

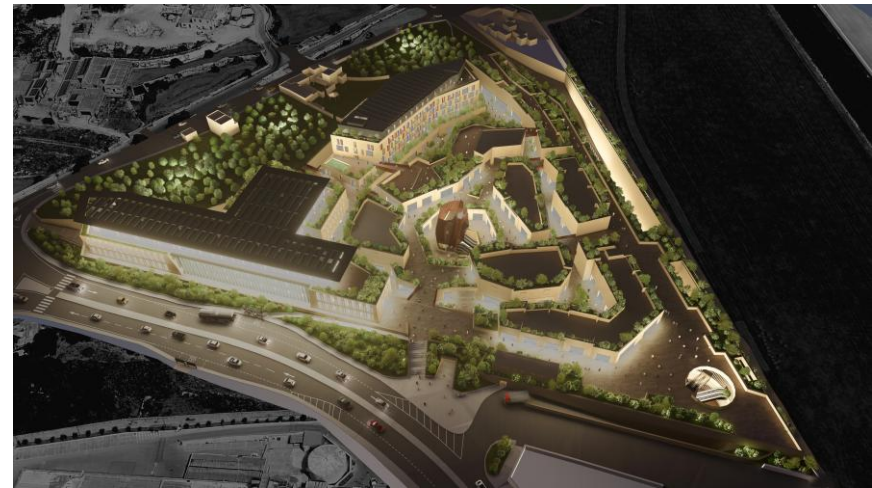


**PA/02825/25: TO DEMOLISH AN EXISTING
CONSTRUCTION YARD AND BUILT STRUCTURES TO
ACCOMMODATE THE CONSTRUCTION OF A
COMMERCIAL CAR PARK, SUPERMARKET, A MIXED-USE
OUTLET VILLAGE AT HAL KIRKOP**

ENVIRONMENTAL IMPACT ASSESSMENT REPORT

NON-TECHNICAL SUMMARY

Version 1: August 2026



Report Reference:

Adi Associates Environmental Consultants Ltd, 2026. PA/02825/25: To Demolish an Existing Construction Yard and Built Structures to Accommodate the Construction of a Commercial Car Park, Supermarket, a Mixed-Use Outlet Village at Hal Kirkop. Non-Technical Summary to EIA Report. San Gwann, August 2026; ii + 12 pp.

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Quality Assurance

PA/02825/25

**To Demolish an Existing Construction Yard and Built Structures to Accommodate the Construction of a Commercial Car Park, Supermarket, a Mixed-Use Outlet Village at Hal Kirkop
Non-Technical Summary to EIA Report**

Report for: **Qormi Construction Ltd**



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Revision Schedule

Rev	Date	Details	Written by:	Checked by:	Approved by:
00	Aug 2026	Submission to ERA	Rachel Xuereb Director	Eilis McCullough Senior Consultant	Adrian Mallia Managing Director

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INTRODUCTION

1. This Environmental Impact Assessment (EIA) Report was commissioned by Qormi Construction Ltd in respect of a proposal to redevelop the existing Elbros Construction Yard at Triq l-Industrija, Hal Kirkop. The site is currently used as a construction yard and was previously a quarry. The proposed development is referred to in this summary as 'the Scheme'. A detailed description of the Scheme is provided in **Chapter 3** of the EIA Report.
2. The Scheme comprises a mixed-use commercial complex including an Outlet Village, a supermarket, food and beverage outlets, a hotel, offices, a medical centre and a sports centre, together with three levels of underground parking and landscaped external areas, including a Sports Park.
3. In July 2025, the Environment & Resources Authority (ERA) advised that an EIA was required. ERA issued the Terms of Reference for the EIA in November 2025. The EIA considers the environmental topics identified by ERA as requiring detailed assessment.

Purpose of the EIA Report

4. The purpose of the EIA Report is to present the findings of the environmental assessment. EIA is a process for identifying and assessing the likely significant environmental effects of a development before a decision

is taken on whether it should be approved. It also identifies measures that can avoid, reduce, or otherwise manage adverse environmental effects.

Terms of Reference

5. The Terms of Reference (ToR) for the EIA were prepared by ERA, in consultation with the relevant Government Departments. The final version of the ToR is available in **Technical Appendix I: Terms of Reference and Method Statements**.
6. The ToR were formulated following a scoping exercise, undertaken by ERA, to identify the issues to be considered in the EIA. The ToR focused on those impacts ERA considered likely to be significant and, therefore, requiring further assessment. The ToR also described the various components of the EIA.

Method Statements

7. Method Statements were prepared to assess the impacts of the Scheme in respect of the topic areas: *geo-environment, air quality, cultural heritage, and landscape and visual amenity*.
8. The Method Statements outlined the baseline survey work to be carried out, the methodology to be used to assess the predicted impacts, and the means by which the significance of the impacts would be determined. The Method Statements were agreed by ERA and are

reproduced in **Technical Appendix I: Terms of Reference and Method Statements.**

EIA APPROACH

9. Baseline surveys were undertaken in relation to the topic areas *geo-environment, air quality, cultural heritage, and landscape and visual amenity*, having regard to an 'Area of Influence' (A of I) for each topic area, agreed in consultation with ERA.
10. A detailed assessment of the Scheme's impact on the features present within the Scheme site and the A of I was undertaken, and any potential environmental benefits of the Scheme were identified.

Significance of Impacts

11. The EIA considers significant environmental impacts as well as the residual impact, meaning the impact that remains after mitigation has been taken into account.
12. The following criteria were used in the EIA to assess the significance of an impact:
 - type of impact (adverse / beneficial);
 - extent and magnitude of impact;
 - direct or indirect impact;
 - duration of impact (short term / long term;

permanent / temporary);

- comparison with legal requirements, policies and standards;
- sensitivity of receptor (residential dwellings, hotel, recreational areas, etc.);
- probability of impact occurring (certain, likely, uncertain, unlikely, remote);
- reversibility of impact;
- scope for mitigation / enhancement (very good, good, none); and
- residual impacts.

13. Using these criteria, the significance of the negative impacts arising from the Scheme was categorised, as follows:

- **not significant**, where the impact is environmentally acceptable;
- **minor significance**, where the impact is manageable;
- **moderate significance** (where applicable), where the impact may be manageable in certain circumstances, although is likely to require

implementation of suitable mitigation measures;
and

- **major significance**, where the impact is environmentally damaging and requires redesign or mitigation measures to minimise it.

