

Project Snapshot
**Sydney Metro -
Western Sydney Airport
Human Factors Integration**



Challenge

The Sydney Metro - Western Sydney Airport project involves the construction of six stations, two tunnels, stabling and maintenance facilities and a 23km metro line between St Marys and Aerotropolis. Acmena was engaged by the SMEC-ARUP Design JV to provide human factors integration (HFI) support for the detailed design of the Stations, Systems, Trains, Operations and Maintenance package.





Approach



Acmena collaborated with HF specialists from partner organisations to develop a method that aligned with the existing HF Integration Plan and ensured that the appropriate level of HF was applied to each design package. Where detailed analysis was required, an HF checklist was deployed to ensure the design was adequately assessed and complied with key standards, guidelines and requirements. As the line services the Western Sydney Airport, it was also critical to ensure that the design incorporated HF considerations specific to airport passengers in addition to standard commuters.

Outcome

The project successfully integrated HF into the design of all six stations, the stabling and maintenance facility and two operations centres, ensuring all HF and safety design issues had been addressed at the end of the detailed design phase. The program resulted in key design changes to accommodate passengers with luggage. Improvements to the tunnel evacuation walkways were also made.





Profile

Cost: Confidential

Start: 2024

Finish: 2025

Client: SMEC-Arup Design Joint Venture

Objective: Support the delivery of various design packages for the Sydney Metro - Western Sydney Airport Stations, Systems, Trains, Operations and Maintenance project.

Services provided: Human Factors Integration



Connect With Us

Acmena has extensive experience in integrating human factors into complex, large scale infrastructure projects. Our highly experienced team specialise in delivering scaled, pragmatic human factors services that deliver value to our clients' projects and help them deliver safe, maintainable, human-centred systems that are fit for purpose.

Contact us to find out how our HF integration expertise can help you ensure your human factors program is as efficient and as cost effective as it can be.

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