Purpose

This document outlines Standard Operating Procedures for the Between Wingtip Staging (BWS) of Ground Service Equipment (GSE) on the International Apron at Sydney Airport. Between Wingtip Staging is available on marked bays only.

Scope

1. BWS Enforcement

Sydney Airport actively enforces requirements under the Between Wingtip Staging Procedure, and stakeholders are required to observe and obey the procedures and any directions issued by Sydney Airport officials relating to the BWS on marked Bays. Failure to do so may result in individuals being issued an Airside Traffic Infringement Notice (ATIN) for ‘Failure to follow any directions of Sydney Airport Authorised Officer’ which carries a three (3) point penalty. Organisations may also be issued a Ramp Safety Incident Report (RSIR).

2. BWS Locations

Due to available wingtip clearances, Between Wingtip Staging markings are restricted to certain bays only across Terminal 1. Stakeholders are not permitted to stage between wingtips on bays where markings are not provided.

3. Between Wingtip Guide Markings

The BWS is marked by a broken red line with ‘Unladen Rolling Stock Only’ marked within the BWS area. The top and bottom of the BWS area is capped by a red hatched area with ‘Keep Clear’ marked with the bottom red hatched marking extending 5 metres from of the edge of the Airside Roadway and top red hatched marking extending to an existing equipment clearance or storage area. Positioning of these markings provides additional clearance between the BWS area, equipment clearance/storage areas and the airside roadway to permit the entry/egress of airport refuelling vehicles and Aviation Rescue Fire Fighting (ARFF) vehicles.
Figure 1 - BWS Marking

- **Aircraft wing tip clearance:** 1.0m
- **TEXT**
  "UNLADEN ROLLING STOCK ONLY"
  1.0m high lettering painted RED
  0.15m from the line
- **EQUIPMENT CLEARANCE MARKING**
  RED stripes 1.0m long and 0.1m wide, separated by 1.0m gaps
- **Staging Areas commence**
  5.0m clear of Airside Road
- **"KEEP CLEAR" Area**
4. **Between Wingtip Staging GSE Restrictions**

   The staging of GSE between wingtips is restricted to rolling stock only. The following restrictions are applicable under this SOP:

   4.1 Storage of GSE between wingtips is restricted to the staging of unladen rolling stock only (profiles, dollies and barrows).

   4.2 Rolling stock is restricted to a maximum height of 1.3m

   4.3 Operators must ensure all rolling stock is free of FOD such as plastic wrap, paper, vinyl covers, etc. to minimise the risk of ingestion.

   4.4 Baggage tugs must be removed from declared BWS areas once rolling stock has been positioned.

   4.5 Rolling stock may only be stored between wingtips a maximum of 30 minutes prior to the next arrival on the bay. Should the bay be occupied by a departing aircraft within this time, ground handlers must not position rolling stock within the BWS until that aircraft has departed.

   4.6 Following advice of a bay change, the ground handler must remove all unladen rolling stock within 10 minutes of receiving advice unless the GHA’s next arriving aircraft is scheduled to arrive on bay within 30 minutes of the previous aircraft’s departure.

   4.7 Following aircraft departure, all remaining rolling stock must immediately be removed from the bay by the ground handler.

5. **Short Turnaround Restrictions**

   During short turnaround operations the following restrictions apply:

   5.1 All laden rolling stock must be staged in designated GSE staging areas where required to be on bay prior to the aircraft arrival.

   5.2 Where space within GSE staging areas does not permit laden rolling stock to be staged, ground handlers must stage such GSE remotely to be brought forward to the bay as space permits.

6. **Between Wingtip Staging Configuration & Operation**

   Operators must ensure GSE is staged in accordance with the following configuration restrictions:

   6.1 Unladen rolling stock within the BWS area must be staged entirely between the BWS markings (See Figure 1). Any rolling stock required on bay that cannot be facilitated within the designated BWS area may be staged in designated equipment staging/storage areas on the bay.

   6.2 Ground handlers must ensure rolling stock staged between the designated BWS markings does not protrude over these markings in order to provide sufficient space at the head of stand and Airside roadway to facilitate the entry and exit of hydrant refuelling trucks and ARFF tender access to the aircraft nose. These areas are to be treated as a
6.3 Unladen rolling stock staged between wingtips must be relocated to the rear of the aircraft following its arrival. To protect entry and egress requirements for hydrant refuelling vehicles, Ground Handlers must ensure a 2 metre gap is maintained between rolling stock staged at the rear of the aircraft and the BWS markings for the adjacent bay (See Figure 2).

6.4 Rolling stock may also be relocated to marked Equipment Staging/Storage Areas at the head of stand following the arrival of the aircraft onto bay (See Figure 2). Where rolling stock is to be re-positioned within Equipment Staging/Storage Areas, required GSE such as JCPL and belt loaders must be permitted to vacate the Equipment Staging/Storage Area prior to relocating rolling stock.

