

Apron Management

Airside Operational Instruction 05

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AOI 05 Owner - Airfield Operations



1. AIRCRAFT PUSHBACK PROCEDURES

1.1 a. Central Apron and Central West Apron.

- Pushback plans are located in the EMA Marshalling and Pushback Manual.
- Stand directory is located in Appendix A of this section.
- Stands 20 and 22 are nose in pushback (Restrictions in Capacity Table)
- Stands 21, 23 and 24 are self-manoeuvring (Restrictions in Capacity Table)
- Stands 20 and 24 are Code D capable with restrictions.
- Tug Release Points (TRP) are located on November. Use of TRP(s) is contained within the EMA Marshalling and Pushback Manual.

b. East Apron

- Pushback plans are located in the EMA Marshalling and Pushback Manual.
- Stand directory is located in Appendix A of this section.
- Before operators are able to pushback Code E aircraft from stands 71X, 73X, 77X or Code E or F (max B747-8) aircraft from stand 83W, EMA Airfield Operations are to apply mitigations to the area rear of any occupied stands (78R-86).
- Stand 70R is self-manoeuvring.
- Stands 81 to 86 (Restrictions in Capacity Table)
- Restrictions and special mitigation measures shall be applied by EMA Airfield Operations for Code E aircraft arrival onto Stands 71X and 73X from Hold Delta to these stands, due to taxilane strip reduction.
- Code E aircraft allocated Stands 71X and 73X must be marshalled to a stop and shut down at holding point Delta for onward tow to these stands.
- Wing walkers positioned on the southern edge of Delta must be used for all Code E aircraft towing along Delta, including tow onto Stands 71X and 73X, and during push and pull forward to TRP1D including Stand 77X.
- A Tug Release Point (TRP) is located on Delta. Use of TRP is contained within the EMA Marshalling and Pushback Manual.

c. West Apron

- Pushback plans are located in the EMA Marshalling and Pushback Manual.
- Stand directory is located in Appendix A of this section.
- Tug Release Points (TRP) are located on Juliet. Use of TRP(s) is contained within the EMA Marshalling and Pushback Manual.

d. All pushback procedures are assessed against jet blast, all personnel involved with pushback procedures in line with this document should take into consideration jet blast when undertaking this duty, they should also assess the surrounding area as appropriate.

1.2 ATC Procedures

- a. All aircraft must have ATC permission before starting any pushback.

- i. Permission can be obtained on frequency 124.005MHz (Tower) or 121.905 MHz (Ground).
 - ii. Once the movement has started, all aircraft are under the guidance of ATC and therefore must comply with ATC instructions.
 - iii. Speech communication should be maintained between the aircraft flight deck and the pushback crew so that any ATC instruction during pushback can be acted upon promptly.
- b. Occasionally the procedures may have to be modified due to work on the aircraft movement area or for operational reasons. Operators should be aware that NOTAM and/or Operational Advice Notice publish such temporary conditions or restrictions. In order that safe operation may be assured, it is essential that flight and pushback crews are kept briefed on these published procedures. This is the responsibility of the operator.
- c. Aircraft may, at the discretion of the ATC Controller be requested to be pushed from stands 08 through 17 onto stands 20 through 24. This procedure will only be undertaken if the controller has visual contact with the north side of the Central Apron and can see that the procedure will not have an adverse effect on aircraft safety nor cause interference with other ramp operations. Plans of these pushbacks are contained within the EMA Marshalling and Pushback Manual.
- d. Aircraft pushing back to face west from stands 8 thru 10 are required to push back and pull forward to prevent jet blast on stand 7.
- i. Refer to the EMA Marshalling and Pushback Manual for all pull forward requirements.

1.3 Operating Procedure

- a. EMA does not seek to influence the detailed technical content of push-back procedures which are the clear responsibility of the airline or operator concerned, however the following general requirements are to be met:
 - i. Operators or airlines must ensure that they have comprehensive, written procedures for each aircraft type operated, for use by their crews for pushbacks.
 - ii. Operators must ensure that they have carried out a suitable and sufficient risk assessment of their pushback operation, and to ensure that all measures have been taken to control any potential risks.
 - iii. All ground crew must be trained in the use of the procedures and be certified as competent by a suitably qualified instructor.
 - iv. Operators should nominate a person in charge of the pushback operation.
 - v. The use of aircraft power backs on all aircraft stands and aprons is prohibited.

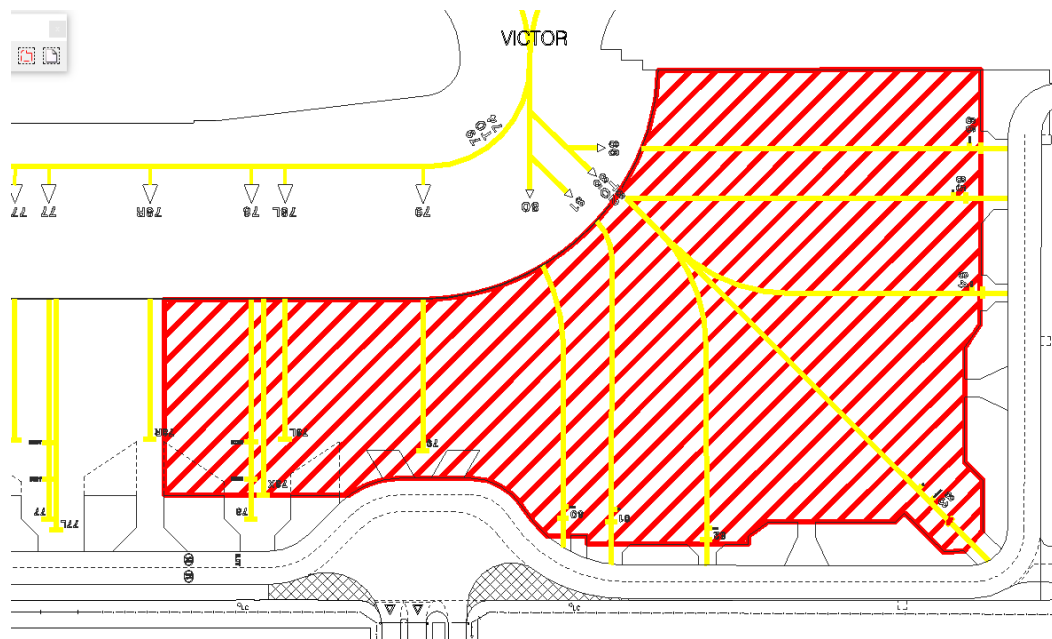
1.4 Safety Procedures

- a. Aircraft must only pushback as directed by ATC and as illustrated in the pushback plans in the EMA Marshalling and Pushback Manual. Crews must not push aircraft into any area

that is not the designated pushback area for that stand without prior permission of, and consultation with, EMA Airfield Operations. When any change or deviation from the standard procedure takes place, ATC and push-back crew are all to be thoroughly briefed by Airfield Operations of the agreed alternative procedure.

- b. All aircraft requiring to re-enter Stand 4 and Stand 5 after push and start must shut down engines and be towed back onto these stands to prevent excess jet blast on surrounding areas.
- c. Aircraft exterior lighting must be lit prior to any aircraft movement. All operators are to refer to company Standing Operating Procedures for aircraft exterior lighting requirements. As a minimum, anti-collision lights must be turned on prior to aircraft movements during daylight hours and anti-collision and navigation lights during hours of darkness and in LVPs.
- d. Permission to start jet engine aircraft on stands 4-7 (East side), 8-17 (Front) and 20, 21,22, 23 and 24 (North Edge) will only be given if it can be assured that all precautions have been taken to ensure traffic safety on the apron roadway system.
- e. There are no parking restrictions for aircraft requiring an 'air start', however 'cross-bleeds' will not be allowed until the aircraft is on the taxiway.
- f. Simultaneous pushbacks may be utilised by ATC on the Central West apron. Stands 40-44 can all be used for simultaneous pushbacks using either the two tug release points (TRP1N / TRP2N) or the inverted 'T' to the rear of stand 46. It is the responsibility of the handling agent to use the TRP's as detailed in the Marshalling & Pushback Manual when instructed to do so by ATC. Pushback crews are to refer to the EMA Marshalling and Pushback Manual for Tug Release Point clearances and ensure the aircraft nosewheel is stopped and positioned on the TRP surface marking of the respective Tug Release Point. Air Traffic Control will not issue a pull forward clearances.
- g. If a change to pushback procedure occurs as a result of work in progress or other requirement, temporary instructions will be promulgated in an Ops Advice Notice.
- h. While the pilot is ultimately responsible for the safety of their aircraft, they cannot realistically satisfy themselves that the area into which they are being pushed is safe without outside assistance, nor necessarily be aware of all the hazards their jetblast/propwash etc. may create. ATC will be aware of which stands are vacant of aircraft and where work is in progress and will ensure that conflicts do not occur between moving aircraft. They do not however have sufficient view of the apron to ensure that individual equipment, vehicles or personnel are clear of the stands especially at night or in poor visibility. It is therefore the responsibility of the pushback crew to ensure that the area immediately behind the aircraft is clear and that there is no risk of collision or potential jetblast/propwash problems. The pushback crew must ensure that the pilot is informed of any potential hazard to or from the aircraft and advise them to use minimum breakaway thrust where they can see that a blast hazard may exist.
- i. The stands at EMA are multi-use configuration therefore extra care must be used when pushback takes place.
- j. When pushback is complete, the tug and crew must return to the apron roadway via the shortest possible route. Reversing is to be kept to an absolute minimum.

