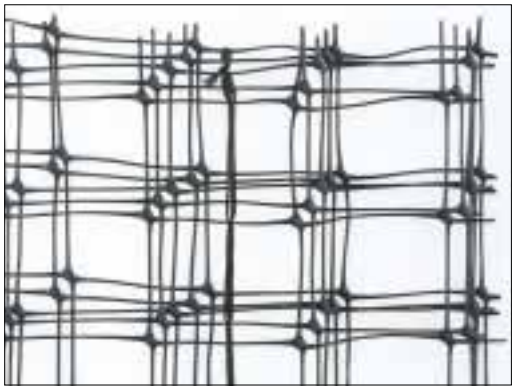


Fig.17: TENAX **MS** bi-oriented geogrids provide tensile strength and lateral confinement to the soil.

Fig.18: TENAX **ECOMAT** are biomats composed of straw and coconut fibers.

Biomats

TENAX **ECOMAT** (Fig.18) are biomats composed of natural fibers, straw and/or coconut, kept together by two light plastic meshes which are photodegradable by UV rays. TENAX **ECOMAT** protect the soil from rain splash, prevent the washout of fine soil and, while naturally degradating, provides nutritious support to the growing plants.
TENAX **ECOMAT** find extensive application in the construction of "green" walls, where they are used for the protection of the face until the vegetation is grown.

Vegetated retaining wall System

The most common construction method for reinforced soil slopes and walls is the "wrap-around" technique, consisting in wrapping the reinforcing geogrids around the face, in such a way as to protect it from progressive erosion.
The TENAX **RIVEL** vegetated retaining wall System is an improvement of the traditional wrap-around method. TENAX **RIVEL** consists in using a sacrificial steel mesh formwork (Fig. 19), which allows to ease the construction and to obtain an excellent finishing at relatively low cost.

Fig.19: The sacrificial steel mesh formwork of the TENAX **RIVEL** vegetated retaining wall System.

The TENAX **RIVEL** System allows to build slopes and walls with an inclination up to 80°, completely vegetated thanks to the use of TENAX biomats (Fig. 20), which can provide a perfect medium for preventing the washout of the soil and for the support of the growing plants.
The vegetation of the face is further enhanced by hydroseeding the face at the end of the construction of the reinforced soil structure.
TENAX **RIVEL** is therefore an important improvement of the wrap-around technique, yielding a more durable and safer retaining wall which afford a reduction both of costs, construction time and environmental impact (Fig. 21).

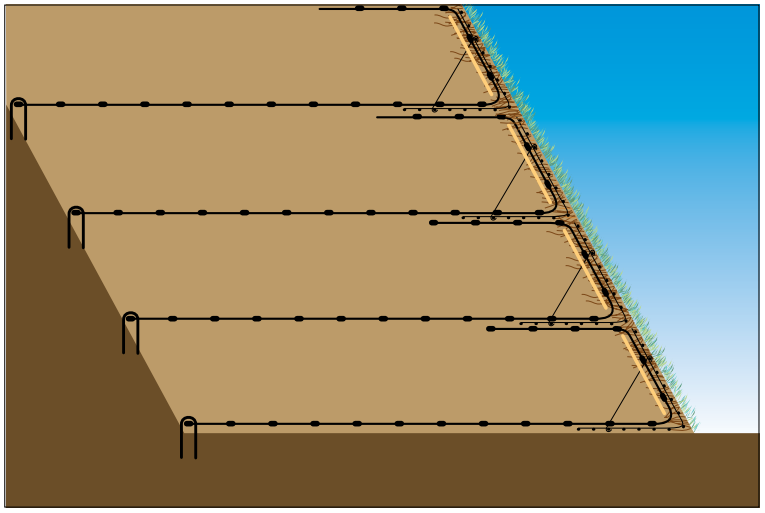


Fig.20: Scheme of the TENAX **RIVEL** vegetated retaining wall System.

Fig.21: TENAX **RIVEL** allows to reduce the environmental impact of retaining structures.

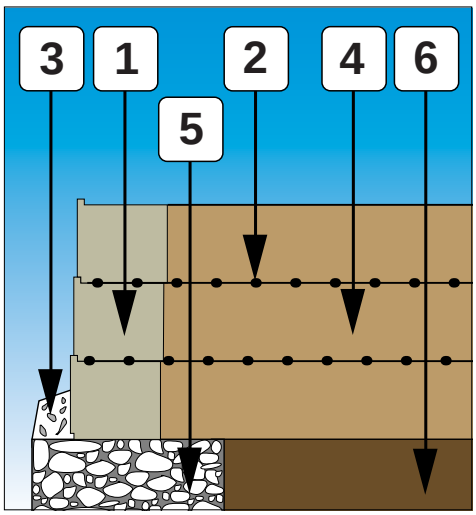


Fig.22: The TENAX **NURAGHE** segmental retaining wall System.

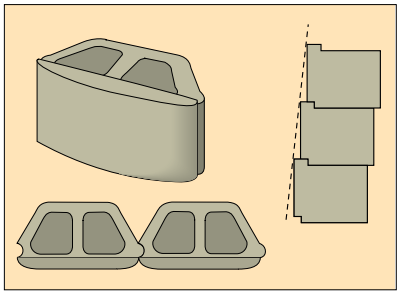
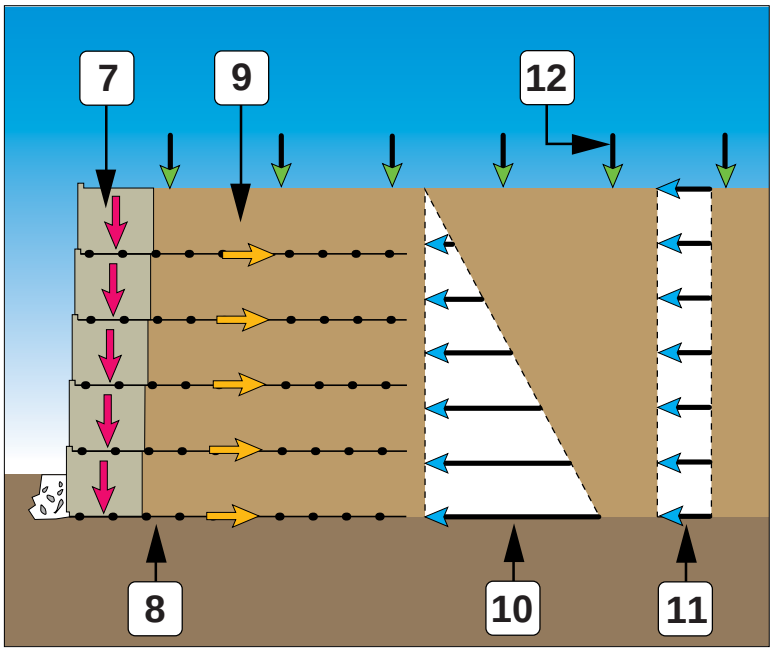


Fig.23: An example of the blocks used for the TENAX **NURAGHE** Segmental retaining wall System.

Segmental retaining wall System

TENAX **NURAGHE** is a segmental retaining wall System composed of concrete blocks, specifically developed for the face of the structure, and of geogrids for soil reinforcement (Fig. 22).
The concrete blocks, placed on well compacted soil or light concrete base, don't require any use of mortar, since each block is fixed to the adjacent ones just thanks to their peculiar shape (Fig. 23).
The concrete blocks usually present passing holes which are filled with soil when installed, increasing in this way the weight of the blocks and allowing the anchorage of TENAX geogrids.
The face of the blocks is usually curved for better aesthetical finishing. The blocks are self stable by gravity without soil pressure, therefore they don't require any form work for installation, since the blocks themselves act as form work for the construction of the geogrids reinforced soil block.
TENAX geogrids are calculated in such a way to stabilize the soil behind the blocks, under specific conditions of geometry, surcharge and pore pressure (Fig. 24).



LEGEND

1 Concrete blocks.
2 TENAX Geogrids.
3 Concrete curb (facultative).
4 Compacted fill soil.
5 Low cement content concrete foundation or well compacted gravel.
6 Levelled compacted soil.
7 Blocks are self stable by gravity.
8 Pressure behind the blocks is minimal.
9 Tensile strength of geogrids contrasts the soil pressure.
10 Soil pressure due to self weight.
11 Soil pressure due to the distributed overload.
12 Distributed overload.

Fig.24: Statics of TENAX **NURAGHE** retaining wall System.

Slope failure repairs

The problem

Large and small landslides and failures of natural slopes (Fig. 25) often occur in areas where the value of the environment (for technical or economical or touristic or artistic reasons) call for the repair of the slope to the original (or as close as possible to the original) geometry.

LEGEND

A Original profile
D Profile after failure
E Failure surface
I Reinforced slope profile
H Excavation profile

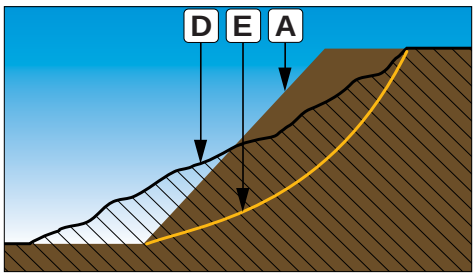


Fig.25: A typical slope failure.

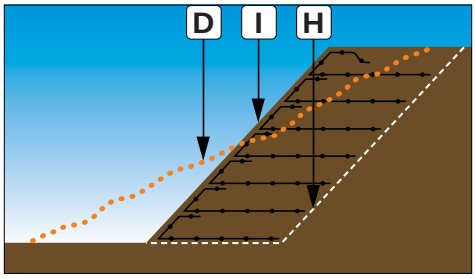


Fig.26: With TENAX geogrids the slope can be reinstated by reusing the same landslide soil.

The solution

TENAX geogrids allow to use the same soil of the landslide to reinstate the slopes (Fig. 26 and 27), thus achieving fundamental savings over the solution of importing a soil with better mechanical characteristics.
The geogrid reinforced slope can be easily vegetated with the local essences, in order to obtain the best integration with the surrounding environment (Fig. 28).
The experience of TENAX engineers allows to obtain the best solutions for minimizing the environmental impact (Fig. 29).

Fig.27: A big landslide in morainic soil being reinstated with TENAX geogrids.

Fig.29: A big landslide in clay soil was repaired with TENAX geogrids with minimum environmental impact.

Fig.28: The reinforced slope can be easily vegetated thus improving the insertion in the surrounding environment.

Slope cutting repairs

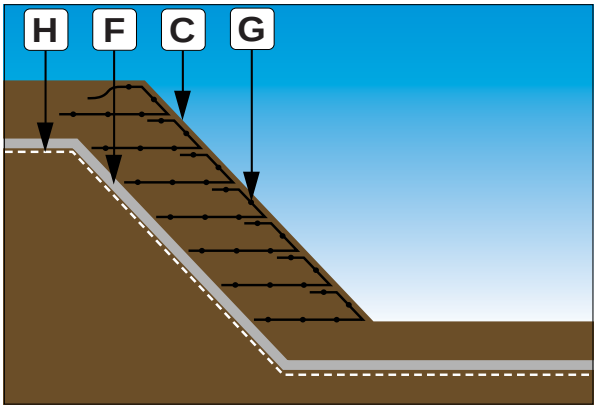


Fig.30: Typical cross-section of a slope cut with the pipeline installed and the geogrids used to reinstate the original geometry.

The problem

The installation of pipelines and other underground structures often requires to cut a slope in protected or valuable areas where the Authority imposes to repair the cutting to the original situation.
This may produce geothechnical problems due to the fact that the excavated soil results in lower mechanical characteristics than the original soil in the slope.

Fig.31: TENAX geogrids were used to reinstate a 40m high slope cutting for gas pipeline installation.

The solution

TENAX geogrids allow to improve the stability of the soil: the slope can be rebuilt without using expensive consolidation techniques (Fig. 30, 31 and Fig. 32).

LEGEND

C Natural profile
F Pipeline
G TENAX Geogrids
H Excavation profile

Fig.32: The slope, after few month, is completely revegetated. The result is: **NO ENVIRONMENTAL IMPACT AT ALL.**

Steep slopes embankments and bunds

The problem

There are many situations where the shortage of space or fill material calls for the construction of embankments and bunds with very steep slopes, greatly in excess of the naturally stable angle.

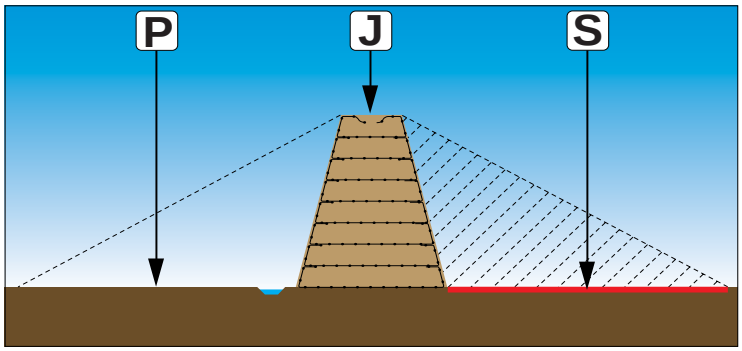


Fig.33: Typical situation where reinforcement allow to take advantage of the existing right of way limits, without the cost for occupation of additional right of way.

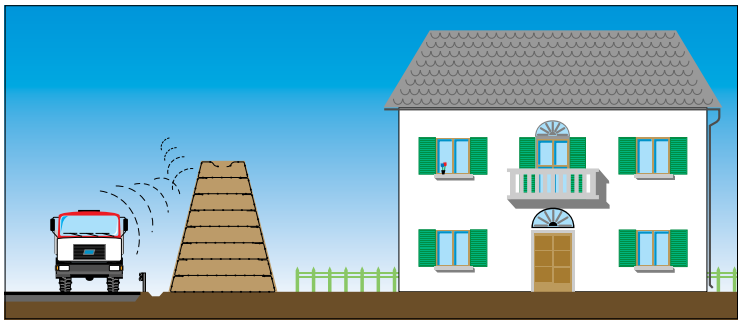


Fig.34: A reinforced bund for noise protection: the required material and the space consumption are minimized.

LEGEND

J Reinforced embankment
L Reinforced embankment dam
M Unreinforced embankment dam
P Exhisting right of way limit
S Saving of right of way

Fig.35: A typical blast protection reinforced embankment.

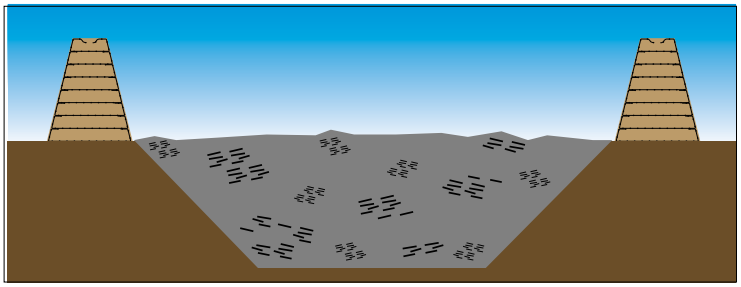


Fig.36: Reinforced embankment dikes for increasing the volume of an exausted landfill.

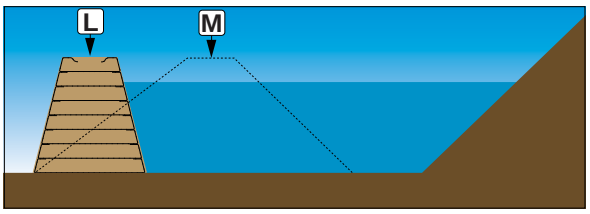


Fig.37: A reinforced embankment dam affords much more volume for the same land occupation.

Fig.38: This reinforced embankment, 6m high with 60° slopes, was built to increase the volume of an exhausted landfill. The volume of the reinforced embankment was only 1/3 of the unreinforced one.

Fig.39: Thanks to the TENAX **TT SAMP** geogrids, this reinforced bund for noise protection is 0.5m wide only at the crest, with 60° slopes: the land occupation is minimum.

The solution

In all these cases TENAX geogrid reinforced soil structures provide a safe, sound and economical solution which can be used for some of these applications:

- respect of tight right-of-way limits (Fig. 33);
- noise protection bunds along highways, railways and airport taxiways (Fig. 34 and 39);
- blast protection embankments (Fig. 35);
- increase of the available volume in exhausted landfills (Fig.36 and 38);
- construction of embankment dams for solid or liquid impoundments (Fig. 37 and 40).

In all these applications, the inherent flexibility, the ease of construction, and the use of any locally available fill soil are the technical and economical advantages of TENAX geogrid reinforced soil structures over other solutions.

Fig.40: This reinforced embankment dam allowed to build a reservoir for industrial sludge in an area with very tight space limits.

Widening of slope crest

The problem

There are different cases where a rather flat slope has to be converted to a sub-vertical wall (Fig. 41): enlargement of parking areas, smoothing of sharp road bends, land reclamation projects and housing developments are just examples of them.
In most of these cases the toe of the slope cannot be moved forward, due to the right-of-way limits or natural boundaries (rivers, roads, etc.).
Therefore the crest of the slope shall be widened, making the slope steeper or even vertical.

LEGEND

A Original profile
N Steep reinforced slope
Q Slope cutting
T Space gained at crest

The solution

TENAX geogrids allow to build steep slopes and walls with almost any locally available fill soil. The face can be built with a vegetated or concrete finishing: different solutions can be easily implemented at design and construction stages to meet technical, architectural, environmental requirements (Fig. 42). The original slope has usually to be cut at the bottom to yield enough space for placing the reinforcing geogrids.
All the operations can be performed with standard earth-moving machinery and easily available tools, even by unskilled labourers. And, very important, the traffic and the activities in front of the slope are not disturbed by the construction operation.

Fig.41: With a geogrid reinforced slope it is possible to widen the crest of a mild slope without forwarding the toe of the slope.

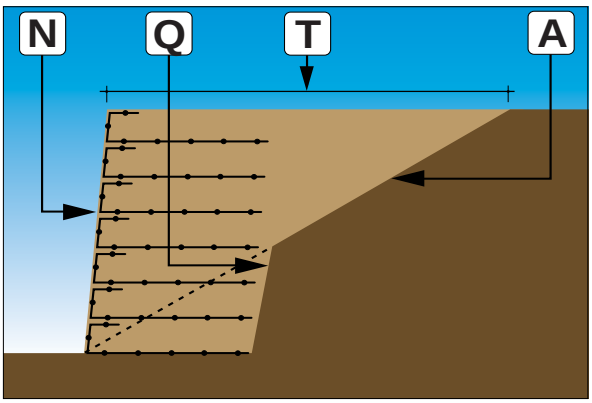


Fig.42: This geogrid reinforced retaining wall supports a new road.

Bridge abutments and wing walls

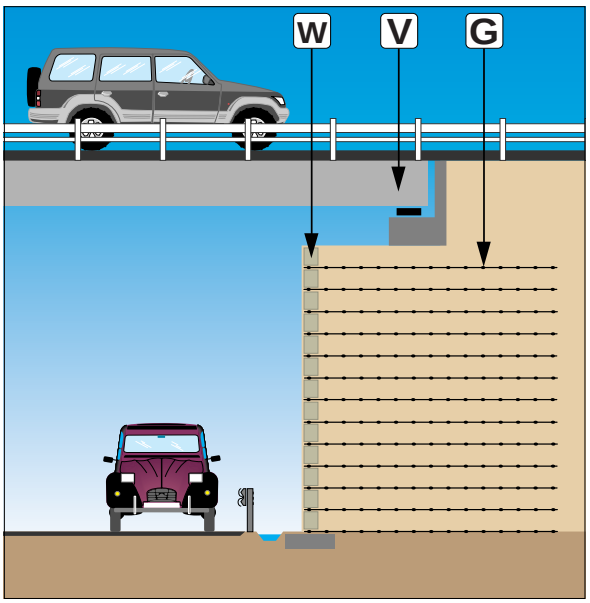


Fig.43: Typical geogrid reinforced wall for bridge abutment.

LEGEND

G TENAX geogrids
V Bridge deck
W Wall face

The problem

Bridge abutments and wing walls are often the earth retaining structures that support the highest loads.
Besides the high vertical and horizontal loads directly applied by the bridge deck, dynamic loads from heavy traffic, and sometimes seismic loads, challenge the design engineer. Soft foundation soils, high water table, environmental impact regulations often provide further problems.

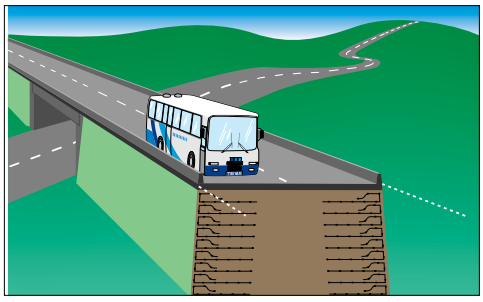


Fig.44: Typical geogrid reinforced wing wall with vegetated face butted against the bridge abutment (traditional or made of geogrid reinforced soil).

The solution

TENAX geogrids reinforced soil structures provide strong, yet flexible, retaining structures. Bridge abutments (Fig. 43) and wing walls (Fig. 44, 45, 46) can be designed and built to resist all the anticipated loads with the required Factors of Safety, even with low quality fill soil. Soft soil stabilisation and drainage problems can be solved with TENAX geogrids and geocomposites.
The face can be designed to fulfill any requirement regarding visual and environmental impact.

Fig.45: Geogrid reinforced wing wall with concrete block facing.

Fig.46: Geogrid reinforced wing wall with vegetated face.

Green walls
Concrete face walls

The problem

Soil retaining structures can be divided into:

- **FACE WALLS** (Fig. 47): which are usually designed to cover a steep rock slope or a cliff, for environmental and safety reasons. This kind of wall usually has only small or no horizontal pressures from the backfill, but has to resist the internal outward pressure of the fill soil.

- **COUNTERSCARP WALLS** (Fig. 48), which must support the constant load of a sloping terrain on the top. The soil pressures to be resisted are usually much higher than for a face wall.

- **RETAINING WALLS** (Fig. 49): which are usually designed to support both static and dynamic loads.

The design and construction of face walls, retaining walls and counterscarp walls may have to deal with technical, practical and economical problems due to availability of the fill soil, access to the job site with operating machines, speed of construction, aesthetics, overall cost and so on.
The Technical Authorities and the client often require specific solutions, sometimes with a vegetated face, while sometimes a concrete face or another type of “rigid” face is preferred.

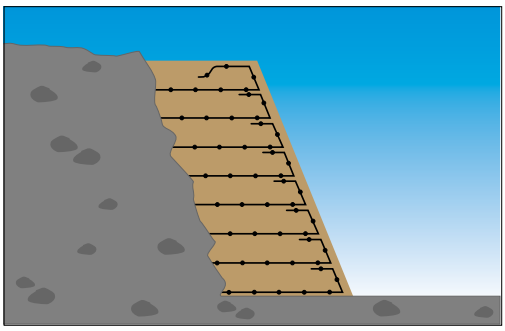


Fig.47: Geogrid reinforced face wall covering a rock slope.

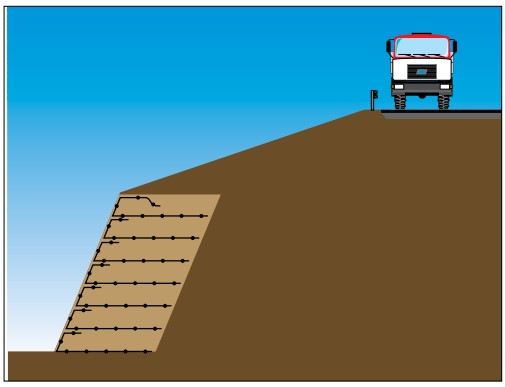


Fig.48: Geogrid reinforced counterscarp wall.

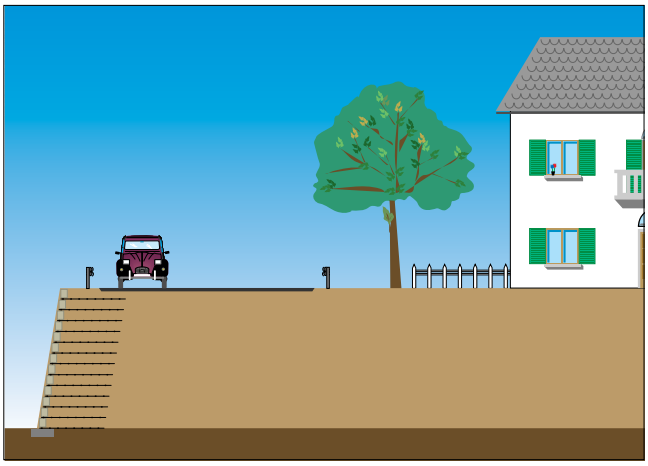


Fig.49: Geogrid reinforced retaining wall.

Fig.50: A counterscarp wall supporting a mid-slope road, with the face made up of thin concrete panels.

Fig.51: A geogrid reinforced face wall, completely vegetated.

Fig.52: This geogrid reinforced counterscarp wall, with timber facing, supports a horse racing course.

Fig.53: A retaining wall, with concrete blocks facing, supporting a road on top.

Fig.54 a) and b): This geogrid reinforced soil retaining wall, completely vegetated, supports a new housing area.

The solution

TENAX geogrid reinforced walls can be designed and built to fulfill the most varied requirements in terms of load support and face finishing (Fig. 50, 51, 52, and Fig. 54). TENAX geogrids reinforced soil structures provide a cheap and diversified solution to wall construction problems: the experience of TENAX engineers can help to find the proper solution, either with a vegetated or concrete face; or new solutions can be developed for the face finishing as well as for the construction method and all the ancillary design details.

Specific design methods, performance tests and instrumentation programmes can be developed to satisfy particular requirements from engineers and technical Authorities.
The design expertise and the installation know-how of the TENAX Technical Team, together with the excellence in geogrid production, can provide invaluable assistance, helping to find the most appropriate solution, always working in close cooperation with, and following the directive of, the Technical Authorities, the Design Engineer, the Contractor and the Client.

Road and Railway embankments

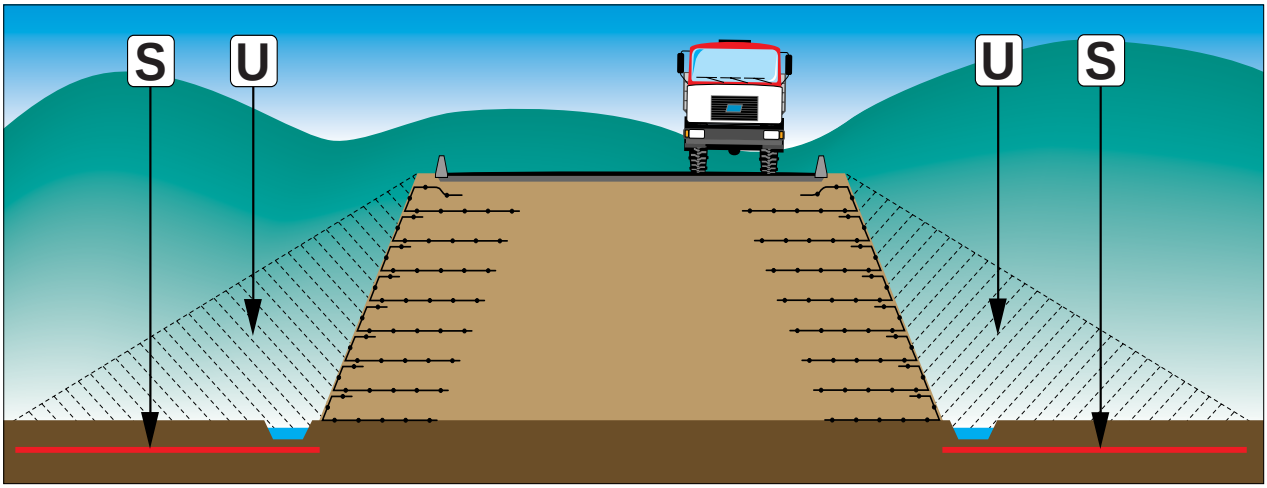
The problem

Road and railway embankments are usually large and high earth structures, which require considerable quantities of fill soil and land take.
The cost of the fill soil and its transport from the quarries, as well as the value of the land, may be so high that some alternatives may be considered, such as designing steeper slopes (Fig. 55 and Fig. 56) or using lower quality fill soil.

LEGEND

B Original embankment profile
R Cutting profile
S Saving of right of way
U Fill soil saving
Z New railway lane

Fig.55: A geogrid reinforced road embankment allows to save 50% of the fill soil and 50% of the land take (and even more) compared to a traditional unreinforced one.



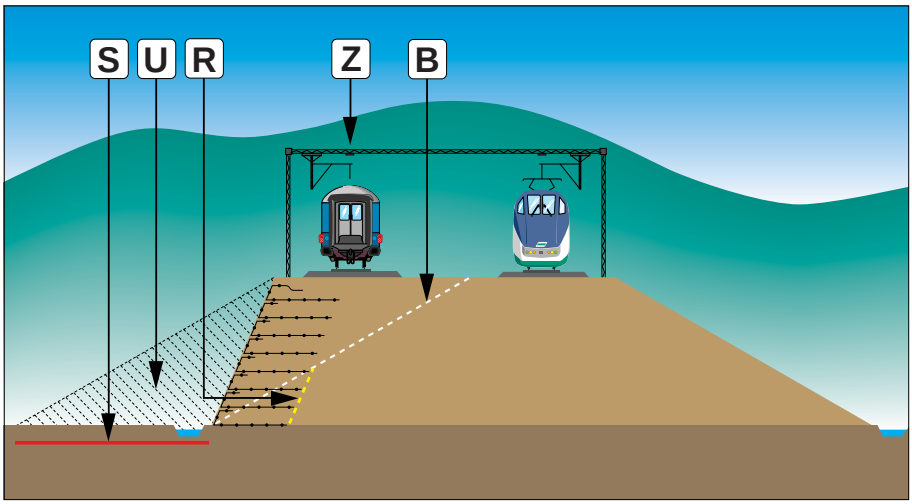


Fig.56: A geogrid reinforced steep slope allows to double an existing railway line with minimal or no additional space required.

Fig.57: This reinforced embankment, 16m high with 75° slope, supports also a descending ramp for the access of heavy trucks.

The solution

TENAX geogrids allow the slope to be built at any inclination with the required Factors of Safety (Fig. 57, 58 and Fig. 59). The specific surcharge loads, as well as the dynamic or seismic loads, can be incorporated into the design to provide safe construction to the Client, the Engineer and the Contractor.
Almost any locally available soil can be used for the geogrid reinforced embankment: this facility can produce very large savings in both costs and construction time.

Fig.58: TENAX Engineers provided full design for the geogrid reinforced embankment shoen in Fig.57.

Fig.59: This reinforced embankment allowed to double a railway line without forwarding the toe.

Global Quality

The TENAX service

The Technical Assistance

TENAX Engineering staff works in close contact with the customer providing necessary consulting and assistance in every sector of product application. In particular, the Geosynthetics Division has developed user-friendly design software that allows the project designer to calculate the most cost-effective solution in respect to all the required factors of safety. Upon request, TENAX Geosynthetic Division engineers are available to the Project Designer and contractors to perform preliminary surveys and surveys during actual construction. They also provide comprehensive project reports, drawings and all documentation necessary such as calculation manuals, specific referenced literatures, installation guidelines and instructions to define contract specification and its related project cost analysis.

The Technology

TENAX Technology is a story of continuous development, from 1960 up to the present sophisticated processes which are unique worldwide, allowing the production of an unequalled variety of products, often of composite form.
Thanks to the highly sophisticated yet flexible production technology, the TENAX Group is able not only to offer the broadest range of standard products, but also to respond rapidly to the many requests for non-standard ones.

The Laboratory

The modern testing instrumentation and the highly specialized personnel which together form the TENAX Laboratory, make it one of the most advanced facilities of its kind in the world. TENAX LAB is renowned not only for its excellence in product development, but also in design support testing, the development of new testing methods, and in basic and applied research. Laboratory tests are performed with the most advanced equipment, some of which having been specifically developed by TENAX. The TENAX laboratory is capable of performing tests to measure mechanical and hydraulic properties as well as the durability of geosynthetic products in accordance with standard international methods. The TENAX Laboratory constantly works together with Universities, research centers, and other specialized laboratories to consistently guarantee the highest levels of professionalism.

The Quality Assurance

The TENAX Quality Assurance System ranges from the rigorous control of purchased raw materials to the control of the manufacturing process, on-line product quality control and final inspection up to storage and shipping.
The technical department provides adequate installation procedures and instructions for product use as well.
The TENAX Quality Assurance System – for the manufacture of geogrids and polymer based three-dimensional extruded structures for Civil Engineering applications – has been assessed and certified in accordance with the UNI EN ISO 9002 Quality Standards by SGS Yarsley International Certification Services Ltd. The TENAX Quality Assurance System and the periodic controls performed by internal personnel and external auditing authorities constantly satisfy the market's needs.

Certificate No. Q2568
The TENAX Quality System is certified in accordance with the ISO UNI EN 9002 Standard

AGRÈMENT TECNICO
A.T. ICITE: n.508/98 del 19.6.98
Application: Rinforzo tensionale e stabilizzazione terreni.
Tensile reinforcement and soil stabilization.
Validity: 3 anni / 3 years
First issued: May 9, 1994

GEO
HONG KONG GOVERNMENT ENDORSEMENT CERTIFICATE FOR REINFORCED FILL PRODUCTS

The TENAX service

The TENAX Network

TENAX is an international group of companies. Today the TENAX Group has offices and production facilities in 4 Continents. TENAX produces Geosynthetics in Italy and USA. The TENAX commercial offices are located in Italy, Switzerland, Germany, UK, France, USA, Mexico and India. Moreover, the Geosynthetics Division of TENAX has a broad commercial network with local Agents and Distributors in more than 30 countries.This world network ensures the best technical and commercial assistance in the local language, and provides TENAX Geosynthetics in a fast and reliable way.

Cover page:

The Great Wall of China

Construction of the Wall began in the 7th Century B.C., when the separatist ducal states in the north built walls around their territories to ward off invasions from neighbouring states. In 221 B.C. Qin Shi Huang unified China and linked these walls, laying the foundation for the present Great Wall.
During the dynasties after this, the Wall had been repaired and strengthened. The present Great Wall was built in the Ming Dynasty over 600 years ago.

Printed in Italy, 1995. Last version: June 2000.

TENAX SpA • Geosynthetics Division
Via dell'Industria, 3
I-23897 Viganò ITALY
Tel. +39 039.9219203 • Fax +39 039.9219200
http://www.tenax.net
email: geo.div@tenax.net

TENAX International B.V. • Geosynthetics Division
Via Ferruccio Pelli, 14
CH-6900 Lugano SWITZERLAND
Tel. +41 +91.9242485 • Fax +41 +91.9242489
http://www.tenax.net
email: geo@tenax.ch

Appendix III:

Cultural Heritage Assessment

(June 2012)

Report on the Cultural Heritage for the Environmental Planning Statement of the Proposed Creation of Stabilised Slopes and Car Park at Ir-Raba' ta' Wara s-Sur, It-Telgħa tar-Rabat, Victoria, Gozo (PA05484/03)

Daniel Borg - Marlene Borg – Joseph Calleja – Ernest Vella

February 2008
Updated after MEPA Comments June 2012

TABLE OF CONTENTS

LIST OF FIGURES

1. INTRODUCTION

1.1 Terms of Reference

In compliance with Maltese legislation and within the framework of planning policies, the Malta Environment and Planning Authority (MEPA) requires that an Environmental Planning Statement is to be prepared for the proposed creation of stabilized slopes and parking at Ir-Raba ta' Wara s-Sur, It-Telgħa tar-Rabat, Victoria (PA05484/03).

Archaeology Services Co-operative Ltd has been commissioned to carry out the studies relative to cultural heritage. This report is based on the Terms of Reference issued by MEPA and provided by AIS Environmental Ltd in June 2007.

1.2 Location and Brief Description of the Site

The area of proposed development lies to the west of Iċ-Ċitadella and in fact abuts its bastion walls. It is currently accessed through a narrow steep road – It-Telgħa tal-Belt – which provides the only access to Iċ-Ċitadella. The area of proposed development mainly consists of terraced slopes bounded by rubble walls, apart from an area that has been cleared and currently used as a parking lot.

1.2.1 Area of influence

The area of coverage of the report is defined as the area where the development is to take place. The terms of reference determined a 1000m radius Area of Influence. Given that this was a large area, after discussions with the Superintendence of Cultural Heritage (SCH) and MEPA, the Area of Influence for the cultural heritage study has been reduced to approximately 400m radius as shown in **Figure 1**. This Area of Influence was approved by SCH and MEPA on 27 September 2007. This Area of Influence follows roads and rubble walls wherever possible.

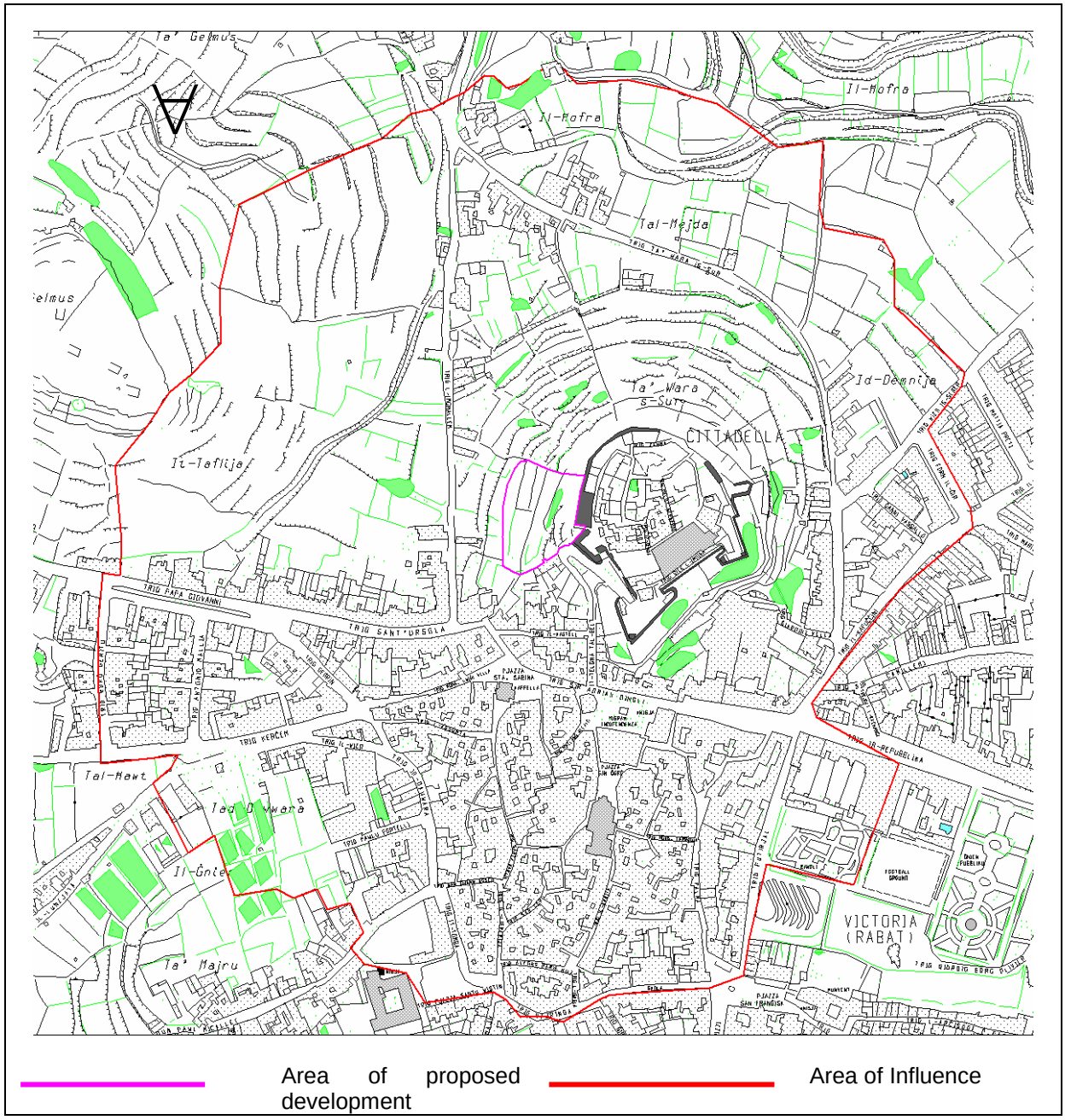


Figure 1: Area of Influence of the Cultural Heritage Study

2. REPORT COMPILATION METHOD

2.1 Methodology of Study

An Environmental Planning Statement is required to cover the area and its surroundings. Such an evaluation is required to provide information regarding provisions for environmental protection including, among others, the protection of archaeological and cultural (both vernacular and rural, including rubble walls, huts, wells, irrigation channels, ancient quarrying and farmhouses) features.

This report is based on findings from what is technically referred to as Ground Reconnaissance. This method of investigation primarily involves actual fieldwork, and incorporates the consultation of documentary sources and place-name evidence [Renfrew & Bahn 1991: 63]. The fieldwork carried out consisted of a site-surface survey, or field-walking, in order to locate and record the whereabouts of sites and features. No aerial reconnaissance or sub-surface surveys, including excavations, were carried out.

The report is the result of a site-surface survey complimented by desktop research. This work was carried out in October – December 2007 by qualified archaeologists from ASC Ltd. The report compilation method was developed after an initial site visit to examine the general landscape of the area.

The MEPA Cultural Management Team and the staff from the Superintendence of Cultural Heritage were consulted regarding cultural heritage in the area. Both institutions have provided us with information, which is mentioned and acknowledged in the report.

2.2 Competence of surveyors

The surveys were undertaken by

Daniel Borg [BA (Hons) Archaeology]
Marlene Borg [MA Archaeology]
Joseph Calleja [BA (Hons) Archaeology]
Ernest Vella [BA (Hons) Archaeology]

2.3 Desk-Top Research

The general works of Abela (1647) and Wettinger (2000) were consulted, as well as Evans (1971), Trump (1997), Sagona (2002) and Spiteri (2001). Other publications have also been consulted and are listed in the bibliography.

The Annual Reports on the Workings of the Museums Department (MARs), published from 1904 onwards, were also examined, providing no references for the area in question. Specific works landscape interpretation (Aston 1985, Darvill *et al.* 1993) were also consulted in order to further our understanding of the area under consideration as well as its sites and features.

Survey sheets dating to the 1940s and 1966 were also consulted to study the changes in landscape that occurred during the past century of the area around Cittadella.

2.4 Site Survey

The area of the proposed development and its surrounding areas as described above, were systematically surveyed by qualified archaeologists following the location map found in the MEPA website related to this EIA (URL: http://www.mepa.org.mt/EIA-Malta/index.htm?MainPage.aspx&1).

