Islay Pavements Rehabilitation Project

Highlands and Islands Airports Limited



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Background



- The airfield was built in 1940 to operate as an RAF airbase during WWII.
- Owned and operated by HIAL to enable commercial, essential and lifeline air services to the Island communities.



- The airport is served by two runways. The main runway 13/31, and the secondary runway 08/26.
- Last resurfaced in 2002 in line with the 15-20 year life of the asset.
- Jacobs runway asset inspections 2021 highlighted that runway assets had a level of defect, which if untreated, could result in a deterioration of the runway and reduced operations.
- Site investigations confirmed the poor condition of pavement and corroborated visual inspections.
- The HIAL Board approved the significant investment required for the works to ensure the long-term future of the runways and the continuation of lifeline services and essential air connectivity.

Project Scope

Objective

To provide safe rehabilitated runways for the future operations at Islay Airport at an affordable cost, with all reasonable alternatives considered with construction targeted for summer/early autumn 2023.

Scope

- The scope of the project includes delivery of the works required to rehabilitate the runways and airfield ground lighting units.
- The top asphalt layer within both runways should be replaced.
- The scope requires the removal and replacement of 50mm of the surface to provide a level surface and required durability.



Figure 2 - Areas within the scope of works



Project Justification

- Last resurfaced over 21 years ago
- Runways are nearing end of functional life.
- Evidence of severe deterioration
- Resurfacing works are required to maintain a safe, functional surface for continued operations
- Risk of failure, if left untreated, which would lead to prolonged closure of the aerodrome and associated significant impact on air connectivity to and from the island.
- Works will ensure the long-term future of the runways and the continuation of lifeline services and essential air connectivity.





Open lane joints in the Runway 13 TDZ area

"rapid deterioration over the last 24 months"

"surface is continuing to exhibit significant levels of block & environmental cracking and ravelling"

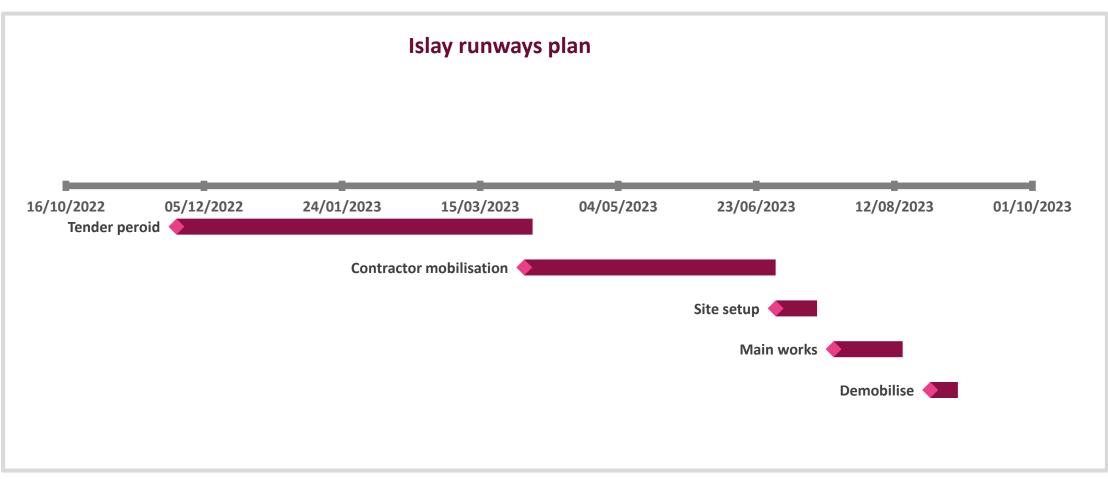
Method of Works





- The current programme targets Contract award in March 2023.
- Contractor targeted on site in May/June 2023 for an estimated period of 10 weeks with the bulk of the works completed within 6 week period
- Construction will operate a phased working pattern throughout the day, 7 days per week.
- Works will commence between 6am and 630am Monday to Sunday.
- Contractors works will end between 9pm – 11pm Monday to Saturday and 8pm Sunday.
- Provision of a 90-minute air ambulance and emergency takeback scenario is also required.

Estimated Timeline



*NB. Dates provided are provisional at this point in time and will be confirmed upon appointment of the Contractor

Method of Works



*Asphalt should be laid when the ambient temperature and ground temperature are at least 10 °C but below 30 °C. The ideal temperature is around 20 °C, and the ground should be dry as moisture can impact the final result.

Why have we chosen the summer?

- Works should be avoided in winter as this is likely to extend the programme and cause further disruption. *
- Winter works also reduce quality which means resurfacing works would need to be carried out more frequently

Why have we chosen extended day working?

- The airport operates during the day
- The airport enables essential and lifeline services, including air ambulances for the island community
- It is vital that the airport remains operational during the period of works to support transport network to the island during a busy period.
- Average of 2300 movements per year for Runway 13/31 and 200 for Runway 08/26.

Environmental Considerations

- The works will be restricted to the runway areas.
- Pollution Prevention Control permit via SEPA will be in place to operate a mobile asphalt batching plant
- HIAL is engaging with Argyll and Bute council to apply for section 61 permit.
- All practicable means shall be applied to mitigate noise emissions





Environmental Considerations



What are we reviewing to mitigate noise?Control at Source

- Equipment noise emissions limits for equipment brought to site and used during construction;
- Equipment replacing use of lighting powered by mobile generators with battery powered, LED flood lights;
- Equipment noise abatement directly controlling noise, e.g. retrofitting controls on equipment plant, turning off noise sounders
- Equipment indirect methods of controlling noise, e.g. acoustic screens, use of quieter equipment, application of quieter processes.



Environmental Considerations



What are we reviewing to mitigate noise?Controls across site by:

- Administrative and legislative control
- Control of delivery areas and times;
- Noise monitoring, to check compliance with noise level limits
- Many of the activities which generate noise can be mitigated to some degree by careful operation of machinery and use of tools. This shall be addressed by tool box talks and site inductions



Next Steps

- Now the Contractor is appointed
 - The Contractor information will provide the exact detail of works, such as shipping and traffic patterns
 - Exact plans will confirm the plant being used and therefore inform noise mitigation strategies
 - Confirm exact programme
 - Contractor will obtain the necessary environmental permits.
- Re-engage with the community post contract award to confirm the above.