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- k. If aircraft require assistance after the pushback crew have vacated the taxi lane, positive ATC clearance is required to re-enter the taxi lane.
- l. The “Tail/Wing walker” should be in a position to direct traffic on the apron roadway system as soon as the push back tug is attached to the aircraft and the aircraft doors are closed. The “Tail/Wing man” should allow traffic to continue to use the apron roadway system until the aircraft is ready to start its engines or to push back.
- m. Stands 21, 23 and 24 are taxi-in, taxi-out, restrictions apply see stand directory in appendix A. Where any doubt exists as to the appropriate clearance, an assessment should be made by Airfield Ops to ascertain wingtip clearance prior to departure.
- n. Aircraft on stand 46 should push back to the bespoke area delineated by inverted T marking. Aircraft to then taxi onto the November taxiway centreline from this point. Pushback plans for stand 46 is included within the EMA Marshalling and Pushback Manual.
- o. All aircraft are to be marshalled onto aircraft stands on the aprons. Pilots must not proceed onto aircraft stands, until positive marshal guidance and marshalling signals are established with the flight deck.
- p. Code E aircraft pushing back from stand 71X and 73X must follow the Code E pushback procedure and pushback into Uniform and pull forward to TRP1D to depart the apron via apron entrance/exit Victor. Wing walkers positioned on the southern edge of Delta must be used for all Code E aircraft towing along Delta, including arriving onto stand and pull forward to TRP1D.
- q. If Code E or above aircraft are pushing back on taxi lane Delta and departing via Victor, the ASCO will advise all staff working on stands 78R thru 86 (see below image) to temporarily cease operations, lower any elevated equipment, and move themselves to the head-of-stand area. When all stands are clear of personnel the ASCO will relay this to the pushback team who can advise the aircraft cockpit crew accordingly. The aircraft cockpit crew can then ask ATC for permission to taxi. Personnel can only recommence unloading / loading operations on stands 78R-86 when the Code E aircraft departing Delta via Victor has exited the apron and is fully established facing east or west on the Alpha taxiway. This procedure does not apply to for Code D aircraft pushing back from these stands.



r. Special procedures apply for Code E aircraft arriving onto Stand 71X and Stand 73X. Code E types using 71X and 73X are to arrive via Victor and STOP and shut down engines at holding point Delta for onward tow to these stands. Strictly no access or egress is available for Code E via Uniform under self-power. Wing walkers positioned on the southern edge of Delta must be used for all Code E aircraft towing along Delta.

1.5 Tug Release Points

- a. Tug Release Points are located on apron taxi lanes. Tug Release Points are designated in white text by the letters TRP, a numeral and the associated taxi lane designation. The use of Tug Release Points are at the discretion of ATC. Where Tug Release Points are not located, a standard push and start clearance shall be issued. When clearance is issued to a Tug Release Point, the aircraft nosewheel must be positioned on the Tug Release Point yellow bar. Standard ATC clearances for Tug Release Points will be issued in the following format:

"CALL SIGN, PUSH AND START APPROVED, TUG RELEASE POINT XX"

- b. All pushback crews must refer to the EMA Marshalling and Pushback Manual for specific pushback routings during the use of TRP clearances as pull forward manoeuvres may be required.
- c. ATC will not issue a pull forward clearance, ground crews need to be familiar with the location and direction of the TRPs.

2. AIRCRAFT PARKING AND SAFETY PRACTICES

2.1 General

- a. It is a requirement at EMA that all aircraft/helicopters wishing to park on the aprons are marshalled onto stand.
- b. Marshalling of aircraft is to be carried out by the handling agent of the aircraft wishing to use the apron, or by EMA Airfield Operations personnel.

- c. Standard aircraft marshalling signals, as laid down in UK Regulation (EU) No. 923/2012 are to be used in all instances. Daylight-fluorescent wands or table-tennis bats shall be used for all signalling by all participating ground staff during daylight hours. Illuminated wands shall be used at night or in low visibility. It is recommended, illuminated marshalling wands have a length of light of 18cm or greater.
- d. Only staff holding current EMA marshalling licence are allowed to carry out this function (personnel undergoing training are exempt providing they are accompanied by a qualified EMA marshalling licence holder).
- e. All stands are designed such that the marshaller should park the aircraft with the nosewheel on the stand centreline, and corresponding 'T' bar. On certain stands, dedicated nose-wheel markings are available; these should only be used for the appropriate aircraft types. Nose-wheel markings for aircraft stands that include 'lettered' identification markings are contained within the EMA Marshalling and Pushback Manual.
- f. In normal situations, marshallers must aim to ensure that they indicate to the aircraft to follow the markings painted on the apron so as to ensure that they maintain adequate safety clearances from fixed obstacles.
- g. The minimum separation distances (aircraft clearance distances) are prescribed in the table below for aircraft arriving or departing an aircraft stand.

Code Letter	Clearance
A	3 m
B	3 m
C	4.5 m
D	7.5 m
E	7.5 m
F	7.5 m

- h. Before marshalling aircraft onto stands, marshallers must ensure that the parking area is free from Foreign Object Debris (FOD) and any obstructions such as pre-staged equipment, is removed to ensure the correct aircraft clearance distance can be achieved in the above table. All ground servicing equipment, vehicles and personnel should be a minimum from the distances prescribed in the above table and must not encroach into the operational stand area during the aircraft arrival/departure.
- i. Where Stand Safety Boxes (SSB), red or white hatched markings and interstand clearways are provided, no equipment, vehicles, or any other obstacles are to be positioned in these areas during an aircraft arrival or departure to/from the stand. Refer to AOI 12 – Control of Vehicles.
- j. Aircraft arriving on stand may require the marshaller to stand in or near to an apron road. To protect the marshal and also to ensure there is no distraction to the flight crew, vehicles are not permitted to drive behind the marshal unless given permission by the marshal or in emergency situations.
- k. Passenger boarding or disembarkation should be halted during the arrival (taxi on) of aircraft on the adjacent (port side) stand. Aircraft requiring an air start; or number 2 engine start on stand must not be authorised to do so until passengers have boarded or fully disembarked on the adjacent stand.

- l. For simultaneous arrival and departure from 2 adjacent stands, the departing aircraft is to be held until the arriving aircraft is stationary on stand.
- m. In exceptional circumstances or for the maintenance of competency EMA reserves the right to marshal any aircraft onto stand. If this is the case the Operations Control Room will notify the handling agent or airline of this before arrival.
- n. If marshal guidance is not present, aircraft are to hold short abeam the stand on the taxiway or taxiway prior to entering the aircraft stand and await marshal guidance and signals before commencing further taxi onto stand. Aircraft must not enter a stand without marshal guidance.

2.2 Maintenance Area Operations

- a. Aircraft parking in the maintenance area shall be marshalled into position by a qualified marshaller holding a valid EMA Marshalling Licence. Wingtip obstacle clearance marshallers (wing walkers) may be required to ensure clearances are maintained from other aircraft, buildings or temporary obstacles. Operators may apply for an exemption against this requirement, this is to be requested in writing to the Head of Airfield Operations. The request is to be supported by a risk assessment, showing equivalent levels of safety and appropriate mitigations for exemption approval.
- b. Intermediate Taxi Holding Position's, located on the Mike taxiway at the intersection with Maintenance Area North and Maintenance Area South, are defined as Mike 4 and Mike 5 (see appendix B). Aircraft holding at either holding position should call EMA ATC for onward taxi clearance. Taxiway Mike south of Holding Point M3 is certified as Code C for public transport operations to abeam the turn into hangar 29. Surface markings, identified by Intermediate Taxi Holding Points, nominated as M4 and M5 are provided at this point to delineate the boundary between the 'Mike' taxiway and the Third Party Managed Area within the Maintenance Area.
- c. Aircraft up to and including code C can taxi into the Maintenance Area North, via holding point M4. As per 2.2a all aircraft must be under positive marshal control and obstacle marshal/wing-walker(s) should be used as required.
- d. Code C aircraft departing from Maintenance Area North, should in all instances be towed up onto the Mike Taxiway, via holding point M4, subject to clearance from ATC. Engines can be started only when the aircraft is on the Mike taxiway facing north. Code B or below can self-manoeuvre up to holding point M4 with onward clearance from ATC.
- e. Code C aircraft can taxi to and from Maintenance Area South via holding point M5, (ATC onward clearance required from M5 for departing aircraft).
- f. Code D aircraft must be towed into the Maintenance Area from an apron stand, departing Code D aircraft should likewise, be towed to a nominated apron parking stand. Code D aircraft under tow, must require wing walker obstacle guidance within Maintenance Area North.

- g. Aircraft pushed and parked on the maintenance area fingers should in all instances be towed on to the Mike taxiway to face north, before engine start/departure. Aircraft parking on the fingers without a tow bar and capable of turning to park (limited to light GA) are permitted to self-manoeuvre off.
- h. Aircraft parking on the washday permitted to self-manoeuvre off (twin engine only, up to Gulfstream 5) should in the first instance be marshalled on (facing east), turned south, and then turned to park facing west. This manoeuvre removes potential jet blast issues from the maintenance area gate.
- i. Aircraft parking at the south end of hangar 35 should, in the first instance be marshalled to the most southerly end of the Mike taxiway, turned to face west then turned north and east through 180° and park facing east. This manoeuvre removes potential jet blast issues from hangar 35.
- j. Maintenance area parking arrangements are detailed in Appendix B.
- k. The largest aircraft that can self-manoeuvre on taxiway MA is a King Air 350 (w/s 17.65m). Aircraft up to a maximum wingspan of 21.45m / length 19.73m (Saab 340B) can be towed along the MA taxiway to from Hangar 21.
- l. Maintenance Area Central including access/egress to Airbourne Colours north is restricted to self-taxi for aircraft with a maximum wingspan not exceeding 20.0m and a maximum length not exceeding 20.0m. Aircraft requiring access/egress through Maintenance Area Central that exceed 20.0m wingspan and length must shut down on the Mike taxiway and be towed through Maintenance Area Central. For departure, aircraft exceeding 20.0m wingspan and length must be towed through Maintenance Area Central to the Mike Taxiway prior to engine start.
- M. Low Power Engine Ground Running (LP EGR) for Code D aircraft (B757/B767) in Maintenance Area North is limited to a maximum duration of 20 minutes, including pre/post maintenance checks.
 - I. No aircraft are to arrive or depart Maintenance Area North whilst Low Power Engine Ground Running is taking place for Code D aircraft.
 - II. It is the responsibility of the (Code D) aircraft operator to ensure affected tenants are contacted prior to the LP EGR, and the Low Power Engine Ground Run will be carried out with no affected movements within Maintenance Area North.
 - III. All tenants and operators within Maintenance Area North are to be aware of aircraft engine ingestion and jet blast areas, and ensure no aircraft, equipment, vehicles or personnel are positioned in proximity to running engines, or whilst anti-collision lights are illuminated.
 - IV. Approval for an engine ground run at any time must be obtained in advance from the Control Room on 01332 852973. Refer to Section 5 AIRCRAFT ENGINE GROUND RUNNING AND THE USE OF APU'S/GPU'S for engine run requests.