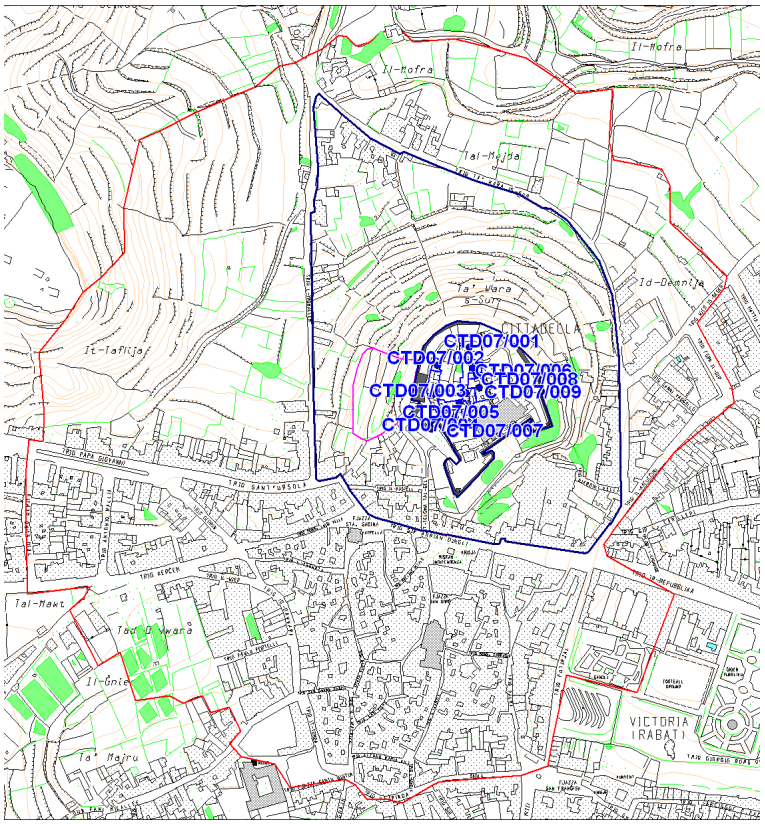
The survey was limited to surface investigation, leaving out any possible cultural heritage buried beneath the ground. We therefore cannot exclude the possibility that archaeological remains do exist beneath the surface of the site surveyed.

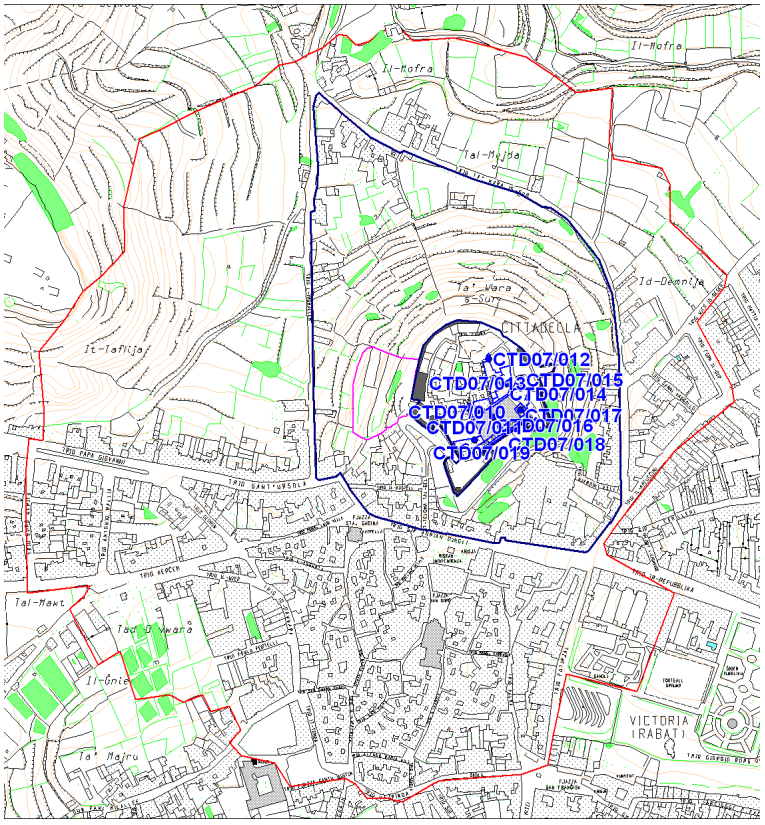
The site survey consisted in walking along all roads in the area, looking for visible cultural features such as:

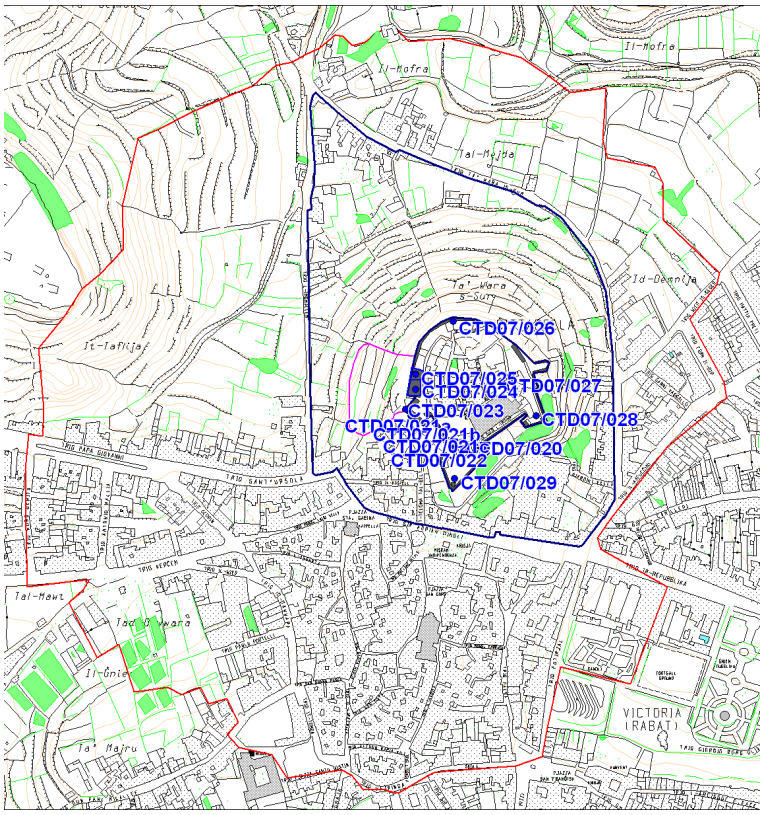
- architectural structures and the remains of structures;
- evidence of rock-cutting and rock-cut chambers;
- patterns and building techniques of rubble walls and dry-stone walls;
- piles of stones or dispersed large stones;
- caves or cavities in the rock-faces;
- rock-cut features, quarry marks, and cart-ruts;
- surface scatters of artefacts such as pottery sherds.

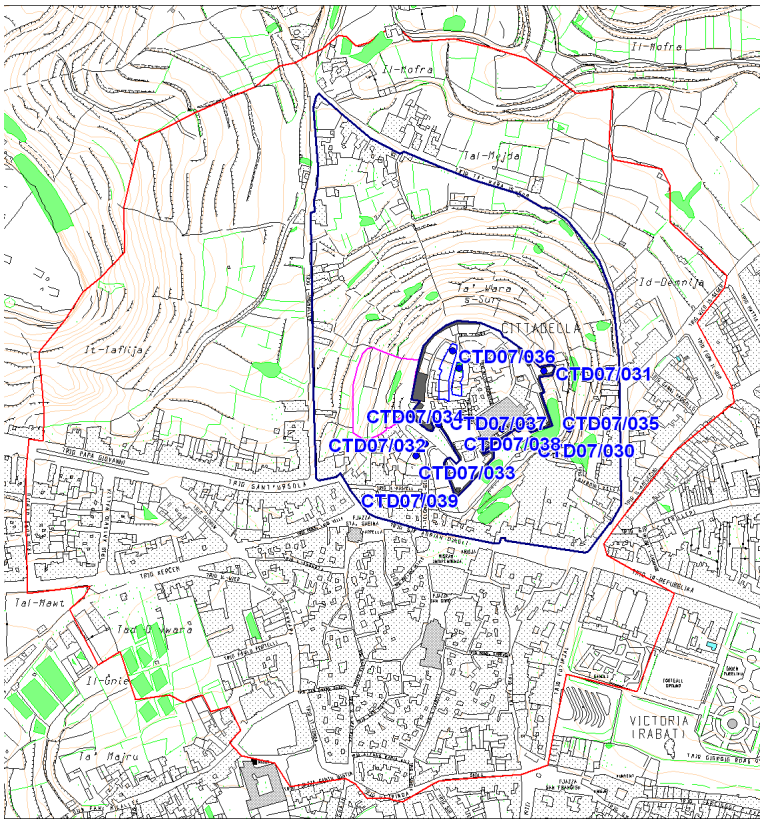
2.5 Recording Systems

Any feature considered to be of cultural interest was recorded on the sheets described above including all the information required as detailed in **Appendix 1** and **Figure 2**.


CTD07/001
CTD07/002
CTD07/006
CTD07/008
CTD07/003
CTD07/009
CTD07/005
CTD07/004
CTD07/007
CITTADELLA
VICTORIA
(RABAT)


CTD07/012
CTD07/013
CTD07/015
CTD07/014
CTD07/010
CTD07/017
CTD07/011
CTD07/016
CTD07/018
CTD07/019
CITTADELLA
VICTORIA
(RABAT)


CTD07/026
CTD07/025
CTD07/024
CTD07/027
CTD07/023
CTD07/028
CTD07/021a
CTD07/021b
CTD07/021c
CTD07/020
CTD07/022
CTD07/029
VICTORIA
(RABAT)


CTD07/036
CTD07/031
CTD07/034
CTD07/037
CTD07/035
CTD07/032
CTD07/038
CTD07/030
CTD07/033
CTD07/039
VICTORIA
(RABAT)

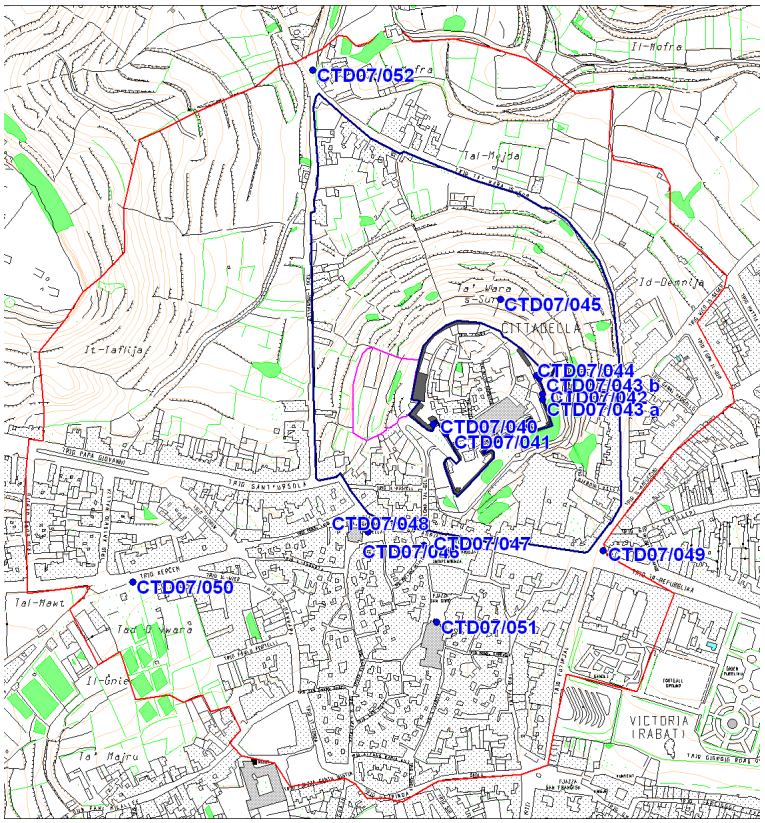


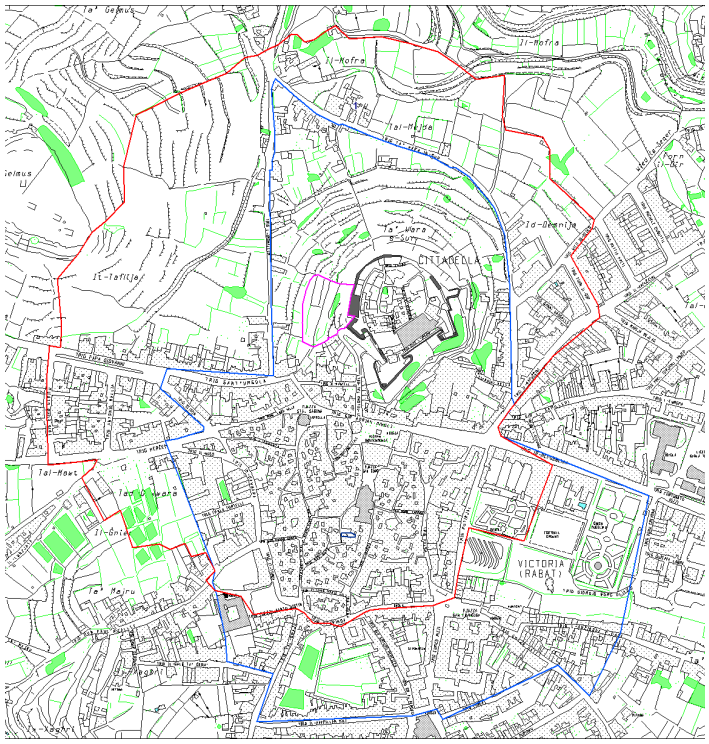
Figure 2a-e: Cultural features noted during the site surface survey

2.6 Statutory Protection

The importance of the conservation of the identified sites and features has been identified with reference to relevant legislation standards, guidance and practices. These include the Structure Plan for the Maltese Islands that refer to the grading of archaeological sites and buildings, Development Planning Act 1992, the Cultural Heritage Act, the Gozo Local Plan and Government Notices.

2.6.1 Scheduling

A large part of the Area of Influence lies within a designated "Area of Archaeological Importance" for Cittadella and Victoria (refer to **Figure 3**) due to the concentration of valuable of archaeological sites by GN765/98.



Area of proposed development

Area of Influence

Boundary of the Cittadella and Victoria Area of Archaeological Importance

Figure 3: The relation of the Area of Influence with the Cittadella and Victoria Area of Archaeological Importance

Various properties within the Cittadella itself have been scheduled because of their individual importance. These are listed in **Table 1** and shown in **Figure 4**.

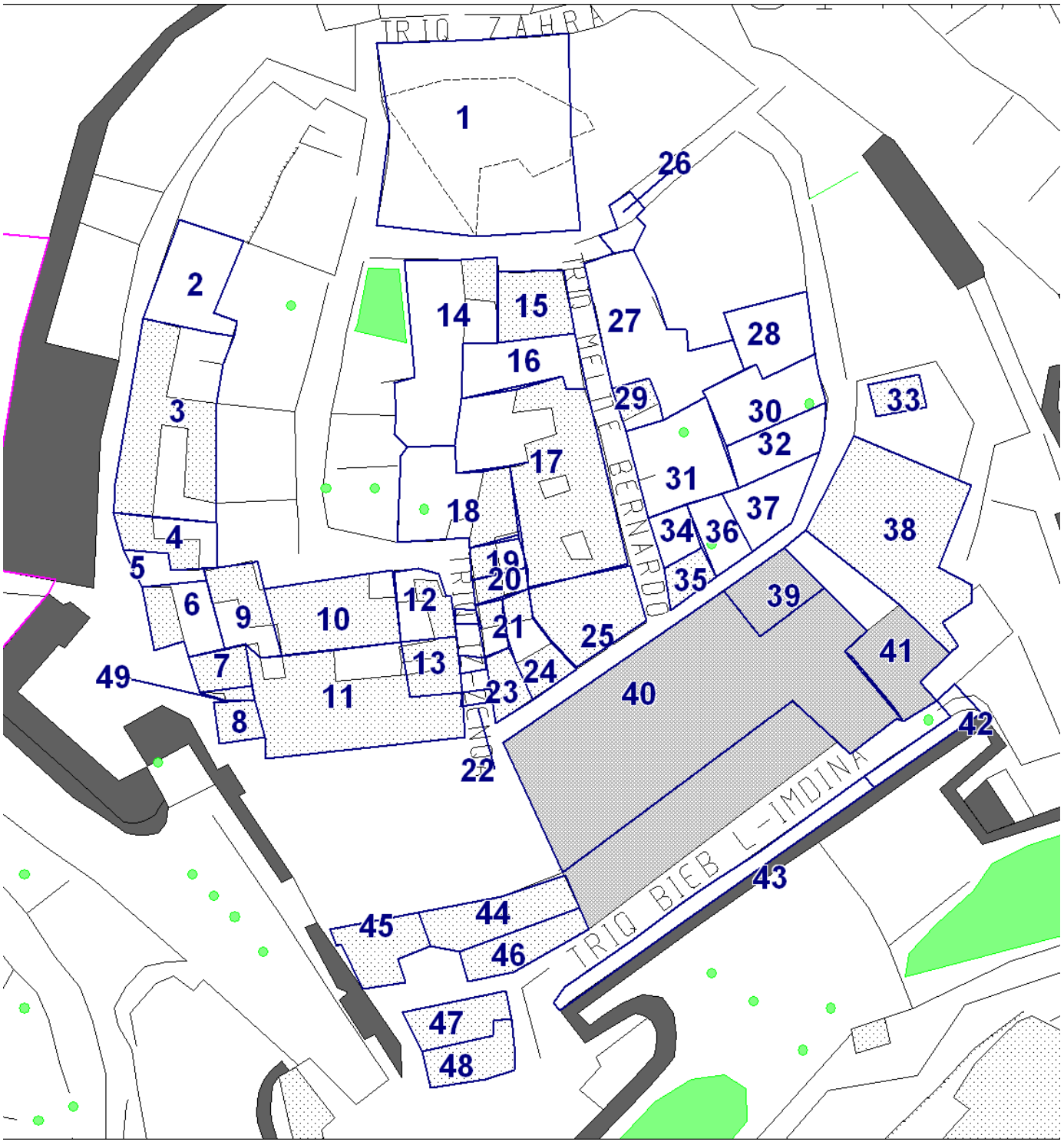
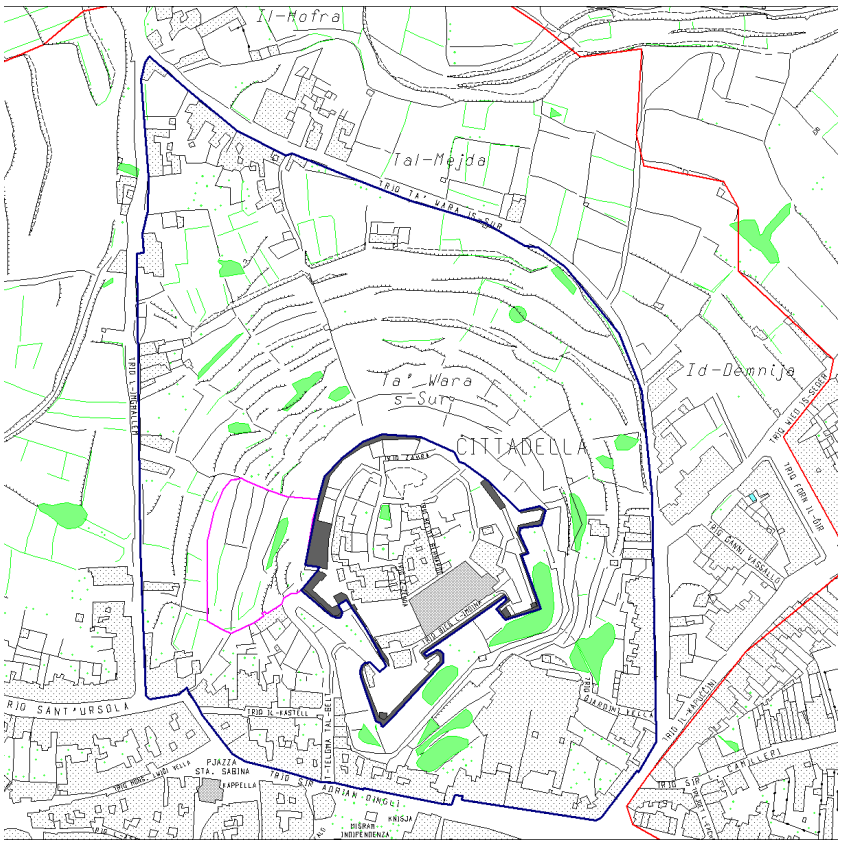


Figure 4: Scheduled Sites within the Cittadella (refer to Table 1 for key)

Property address	GN no	Category	Type	Feature	Level	Reference to Figure 4	Reference to Cultural Features Catalogue
Ruins, Triq San Guzepp	427/95	Architecture	Civil	Ruins	1	1	CTD07/001
Ruins, Triq Il-Kwartier Ta' San Martin	427/95	Architecture	Civil	Ruins	1	2	CTD07/002
Natural Science Museum, Triq Il-Kwartier Ta' San Martin	427/95	Architecture	Educational	Museum	1	3	CTD07/003
3 Houses, Triq Il-Kwartier Ta' San Martin	427/95	Architecture	Civil	Dwelling	1	4, 5, 6	CTD07/003
St. Anna's House, Triq Il-Kwartier Ta' San Martin	427/95	Architecture	Civil	Dwelling	1	7	CTD07/003
Tower At Pjazza Kattidral	427/95	Architecture	Military	Tower	1	8	CTD07/034
2 Unnumbered Houses, Triq Iz-Zenqa	427/95	Architecture	Civil	Dwelling	1	9, 10	CTD07/005
Law Courts, Pjazza Kattidral	427/95	Architecture	Civil	Law courts	1	11	CTD07/007
2 Unnumbered Houses, Triq Iz-Zenqa	427/95	Architecture	Civil	Dwelling	1	12, 13	CTD07/005
Cagliares Palace, Triq San Guzepp	427/95	Architecture	Civil	Palace	1	14	CTD07/006
St. Joseph Chapel, Triq San Guzepp	427/95	Architecture	Religious	Chapel	1	15	CTD07/006
Facade With Arches, Triq Melite Bernardo	427/95	Architecture	Civil	Facade	1	16	CTD07/008
Folklore Museum, Triq Melite Bernardo	427/95	Architecture	Educational	Museum	1	17	CTD07/009
2 Unnumbered Houses, Triq Iz-Zenqa	427/95	Architecture	Civil	Dwelling	1	18, 21	CTD07/005
House, Triq Iz-Zenqa	427/95	Architecture	Civil	Dwelling	1	19	CTD07/005
No. 11, Triq Iz-Zenqa	427/95	Architecture	Civil	Dwelling	1	20	CTD07/005
Arches, Triq Iz-Zenqa	427/95	Architecture	Civil	Arches	1	22	CTD07/010
Shops With Overlying Houses, Triq Il-Fosos	427/95	Architecture	Civil	Shops	1	23, 24, 25	CTD07/011
Pointed Arches, Triq San Guzepp	427/95	Architecture	Military	Arches	1	26	CTD07/012
Ruins, Triq Melite Bernardo	427/95	Architecture	Civil	Ruins	1	27, 29, 31, 34	CTD07/013
Ruins, Triq Il-Fosos	427/95	Architecture	Civil	Ruins	1	28, 30, 32, 37	CTD07/014
St. John's Cavalier, Triq Il-Fosos	427/95	Architecture	Military	Fortification	1	33	CTD07/015
Restored House,Triq Il-Fosos	427/95	Architecture	Civil	Dwelling	1	35	CTD07/014
Ruins - Partly Restored, Triq Il-Fosos	427/95	Architecture	Civil	Ruins	1	36	CTD07/014
Cathedral Museum, Triq Il-Fosos	427/95	Architecture	Educational	Museum	1	38	CTD07/016
Cathedral Bell Tower, Triq Il-Fosos	427/95	Architecture	Military	Tower	1	39	CTD07/016
Cathedral, Pjazza Kattidral	427/95	Architecture	Religious	Cathedral	1	40	CTD07/016
Crafts Centre, Triq Il-Fosos	427/95	Architecture	Civil	Crafts centre	1	41	CTD07/017
Loggia With Works Department Offices, Triq Bieb L-Imdina	427/95	Architecture	Military	Loggia	1	42	CTD07/018
Magazines (Craft Shop), Triq Bieb L-Imdina	427/95	Architecture	Civil	Crafts shop	1	43	CTD07/018
Bishop's Palace, Pjazza Kattidral	427/95	Architecture	Civil	Palace	1	44	CTD07/019
2 Houses, Triq Bieb L-Imdina	427/95	Architecture	Civil	Dwellings	1	45, 46	CTD07/019
Archaeology Museum, Triq Bieb L-Imdina	427/95	Architecture	Educational	Museum	1	47	CTD07/020
House, Il-Bastjun Ta' San Mikiel	427/95	Architecture	Civil	Dwelling	1	48	CTD07/020
Old Prisons, Triq Il-Kwartier Ta' San Martin	427/95	Architecture	Military	Prisons	1	49	CTD07/004

Table 1: Scheduled sites within the Cittadella

As a whole entity especially as a Fortified town, the Cittadella's importance has been further reinforced with the designation of a Level 1 scheduling of the Cittadella Area of High Landscape Value, Fortified Town, Glacis and Ditch, the boundary of which is shown in **Figure 5** by GN83/01.



Area of proposed development

Area of Influence

Boundary of the Scheduled Area designating Cittadella as an Area of High Landscape Value and as a Fortified town together with its Glacis and Ditch

Figure 5: Relationship of the Area of Influence with the Scheduled Area designating Cittadella as an Area of High Landscape Value and as a Fortified town together with its Glacis and Ditch.

Other scheduled sites outside the Cittadella and still within the Area of Influence are described in T**able 2** and **Figure 6**.

Property address	GN no	Category	Type	Feature	Level	Reference to Figure 5
Triq l-Imghallem (corresponding to MEPA NPI Card GZ-03 and GZ 137)	290/98	Archaeology	SAI	Remains	B	1
19, Triq San Gorg, Rabat (Ghawdex)	322/98	Architecture	Civil	Dwelling	2	2
Triq It-Telgha tal-Belt, Rabat (Ghawdex)	322/98	Architecture	Rural /Monument	Reservoir/ Monument	2	3
Triq It-Telgha tal-Belt, Rabat (Ghawdex)	322/98	Engineering	Civil	Steps	2	4

Table 2: Scheduled sites outside the Cittadella and within the Area of Influence

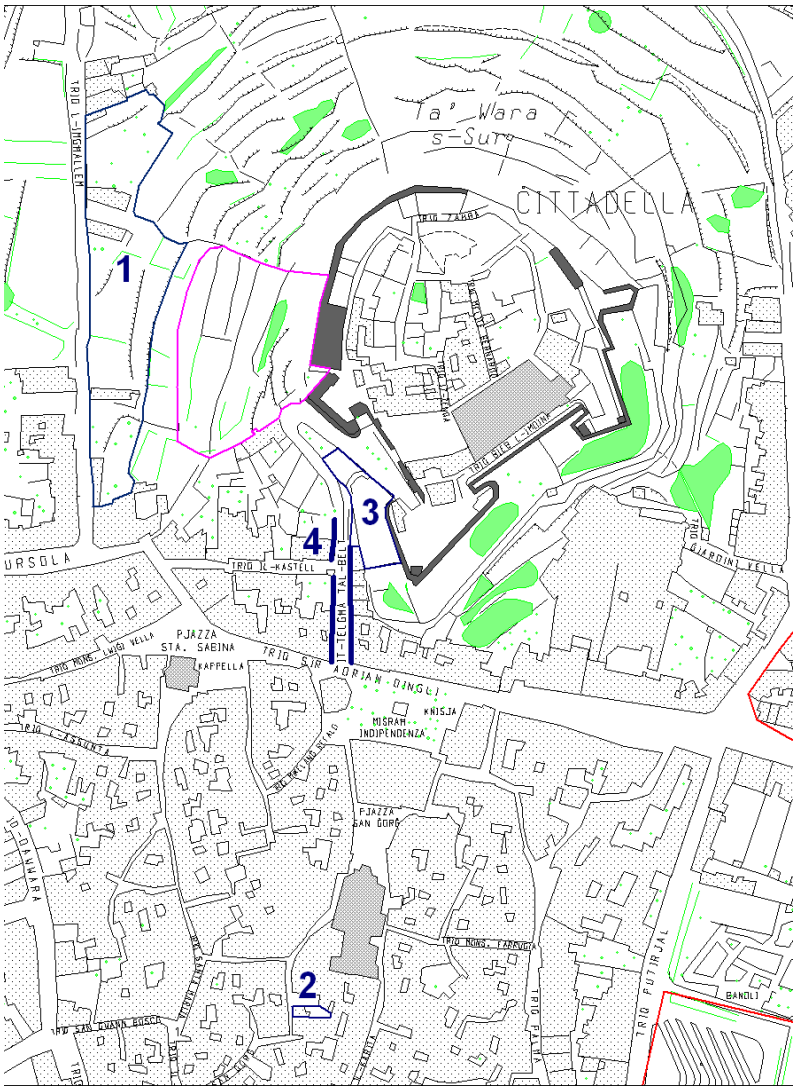


Figure 6: Scheduled Sites outside the Cittadella and within the Area of Influence (refer to Table 2 for key)

All the scheduled buildings within the Cittadella (**Table 1**) have been scheduled as Grade 1. This means that these structures or features are to be retained, and that *demolition or alterations which impair the setting or change the external or internal appearances, including anything contained within the curtilage of the building, will not be allowed.*

The features outside the Cittadella have been scheduled as Grade 2 or Class B (**Table 2**). Grade 2 buildings are considered to be of vernacular architectural interest and to contribute to the visual image of the rural area. Permission to demolish such buildings will not normally be allowed. *Alterations to the interior will be allowed if proposed to be carried out sensitively and causing the least detriment to the character and the architectural homogeneity of the building.* Buildings scheduled by ARC 2 Class B are considered to be *very important and should be preserved at all costs. Adequate measures to be taken to preclude any damage from immediate development.*

The scheduling of these sites together with the designated Area of Archaeological Importance not only indicate clearly that development is to be limited in the area but also that the area is highly sensitive.

2.6.2 The Gozo and Comino Local Plan

The Gozo and Comino Local Plan describes Victoria as the administrative and commercial centre of the island with, however, two historic centres – the Cittadella and its *Borgo* (Rabat). As such the Local Plan considers it imperative that whilst activity in the capital is promoted, the historic context is conserved so that the quality and prestige of the settlement is enhanced (Gozo and Comino Local Plan 2006: 147).

It is also stated that the *Cittadella* is not only the most conspicuous monument which (together with the parish church of St. George) dominates the skyline of *Rabat* but it is also a symbol which is intimately linked to the identity of the Island but while there is significant potential within and around *Cittadella* which if capitalized upon with sensitivity, imagination and a lot of commitment, the currently dormant city could be revived. However, extreme caution is advised since hasty and un-coordinated interventions could prove to be extremely counterproductive and even disastrous in the long term. There is no scope for quick short-term interventions here but only for a carefully studied approach which should have the endorsement of both the authorities as well as the local community (Gozo and Comino Local Plan: 147).

The Gozo Local Plan also acknowledges the fact that both Rabat and Cittadella have had a long history of occupation which resulted in the creation of a considerable archaeological wealth which constitutes an important component of the Island's cultural heritage. This heritage also attracts visitors to the area and therefore has an important bearing on revenue generation. In view of the foregoing, it is imperative to continue to foster archaeological treasures and to safeguard undiscovered ones so that these treasures can be enjoyed by the current and future generations community (Gozo and Comino Local Plan: 149).

Given such wealth of cultural heritage, MEPA has suggested a careful and precautionary approach towards development proposals, which include excavations beneath ground level either through the construction of basements or the laying of foundations and even for the preparation of the site for building. MEPA, in conjunction with other agencies and departments, will ensure that no damage is done to archaeological remains and will endeavour to take the appropriate measures to investigate remains, record the findings in an effective manner and if necessary prevent development which will harm such remains (Gozo and Comino Local Plan: 149).

In fact, **Policy GZ-Rbt-4** states that whilst MEPA will continue to approve development permits for legitimate structures in Rabat … [in pre-determined areas] …there shall be a general presumption against the creation of any underground space, whether completely or partially below ground level. Prior to the issue of any development permission for a proposal which includes the creation of such space, or will necessitate excavation works for the construction of any structure, the developer must demonstrate to the satisfaction of MEPA and the Superintendence of Cultural Heritage that the proposed works will not have any adverse

impacts on any archaeological remains within the site boundary or on any other remains in the proximity of the site. In the case of the discovery of remains, which merit the safeguarding of the land from development, no permissions will be issued (Gozo and Comino Local Plan: 149-150).

As shown in **Figure 7**, a considerable part of the Area of Influence for this study falls has been designated as an Urban Conservation Area (UCA) by the Gozo and Comino Local Plan. An UCA is a guidance and classification (to give) further information and advice on the features considered by MEPA to be important, and which the Authority will take into account in considering development applications. There are three levels of an UCA, that is, Class A to C, the highest level of protection is Class A, with Class C being the lowest. Some of the buildings within Rabat have been classified as such (refer to **Figure 8**).

Category A buildings in a UCA does not favour any changes to the facades of (including changes in apertures) the built fabric and ancillary open spaces, street alignment and the addition of accretions in these areas. Category B plus (B+) properties are protected to the extent that no changes to the facades of the built fabric, street alignment and the addition of accretions in these areas should be permitted. Moreover, in this case in certain circumstances, sensitive signage, decorative and illumination fixtures may be considered, provided that these are deemed by MEPA to be compatible with the overall street context. In Category B buildings minor alterations to the facades (e.g. changes to apertures), over and above those allowable in Grade B+ may be allowed, provided that traditional proportions, fenestration, architectural characteristics, materials, colours, detailing and textures are used. Complete replacement of facades is not allowed. In the case of Category C properties, significant alterations or even demolition of the façades, and/or the construction of additional floors may be allowed provided that the replacement building respects the surrounding context in terms of scale, floor heights, proportions, fenestration, materials, colours, and textures. (Gozo and Comino Local Plan 2006: 106-107)

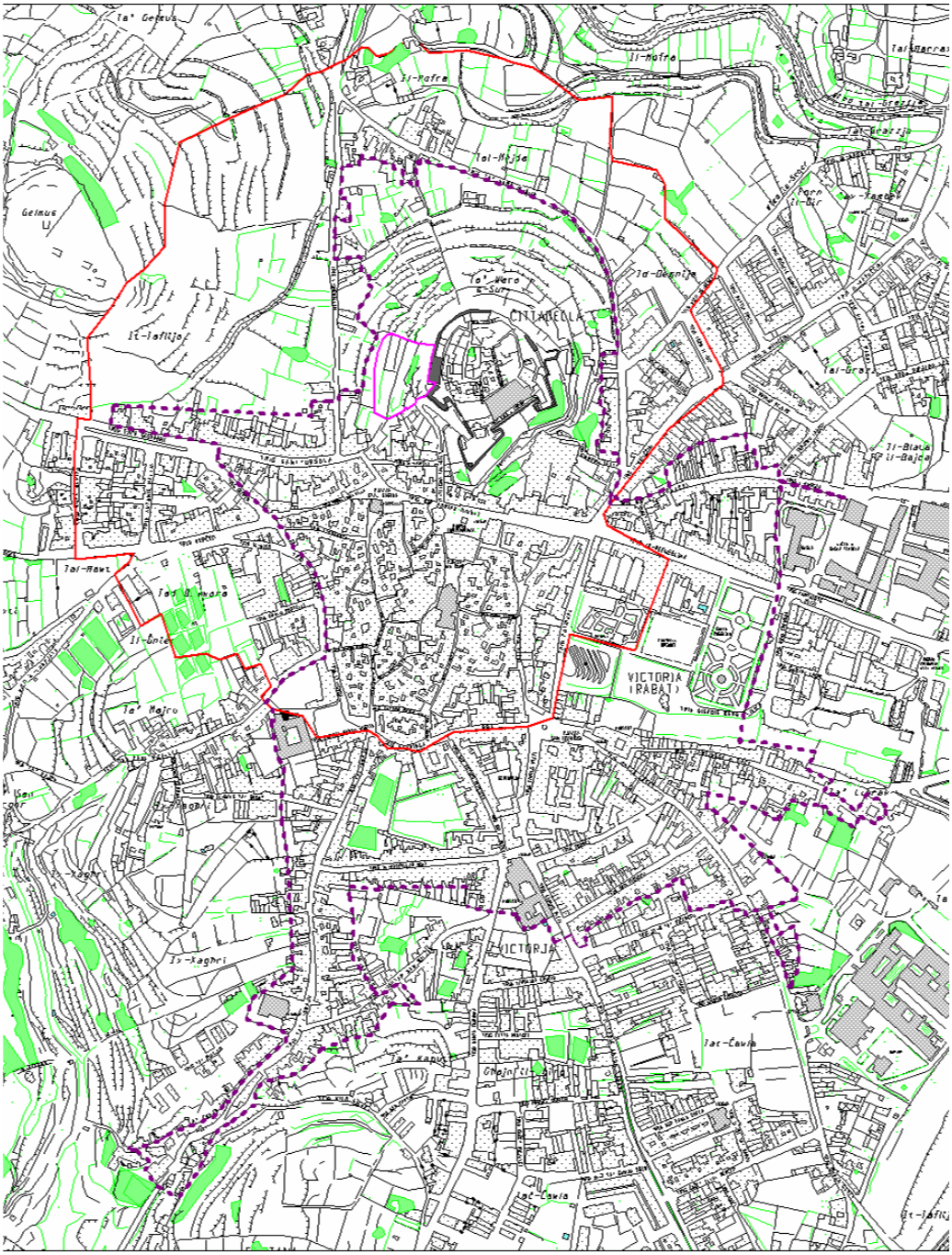


Figure 7: Relationship of the Area of Influence with the Victoria UCA.

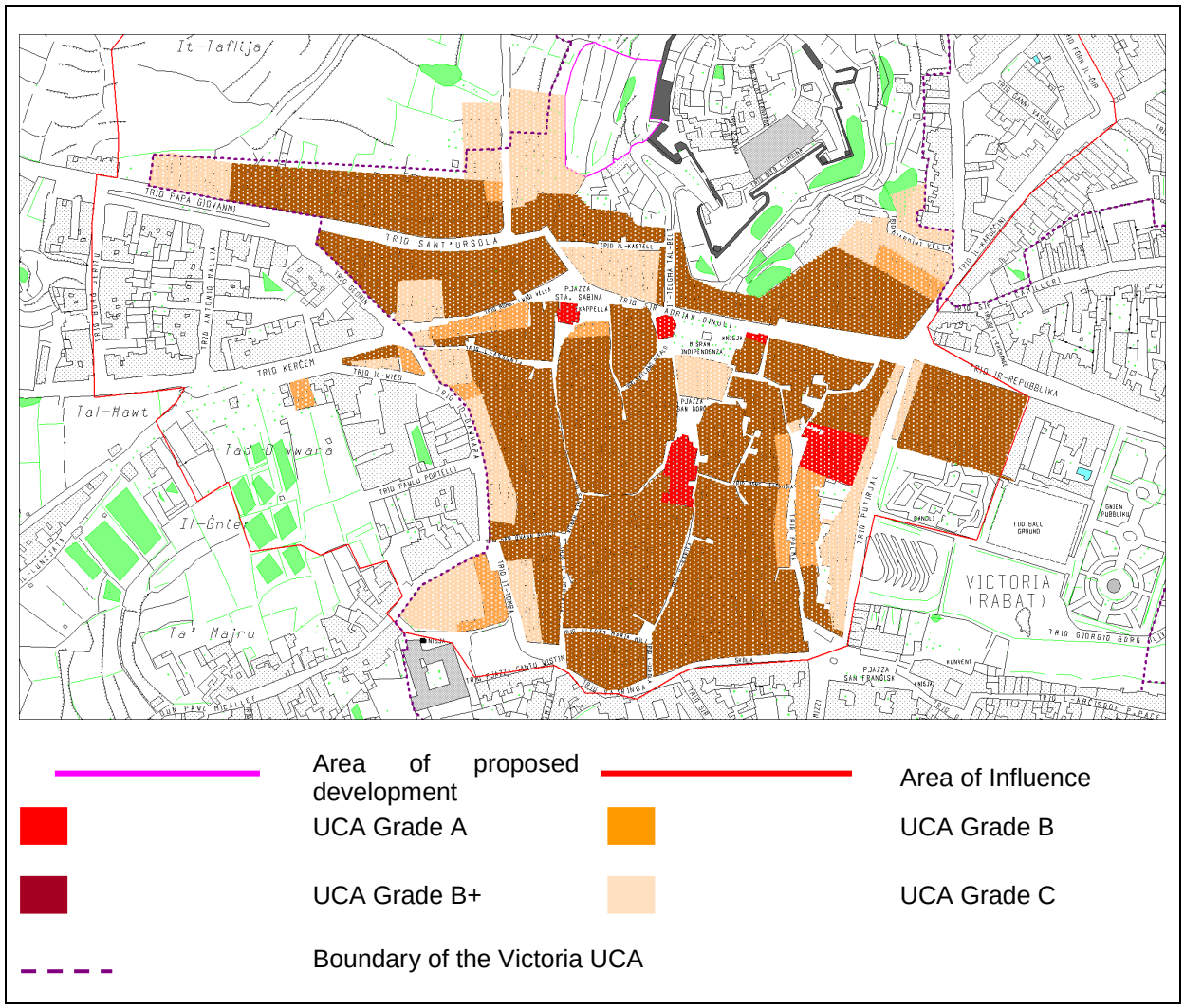


Figure 8: Relationship of the Area of Influence with the carious UCA Categories in Victoria.

According to the Gozo and Comino Local Plan (2006: 109), the designation of UCAs is the first step towards conservation of these important urban spaces…UCAs need to be managed in order to achieve a space that enhances the quality of life and attracts activity, amenity and vitality into the area. An integrated heritage management approach is essential to ensure the protection of the important elements of a UCA whilst allowing for sufficient intervention to attract compatible activities to the area.

2.6.3 World Heritage Site Tentative List

In 1998 Cittadella was included in the tentative list of World Heritage Sites. This means that the Maltese Government is considering to nominate the Cittadella to become part of the List of World Heritage Sites and therefore is of outstanding cultural universal value (http://whc.unesco.org/en/tentativelist). This is because the Cittadella follow four of the six selection criteria for cultural sites, namely:

i. to exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;
ii. to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;
iii. to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;
iv. to be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;

(http://whc.unesco.org/en/criteria)

"World Heritage sites belong to all the peoples of the world, irrespective of the territory on which they are located." As a signatory of the *Convention Concerning the Protection of the World Cultural and Natural Heritage* that has also nominated the Cittadella in the Tentative List, the Government of Malta has bound itself not to "undertake … any deliberate measures which might damage directly or indirectly the cultural …heritage''.

2.6.4 The Vienna Memorandum on World Heritage and Contemporary Architecture

Given that Cittadella was included in the tentative list of World Heritage Sites in 1998, it falls under the Vienna Memorandum on World heritage and Contemporary Architecture – Managing the Historic Urban Landscape set up by UNESCO in 2005. This memorandum defines historic urban landscape, as is the case of Rabat and Cittadella, as "ensembles of any group of buildings, structures and open spaces, in their natural and ecological context, including archaeological and paleontological sites, constituting human settlements in an urban environment over a relevant period of time, the cohesion and value of which are recognised from the archaeological, architectural, prehistoric, historic, scientific, aesthetic, socio-cultural or ecological point of view. This landscape has shaped modern society and has great value for our understanding of how we live today" (Vienna Memorandum and Decision 29 COM 5D: 2):

This memorandum focuses on the impact of contemporary development on historic urban landscape, and while it recognises its importance, it maintains that "new development [must] minimize direct impacts on important historic elements, such as significant structures or archaeological deposits" (Vienna Memorandum and Decision 29 COM 5D: 4): Moreover it maintains that "urban planning infrastructure in heritage zones must include all measures to respect the historic fabric, building stock and context, and to

mitigate the negative effects of traffic circulation and parking" (Vienna Memorandum and Decision 29 COM 5D: 5):

2.6.5 The European Landscape Convention (Florence Convention)

The Florence Convention signed by all members of the Council of Europe, and therefore by Malta as well, clearly defines landscape and is aware that "sustainable development based on a balanced and harmonious relationship between social needs, economic activity and the environment" must be achieved (European Landscape Convention 2000: 1). It also maintains that "the landscape is an important part of the quality of life of people everywhere" and that it is a "key element of individual and social well-being and that its protection, management and planning entails rights and responsibilities for everyone" (European Landscape Convention 2000: 1).