14. The EIA includes an assessment of the significance of predicted impacts and, following the implementation of any proposed mitigation measures, the significance of any residual impacts. A summary of the identified significant impacts is included in **Chapter 9** of the EIA Report. The recommended mitigation measures, and residual impacts, are described in respect of each topic area, at the end of the relevant chapter (see **Chapters 5 to 8** of the EIA Report) as well as in **Chapter 9**.

Uncertainty

15. The EIA process is designed to enable good decision-making based on the best possible information about the environmental implications of a proposed development. However, there will always be some uncertainty as to the exact scale and nature of the environmental impacts. This arises through shortcomings in information, doubts, or lack of certainty on the likelihood that an incidence will occur, and/or due to the limitations of the prediction process itself. Where uncertainties have arisen, and where they remain, this is clearly stated in the EIA Report.

Consultation

16. There has been consultation with ERA throughout the EIA process. The EIA consultants also met the Hal Kirkop Local Council. The Council acknowledged the potential improvement in land use compared with the existing industrial use, but raised concern about additional traffic generation, particularly during peak hours.

ASSESSMENT OF ALTERNATIVES

Alternative Sites

17. No alternative sites were considered by the Applicant. The Scheme is intended to redevelop the existing Elbros Construction Yard. A number of design options were, however, explored as the proposal developed, informed by discussions with the Planning Authority, relevant policy objectives and the intention to pursue LEED Platinum certification.

Zero Option (Do-nothing Scenario)

18. The ToR issued by ERA require that the alternative assessment considers the zero option, or 'do-nothing' scenario, which envisages there being no intervention on the site in connection with the Scheme. This alternative option considers the way the site would develop in the absence of the Scheme.
19. With no intervention the site would remain in use as a construction yard, with the associated operational effects including dust and noise.

Alternative Layouts and Techniques

20. Different layouts were considered during the development of the Scheme. The design evolved through consultation with the Planning Authority and with reference to the quarry, cultural and natural landscape context of the site.

DESCRIPTION OF SCHEME

21. The Scheme site occupies approximately 28,569 m². It lies within the Hal Kirkop Local Council area, immediately adjacent to the Malta International Airport complex. A large industrial area, including the ST Microelectronics complex, lies immediately to the south, while the Hal Kirkop Development Zone is approximately 450 m to the south. Quarrying and related activities characterise areas to the north and west, with agricultural land and farms to the southwest.
22. The development will have a cumulative built footprint of approximately 11,700 m², equivalent to approximately 41% of the site, and a total Gross Floor Area of approximately 110,920 m². The buildings will generally range from two to four-storey equivalent, with an overall height of approximately 18.5 m. The following are the proposed uses and their respective floor spaces:
- Retail: approximately 13,571 m².
 - Supermarket, including warehousing: approximately 7,079 m².
 - Offices: approximately 6,791 m².
 - Hotel: 106 guestrooms and approximately 6,902 m².
 - Food and beverage: five outlets, including a cafeteria

- and roof garden bar, totalling approximately 2,240 m².
- Medical centre: approximately 2,100 m².
 - Sports centre: approximately 1,749 m².
 - Three underground parking levels, together with technical and circulation areas.
23. The Scheme includes landscaping. Existing mature trees outside or along the site boundaries are to be retained. Roof gardens are proposed on a number of buildings. External lighting has been designed to minimise upward and obtrusive light.
24. The Scheme is intended to incorporate energy- and water-efficiency measures. Photovoltaic panels are proposed on suitable roofs, together with energy-efficient building systems and controls. Rainwater will be collected and stored for second-class uses such as toilet flushing and irrigation.
- Scheme Construction**
25. A Construction Management Plan has been prepared. Construction will include demolition and site clearance, excavation of the site, construction of three basement parking levels, the above-ground buildings, utilities and services, external works, landscaping, and testing and commissioning.
26. The overall construction period is estimated at approximately five years. Demolition, site clearance and excavation are expected to take approximately 12 months; structural construction a further 24 months; and finishing works approximately another 24 months.
27. The entire site will be excavated to accommodate the basement levels and foundations. Approximately 337,000 m³ of excavation waste, mainly rock, is expected to be generated. Most is currently envisaged to be removed from the site for recycling, use as backfill or placement at a licensed facility. During the excavation period, approximately 70–100 truck trips per day are estimated.
28. Construction controls include wheel washing, water spraying and other dust suppression, covering trucks carrying loose material, road sweeping, stockpile management, temporary drainage and runoff controls, and protection of neighbouring property.
- SCHEME OPERATION**
29. When operational, the Scheme is expected to employ in the region of 400 people, although the final number will depend on the future tenants.
30. Operational waste will primarily comprise domestic and commercial waste, recyclables, organic and kitchen waste, garden waste, and clinical waste from the medical centre. Waste will be segregated and stored in designated areas

before being removed by appropriately licensed carriers.

31. The Scheme is expected to consume approximately 13,700 MWh of electricity per year. Photovoltaic systems are estimated to generate approximately 280,000 kWh annually. The Scheme also incorporates measures to reduce potable water use and demand on the sewerage network.

Figure 2: Generic Layout of the Scheme



SIGNIFICANT ENVIRONMENTAL IMPACTS AND MITIGATION

- 32. The predicted impacts of the Scheme were assessed on a topic area basis, in accordance with the ToR. Particular attention was given to the predicted principal negative impacts and how these could be mitigated.
- 33. The potential major negative impacts identified during the assessment, related to geo-environment, arising from the excavation of the site for the Scheme.

Geo-environment

- 34. The principal geo-environmental impact is the extraction of approximately 337,000 m³ of rock. This represents a permanent loss of a geological resource and is assessed as a major negative impact. The EIA recommends exploring opportunities to use suitable excavated rock as blockwork or fill, either within the Scheme or elsewhere. However, even with reuse, the residual impact on the mineral resource remains major because the rock will have been permanently removed from its geological setting.
- 35. Groundwater contamination is not expected to be significant because the Scheme includes measures to prevent contamination of ground and surface water. The EIA also notes that excavation is unlikely to reach freshwater.