2.3 West apron remote aircraft parking stands

- a. Aircraft parking areas, capable of accommodating aircraft up to AN-124 dimensions are situated on the eastern side of taxiway Juliet on the west apron. They are designated as Stands 200 to 203 (from north to south) and are **non**-operational stands to be used for parking purposes only.
- b. As per standard practice, the Operations Control Room will allocate each stand on a request / as required basis.
- c. The following operational requirements should be adhered to when using stands 200 to 203. All aircraft must have ATC permission before starting any movement on or off these stands.
 - All aircraft must be towed-on and towed-off these stands.
 - An engine shutdown and start up should only take place on taxiway Juliet for aircraft up to and including code D). Any above code D aircraft, utilising either stand 200 or 201 should start or shutdown engines with the aircraft positioned on taxiway Bravo (as detailed in AOI 05 pages 16-18 finger tow on plans)
 - No engine runs or engine start/shutdowns should take place whilst the aircraft is on stands 200-203 as this may result in blast damage to cars parked in Long Stay 4 car park and issues for any vehicles using the central/west apron link road.
 - No refuelling to take place on stands 200-203.
 - No cargo unloading/loading to take place on stands 200-203.
 - *Minor* aircraft line maintenance can be performed on stands 200-203.
 - If stand 200 is to be used for a B747-8 or A350-1000 prior approval from the HOA must be requested and the following carried out:
 - i. *Nosewheel to be positioned on A388 nosewheel mark.*
 - ii. *Cones to be placed on the link road around the tail of the aircraft such that vehicles cannot use the northbound lane.*
 - iii. *Stand 98, 120, 121 to be empty when 747-8/A350 aircraft is towed on/off stand 200.*
 - iv. *The Airfield Safety and Compliance Officer (ASCO) should be contacted and requested to attend. The ASCO should provide confirmation (or otherwise) to ATC that stands 98, 120 and 121 are clear before the aircraft is either towed **on** or **off** stand 200.*
- d. Taxiway Juliet is code D; any aircraft with a wingspan greater than 52m being towed along this taxiway must have a wing walker on each wingtip.

2.4 Isolated Aircraft Parking Position

Regulation defines the isolated parking position as an area suitable for the parking of an aircraft which is known or suspected to be the subject of unlawful interference, or for other reasons needs isolation from normal aerodrome activities.

“A designated parking area has been identified in the event of unlawful interference with aircraft (for example aircraft hijack). Details of this area are contained in the Aerodrome Emergency Plan”.

2.5 Follow Me Vehicles

- When Low Visibility operations/procedures are in force, a “follow me” vehicle will be available on request for all aircraft entering the central, central-west or east apron. EMA

will provide this service. The marshaller will take responsibility for the final positioning of the aircraft once it enters the stand area.

2.6 Special precautions for stands accessed/egressed through the rear of stand road.

- a. When aircraft are parked onto stands 8–17, the marshaller will ensure that all vehicles are sufficiently clear for the aircraft to proceed onto stand.
- b. A minimum 4.5m wingtip to obstacle clearance must be maintained between the manoeuvring aircraft and stationary vehicles on the Central Apron rear of stand road.

2.7 Approaching a Parked Aircraft

Marshalls are to ensure that no personnel or vehicles approach an aircraft which has just arrived onto stand until the anti-collision lights have gone out, it has been chocked and the engines have run down.

Note: It is possible that until suitable passenger steps have been located on the aircraft, the aircraft emergency escape slides may still be activated.

2.8 Equipment Parking

- a. Dedicated on stand equipment parking is provided on each of the aprons at EMA. On the Central Apron these are denoted by GSE parking areas with a red solid line and white border. On other aprons these are denoted by solid white borders.
- b. Specific arrangements apply to the parking of equipment on the east apron and west apron. Additional equipment parking, within areas denoted by dashed white lines on these stands is available. These areas are classified as 'temporary equipment bays' and should only be used when there are no aircraft present and should be cleared prior to the arrival of an aircraft. Refer to AOI 12 – Control of Vehicles. Both East and West Apron Marshalling and Pushback Manuals specify illustrations of the temporary equipment bay areas, in relation to the aircraft stand that must be clear for the aircraft arrival / departure.

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Appendix A – Central & Central West Apron Stand Directory

CENTRAL & CENTRAL WEST APRONS

Changes in **Red** or highlighted in **Yellow**
 A321neo = A321neo & A320neo with Sharklets
 B737-800SW = B737-800 with Scimitar winglets

Stand No.	MAX. WIDTH (m)	MAX. LENGTH (m)	LARGEST TYPES	COMMENTS / REMARKS
4	30.63	31.68	ATP; ATR72; E175LR	Nose-in / Push-Back
5	36.00	39.48	B737-800SW; B737-MAX8; A320neo	Nose-in / Push-Back
6	36.00	39.48	B737-800SW; B737-MAX8; A320neo	Nose-in / Push-Back
7	36.00	39.48	B737-800SW; B737-MAX8; A320neo	Nose-in / Push-Back
8	36.00	39.48	B737-800SW; B737-MAX8; A320neo	Nose-in / Push-Back
9	36.00	44.51	A321neo; B737-800SW; B737-MAX8 & MAX10	Nose-in / Push-Back
10	36.00	44.51	A321neo; B737-800SW; B737-MAX8 & MAX10	Nose-in / Push-Back
11	36.00	44.51	A321neo; B737-800SW; B737-MAX8 & MAX10	Nose-in / Push-Back
12	36.00	44.51	A321neo; B737-800SW; B737-MAX8 & MAX10	Nose-in / Push-Back
14	36.00	44.51	A321neo; B737-800SW; B737-MAX8 & MAX10	Nose-in / Push-Back
15	36.00	44.51	A321neo; B737-800SW; B737-MAX8 & MAX10	Nose-in / Push-Back
16	36.00	44.51	A321neo; B737-800SW; B737-MAX8 & MAX10	Nose-in / Push-Back
17	36.00	44.51	A321neo; B737-800SW; B737-MAX8 & MAX10	Nose-in / Push-Back
20	50.90	54.94	B767-300W	Taxi-in up to Code C (737/A321) only / Push-back; not to be used if 21 or 22 in use
21	36.00	44.51	A321neo; B737-800SW; B737-MAX8 & MAX10	Taxi-in / Taxi-out; not to be used if 20 in use
22	36.00	44.51	A321neo; B737-800SW; B737-MAX8 & MAX10	Nose-in / Push-back; not to be used 20 or 24 in use
23	36.00	44.51	A321neo; B737-800SW; B737-MAX8 & MAX10	Taxi-in / Taxi-out; not to be used if 24 in use
24	41.10	47.90	B757-200W	Taxi-in / Taxi-out up to Code C (737/A321) only; taxi out via Quebec; not to be used if 22 or 23 in use
30	36.00	44.51	A321neo; B737-800SW; B737-MAX8 & MAX10	Nose-in / Push-Back
31	27.05	27.17	ATR72; ATF; EMB135	Nose-in / Push-Back
32	36.00	39.48	B737-800SW; B737-MAX8; A320neo	Nose-in / Push-Back
33	36.00	39.48	B737-800SW; B737-MAX8; A320neo	Nose-in / Push-Back
40	36.00	39.48	B737-800SW; B737-MAX8; A320neo	Nose-in / Push-Back; not to be used if 42 in use
41	36.00	44.51	A321neo; B737-MAX10	Nose-in / Push-Back; not to be used if 42 in use
42	64.80	63.73	B777-200; A330-900; B787-9; A340-300	Nose-in / Push-Back; not to be used if 40 or 41 in use
43	36.00	44.51	A321neo; B737-MAX10	Nose-in / Push-Back; not to be used if 45 in use
44	36.00	44.51	A321neo; B737-MAX10	Nose-in / Push-Back; not to be used if 45 in use
45	50.90	54.94	B767-300W; B757-200W	Nose-in / Push-Back; not to be used if 43 or 44 in use
46	36.00	39.48	B737-800SW; B737-MAX8; A320neo	Nose-in / Push-Back

*** B767 Tow-on, Tow-off via Q only ***
 Access via bellmouth QUEBEC only
 *** B757 Tow-on, Tow-off via Q only ***

Note: Until further notice please ensure that stand 40 is always used in advance of stand 41