According to this Convention landscape "means an area, as perceived by people, whose character is the results of the action and interaction of natural and/or human factors" and covers "natural, rural, urban and peri-urban areas" (European Landscape Convention 2000: 2).

2.6.6 The Burra Charter (The Australia ICOMOS charter for the conservation of places of cultural significance)

The Burra Charter provides guidance for the conservation and management of places of cultural significance. It states that "Places of cultural significance enrich people's lives, often providing a deep and inspirational sense of connection to community and landscape, to the past and to lived experiences… They are irreplaceable and precious". Such places must therefore be conserved for present and future generations.

The Charter promotes a vigilant approach to change: "do as much as necessary to care for the place and to make it useable, but otherwise change it as little as possible so that its cultural significance is retained". Places of cultural significance are made up of *fabric,* that is all physical materials constituting them like building interiors, excavated material, fixtures and components. Such fabric should be disturbed as little as possible, even for study and documentation purposes.

2. 7 Difficulties

Although the area is highly rich in cultural heritage, the high population density and intensive building activity have prevented the appropriate recording of archaeological finds in the area in the past. Therefore, accidental discoveries have not always been reported, and those that took place in the 19th and early years of the 20th century have been scarcely documented.

While documentation is scarce, its interpretation is quite varied. Some publications choose to interpret this documentation according to which parish in Victoria they belong to. Sometimes, the centre of the ancient town is placed in the Cittadella, while in other publications it is placed in the lower part of Rabat, with the suggestion that the Cittadella was inhabited at a much later date.

A considerable part of the Area of Influence is composed of agricultural land which during the time of survey was either tilled or overgrown. This made these it difficult to carry out a field survey of the cultivated area, and thus any pottery scatters indicating cultural activity remained unnoticed. Part of these fields, have been already transformed into a car park which has been declared illegal by MEPA (EC/01082/01). It was not possible to find any information about the area before this development. MEPA's Orthophoto Map dated to 1998 is not clear enough to attest the damage incurred by the said development.

3. CULTURAL LANDSCAPE ASSESSMENT

Archaeological research is increasingly concerned with historical landscapes. The whole of our landscape, rural and urban, is a vast historical document. Such approaches aim at the preservation of historically important landscapes, especially when relating to arrangements of archaeological remains within the landscape. The historical landscape considers not only the important sites, but also the '*flora, fauna, topography, geology and scenery, as well as spiritual matters such as aesthetics, artistic and literary associations, folklore and tradition*.' [Darvill et al. 1993: 571].

3.1 Toponomy

A number of place-names have been identified from the survey sheet or other literature in the proposed area of development and its immediate surroundings (refer to **Figure 9**). Toponomy, may indicate historical aspects of the area and as such, meanings and dates can be derived. Below is a list of these place-names and related information.

Tal-Ħofra — No reference found. Aquilina (1987: 475) translates 'Ħofra' as sunken face and mentions that there are five localities with this place name in Gozo.

Il-Ħofra — No reference found

Tal-Mejda — No reference found

Id-Demnija — A field below the Cittadella in Gozo. The place-name refers to a manured field recorded earliest on the 3rd of July 1572 by Notary Thomas Gauci (Wettinger 2000: 110).

Ta' Wara s-Sur — No reference found, but the place name clearly indicates the area behind the city walls of Cittadella.

Forn Il-Ġir — A place-name referring to a site close to the Citadel in Gozo is recorded on the 10th of January 1585 by Notary J.D Formosa. This place-name can be translated as a lime-kiln (Wettinger 2000:128), hence indicating the presence of a lime kiln in the area or its vicinity.

Tax-Xambek — According to Aquilina, Xambek is also known as tartana or felukka. It is a single mast and sail Sicilian boat used for transporting cargo from Sicily and Italy (Aquilina 1987: 1542).

Tal-Grazzja Translated as grace, Tal- Grazzja is a place-name in the limits of Rabat, Gozo. Il-Wied tal-Grazzja is the name of the valley extending beneath the Capuchin's monastery in Rabat that reaches Marsalforn (Aquilina 1987: 446-447).

Ta' l-Ibrag This is a common place name and refers to the field rooms in the area (Wettinger 2000: 332).

Ta' l-Ibrak No reference found. Refer to Ta' l-Ibrag, above.

Ta' Majru No reference found

Il-Gnien This is a common place name and although there is no direct reference to this particular location, it indicates the presence of a garden (Wettinger 2000: 151) or an orchard.

Tad-Dawwara Chantry land near Rabat, Gozo mentioned in a notarial deed of 1527. According to Wettinger (2000: 106) it possibly refers to a circular feature in the area. If it was on the coast, which is not the case here, it would have referred to a whirlpool (Wettinger 2000: 106).

Tal-Hawt No direct reference to this locality was found, but the place name refers to trough or small water reservoir, basin, water basin, tank, or cistern (Wettinger 2000: 302-303)/

Ta' Grixti Recorded locations with this toponym are located in Malta, and not in Gozo. Wettinger relates the place name to a Maltese surname, Grixti (Wettinger 2000: 172).

Wied il-Grixti No reference found. Refer to Ta' Grixti, above.

Ta' Xkora A location at Tal-Hamimiet and Tal-Ferhiet, Gozo, mentioned in records dating to 1474. It means 'the field belonging to Xkora' which is a family name, and nickname of Bartholomeus Gaudixi mentioned in a notarial deed of 1488 (Wettinger 2000: 620).

Tal-Hamimiet A district in Gozo mentioned in records dating to 1474 and 1585 and meaning public baths (Wettinger 2000: 294)

Tal-Ferhiet A field at tat-Taflija, Gozo mentioned in a notarial deed of 1576, meaning the field belonging to 'Ferhat', a common Arabic personal name (Wettinger 2000: 124).

It-Taflija Translated as blue clay or marl. Aquilina recalls that Zammit Cantar locates such a place name to the area beneath Gelmus and limits of Zebbug, Gozo (Aquilina 1987: 1384).

Ta' Gelmus A hill in Gozo close to Rabat. Gelmus refers to a nickname or surname which is hitherto unrecorded and not Arabic in origin. Earliest mention of this is the 21st of August 1540 in the Cathedral Museum Archives (Wettinger 2000: 169). In local folklore it was said that the hills contained gold dust and two fountains (possibly referring to perched aquifers) provide water from the sides of the hill (De Soldanis 1746: 45).

Ta' Dun Anġ No reference found

Tal-Fjura No reference found

Wied is-Seqer A valley close to Ghajn Il-Kbira in Gozo. It can be translated as hawk valley. It is found in the deeds of Notary Thomas Gauci dated to 1567 (Wettinger 2000: 587).

Ta' Għammieża No reference found

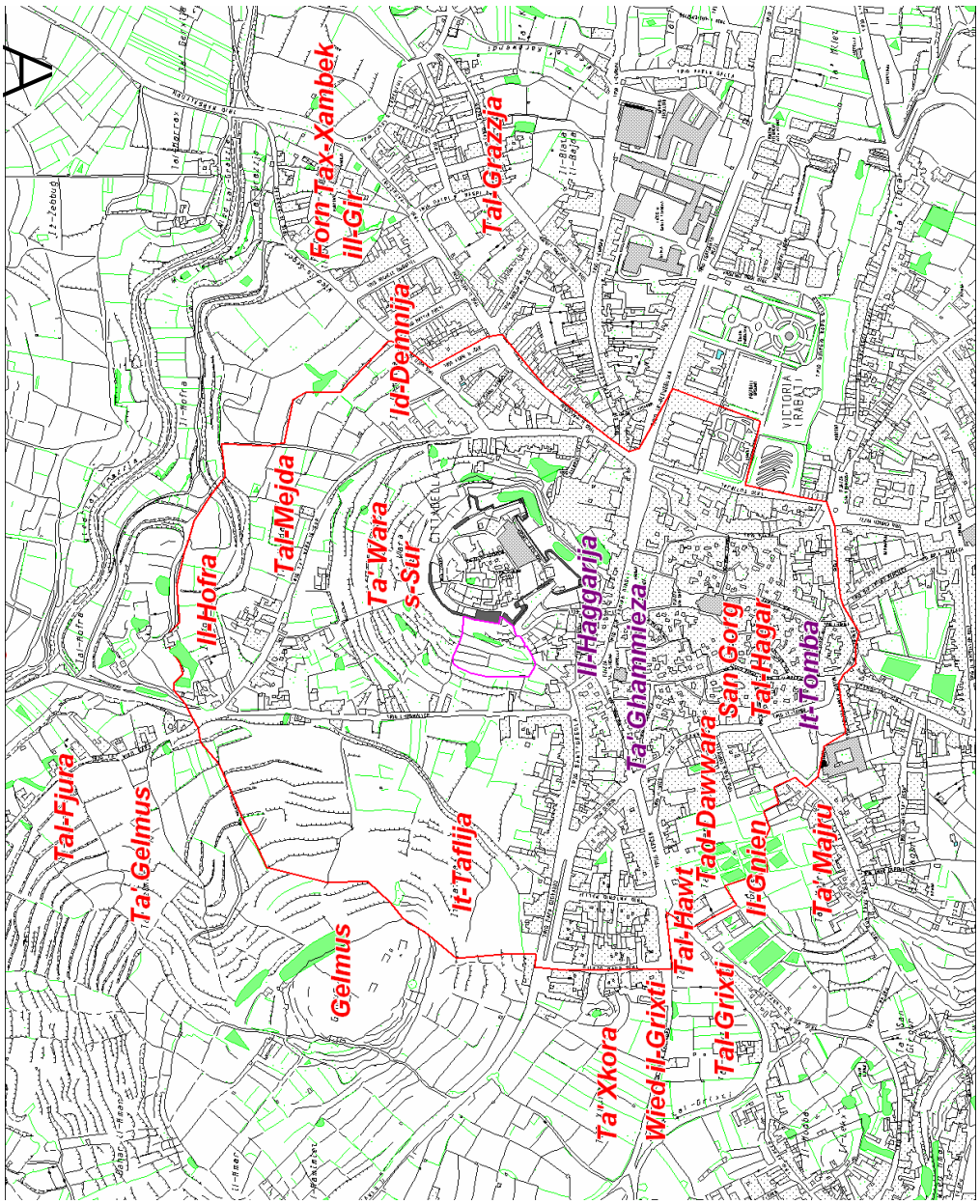
Il-Ħaġġarija De Soldanis (1746: 34) places this location in Rabat, Gozo at the boundary of the old town.

It-Tomba Aquilina (1987:1464) refers to this place name as a mound that is on elevated ground that is smaller than a hillock.

San Ġorġ tal-Ħaġar No reference found in Wettinger 2000. Mizzi (*Heritage 70*: 1387) describes it as "one of the oldest toponyms in the island's ancient town". As the toponym Tal-Ħaġar (refer to entry below), this may refer to the enclosed town of Gozo. Nowadays, the place name is associated with a stone statue of St George.

San Ġorġ A locality in Gozo mentioned in the Mdina Cathedral Archives Vol. 25 folio 72 as an area in the suburb of the *castrum* of *Gaudos* dated to 1592 (Wettinger 2000: 493).

Tal-Ħaġar No direct reference to this location was found, but Wettinger (2000: 267)_translates it as either of the megalithic stones or as an enclosure. The latter term was used in Arabic to refer to Pre-Islamic tribal headquarters or village in South Arabia, and therefore according to Wettinger, it refers to ancient ruins.



Area of proposed development

Area of Influence

Gelmus Place name derived from 1992 Survey sheet or current street names

Il-Ħaġġarija Place name derived from Azzopardi 2007

Figure 9: Location of place names

3.2 Historical Importance of the Area

3.2.1 Prehistoric Period

The area of present day Victoria and Cittadella was always the main settlement of the island, being located at the centre of the island of Gozo and "judging from its convenient size and strategic position" (Trump 1997: 166). The hilltop on which the Cittadella is situated, held also an important position in that both Xlendi and Marsalfron Bay (two possible places of anchorage) are visible (Gambin: 2002/2003: 19).This situation has led to the formation of a multi-period archaeological site which was not always scientifically excavated. Hence, while it is assumed that some sort of occupation did occur in the Prehistoric Period, given the evidence from Ggantija, Ghajnsielem, and elsewhere in Gozo, there is limited evidence of Neolithic remains in Victoria and Cittadella as yet.

Archaeological finds from the Tac-Cawla (**Figure 10**) area excavated in the 1990s have provided with prehistoric domestic finds (corresponding to SCH Site Code TCC 1993, TCC 1994, TCC 1995, TCC 1996) which showed some traces of prehistoric occupation. Van Der Bloom and Veen (1992: 19-26) claim to have unearthed prehistoric remains in the Tac-Cawla area from the Ghar Dalam phase. These consisted of pottery, stone tools and flakes and bone. This led them to the conclusion that they had come upon a Neolithic settlement. Other prehistoric finds, which are further distant from the Cittadella are the remains of Ta' Marziena Temple (**Figure 10**), which are at the edge of the Victoria plateau.

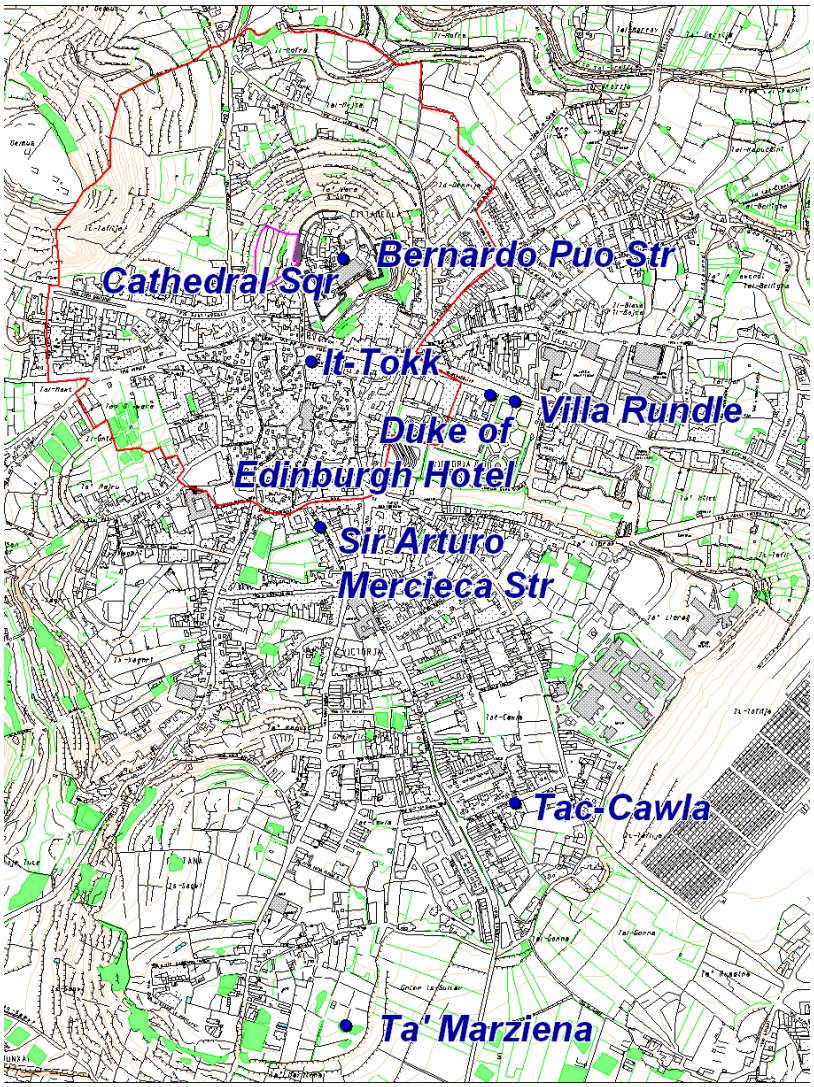
Although illegally excavated, the Superintendence of Cultural Heritage had impounded ceramics from the Cittadella itself, in Bernado Puo Str (**Figure 10**), dating to the Prehistoric Period up to the Middle Ages (corresponding to SCH Site Code PUO 1999). Although these finds were not the result of a scientific excavation they suggest a possible prehistoric occupation in the Cittadella itself.

The first secure evidence of Prehistoric evidence dates to the Bronze Age, when in 1961 a trench was cut along the whole length of It-Tokk (corresponding to MEPA NPI Card GZ-04; **Figure 10**). The section of this trench, some 52m long, provided Bronze Age to late Roman evidence of occupation (MAR 1961: 5; Bonanno 1992: 30). Bronze Age levels were directly on the clay bedrock. Above it lay Punic floors and rough walls, while the major part of the development was Roman (MAR 1961: 5).

Other evidence from the Bronze Age comes from a tomb excavated in Strada Corsa (now Republic Str) near Villa Rundle (corresponding to MEPA NPI Card GZ-09; **Figure 10**). Pottery from this tomb mostly dated to the Bronze Age, while some fragments were also Punic (MAR 1923-1924: ii-iii; Sagona 2002: 1122-1123).

According to Vella, the Cittadella was "densely populated by the later Bronze Age", the Borġ in-Nadur Phase, while earlier Tarxien Cemetery pottery were retrieved in Sur Arturo Mercieca Street (**Figure 10**), in the former grounds of the Duke of Edinburgh Hotel (**Figure 10**) as well as from the Cittadella during the 1956 remodelling of Cathedral Square (**Figure 10**) (Vella 2007: 61).

Given that during the Borg in-Nadur Phase, settlements favoured hilltops which could be easily defended, "the hill of the Gran Castello became Victoria's new habitation core". This is because "Its perpendicular Upper Coralline/Green Sands [sic] cliffs and underlying steep Blue Clay slopes provided a natural solution to the formation of a defensive set-up without the need to invest in the building of a massive proactive enclosure" (Vella 2007: 64). This is suggested also by A.A Caruana's discovery in the 1850s of about 100 interconnected silos "at the back of the houses situated along the northern side of Independence Square…and just beyond the Citadel's ditch" (Azzopardi 2007: 18; corresponding to MEPA NPI Card GZ_17). These were interpreted by Caruana as a Graeco-Roman *columbarium*, but given that he had noted traces of ash and burnt bone, it is generally believed that these dated to the Bronze Age (Vella 2007). According to Vella (2007: 64) this confirms that Borg in-Nadur settlement on the Cittadella extended far beyond its present reaches.



Area of proposed development

Area of Influence

Figure 10: Location of Prehistoric Discoveries in Victoria.

3.2.2 Classical Period

Archaeological and documentary evidence increase for the Classical Period. First of all, it seems that the island of Gozo itself has a name that originated in classical times. *Gaulos* or *Gaudos* was the Roman version of the Greek name by which the island was referred to by the 6th century BC (Bonanno 1996: 50). While in most of the times, Gozo was included in references to Malta, some inscriptions point out to an administrative autonomy of Gozo (Bonanno 1996: 50-51). This is the case in the 2nd century BC Punic inscription commemorating the restoration of a number of public monuments by public officials representing *the people of Gozo*. Again, in the 2nd century AD, two inscriptions were set up by inhabitants of Gozo to honour their patrons. These inscriptions state that Gozo had its own *municipium* (Bonanno 1996: 51). This is further attested by the fact that Gozo issued of its own coinage in Roman times (Bonanno 1992: 16).

These inscriptions resulted from a well-organised community that lived in the island of Gozo. A number of tombs, dating to the Classical Period and ranging from the early Phoenician period to the Roman period suggest intensive activity in the area of Victoria. **Table 3** is a summary of these tomb finds.

As indicated by the location of burial finds (**Figure 11**), the necropolis of the town of Gozo was "contained within the entire area starting from Victoria's suburb Ghajn il-Kbira to St Augustine Square (in Victoria) and extending through Vajringa Street and St Francis Square to Ghajn Qatet and Archbishop Pietro Pace Streets ending at Ta' l-Ibrag on the eastern outskirts of Victoria but extending northwards to Republic Street and the surrounding area" (Azzopardi 2002/2003:50). This area was referred to by Caruana as It-Tomba.

Ancient Mediterranean cultural dictated that tombs would be placed just outside the town and this was reaffirmed by Roman legislation (Azzopardi 2007: 8). It also seems that in the case of the city of Gaulos, the type of rock and natural caverns outside the habited area proved ideal for this rule. The area outside Gaulos was used for burials since "at least late Punic times, with the earliest recorded burials dated to the 5th (perhaps even the 6th) century BC., but continued to be used for the same purposes well throughout the Roman period, sometimes involving the repeated use of graves" (Azzopardi 2007: 8).

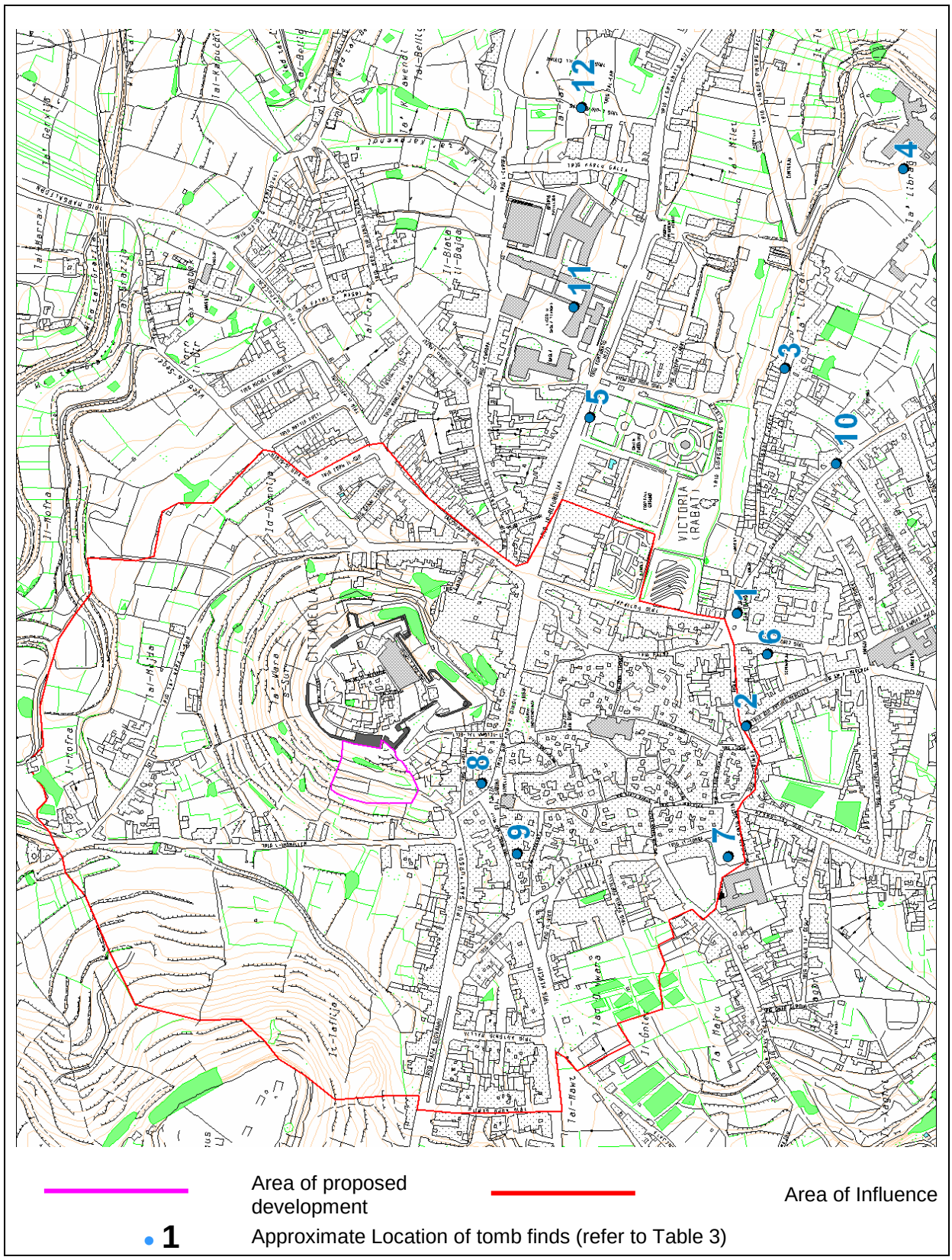


Figure 11: Approximate location Classical tombs found in Victoria.

Location	Description of finds	References
1. Pjazza San Frangisk	Finds have been lost; but 2 pottery sarcophagi are said to have been collected	Caruana 1882: 29, 1898: 6, 1899:51; Sagona 2002: 1119
	Concentration of tombs	Caruana 1898:77; Sagona 2002: 1119
	A four-chamber complex	Caruana 1898: 77; Sagona 2002: 1119-1120
	A five-chambered complex	Caruana 1899:55; Sagona 2002: 1120)
	Five inter-connecting chambers holding several burials held in pottery chests with lids, and four sarcophagi. (Corresponding to MEPA NPI Card GZ-07)	Caruana 1898: 7, 75; 1899: 51; Sagona 2002: 1120-1121
2. Triq Vajringa	Tomb where 'Graeco-Roman pottery' was unearthed	Sagona 2002: 1119
	Double tomb with a large number of finds including about 40 ceramic forms, various bronze & lead artifacts, 38 coins, some jewellery & a gold earring (Corresponding to MEPA NPI Card GZ-08)	MAR 1909-1910; Sagona 2002: 1121-1122
3. Triq Arcisqof Pietru Pace	Two tombs discovered during works. The first had a rectangular shaft and a roughly circular chamber. Human bone, pottery plates, dishes, amphorae, cinereay urns, jars and other vessels were recovered. The second tomb had a similar shape and size. It contained the remains of 4 adults, one ceramic dish with 2 handles and red line decoration and other pottery vessels, brass coffin clamps and ferrules and a brass coin of Syracusa dating to 274-216BC. (Corresponding to MEPA NPI Card GZ-10)	MAR1957-1958: 2; Sagona 2002: 1123; Azzopardi 2007: 13
4. Craig Hospital (Ta' l-Ibraġ or Tal-Forkiet)	Mention of tombs at Ta' l-Ibraġ (Corresponding to MEPA NPI Card GZ-16)	Azzopardi 2007: 15; MAR 1905/06: 2
	Tomb dug out in soft and friable rock. 7 small jars, 6 saucers, a small ivory disc, 2 copper rings, 2 copper earrings and one thin silver wire ring were recovered.	Azzopardi 2007: 15; MAR 1926-27: IV;
	Rock-cut shaft grave that was almost completely destroyed and some fragments of human bones and an few potsherds of Punic type were retrieved. Sagona dates the pottery to to the 4th to 3rd centuries BC (Corresponding to MEPA NPI Card GZ-18)	Azzopardi 2007: 15; MAR 1988: 79; Sagona 2002: 1123-1124

Location	Descrioption of Finds	References
5. Strada Corsa (now Republic Str) near Villa Rundle	A circle of stones encircling a heap of human remains and pottery vessels dating mostly to the Bronze Age, while some fragments are Punic. (Corresponding to MEPA NPI Card GZ-09)	MAR 1923-1924: ii-iii; Sagona 2002: 1122-1123; Azzopardi 2007: 14
6. Bishop's Seminary	Two classical rock tombs , badly damaged, ceramics, metal and glass objects datable to the Punic and Roman periods, as well as human remains were retrieved. (Corresponding to MEPA NPI Card GZ-11 and SCH Site Code SEM1997)	Buhagiar 1999: 41; Azzopardi 2007: 16
7. St Augustine Sqr	Burial containing an inscription which survived for some time, but is now lost. It held the remains of Quinitnus Lutatius Longinus	Azzopardi 2002/2003; 2007: 12
8. Il-Haggarija (Sabina Sqr)	Burial not officially recorded or documented containing a stone sarcophagus with the remains of an adult and a child, and a marble statuette (now in a private collection; and of debatable date). Pottery vessels were also found.	Azzopardi 2007: 13; reference to the statuette in MAR 1905/6: 1
9. Ta' Haggarija and Ta' Ghammieza	Donation of a number of finds from a number of rock tombs found in these locations by Fr Emanuel Magri. in 1906 and 1907. (Corresponding to MEPA NPI Card GZ-15; and GZ-19)	Azzopardi 2007: 13; MAR 1906/: II; MAR 1907: 2
10. Ghajn Qatet	The Musuems Department purchased "as complete set of furniture" from a tomb-cave found in the area (Corresponding to MEPA NPI Card GZ-14)	Azzopardi 2007: 15; MAR 1905/06: 2
11. Enrico Mizzi Str	Double-chambered Punic tomb dating to the 5th century BC. (Corresponding to MEPA NPI Card GZ-37 and SCH Site Code VCT1993)	Azzopardi 1007: 17; MAR (Gozo) 1993: 246
12. Tal-Far (Universitas Str)	Rock-tomb rifled in antiquity with a quantity of stones. According to Azzopardi, other tombs are alleged to have been found in the area but they were never officially reported or documented. (Corresponding to MEPA NPI Card GZ-20).	Azzopardi 1007: 17; MAR 1932-33: VII

Table 3: Short Description of Classical tombs found in Victoria.

According to Tonna (2004: 64) the town of Gozo was the most similar in natural setting to the Greek *polis*. The Citadel or Castle, set on a hill, was similar to the *acropolis*, hosting the main public buildings, the law courts and sacred buildings, while dwellings were further downhill in today's Rabat. The meeting point between the two sectors of the city was It-Tokk, which still has the same function as that of the Greek *agora* (Tonna 2004: 64). This means that the city of Gaulos in itself was located in the centre of the island, and occupied only a part of the hill "with an acropolis planted on a much higher promontory at its north extremity" (Bonanno 1992: 30). In fact this is corroborated by the steep contours to the north of the Castello as shown in **Figure 12.** The exact boundaries of these sections have not been confirmed yet by direct archaeological evidence, and **Figure 12** should just be taken as a general indication.

This is further confirmed by "the occasional discovery of ancient masonry that might be taken to be sections of the town wall" affirm this theses (Bonanno 1992: 31). In fact, Claridge (as reported in Bonanno 1992: 31) reported that traces of massive waling were encountered during the building works in Main Gate Street in 1969. The 1961 finds at It-Tokk (mentioned above; ●**1 in Figure 12**) also revealed Punic and Roman finds. In fact, the Museum Annual Report states that the major part of the deposit dated to Roman finds. Here, wine amphorae were found in such a quantity as to imply the presence of a cellar (MAR 1961: 5).

The "Inscriptions and a series of architectural fragments - cornices, capitals, shafts and bases of columns – noted by eighteenth century writers such as G. Agius de Soldanis and Jean Houel, as lying about in the streets of Rabat and the Castello, suggest that the town of Gaulos was prosperous enough to possess public and religious buildings adorned with marble architectural decoration" (Bonanno 1992: 30). "Monumental remains were discovered during the laying of the foundations of the Gozo Cathedral in the Castello, as is suggested by … Agius de Soldanis who identifies the ruins with … [a] temple of Juno" (Bonanno 1992: 31). Moreover, in 1937 while laying the foundations of the western aisle for St George's Basilica, a cylindrical cistern built up with terracotta slabs was discovered. It was embedded in the clayey soil. A few feet from the reservoir, a large har containing about 4000 small bronze coins was discovered. These were initially dispersed, but gradually about 2500 returned to the Museums Department. The coins that could be identified dated to the 3rd century AD. In the previous year, while building the foundations for the eastern aisle a rectangular cistern was discovered. Late Roman pottery were lifted as well as lozenge-shaped tiles (MAR 1936-7:14; corresponding to MEPA NPI Card GZ-05). During the construction of the Oratory of the same basilica, the foundations of a Roman building were also recorded (Bonanno 1992: 30; corresponding to MEPA NPI Card GZ-05; ●**2 in Figure 12**). One of the blocks from this building still stands outside the side door of the basilica

Further evidence of the presence of structures is found in Foreman Str, where Hellenistic masonry was identified in 1998. The masonry was covered in the Early Modern Period by agricultural terracing (Cutajar 1998: 23; corresponding to MEPA NPI Card GZ-03 and SCH Site Code FRM1996; ●**3 in Figure 12**). In 1993, a Roman cistern built of ashlar blocks acquiring water from the water table, was discovered during works at the Franciscan nunnery (corresponding to MEPA NPI Card GZ-06; ●**4 in Figure 12**). Bonanno reports a collection of "an interesting series of Roman pottery fragments which were eventually given to the Museums Department" from this site (Bonanno

2005: 347). Other remains have been found between the Cittadella ditch and the La Stella Band Club. These have been covered and are waiting further investigation (Bonanno 2005: 348; corresponding to MEPA NPI Card GZ-02). Although an upright monolith in Triq Kercem (**CTD07/050**), which is sometimes referred to as a menhir (corresponding to MEPA NPI Card GZ-12), looks like a menhir, it is squarish in shape and artefacts related to it have been dated to Roman times (MAR 1935-39: XXV-XXVI) (●**5 in Figure 12**).

The presence of this town has also been attested by Diodorus Siculus who in the 1st century BC wrote about a town in Gozo (De Lucca 1990: 130) with houses that were "ambitiously constructed with cornices and finished in stucco with unusual workmanship" (Bonanno 1977).

Classical finds were also recorded by the Superintendence of Cultural Heritage in various other locations. These include a stretch of masonry at the ditch of the Cittadella itself (corresponding to SCH Site Code CTD1991), and a fragment of white marble showing elements of folded drapery were found in the passageway running along the ditch facing South-East (corresponding to SCH Site Code CTD2005).

Procopius in *Bellum Vandalicum*, suggested that in 533AD, the Byzantine Gerneral Belisarius, visited the islands of Malta and Gozo. In fact, a Byzantine seal bearing the name of Theophlact, arcon, was found during excavations in Rabat (Mizzi, *Heritage 88*: 1758). Byzantine presence has also been confirmed in Gozo in the area of Victoria by Byzantine ceramics that have been found in Cittadella together with Mdina, Tas-Silġ and Marsa (Molinari & Cutajar 1999: 10).

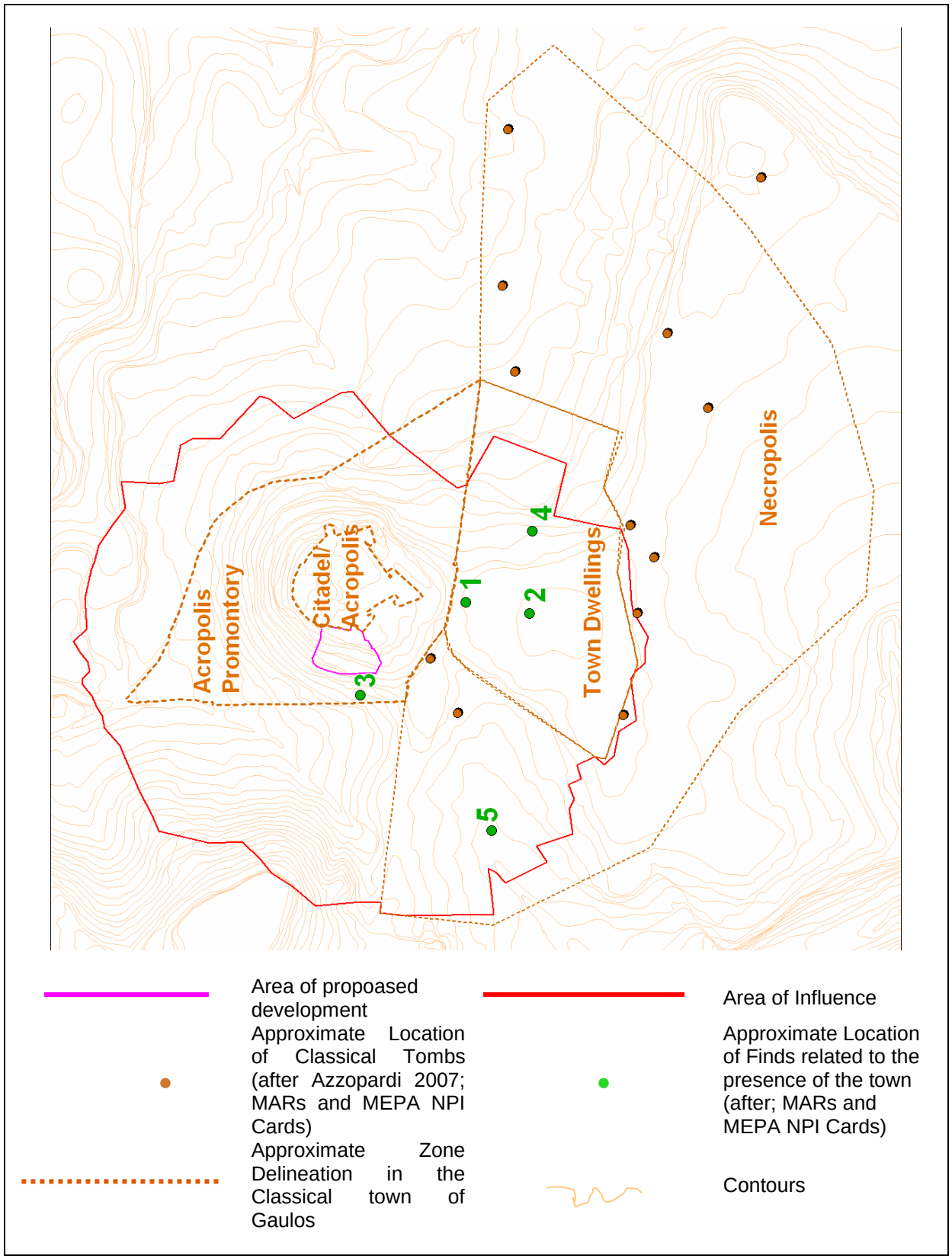


Figure 12: Possible delineation of different zones in the Classical town of Gaulos.

3.2.3 Medieval Period

The Middle Ages brought a number of changes, mostly a lack of stability which led people to seek refuge. While there is no direct information for a number of years, it seems clear that by the early years of the 13th century, customs duty was being collected from Malta and Gozo by Fredrick II (Luttrell: 1975: 37).

The medieval Castello "seems to have occupied the site of the citadel of the former larger Roman town of *Galuconis Civitas*, the lower part of which was believed, according to Agius de Soldanis writing in 1746, to have been enclosed by a fortified wall and ditch equipped with four towered gates" (Spiteri 2001: 237). In the Byzantine, Muslim and post-Norman domination the Roman town sems to have been gradually abandoned in favour of the Castello (Spiteri 2001: 237).

There is little evidence for a Muslim presence in Gozo. It seems that the 1961 excavations at It-Tokk hardly yielded any levels dating to this time, and the only archaeological evidence comes from Kufic inscriptions found on the site where the Church of St Sabina is built today (Mizzi, *Heritage 88*: 1758). Another type of evidence is however, linguistic, with a number of places having names of Semitic origins like San Ġorġ tal-Ħaġar, Ta' L-Ibraġ, Ta' Ħamimiet, It-Tokk, Għajn Qatet and ta' Grixti. According to Vella (2007: 64), at this time, the Cittadella and Victoria were detached from each other. However, "the splitting up of the earlier town of Gaulos into two distinct hubs is not to be interpreted as the germination of a second settlement. The Castello and the historic core remained fully interdependent and are to be viewed as an extension of one another" (Vella 2007: 64).

The first official recording of Gozo from the Medieval Period dates to 1241. It is Gilberto Abate's report (Mizzi, *Heritage 88*: 1759). At around this date, the Citadel, and its Borgo, Rabat, were "the only significant centre of population and religion" in the island of Gozo (Buhagiar 2005: 25). There lived 203 Christian, 155 Muslim and 8 Jewish families in Gozo, while there was also a *castrum* (fortified town) under Sicilian control and a ferry to Malta (Luttrell 1981: 55). In 1241, the Castello (or *castrum*) only had one corn grinding mill, indicating its small size (Buhagiar 2005: 26).

In 1274 the Castello was sacked by the Genoese, and two years later the King ordered a status report of its fortifications (Buhagiar 2005: 26). It seems that at this time one-third of the Gozo population lived in and around the Citadel (Wettinger 1990: 61). In fact, the island's administration insisted that everyone had to pass the night in the Citadel or in Rabat rather than in the countryside, and no documents refer to a casale in Gozo while there were no parishes outside Rabat before 1551 (Wettinger 1990: 61).

In 1299, Gullielmus de Malta, representing his uncle, the Count of Malta, lived in the Citadel of Gozo. In his will he laid down that two captains were to administer the islands until the arrival of his uncle (Wettinger 1990: 53). His wife and daughter also had to reside at the Citadel until his arrival (Buhagiar 2005: 122). In fact at this time Gozo had its class of notables and gentry of Sicilian and mainland Italian origin (Wettinger 1990: 56). From this will it is known that the Count of Malta had the right to nominate a *castellan* for the Castello, and that there were three jurats at the Citdel (Bezzina 2007: 9).

Unfortunately, the houses of these notables, may have already been in ruins by the 15th century (Buhagiar 2005: 122). In 1442 a derelict "great house" was leased within the walls of the castle (Buhagiar 2005: 122-123). According to Bugahiar (2005: 26) a well-preserved siqifah (**CTD07/026**) "could have formed part of a house of some importance such as the one in which the miles Guillelmus de Malta, nephew of the Count of Malta, made his will in 1299" (Buhagiar 2005: 26).

From the middle of the 14th century, the Citadel was called *Terra*. This term was used to refer to a city surrounded by fortifications with an autonomous administration. In fact the term *terra et insula Gaudisii* (the city and the island of Gozo "abounds in medieval documents". In 1350, a *Unversitas* was founded to take care, among other things, of the importation of food from Sicily (Bezzina 2007: 7).

After the 15th century, we know that a *matrice* church was dedicated to Our Lady, while there were 3 other parishes in Rabat – San Gakbu, San Gorg and Santa Marija ta' Savina (Wettinger 1990: 61).

At this time the Castello and its Borgo (Rabat) were the only example of a "'closed' settlement of the Malta type, clearly devised for security reasons and consisting of a street pattern based on winding and irregular streets and alleys with short vistas", which are very similar to fortified settlements of Muslim origin in Sicily, Spain, and North Africa (De Lucca 1990 134-136). Moreover, the "Arabic name points to an origin in the Muslim period and its houses reflected Islamic customs" (Buhagiar 2005: 110). The oldest surviving nucleus is the district at the back of St George's Basilica as shown by the pattern of narrow streets and alleys (Buhagiar 2005: 110; **CTD07/051**). Based on the street elements, the houses do not date to earlier than the 17th century, but interior features may be of an earlier date (Buhagiar 2005: 110). Moreover, houses in Milite Bernardo and adjoining streets area sometimes attributed to the Middle Ages in that they "make use of wet rubble and arched doorways with large voussoirs that often lack a keystone" (Buhagiar 2005: 26-27)". However "they are usually loosely described as medieval but can in fact be Early Modern" (Buhagiar 2005: 26-27).

The Basilica of St George itself is referred to in medieval manuscripts as *ecclesiae sancti Georgii Parrochiale rabbati* and according to Mizzi (*Heritage 14*: 261) "was probably the centre of liturgical worship for the Christians of the island's only urbanised area during the Early Middle Ages". It is also interesting to note that until Mons Dusina's visit in 1575, the Mozarabic rite, though suppressed by the Pope in 789AD, was still practiced in this church. This was the only rite permitted to be used by Christians under Muslim rule (Mizzi: *Heirtage 14*: 263).

The Peri Reis Map, dating to 1517, and considered to be the earliest descriptive map of the Maltese Islands (Agius-Vadala, *Heritage* 92: 1836) shown in **Figure 13**) shows a small number of settlements in Malta, and a castle in Gozo, again confirming the presence of a fortified settlement in Rabat.