- 36. The Scheme will increase the amount of impermeable surface, reducing local infiltration and groundwater recharge. This is assessed as a minor adverse effect. During construction, exposed ground could also result in sediment-laden runoff during intense rainfall. With phased earthworks, sediment controls, careful stockpile management and temporary drainage, the impact on surface water quality is expected to be minor.
- 37. During operation, increased impermeable surfaces could increase stormwater runoff and peak discharge. The EIA recommends attenuation, controlled discharge and Sustainable Drainage Systems (SuDS), together with rainwater harvesting and landscaped or permeable areas. With these measures, the operational effect on runoff is expected to be minor.

Emissions to Air

- 38. Construction activities will generate dust, although this will be temporary and can be reduced through good construction-site management. The EIA also notes that the existing construction-yard operations already generate dust.
- 39. The operational air-quality assessment considered additional traffic generated by the Scheme for 2033 and 2038. The effect on annual nitrogen dioxide (NO₂) concentrations is predicted to be negligible, and the annual mean limit value is not exceeded under the modelled

scenarios.

40. For particulate matter (PM₁₀), the effect on annual average concentrations is generally negligible, with a slight effect at one receptor. In relation to the daily PM₁₀ limit, moderate effects are predicted at three sensitive receptors, a slight effect at ERA's Gudja monitoring station, and negligible effects at the remaining receptors.
41. A Green Travel Plan is recommended for the operational Scheme to encourage more sustainable travel and reduce traffic-related emissions. The residual effect will depend on how effectively the Plan is implemented.

Cultural Heritage

42. There are no scheduled cultural heritage features within the Scheme site or in its immediate vicinity. The site nevertheless contains recorded features, including rubble walls, a rock-cut feature, quarry remains and a farmhouse.
43. One rubble wall within the development footprint will be dismantled and rebuilt after the works. The rock-cut feature and quarry remains are located close to the site boundary and the excavation has been designed so that they will not be removed. The farmhouse is outside the built footprint and will be retained. With these measures, impacts on the recorded rock-cut and quarry features are considered not significant.

44. There remains a possibility that previously unrecorded archaeological remains could be encountered during site clearance or excavation. The significance of such an impact cannot be known in advance because it depends on whether remains are present and their importance.
45. The EIA therefore recommends archaeological monitoring of site clearance and excavation under the supervision of the Superintendent of Cultural Heritage (SCH). If previously unknown remains are discovered, they are to be recorded and, where appropriate, salvaged or retained through changes to the Scheme, as directed by the SCH.
46. The Scheme will rehabilitate the site of the existing construction yard, but it will also alter the wider vernacular cultural landscape. This impact is assessed as minor. Indigenous soft landscaping and rural features such as rubble walls are recommended to help soften the transition between the development and its surroundings.

Landscape & Visual Amenity

47. The landscape around the site is strongly influenced by the Malta International Airport, quarrying and industrial development, the settlements of Ħal Kirkop and Mqabba, and pockets of agricultural land. The Scheme will replace the existing construction yard with a substantially larger built development set within landscaped grounds.
48. The effect on landscape character is assessed as minor for

the Quarrying and Industrial Area and Malta International Airport local landscape tracts. No significant landscape effect is predicted for the Ħal Kirkop and Mqabba settlement tracts or the Rural Area.

49. Visual effects vary according to location. Moderate adverse effects are predicted for close views from Triq ir-Ramlja, Triq il-Belt Valletta, Triq l-Industrija and Triq Valletta. A minor to moderate adverse effect is predicted from further north on Triq il-Madonna tad-Dawl. From the approach to the roundabout on Triq il-Madonna tad-Dawl, the new landscaping is predicted to improve the view, resulting in a moderate beneficial effect. From more distant viewpoints at Ġnien il-Ġibjun and Vjal ix-Xarolla, the Scheme is barely perceptible, and the effects are not significant.

Mitigation

50. Where appropriate, mitigation measures have been identified and communicated to the Applicant. These mitigation measures are described at the end of each topic area chapter and are listed in **Chapter 9** of the EIA Report. Some of the mitigation measures are already taken account of in the Scheme design or are being taken forward in the Construction Management Plan (CMP) that has been prepared for the Scheme at this stage. Other mitigation measures are recommended arising from the impact assessment.

51. The following is the list of recommended mitigation measures. It would be appropriate for, and it is recommended that, these mitigation measures be taken account of in the conditions of any eventual development permit.

- Phase earthworks where practicable to minimise exposed ground.
- Use temporary drainage channels and cut-off drains to divert clean runoff away from excavation areas.
- Use sediment traps, settlement tanks, or silt fences where runoff could carry suspended solids.
- Locate and protect stockpiles so that they do not erode or obstruct drainage pathways.
- Use wheel-wash facilities, road sweeping and other good construction-site controls.
- Give particular attention to runoff management during winter and before forecasted heavy rainfall.
- Minimise impermeable surfaces where practicable through landscaping, planting beds, and permeable surfaces.
- Consider permeable paving and other SuDS measures, including swales, rain gardens,

bioretention areas, infiltration trenches, and green roofs where suitable.

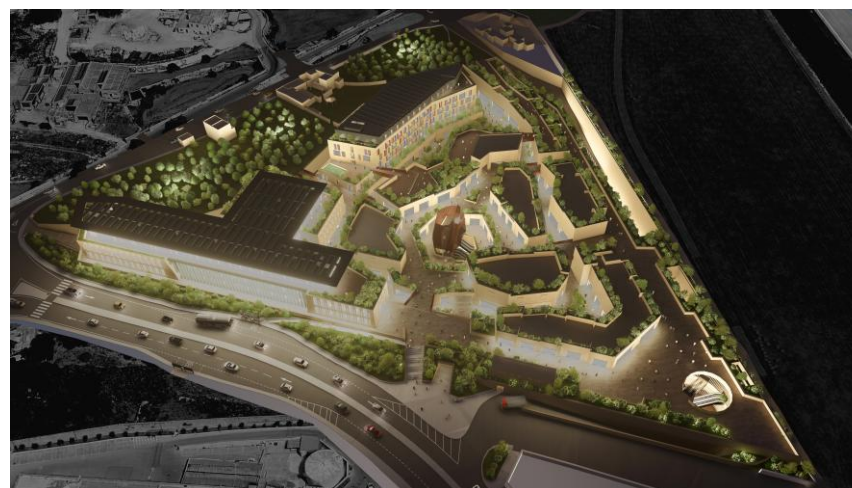
- Provide stormwater attenuation and controlled discharge, taking account of major storm events and future climate change.
- Harvest rainwater for irrigation and other non-potable uses and maintain stormwater infrastructure.
- Retain and reuse suitable soil in landscaping.
- Implement a Green Travel Plan during operation.
- Clear the site in a controlled manner before excavation and archaeologically monitor clearance and excavation under SCH supervision.
- Preserve the identified rock-cut feature and quarry *remains in situ* and dismantle and rebuild the affected rubble wall.
- Ensure qualified archaeologists supervise excavation and report any previously unknown remains to the SCH.
- Use indigenous soft landscaping and rural features such as rubble walls to help integrate the Scheme with the surrounding vernacular landscape.