Appendix A – East Apron Stand Directory

Jun-25	EAST APRON										
Stand No.	MAX.	MAX.	LARGEST TYPES	Do not use if any of these stands in use							COMMENTS / REMARKS
	WIDTH	LENGTH		70	70L	71X					
70R	22.81	21.58	SH360 ; SF340	70	70L	71X					Suitable for self-manoeuving
70	30.63	36.40	B737-400 ; BAe ATP	70R	70L	71X					
70L	36.00	44.51	A321neo ; B737-MAX10	70R	70	71	71X				
71X	65.00	63.73	B777-200F	70R	70	70L	71	72	73	73L	
71	30.63	68.30	B737-400 ; BAe ATP	70L	71X	72					
72	36.00	44.51	A321neo ; B737-MAX10	71	71X	73	73L	73X			
73	28.89	33.40	up to B737-300	71X	72	73L	73X	(74)			74 downgrades to 757W if a 733 on 73
73L	36.00	44.51	A321neo ; B737-MAX10	71X	72	73	73X	74			
73X	65.00	70.67	B747-400F	72	73	73L	74	74L	(75R)		75R downgrades to ATR42 if 744 on 73X 73 downgrades to ATR72 if a 767 on 74
74	51.00	54.94	B767-300W	(73)	73L	73X	74L	75R			
74L	36.00	44.51	A321neo ; B737-MAX10	73X	74						
75R	29.20	36.40	B737-400 ; AN-26 ; Fk50 ; F27	(73X)	75						
75	51.00	54.94	B767-300W	75R	75L						
75L	29.20	36.40	B737-400 ; AN-26 ; Fk50 ; F27	75	76						
76R	29.20	36.40	B737-400 ; AN-26 ; Fk50 ; F27	76							
76	51.00	54.94	B767-300W	75L	76R	77R					
77R	29.20	36.40	B737-400 ; AN-26 ; Fk50 ; F27	76	77	77X					
77X	65.00	70.67	B747-400F	77R	77	77L	78R	78	(78L)		78L can be used only when 77X is parked
77	51.00	54.94	B767-300W	77R	77X	77L					
77L	29.20	36.40	B737-400 ; AN-26 ; Fk50 ; F27	77	77X						
78R	29.20	36.40	B737-400 ; AN-26 ; Fk50 ; F27	77X	78						
78	36.00	39.52	A320 ; B737-MAX8	77X	78R	78L					
78L	29.20	36.40	B737-400 ; AN-26 ; Fk50 ; F27	(77X)	78	79					
79	36.00	39.52	A320 ; B737-MAX8	78L	80	81					
80	29.20	36.40	B737-400 ; AN-26 ; Fk50 ; F27	79	81						
81	51.00	49.82	B767-200W ; A310 ; B757-200W	79	80	82	83W				
82	30.63	36.50	BAe ATP ; ATR72 ; B737-400	81	83W						
83 (737)	30.63	36.50	BAe ATP ; ATR72 ; B737-400	83W							
83W (747)	68.40	76.30	B747-8F ; A350-1000 ; B777-300ER	81	82	83	84	85			
84	30.63	36.50	BAe ATP ; ATR72 ; B737-400	83W	85						
85	50.90	54.94	B767-300W	83W	84	86					
86	30.63	36.50	BAe ATP ; ATR72 ; B737-400	85							

NOTES:
 1. Be aware of the "Caution - Jet Blast" markings on the East Apron when an aircraft is entering or departing the apron via VICTOR apron entrance/exit
 2. Code E aircraft (eg.B747,B777) will all enter/exit the East apron via the VICTOR apron entrance.
 - Inbound aircraft for stands 77X and 83 will taxi to stand under their own power.
 - Inbound aircraft for stands 71X and 73X will shut down at the DELTA Hold and be towed to stand
 - All departing aircraft will be pushed/towed to TRP1D and will taxi under their own power from there via VICTOR.
 - All Code E/F aircraft tows must be accompanied by wing walkers

Typical Stand Usage Combinations

		1	2	3	4	5	Wide
70R	SH360 ; SF340			SF340			
70	B737-400 ; ATR72	B734			B734	B734	B772
70L	A321neo ; B737-MAX10		A321				
71X	B777-200F						
71	B737-400 ; ATR72	B734		B734	B734	B734	B744
72	A321neo ; B737-MAX10		A321				
73	up to B737-300	B733			B733	ATR72	
73L	A321neo ; B737-MAX10			A321			
73X	B747-400F ; B777-200F						B763W
74	B767-300W		B763W		B752W	B763W	
74L	A321neo ; B737-MAX10	A321		A321			B763W
75R	B737-400 ; ATR72	B734		B734			
75	B767-300W		B763W		B763W	B763W	B763W
75L	B737-400 ; ATR72	B734		B734			
76R	B737-400 ; ATR72	B734		B734			B763W
76	B767-300W		B763W		B763W	B763W	
77R	B737-400 ; ATR72	B734					B744
77X	B747-400F ; B777-200F						
77	B767-300W		B763W	B763W	B763W	B763W	
77L	B737-400 ; ATR72	B734					
78R	B737-400 ; ATR72	B734	B734	B734		B734	B734
78	A320 ; B737-MAX8				A320		
78L	B737-400 ; ATR72	B734	B734	B734		B734	B734
79	A320 ; B737-MAX8				A320		
80	B737-400 ; ATR72	B734	B734	B734		B734	B748
81	B767-200W ; A310 ; B757-200W						
82	B737-400 ; ATR72	B734		B734			B748
83(737)	B737-400 ; ATR72	B734		B734			
83W(747)	B747-8F ; B777-300ER ; A350-1000		B748		B763W	B763W	
84	B737-400 ; ATR72	B734					B734
85	B767-300W			B763W			
86	B737-400 ; ATR72	B734	B734		B734	B734	

Appendix A – West Apron Stand Directory

Stand No.	MAX.		LARGEST TYPES	Comments/Remarks	Adjacency Rules
	WIDTH (m)	LENGTH (m)			
98	73.30	70.70	AN124 ; B747-400	Nose-In / Push-Back	Not to be used if 99, 120 or 121 in use
99	38.06	57.40	B757-200 (not B757-200W)	Nose-In / Push-Back	Not to be used if 98 or 100 in use
100	29.00	57.40	B737-400/300 ; ATR72	Nose-In / Push-Back	Not to be used if 99 in use ; use in conjunction with 98
101	64.80	63.73	B777-200 ; MD11 ; A330-300	Nose-In / Push-Back	
102	50.90	54.94	B767-300W	Nose-In / Push-Back	Not to be used if 102R in use
102R	64.80	63.73	B777-200 ; MD11 ; A330-300	Nose-In / Push-Back	Not to be used if 102 or 103 in use
103	50.90	54.94	B767-300W	Nose-In / Push-Back	Not to be used if 102R or 103R in use
103R	64.80	63.73	B777-200 ; MD11 ; A330-300	Nose-In / Push-Back	Not to be used if 103 or 104 in use
104	44.85	54.94	A300-600	Nose-In / Push-Back	Not to be used if 103R or 105L in use
105L	64.80	63.73	B777-200 ; MD11 ; A330-300	Nose-In / Push-Back	Not to be used if 104 or 105 in use
105	44.85	54.94	A300-600	Nose-In / Push-Back	Not to be used if 105L in use
106	41.10	54.94	B757-200W ; C130 ; AN12	Nose-In / Push-Back	Not to be used if 107 in use
107	73.30	80.40	AN124 ; B747-8F	Nose-In / Push-Back	Not to be used if 106 or 108 in use
108	41.10	54.94	B757-200W ; C130 ; AN12	Nose-In / Push-Back	Not to be used if 107 or 109(747) in use
109(757)	41.10	54.94	B757-200W ; C130 ; AN12	Nose-In / Push-Back	
109(747)	73.30	77.00	AN124 ; B747-8F	Nose-In / Push-Back	Not to be used if 108 or 110 in use
110	41.10	54.94	B757-200W ; C130 ; AN12	Nose-In / Push-Back	Not to be used if 109(747) or 111 in use
111	73.30	77.00	AN124 ; B747-8F	Nose-In / Push-Back	Not to be used if 110 or 112 in use
112	41.10	54.94	B757-200W ; C130 ; AN12	Nose-In / Push-Back	Not to be used if 111 in use
114	44.85	54.94	A300-600	Nose-In / Push-Back	
120	50.90	54.94	B767-300W	Nose-In / Push-Back	Not to be used if 98 in use
121	50.90	54.94	B767-300W	Nose-In / Push-Back	Not to be used if 98 or 122 in use
122	30.63	36.40	ATP ; B737-400	Nose-In / Push-Back	Not to be used if 121 in use
123	30.63	36.40	ATP ; B737-400	Nose-In / Push-Back	Not to be used if 124R in use
124R	52.00	54.94	C17 Globemaster ; B767-300W	Nose-In / Push-Back	Not to be used if stands 123 or 124 in use
124	28.89	36.40	B737-400	Nose-In / Push-Back	Not to be used if 124R in use
125	36.00	39.47	B737-800W	Nose-In / Push-Back	
200	79.75	72.73	A380/AN124/A350-1000/B777-300/B747-8/-400	Remote parking only	Access for Code F aircraft (A380/AN124/B748F)
201L	36.00	39.47	B737-800SW ; B737-MAX8	Remote parking only	Not to be used if 201 in use
201	64.95	70.70	B747-400 ; A340-300 ; B777-200	Remote parking only	Access for B747/B777/A340 - wingmen must be used when towing on/off stand
201R	36.00	39.47	B737-800SW ; B737-MAX8	Remote parking only	Not to be used if 201 in use
202L	36.00	39.47	B737-800SW ; B737-MAX8	Remote parking only	Not to be used if 202 in use
202	51.76	54.94	C17 ; B767-300W ; A300-600	Remote parking only	Not to be used if 202L or 202R in use
202R	31.23	36.40	B737-400 ; ATP	Remote parking only	Not to be used if 202 or 203 in use
203	51.76	54.94	C17 ; B767-300W ; A300-600	Remote parking only	Not to be used if 202R or 203R in use
203R	36.00	39.47	B737-800SW ; B737-MAX8	Remote parking only	Not to be used if 203 in use

Changes in red

WEST APRON

Finger 200 & 201 mitigation for Code E and above access/egress.