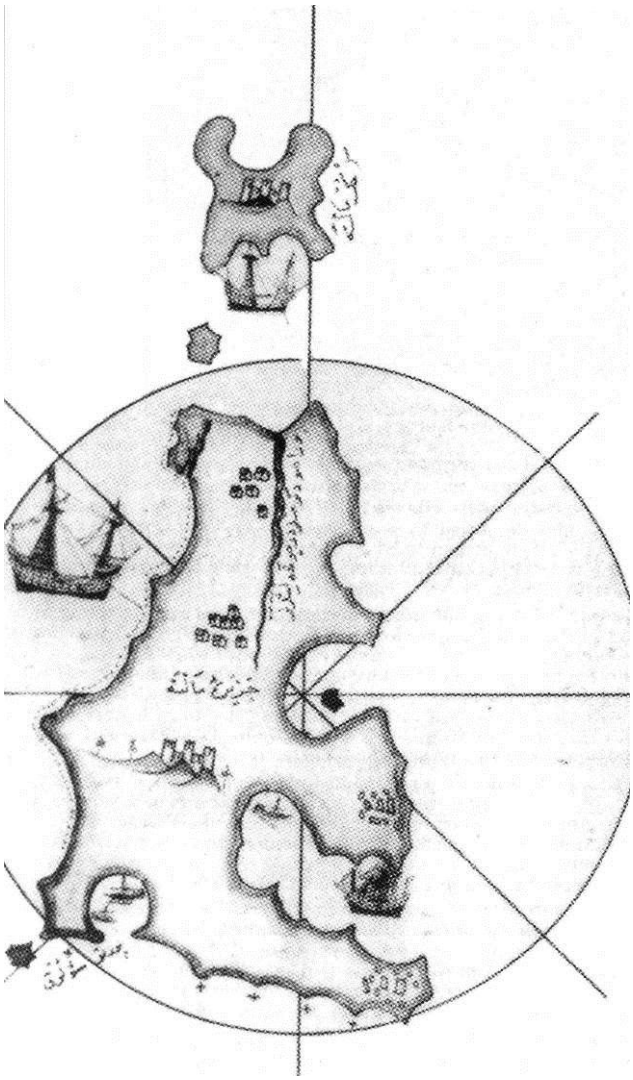


Figure 13: The Peri Reis Map (*Heritage 92*: 1836)

Archaeological evidence also confirms such activity. Ceramics dating to the late 10th and to the 11th centuries, that is the Islamic period, have been found at Cittadella, Mdina, Tas-Silġ and San Ċir (Molinari & Cutajar 1999: 11), while ceramics from the 12th to the first half of the 13th century, that is dating to the Norman and Swabian occupation, are "numerous and widely distributed" and have been found at Mdina, Cittadella, Tas-Silġ, San Ġwann ta' l-Għargħar and Marsa (Molinari & Cutajar 1999: 11). At the same site, in Foreman Str, where traces of Hellenistic masonry were uncovered, an archaeological excavation was carried out in 1998 to remove the agricultural terracing and "a particularly important assemblage of Medieval ceramic remains – datable to the 10th/12th centuries – was recovered" (Cutajar 1998: 23). A sondage trench in a property off Triq il-Kapuccini, on the east slopes of ic-Cittadella uncovered the remains of fire hearths as well as pottery scatters dating to the Middle Ages or later beneath agricultural soil (Cutajar 1998: 23). Fine table ware from the Angevine and Aragonese period have been found at Mdina, Rabat, Cittadella and Tas-Silġ (Molinari & Cutajar 1999: 11). The presence of decorated wares is higher from Gozo sites like Cittadella and Mixta (Molinari & Cutajar 1999: 12). However the presence of imported wares, providing evidence for overseas trade is lower from the Gozo sites as well as from the countryside (Molinari & Cutajar 1999: 12).

Moreover, remains of the possible Medieval Cittadella land front defences were unearthed during road improvement works at It-Telgha tal-Belt, in the ravelin in front of the Cittadella (**CTD07/033**); corresponding to SCH Site Code CTD2003). These defensive structures reutilised architectural elements from older structures (Azzopardi 2003). These are still visible beneath the ravelin as shown in the Data Capture Sheet for this feature (refer to **Appendix I)**.

An inscription dating to the 16th century is also found in the wash-house of Fontana. This was erected by Petri Monpalao declare his right granted to him by the Crown of Aragon to use the water from the fountain (Mizzi, *Heritage 70*: 1392) and is still visible today as shown in **Plate 1**..

Plate 1:Plaque in the Fontana wash-house erected in the 16th century to mark the right to use the water by Petri Monpalao

Another interesting find consists of 14 of 28 tombstones from a late medieval cemetery outside the walls of the Citadel that still survive today. In the 18th century they caught the attention of Agius de Soldanis who associated them, based on no particular evidence, with the failed crusade of Louis IX on Tunis in 1270. However, one must point out that "…the stones are difficult to date and are in fact one of the most fascinating enigmas of Maltese Late Medieval Art" (Buhagiar 2005: 32). Unfortunately this cemetery had been destroyed in 1947 to make way for the Don Bosco Oratory (Mizzi, *Heirtage 1*: 1). However, recently during works in the area a large number of bones were unearthed (personal communication with MEPA Cultural Heritage Unit; corresponding to MEPA NPI Card GZ-151 and SCH Site Code VCT2003).

3.2.4 Knights Period

The Citadel owes much of its present shape to the Order of St John. At the time of the arrival of the Knights, the Castello which was "an obsolete medieval work of the pre-gunpowder era and in continual decay" was the only refuge to corsair attacks on Gozo (Samut-Tagliaferro 1993: 18). According to the Order's Commission of 1524 that inspected the Islands prior to the Order's acceptance of Malta from Charles V, the Castello was Gozo's only fortress that was very small and surrounded by land. It was unable to hold out against a small force even though it had a very small number of cannon within its walls (Samut-Tagliaferro 1993: 18). This Commission also recorded the presence of a church, a barbican (a tower at a gate or bridge), a south-facing entrance and a ditch. This ditch apparently was used for the internment of criminals and Jews (between 1475-76) (Spiteri 2001: 237). According to Bosio there were also houses with windows cutting the Citadel's walls. Surely, by 1599, dwellings had encroached on the ramparts (Spiteri 2001: 237).

D'Aleccio had drawn a plan of the medieval castle (refer to **Figure 14**). In it he shows three artillery platforms along the southern side, which were possibly added by the Knights upon their arrival (Spiteri 2001: 237). In a map reproduced by Jean Quintin d'Autin, who wrote a description of the Maltese Islands in 1536, the Castello is the only settlement drawn on the island of Gozo (**Figure 15**).

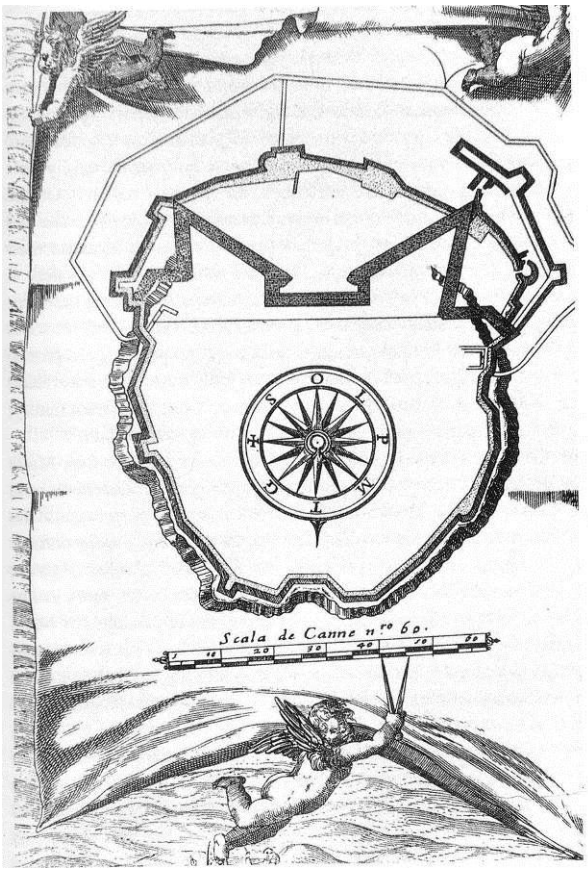


Figure 14: Reproduced plan from Matteo Perez D'Aleccio and Francesco Lucini's design of the Great Siege showing the Cittadella during the early years of the Order's rule in Malta (Samut-Tagliaferro 1993: 20)

Figure 15: Part of the plan reproduced by Quintin showing Gozo and the Citadel .
(reproduced from a postcard issued on the occasion of the 2007 Exhibition
for the Archives Awareness Week)

During the 1551 Ottoman raid, the Castello could not defend itself, and fell in the hands of the attackers. The Ottomans posted nine guns opposite the Castello – five near the Church of St George and another four near Porta Reale. After two days, Governer de Sesse offered to surrender on condition that he, together with 200 other nobles, would be granted safe conduct. The counteroffer included only 40 elders (Mizzi, *Heritage 89*: 1764). When De Sesse complied the garrison and 6000 inhabitants sheltering the walls were taken into slavery and the Castello was sacked and ruined (Spiteri 2001: 237). After this attack the Castello was repaired, but until 1565 it still lacked bastions (Spiteri 2001: 237). "It was only the fact that the Turks chose to ignore Gozo that allowed the Castello to survive the [Great] siege unscathed" (Spiteri 2001: 238).

By 1599 it seems that Citadel's ramparts were encumbered with a number of houses (Spiteri 2007:237). Hoppen (1993:411) describes how the erection of buildings near fortifications during peace time was a common practice as regulation controlling the erection of building near the fortifications tended to be more relaxed. Gardens and orchards were some times planted in the ditches and animals and people encroached on bastions which in turn would cause a lot of harm to the fortifications themselves.

During the Great Siege of 1565, the Order considered the dismantling of the Castello and the evacuation of all the Gozitans to Sicily. However, La Vallette decided otherwise since if Malta would be besieged, the Castello would be important

as a signalling station reporting enemy sea movements, and in relaying situation reports and appeals for reinforcements from Malta to allied Christian vessels. In fact, the Castello did play an important part in the communications network between Birgu and passing vessels (Samut-Tagliaferro 1993: 23).

In 1576, Grandmaster La Vallette visited the Castello with the military engineer Francesco Laparelli who was asked by the Order the best way of modernising it. However, nothing came out of this, since the Order was involved in the building of Valletta (Spiteri 2001: 238). Although considered inadequate to defend the island, until 1637 the Order still obliged the inhabitants of Gozo to spend the night in the Castello (Samut-Tagliaferro 1993: 19). There were also regulations about hygiene in the Citadel as shown by a public proclamation published in 1568-1569 stating that no one could throw waste in the Citadel or on its fortifications. In other documents, one finds that waste was to be disposed of in an area called Id-Demnija which lies beneath St John demi-bastion (Bezzina 2007: 9-10).

Mons Dusina's report for his Apostolic Visit in 1575, describes a number of churches and public buildings in the Citadel. These included the Matrice dedicated to the Assumption of Our Lady, the Churches of St Nicholas, St Laurence, St John the Baptist, Our Saviour and one in St Julian Hospital (Bezzina 2007: 10). Other churches were located outside the Castello. These included those dedicated to St Paul, St Cathaldus, St Anthony the Abbot, St Blaise, St Bartholomew, Our Lady of Mercy, St Michael, St Nicholas and St Catherine (Mizzi, *Heritage 89*: 1761).

In 1583, the Castello was once again attacked by corsairs and the Order obtained permission from the Pope to collect a special tax on foodstuffs for the restoration of the Castello (Spiteri 2001: 238). However, nothing materialised out of this.

It was only in 1599 that a military engineer, Giovanni Rinaldini, was appointed by Grandmaster Garzes to inspect the fortifications of the Citadel and draw a plan for the defence of the island of Gozo. While accepting the military importance of the Castello, Rinaldini had written in a detailed report that its only advantage was the availability of houses within the walls that were convenient to the residents. It was also ideally located since it was located at the centre of the island and therefore easily reachable from many localities in Gozo in case of the need of shelter from a corsair attack (Samut-Tagliaferro 1993: 40). At this time the Castello consisted of a circular city. Its walls dating to medieval times had no outworks or ditches, and were dilapidated and unable to resist any attack. In Rinaldini's opinion, Rabat was easy to capture and could be used as an artillery platform against the Castello (Samut-Tagliaferro 1993: 40-41). He estimated that with a battery of four guns, the Castello could be subdued in 2 days (Samut-Tagliaferro 1993: 41). Moreover, Gelmus hill, which was higher, commanded the Castello and enemy artillery from there could easily destroy the walled city (Samut-Tagliaferro 1993: 41). He also commented that the rock on which the Castello was built was soft and could easily be mined (Spiteri 2001: 238).

Rinaldini, therefore concluded that it was not worthwhile to restore the Castello, unless the Order had unlimited funds. According to him, the houses within the Castello had to be demolished to make way for troop movements within the city

walls, and the defensive walls were to be extended to enclose Rabat (Samut-Tagliaferro 1993: 41-42).

Given that the Order was not ready to abandon the Castello, Rinaldini was still asked to produce plans for its restoration. Rinaldini proposed the building of two demi-bastions linked by a short curtain wall containing the main gate to defend the landfront. The gate was to be defended by a detached ravelin. As for the rest of the Citadel, he recommended the removal of all debris from the city walls to expose bare rock. New parapets were to be built and the ditch was to be deepened and widened. The houses of Rabat, hosting around 40 families, and a partially built wall enclosing the suburb, were to be demolished and the inhabitants relocated in the Citadel (Spiteri 2001: 238-239).

After his departure from Malta in 1599, works on Rinaldini's suggestions commenced. These were completed in the 1620s (Spiteri 2001: 239). The main gate was supplied with a drawbridge, and a ditch within the southern curtain wall was covered by a lunette to shield it from Gelmus Hill. A frontal ditch was also dug out (Samut-Tagliaferro 1993: 46). St John Cavalier was completed by 1614, and the ravelin and St Martin Cavalier by 1622 (Spiteri 2001: 239). These renovations are the ones that have given the Castello its present form (Spiteri 2001: 240). Rinaldini's plans have been lost, and therefore it is not clear whether alterations from his original report followed his suggestions or someone else's (Spiteri 2001: 239).

It is possible that these alterations were carried out by Vittorio Cassar who became the military engineering responsible for restoration works at the Castello between 1600 and 1603. Cassar was dismissed by Grandmaster Wignacourt for the slow progress of works (Samut-Tagliaferro 1993: 53-54). Cassar is said to be buried in the St Barbara Chapel within the Castello (**CTD07/037**), and his tombstone is still there (Samut-Tagliaferro 1993: 56). However, this is debatable since other records point to his burial in Valletta (Mizzi, *Heritage 81*: 1619). **Figure 16** shows the view of the southern flanks of the Citadel in 1622, that is, soon after its completion. This is depicted in the main altarpiece of the Church of the Nativity of the Blessed Virgin, known as Ta' Sabina Chapel. The Cathedral bell tower and the Order's flag dominate the painting while a military parade is taking place in front of the Citadel (Bezzina 2007: 12).

The walls around the Borgo, seem also to have been demolished at this time, to make space for the ditch of the new bastions. It seems that this old town wall had three gates located at today's Putirjal, Bieb il-Għajn and Bieb il-Għarb. In 1532, the *Universitas* recorded that the post of gate-keeper was occupied by Antonius D'Armenia who was paid by the Universitas itself (Mizzi, *Heritage 89*: 1761).

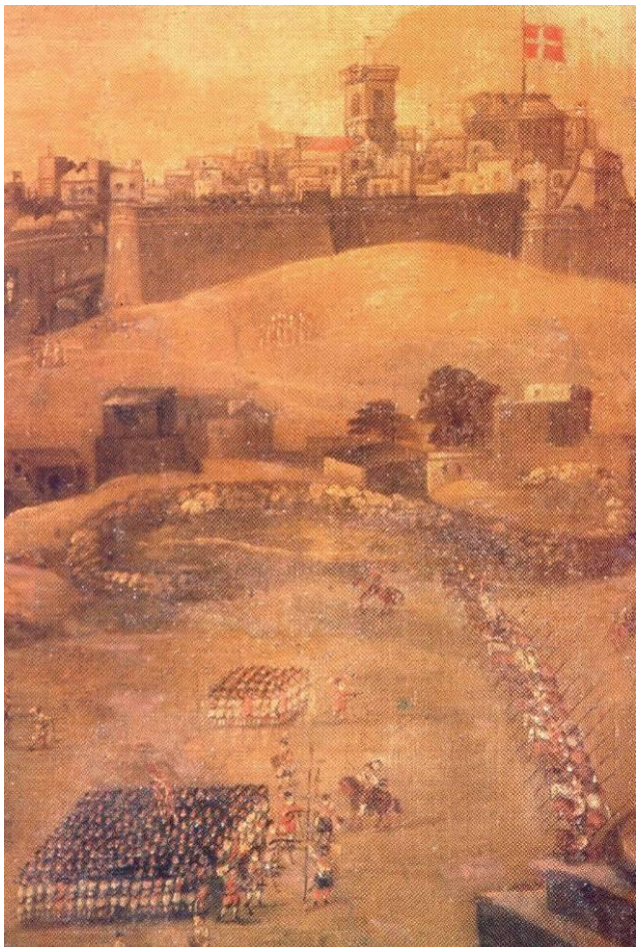


Figure 16: Part of the altarpiece of Sabina Church showing the southern flank of the Citadel some time around 1622 (Bezzina 2000: 10)

Once these modifications were completed, the Order believed that the Castello was defensible. However, the military engineers who visited Gozo thereafter tended to disagree (Spiteri 2001: 241). Except for Valperga and Tignè they had all advised the Order to dismantle the Citadel and construct a new fortress at Marsalforn (Spiteri 2001: 241). In 1643, the Order agreed to do so but the Gozitans disagreed on the bases that they were too poor to pay a new tax on wheat to raise the funds, so the Order decided to postpone the works (Spiteri 2001: 241).

Valperga had suggested to fortify Rabat and strengthen the walls of the Citadel. The Order accepted his proposals, but again had no funds to do so (Spiteri 2001: 242). During one of the imminent Ottoman incursions, the Order implemented the plan of the military engineer Colongues. Barricades were erected at salient points in Rabat - St Augustine Square, St Francis Square, St Sabine Square with rubble - while St George Square was to serve as a place-of-arms. When an attack, in fact, took place in 1708, these trenches were set up but not used since these trenches were no attacked (Spiteri 2001: 242).

According to Tignè the Castle of Gozo, as well as Mdina, played an important role in the Great Siege "in communicating news, providing reliefs and intercepting enemy couriers" (De Tignè 1715 in De Lucca 2003: 75-76): De Tignè recommended the

same alterations for Mdina and the Castle of Gozo, namely the deepening and widening of the ditches (De Tignè 1715 in De Lucca 2003: 76-77). The castle of Gozo was small and could only house one-sixth of the inhabitants of Gozo. Tignè suggested that Rabat would be enclosed with new fortifications that would have a ditch (De Tignè 1715 in De Lucca 2003: 77). Such works did not materialise either.

In the meantime, the Gozo Cathedral, which introduced baroque architecture in Gozo was built. It followed the plan of Lorenzo Gafà. Plans for its edification started in 1685, but the 1693 earthquake encouraged works to proceed more quickly due to the damages incurred. The foundations were laid in 1697, and the Cathedral was inaugurated in 1711 (Bezzina 2002: 129).

The Basilica of St George was also redesigned in the 17th century. Its architect was Vittorio Cassar, but it was also partly damaged in the 1693 earthquake as shown in **Figure 17**).

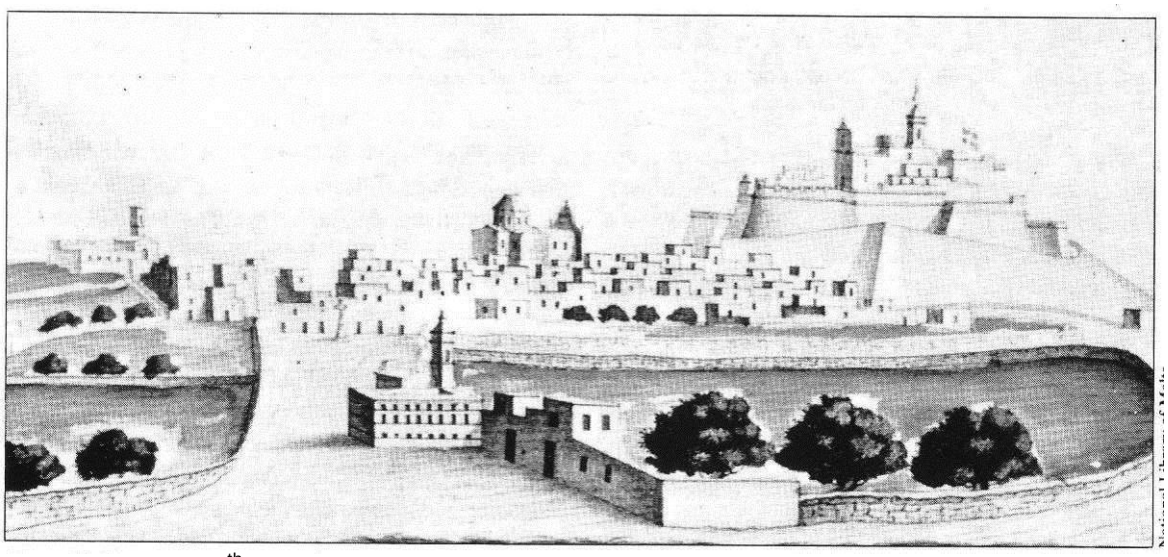


Figure 17: Late 18th century watercolour showing the parish of St George (with a damaged dome) and the Castello (Mizzi: *Heirtage* 14: 269).

The same earthquake, that of 1693, had also damaged Rabat's other parish church, that of St George. The fortifications were also damaged though "it was officially stated that the defects then observed were the result of the lack of maintenance rather than the earthquake" (Wettinger 1990: 70).

Figure 18 shows that the Citadel remained basically unaltered from the 17th century. It was highly important for the local population mainly because of its central location and also because even when Fort Chambray was built it did not attract settlers (Spiteri 2001: 243). However, the main inhabited settlement had now become Victoria with the Cittadella assuming more of a military role. In fact, by 1704, 17 homes were in ruins inside the Cittadella, while a "good number of the remaining 56 inhabited dwellings were in a poor state" (Vella 2007: 64). On the other hand, houses in Victoria were rebuilt and replaced by new homes. The population increased from 1622 in 1715 to 2000 in 1746 (Vella 2007: 64).

Figure 18: Drawing of the Citadel by Luigi Bartolo for Agius de Soldanis
(photo taken from 2007 Archives Awareness Week exhibition [National Library Malta, *Bibl.,* ms 145])

3.2.5 French Period

The Citadel's lack of power was made obvious with the French invasion in June 1798. Just after one day, Fort Chambray and the Citadel fell in French hands (Wettinger 1990: 70). The Governor, Chevallier de Mesgringly fled Gozo and the Gozitans could only surrender (Spiteri 2001: 243). The French divided the island in 2 municipalities. The first consisted of the Citadel, Rabat, Għarb, Sannat and Xewkija, while the second included Żebbuġ, Xagħra and Nadur. The former was headed by Francois Cassar.

In September 1798, the Maltese rose against the French, first in Malta and then in Gozo. A part of the French garrison, made up of 50 soldiers, was besieged within the Citadel, while another 90 were taken prisoners. The rebels were camped on Gelmus Hill, who also held the rest of the island. The archpriest of the Cathedral, Saverio Cassar, was appointed Head of the Government and Superintendent. On 28 October 1798, the French within the Citadel surrendered to Alexander Ball. The Citadel was delivered to a British officer and the French were guaranteed safe passage back to France (Wettinger 1990: 71-72).

3.2.6 British Period

There is very little documentation about Victoria and Cittadella during the British Period. In 1854, a new road from It-Tokk was built to make the Cittadella more accessible. The square was re-levelled and the Banca Giuratale, rebuilt by Mondion, was internally modernised by Architect G. Bonello (Mizzi, *Heritage 92*: 1828). This was part of the provision of various "infrastructural projects and the introduction of a few public services" carried out by the British which "raised the overall standard of living considerably and spearheaded a second expansion phase" (Vella 2007: 64).

Given that Victoria, was the largest settlement, at least in terms of population, it also has a large number of WW2 shelters, 22 in all (Bezzina 1981: 134-135), two of which were identified during the site survey (**CTD07/022** and **CTD07/043).** These shelters were not accessed during the survey but were described by Mifsud (2007) in the survey conducted for the same EPS.

3.3 Description of the Cultural Heritage in the Area

The cultural heritage of the Area of Influence is dominated by the Cittadella. Most of the features recorded in this study either form part of the fortifications of the Cittadella or are buildings within the fortified town. Other features located just outside the Cittadella walls are also considered to form part of the Cittadella. As such, all these features (**CTD07/001 to CTD07/045**), have to be considered as one whole cultural feature since they are interdependent and one does not exist without the other.

The same accounts for the town core of Victoria (**CTD07/051**). This is made up of St George's Basilica, the square in front of it and the narrow winding streets and alleys radiating from it and flanked by both recent and older residential and commercial units. Independence Square (**CTD07/047**), Sabina Square (**CTD07/048**) and the Banca Giuratale (**CTD07/046**) can be considered to form part of the same cultural unit. As such, these features, as described in **Table 4**, are already protected either because they are included in the Victoria Urban Conservation Area, or have been scheduled by MEPA.

The upright stone at Triq Kercem (**CTD07/050**) is a unique archaeological feature and as such has been proposed for protection as a Class A feature. On the other hand, the water fountain and the parish cross (**CTD07/049**), which are of a more recent date have been proposed to be protected as a Grade 2 feature, similarly to the other features in Victoria that have been scheduled by GN322/98.

The hamlet to the north of Cittadella (**CTD07/052**), may be considered as an extension of Victoria. However, it stills retains a large number of rural features. As such it should be preserved, and the Urban Conservation Area extended to this hamlet as well. At the same time it should also be scheduled as a Grade 2 feature given it is a well preserved example of vernacular architecture.

ref no	Site Description (Address)	Conservation Merits	Degree of Protection (*) Proposed Protection
CTD07/001	Ruins at Triq San Guzepp, Cittadella, Victoria	Architecture	GN427/95, Level 1
CTD07/002	Ruins at Triq il-Kwartier ta' San Martin, Cittadella, Victoria	Architecture	GN427/95, Level 1
CTD07/003	Buildings at Triq il-Kwartier ta' San Martin, Cittadella, Victoria	Architecture	GN427/95, Level 1
CTD07/004	Old Prisons at Pjazza Kattidral, Cittadella, Victoria	Architecture	GN427/95, Level 1
CTD07/005	Houses at Triq Zenqa, Cittadella, Victoria	Architecture	GN427/95, Level 1
CTD07/006	Cagliares Palace and St Joseph Chapel at Triq San Guzepp, Cittadella, Victoria	Architecture	GN427/95, Level 1
CTD07/007	Law Courts at Pjazza Kattidral, Cittadella, Victoria	Architecture	GN427/95, Level 1
CTD07/008	Partly Ruined Structure at Triq Milite Bernardo, Cittadella, Victoria	Architecture	GN427/95, Level 1
CTD07/009	Folklore Museum at Triq Milite Bernardo, Cittadella, Victoria	Architecture	GN427/95, Level 1
CTD07/010	Arches at Triq Zenqa, Cittadella, Victoria	Architecture	GN427/95, Level 1
CTD07/011	Three houses at Triq il-Fosos, Cittadella, Victoria	Architecture	GN427/95, Level 1
CTD07/012	Sqifah at Triq San Guzepp, Cittadella, Victoria	Architecture	GN427/95, Level 1
CTD07/013	Ruins at Triq Milite Bernardo, Cittadella, Victoria	Architecture	GN427/95, Level 1
CTD07/014	Ruins at Triq il-Fosos, Cittadella, Victoria	Architecture	GN427/95, Level 1
CTD07/015	St John's Cavalier at Triq il-Fosos, Cittadella, Victoria	Fortifications	GN427/95, Level 1
CTD07/016	Gozo Cathedral, Cittadella, Victoria	Religious	GN427/95, Level 1
CTD07/017	Crafts Centre at Triq Bieb l-Imdina, Cittadella, Victoria	Architecture	GN427/95, Level 1
CTD07/018	Magazines at Bieb l-Imdina, Cittadella, Victoria	Architecture	GN427/95, Level 1
CTD07/019	Bishop's Palace at Pjazza Kattidral, Cittadella, Victoria	Architecture	GN427/95, Level 1
CTD07/020	Casa Bondi, Triq Bieb l-Imdina, Cittadella, Victoria	Architecture	GN427/95, Level 1
CTD07/021	WWII Shelter Entrances at It-Telgħa tal-Belt, Cittadella, Victoria	Rock-cut	GN83/01, Level 1
CTD07/022	Main Gate at Triq Bieb l-Imdina, Cittadella, Victoria	Architecture	GN83/01, Level 1
CTD07/023	St Martin Demi-Bastion at Triq il-Kwartier ta' San Martin, Cittadella, Victoria	Fortification	GN83/01, Level 1
CTD07/024	St Martin Cavalier at Triq il-Kwartier ta' San Martin, Cittadella, Victoria	Fortification	GN83/01, Level 1
CTD07/025	Granaries at Triq il-Kwartier ta' San Martin, Cittadella, Victoria	Granaries	GN83/01, Level 1
CTD07/026	Medieval enciente at Cittadella, Victoria	Fortification	GN83/01, Level 1
CTD07/027	Granaries at Triq il-Fosos, Cittadella, Victoria	Granaries	GN83/01, Level 1
CTD07/028	St John Demi-Bastion, Cittadella, Victoria	Fortification	GN83/01, Level 1

ref no	Site Description (Address)	Conservation Merits	Degree of Protection (*) Proposed Protection
CTD07/029	St Michael Bastion at Cittadella, Victoria	Fortification	GN83/01, Level 1
CTD07/030	Ditch and Covertway at Cittadella, Victoria	Fortification	GN83/01, Level 1
CTD07/031	Low battery at Cittadella, Victoria	Fortification	GN83/01, Level 1
CTD07/032	Reservoir and Monument at It-Telgħa tal-Belt, Cittadella, Victoria	Architecture	GN322/98; Level 2
CTD07/033	Ravelin at It-Telgħa tal-Belt, Cittadella, Victoria	Fortification	GN83/01, Level 1
CTD07/034	Old Clock Tower at St Martin Demi-Bastion	Architecture	GN83/01, Level 1
CTD07/035	Glacis at Cittadella, Victoria	Fortification	GN83/01, Level 1
CTD07/036	Ruins at Triq Zenqa, Cittadella, Victoria	Architecture	GN83/01, Level 1
CTD07/037	St Barbara Chapel at Triq Bieb l-Imdina, Cittadella, Victoria	Religious	GN83/01, Level 1
CTD07/038	St Philip Curtain Wall Cittadella, Victoria	Fortification	GN83/01, Level 1
CTD07/039	Steps at It-Telgħa tal-Belt, Cittadella, Victoria	Architecture	GN322/98, Level 2
CTD07/040	Remnants of silo at St Martin Demi-Bastion, Cittadella, Victoria	Rock-cut	GN83/01, Level 1
CTD07/041	Blocked niche at Cittadella, Victoria	Rock-cut	GN83/01
CTD07/042	Water tunnel beneath St Philip Curtain Wall, Cittadella, Victoria	Rock-cut	GN83/01
CTD07/043	WWII Air Raid shelters beneath St Philip Curtain Wall, Cittadella, Victoria	Rock-cut	GN83/01
CTD07/044	Remnants of silo at Cittadella, Victoria	Rock-cut	GN83/01
CTD07/045	Field room at Ta' Wara s-Sur, Victoria.	Vernacular	GN83/01
CTD07/046	Banca Giuratale, Independence Square, Victoria	Architecture	Victoria UCA Grade A
CTD07/047	Independence Square, Victoria	Civil Engineering	Victoria UCA
CTD07/048	Sabina Square, Victoria	Civil Engineering	Victoria UCA
CTD07/049	Water fountain and a Parish Cross, Triq ir-Repubblika, Victoria	Architecture	Grade 2 (*)
CTD07/050	Large upright stone at Triq Kercem	Archaeological	Class (*)
CTD07/051	Rabat Town Centre surrounding St George's Basilica, Victoria	Architecture	Victoria UCA
CTD07/052	Hamlet at il-Hofra, Victoria	Vernacular	Partly considered as AAI by GN765/98

Table 4: Cultural Features within the area of proposed development and its Area of Influence

3.3 The Cultural Landscape

All archaeological and historical sites and features form part of the landscape which surrounds them, and any survey of the cultural heritage has to study a site's context as well as the site itself. No cultural future is isolated from the fields and geographical features which surround it, and on which it depends, to varying degrees. Every site is a piece of local history, embedded in its immediate cultural landscape and relating to the area around it [Barker 1993:254]. The phrase "cultural landscape" does not mean a special type of landscape, but rather a way of seeing landscapes that emphasizes the interaction between human beings and nature over time. The main value of the cultural heritage in the area lies in the information it can yield regarding past settlement patterns, as well as the indications regarding land-use patterns.

The strategic location of the Citadella, in the centre of Gozo, has led to a continuous human presence in the area from practically the first settlers of Gozo to present day. These different cultures have left their indelible mark on the Cittadella landscape and its surroundings. Consequently the surrounding landscape must be analysed as a whole to better understand the cultural value of the area.

The landscape is constituted by the Cittadella itself with its fortifications, residential units, public buildings and remains dating from the Classical Period to modern times, as well as vernacular structures - fields, rubble walls and field rooms – that surround the plateau, together with rock-cut features such as silos, water catchments systems and WWII air-raid shelters. All these features point to the fact that the Cittadella and Victoria were a nodal point for human activity in the past just as in the present.

Given that Cittadella is one of the hills dominating the skyline of the island of Gozo, Cittadella itself forms part of a wider cultural landscape that includes the whole island. Any change in the Cittadella area will not only affect its immediate surroundings but the Gozitan landscape as a whole.

This landscape has been somewhat marred in the last years by encroaching development at the foot of the Cittadella. The presence of an illegal car park on the site of proposed development that has been dealt with by MEPA with an Enforcement Letter (EC/01082/01) has deteriorated the immediate cultural landscape of the town and its surrounding bastions.

The cultural landscape is made up of not only the visible cultural remains related to each other but also includes hidden or unexcavated cultural features. Although they are not visible, they have to be considered as an integral part of the cultural landscape. In this case, the Hellenistic masonry in Foreman street at the foothill of the terraced slopes in question, (Cutajar 1998: 23; corresponding to MEPA NPI Card GZ-03 and SCH Site Code FRM1996; ●**3 in Figure 12**), further attest the importance of the terraced fields which at first glance may be considered as vernacular features typical of Maltese slopes. In reality, these terraces have covered other cultural remains which form an important part of the historical development of the Cittadella, as well as in Maltese history in general. This is because this is a unique scenario in the Maltese Islands.

The fortified town was always intended to be isolated from the old village core that has now expanded to practically the foot of the Cittadella bastions from the S, NW, and NE parts. As such, further development close to the Cittadella will alter the Gozo cultural landscape as a whole.

4. POSSIBLE IMPACTS OF THE PROPOSED DEVELOPMENT

The impact of this proposed development not only concerns the area directly affected by the development itself that is, the Area of Proposed Development, but also the surrounding area, which constitute the cultural landscape of Cittadella – a .Level 1 Scheduled Site.

4.1 Construction Phase

The main aim of the development is to create a car park west of the Cittadella abutting its bastion walls. The construction of such a car park will also lead to the presence of a large amount of heavy vehicles in the area. Their presence may threaten the structural integrity of the bastions due to the vicinity of the proposed development to the Cittadella fortifications. They may also damage the scheduled steps of It-Telgha tal-Belt, and increase heavy vehicular traffic in the area of Indolence Square and Sabina Square.

It must be noted that part of the area of proposed development has already been altered by the demolition of rubble walls and the clearance of vegetation to create a temporary car park. This has already negatively affected the aesthetic and cultural fabric of the Cittadella. The damage inflicted on any cultural features buried beneath these damaged terraced fields cannot be determined. However given the presence of cultural features at the foot of the slope, referred to above, one cannot exclude that these fields hold more of such features. The extent of the settlement of Victoria as a whole unit in Classical times has to be taken into consideration. As such the loss of these fields, can be carried out after an extensive and detailed archaeological excavation of the slope.

4.2 Operational Phase

The project will destroy part of the natural terracing which is retained by well-preserved rubble walls, thus altering what is until now an undeveloped area. Although no cultural features were identified in the proposed area of development during the site survey, the presence of other archaeological sites in its immediate vicinity (namely the Bronze Age silos in It-Telgha tal-Belt, the remains of the medieval fortifications in the ravelin in front of the Cittadella and the remains at Foreman Street), suggest the presence of such buried remains there as well. Such development will therefore threaten these buried remains and may lead to their loss.

Such project will also cause an increase in traffic in the area thus increasing both air and noise pollution. Given that the area in question abuts the Cittadella bastions which in turn will suffer further deterioration from the increase in car emissions. The presence of a car park just beneath the bastions will also have a negative aesthetic impact on the view that one currently enjoys from the bastions themselves. Terraced fields will be replaced by a number of cars parked beneath the bastions, thus reducing the scenic value of the area scheduled as an Area of High Landscape Value by MEPA.

The incorporation of the car park in the NE part of the Cittadella will contribute to the deterioration and destruction of the area affecting the integrity of the Cittadella

itself. As such, this part of the landscape cannot afford to be further mutilated, and any development in the area should seek to rehabilitate it and respect its characteristics rather than to alter it any further.

As mentioned above the cultural landscape in the area is highly rich. It is a landscape that has been utilized and shaped from prehistoric times. Parts of this landscape have been lost to building development, but others have been retained. The building of a car park will incur another scar in this cultural landscape.

The problems of traffic management and parking in Victoria are acknowledged and should be addressed. However, such a development will adversely affect the Cittadella and its promontory, without actually solving these problems.

5. MITIGATION MEASURES

Should the proposed development proceed the impacts on the landscape could be minimized by the following measures:

- Rubble walls should be rebuilt using the dry stone technique and reutilizing the stones from dismantled walls. The law also states that no alterations to the location or construction of rubble walls and the traditional methods of their repair and maintenance shall be permitted unless a written request and approval are previously made to and obtained from the Director for the Protection of the Environment. This should be kept in mind with respect to the rubble walls surrounding the area to be developed.
- A study on the structural integrity of the fortifications should be carried out prior to the commencement of works to make sure that no damage will be incurred by the presence of heavy vehicles and by the works themselves to the Cittadella fortifications.
- The car park should be covered by indigenous trees and shrubs to reduce visibility from It-Telgha tal-Belt and from the Cittadella bastions themselves.
- Given the archaeological sensitivity of the area, trial trenches could be excavated under the direction of the Superintendence of Cultural Heritage to determine the presence and nature of any buried cultural remains.
- Given that during the construction phase heavy machinery will need access to the area, an access route and a parking area should be earmarked to be solely used by these heavy vehicles. The steps of It-Telgha tal-Belt should be covered during construction phase to make sure that no damage is incurred.
- Any excavations should be carried out in the presence of qualified archaeologists approved by the Superintendence of Cultural Heritage to make sure that no buried cultural features are damaged or destroyed during construction.