**PA/02825/25: TWAQQIGH TA' STRUTTURI MIBNIJA U
BITHA TAL-KOSTRUZZJONI EŻISTENTI U BINI TA'
PARKEĠĠ KUMMERĊJALI, SUPERMARKET U VILLAGĠ TA'
HWIENET B'UŻI MĦALLTA F'ĦAL KIRKOP**

**RAPPORT DWAR L-ISTUDJU TAL-IMPATT
AMBJENTALI**

SUNT MHUX TEKNIKU

Verżjoni I: Awwissu 2026



Referenza tar-Rapport:

Adi Associates Environmental Consultants Ltd, 2026. PA/02825/25: Twaqqigh ta' Strutturi Mibnija u Bitha tal-Kostruzzjoni Ezistenti u bini ta' Parkeġġ Kummerċjali, Supermarket u Villaġġ ta' Hwienet b'Użi Mhallta f'Hal Kirkop. Sunt Mhux Tekniku tal. San Ġwann, Awwissu 2026; ii + 12 pp.

**DIN HIJA KOPJA DIĠITALI TAR-RAPPORT.
IRRISPETTA L-AMBJENT – ŻOMMHA DIĠITALI**

Assigurazzjoni tal-Kwalità

PA/02825/25

**Twaqqigh ta' Strutturi Mibnija u Bitħa tal-Kostruzzjoni
Eżistenti u bini ta' Parkeġġ Kummerċjali, Supermarket u
Villagġ ta' Ħwienet b'Użi Mħallta f'Hal Kirkop
Sunt Mhux Tekniku tar-Rapport dwar l-iSIA**

Report for: **Qormi Construction Ltd**



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Skeda tar-Revizjoni

Rev	Data	Dettalji	Written by:	Checked by:	Approved by:
00	Awwissu 2026	Sottomess lill-ERA	Rachel Xuereb Direttur	Eilis McCullough Konsulent Anzjan dwar l-ippjanar	Adrian Mallia Direttur Maniġerjali

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EIA\EIA Report\NTS Maltese.docx

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INTRODUZZJONI

1. Dan ir-Rapport dwar l-Istudju fuq l-Impatt Ambjentali (SIA) tqabbadna nagħmluh minn Qormi Construction Ltd b'appoġġ għall-proposta biex tiġi żviluppata mill-ġdid l-art li fiha illum hemm il-biċċa ta' Elbros Construction fi Triq l-Industrija, Hāl Kirkop. Is-sit bħalissa jintuża bħala biċċa tal-konstruzzjoni u qabel kien barriera. F'dan is-sunt, l-iżvilupp propost jissejjaħ "l-Iskema". Deskrizzjoni dettaljata tal-Iskema tingħata f'Kapitolu 3 tar-Rapport tal-EIA.
2. L-Iskema tinkludi kumpless kummerċjali b'użi mħallta li jinkludi Villagġ ta' Hwienet, supermarket, stabbilimenti tal-ikel u x-xorb, lukanda, uffiċċji, ċentru mediku u ċentru sportiv, flimkien ma' tliet livelli ta' parkeġġ taħt l-art u żoni esterni imħawla, inkluż Park Sportiv.
3. F'Lulju 2025, l-Awtorità tar-Riżorsi u l-Ambjent (ERA) iddeċidiet li l-iżvilupp kien jeħtieġ Studju dwar l-Impatt Ambjentali (SIA). L-ERA ħarġet it-Termini ta' Referenza għall-iSIA f'Novembru 2025. L-iSIA jikkunsidra s-sugġetti ambjentali li l-ERA identifika li jeħtieġu valutazzjoni dettaljata.

Skop tar-Rapport dwar l-iSIA

4. L-iskop tar-Rapport dwar l-iSIA huwa li jippreżenta r-riżultati tal-iSIA. L-iSIA huwa l-proċess li bih ikunu studjati sistematikament l-impatti ambjentali importanti li jista' jġib

miegħu l-iżvilupp propost. L-iSIA jassigura wkoll li l-importanza ta' dawn l-impatti, u x'possibbiltà hemm li jitnaqqsu, jinftehm u b'mod ċar mill-pubbliku u mill-ERA u l-Awtorità tal-Ippjanar (PA) qabel ma tittieħed deċiżjoni dwar jekk l-iżvilupp għandux jiġi approvat jew le.

Termini ta' Referenza

5. It-Termini ta' Referenza (TtR) għall-iSIA thejjew mill-ERA, b'konsultazzjoni mad-Dipartimenti tal-Gvern li għandhom x'jaqsmu. Il-verżjoni finali tat-TtR tinsab f'**Technical Appendix I: Terms of Reference and Method Statements**.
6. It-TtR kienu fformulati wara eżerċizzju dwar -ambitu li sar mill-ERA, biex ikunu identifikati l-punti li jridu jiġu kkunsidrati fl-iSIA. It-TtR iffukaw fuq daww l-impatti li l-ERA deherilha li aktarx setgħu ikunu importanti u, għalhekk, kienu jeħtieġu iżjed studju. It-TtR ddeskrivew ukoll id-diversi komponenti tal-iSIA.

Dikjarazzjonijiet ta' Metodu

7. Thejjew Dikjarazzjonijiet ta' Metodu kif ikunu studjati l-impatti tal-iSkema fejn jidhlu l-oqsma ta': *geo-ambjent, kwalità tal-arja, wirt kulturali, u pajsagġ u sbruġija tad-dehra*,
8. Id-Dikjarazzjonijiet ta' Metodu ddeskrivew fil-qosor ix-xogħol ta' s'harriġ bażiku li jrid jitwettagħ, il-metodoloġija li trid tithaddem biex jiġu studjati l-impatti mbassrin, u l-

mezzi li bihom kellha tigi ddeterminata l-importanza tal-impatti. L-ERA qablet mad-Dikjarazzjonijiet ta' Metodu u dawn huma riprodotti f' **Technical Appendix I: Terms of Reference and Method Statements**.