200 #	-	-	-	A380 ; AN124 ; B777-300 ; B747-400	No access/egress if stands 98 or 120 in use
200 #	-	-	-	A350-1000 ; B747-8	No access/egress if stands 98, 120 or 121 in use. A338 mark ; A338 mark ; comes on link road under tail
201	-	-	-	B747-400	Wingtip clearance walkers required Port and Starboard

Appendix A Stands 200 to 202L Stand Directory

Last updated:
Nov-22

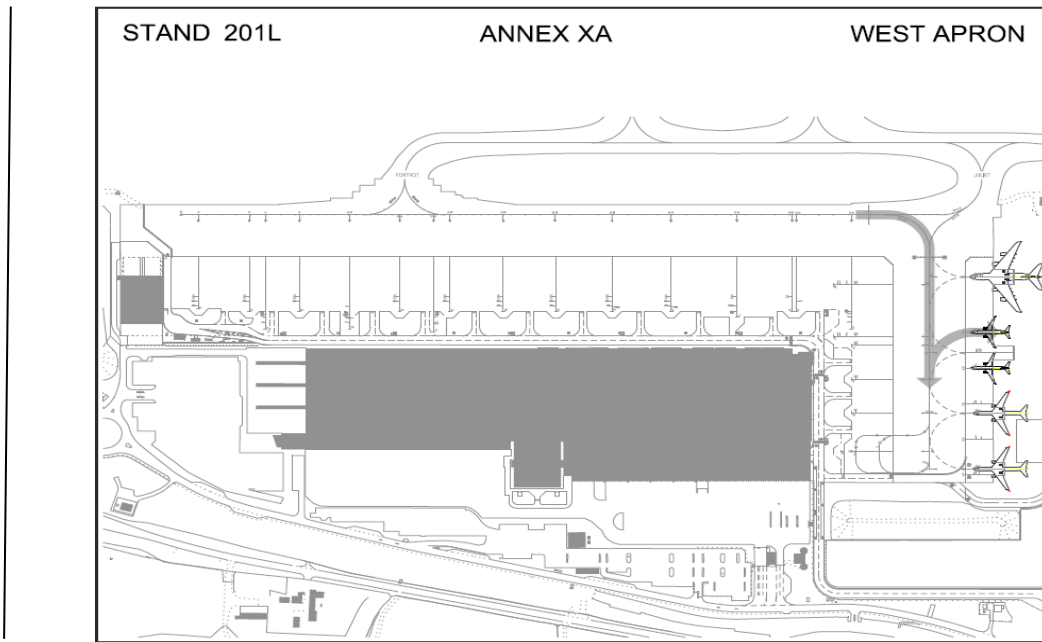
Stands 200 to 203 - capacities and nosewheel positions

Stand 200		Stand 201		Stand 202		Stand 203		Stand 201L		Stand 201R		Stand 202L		Stand 202R		Stand 203R	
Max Span 80m		Max Span 65m		Max Span 52m		Max Span 52m		Max Span 36m		Max Span 36m		Max Span 36m		Max Span 31.23m		Max Span 36m	
Max Length 72.73m		Max Length 70.7m		Max Length 54.94m		Max Length 54.94m		Max Length 39.47m		Max Length 39.47m		Max Length 38.47m		Max Length 38.4m		Max Length 39.47m	
Max Wheeltrack 14.1m		Max Wheeltrack 12.65m		Max Wheeltrack 11.25m		Max Wheeltrack 11.25m		Max Wheeltrack - unlimited		Max Wheeltrack - unlimited		Max Wheeltrack - unlimited		Max Wheeltrack - unlimited		Max Wheeltrack - unlimited	
Aircraft	Nosewheel Mark	Aircraft	Nosewheel Mark	Aircraft	Nosewheel Mark	Aircraft	Nosewheel Mark	Aircraft	Nosewheel Mark	Aircraft	Nosewheel Mark	Aircraft	Nosewheel Mark	Aircraft	Nosewheel Mark	Aircraft	Nosewheel Mark
A380-800	A388	B747-400	B744NW	C17	C17NW	C17	C17NW	B737-800W	B738	B737-800W	B738	BAe ATP	ATP	BAe ATP	ATP	BAe ATP	ATP
AN124	A124NW	B777-200F	B744NW	B767-300W	B763NW	B767-300W	B763NW	B737-800SW	B738	B737-800SW	B738	B737-300	B733/734	B737-300	B733/734	B737-300	B733/734
B747-8	A388	B787-10	B763NW	IL-76	A306NW	IL-76	A306NW	B737-MAX8	B738	B737-MAX8	B738	B737-400	B733/734	B737-400	B733/734	B737-400	B733/734
B747-400	B744NW	A340-300	B744NW	VC-10-ALL	B763NW	VC-10-ALL	B763NW	B737-900	B738	B737-900	B738	AN-72i-74	B733/734	AN-72i-74	B733/734	AN-72i-74	B733/734
B777-300	A388	A330-300	B744NW	A400M	A306NW	A400M	A306NW	B737-MAX9	B738	B737-MAX9	B738	AN-26i-32	ATP	AN-26i-32	ATP	AN-26i-32	ATP
B777-200F	A124NW	MD-11	B744NW	A300-600	A306NW	A300-600	A306NW	A321	B738	A321	B738	B737-500	B733/734	B737-500	B733/734	B737-500	B733/734
B787-10	B763NW	C17	C17NW	C130 / LOH	A306NW	C130 / LOH	A306NW	A321neo	B738	A321neo	B738	Global Express	B733/734	Global Express	B733/734	Global Express	B733/734
A350-1000	A388	B767-300W	B763NW	B757-200W	A306NW	B757-200W	A306NW	A319	B738	A319	B738	Gulfstream5/6	B733/734	Gulfstream5/6	B733/734	Gulfstream5/6	B733/734
A340-600	A388	IL-76	B744NW					A320	B738	A320	B738	DHC-8-Q400	B733/734	DHC-8-Q400	B733/734	DHC-8-Q400	B733/734
A330-300	A124NW	DC-10-ALL	B744NW					B737-300	B733/734	B737-300	B733/734	ATR-42i-72	B733/734	ATR-42i-72	B733/734	ATR-42i-72	B733/734
MD-11	A124NW	L1011-ALL	B744NW					B737-400	B733/734	B737-400	B733/734	BAe 146-300	B733/734	BAe 146-300	B733/734	BAe 146-300	B733/734
C17	C17NW	VC-10-ALL	B744NW					B737-500	B733/734	B737-500	B733/734	RJ100	B733/734	RJ100	B733/734	RJ100	B733/734
B767-300W	B763NW	A400M	B744NW					AN-72i-74	B733/734	AN-72i-74	B733/734						
IL-76	A124NW	A300-600	A306NW					Emb-195i-175	B733/734	Emb-195i-175	B733/734						
DC-10-ALL	A124NW	C130 / LOH	B744NW					Global Express	B733/734	Global Express	B733/734						
L1011-ALL	A124NW	B757-200W	B744NW					Gulfstream 5/6	B733/734	Gulfstream 5/6	B733/734						
VC-10-ALL	A124NW							DHC-8-Q400	B733/734	DHC-8-Q400	B733/734						
A400M	A124NW							ATR-42i-72	B733/734	ATR-42i-72	B733/734						
A300-600	A306NW							BAe 146-300	B733/734	BAe 146-300	B733/734						
C130 / LOH	A124NW							RJ100	B733/734	RJ100	B733/734						
B757-200W	A124NW							BAe ATP	ATP	BAe ATP	ATP						
								AN-26i-32	ATP	AN-26i-32	ATP						

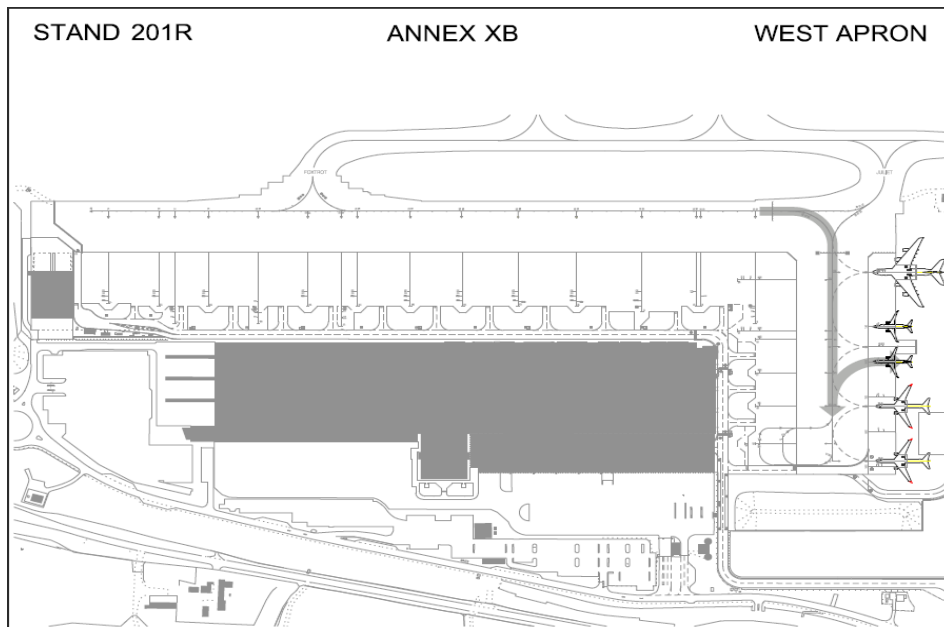
Notes:
 Stand 200 - A380/AN124/B747-8 - stands 98 , 120 & 121 must be clear when manoeuvring on to / off stand 200
 Stand 201 - B747-400/B777-200F/A340 - wingmen must be used when manoeuvring on to / off stand 201