5.1 Residual Impacts

Should the development take place and all the mitigation measures suggested above be implemented, the following impacts will still remain:

- The visual integrity and historical fabric of the features within the Cittadella as well as that of the Cittadella as a whole unit will still be threatened. This is because the area of proposed development mainly consists of terraced fields bounded with rubble walls. A parking area bounded with rubble walls and shrouded by indigenous trees will still alter the present aesthetics of the area.
- Any archaeological remains within these fields will be lost.
- The Cultural Landscape will still be changed irreversibly.

ref no	Site Description (Address)	Conservation Merits	Degree of Protection (*) Proposed Protection	Direct/ Indirect Impacts	Possible Impacts		Adverse/ Beneficial	Impact Significance (**)	Possible Mitigation Strategy	
					Construction Phase	Operational Phase			Construction Phase	Operational Phase
CTD07/001	Ruins at Triq San Guzepp, Cittadella, Victoria	Architecture	GN427/95, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/002	Ruins at Triq il-Kwartier ta' San Martin, Cittadella, Victoria	Architecture	GN427/95, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/003	Buildings at Triq il-Kwartier ta' San Martin, Cittadella, Victoria	Architecture	GN427/95, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/004	Old Prisons at Pjazza Kattidral, Cittadella, Victoria	Architecture	GN427/95, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		

ref no	Site Description (Address)	Conservation Merits	Degree of Protection (*) Proposed Protection	Direct/ Indirect Impacts	Possible Impacts		Adverse/ Beneficial	Impact Significance (**)	Possible Mitigation Strategy	
					Construction Phase	Operational Phase			Construction Phase	Operational Phase
CTD07/005	Houses at Triq Zenqa, Cittadella, Victoria	Architecture	GN427/95, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/006	Cagliares Palace and St Joseph Chapel at Triq San Guzepp, Cittadella, Victoria	Architecture	GN427/95, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/007	Law Courts at Pjazza Kattidral, Cittadella, Victoria	Architecture	GN427/95, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/008	Partly Ruined Structure at Triq Milite Bernardo, Cittadella, Victoria	Architecture	GN427/95, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		

ref no	Site Description (Address)	Conservation Merits	Degree of Protection (*) Proposed Protection	Direct/ Indirect Impacts	Possible Impacts		Adverse/ Beneficial	Impact Significance (**)	Possible Mitigation Strategy	
					Construction Phase	Operational Phase			Construction Phase	Operational Phase
CTD07/009	Folklore Museum at Triq Milite Bernardo, Cittadella, Victoria	Architecture	GN427/95, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/010	Arches at Triq Zenqa, Cittadella, Victoria	Architecture	GN427/95, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/011	Three houses at Triq il-Fosos, Cittadella, Victoria	Architecture	GN427/95, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/012	Sqifah at Triq San Guzepp, Cittadella, Victoria	Architecture	GN427/95, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		

ref no	Site Description (Address)	Conservation Merits	Degree of Protection (*) Proposed Protection	Direct/ Indirect Impacts	Possible Impacts		Adverse/ Beneficial	Impact Significance (**)	Possible Mitigation Strategy	
					Construction Phase	Operational Phase			Construction Phase	Operational Phase
CTD07/013	Ruins at Triq Milite Bernardo, Cittadella, Victoria	Architecture	GN427/95, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/014	Ruins at Triq il-Fosos, Cittadella, Victoria	Architecture	GN427/95, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/015	St John's Cavalier at Triq il-Fosos, Cittadella, Victoria	Fortifications	GN427/95, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/016	Gozo Cathedral, Cittadella, Victoria	Religious	GN427/95, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		

ref no	Site Description (Address)	Conservation Merits	Degree of Protection (*) Proposed Protection	Direct/ Indirect Impacts	Possible Impacts		Adverse/ Beneficial	Impact Significance (**)	Possible Mitigation Strategy	
					Construction Phase	Operational Phase			Construction Phase	Operational Phase
CTD07/017	Crafts Centre at Triq Bieb l-Imdina, Cittadella, Victoria	Architecture	GN427/95, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/018	Magazines at Bieb l-Imdina, Cittadella, Victoria	Architecture	GN427/95, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/019	Bishop's Palace at Pjazza Kattidral, Cittadella, Victoria	Architecture	GN427/95, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/020	Casa Bondi, Triq Bieb l-Imdina, Cittadella, Victoria	Architecture	GN427/95, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		

ref no	Site Description (Address)	Conservation Merits	Degree of Protection (*) Proposed Protection	Direct/ Indirect Impacts	Possible Impacts		Adverse/ Beneficial	Impact Significance (**)	Possible Mitigation Strategy	
					Construction Phase	Operational Phase			Construction Phase	Operational Phase
CTD07/021	WWII Shelter Entrances at It-Telgħa tal-Belt, Cittadella, Victoria	Rock-cut	GN83/01, Level 1	Indirect	Structural Integrity may be threatened due to heavy vehicles with no direct excavation near the shelters		Adverse	Moderate	Site survey can be carried out to determine the extent of the shelter in relation to the development	
CTD07/022	Main Gate at Triq Bieb l-Imdina, Cittadella, Victoria	Architecture	GN83/01, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/023	St Martin Demi-Bastion at Triq il-Kwartier ta' San Martin, Cittadella, Victoria	Fortification	GN83/01, Level 1	Direct	Structural Integrity threatened due to heavy vehicles		Adverse	Major		
CTD07/024	St Martin Cavalier at Triq il-Kwartier ta' San Martin, Cittadella, Victoria	Fortification	GN83/01, Level 1	Direct	Structural Integrity threatened due to heavy vehicles		Adverse	Major		
CTD07/025	Granaries at Triq il-Kwartier ta' San Martin, Cittadella, Victoria	Granaries	GN83/01, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		

ref no	Site Description (Address)	Conservation Merits	Degree of Protection (*) Proposed Protection	Direct/ Indirect Impacts	Possible Impacts		Adverse/ Beneficial	Impact Significance (**)	Possible Mitigation Strategy	
					Construction Phase	Operational Phase			Construction Phase	Operational Phase
CTD07/026	Medieval enciente at Cittadella, Victoria	Fortification	GN83/01, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/027	Granaries at Triq il-Fosos, Cittadella, Victoria	Granaries	GN83/01, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/028	St John Demi-Bastion, Cittadella, Victoria	Fortification	GN83/01, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/029	St Michael Bastion at Cittadella, Victoria	Fortification	GN83/01, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		

ref no	Site Description (Address)	Conservation Merits	Degree of Protection (*) Proposed Protection	Direct/ Indirect Impacts	Possible Impacts		Adverse/ Beneficial	Impact Significance (**)	Possible Mitigation Strategy	
					Construction Phase	Operational Phase			Construction Phase	Operational Phase
CTD07/030	Ditch and Covertway at Cittadella, Victoria	Fortification	GN83/01, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/031	Low battery at Cittadella, Victoria	Fortification	GN83/01, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/032	Reservoir and Monument at It-Telgħa tal-Belt, Cittadella, Victoria	Architecture	GN322/98; Level 2	Direct	Structural Integrity threatened due to heavy vehicles		Adverse	Major		
CTD07/033	Ravelin at It-Telgħa tal-Belt, Cittadella, Victoria	Fortification	GN83/01, Level 1	Direct	Structural Integrity threatened due to heavy vehicles		Adverse	Major		
CTD07/034	Old Clock Tower at St Martin Demi-Bastion	Architecture	GN83/01, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		

ref no	Site Description (Address)	Conservation Merits	Degree of Protection (*) Proposed Protection	Direct/ Indirect Impacts	Possible Impacts		Adverse/ Beneficial	Impact Significance (**)	Possible Mitigation Strategy	
					Construction Phase	Operational Phase			Construction Phase	Operational Phase
CTD07/035	Glacis at Cittadella, Victoria	Fortification	GN83/01, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/036	Ruins at Triq Zenqa, Cittadella, Victoria	Architecture	GN83/01, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/037	St Barbara Chapel at Triq Bieb l-Imdina, Cittadella, Victoria	Religious	GN83/01, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/038	St Philip Curtain Wall Cittadella, Victoria	Fortification	GN83/01, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/039	Steps at It-Telgħa tal-Belt, Cittadella, Victoria	Architecture	GN322/98, Level 2	Direct	Damage to steps by heavy vehicles	Increase of vehicular traffic may lead to deterioration by pollution and traffic accidents	Adverse	Major		

ref no	Site Description (Address)	Conservation Merits	Degree of Protection (*) Proposed Protection	Direct/ Indirect Impacts	Possible Impacts		Adverse/ Beneficial	Impact Significance (**)	Possible Mitigation Strategy	
					Construction Phase	Operational Phase			Construction Phase	Operational Phase
CTD07/040	Remnants of silo at St Martin Demi-Bastion, Cittadella, Victoria	Rock-cut	GN83/01, Level 1	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/041	Blocked niche at Cittadella, Victoria	Rock-cut	GN83/01	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/042	Water tunnel beneath St Philip Curtain Wall, Cittadella, Victoria	Rock-cut	GN83/01	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/043	WWII Air Raid shelters beneath St Philip Curtain Wall, Cittadella, Victoria	Rock-cut	GN83/01	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		

ref no	Site Description (Address)	Conservation Merits	Degree of Protection (*) Proposed Protection	Direct/ Indirect Impacts	Possible Impacts		Adverse/ Beneficial	Impact Significance (**)	Possible Mitigation Strategy	
					Construction Phase	Operational Phase			Construction Phase	Operational Phase
CTD07/044	Remnants of silo at Cittadella, Victoria	Rock-cut	GN83/01	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/045	Field room at Ta' Wara s-Sur, Victoria.	Vernacular	GN83/01	Indirect		Visual integrity of the Cittadella as a whole unit threatened; Loss of historical fabric by the development close to Cittadella	Adverse	Major		
CTD07/046	Banca Giuratale, Independence Square, Victoria	Architecture	Victoria UCA Grade A	Direct	Structural Integrity threatened due to heavy vehicles		Adverse	Major		
CTD07/047	Independence Square, Victoria	Civil Engineering	Victoria UCA	Direct	Increase of heavy vehicular traffic		Adverse	Major		
CTD07/048	Sabina Square, Victoria	Civil Engineering	Victoria UCA	Direct	Increase of heavy vehicular traffic		Adverse	Major		
CTD07/049	Water fountain and a Parish Cross, Triq ir-Repubblika, Victoria	Architecture	Grade 2 (*)					None		
CTD07/050	Large upright stone at Triq Kercem	Archaeological	Class (*)					None		

ref no	Site Description (Address)	Conservation Merits	Degree of Protection (*) Proposed Protection	Direct/ Indirect Impacts	Possible Impacts		Adverse/ Beneficial	Impact Significance (**)	Possible Mitigation Strategy	
					Construction Phase	Operational Phase			Construction Phase	Operational Phase
CTD07/051	Rabat Town Centre surrounding St George's Basilica, Victoria	Architecture	Victoria UCA	Indirect		Decrease in parking problems and traffic circulation	Beneficial			
CTD07/052	Hamlet at il-Hofra, Victoria	Vernacular	Partly considered as AAI by GN765/98	Indirect		The setting will be aesthetically altered	Adverse	Minor		
Area of Proposed Development		Archaeological	AAI by GN765/98	Direct	Possible buried archaeological remains may be lost		Adverse	Major	Excavation of trial trenches and Monitoring of works	
Rubble Walls within Area of Proposed Development		Vernacular	LN169/04	Direct	Will be destroyed by development		Adverse	Major	Rebuilding of destroyed walls using same technique	Maintenance of walls
Cultural Landscape				Direct		Further mutilation of landscape and change of use of the cultural landscape	Adverse	Major		Parking covered by indigenous trees

(**) Definition of Impact Significance
Major - The cultural asset or feature will be either completely destroyed or damaged due to an irreversible intervention on the asset itself and/or its surrounding landscape or setting.
Moderate - Impacts include indirect effect on the cultural asset or feature itself and/or its surrounding landscape or setting, with little damage being incurred.
Minor - Impact is limited to minor changes in the landscape or setting, while the cultural asset or feature will be indirectly affected.

Table5: Summary of Possible Impacts and Mitigations of the Cultural Features within the area of development and its Area of Influence

REFERENCES

Abela, G.F. 1647

Della Descrittione Di Malta Isola Nel Mare Siciliano Con Le Sue Antichità, Ed Altre Notizie. Libr Quattro. 1984 Facsimile Edition. Midsea Books, Malta.

Agius-Vadala

Maltese Cartography: the Peri Reis Map, *Heritage 92*: 1836.

Aquilina, J. 1987

Maltese-English Dictionary, Midsea Books Ltd., Malta

Aston, M. 1985

Interpreting The Landscape: Landscape Archaeology And Local History. Routledge, London.

Azzopardi, G., 2002/2003,

'Quintinus Lutatius Longinus and his wife Lunia in a funerary inscription from Gozo', Malta Archaeological Review Issue 6: 50-52.

2003

Discovery of huge masonry wall remains containing part of a Doric frieze in the ravelin in front of the Gozo Citadel, unpublished report, Superintendence of Cultural Heritage.

2007

The Extramural Necropolis of Gaulos, George Azzopardi.

Barker, P. 1993

Techniques Of Archaeological Excavation. Third Edition. B.T. Batsford Ltd., London.

Bezzina, F., 1981

F'Ghawdex fi Zmien il-Gwerra, Gozo Press.

Bezzina, J., 1985

The Gozo Citadel: a pictorial guide, including a description og the cathedral and the fve musuems, Gaulitana, Victoria.

2002

L-Istorja tal-Knisja f'Malta, Pubblikazzjonijiet Indipendenza.

2007

Catalogue of the Exhibition: The Citadel – the Crown of Gozo from the Deposits at the national Archives held on the Occasion of the Archives Awareness Week, Ġimgħa għall-għarfien ta' l-Arkivji at the National Archives Gozo Section Inaugurated by Giovanna Debono Minister for Gozo 18 October2007, National Archives.

Bonanno, A. 1977
'Distribution of villas and aspecsts of the Maltese economy in the Roman Period', *Journal of the Faculty of Arts Vol VI No 4*: 73-81.

1992,
Roman Malta, World Confederation of Salesian Past Pupils of Don Bosco.

1996

'Research on Prehistoric and Roman Gozo: past, present and future', in Farrugia., J. And Briiguglio, L., (eds), *A Focus on Gozo*, University Gozo Centre: 41-57.

2005

Malta: Phoenician, Punic and Roman, Midsea Books Ltd.

Buhagiar., C.M., 1999,
'Museum News', in *Malta Archaeological Review Issue 3*: 39-41.

2000,
'National Museum of Archaeology News: 1998 & 1999', *Malta Archaeological Review Issue 4*: 44-50

Buhagiar, M., 2005,
The Late Medieval Art and Architecture of the Maltese Islands, Fondazzjoni Patrimonju Malti.

Council of Europe

1992

European Convention on the Protection of the Archaeological Heritage (Revised), Valletta 16.I.1992, URL: http://conventions.coe.int/Treaty/en/Treaties/Html/143.htm

2000

European Landscape Convention, Florence 20.X.2000, URL: http://conventions.coe.int/Treaty/en/Treaties/Html/176.htm

Cutajar, N., 1998,
'Museum News', *Malta Archaeological Review Issue 2*: 22-23.

Dalli, C., 2002
Iz-Zmien Nofsani Malti, Pubblikazzjonijiet Indipendenza.

2006
Malta: the medieval millennium, Midesea Books Ltd.

Darvill Timothy, Christopher Gerrard & Bill Startin.
1993
'Identifying And Protecting Historic Landscapes', in *Antiquity 67* (1993): 563-74.

De Lucca, D., 1990
'The built environment in Gozo: an overview', in Cini C. (ed.), *Gozo: roots of an island*, Said International, Valletta: 122-159.

2003
Mondion: The achievement of a French military engineer working in Malta in the early eighteenth century, Midsea Books Ltd.

De Tignè, R. J., 1715,
'Discourse general surs les fortifications de Malte et ce qui reste a faire pour les mettre en estat d'une bonne defiance', translation in De Lucca, D., 2003, *Mondion: The achievement of a French military engineer working in Malta in the early eighteenth century*, Midsea Books Ltd: 55-77.

Evans, J.D. 1971
The Prehistoric Antiquities Of The Maltese Islands: A Survey. The Athlone Press, London.

Feder, K.L. 1997
'Site Survey' In Hester, Thomas R. At Al (Eds) *Field Methods In Archaeology*. Seventh Edition. Mayfield Publishing Company, California. Pp 41–68.

Ferres, A 1866
Descrizione Storica Delle Chiese di Malta e Gozo. Malta

Fiorini, S., 1986
'The Resettlment of Gozo after 1551', *Melita Historca Vol IX n3*: 203-244.

Gambin, T., 2002/2003
'The Harbours o Ancient Gozo', *Malta Archaeological Review Issue 6*: 15-21.

2003
'Chapels and Navigation in Medieval Gozo', in Brysbaert, A. et.al. (eds.), *Symposium on Mediterranean Archaeology : proceedings of the Sixth Annual Meeting of Postgraduate Researchers, University of Glasgow, Department of Archaeology, 15-17 February, 2002*, BAR International series, 1142.

Gullaimier, A 1972
Bliet u Rhula Maltin, 2nd edn, Malta.

Hoppen, A., 1993
Military Priorities and Social Realities in the Early Modern Mediterranean: Malta and its Fortifications, in Victor Mallia–Milanes (ed.) *Hospitaller Malta 1530-1798, Studies on Early Modern Malta and the Order of St John of Jerusalem*, Mireva Publications, Malta

Luttrell, A., 1975
Medieval Malta: studies on Malta before the Knights, British School at Rome, London.

1981
Gozo citadel, Malta : report submitted to the Division of Cultural Heritage, UNESCO.

Mahoney, L., 1996
5000 years of architecture in Malta, Valletta Publishing, Valletta.

Mizzi,. P.
A French Cemetery in Gozo, *Heritage 1*: 1-4.

The Basilica of St George in Gozo*, Heritage 14*: 261-269.

Shrines and Statues: San Ġorġ tal-Ħaġar, *Heritage 70*: 1387-1392.

Masons and Architects: Vittorio Cassar, *Heritage 81*: 1614-1619.

Towns and Villages of Malta: Ir-Rabat, the Ancient Town of Gozo, *Heritage 88*: 1756-1760; *Heritage 98*: 1761-1764.

Forts and Fortifications: the Gozo Castello, *Heritage 91*: 1808-1815.

Mizzi, P.G.

Historical Buildings: The Banca Giuratale at It-Tokk, Gozo, *Heritage 92*: 1826-1828.

Mifsud, A.

2007

Geotechnical Baseline study in AIS Environmental Ltd. (2010): Environmental Planning Statement for the Creation of Stabilised Slopes and Car parking at Raba ta' wara s-Sur, It-telgħa tal-Belt, Rabat, Gozo (PA 05484/03)

Molinari, A., & Cutajar, N.,

1999,
'Of Greeks and Arabs and of Feudal Knights: A preliminary archaeological exposure of Malta's perplexing Middle Ages', *Malta Archaeological Review Issue 3*: 9-13.

Renfrew, C. & Bahn, P.

1991

Archaeology. Theories, Methods, and Practice. Thames and Hudson, London.

Spiteri, S. C. 1996

British Military Architecture in Malta, Stephen C. Spiteri, Valletta.

2001

Fortresses of the Knights, Book Distributors (BDL), Hamrun.

Tonna, J., 2004,
L-Arkitettura f'Malta, Pubblikazzjoniet Indipendenza

Trump, D.H.

1997

Malta: An Archaeological Guide. Reprint of the 1990 Second Edition Progress Press, Malta.

2002

Malta: Prehistory and Temples. Midsea Books Ltd, Malta

Sagona, C. 2002

The Archaeology of Punic Malta. Ancient Near Eastern Studies, Supplement 9. Peeters, Belgium.

Samut-Tagliaferro, A.,
1993,
The Coastal Fortifications of Gozo and Comino, Midesea Publications.

Trump, D., 2002

Malta: prehistory and temples, Midsea Books Ltd.

UNESCO, 1972

Convention Concerning the Protection of the World Cultural and Natural Heritage, Adopted by the General Conference at its Seventeenth Session Paris, 16 November 1972

2005

Operational Guidelines for the Implementation of the World Heritage Convention, Intergovernmental Committee for the Protection of the World Cultural And Natural Heritage, World Heritage Centre.

2005

Fifteenth General Assembly of States Parties to the Convention Concerning the Protection of the World Cultural and Natural Heritage, Paris, WHC-05/15.GA/INF.7

Veen, V., and Van der Blom, A.
1992
The First Maltese: origins, character and symbolism of the Ghar Dalam culture, fia publication.

Vella, A.P.
A Concise History of Malta: The Gozitans Defeat the French, *Heritage 75*: 1489-1493.

Vella, G., 2007
Settlement dynamics at Rabat. Gozo, *The Sunday Times, November 11, 2007*: 60-61.

2007
More settlements in Victoria, *The Sunday Times, November 18, 2007*: 64.

Vella, H.C.R., 2002,
Malta u Ghawdex fl-Era Klassika, Pubblikazzjonijiet Indipendenza.

Wettinger, G. 1990
'The history of Gozo from the early Middle Ages to Modern Times', in Cini C. (ed.), *Gozo: roots of an island*, Said International, Valletta: 48-81

2000
Place-Names of The Maltese Islands Ca. 1300-1800, P.E.G. Ltd, Malta.

Annual Reports of the Workings of the Museums Department (MARs) 1904–1998.

The Structure Plan of the Maltese Islands (Revised). 1997.

The Cultural Heritage Act, 2002.

European Spatial Development Perspective

The Gozo and Comino Local Plan, MEPA, July 2006.

The Burra Charter, Australia ICOMOS, 1999.

Appendix I:
Catalogue of Cultural Features

Data Capture Sheet

ref no
CTD07/001

Location	Category	Site Description (Address)
Triq San Guzepp, Citadella, Victoria	Architecture	Ruins at Triq San Guzepp, Citadella, Victoria

Eastings	Northings	Period
3155	8962	Medieval

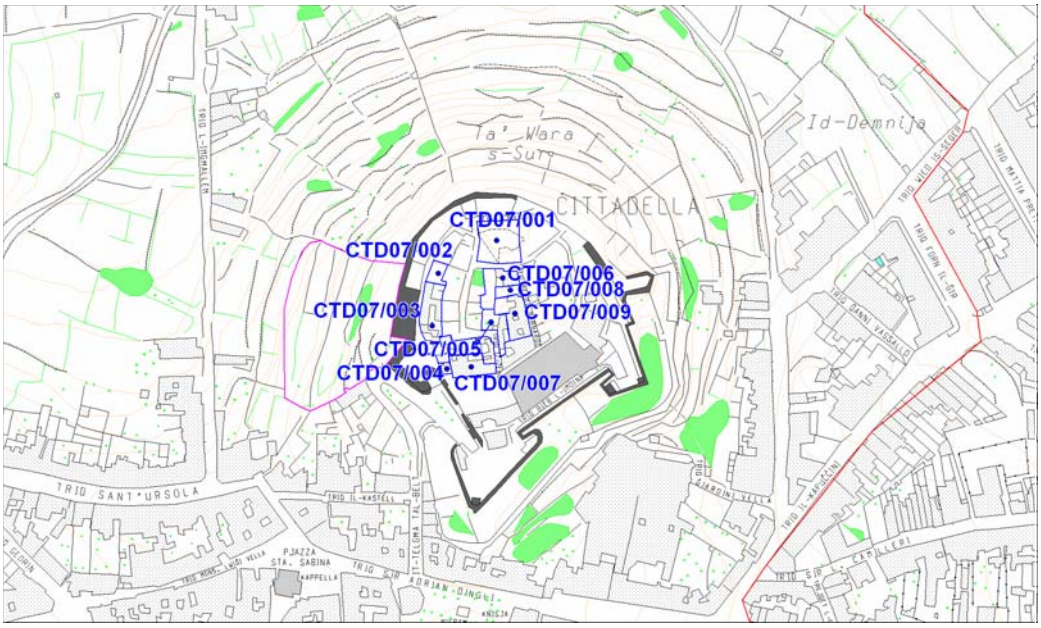
SS No1	SS No2	Description
3089		A number of ruined houses or other structures at Citadella. The lower part of the first floor is mainly extant. There are a number of wells in the area.
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
None

Comments
In need of further archaeological investigation and conservation.
Corresponding to MEPA NPI Card GZ-01.

Site



CTD07_001 (3)

Condition
Poor

Degree of Protection
GN427/95, Level 1

Proposed Protection

Basic Bibliography
Bezzina, J., 2000, The Gozo Citadel: a pictorial guide, Gaulitana, Rabat.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_001 (1)

CTD07_001 (2)

Data Capture Sheet

ref no
CTD07/002

Location	Category	Site Description (Address)
Triq il-Kwartier ta' San Martin, Citadella, Victoria	Architecture	Ruins at Triq il-Kwartier ta' San Martin, Citadella, Victoria

Eastings	Northings	Period
3151	8960	Medieval

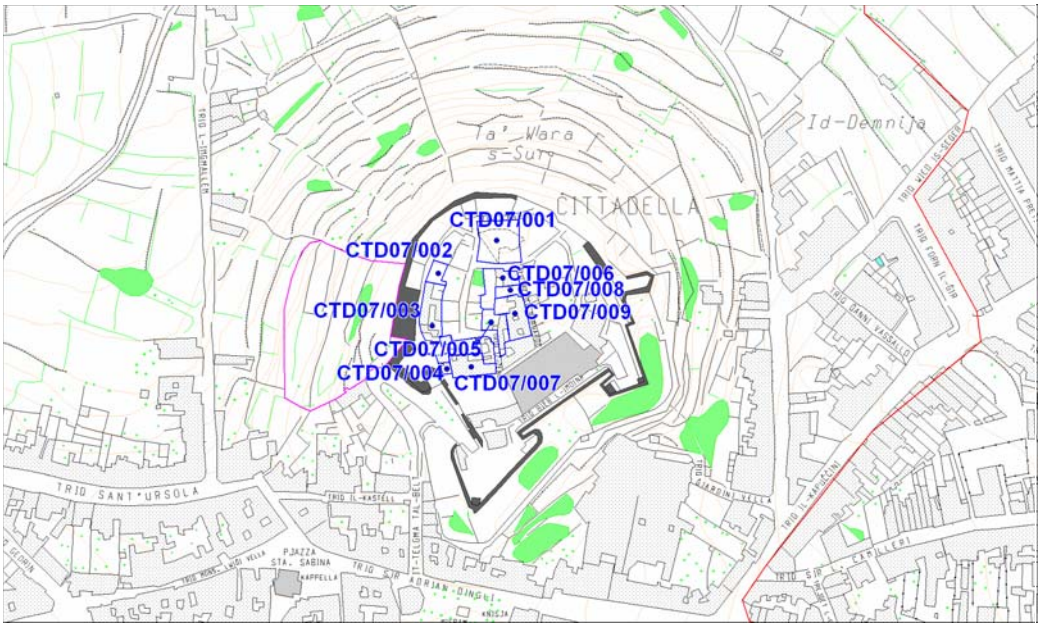
SS No1	SS No2	Description
3089		A number of ruined houses or other structures at Citadella. The lower part of the first floor is mainly extant. An arched doorway is still visible.
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
None

Comments
In need of further archaeological investigation and conservation.

Site



CTD07_002

Condition
Poor

Degree of Protection
GN427/95, Level 1

Proposed Protection

Basic Bibliography
Bezzina, J., 2000, The Gozo Citadel: a pictorial guide, Gaulitana, Rabat.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

Data Capture Sheet

ref no
CTD07/003

Location	Category	Site Description (Address)
Triq il-Kwartier ta' San Martin, Citadella, Victoria	Architecture	Buildings at Triq il-Kwartier ta' San Martin, Citadella, Victoria

Eastings	Northings	Period
3151	8957	Late 16th century

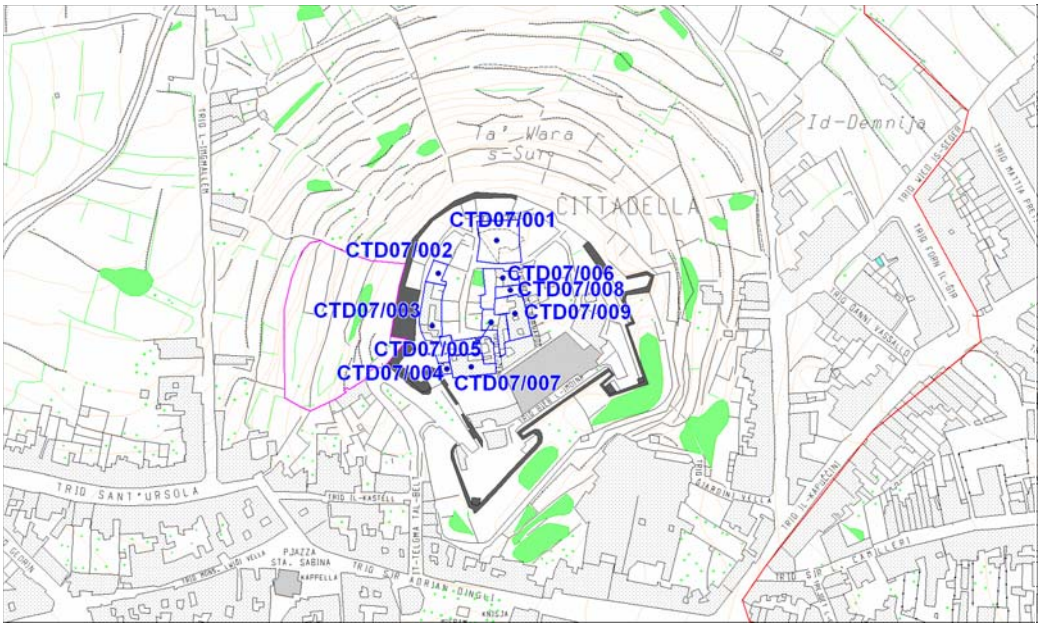
SS No1	SS No2	Description
3089		A number of adjacent buildings at Triq il-Kwartier ta' San Martin. The northernmost building is used as the Natural History Museum, while the others are private residences.
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
Museum and Residences

Comments

Site



CTD07_003

Condition
Fair

Degree of Protection
GN427/95, Level 1

Proposed Protection

Basic Bibliography
Bezzina, J., 2000, The Gozo Citadel: a pictorial guide, Gaulitana, Rabat.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_003 (2)

CTD07_003 (4)

Data Capture Sheet

ref no
CTD07/004

Location
Pjazza Kattidral, Citadella, Victoria

Category
Architecture

Site Description (Address)
Old Prisons at Pjazza Kattidral, Citadella, Victoria

Eastings
3152

Northings
8954

Period
17th century

SS No1
3089

SS No2

Description
Old Prisons at Citadella. These were used from 1600 to the 1880s and area adjacent to the Law Courts.

SS No4

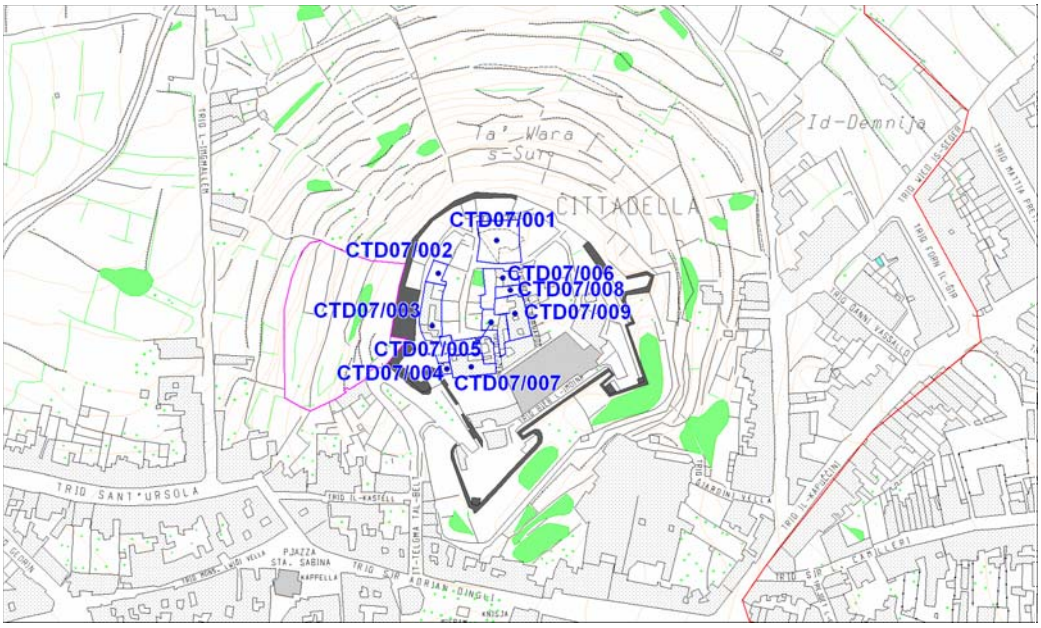
SS No3

Date of survey sheet: 1992

Present Utilisation
Museum

Comments

Site



CTD07_004

Condition
Good

Degree of Protection
GN427/95, Level 1

Proposed Protection

Basic Bibliography
Bezzina, J., 2000, The Gozo Citadel: a pictorial guide, Gaulitana, Rabat.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_004 (3)

Data Capture Sheet

ref no
CTD07/005

Location	Category	Site Description (Address)
Triq Zenqa, Citadella, Victoria	Architecture	Houses at Triq Zenqa, Citadella, Victoria

Eastings	Northings	Period
3154	8956	Early Modern

SS No1	SS No2	Description
3089		A number of houses at Triq Zenqa.

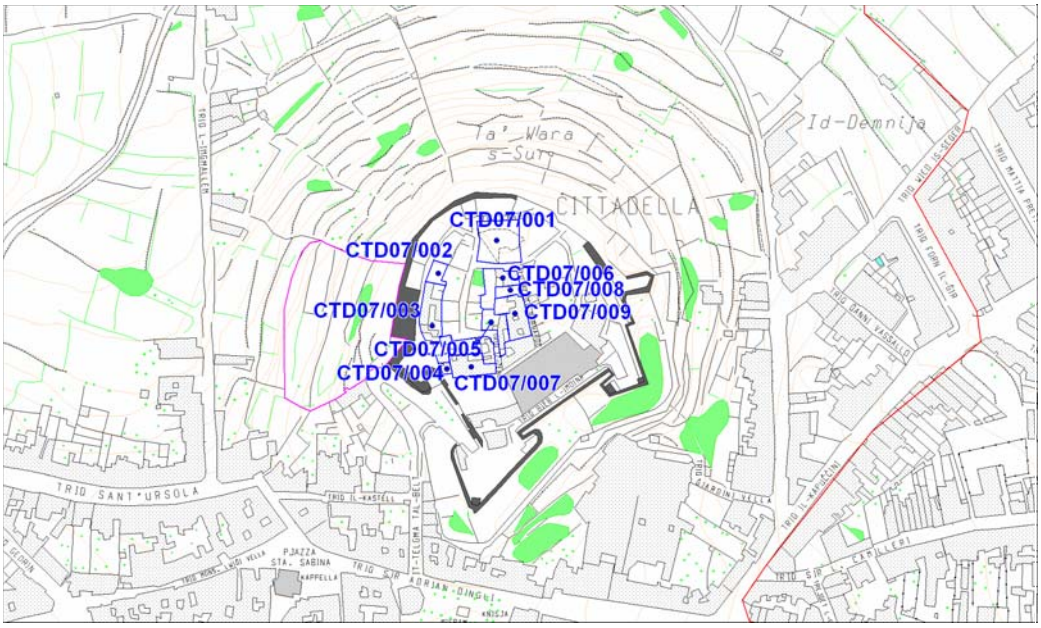
SS No4	SS No3

Date of survey sheet: 1992

Present Utilisation

Comments

Site



CTD07_005

Condition

Degree of Protection
GN427/95, Level 1

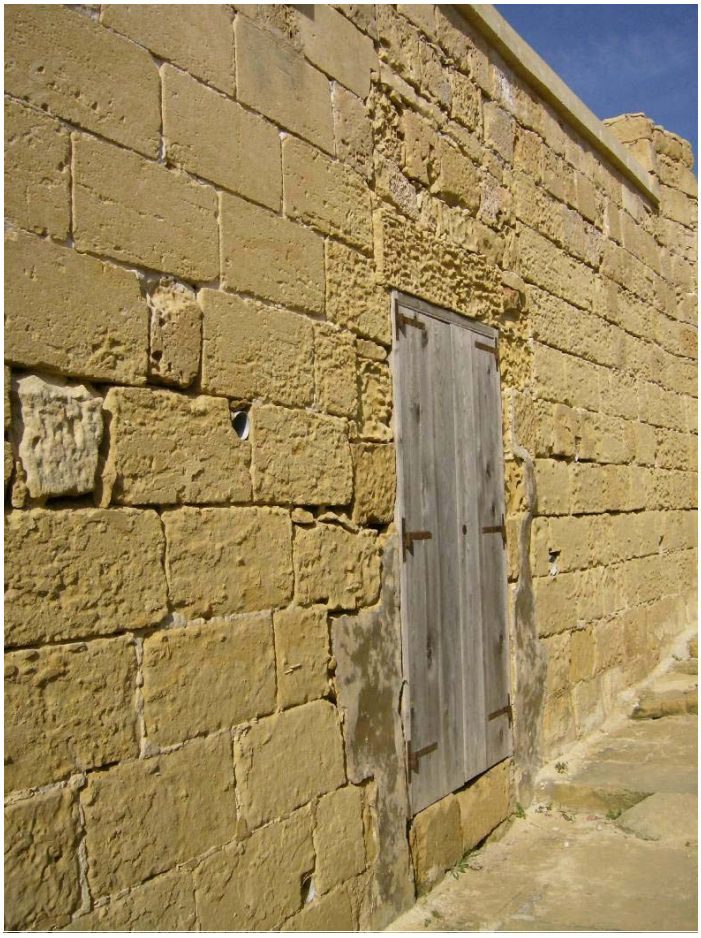
Proposed Protection

Basic Bibliography

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_005 (4)



Data Capture Sheet

ref no
CTD07/006

Location	Category	Site Description (Address)
Triq San Guzepp, Citadella, Victoria	Architecture	Cagliares Palace and St Joseph Chapel at Triq San Guzepp, Citadella, Victoria

Eastings	Northings	Period
3158	8960	1625

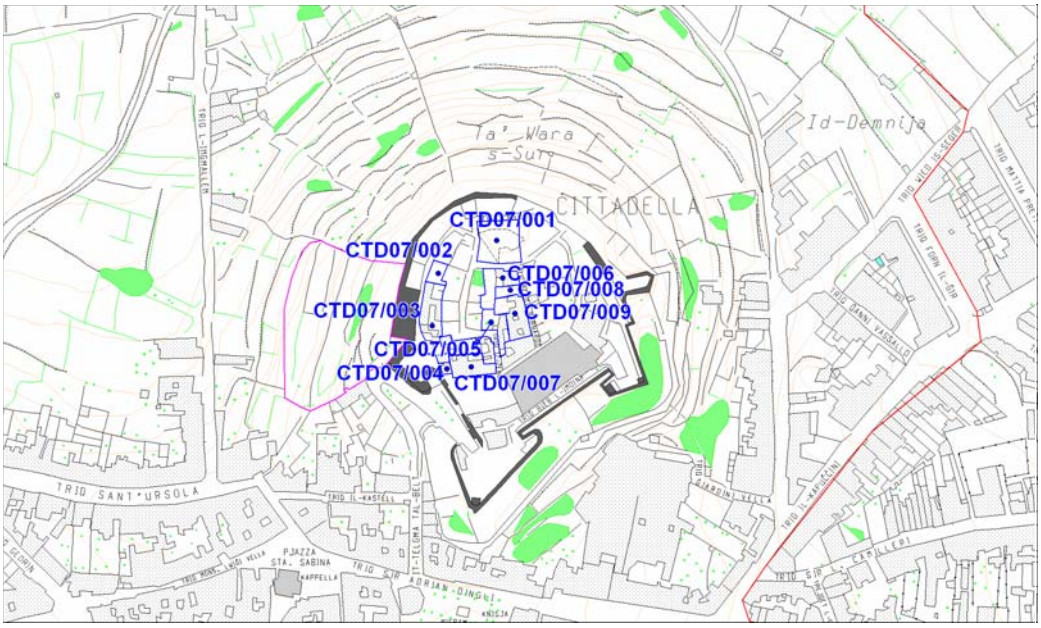
SS No1	SS No2	Description
3089		A palace built by Bishop Cagliares in 1625 together with the adjoining Chapel of St Joseph. The chapel was one of the largest chapels when it was built and replaces an older chapel dedicated to St Nicholas.
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
Chapel

Comments

Site



CTD07_006 (8)

Condition
Fair

Degree of Protection
GN427/95, Level 1

Proposed Protection

Basic Bibliography
Bezzina, J., 2000, The Gozo Citadel: a pictorial guide, Gaulitana, Rabat.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_006

CTD07_006 (3)

CTD07_006 (1)

Data Capture Sheet

ref no
CTD07/007

Location	Category	Site Description (Address)
Pjazza Kattidral, Citadella, Victoria	Architecture	Law Courts at Pjazza Kattidral, Citadella, Victoria

Eastings	Northings	Period
3154	8954	1687

SS No1	SS No2	Description
3089		Law Courts built in 1687 with a retouched façade in the late19th century.

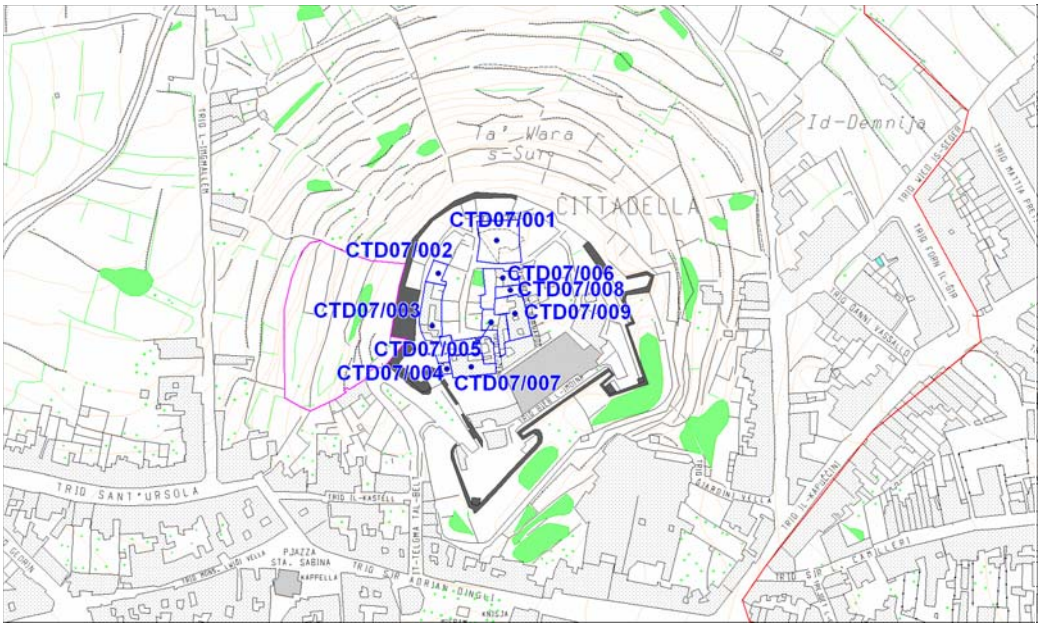
SS No4	SS No3

Date of survey sheet: 1992

Present Utilisation
Law Courts

Comments

Site



CTD07_007

Condition
Good

Degree of Protection
GN427/95, Level 1

Proposed Protection

Basic Bibliography
Bezzina, J., 2000, The Gozo Citadel: a pictorial guide, Gaulitana, Rabat.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

Data Capture Sheet

ref no
CTD07/008

Location	Category	Site Description (Address)
Triq Milite Bernardo, Citadella, Victoria	Architecture	Partly Ruined Structure at Triq Milite Bernardo, Citadella, Victoria

Eastings	Northings	Period
3156	8959	Early Modern

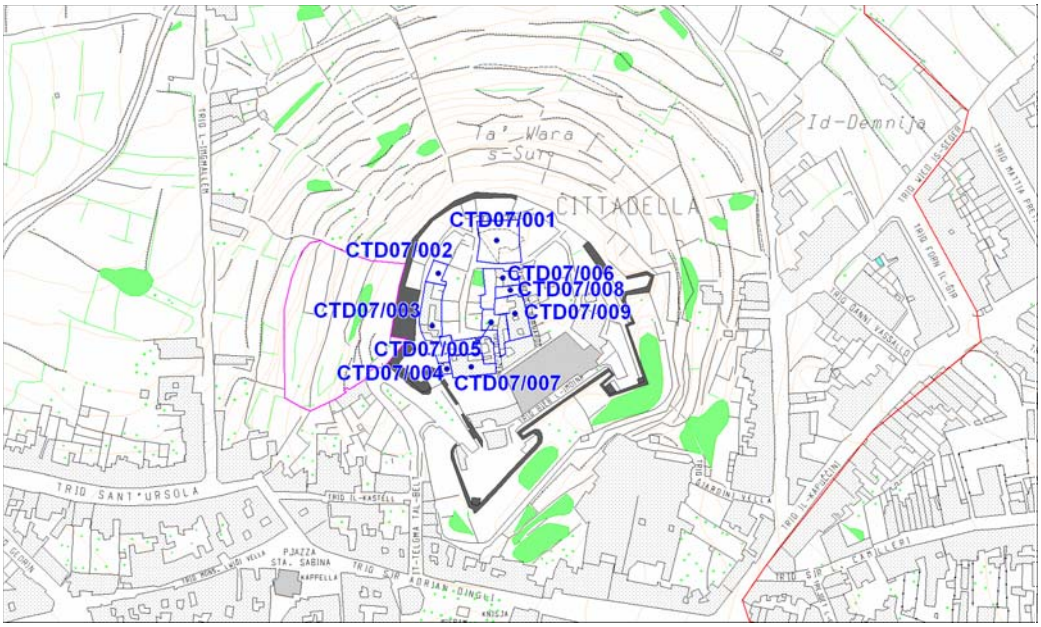
SS No1	SS No2	Description
3089		Partly ruined structure, with the remains of the façade still standing. It consists of 3 arches, the central one being slightly higher and wider than the other two. The 3 arches are rounded and have heavy voussoirs. The roof has collapsed but there is a small room to the north of the building which is still standing.
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
None

Comments
In need of further archaeological investigation and conservation.

Site



CTD07_008

Condition
Poor

Degree of Protection
GN427/95, Level 1

Proposed Protection

Basic Bibliography

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_008 (2)

Data Capture Sheet

ref no
CTD07/009

Location	Category	Site Description (Address)
Triq Milite Bernardo, Citadella, Victoria	Architecture	Folklore Museum at Triq Milite Bernardo, Citadella, Victoria

Eastings	Northings	Period
3156	8957	Early Modern

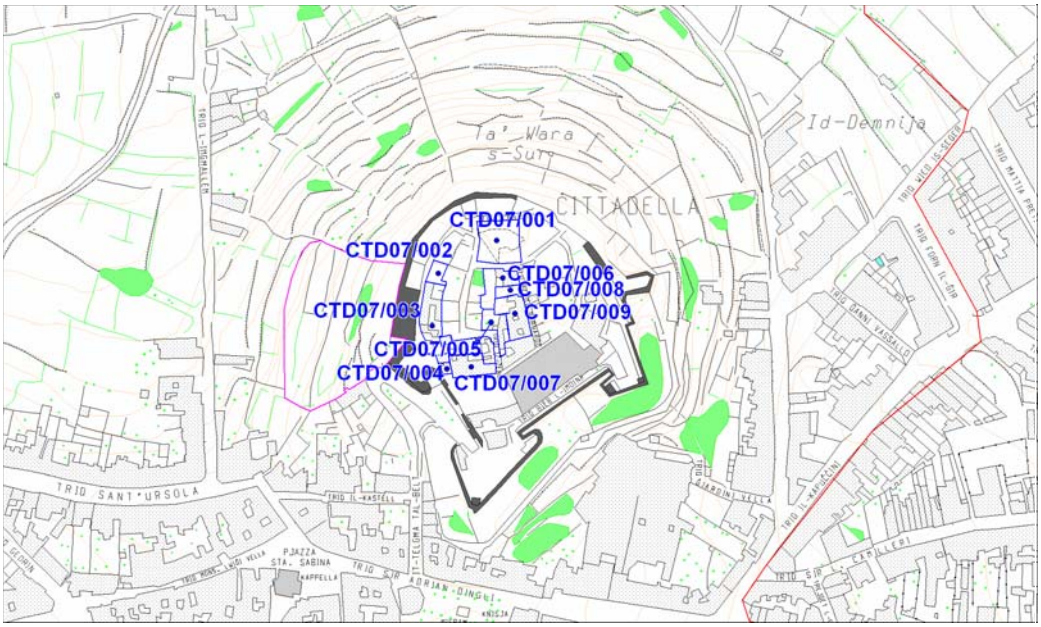
SS No1	SS No2	Description
3089		Building now housing the Gozo Folklore Museum. The façade is particular because like CTD07/008 it has medieval architectural elements like the rounded doorway, heavy voussoirs in the arches, double windows divided by a column, and carved stonework. However, it most commonly attributed to the Early Modern Period.
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
Museum

Comments

Site



CTD07_009 (2)

Condition
Good

Degree of Protection
GN427/95, Level 1

Proposed Protection

Basic Bibliography
Bezzina, J., 2000, The Gozo Citadel: a pictorial guide, Gaulitana, Rabat.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_009 (1)

Data Capture Sheet

ref no
CTD07/010

Location	Category	Site Description (Address)
Triq Zenqa, Citadella, Victoria	Architecture	Arches at Triq Zenqa, Citadella, Victoria

Eastings	Northings	Period
3155	8960	Early Modern

SS No1	SS No2	Description
3089		Three arches in the first part of Triq Zenqa. They might have been roofed to form a sqifah.