KIF SAR L-ISIA

9. Xogħol ta' sħarriġ bażiku sar b'rabta mal-oqsma tal- *geo-ambjent, kwalità tal-arja, wirt kulturali, u pajsagġ u sbuħija tad-dehra*, skont "Area ta' Influenza" (A ta' I) miftehma b'konsultazzjoni mal-ERA għal kull qasam ta' suġġett.
10. Sar studju ddettaljata tal-impatt li l-Iskema jkollha fuq il-karatteristiċi preżenti fis-sit tal-Iskema u l-A ta' I, u ġie identifikat kullbenefiċċju ambjentali possibbli tal-Iskema.

Importanza tal-Impatti

11. L-iSIA jikkunsidra s-sinifikat ta' impatti ambjentali kif wkoll l-impatt residwu, jiġifieri l-impatt li jibqa' wara li tkun tqieset il-mitigazzjoni.
12. Dawn il-kriterji ntużaw fl-iSIA biex iqisu l-importanza ta' impatt:
 - tip tal-impatt (negattiv / benefiku);
 - firxa u kobor tal-impatt;
 - impatt dirett jew indirett;

- kemm idum jinħass l-impatt (żmien qasir/fit- tul; permanenti/temporanju) ;
 - tqabbil ma' dak li jitolbu l-liġi, il-policies u l-istandards;
 - kemm hu sensittiv dak li jintlaqat minnu (djar, lukanda, inħawi ta' rikreazzjoni, eċċ.);
 - probabbiltà li l-impatt iseħħ (ċert, aktarx, inċert, aktarx le, remota);
 - kemm hu reversibbli l-impatt;
 - kemm hemm possibbiltà ta' mitigazzjoni / titjib (tajba ħafna, tajba, xejn); u
 - impatti residwi.
13. Meta ntużaw dawn il-kriterji, l-importanza tal-impatti negattivi li jirriżultaw mill-iSkema tqiegħdet f'kategoriji kif ġej:
 - **mhuw importanti**, fejn l-impatt huwa ambjentalment aċċettabbli;
 - **importanza żgħira**, fejn l-impatt jista' jkun ikkontrollat;
 - **importanza moderata** (fejn applikabbli), fejn l-impatt jista' jkun ikkontrollat f'ċerti ċirkostanzi,

għalkemm aktarx ikun jeħtieġ l-implimentazzjoni ta' miżuri xierqa ta' mitigazzjoni; u

- **importanza kbira**, fejn l-impatt jagħmel ħsara lill-ambjent u jeħtieġ disinn mill-ġdid jew miżuri mitigatorji biex jitnaqqas kemm jista' jkun.

14. L-iSIA fih assessjar tal-importanza tal-impatti mbassrin u, wara l-implimentazzjoni ta' xi miżuri mitigatorji proposti, tal-importanza ta' xi impatti residwi. Ġabra fil-qosor tal-impatti important identifikati jinsab f'**Kapitolu 9** tar-Rapport dwar l-iSIA. Il-miżuri mitigatorji rrakkomandati, u l-impatti residwi, huma deskritti għal kull qasam ta' suġġett, fl-aħħar tal-kapitlu relevanti (ara **Kapitli 5 sa 8** tar-Rapport dwar l-iSIA) kif ukoll f'**Kapitolu 9**.

Incertezza

15. Il-proċess tal-iSIA huwa mfassal b'mod li jagħmilha possibbli li jittieħdu deċiżjonijiet tajbin ibbażati fuq l-aħjar informazzjoni possibbli dwar l-implikazzjonijiet ambjentali ta' żvilupp propost. Madankollu, dejjem jkun hemm xi incertezza dwar il-kobor u n-natura eżatta tal-impatti ambjentali. Dan jiġi minn nuqqasijiet fl-informazzjoni, dubji, jew nuqqas ta' ċertezza fuq kemm hemm probabbiltà li haġa tiġri, u/jew minhabba l-limitazzjonijiet tal-proċess tat-tbassir innifsu. Fejn qamu incertezzi, u fejn baqgħu, jintqal b'mod ċar fir-Rapport dwar l-iSIA.

Konsultazzjoni

16. Kien hemm konsultazzjoni mal-ERA matul il-proċess kollu tal-iSIA. Il-konsulenti tal-iSIA ltaqgħu ukoll mal-Kunsill Lokali ta' Ħal Kirkop. Il-Kunsill irrikonoxxa t-titjib potenzjali fl-użu tal-art meta mqabbel mal-użu industrijali eżistenti, iżda qajjem tħassib dwar iż-żieda fit-traffiku, b'mod partikolari f'dawk il-ħinijiet matul il-jum fejn l-iktar ikun hemm traffiku.

STUDJU TAL-ALTERNATTIVI

Siti Alternattivi

17. L-Applikant ma kkunsidra l-ebda sit alternattiv. L-iSkema hija maħsuba biex tiżviluppa l-art li fiha hemm il-bitħa tal-konstruzzjoni ta' Elbros. Madankollu, matul l-iżvilupp tal-proposta ġew esplorati diversi għażliet ta' disinn li kienu nfurmati minn diskussjonijiet mal-Awtorità tal-Ippjanar, l-għanijiet tal-*policies* rilevanti u l-intenzjoni li tinkiseb iċ-ċertifikazzjoni LEED Platinum.

Opzjoni Żero (Każ Fejn Ma Jsir Xejn)

18. It-TtR maħruġa mill-ERA jitolbu li tkun ikkunsidrat l-opzjoni zero, jew 'il-każ fejn ma jsir xejn', li tissopponi li ma jsir l-ebda intervent fis-sit b'rabta mal-iSkema.. Din l-opzjoni tikkunsidra kif jiżviluppa s-sit fin-nuqqas tal-Iskema.
19. Mingħajr intervent, is-sit jibqa' jintuża bħala bitħa tal-konstruzzjoni, bl-effetti assoċjati mal-operata tal- bitħa, inkluż trab u storbju.