Tow On plans for stands 201L/R, 202L/R and 203R

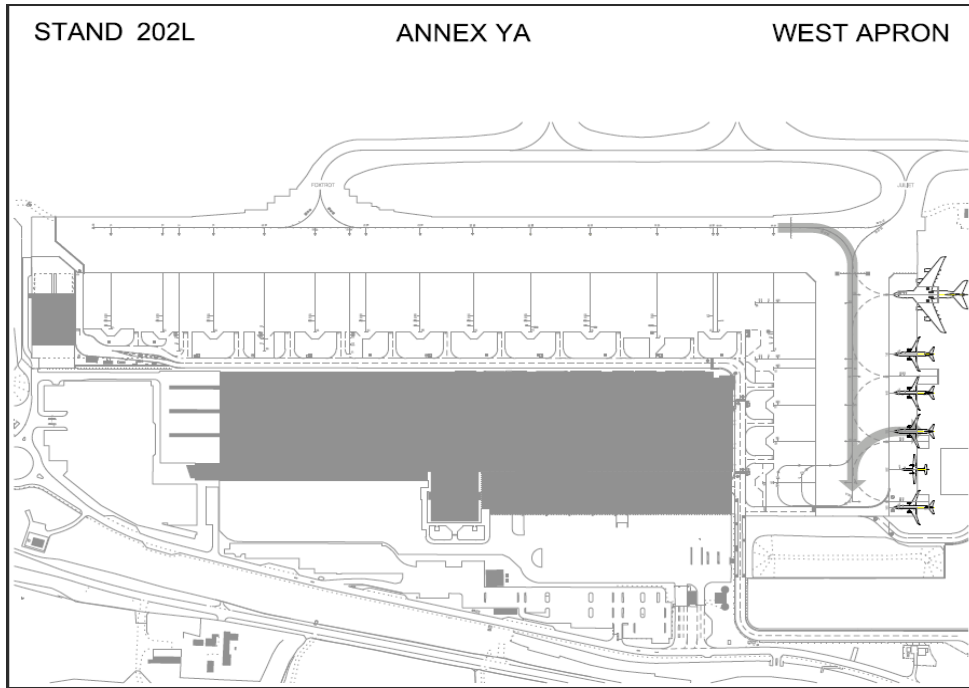
201L



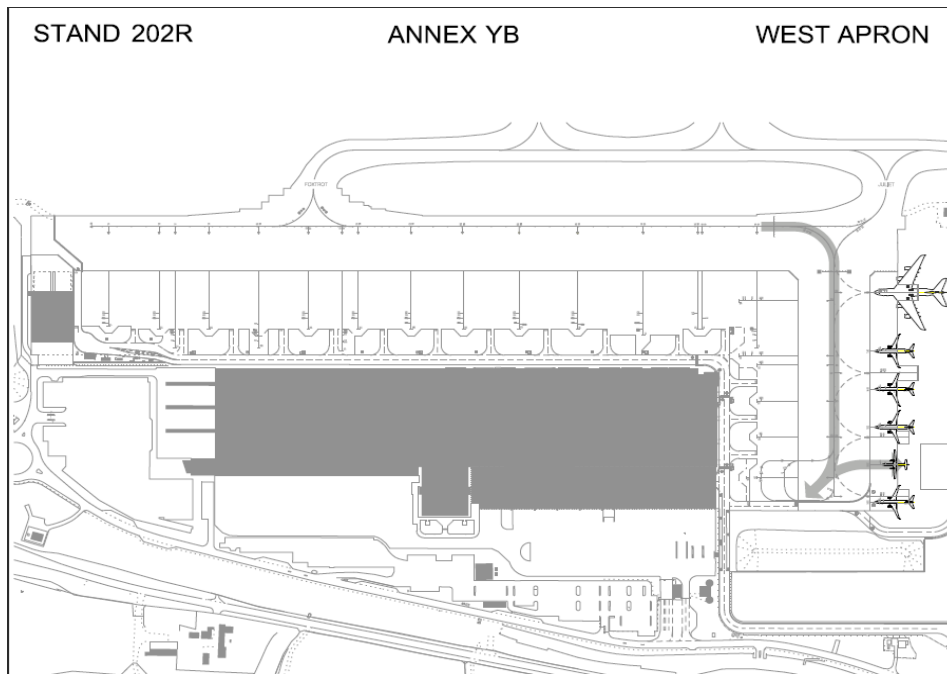
201R



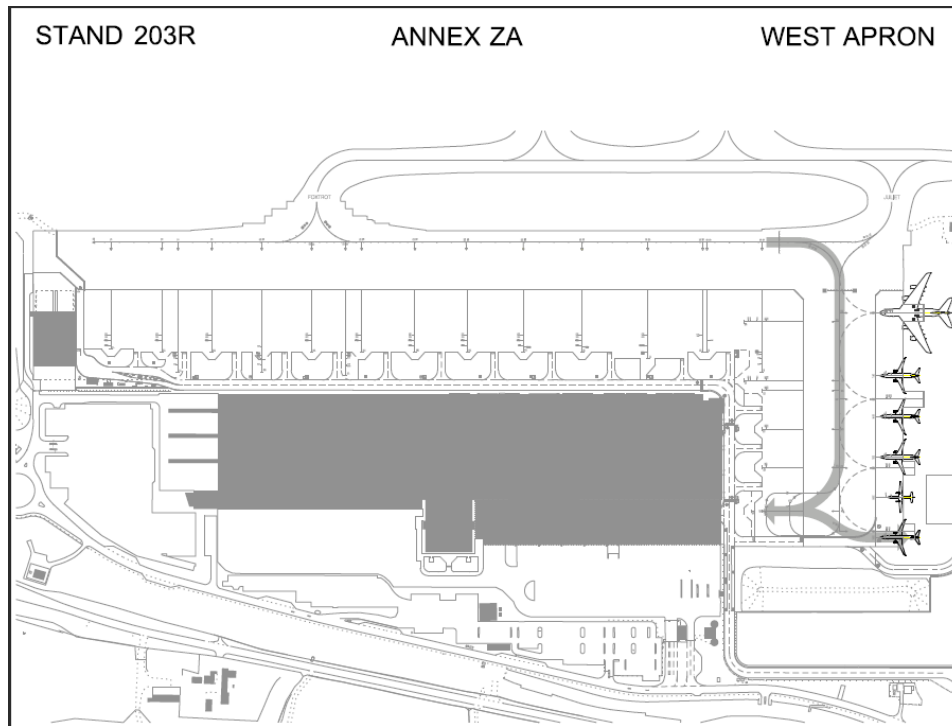
202L



202R



203R



Appendix B - Maintenance Area Stand Directory

Maintenance Area Capacities		<i>Changes in red</i>			Mar-26	
No.	MAX. WIDTH (m)	MAX. LENGTH (m)	LARGEST TYPES	COMMENTS / REMARKS	SELF-MANOEUVRING	
60LAEGRA	30.63	26.01	ATP ; AN-26	Light Aircraft engine ground running	N/A	
61	34.32	37.57	A320 ; B737-700 (not -700W)		N/A	
62	40.41	44.51	C130 Hercules ; A321 ; B737-MAX8	Tow from / to abeam Finger 60	N/A	
63WP	47.57	54.94	B767-300 (not -300W)	Caution a/c on 60/61/62/64/65	W/span 28.7m, Length 29.5m maximum (GS5/GX5000/GX5500)	
64	30.63	26.01	ATP ; AN-26		N/A	
65	40.41	45.00	A321 ; B737-MAX8 ; C130 Hercules	Caution aircraft on 64	N/A	
DON1-30	22.04	20.85	Citation C.680 Sovereign+	Caution jet blast	Up to W/span 22.04m, Length 20.85m maximum	
DON31-35	17.65	15.00	King Air 250 ; Beechjet 400		Up to W/span 17.65m, Length 15.00m maximum	
GA1-6	22.04	20.85	CL604 ; F2000 ; F900 ; C680+	Caution jet blast	Up to W/span 22.04m, Length 20.85m maximum	
GA7-10	36.00	44.51	A321 ; B737-MAX8	Caution jet blast ; taxi-in, tow-out	Up to W/span 22.04m, Length 20.85m maximum	
GA11-15	31.92	34.00	GS700/800 ; BAe146 ; GX7500/8000	Caution jet blast	W/span 31.92m, Length 34m maximum (GS650/GX7500/GX8000)	
	36.00	44.51	A321 ; B737-MAX10	Caution jet blast	N/A	
	41.10	47.32	B757-200W	Under tow only	N/A	
GA16	20.00	20.00	King Air 350 ; Bae 41 ; Do228		Self-manoeuving	
DHLHGR1-5	-	-	B767-300W	Under tow only		
WAHGR1-5	-	-	B737-MAX8	Under tow only		
JCB1-6	36.00	34.00	BBJ8 ; Gulfstream 650 ; Global 7500	Caution jet blast		
MA1-4	11.53	9.09	B58 Baron ; SF260 Marchetti		B58/SF260	
RRHGR1-8	31.92	34.00	GS700/800 ; BAe146 ; GX7500/8000			
RVL1-25 #	17.65	15.00	Cessna 406 ; King Air 350 ; (Saab340B#)		C406/KA350	
H145RVL1-5	21.44	19.73	Saab 340	Under tow only		
BCTHGR	36.00	44.51	A321	Under tow only	N/A	
ABCHGR(N)	36.00	44.51	A321 ; B737-MAX8	Under tow only - inside hangar	N/A	
ABCHGR(S)	-	-	B757-200W	Under tow only - inside hangar	N/A	
ABCH_NTH	36.00	44.51	A321 ; B737-MAX8	Under tow only - outside hangar	N/A	
#	21.45	19.73	Saab 340B	Under tow only (MA taxiway to/from Hgr 21)		

3. MARSHALLING LICENCES

3.1 The marshalling licence is evidence that the holder has undergone a formal course of instruction on marshalling aircraft and has subsequently demonstrated their knowledge of the requirements in a written and practical examination. The EMA Marshalling Licence entitles the holder to marshal aircraft at EMA. It does not entitle the holder to any right of access or any other privileges.