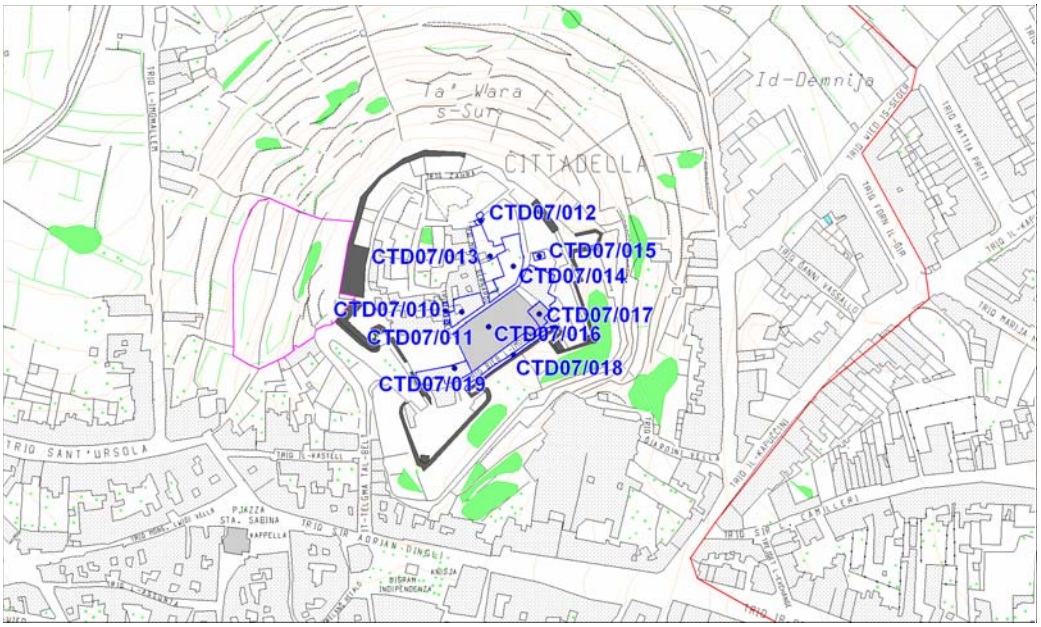
SS No4	SS No3

Date of survey sheet: 1992

Present Utilisation
None

Comments

Site



CTD07_010

Condition
Good

Degree of Protection
GN427/95, Level 1

Proposed Protection

Basic Bibliography

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_010 (1)

Data Capture Sheet

ref no
CTD07/011

Location	Category	Site Description (Address)
Triq il-Fosos, Citadella, Victoria	Architecture	Three houses at Triq il-Fosos, Citadella, Victoria

Eastings	Northings	Period
3156	8955	Early Modern

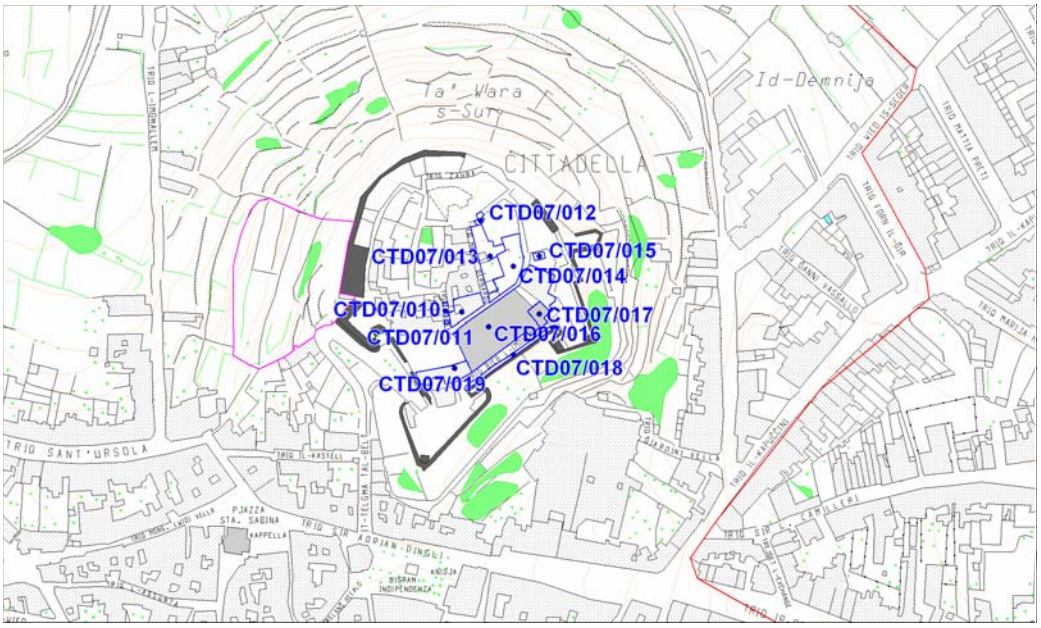
SS No1	SS No2	Description
3089		Three houses at Triq il-Fosos. The first one, on the corner with Triq Zenqa, consists of two-storeys, while the other two have three storeys.
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
Shops and residences

Comments

Site



CTD07_011 (1)

Condition
Good

Degree of Protection
GN427/95, Level 1

Proposed Protection

Basic Bibliography

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_011 (2)

CTD07_011 (5)

CTD07_011 (7)

CTD07_011 (9)

Data Capture Sheet

ref no
CTD07/012

Location	Category	Site Description (Address)
Triq San Guzepp, Citadella, Victoria	Architecture	Sqifah at Triq San Guzepp, Citadella, Victoria

Eastings	Northings	Period
3157	8961	Medieval

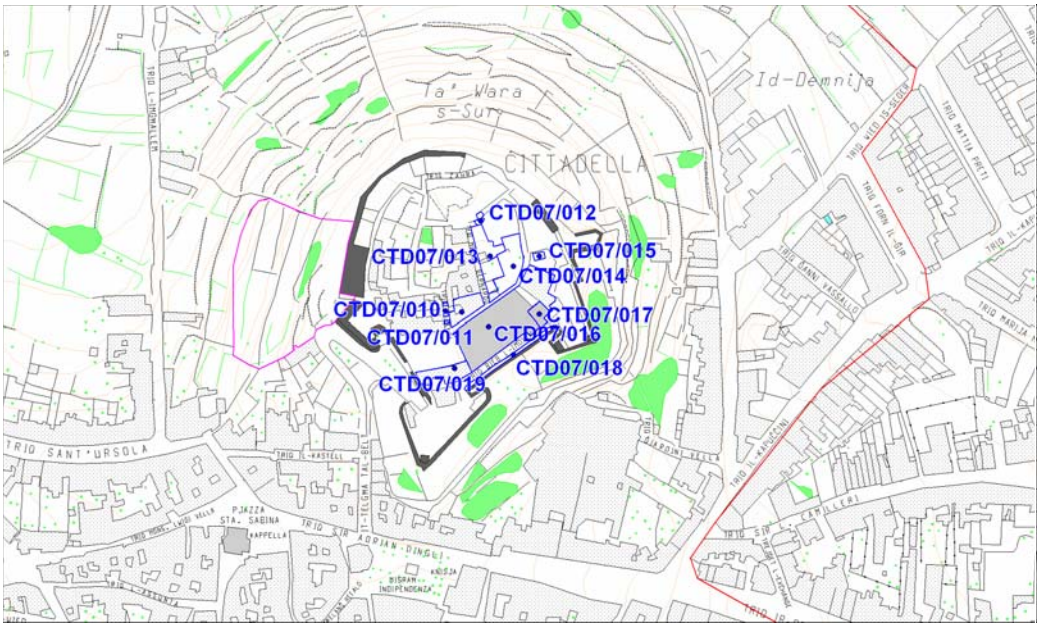
SS No1	SS No2	Description
3089		Sqifah at Triq San Guzepp. The sqifah is a covered arched passageway roofed with pointed arches and stone slabs. It might have been part of a house since the surrounding structures are all ruined.
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
Passageway

Comments

Site



CTD07_012 (5)

Condition
Fair

Degree of Protection
GN427/95, Level 1

Proposed Protection

Basic Bibliography
Buhagiar, M., 2005,
The Late Medieval Art and Architecture of the Maltese Islands, Fondazzjoni Patrimonju Malti.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_012 (1)

CTD07_012 (4)

CTD07_012 (6)

Data Capture Sheet

ref no
CTD07/013

Location	Category	Site Description (Address)
Triq Milite Bernardo, Citadella, Victoria	Architecture	Ruins at Triq Milite Bernardo, Citadella, Victoria

Eastings	Northings	Period
3158	8959	Medieval

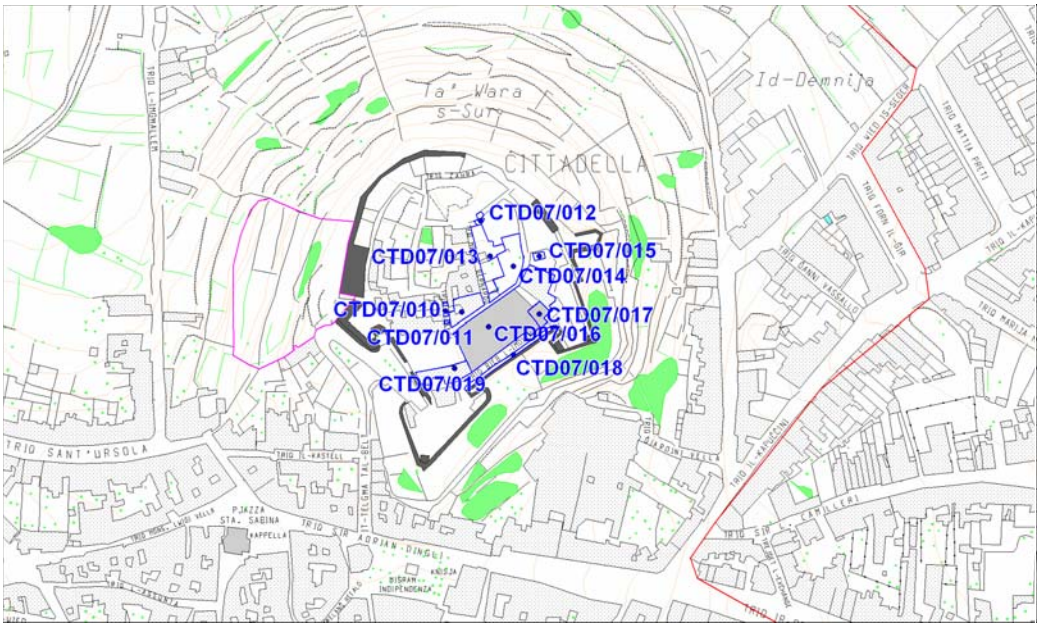
SS No1	SS No2	Description
3089		Ruined houses at Triq Milite Bernardo with parts of the ground floor remaining.
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
None

Comments
In need of further archaeological investigation and conservation.

Site



CTD07_013

Condition
Poor

Degree of Protection
GN427/95, Level 1

Proposed Protection

Basic Bibliography

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

Data Capture Sheet

ref no
CTD07/014

Location	Category	Site Description (Address)
Triq il-Fosos, Citadella, Victoria	Architecture	Ruins at Triq il-Fosos, Citadella, Victoria

Eastings	Northings	Period
3160	8958	Medieval

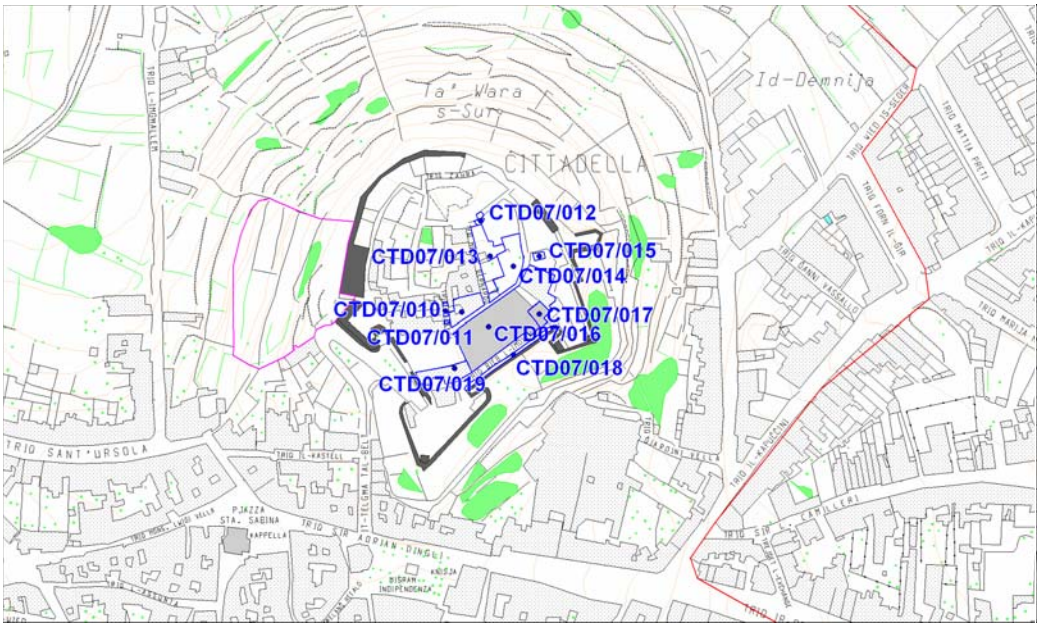
SS No1	SS No2	Description
3089		Ruined houses at Triq il-Fosos with parts of the ground floor remaining. One of the houses is restored and transformed in a restaurant, while the other has been partly restored as part of the same restaurant. The others are in ruins.
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
None

Comments
In need of further archaeological investigation and conservation.

Site



CTD07_014 (4)

Condition
Poor

Degree of Protection
GN427/95, Level 1

Proposed Protection

Basic Bibliography

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_014 (2)

CTD07_014 (1)

CTD07_014 (5)

CTD07_014 (7)

Data Capture Sheet

ref no
CTD07/015

Location	Category	Site Description (Address)
Triq il-Fosos, Citadella, Victoria	Fortifications	St John's Cavalier at Triq il-Fosos, Citadella, Victoria

Eastings	Northings	Period
3161	8958	1614

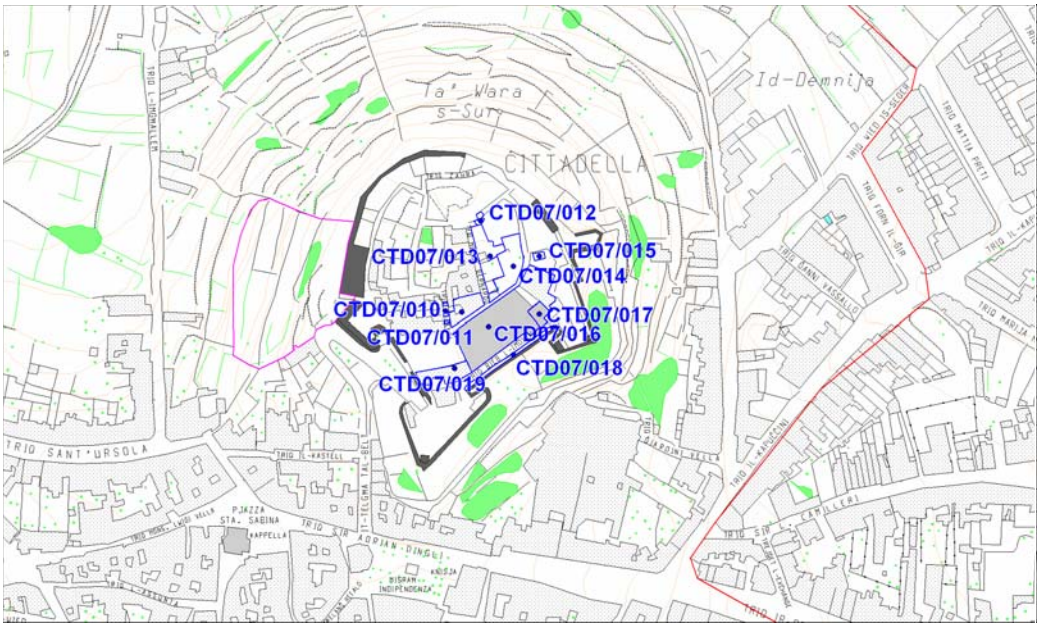
SS No1	SS No2	Description
3089		St John's Cavalier built in 1614 by Wignaocurt whose coat of arms is defaced. It was then restored in 1701 by Perellos whose coat of arms is still visible. On the northern wall is a wel that is no longer in use.
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
None

Comments

Site



CTD07_015 (2)

Condition
Fair

Degree of Protection
GN427/95, Level 1

Proposed Protection

Basic Bibliography

Bezzina, J., 2000, The Gozo Citadel: a pictorial guide, Gaulitana, Rabat; Spiteri, S., 2001, Fortresses of the Knights, BDL, Hamrun.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_015 (1)

CTD07_015

CTD07_015 (3)

Data Capture Sheet

ref no
CTD07/016

Location	Category	Site Description (Address)
Gozo Cathedral, Victoria	Religious	Gozo Cathedral, Citadella, Victoria

Eastings	Northings	Period
3158	8954	17th century

SS No1	SS No2	Description
3089		Gozo Cathedral, bell tower and Cathedral Museum with square.

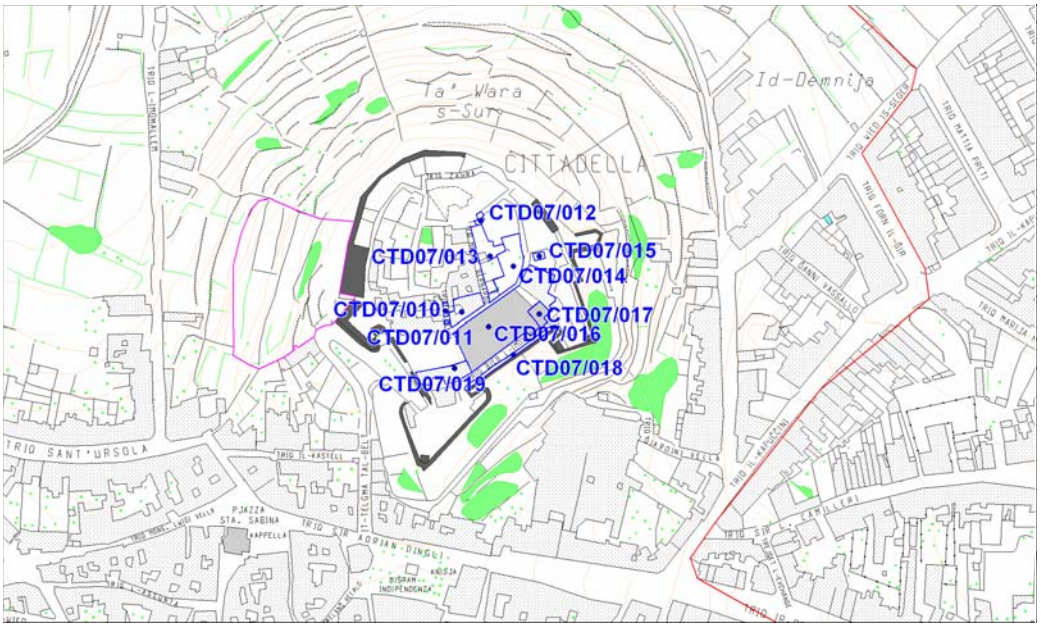
SS No4	SS No3

Date of survey sheet: 1992

Present Utilisation
Cathedral and Museum

Comments

Site



CTD07_016 (1)

Condition
Good

Degree of Protection
GN427/95, Level 1

Proposed Protection

Basic Bibliography
Bezzina, J., 2000, The Gozo Citadel: a pictorial guide, Gaulitana, Rabat.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_016 (3)

CTD07_016 (6)

Data Capture Sheet

ref no
CTD07/017

Location	Category	Site Description (Address)
Triq Bieb l-Imdina, Victoria	Architecture	Crafts Centre at Triq Bieb l-Imdina, Citadella, Victoria

Eastings	Northings	Period
3161	8955	1614

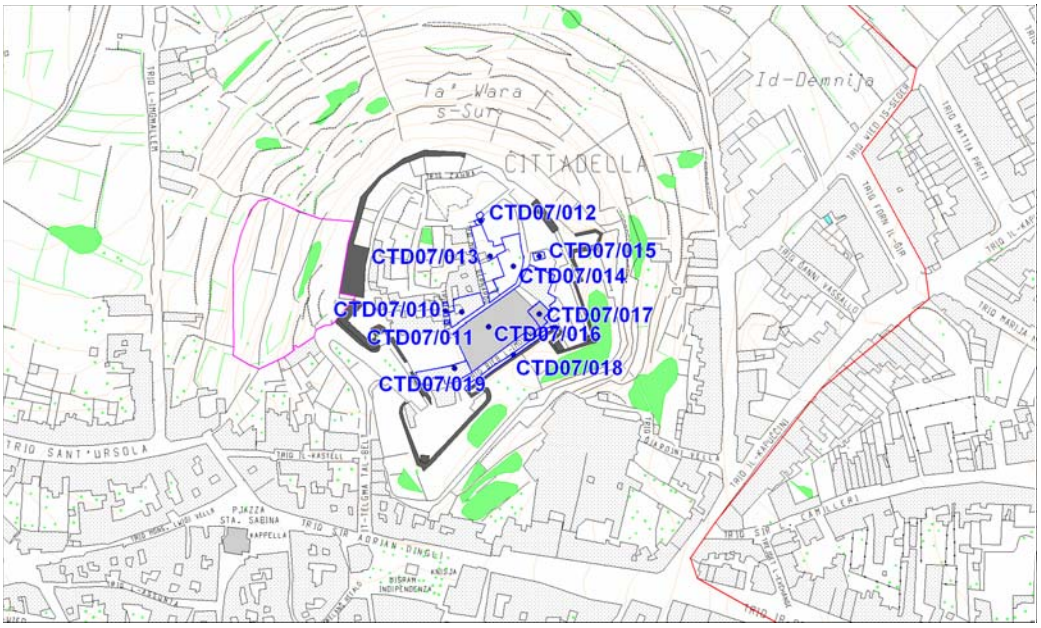
SS No1	SS No2	Description
3089		Building which was used as the Gozo Prisons until 1964. It was built as a storehouse and rest rooms for the Knights stationed at Ic-Citadella. It was enlarged to become the Prison in the late 19th century.
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
Crafts Centre

Comments

Site



CTD07_017 (1)

Condition
Fair

Degree of Protection
GN427/95, Level 1

Proposed Protection

Basic Bibliography

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_017 (2)

Data Capture Sheet

ref no
CTD07/018

Location
Triq Bieb l-Imdina, Citadella, Victoria

Category
Architecture

Site Description (Address)
Magazines at Bieb l-Imdina, Citadella, Victoria

Eastings
3160

Northings
8952

Period
Early Modern

SS No1
3089

SS No2

Description
Magazines

SS No4

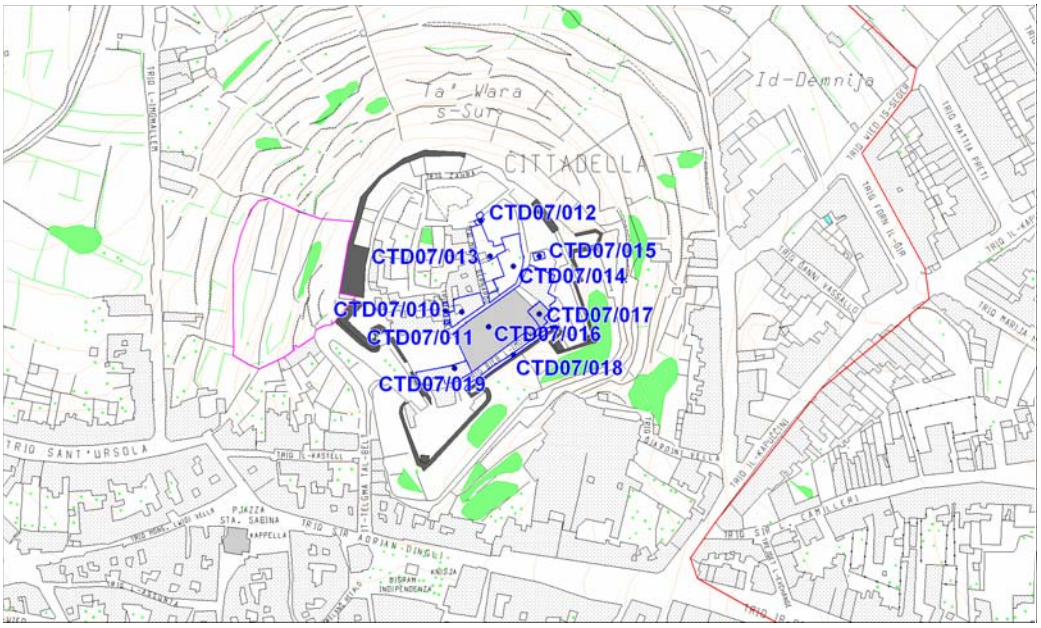
SS No3

Date of survey sheet: 1992

Present Utilisation
Souvenir Shops

Comments

Site



CTD07_018 (1)

Condition
Fair

Degree of Protection
GN427/95, Level 1

Proposed Protection

Basic Bibliography

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_018 (2)

Data Capture Sheet

ref no
CTD07/019

Location	Category	Site Description (Address)
Pjazza Kattidral, Citadella, Victoria	Architecture	Bishop's Palace at Pjazza Kattidral, Citadella, Victoria

Eastings	Northings	Period
3160	8951	1899

SS No1	SS No2	Description
3089		Bishop's Palace completed in 1899 by Bishop Pietro Pace.

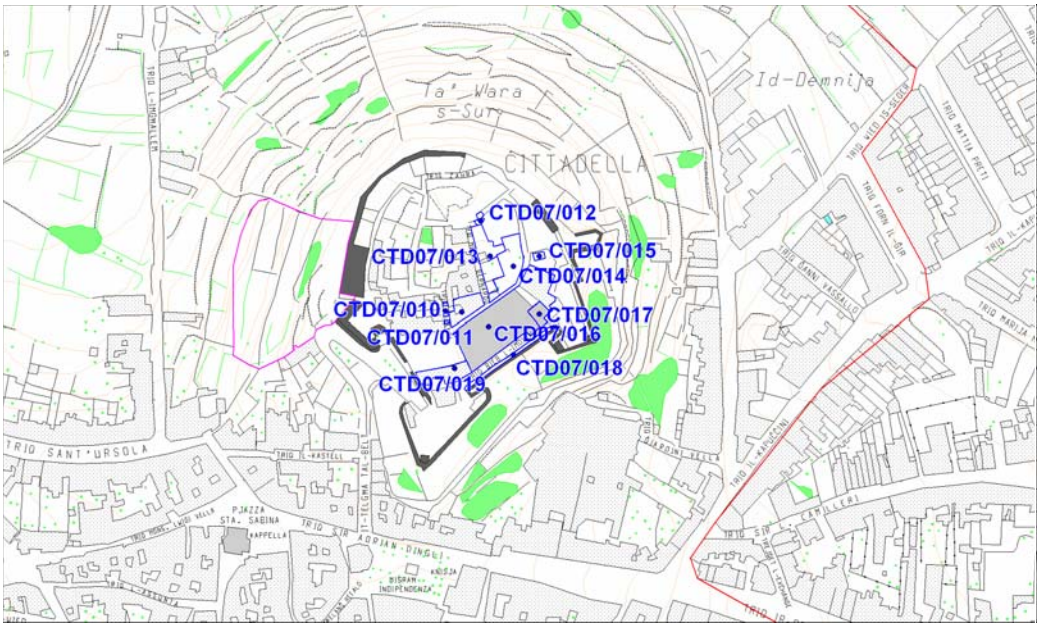
SS No4	SS No3

Date of survey sheet: 1992

Present Utilisation
Bishop's Palace

Comments

Site



CTD07_019

Condition
Good

Degree of Protection
GN427/95, Level 1

Proposed Protection

Basic Bibliography
Bezzina, J., 2000, The Gozo Citadel: a pictorial guide, Gaulitana, Rabat.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_019 (1)

Data Capture Sheet

ref no
CTD07/020

Location	Category	Site Description (Address)
Triq Bieb l-Imdina, Citadella, Victoria	Architecture	Casa Bondi, Triq Bieb l-Imdina, Citadella, Victoria

Eastings	Northings	Period
3155	8950	

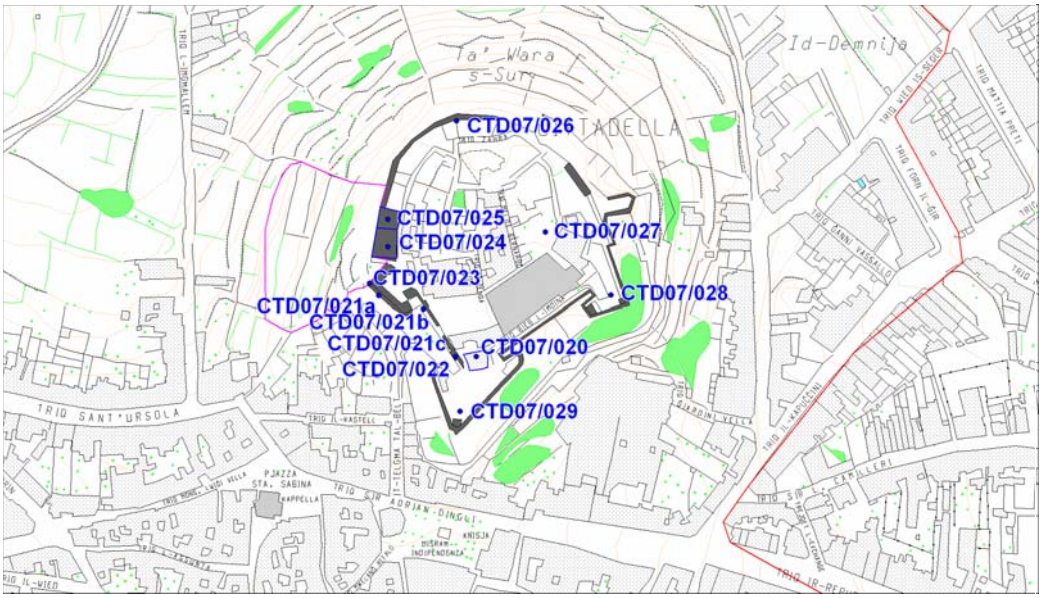
SS No1	SS No2	Description
3089		Casa Bondi - a house standing on three storeys with a central courtyard. It has a carved stone balcony and an elaborate doorway.
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
Museum of Archaeology

Comments

Site



CTD07_020

Condition
Good

Degree of Protection
GN427/95, Level 1

Proposed Protection

Basic Bibliography
Bezzina, J., 2000, The Gozo Citadel: a pictorial guide, Gaulitana, Rabat.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_020 (1)

CTD07_020 (2)

CTD07_020 (3)

Data Capture Sheet

ref no
CTD07/021

Location	Category	Site Description (Address)
It-Telgħa tal-Belt, Citadella, Victoria	Rock-cut	WWII Shelter Entrances at It-Telgħa tal-Belt, Citadella, Victoria

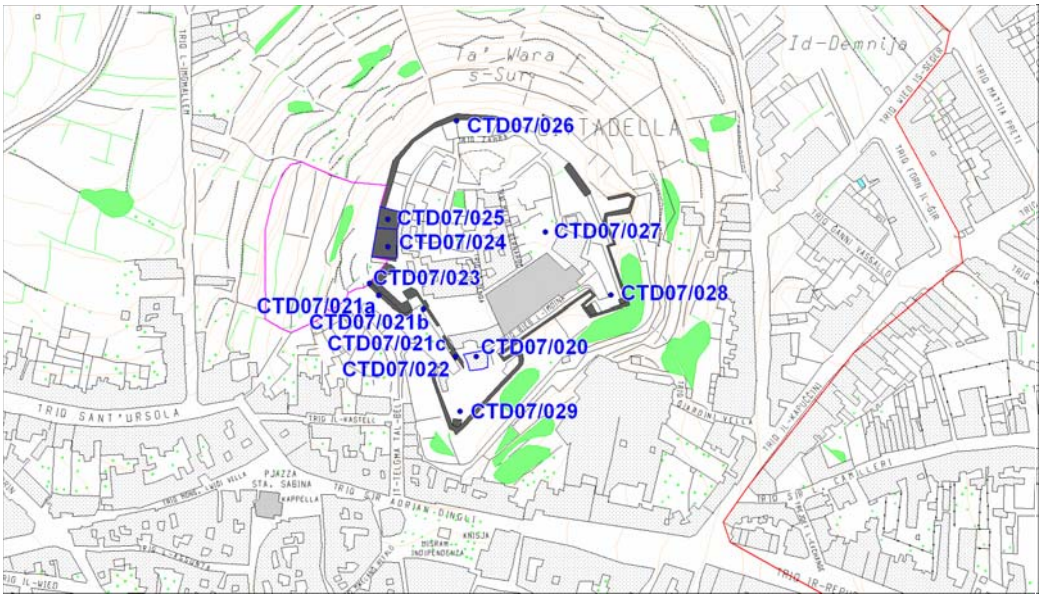
Eastings	Northings	Period
3149	8954	WWII

SS No1	SS No2	Description
3089		Three entrances to WWII Shelter. They are inaccessible and most probably lead to the main shelter. One is cut into live rock below St Martin Demibastion, while the other two are located near the modern entrance to Citadella and are accessed from a flight of steps cut in live-rock. GF for CTD07/021a - 3149 8954; CTD07/021b - 3151 8953; CTD07/021c - 3153 8951.
SS No4	**SS No3**	
Date of survey sheet:	1992	

Present Utilisation
None

Comments

Site



CTD07_021a

Condition
Unknown

Degree of Protection
GN83/01, Level 1

Proposed Protection

Basic Bibliography
Bezzina, F.,1981, F'Ghawdex fi Zmien il-Gwerra, Gozo Press.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_021b

CTD07_021c

Data Capture Sheet

ref no
CTD07/022

Location	Category	Site Description (Address)
Triq Bieb l-Imdina, Citadella, Victoria	Architecture	Main Gate at Triq Bieb l-Imdina, Citadella, Victoria

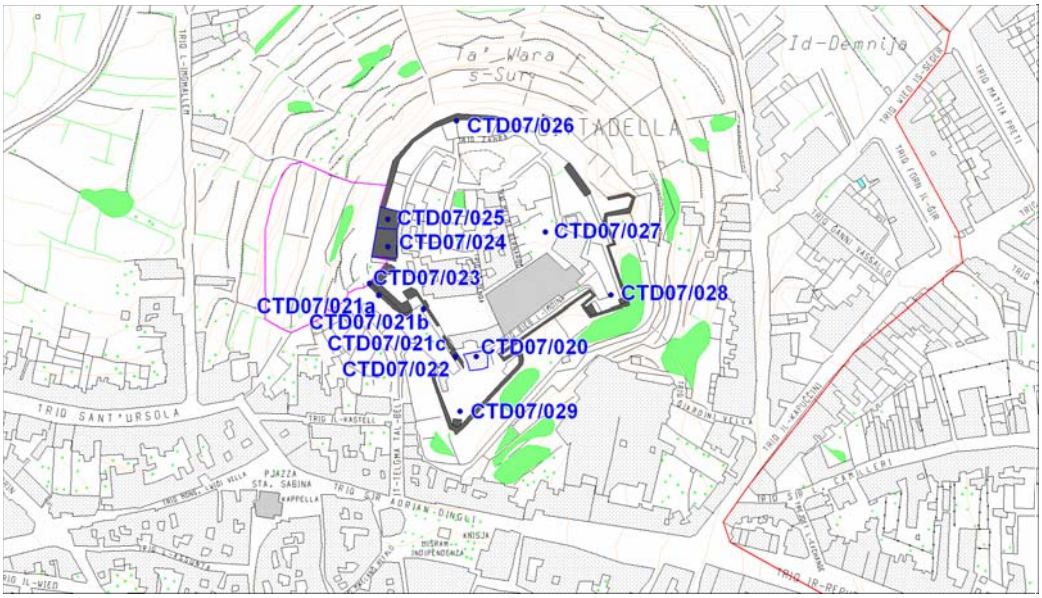
Eastings	Northings	Period
3154	8950	Medieval to Modern

SS No1	SS No2	Description
3089		Gate which used to be the main entrance to Citadella. It consists of a covered passageway roofed with slabs and stone arches. On the northern wall is a blocked doorway which led to the room that housed the mechanism of the drawbridge and possible the countermines too. Opposite is a sculpture of St Anne. On the northern wall as well is a Roman inscription dating to the 2nd century AD. The exterior façade was restored in 1904 as indicated by the inscribed date on the doorway.
SS No4	**SS No3**	
Date of survey sheet:	1992	

Present Utilisation
Gate

Comments

Site



CTD07_022 (1)

Condition
In need of restoration

Degree of Protection
GN83/01, Level 1

Proposed Protection

Basic Bibliography
Bezzina, J., 2000, The Gozo Citadel: a pictorial guide, Gaulitana, Rabat;
Spiteri, S., 2001, Fortresses of the Knights, BDL, Hamrun.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_022 (4)

CTD07_022 (8)

CTD07_022 (9)

Data Capture Sheet

ref no
CTD07/023

Location	Category	Site Description (Address)
Triq il-Kwartier ta' San Martin, Citadella, Victoria	Fortification	St Martin Demi-Bastion at Triq il-Kwartier ta' San Martin, Citadella, Victoria

Eastings	Northings	Period
3148	8954	1622

SS No1	SS No2	Description
3089		St Martin's Demi-Bastion completed in 1622 following Rinaldini's plans.

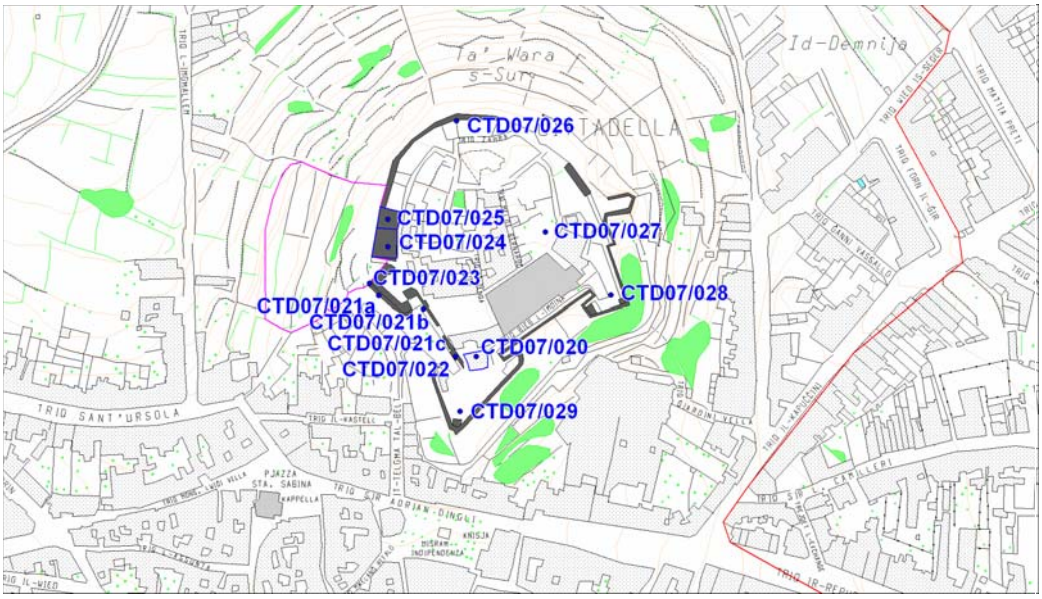
SS No4	SS No3

Date of survey sheet: 1992

Present Utilisation
Part used as an open air restaurant

Comments

Site



CTD07_023

Condition
In need of restoration

Degree of Protection
GN83/01, Level 1

Proposed Protection

Basic Bibliography
Spiteri, S., 2001, Fortresses of the Knights, BDL, Hamrun.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_023 (1)

CTD07_023 (6)

Data Capture Sheet

ref no
CTD07/024

Location	Category	Site Description (Address)
Triq il-Kwartier ta' San Martin, Citadella, Victoria	Fortification	St Martin Cavalier at Triq il-Kwartier ta' San Martin, Citadella, Victoria

Eastings	Northings	Period
3149	8957	1622

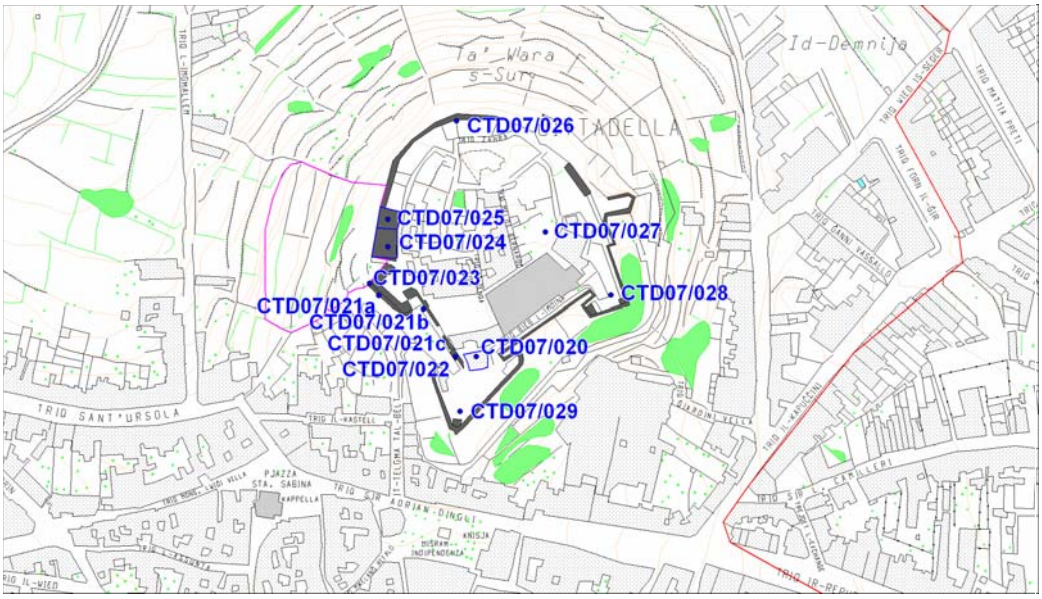
SS No1	SS No2	Description
3089		St Martin's Cavalier completed in 1622 following Rinaldini's plans. A gunpowder depot was built beneath it in 1701. Its roof is now reached by a flight of steps but this is a modern intervention.
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
None

Comments

Site



CTD07_024 (3)

Condition
Fair

Degree of Protection
GN83/01, Level 1

Proposed Protection

Basic Bibliography
Bezzina, J., 2000, The Gozo Citadel: a pictorial guide, Gaulitana, Rabat;
Spiteri, S., 2001, Fortresses of the Knights, BDL, Hamrun.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_024

CTD07_024 (1)

Data Capture Sheet

ref no
CTD07/025

Location	Category	Site Description (Address)
Triq il-Kwartier ta' San Martin, Citadella, Victoria	Granaries	Granaries at Triq il-Kwartier ta' San Martin, Citadella, Victoria

Eastings	Northings	Period
3149	8959	1776

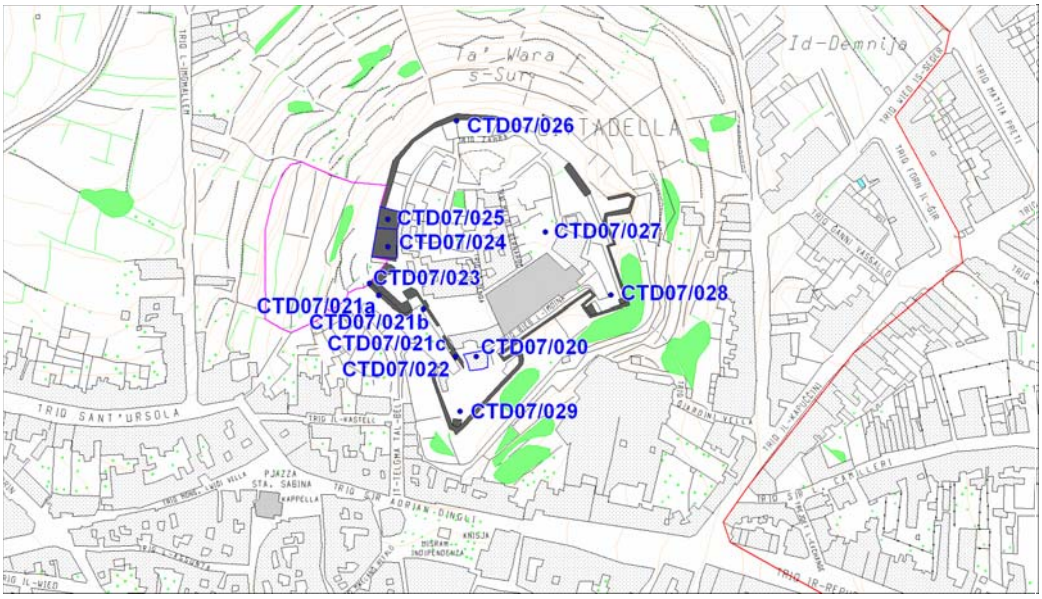
SS No1	SS No2	Description
3089		Building to the North of St Martin Cavalier, which was used as a granary by the Universita. It was partly rebuilt in 1776. During WWII it was used as barracks for the British garrison. In 1984 it was opened as Citadel Armoury, but it is now closed.
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
Unknown

Comments

Site



CTD07_025

Condition
Fair

Degree of Protection
GN83/01, Level 1

Proposed Protection

Basic Bibliography
Bezzina, J., 2000, The Gozo Citadel: a pictorial guide, Gaulitana, Rabat.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

Data Capture Sheet

ref no
CTD07/026

Location	Category	Site Description (Address)
Citadella, Victoria	Fortification	Medieval enciente at Citadella, Victoria

Eastings	Northings	Period
3154	8965	Medieval

SS No1	SS No2	Description
3089		Remains of the medieval wall to the north of Citadella.