Disinji u Tekniki Alternattivi

20. Waqt l-iżvilupp tal-iSkema kien ikkunsidrat tqassim differenti. Id-disinn evolva permezz ta' konsultazzjonijiet mal-Awtorità tal-Ippjanar u b'referenza għall-kuntest tal-barriera, tal-wirt kulturali u tal-pajsaġġ naturali madwar is-sit.

DESKRIZZJONI TAL-ISKEMA

21. Is-sit tal-iSkema jokkupa madwar 28,569 m². Jinsab fil-lokalità ta' Ħal Kirkop, immedjatament maġenb il-kumplex tal-Ajruport Internazzjonali ta' Malta. Żona industrijali kbira, li tinkludi il-kumplex ta' ST Microelectronics, tinsab immedjatament fin-Nofsinhar, filwaqt li ż-Żona tal-Iżvilupp ta' Ħal Kirkop tinsab madwar 450 m fin-Nofsinhar tas-Sit. Barrieri u attivitajiet relatati jikkarakterizzaw iż-żoni fit-Tramuntana u fil-Punent, b'art agrikola u rżiezet lejn il-Lbiċ.
22. L-iżvilupp ikollu medda ta' bini kumulattiva ta' madwar 11,700 m², ekwivalenti għal madwar 41% tas-sit, u Gross Floor Area (GFA) ta' madwar 110,920 m². Il-binjiet ġeneralment se jkollhom għoli ta' bejn żewġ sulari u erba', b'għoli ġenerali ta' madwar 18.5 m. Dawn li ġejjin huma l-użi proposti u l-GFA rispettivi tagħhom:
 - Hwienet: madwar 13,571 m².
 - Supermarket, inkluż postijiet tal-ħażna: madwar 7,079 m².
 - Uffiċċji: madwar 6,791 m².
 - Lukanda: 106 kmamar u madwar 6,902 m².
 - Ikel u xorb: ħames stabbilimenti, inklużi kafetterija u bar fil-ġnien fuq il-bejt, b'total ta' madwar 2,240 m².

- Ċentru mediku: madwar 2,100 m².
- Ċentru sportiv: madwar 1,749 m².
- Tliet livelli ta' parkeġġ taħt l-art, flimkien ma' żoni tekniċi u ta' ċirkolazzjoni.

23. L-Iskema tinkludi tħawwil ta' sigar. Sigar maturi eżistenti barra jew tul il-konfini tas-sit se jinżammu fejn identifikat. Gonna fuq il-bjut huma proposti fuq numru ta' binjiet. Id-dawl estern kien ddisinjat biex inaqas kemm jista' jkun dawl li jippona'il fuq u dawl intrużiv.
24. L-Iskema hija maħsuba li jkollha miżuri ta' effiċjenza fl-enerġija u fl-ilma. Pannelli fotovoltajċi huma maħsuba għal fuq bjut xierqa, flimkien ma' sistemi u kontrolli tal-bini li jkunu effiċjenti fl-enerġija. L-ilma tax-xita jingabar u jinħażen għal użi sekondarji bħall-flushing tat-toilets u għat-tisqija.

Kostruzzjoni tal-Iskema

25. Thejja Pjan ta' Immaniġġjar tal-Kostruzzjoni (PIK). Il-kostruzzjoni se tinkludi twaqqiġ u tindif tas-sit, skavar tas-sit, bini ta' tliet livelli ta' parkeġġ taħt l-art, il-bini tal-iskema, servizzi, xogħlijiet fuq barra, tħawwil u tisbiħ tal-pajsaġġ, u ttestjar u kummissjonar.
26. Il-perjodu totali ta' kostruzzjoni huwa stmat li jdum madwar ħames snin. It-twaqqiġ, it-tindif tas-sit u l-iskavar

huma mistennija jiehdu madwar 12-il xahar; il-bini jieħu 24 xahar ieħor; u x-xogħlijiet ta' tlestija madwar 24 xahar ieħor.

27. Is-sit kollu se jkun skavat biex jakkomoda l-livelli tal-parkeġġ taħt l-art u l-pedamenti tal-iskema. Huwa stmat li jkunu ġġenerati madwar 337,000 m³ ta' skart mill-iskavar, prinċipalment blat. Il-biċċa l-kbira huwa previst li jitneħħa mis-sit għar-riċiklaġġ, għall-użu bħala materjal ta' mili jew għat-tqegħid f'faċilità liċenzjata. Waqt l-iskavar, huma stmati li jkun hemm bżonn ta' madwar 70–100 vjaġġ ta' trakk kuljum.
28. Il-kontrolli waqt il-bini jinkludu ħasil tar-roti, bexx tal-ilma u miżuri oħra għat-trażzin tat-trab, għata fuq trakkijiet li jgħorru materjal maħlul, tindif tat-toroq, immaniġġjar tal-munzelli ta' materjal, drenagġ temporanju u kontrolli tal-ilma tal-ħamla, u protezzjoni tal-proprjetà tal-ġirien.

TĦADDIM TAL-ISKEMA

29. Meta tibda taħdem, l-iskema mistennija timpjega madwar 400 persuna, għalkemm in-numru finali jiddependi mill-inkwilini futuri.
30. L-iskart ġġenerat meta l-iskema tibda topera se jikkonsisti prinċipalment fi skart domestiku u dak kummerċjali, materjali riċiklabbli, skart organiku u tal-kċina, skart tal-gonna, u skart kliniku miċ-ċentru mediku. L-iskart ikun

isseparat u maħżun f'żoni apposta qabel jitneħħa minn trasportaturi liċenzjati kif xieraq.

31. L-Iskema mistennija tikkonsma madwar 13,700 MWh ta' elettriku fis-sena. Is-sistemi fotovoltajċi huma stmati li jiġġeneraw madwar 280,000 kWh fis-sena. L-Iskema tinkorpora wkoll miżuri biex jitnaqqas l-użu tal-ilma tax-xorb u d-domanda fuq is-sistema tad-drenagg.

Figura 2: Tqassim Ġeneriku tal-Iskema



IMPATTI AMBIENTALI IMPORTANTI U MITIGAZZJONI

32. L-impatti mbassrin tal-iSkema tqiesu skont is-sugġett, bi qbil mat-TtR. Ingħatat attenzjoni partikolari lill-impatti prinċipali negattivi mbassrin u kif dawn jistgħu jiġu mitigati.
33. L-akbar impatti negattivi potenzjali identifikati waqt l-istudju kellhom x'jaqsmu mal-ġeo-ambjent, u jirriżultaw mill-iskavar tas-sit għall-Iskema.