3.2 The Permit

- a. The permit is valid for a period not exceeding 3 years.
- b. The permit remains the property of EMA and must be surrendered in the following circumstances:
 - i. On demand by the Airport.
 - ii. Immediately if the holder loses their EMA Airside Driving Licence.
 - iii. When a change of employer occurs at the airport. (If commencement of new employment is within one calendar month the licence will be updated, if longer the licence is revoked).
 - iv. When the holder ceases to be employed at the airport.
 - v. On demand as a penalty for an offence/series of offences.
 - vi. If the holders ID card is lost or revoked.

3.3 Administration

The scheme is administered by EMA Operations Technical Trainers, who provide the following services in support of the scheme:

- i. Training for EMA and tenant company personnel.
- ii. Issue of the permit and supporting documentation

Any requests to book 8 or more persons on to a single scheduled course will require a non-refundable deposit of 50% of the training cost per attendee. Any operator who would like to request a bespoke course outside of the published timetable, or to book a place on a course should email training@eastmidlandsairport.com to obtain a quotation and availability.

3.4 Competency

Upon successful completion of marshalling training (including written and practical examinations), no less than '20' supervised marshalling of aircraft onto stand should be undertaken. A record of each successful marshal shall be documented on the Marshalling Competency Record (provided by the EMA Technical Trainers). The completed document should be signed off by an authorised company marshaller and returned to the EMA Training Team no later than 3 months after training.

3.5 Safety Regulation

Penalty points may be awarded against those marshalling non-compliances listed in AOI 14 'Airside Safety Regulation Scheme'. Any non-compliance observed by the control room (on CCTV), should be notified to the duty Airfield Safety and Compliance Officer immediately.

4. AIRCRAFT CHOCKING AND THE USE OF TRAFFIC CONES

4.1 Chocks

- a. It is the responsibility of the Handling Agent (HA) to ensure that chocks are provided and that the aircraft is chocked. It is the HA's responsibility to ensure that no person or vehicle approaches or disembarks the aircraft until the aircraft is fully chocked. The HA must ensure that an adequate and sufficient supply of chocks is available at all times.
- b. Individual operators should have procedures in place relating to the chocking of aircraft, with consideration given to the prevailing (and forecasted) weather conditions.
- c. On departure chocks should remain in place until a manned tug and tow bar are secured to the aircraft for push-back with the exception of self-manoeuvring stands.

4.2 Use of Traffic Cones

- a. Traffic cones can be used effectively on the ramp to mark the extremities of aircraft and so assist in preventing collisions between vehicles and aircraft. It should however be remembered that cones are designed with road traffic in mind and not the blast which may be experienced from the jets of a taxiing aircraft.
- b. Cones may be used in the circumstances detailed above only, in accordance with the following criteria:
 - i. All road traffic cones used on the movement area are to comply with the following standards:
 - BS EN 13422:2004+A1:2009 (Portable road traffic signs – cones and cylinders).
 - Cones weighted in accordance with manufacturer's recommendations.
 - Cones maintained to ensure compliance with the above standard.
 - ii. BS EN 13422:2004+A1:2009 sets design standards to which manufacturers work. It requires for example the mass to weight minima, the reflectivity etc. Specifically, a 1 metre high cone must weigh at least 5.5Kg, a 600mm cone must weigh at least 2.7Kg. The weight must be either integral or in the shape of a slip-on ring of high density rubber. It follows that if the cones purchased comply with the relevant standards and are maintained as bought they will meet the Airport's requirements.
- c. EMA permits the use of cones coloured orange or blue.

5. AIRCRAFT ENGINE GROUND RUNNING AND THE USE OF APU'S/GPU'S

- 5.1 EMA is responsible for ensuring the safe ground running of aircraft engines on the aerodrome and the control of blast, fumes and ground noise. Due to the environmental impact of engine ground running, particularly at night, it must be strictly controlled with the number of ground running operations kept to an absolute minimum.
- 5.2 An engine ground run is defined as any engine start-up not followed immediately by the departure of the aircraft concerned. A low power engine ground run is defined as power not

exceeding idle thrust. A high-powered engine ground run is defined as any engine ground run which exceeds idle power.

5.3 Approval

- a. Approval for an engine ground run at any time must be obtained in advance from the Control Room on 01332 852973. The following information must be provided when seeking approval to carry out an engine run:
 - i. Operator Details
 - Airline
 - Aircraft type and registration
 - Contact name and telephone number
 - Number of persons on board
 - ii. Engine Ground Run Parameters
 - Requested location for engine run
 - Planned engine run start time
 - Expected duration
 - Level of engine power to be used
 - Duration at high power (if applicable)
 - Number of engines to be run simultaneously
 - iii. Operational Requirements
 - Type of maintenance check
 - Why the engine run is required
 - Flight number and planned aircraft departure time (if applicable)
- b. The above details will be recorded by the Operations Control Room on an “engine run” database, and each application will, following successful submission of all details, generate a unique EMA approval number. Air Traffic Control will be informed of each new approval. Database details appertaining to engine ground running will also be available to EMA Management and the (MAG) Environment Department. Any variation to the details given must be the subject of a further approval/new approval number. Any run that is significantly different from the approval must be logged in both the ‘notes’ section of the engine run approval database and the ATC watch log.
- c. Permission to start engines or to alter the power setting during an engine run must be obtained from ATC via Ground Movement Control or Tower Control; the EMA approval number must also be quoted. Shutting down engines once the engine run is complete must also be reported to ATC.
- d. ATC and Airfield Operations will monitor approved ground running operations. If the parameters contained in the approval detail are exceeded, the operation will be immediately terminated by the ASCO through ATC.

5.4 Safety

- a. All personnel concerned with engine ground running must be fully conversant with the regulations, which must be complied with at all times. Aircraft shall be positioned such that noise and efflux are directed away from the most noise sensitive areas.

- b. During all ground running of engines, a listening watch must be maintained on the current operational ATC frequency, which will be either Ground Movement Control or Tower Control to ensure the prompt initiation of any emergency procedures.
- c. The aircraft anti-collision beacon(s) must be switched on before engines are started and must remain on for the duration of the ground run.
- d. The aircraft must be positioned so that the engine run efflux will not harm persons or cause damage to aircraft, buildings, installations, vehicles or equipment in the vicinity.
- e. The engineer in charge of the ground run must ensure that the aircraft wheels are safely chocked and that the aircraft cannot move under any circumstances.
- f. The engineer in charge must ensure that no person, vehicle or equipment are within the potential jet blast area behind the aircraft. That the ground is firm and free from loose tarmac, stones and other materials. That the area immediately in front of the engine intake(s) is clear. All equipment must be placed at a safe distance from the aircraft.
- g. When an engine run is carried out a trained person is to be in verbal contact with the flight deck at all times. They will communicate by the R/T or interphone with the flight deck to ensure that the engine(s) are shut down if persons or vehicles move into the danger area in front of, behind or in the vicinity of a live engine. For this purpose and if the RT or interphone link is unserviceable, hand signals by day and light signals by night may be used.

5.5 Engine Running Parameters

- a. Airfield Operations will select the most appropriate location for each engine run taking into account.
 - i. Surface wind
 - ii. Power settings to be used
 - iii. Noise in the immediate vicinity
 - iv. Duration of the run
 - v. Effect on local communities
- b. Engine ground runs **will not** be approved between 23:00 and 06:00 hour's local time unless the aircraft concerned is required for an EMA service departing at or before 07:00 hours local time, the same day.
- c. Engine ground runs for aircraft that have been undergoing planned maintenance and/or aircraft departing on positioning flights will not be approved between 23:00 and 06:00 (local time) under any circumstances.
- d. Requests for engine ground runs between 23:00 and 06:00 (local time), where the aircraft is being operated for a third party, must be accompanied by a verbal request from a senior manager of the third-party company who must confirm that the aircraft (by registration) is needed for a departure before 07:00 (local time), the same day.
- e. The exact position of the engine run will be issued according to the prevailing weather conditions and will be confirmed by the OCR when the authorisation number is issued.

- f. High power engine ground running is not permitted for Code D, E and F aircraft with no more than 2 engines on taxiways or taxilanes. Code D and above aircraft with more than 2 engines are prohibited from high power ground runs on taxiways or taxilanes, unless fully safeguarded and mitigation measures are in place. Code D and above aircraft with more than two engines requiring high power engine ground runs must be approved through ops.safety@eastmidlandsairport.com

5.6 Central and Central-West Aprons

- a. On the Central and Central West Aprons' engine ground runs will be limited to check-starts and idling power. For checks requiring the use of greater power settings a move to a suitable location will be required.
- b. Ground runs will not be permitted on any stand that has an apron road running behind it, unless authorised by the ASCO, and mitigations are put in place. A move to a suitable location will otherwise be required if declined by the ASCO.
- c. Ground running must not take place when passengers are being embarked/disembarked on any adjacent or opposite stands.