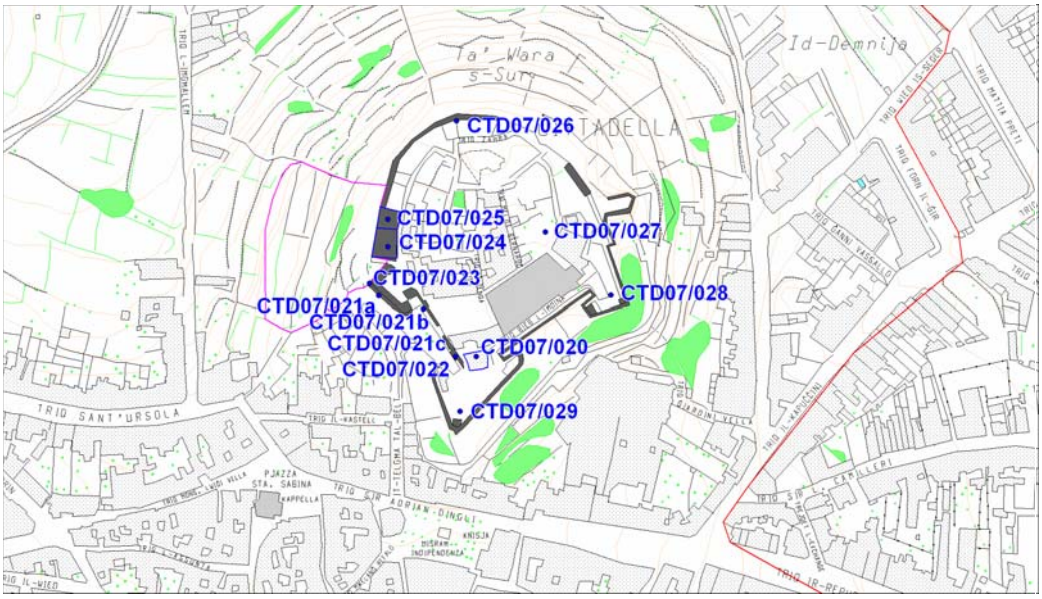
SS No4	SS No3

Date of survey sheet: 1992

Present Utilisation
Part of the Citadella walls

Comments

Site



CTD07_026

Condition
Fair

Degree of Protection
GN83/01, Level 1

Proposed Protection

Basic Bibliography
Bezzina, J., 2000, The Gozo Citadel: a pictorial guide, Gaulitana, Rabat.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_026 (1)

CTD07_026 (2)

Data Capture Sheet

ref no
CTD07/027

Location	Category	Site Description (Address)
Triq il-Fosos, Citadella, Victoria	Granaries	Granaries at Triq il-Fosos, Citadella, Victoria

Eastings	Northings	Period
3160	8958	Early Modern

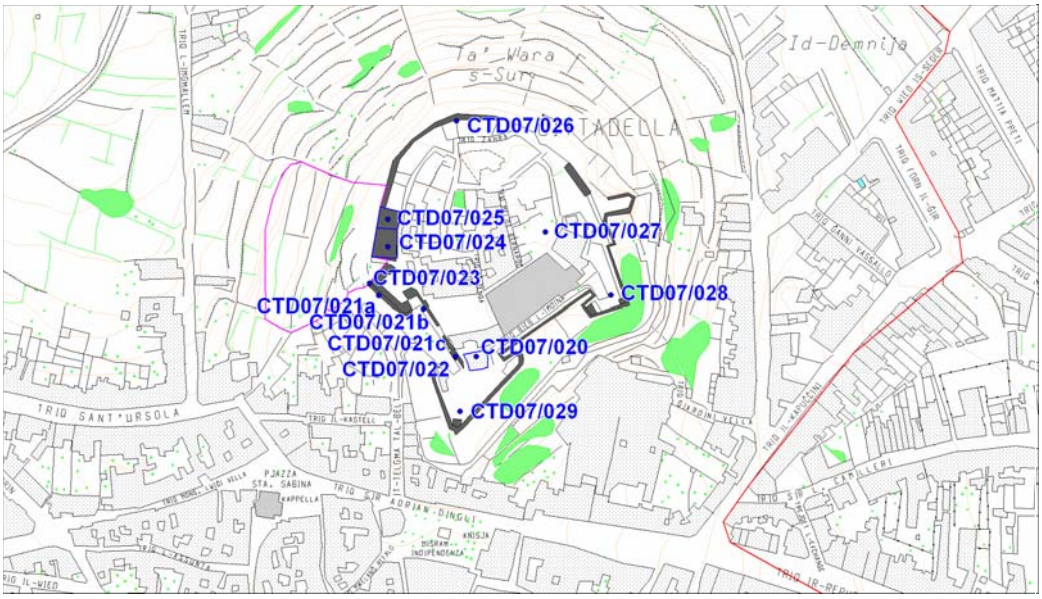
SS No1	SS No2	Description
3089		Two inter-connected silos used for storing grain. They are 10m deep. In 1877, they were converted into water reservoirs and were used until the 1980s.
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
None

Comments

Site



CTD07_027

Condition
Unknown

Degree of Protection
GN83/01, Level 1

Proposed Protection

Basic Bibliography
Bezzina, J., 2000, The Gozo Citadel: a pictorial guide, Gaulitana, Rabat.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

Data Capture Sheet

ref no
CTD07/028

Location	Category	Site Description (Address)
Citadella, Victoria	Fortification	St John Demi-Bastion at Citadella, Victoria

Eastings	Northings	Period
3164	8954	Early 1600s

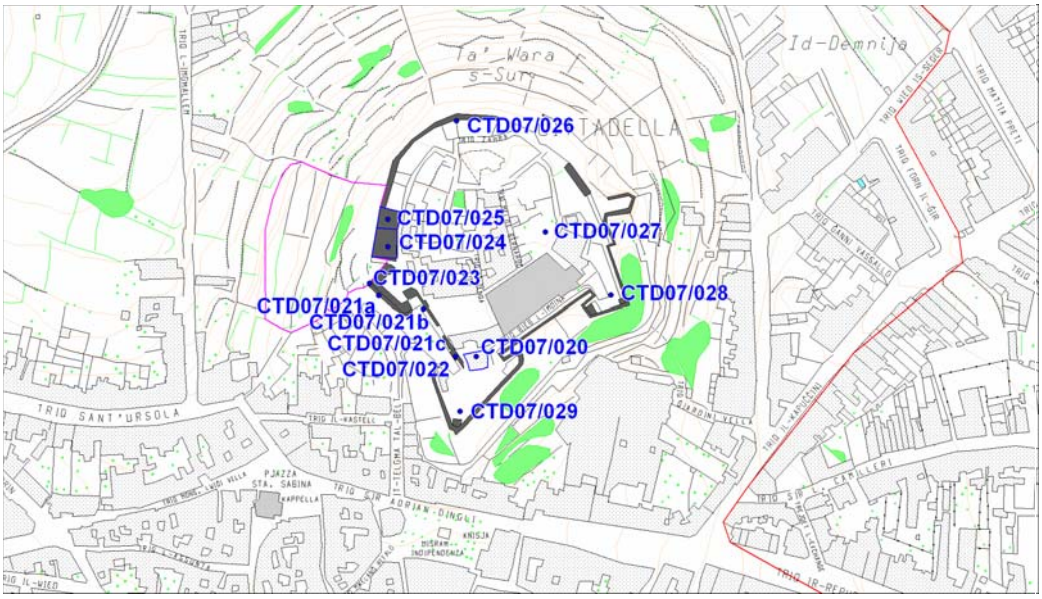
SS No1	SS No2	Description
3089		St John Demi-bastion built following Rinaldini's plan. It is the only demi-bastion in the Citadella with a squarish orillion since the others have a round one. Given that it was not definable in its northern flank, a low battery was built afterwards (CTD07/031).
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
None

Comments

Site



CTD07_028

Condition
Fair

Degree of Protection
GN83/01, Level 1

Proposed Protection

Basic Bibliography
Spiteri, S., 2001, Fortresses of the Knights, BDL, Hamrun.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

Data Capture Sheet

ref no
CTD07/029

Location	Category	Site Description (Address)
Citadella, Victoria	Fortification	St Michael Bastion at Citadella, Victoria

Eastings	Northings	Period
3154	8946	Early 1600s

SS No1	SS No2
3089	

SS No4	SS No3

Date of survey sheet: 1992

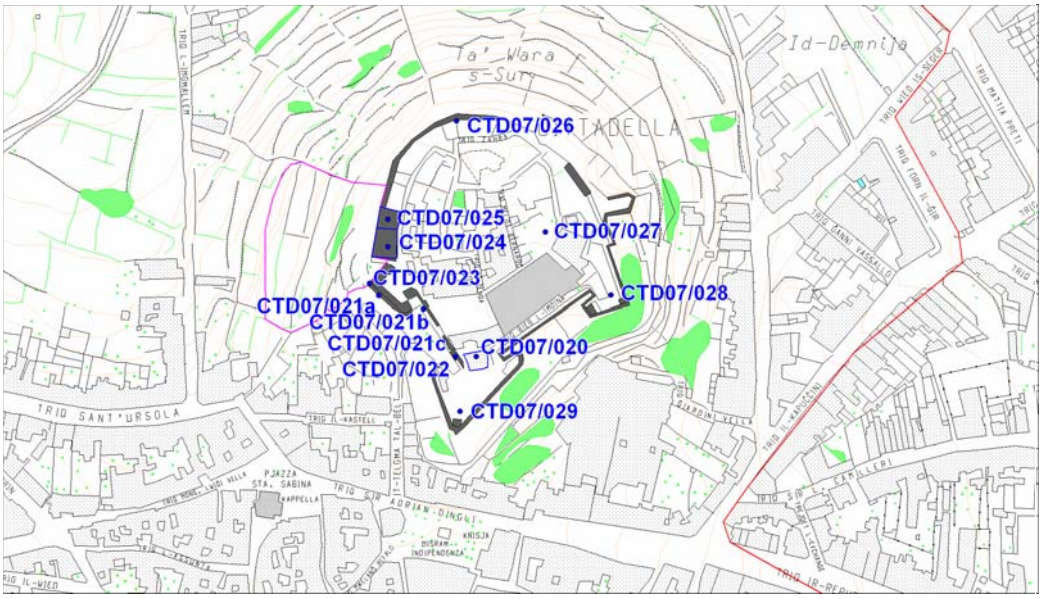
Description

St Michael Bastion, built following Rinaldini's plans to defend the land front but possibly altered by Vittorio Cassar. This is because it is asymmetrical, possibly the left demi-bastion (counterpart of St Martin demi-bastion) was converted into a full bastion to cover the land front more adequately. The sentry box in its corner where sentinels kept constant watch was rebuilt and converted into a clock tower in 1858. The clock bears the date 1774 and the name of the Maltese clock makers Muscat. This clock was transferred from the old clock tower on the northern side of the Citadella (CTD07/034).

Present Utilisation
None

Comments

Site



CTD07_029 (10)

Condition
Fair

Degree of Protection
GN83/01, Level 1

Proposed Protection

Basic Bibliography
Bezzina, J., 2000, The Gozo Citadel: a pictorial guide, Gaulitana, Rabat;
Spiteri, S., 2001, Fortresses of the Knights, BDL, Hamrun.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_029 (6)

CTD07_029 (1)

CTD07_029

Data Capture Sheet

ref no
CTD07/030

Location	Category	Site Description (Address)
Citadella, Victoria	Fortification	Ditch and Covertway at Citadella, Victoria

Eastings	Northings	Period
3163	8951	Medieval to Early Modern

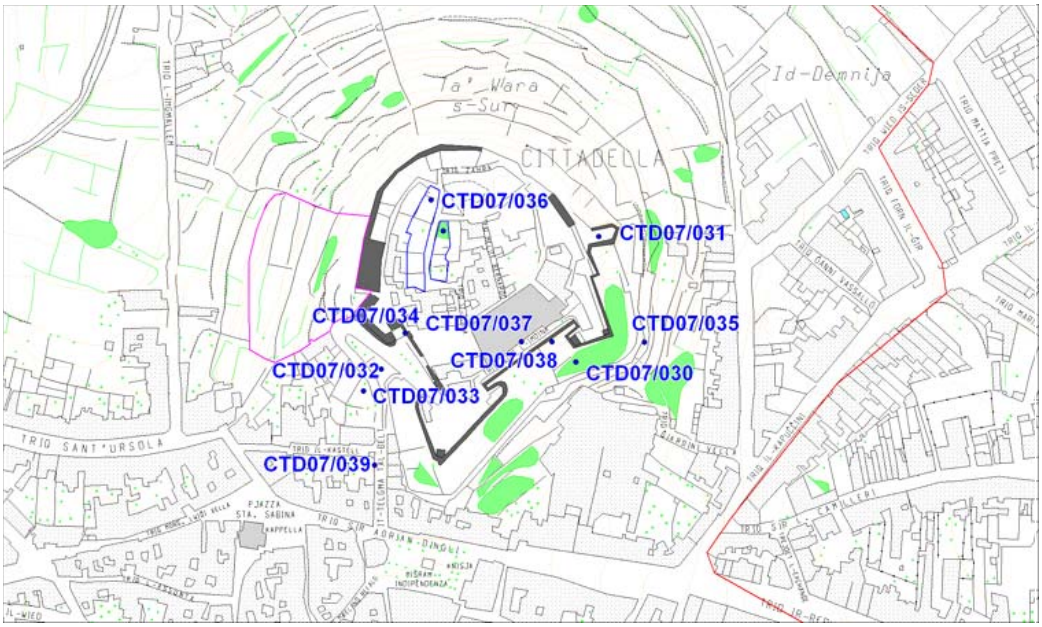
SS No1	SS No2	Description
3089		Ditch and covertway that protected the land front of the Citadella. The ditch was used to intern criminals and Jews in the Middle Ages.
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
Ditch and Parking Space

Comments
The ditch is also used as a dumping site.

Site



CTD07_030

Condition
Fair

Degree of Protection
GN83/01, Level 1

Proposed Protection

Basic Bibliography
Spiteri, S., 2001, Fortresses of the Knights, BDL, Hamrun.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_030 (4)

CTD07_030 (2)

Data Capture Sheet

ref no
CTD07/031

Location	Category	Site Description (Address)
Citadella, Victoria	Fortification	Low battery at Citadella, Victoria

Eastings	Northings	Period
3164	8960	Early 1600s

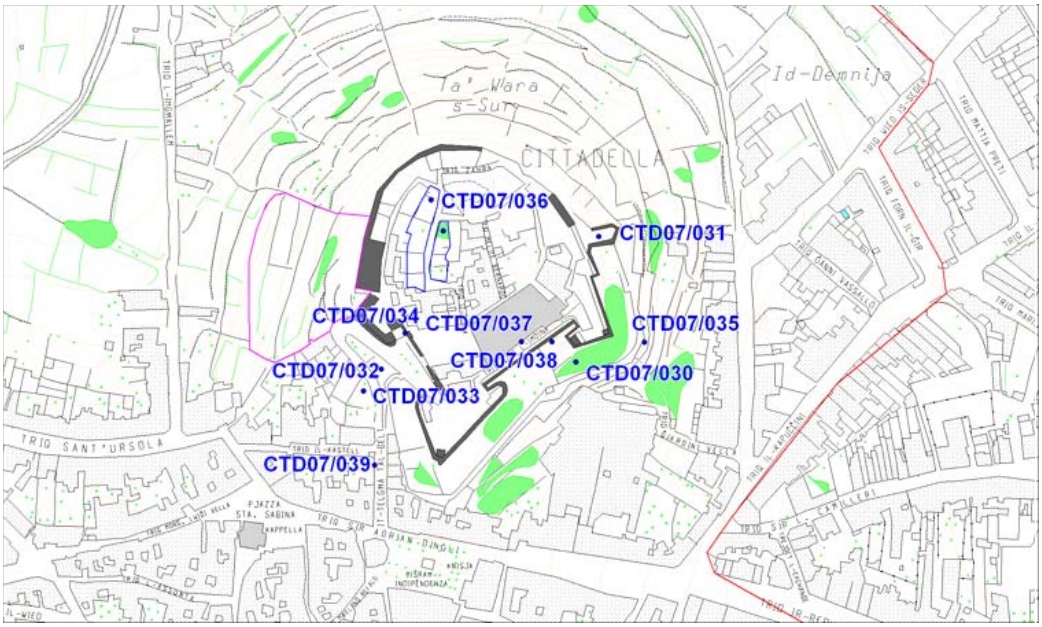
SS No1	SS No2	Description
3089		Low battery built to reinforce St John demi-bastion (CTD07/028) and better defend the land front of the Citadella. The battery has 6 embrasures and a sentry box at the corner.
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
None

Comments

Site



CTD07_031

Condition
Fair

Degree of Protection
GN83/01, Level 1

Proposed Protection

Basic Bibliography
Spiteri, S., 2001, Fortresses of the Knights, BDL, Hamrun.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

Data Capture Sheet

ref no
CTD07/032

Location	Category	Site Description (Address)
It-Telgħa tal-Belt, Citadella, Victoria	Architecture	Reservoir and Monument at It-Telgħa tal-Belt, Citadella, Victoria

Eastings	Northings	Period
3150	8951	Late 19th century

SS No1	SS No2	Description
3089		Reservoir built in the 1880s in part of the ditch.

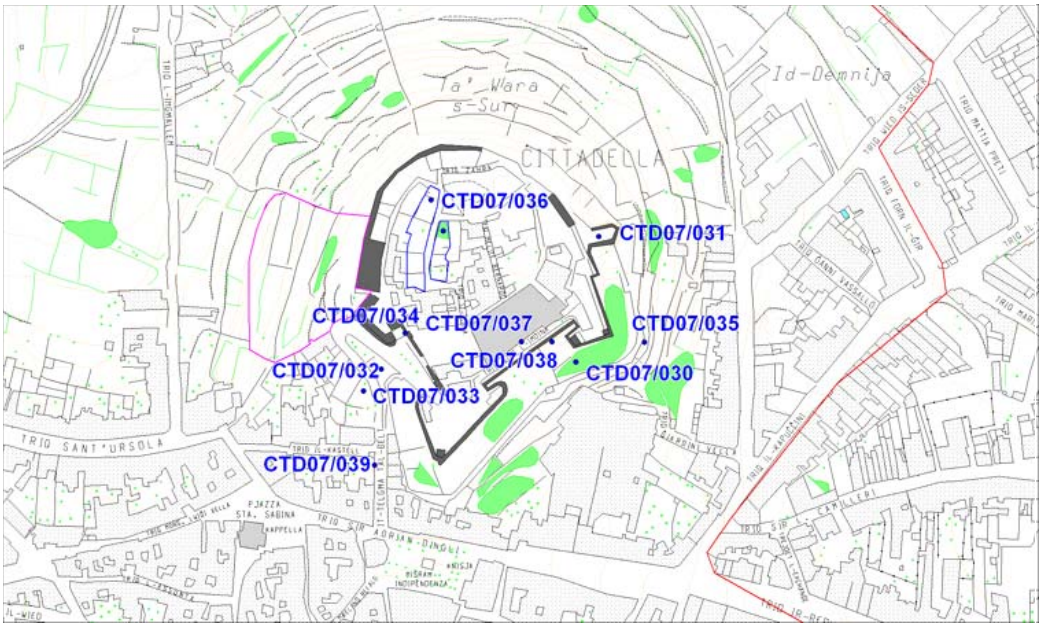
SS No4 **SS No3**

Date of survey sheet: 1992

Present Utilisation
Steps leading to Citadella

Comments

Site



CTD07_032

Condition
Fair

Degree of Protection
GN322/98; Level 2

Proposed Protection

Basic Bibliography

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_032 (1)

CTD07_032 (3)

Data Capture Sheet

ref no
CTD07/033

Location	Category	Site Description (Address)
It-Telgħa tal-Belt, Citadella, Victoria	Fortification	Ravelin at It-Telgħa tal-Belt, Citadella, Victoria

Eastings	Northings	Period
3149	8950	1622

SS No1	SS No2	Description
3089		Ravelin built in front of the Citadel's main entrance following Rinaldini's plans.

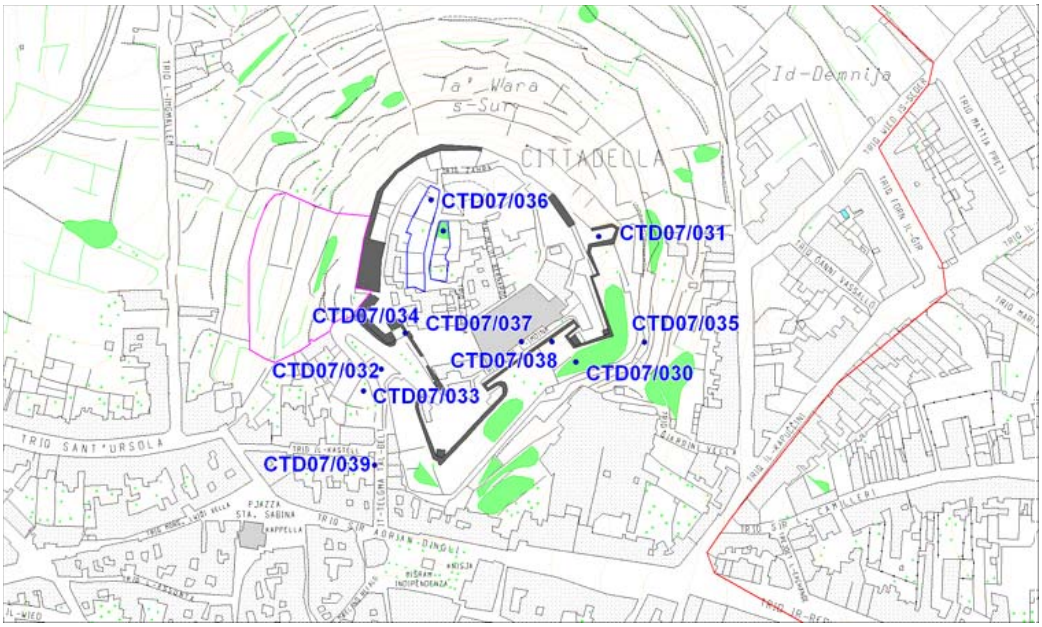
SS No4	SS No3

Date of survey sheet: 1992

Present Utilisation
Garden

Comments

Site



CTD07_033

Condition
Fair

Degree of Protection
GN83/01, Level 1

Proposed Protection

Basic Bibliography
Spiteri, S., 2001, Fortresses of the Knights, BDL, Hamrun.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_033 (1)

Data Capture Sheet

ref no
CTD07/034

Location	Category	Site Description (Address)
St Martin Demi-Bastion	Architecture	Old Clock Tower at St Martin Demi-Bastion

Eastings	Northings	Period
3152	8953	1639

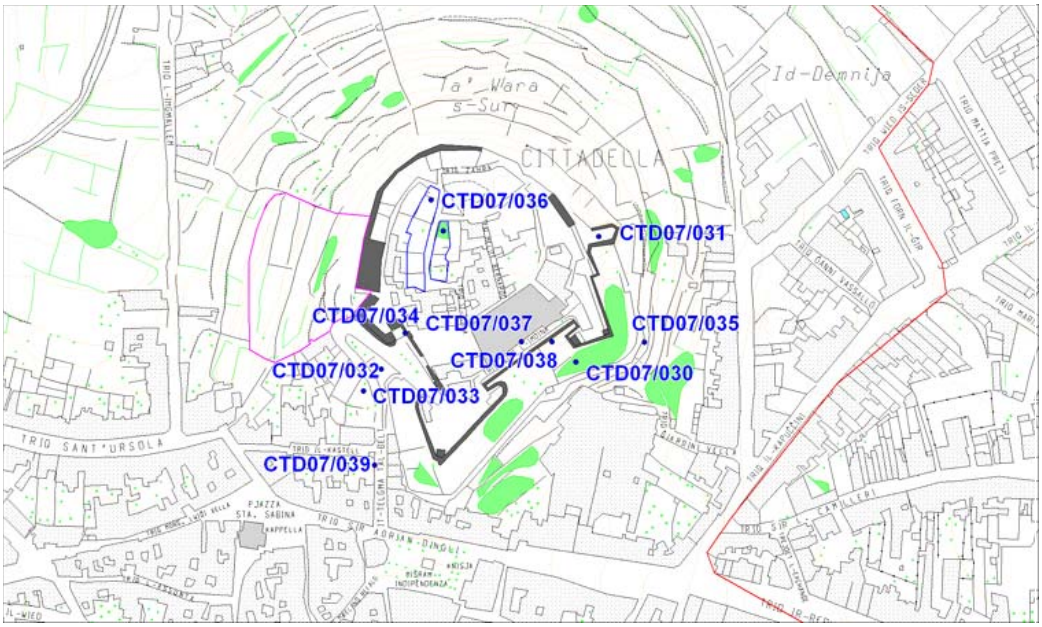
SS No1	SS No2	Description
3089		Clock tower built in 1639 by the Governor of Gozo Girolamo Castelnoo. It had one face facing the Cathedral while a second face was added to face Rabat in 1739. It was moved to the sentry box of St Michael Bastion in 1858.
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
Clock tower

Comments

Site



CTD07_034

Condition
Fair

Degree of Protection
GN83/01, Level 1

Proposed Protection

Basic Bibliography
Bezzina, J., 2000, The Gozo Citadel: a pictorial guide, Gaulitana, Rabat

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

Data Capture Sheet

ref no
CTD07/035

Location	Category	Site Description (Address)
Citadella, Victoria	Fortification	Glacis at Citadella, Victoria

Eastings	Northings	Period
3167	8953	Antiquity to Early Modern

SS No1	SS No2	Description
3089		Glacis to the east of the Citadella fortification walls.

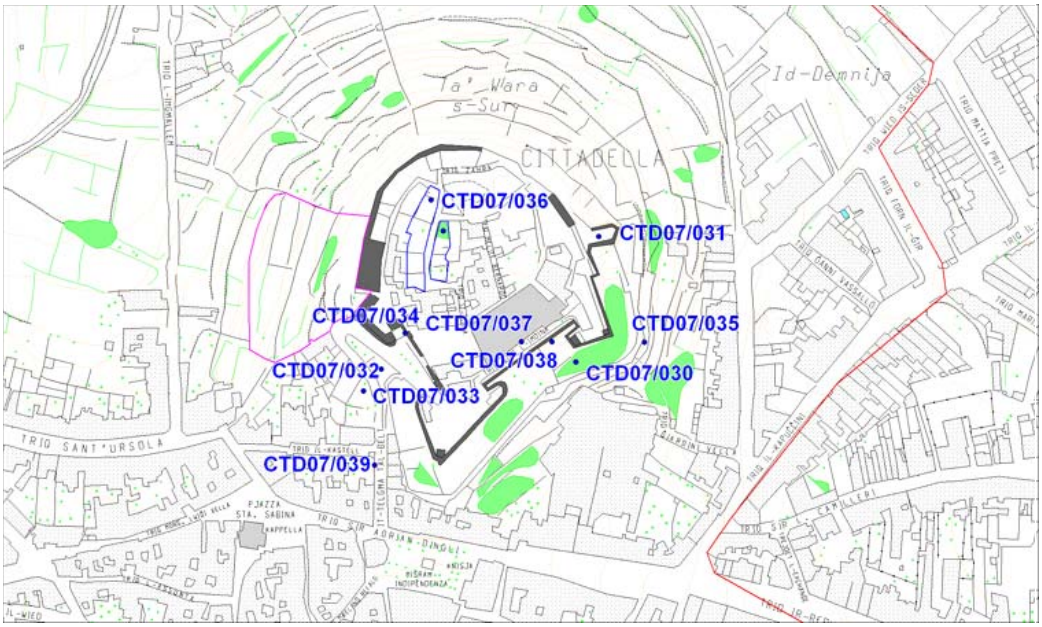
SS No4	SS No3

Date of survey sheet: 1992

Present Utilisation
Terraced fields

Comments

Site



CTD07_035

Condition
Fair

Degree of Protection
GN83/01, Level 1

Proposed Protection

Basic Bibliography
Spiteri, S., 2001, Fortresses of the Knights, BDL, Hamrun.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

Data Capture Sheet

ref no
CTD07/036

Location	Category	Site Description (Address)
Triq Zenqa, Citadella, Victoria	Architecture	Ruins at Triq Zenqa, Citadella, Victoria

Eastings	Northings	Period
3153	8961	Medieval

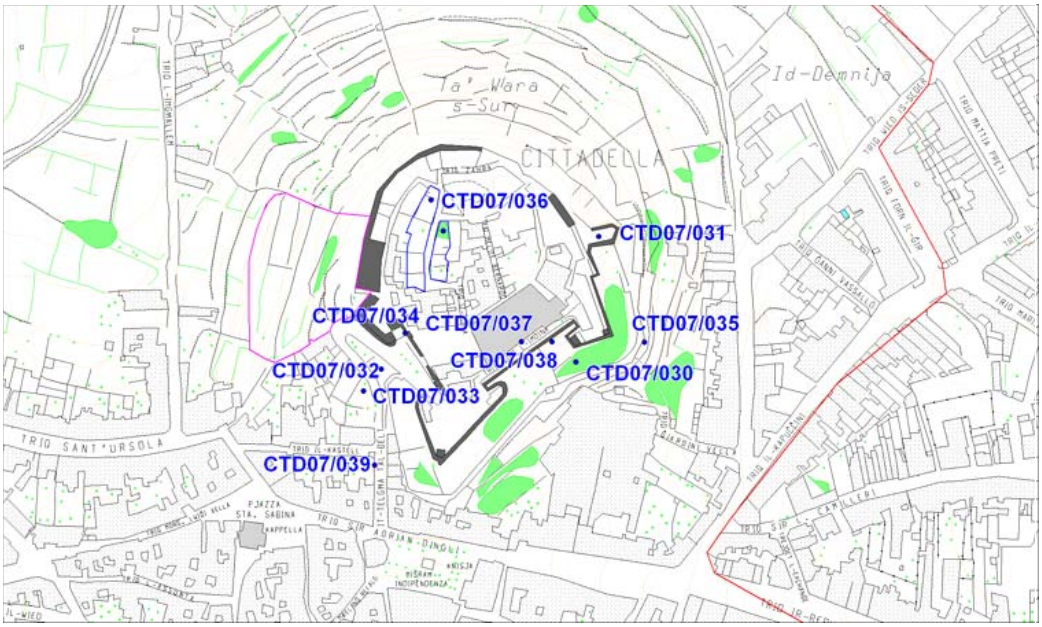
SS No1	SS No2	Description
3089		Ruined houses at Triq Zenqa with parts of the ground floor remaining.
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
None

Comments

Site



CTD07_036 (1)

Condition
In need of restoration

Degree of Protection
GN83/01, Level 1

Proposed Protection

Basic Bibliography
Bezzina, J., 2000, The Gozo Citadel: a pictorial guide, Gaulitana, Rabat

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_036 (3)

Data Capture Sheet

ref no
CTD07/037

Location	Category	Site Description (Address)
Triq Bieb l-Imdina, Citadella, Victoria	Religious	St Barbara Chapel at Triq Bieb l-Imdina, Citadella, Victoria

Eastings	Northings	Period
3159	8953	Early 17th century

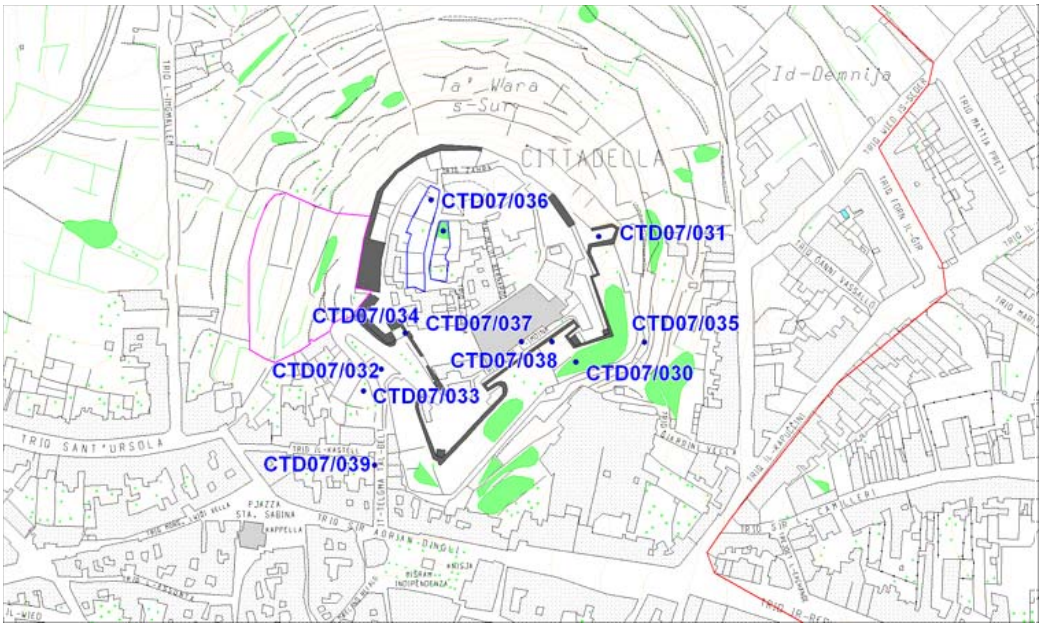
SS No1	SS No2	Description
3089		St Barbara Chapel, originally part of St John the Baptist Hospital. It has a barrel-vaulted ceiling and a wooden altar on which the statue of St Barbara stands. On the western wall is burial slab commemorating Military Engineer Vittorio Cassar erected by himself before his death. However, Cassar was not buried here.
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
Chapel

Comments

Site



CTD07_037 (2)

Condition
Good

Degree of Protection
GN83/01, Level 1

Proposed Protection

Basic Bibliography
Bezzina, J., 2000, The Gozo Citadel: a pictorial guide, Gaulitana, Rabat; Mizzi P. Masons and Architects: Vittorio Cassar, Heritage 81: 1614-1619.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_037

CTD07_037 (1)

Data Capture Sheet

ref no
CTD07/038

Location	Category	Site Description (Address)
Citadella, Victoria	Fortification	St Philip Curtain Wall Citadella, Victoria

Eastings	Northings	Period
3161	8953	Early 17th century

SS No1	SS No2	Description
3089		St Philip Curtain wall built to defend the land front of the Citadella.

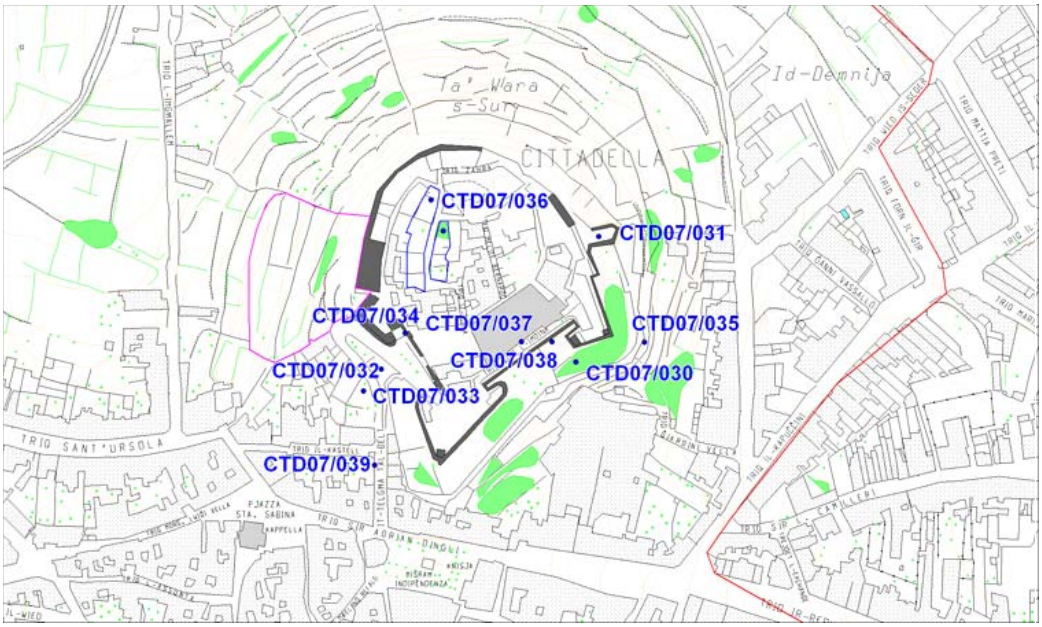
SS No4	SS No3

Date of survey sheet: 1992

Present Utilisation
Part of the Citadella walls

Comments

Site



CTD07_038 (1)

Condition
Fair

Degree of Protection
GN83/01, Level 1

Proposed Protection

Basic Bibliography
Spiteri, S., 2001, Fortresses of the Knights, BDL, Hamrun.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

Data Capture Sheet

ref no
CTD07/039

Location	Category	Site Description (Address)
It-Telgħa tal-Belt, Citadella, Victoria	Architecture	Steps at It-Telgħa tal-Belt, Citadella, Victoria

Eastings	Northings	Period
3150	8945	Modern

SS No1	SS No2	Description
3089		UCL steps built at both sides of It-Telgħa tal-Belt, Citadella.