Ġeo-ambjent

34. L-impatt ġeo-ambjentali prinċipali huwa l-iskavar ta' madwar 337,000 m³ ta' blat. Dan ifisser telf permanenti ta' riżorsa ġeoloġika u huwa meqjus ta' sinifikat kbir u negattiv. L-iSIA jirrakkomanda li jkunu esplorati opportunitajiet biex blat skavat adattat jintuża bħala blokko jew materjal ta' mili, kemm fl-iSkema kif ukoll band'oħra. Madankollu, anke bl-użu mill-ġdid, l-impatt residwu fuq ir-riżorsa minerali jibqa' ta' importanza kbira minhabba li l-blat ikun tneħħa b'mod permanenti mill-kuntest ġeoloġiku tiegħu.
35. Mhuwix mistenni li l-iSkema toħloq kontaminazzjoni sinifikanti tal-ilma tal-pjan minhabba li l-Iskema tinkludi miżuri biex tipprevjeni l-kontaminazzjoni tal-ilma tal-pjan u tal-wiċċ. L-iSIA jinnota wkoll li l-iskavar mhux mistenni jilhaq l-ilma tal-pjan.

L-Iskema se żżid l-ammont ta' art impermeabbli, u b'hekk tnaqqas l-infiltrazzjoni lokali u r-rikarika tal-ilma tal-pjan. Dan huwa meqjus bħala effett negattiv minuri. Waqt il-konstruzzjoni, art mhaffra tista' twassal ukoll għal ilma tal-ħamla mgħobbi bit-tajn waqt xita qawwija. Bit-tqassim tax-xogħol f'fażijiet, kontroll tat-tajn, immaniġġjar bir-reqqa tal-munzelli ta' materjal u drenagg temporanju, l-impatt fuq il-kwalità tal-ilma tal-wiċċ huwa mistenni li jkun ta' importanza zgħira.

36. Matul l-operat, iż-żieda fl-art impermeabbli tista' żżid l-ilma tal-ħamla tax-xita u l-ogħla rata ta' skariku. L-iSIA jirrakkomanda tnaqqis, skariku kkontrollat u użu ta' Sistemi ta' Drenagg Sostenibbli (StDS), flimkien mal-ġbir tal-ilma tax-xita u żoni mhawla jew permeabbli. B'dawn il-miżuri, l-effett fuq l-ilma tal-ħamla meta l-iSkema tibda topera huwa mistenni li jkun ta' importanza zgħira.

Emissjonijiet fl-Arja

37. L-attivitajiet tal-konstruzzjoni jiġġeneraw trab, għalkemm dan ikun temporanju u jista' jitnaqqas permezz ta' immaniġġjar tajjeb tas-sit tal-konstruzzjoni. L-iSIA jinnota wkoll li l-operat eżistenti tal-bitha tal-konstruzzjoni diġà jiġġenera trab.
38. L-istudju dwar il-kwalità tal-arja meta l-iSkema tibda taħdem ikkunsidra it-traffiku addizzjonali li tiġġenera l-Iskema fl-2033 u l-2038. L-effett fuq il-koncentrazzjonijiet

annwali tad-diossidu tan-nitroġenu (NO_2) huwa mbassar li ma jkunu ta' ebda importanza, u l-annual mean limit value ma jinqabizx fix-xenarji mmudellati.

39. Għat-trab (PM_{10}), l-effett fuq il-koncentrazzjoni medja annwali huwa ġeneralment ta' ebda importanza, b'effett żgħir fuq riċettur wieħed. Fir-rigward tal-limitu ta' kuljum tal- PM_{10} , huma mbassra effetti moderati fi tliet riċetturi sensitivi, effetti żgħir fl-istazzjon ta' monitoraġġ tal-ERA fil-Gudja, u effetti negligibbli fir-riċetturi l-oħra.
40. Huwa rakkomandat Pjan ta' Vjaġġar Ekoloġiku (*Green Travel Plan*) għall-Iskema meta tibda taħdemsabiex jinkoraġġixxi vjaġġar aktar sostenibbli u tnaqqis fl-emissjonijiet relatati mat-traffiku. L-effett residwu jiddependi minn kemm il-Pjan jiġi implimentat b'mod effettiv.

Wirt Kulturali

41. Ma hemmx karatteristiċi ta' wirt kulturali skedati fis-sit tal-Iskema jew fil-viċin tiegħu. Madankollu, is-sit fih karatteristiċi rreġistrati, inklużi ħitan tas-sejjeħ, karatteristika maqtugħa fil-blat, fdalijiet ta' barrier antiki u razzett.
42. Hajt wieħed tas-sejjeħ fil-fiorxa ta' bini propost se jiżżarma u jkun mibni mill-ġdid wara x-xogħlijiet. Il-karatteristika maqtugħa fil-blat u l-fdalijiet tal-barriera

jinsabu qrib il-konfini tas-sit u l-iskavar ġie ddisinjat sabiex ma jitneħħewx. Ir-razzett jinsab barra l-firxa ta' bini u se jinżamm. B'dawn il-miżuri, l-impatti fuq il-karatteristiċi rreġistrati maqtugħa fil-blat u tal-barriera huma meqjusa ta' ebda importanza.

43. Għad hemm il-possibbiltà li matul it-tindif tas-sit jew l-iskavar jinstabu fdalijiet arkeoloġiċi li ma kinux ġew irreġistrati qabel. Is-sinifikat ta' tali impatt ma jistax ikun magħruf minn qabel minħabba li jiddependi fuq jekk humiex preżenti fdalijiet u fuq l-importanza tagħhom.
44. Għalhekk, l-iSIA jirrakkomanda monitoraġġ arkeoloġiku waqt it-tindif tas-sit u l-iskavar taħt is-superviżjoni tas-Sovrintendenza tal-Wirt Kulturali (SCH). Jekk jinstabu fdalijiet li ma kinux magħrufa qabel, dawn għandhom jiġu rreġistrati u, fejn xieraq, salvati jew miżmuma permezz ta' bidliet fl-Iskema, skont id-direzzjoni tal-SCH.
45. L-Iskema se ttejjeb is-sit tal-bitħa eżistenti tal-kostruzzjoni, iżda se tbiddel ukoll il-pajsagġ kulturali vernakulari taż-żona. Dan l-impatt huwa vvalutat bħala ta' importanza żgħira. Huwa rakkomandat tisbiħ pajsagġistiku bi speċi indiġeni u karatteristiċi rurali bħal ħitan tas-sejjeħ sabiex jgħinu jtaffu t-tranzizzjoni bejn l-iżvilupp u l-inħawi tiegħu.