5.7 West Apron

- a. On West Apron stands, engine ground runs will be limited to check-starts and idling power only.
- b. High power engine runs on the West Apron taxiways are, subject to prevailing wind conditions, only to be carried out:
 - ~~i. Facing west on the Bravo taxiway with the nose of the aircraft abeam stand 105.~~
 - ~~ii. Facing east on the Bravo taxiway with the nose of the aircraft at holding point Bravo.~~
 - iii. Facing south on the Juliet taxi lane with the nose of the aircraft abeam stand 124.
 - iv. Facing north on the Juliet taxi lane with the nose of the aircraft at holding point Juliet. (Note: Juliet uncontrolled crossing must be closed to vehicular traffic for this procedure).

Note: Engine ground running on 'Juliet taxi lane restricted to maximum code D aircraft. Runs facing north need to be aware of the uncontrolled crossing at the southern end of the taxi lane, aircraft to be positioned to prevent jet blast issues in this area.

5.8 East Apron

- a. On the East Apron stands, engine ground runs will be limited to check-starts and idling power only. High power engine runs on the East Apron (Delta) taxiway is subject to prevailing wind conditions, only to be carried out:
 - i. Facing west on the Delta taxiway with the nose abeam the Uniform centreline.
 - ii. Facing East on the Delta taxiway with the nose abeam stand 79.

5.9 Maintenance Area

- a. In the Maintenance Area engine ground runs for aircraft powered by jet engines and propeller aircraft with a Maximum Take Off Weight (MTOW) exceeding 6,000 Kgs will be limited to check-starts and idling power. For checks requiring the use of greater power settings a move to a suitable location (as detailed in paragraphs 5.7 and 5.8) will be required.
- b. Refer to Section 2.2 Maintenance Area Operations for Code D low power engine ground running requirements.
- c. High power engine runs are permitted for turbo-prop and piston aircraft only with an MTOW up to but not exceeding 6000 kgs on Stand / Finger 60 only.
- d. Engine running is permitted for both low and high power bespoke to NPAS P68R aircraft only on the leasehold Hangar 145 apron. A banks person will be used at all times for engine running in this location. The standard engine running notification process shall be followed as per para 5.3 of this document.

5.10 Environmental Considerations

- a. The criteria for selecting the location for the engine run should be to minimise the environmental impact of the run while protecting the safe operation of the airport.
- b. Wind can exacerbate noise if it is blowing in the direction of the surrounding communities. Unfortunately, the strength of the wind may preclude the ideal position being used. Whenever possible, however, the position should be selected taking the wind into account thus:
 - i. Wind 360 – 060 do not use east apron
 - ii. Wind 060 – 120 use either east or west apron
 - iii. Wind 120 – 150 do not use east apron
 - iv. Wind 150 – 240 do not use west apron
 - v. Wind 240 – 270 do not use east apron
 - vi. Wind 270 – 310 use either east or west apron
 - vii. Wind 310 – 360 do not use west apron

5.11 Auxiliary Power Unit (APU)

- a. Aircraft APU's generate high levels of noise and significant fumes which can cause disturbance to those on nearby aprons or in buildings and residential areas. The noise of an APU may mask the noise of an approaching vehicle, thus endangering staff.
- b. Operators are to be aware some turboprop types may run an engine with a propeller lock or propeller brake in place to provide electrical power on stand. Operators are to ensure they have relevant risk assessments in place for this type of aircraft ground servicing operation.

- c. Airlines and handlers are to ensure that APU's are used for no more than 5 minutes after arrival on stand and no more than 30 minutes before planned departure. Wherever possible they are not to be used whilst passengers are embarking or disembarking.
- d. APU's are not to be used as a substitute for Ground Power Units (GPU's).
- e. Inbound aircraft with unserviceable APU's and /or requiring an "air start" on departure will not be restricted in terms of parking stands. However, all second engine start / cross-bleed engine starts must be carried out on the taxiway to minimise jet blast hazards, with the exception of Stands 21, 22 (nose facing south) and 23, providing passenger embarkation or disembarkation is not taking place on adjacent stands.

5.12 Ground Power Units (GPU)

- a. Constantly running GPU's can cause high noise levels on the apron, are an additional obstruction to free movements around a parked aircraft and if poorly maintained, may deposit oil spillage on the stand.
- b. When purchasing new GPU's operators should take account of the manufacturers noise attenuation standard, 85 dBA at 4m is the maximum level permitted. Lower working noise levels should be encouraged in the selection process.
- c. Operators are to ensure that when GPU's are in use, the connection cable between the GPU and the aircraft is routed, so that as far as is reasonably practicable, it does not cause a trip hazard.
- d. Operators are to ensure that GPU's will be maintained so that they do not present a safety/environmental hazard i.e. emissions, and all cabling is adequately shielded. Daily checks must be carried out once in a 24-hour period.

5.13 Line Maintenance

- a. To meet the demands of increasing air transport movements and to achieve optimum usage of prime stands i.e. those nearest to the terminal, the priority for stand usage is given to arriving/departing aircraft.
- b. When maintenance is undertaken on an aircraft on any apron, which could inhibit its removal from stand, the flexibility for allocating that particular stand to an arriving/departing aircraft is reduced. To avoid this, no such line maintenance (as described) is to be started without the prior permission of the **Airfield Operations Duty Manager on 07542 383390**.
- c. Any Line Engineer undertaking jacking activity on an 'asphalt covered' aircraft stand should, prior to commencing work contact the Airfield Safety and Compliance Officer (07880 787543). An assessment will be made as to whether the aircraft should be moved to a 'concrete' stand or if work may continue in the current location and a spreader plate be used under the jack of the aircraft. Spreader plates may be applied as separate equipment if they are not an integral feature of the jack system itself.

6. FOREIGN OBJECTS ON THE APRON AND THE REMOVAL OF HAZARDS

6.1 **FOD Policy Statement:**

Foreign Object Debris (FOD) is any object, material or liquid which could cause damage to an aircraft. FOD represents one of the most serious avoidable hazards to aircraft on the ground. Airport activity generates a great deal of waste material and debris which if not controlled can exist freely on aircraft movement areas, and is therefore a very challenging risk to control. East Midlands Airport will reduce the FOD risk by operating a Foreign Object Debris Control Programme and educating airside users about the hazards of FOD, EMA will provide facilities for the collection and disposal of FOD and actively enforce the FOD Control Policy. FOD generated through maintenance and larger 'project' works will be managed in accordance with EMA 'Management of Contractors' processes.

6.2 EMA is responsible for taking adequate measures to ensure the safety of aircraft, vehicles and persons using the aprons. A fundamental element of the safety effort is to maintain the aprons in a clean condition and free from obstructions.

6.3 FOD is regularly deposited on the Movement Area and it is essential that all airport personnel understand the danger to flight safety that such objects represent. They may be ingested into aircraft engines causing damage leading to engine failure, which is especially critical if it occurs in flight, particularly during the take-off phase. At best, such damage leads directly to premature engine removal and replacement. In addition, damage can occur to tyres and undercarriages, control systems and other parts of the airframe. All such damage could lead to in-flight failures and inevitably requires expensive repairs to be made. All foreign objects are a threat to aircraft safety.

6.4 The list of FOD items most frequently found on the apron is long and includes plastic and paper bags/sheets, rags, empty oil and hydraulic fluid cans, empty soft drink cans or bottles, nuts and bolts, tools and equipment, luggage wheels and tags, burst ballast bags, broken wooden items and miscellaneous rubbish.

6.5 Under the provisions of the Air Navigation Order, it is an offence to deposit or leave any item of FOD on any part of the Movement Area. It is the direct responsibility of airlines, handling agents, fuelling companies, cleaning companies, catering companies, engineering operatives/contractors and all other users of the aerodrome to ensure that it is maintained in as safe and clean a condition as possible and that all FOD is removed as soon as it is found. All those working on the apron must exercise great care, particularly those working on aircraft, to ensure that no FOD is left behind from their operation.

6.6 Before proceeding from one airport area to another, via a route crossing the Movement Area, all vehicles must be carefully inspected to ensure that anything that is carried in or on the vehicle is secure and that the vehicle is free from FOD. All doors and tail/side boards are to be closed and securely locked, and no parts of the vehicle or trailer are loose or likely to become detached.

6.7 The requirement for the provision of waste skips, in and immediately adjacent to airside areas should be closely managed and only 'fully enclosed or covered' skips should be used.

6.8 Removal of Apron Hazards

a. The parking or abandonment of unserviceable ground equipment or vehicles, contractor's materials and miscellaneous objects on the aprons, constitutes a safety hazard and contributes to apron congestion.

- b. If unserviceable equipment, vehicles, contractor's materials or other miscellaneous objects (hereinafter referred to as 'the object') are found to be creating an obstruction or hazard they will be issued with a 'notification of non-compliance' by Airfield Operations.
- c. If an offending object is considered to be an immediate hazard, arrangements should be made, as a priority, for its removal.

7. AIRSIDE DRINKING WATER FACILITIES

7.1 Airside drinking water is provided and intended for use by all personnel working airside including cargo and non-airside based operators. The Airfield Operations Duty Manager can advise of the nearest drinking water facility via mobile: 07542383390

Water stations are located:

- North of the East 2 security gatehouse.

7.2 Protocols of use:

- An **empty** plastic water container will be required for personnel wishing to use the facility.
- The drinking water facility will be operated by a pushdown button (to prevent unnecessary wastage of water). Please ensure that water is not left to run excessively.
- Foreign Object Debris (FOD) bins are provided at each facility to ensure all staff dispose of unwanted bottles in a responsible manner.
- In the interest of hygiene, please do not drink directly from the tap.
- The facilities will be subjected to routine purity checks and de-chlorination to ensure Health and Safety compliance.
- If you notice a leak please report it immediately to the Operations Control Room on 01332 852973.