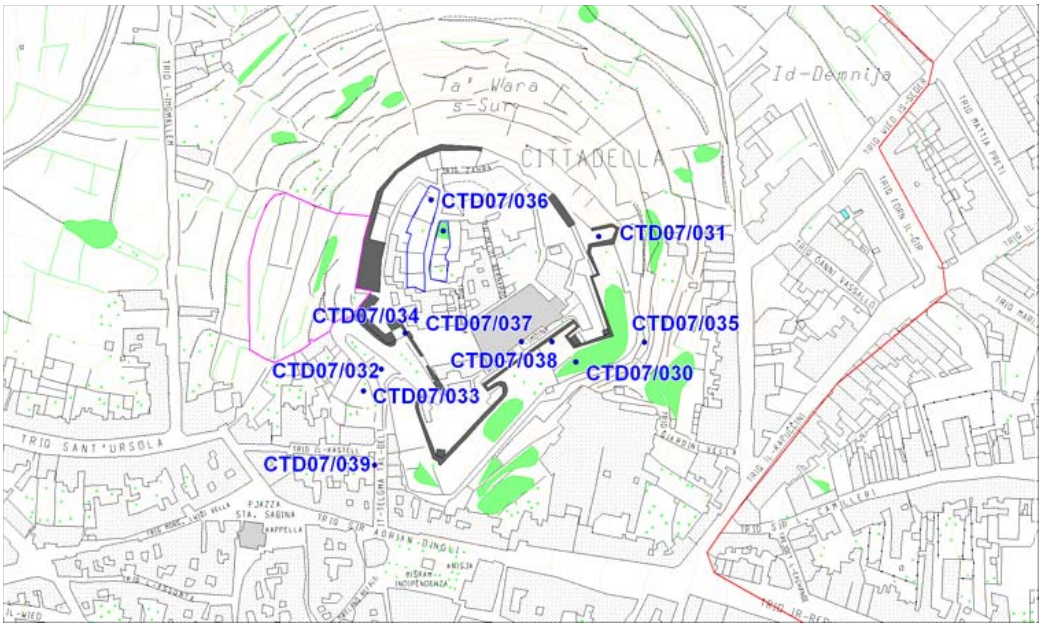
SS No4	SS No3

Date of survey sheet: 1992

Present Utilisation
Steps

Comments

Site



CTD07_039 (1)

Condition
Fair

Degree of Protection
GN322/98, Level 2

Proposed Protection

Basic Bibliography

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

Data Capture Sheet

ref no
CTD07/040

Location	Category	Site Description (Address)
Citadella, Victoria	Rock-cut	Remnants of silo at St Martin Demi-Bastion, Citadella, Victoria

Eastings	Northings	Period
3151	8953	Classical

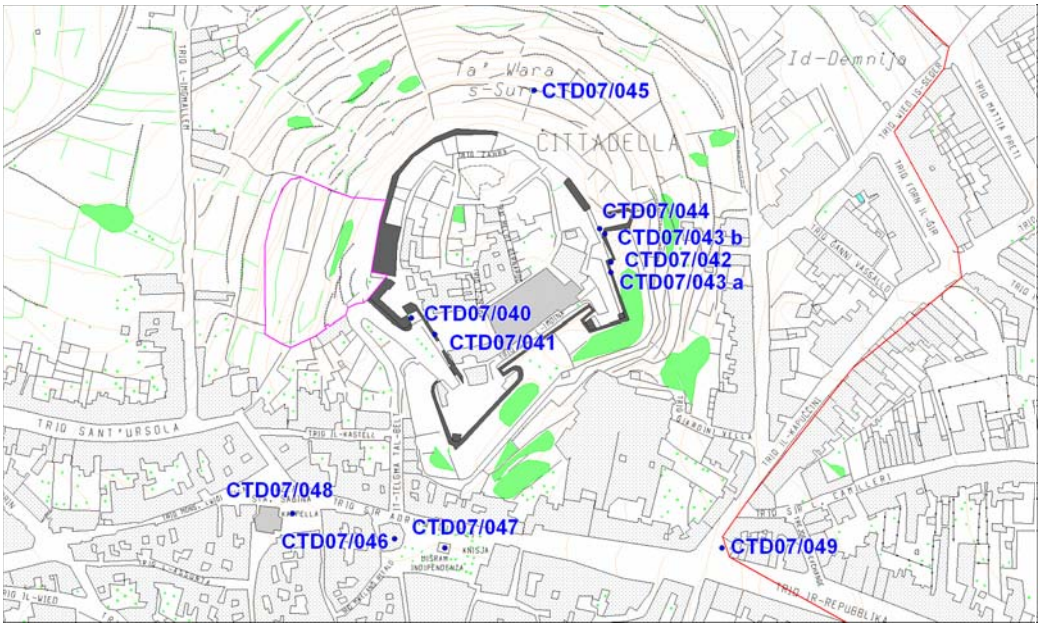
SS No1	SS No2	Description
3089		Remnants of Classical silo beneath St Martin Demi-Bastion which was cut into during the building of the fortifications. Nearby one can also notice a blocked opening.
SS No4	**SS No3**	

Date of survey sheet: 1992

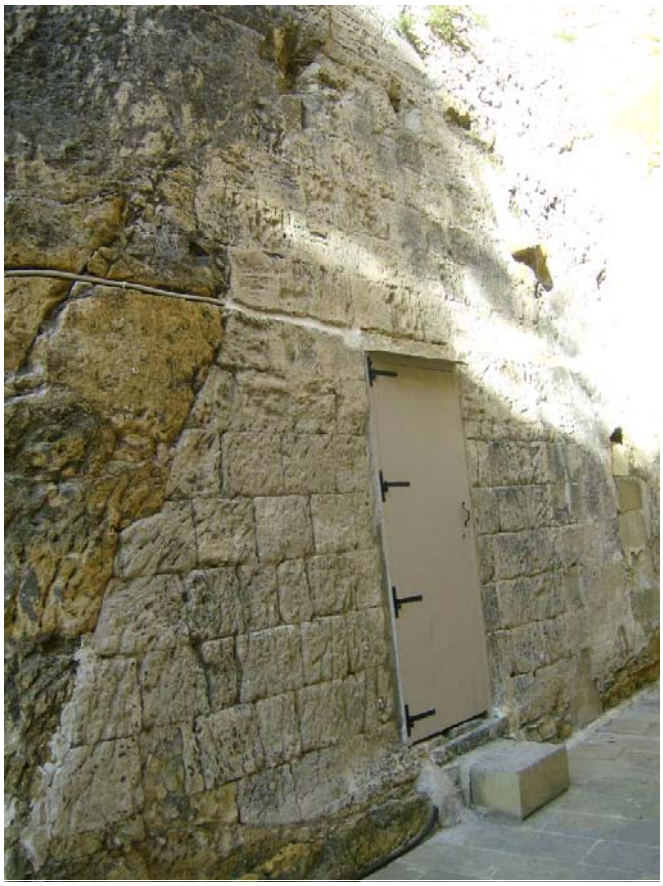
Present Utilisation
None

Comments

Site



CTD07_040



Condition
Fair

Degree of Protection
GN83/01, Level 1

Proposed Protection

Basic Bibliography

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_040(2)

Data Capture Sheet

ref no
CTD07/041

Location	Category	Site Description (Address)
Citadella, Victoria	Rock-cut	Blocked niche at Citadella, Victoria

Eastings	Northings	Period
3152	8952	Classical

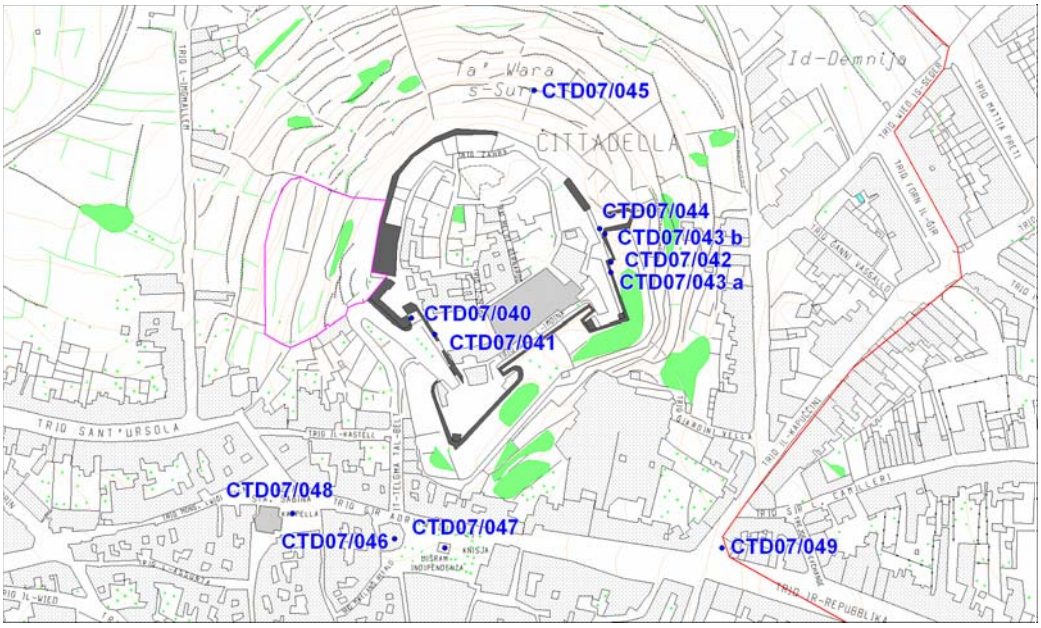
SS No1	SS No2	Description
3089		Rock cut niche which possibly housed a life size female draped statue depicted in one of the plates of Jean Houel's 1787 Voyage Pittoresque. The statue is nowadays exhibited in the Gozo Archaeological Museum.
SS No4	**SS No3**	

Date of survey sheet: 1992

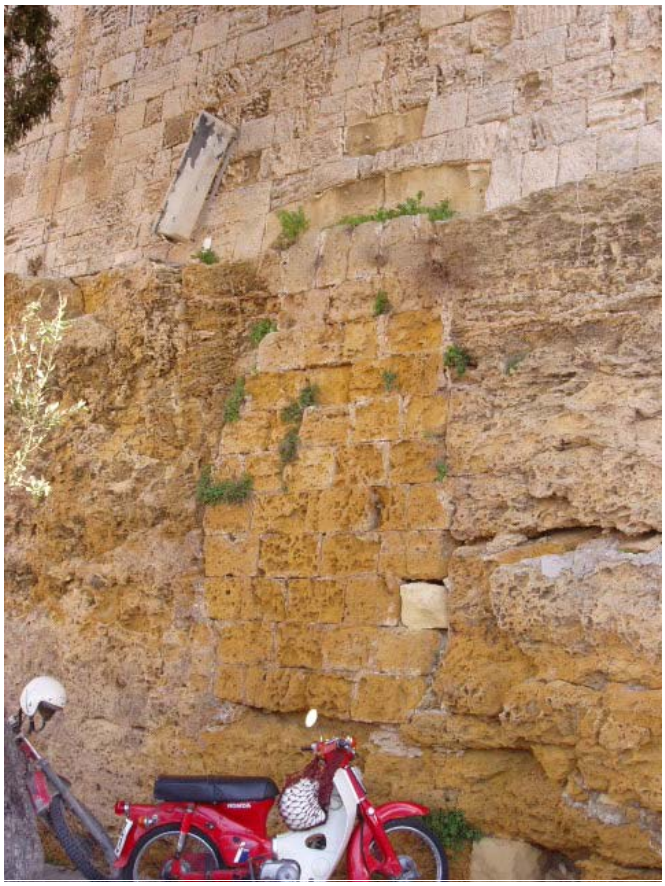
Present Utilisation
None

Comments

Site



CTD07_041



Condition
Fair

Degree of Protection
GN83/01, Level 1

Proposed Protection

Basic Bibliography

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

Data Capture Sheet

ref no
CTD07/042

Location	Category	Site Description (Address)
Citadella, Victoria	Rock-cut	Water tunnel beneath St Philip Curtain Wall, Citadella, Victoria

Eastings	Northings	Period
3164	8956	Unknown

SS No1	SS No2	Description
3089		Possible water tunnel located under St Philip Curtain Wall.

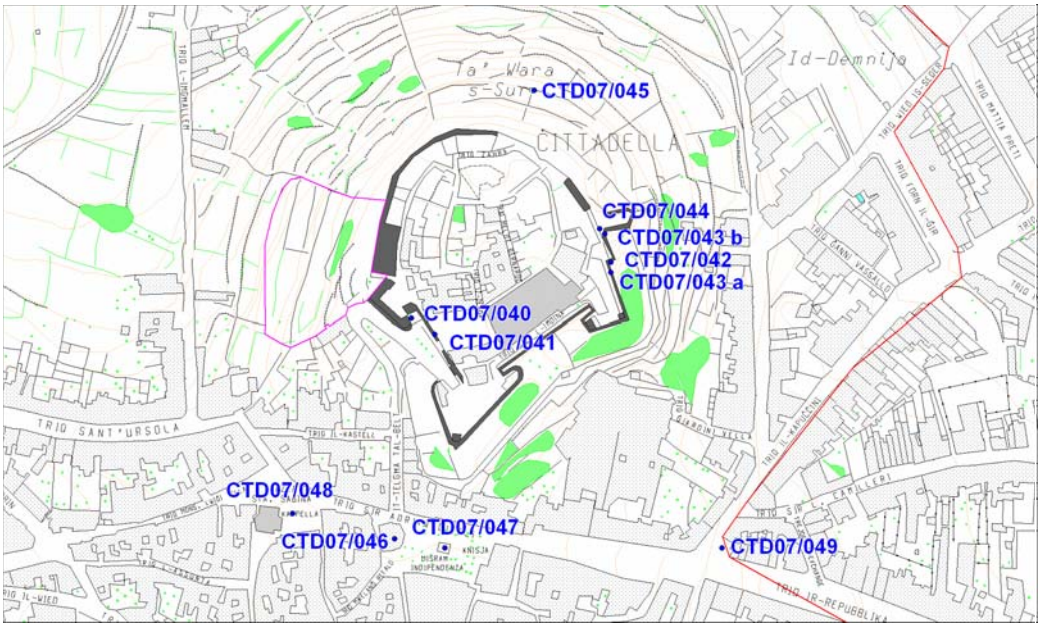
SS No4	SS No3

Date of survey sheet: 1992

Present Utilisation
None

Comments
The tunnel is full of water and debris.

Site



CTD07_042

Condition
Bad

Degree of Protection
GN83/01, Level 1

Proposed Protection

Basic Bibliography

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_042 (1)

CTD07_042 (2)

Data Capture Sheet

ref no
CTD07/043

Location	Category	Site Description (Address)
Citadella, Victoria	Rock-cut	WWII Air Raid shelters beneath St Philip Curtain Wall, Citadella, Victoria

Eastings	Northings	Period
3164	8956	WWII

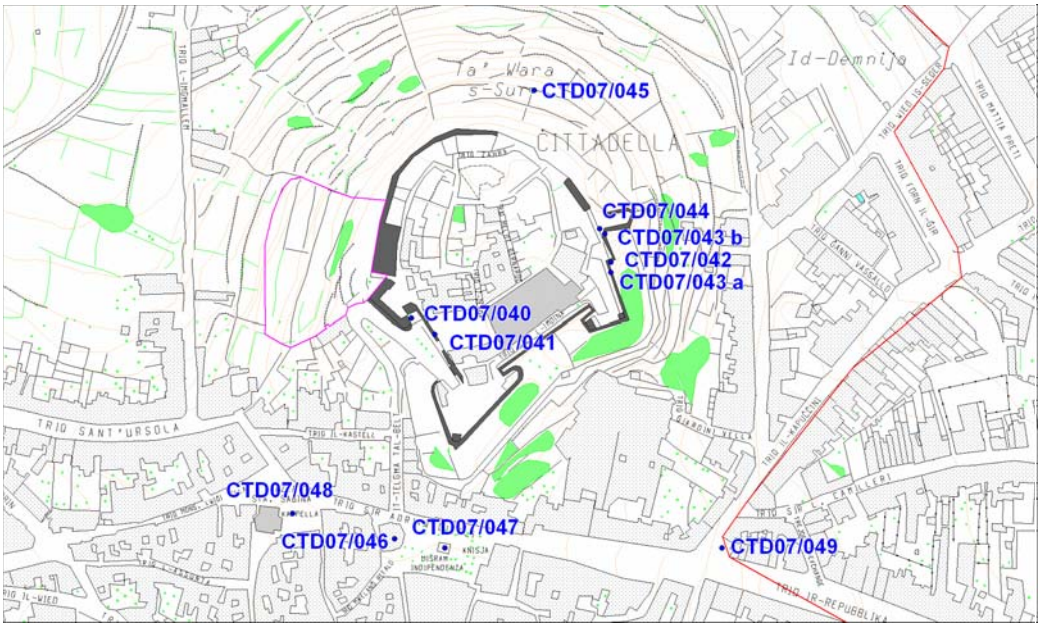
SS No1	SS No2	Description
3089		Two entrances to WWII Shelter. They are probably the exit and entrance of the same shelter. Both are cut into live-rock below St Philips Curtain Wall. They could be connected to the WWII Shelters of CTD07/021 .GF for CTD07/043a - 3164 8956; CTD07/043b - 3163 8958.
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
None

Comments

Site



CTD07_043a

Condition
Unknown

Degree of Protection
GN83/01, Level 1

Proposed Protection

Basic Bibliography
Bezzina, F.,1981, F'Ghawdex fi Zmien il-Gwerra, Gozo Press.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_043b

Data Capture Sheet

ref no
CTD07/044

Location	Category	Site Description (Address)
Cittadella, Victoria	Rock-cut	Remnants of silo at Citadella, Victoria

Eastings	Northings	Period
3163	8959	Classical

SS No1	SS No2	Description
3089		Remnants of Classical silo beneath St Philip Curtain Wall which was cut into during the building of the Citadella. It is located above CTD07/043
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
None

Comments

Site

CTD07_044

Condition
Fair

Degree of Protection
GN83/01, Level 1

Proposed Protection

Basic Bibliography

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

Data Capture Sheet

ref no
CTD07/045

Location	Category	Site Description (Address)
Ta' Wara s-Sur, Victoria	Vernacular Architecture	Field room at Ta' Wara s-Sur, Victoria.

Eastings	Northings	Period
3159	8968	Early Modern

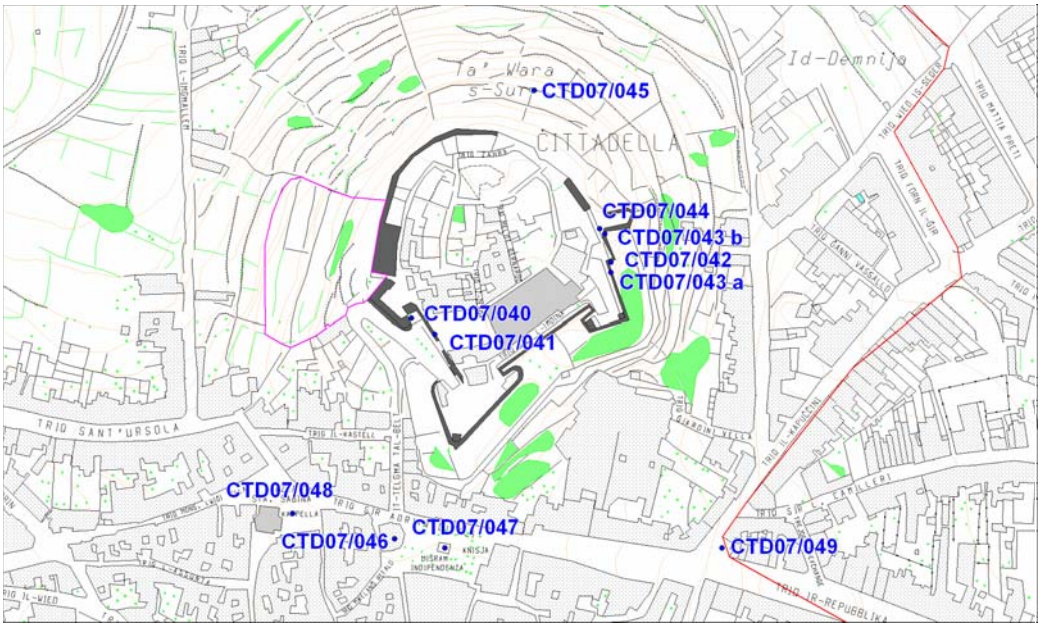
SS No1	SS No2	Description
3089		Two-storey field room overlooking the valley behind Cittadella. It has one room on top of each other. The upper storey is mostly collapsed.
SS No4	**SS No3**	

Date of survey sheet: 1992

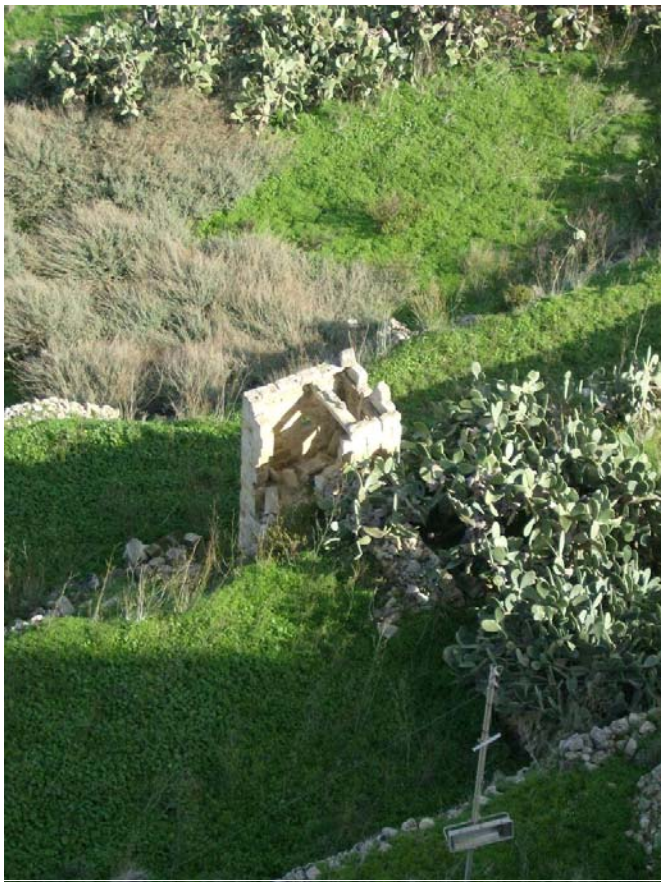
Present Utilisation
None

Comments

Site



CTD07_045



Condition
Poor

Degree of Protection
GN83/01, Level 1

Proposed Protection

Basic Bibliography
Said-Zammit, G.A., 2004, Il- Wirt Arkitettoniku tal-Gzejjer Maltin

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

Data Capture Sheet

ref no
CTD07/046

Location
Independence Square, Victoria

Category
Architecture

Site Description (Address)
Banca Giuratale, Independence Square, Victoria

Eastings
3149

Northings
8938

Period
1733

SS No1
3089

SS No2

SS No4

SS No3

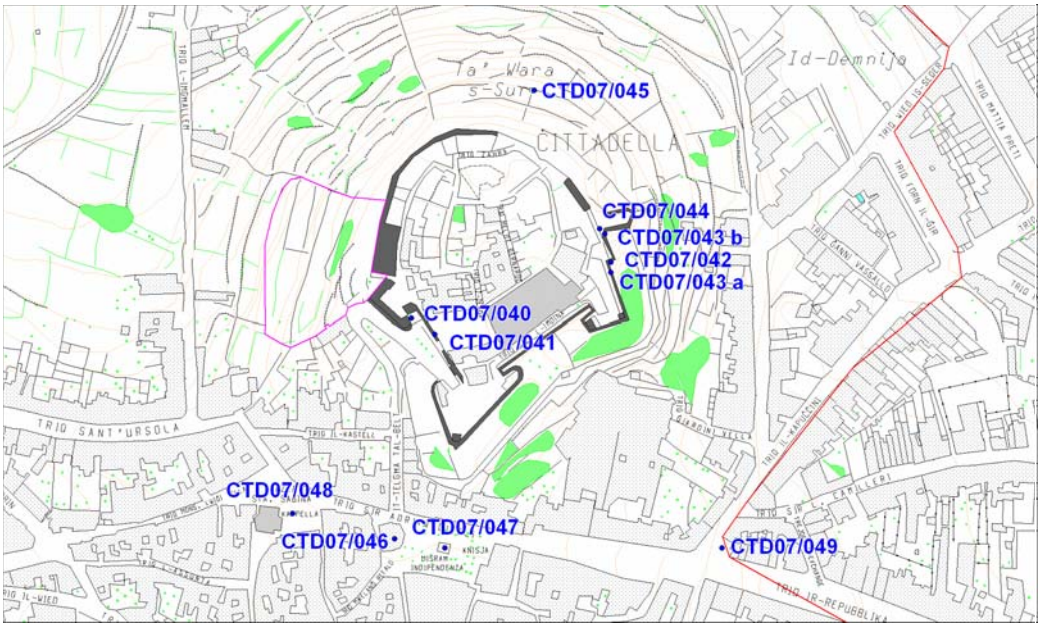
Date of survey sheet: 1992

Description
The 'Bianca Giuratale consists of a semi-circular baroque structure built in 1733 under Grand Master Antonio Manoel de Vilhena. The design was of the engineer of the Order of St. John, Charles Francois de Mondion. The building served as the Commune where the Gozo Jurats convened to discuss local administrative affairs.

Present Utilisation
Culture Section and the Information Office and the Victoria Local Council

Comments

Site



CTD07_046

Condition
Good

Degree of Protection
UCA Grade A

Proposed Protection

Basic Bibliography
Grech, J., 2005, Island of Gozo - Il-Banca Giuratale or The Town Hall - Victoria-Gozo. http://www.joegrech.com/articles.php?lng=en&pg=376

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

Data Capture Sheet

ref no
CTD07/047

Location	Category	Site Description (Address)
Independence Square, Victoria	Civil Engineering	Independence Square, Victoria

Eastings	Northings	Period
3150	8938	

SS No1	SS No2
3089	
SS No4	**SS No3**
Date of survey sheet:	1992

Description

Independence Square, located at the foot of the Cittadella is also known as “It-Tokk”. The bronze statue of Christ the King in the main square is the War Memorial in remembrance of Gozitans who fell in WWII. On the eastern side of the square is St James Church, that was already in use in the 16th century. The present church was rebuilt in the 1990s after the previous chapel, completed in 1741, suffered from extensive damage by sewage works and other development in the area in the 1970s.

Present Utilisation
Public Square

Comments

Site

CTD07_047

Condition
Good

Degree of Protection
Victoria UCA

Proposed Protection

Basic Bibliography

Grech, J., 2005, Island of Gozo - Il-Banca Giuratale or The Town Hall - Victoria-Gozo. http://www.joegrech.com/articles.php?lng=en&pg=376

Grech, P. ,1999, Exploring the chapels of Gozo; Valletta Press, Malta.

Ferres, A., 1866, Descrizione Storica Delle Chiese di Malta e Gozo, Malta

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_047 (1)

CTD07_047 (2)

Data Capture Sheet

ref no
CTD07/048

Location
Sabina Square, Victoria

Category
Civil Engineering

Site Description (Address)
Sabina Square, Victoria

Eastings
3143

Northings
8940

Period

SS No1
3089

SS No2

SS No4

SS No3

Date of survey sheet:
1992

Description
Sabina Square is the second square located at the foot of Cittadella. The church on the Western side of the Square is known as Ta' Savina. This Church was first mentioned in the notarial acts of Andrea Beniamin dated12 May 1479. The Church is dedicated to the Nativity of the Blessed Virgin Mary. For some time the church served as the parish for that area until 1626. In 1502 the church was reduced to a smaller structure. The name Savina is derived from an ancient surname that existed in Gozo. The name was sometimes misspellt as Sabina to which the square in front of the church has come to be known.

Present Utilisation
Public Square

Comments

Site

CTD07_048 (2)

Condition
Good

Degree of Protection
Victoria UCA

Proposed Protection

Basic Bibliography
Ferres, A. 1866, Descrizione Storica delle chiese di Malta e Gozo.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

Data Capture Sheet

ref no
CTD07/049

Location	Category	Site Description (Address)
Triq il-Repubblika, Victoria	Architecture	Water fountain and a Parish Cross, Triq ir-Repubblika, Victoria

Eastings	Northings	Period
3171	8938	Early Modern

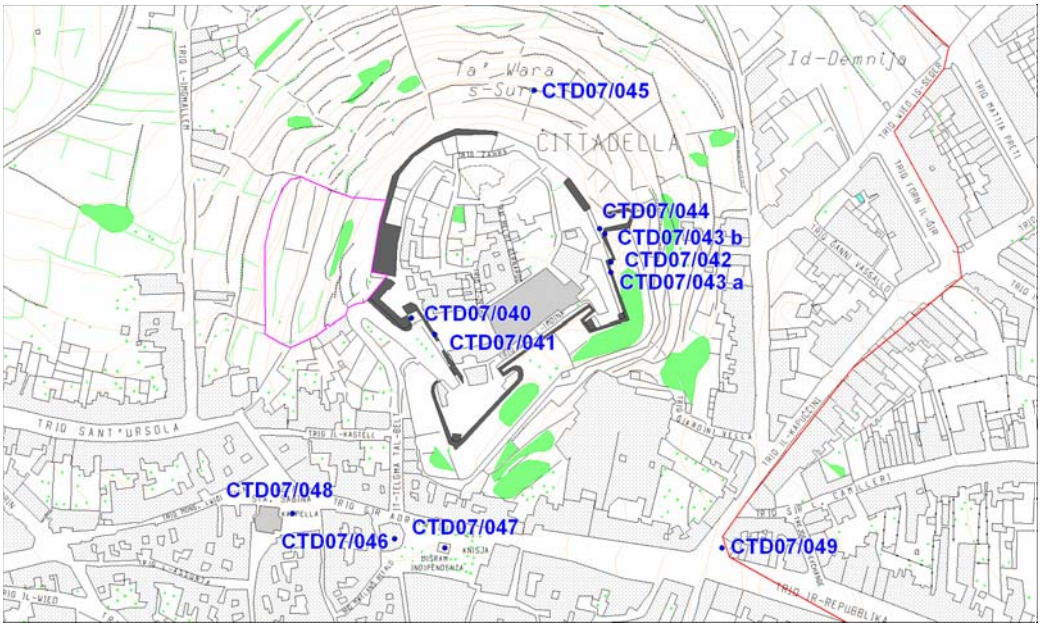
SS No1	SS No2	Description
3089		The water fountain and Parish Cross at Triq ir-Repubblika, Victoria. The water fountain dates to 1881. Parish Crosses were erected to mark the boundary of Church Property.
SS No4	**SS No3**	

Date of survey sheet: 1992

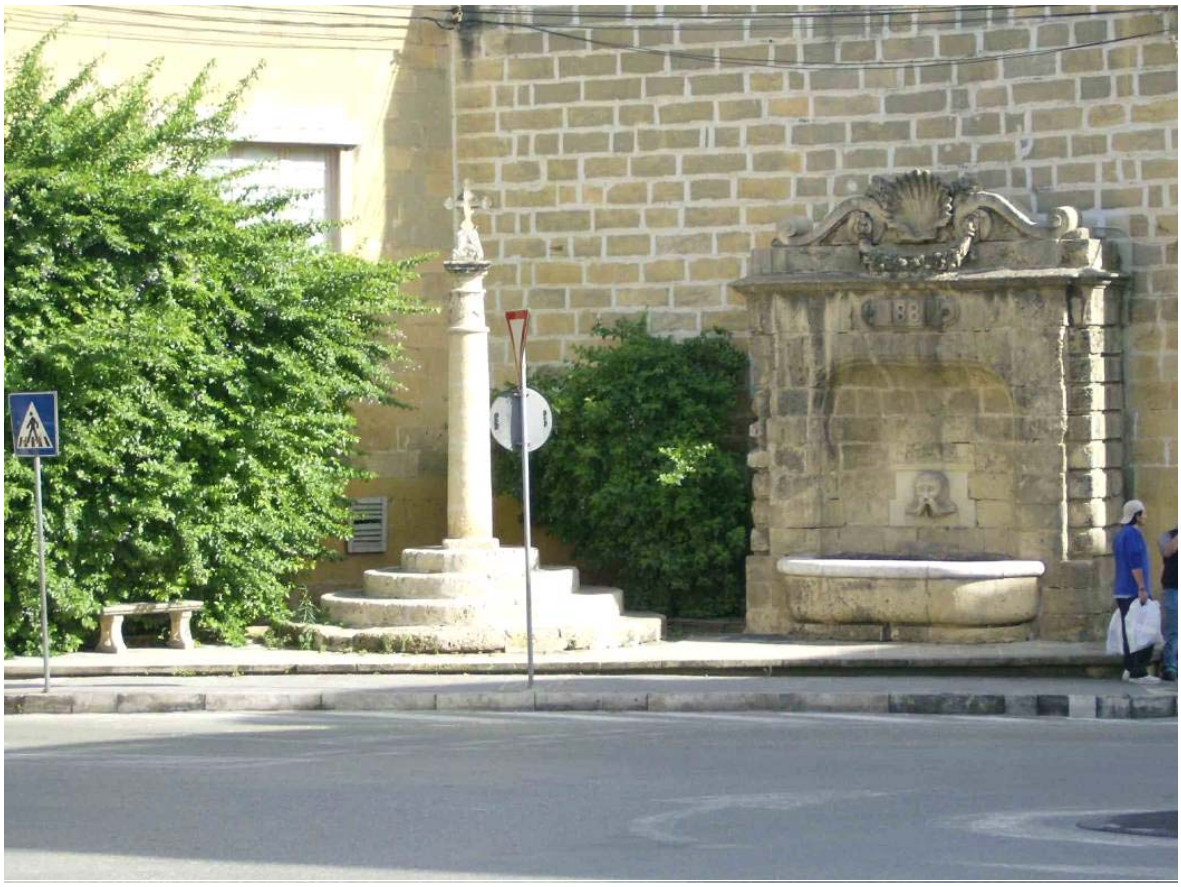
Present Utilisation
None

Comments

Site



CTD07_049



Condition
Good

Degree of Protection
None

Proposed Protection
Grade 2

Basic Bibliography

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

Data Capture Sheet

ref no
CTD07/050

Location
Triq Kercem, Victoria

Category
Archaeological

Site Description (Address)
Large upright stone at Triq Kercem

Eastings
3116

Northings
1934

Period
Classical

SS No1
3089

SS No2

SS No4

SS No3

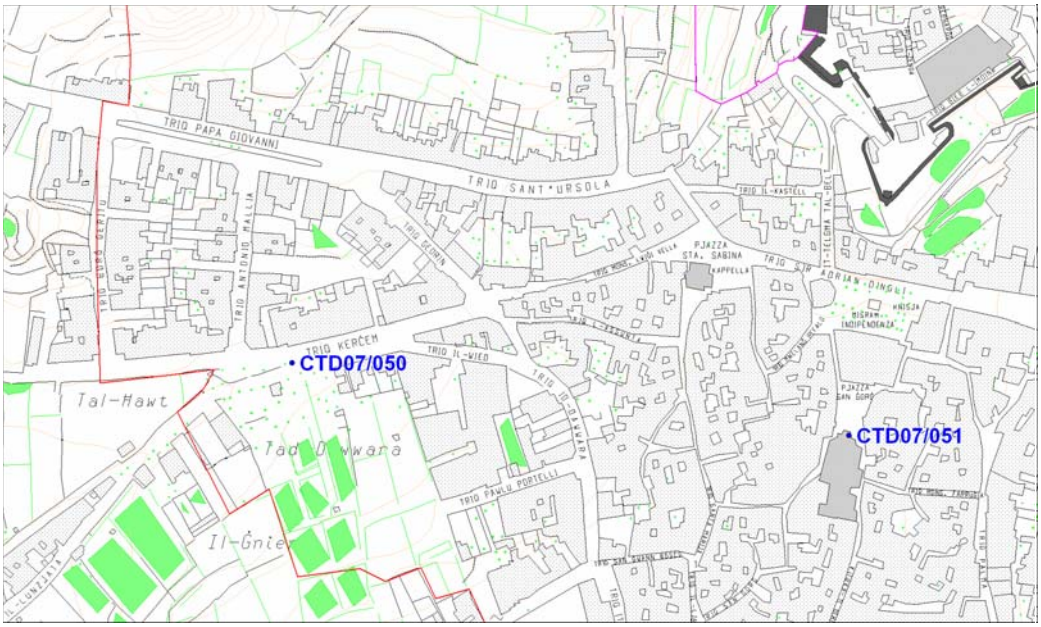
Date of survey sheet:
1992

Description
An upright stone, most possibly a menhir discovered while laying the foundations for a wall. It consists of a Globigerina monolith (4.50m long x 0.64m wide x 0.61m thick). The excavation of a trench revealed soft 'stone cobbles carelessly laid in the clayey soil'. Fragments of Roman pottery and coins were also found. Given that no finds dating to prehistory had been recovered it is mostly associated with the Roman Period.

Present Utilisation
None

Comments

Site



CTD07_050

Condition
Good

Degree of Protection
None

Proposed Protection
Class A

Basic Bibliography
Trump, D., 2002, Malta: Prehistory and Temples, Midsea Books Ltd: 186-187, MAR 1935-1936: XXV-XXVI

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

Data Capture Sheet

ref no
CTD07 051

Location	Category	Site Description (Address)
Old Town Core, Victoria	Architecture	Rabat Town Centre surrounding St George's Basilica, Victoria

Eastings	Northings	Period
3115	8930	Medieval to Modern

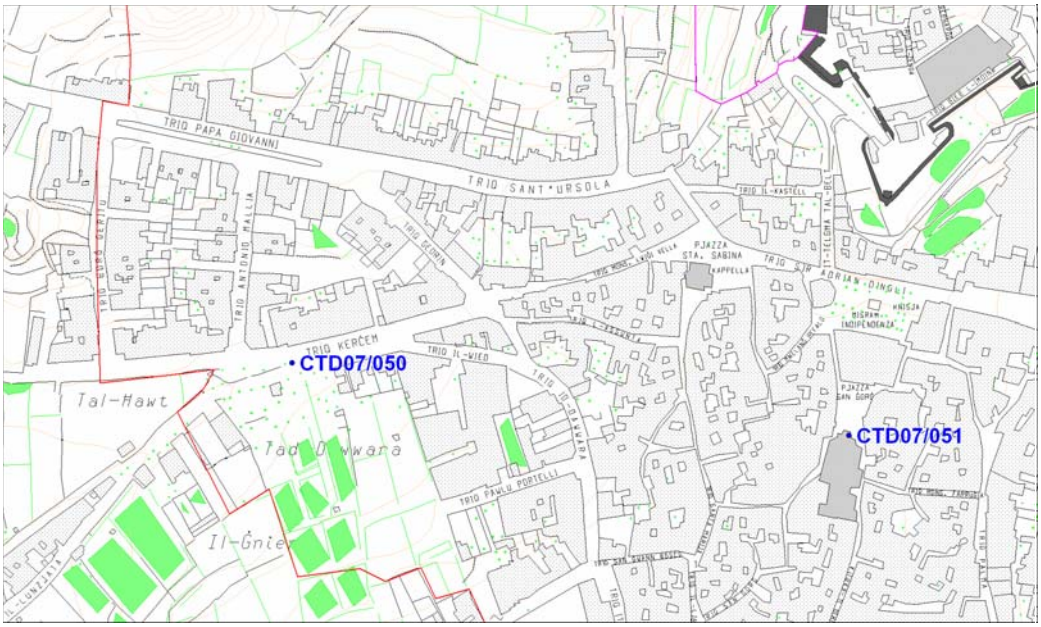
SS No1	SS No2	Description
3089		Old Rabat Town Core, characterised by narrow winding streets surrounding St George Basilica, to the south of which is a public square.
SS No4	**SS No3**	

Date of survey sheet: 1992

Present Utilisation
Residential, Religious and Commercial

Comments
Although the street plans reflect an ancient town plan, several buildings have been highly modernised and do not reflect their original date.

Site



CTD07_051 (3)

Condition
Fair

Degree of Protection
Victoria UCA

Proposed Protection

Basic Bibliography
Buhagiar, M., 2005, The Late Medieval Art and Architecture of the Maltese Islands, Fondazzjoni Patrimonju Malti.

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_051 (2)

CTD07_051

CTD07_051 (1)

Data Capture Sheet

ref no
CTD07 052

Location	Category	Site Description (Address)
Il-Hofra, Victoria	Architecture	Hamlet at il-Hofra, Victoria

Eastings	Northings	Period
3137	8995	Early Modern to Modern

SS No1	SS No2
3089	

SS No4	SS No3

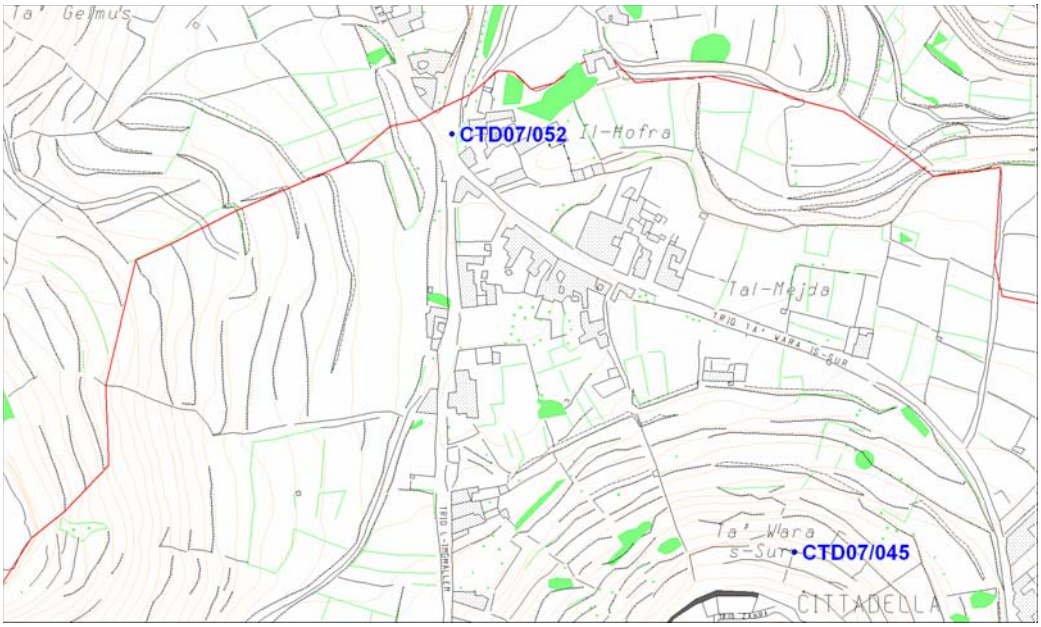
Date of survey sheet: 1992

Description
Hamlet following cross roads at il-Hofra. Buildings making up this hamlet date to different periods and are in various stages of conservation. Some of the buildings, dating to the Early Modern Period, built in dressed stone roofed with stone slabs and wooden beams, are in a state of abandonment, while others have been converted into modern dwellings. New buidlings have also been erected in recent times.

Present Utilisation
Residential

Comments

Site



CTD07_052

Condition
Good

Degree of Protection
Partly considered as AAI by GN765/98

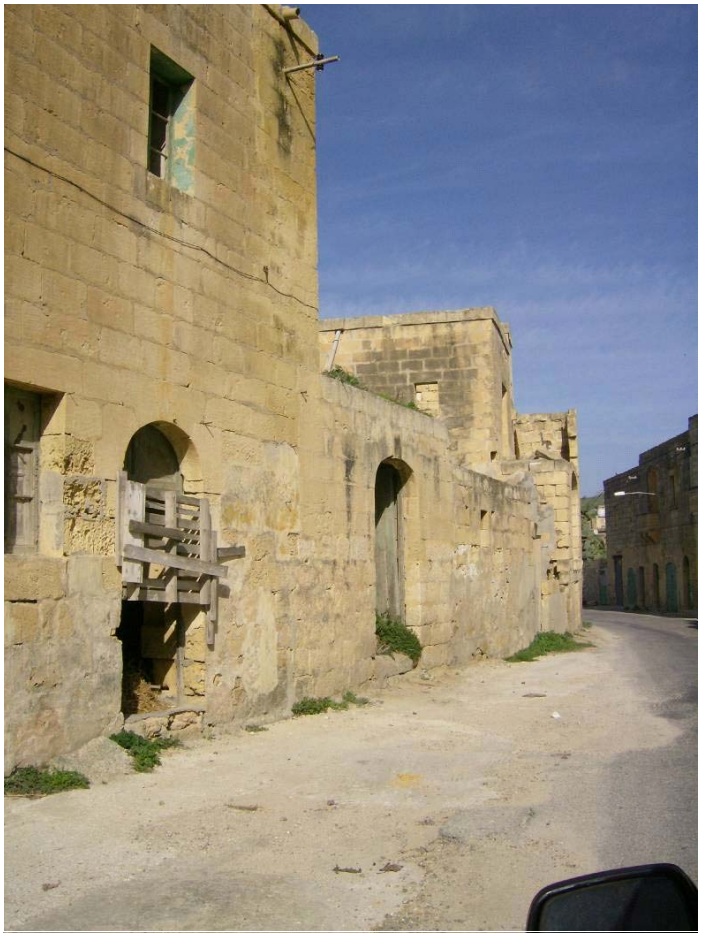
Proposed Protection
Extension of AAI; Grade 2

Basic Bibliography

Compiled by
DB, MB, JC, EV

Date of Survey
27.x.07

CTD07_052 (1)



Appendix IV:

Cittadella Traffic Access

(June 2012)

project limits

PARKING

25 metres

50 metres

100 metres

ROAD WORKS AHEAD REDUCE SPEED NOW

TRIQ ZAHRA

TRIQ MELITE BERNARDO

188330

TRIQ IL-ZENQA

TRIQ BIEB L-IMDINA

HONDOQ

TRIQ IL KASTELL

IT-TELGHA TAL-KASTELL

PJAZZA STA. SABINA

TRIQ MONS. LWIĠI VELLA

KAPPELLA

TRIQ SIR ADRIAN DINGLI

KNISJA

141.3 137.8 135.8 135.0 131.5 121.9 110.7 98.9

Legend

- Water filled barriers
- Traffic flow direction
- Road danger lamp, flasher
- Officer
- Signage

Project Title:

CITTADELLA HERITAGE PARK

Drawing title:

ACCESS TO SITE

Drawn:	
Date:	
Checked:	
Approved:	
File no:	CTM-01

Joe Bugeja Associates
'Maple Leaf'
Handaq Road
Handaq Industrial Estate, Qormi
QRM 4000