**Note:** Ground handlers must not enter the Between Wingtip Staging area or remove unladen rolling stock until the aircraft engines are shut down and anti-collision warning beacon has been turned off and clearance to move has been indicated by the arriving engineer.

*Figure 2: Post Arrival configuration*
6.5 Alternatively, GHA's may elect to relocate rolling stock to a position behind the trailing edge of the Starboard side wing alongside the marked BWS area. In this configuration, whilst behind aircraft staging remains available, equipment may only be stored to a point in line with the edge of the Starboard side Horizontal Stabiliser in order to maintain access to the rear hold and egress of refuelling vehicles (See Figure 3). GHA's must also ensure no equipment is parked under any wing vents. For guidelines regarding the positioning of equipment under aircraft wings please refer to relevant airline procedures for ground handling standards.

![Figure 3: Staging alongside BWS post-arrival](image-url)

6.6 Catering/Cleaning high lift vehicles are not permitted to access the forward cabin doors until the forward hold loading equipment has been positioned. Catering/Cleaning vehicles must stage remotely prior to the aircraft's arrival and not approach the bay until the aircraft has arrived on bay with engines and anti-collision warning beacon shut
6.7 Staging of unladen rolling stock and GSE between wingtips is not permitted during the loading phase of aircraft turnaround and the area must remain clear to facilitate the movement of GSE during this phase.

7. Pre-Staging of Rolling Stock

7.1 As per Section 5.5 rolling stock may only be stored within the designated BWS 30 minutes prior to aircraft arrival. Should the bay be occupied by a departing aircraft within this time, ground handlers must not position rolling stock between wingtips until that aircraft has departed.

7.2 In situations where rolling stock cannot be positioned in the BWS due to another aircraft still being positioned on bay, equipment may be staged in a designated Pre-Staging Equipment Area (See Figure 4).

7.3 The designated Pre-Staging Equipment Area is to be used for short-term staging of laden or unladen rolling stock only of a period no greater than 30 minutes. Please note, this area is designated for common use of rolling stock only.

7.4 The staging of vehicles or other GSE in a designated Pre-Staging Equipment Area is prohibited under this procedure.

7.5 Upon exiting the area vehicles are not to be closer than 3m from an aircraft if parked on bay.

7.6 During hours of curfew 2300-0600 hours, the Pre-Staging Rolling Stock area may be used for the storage of rolling stock overnight however must be removed on request from Sydney Airport.

Figure 4: Pre-Staging Bay 37
Refuelling Vehicle Access

7.7 Access and Egress requirements of Refuelling Hydrant Vehicles are expressly protected under this SOP by the designated keep clear areas indicated in Figure 2. Refuelling vehicles are permitted to use the empty BWS area and keep clear areas to access the aircraft for refuelling purposes.

7.8 Should the BWS area for the adjacent bay be occupied by staged rolling stock in preparation for an aircraft’s arrival, Refuelling vehicles should enter the adjacent bay and use the keep clear area at the head of stand to access the aircraft (see Figure 4).

![Figure 4 – BWS Area Occupied](image-url)
7.9 Should both bays be occupied, refuelling vehicles should await for unladen rolling stock on the adjacent bay BWS area to be relocated as per section 7.3 and 7.4. Once relocated, refuelling vehicles may use the vacated BWS area on the adjacent bay to access the aircraft (see Figure 5).

8. Nose In Guidance System (NIGS) Failure

8.1 If NIGS are not operational on a bay, between wingtip staging will not be permitted for that bay and the adjacent bay on the Port Side.

8.2 In the event NIGS fail during an arrival of an aircraft onto bay, unladen rolling stock already staged between the wingtips must be left in their staged position and may only be moved once the aircraft engines and anti-collision warning beacon have been shut down and engineers clearance provided (refer to Note Section 4.4).

8.3 In the event the NIGS fail whilst the aircraft is still on the taxiway of taxilane, the aircraft should be held on the taxiway until the BWS area has been cleared of unladen rolling stock to allow the aircraft to be safely marshalled onto bay.

8.4 All NIGS failures must be reported to the Sydney Airport Fault Reporting Centre on 9667 9666.
9. Emergency Response

9.1 In the event of an emergency ground handlers must ensure all unladen rolling stock staged between wingtips is removed to provide clear access to emergency vehicles.

9.2 During an emergency response, ground handling organisations must ensure that their staff remain clear of the area and adhere to their organisation's specific SOPs in relation to Emergency Response.

10. SOP Breaches

10.1 Sydney Airport relies upon stakeholders to adhere to the rules and restrictions outlined under this SOP.

10.2 All breaches of this SOP should be reported to the International Ramp Enforcement Officer (Car 73) on 0408 110 393.