Pajsagġ u Sbuħija tad-Dehra

Il-pajsagġ madwar is-sit huwa influwenzat b'mod qawwi

mill-Ajruport Internazzjonali ta' Malta, il-barrieri u l-iżvilupp industrijali, l-irhula ta' Hala Kirkop u l-Imqabba, u hula ta' art agrikola. L-iSkema se tbiddel is-sit tal-bitha eżistenti tal-kostruzzjoni bi żvilupp sostanzjalment akbar, indawwar b'żoni mhawla.

46. L-effett fuq il-karattru tal-pajsaġġ huwa meqjus bħala ta' importanza żgħira għat-tratti lokali tal-pajsaġġ taż-Żona tal-Barrieri u Industrijali u tal-Ajruport Internazzjonali ta' Malta. L-effett fuq il-pajsaġġ għat-tratti tal-irhula ta' Hala Kirkop u l-Imqabba u għaž-Żona Rurali huma meqjusa li ma għandhom ebda importanza.
47. L-effetti viżivi jvarjaw skont il-post. L-effetti fuq il-veduti mill-qrib minn Triq ir-Ramlija, Triq il-Belt Valletta, Triq l-Industrija u Triq Valletta huma meqjusa bħala negattivi u ta' importanza moderata. Impatt negattiv ta' importanza bejn żgħira u moderata huwa mbassar mit-Tramuntana fi Triq il-Madonna tad-Dawl. Hekk kif wieħed jersaq lejn ir-roundabout fi Triq il-Madonna tad-Dawl, it-tisbiħ pajsaġġistiku għid huwa mbassar li jtejjeb il-veduta, u jirriżulta f'effett pożittiv moderat. Minn postijiet ta' veduta aktar imbiegħda fi Ġnien il-Ġibjun u Vjal ix-Xarolla, l-iSkema bilkemm tidher u l-effetti huma meqjusa ta' ebda importanza.

Mitigazzjoni

48. Fejn kien xieraq, kienu identifikati miżuri mitigatorji u

dawn kienu kkomunikati lill-Applikant. Dawn il-miżuri mitigatorji huma deskritti fl-aħħar ta' kull kapitlu tas-sugġett u huma elenkati f'**Kapitolu 9** tar-Rapport dwar l-iSIA. Xi wħud mill-miżuri mitigatorji diġà tieħed hsiebhomfid-disinn tal-iSkema jew qed jiġu żviluppati fil-Pjan ta' Immaniġġjar tal-Kostruzzjoni (PIK) li tħejja għall-Iskema f'dan l-istadju. Miżuri oħra ta' mitigazzjoni huma rakkomandati bħala riżultat tal-istudjatal-impatti.

49. Din li ġejja hija l-lista tal-miżuri mitigatorji rakkomandati. Lkun xieraq, u huwa rakkomandat, li dawn il-miżuri mitigatorji tittieħed kunsiderazzjoni tagħhom fil-kundizzjonijiet ta' kull permess ta' żvilupp li eventwalment jista' jinħareġ.
- Twettieq tax-xogħol f'fazijiet fejn prattikabbli sabiex tiġi minimizzata l-art esposta.
 - Użu ta' kanali temporanji tad-drenaġġ u kanali oħra sabiex l-ilma tal-ħamla nadif jiġi devjat 'il bogħod miż-żoni tal-iskavar.
 - Jintużaw sumpijiet, tankijiet tas-sedimentazzjoni jew barrieri tal-ħama fejn l-ilma tal-ħamla jista' jgħorr solidi sospiżi.
 - Il-munzelli ta' materjal jitqiegħdu u jkunu protetti sabiex ma jimblukkawx il-mogħdijiet tad-drenaġġ.

- Jintużaw faċilitajiet għall-ħasil tar-roti, tindif tat-toroq u kontrolli oħra fis-sit tal-kostruzzjoni.
- Tingħata attenzjoni partikolari lill-immanigġjar tal-ilma tal-ħamla matul ix-xitwa u qabel xita qawwija mbassra.
- Fejn possibbli, titnaqqas l-ammont ta' art impermeabbli permezz ta' tisbiħ tal-pajsagġ, żoni tat-tħawwil u art permeabbli oħra.
- Ikun ikkunsidrat użu ta' pavimentar permeabbli u miżuri oħra tas-StDS, inklużi swales, għonja tax-xita, żoni ta' bijoritensjoni, trinek ta' infiltrazzjoni u bjuż hodor fejn jixraq.
- Tnaqqis fl-ilma tal-wiċċ u skariku kkontrollat, filwaqt li jitqiesu avvenimenti kbar ta' maltemp u t-tibdil fil-klima fil-futur.
- Tingħabar l-ilma tax-xita għat-tisqija u għal użi oħra mhux ta' xorb u tinża fi stat tajjeb l-infrastruttura tal-ilma tax-xita.
- Tinżamm u terġa' tintuża ħamrija tajba fit-tisbiħ tal-pajsagġ.
- Ikun implimentat Pjan ta' Vjaġġar Ekoloġiku meta l-iskema tibda taħdem.
- Jitnaddaf is-sit b'mod ikkontrollat qabel l-iskavar u monitoraġġ arkeoloġiku waqt it-tindif u l-iskavar taħt is-supervizjoni tal-SCH.
- Ikun ippreservati fil-post il-karatteristika identifikata maqtugħa fil-blat u l-fdalijiet tal-barriera, u jiżżarma u jerga' jinbena l-ħajt tas-sejjeħ affettwat mil-bini.
- Jitqabbdu arkeologi kkwalifikati biex jissorveljaw l-iskavar u jirrapportaw lill-SCH kwalunkwe fdalijiet li ma kinux magħrufa qabel.
- Jintużaw speċi indigeni u karatteristiċi rurali bħal ħitan tas-sejjeħ fit-tisbiħ pajsagġistiku sabiex jgħin l-iskema tintegra aħjar mal-pajsagġ vernakulari tal-madwar.