

Ground Movement Handling of Code F

Aircraft Movements

Airside Operational Instruction 06

Content:

- Code F

Document Owner – Airfield Operations



GROUND MOVEMENT HANDLING OF CODE F AIRCRAFT MOVEMENTS

1. Code F

1.1 Introduction

- a. ICAO Annex 14 – Volume 1 (Aerodrome Design and Operations) and UK Reg (EU) No. 139/2014 CS-ADR-DSN (UK Certification Specification & Guidance material for Aerodrome Design) gives reference to aircraft from Code A upwards. Each code designates specific aircraft wingspan/outer main gear wheel span dimensional parameters.
- b. The largest recognised aircraft dimensional code is currently code F, which relates to those aircraft with a wingspan from 65 metres up to but not including 80 metres. There are currently no commercially operated aircraft with dimensions greater than Code F.
- c. Due to pavement width constraints at key aerodrome junctions a number of Code E and F aircraft cannot currently use the airport, unless approved by the Accountable Manager. These are:

Airbus A380	Airbus A350-1000	Airbus A340-600
Boeing B777-9	Boeing B777-300	

- d. The 'Alpha' taxiway is restricted to a maximum wingspan of 73.3 metres (AN124).
- e. Only apron entrance/exits 'Foxtrot', 'Juliet' and 'Victor' are suitable for Code F aircraft.

1.2 Objectives

- a. This document is produced to ensure that, at all times, the ground movement handling, of all aircraft specified within this document, is carried out in accordance with Operational Safety Management Assessments documented and approved by the CAA (SARG).
- b. EMA ensures that, during ground movements, required safety margins are maintained for both aircraft to aircraft, aircraft to obstacles and outer main gear to pavement edge / AGL fittings.
- c. EMA ensures that aircraft parking arrangements are carried out with due regard to safe distances maintained between all aircraft specified within this document and obstacles, as detailed in CS-ADR-DSN.E.365 which states that "the minimum clearance between an aircraft using the stand and any adjacent building, aircraft on another stand and other object as being 7.5m for a Code F aircraft".

1.3 Ground Movement Handling (System Description)

- a. Operational functions included within the ground movement procedure are aircraft landing, aircraft arrival, aircraft parking, aircraft departure and aircraft take-off. Responsibility for these functions lies with both Air Traffic Control (Ground Movement Control) and Airfield Operations. Air Traffic Control safety/operating functions are contained within EMA MATS (Part 2).
- b. Airfield Operations safety/operating functions are obstacle clearance marshallers, aircraft marshallers (if required) and wildlife control duties. Stand allocation is undertaken by the EMA Control Room.

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1.4 Ground Movement Handling. (Operational Procedures)

a. Aircraft Landing.

Procedures to be carried out upon the landing of Code F aircraft, on either runway 09 or 27, are as follows:

- i. Whilst the aircraft is on 'final approach' or the runway, in order to maintain the correct safety separation, the 'Alpha' Taxiway should be restricted to use by Code E (or smaller) aircraft only.
- ii. Additional runway inspections may be required after landing, at the request of ATC.

b. Aircraft Arrival (Runway 09 Landing)

Procedures to be carried out whilst Code F aircraft are taxiing are as follows:

- i. The aircraft should vacate the runway via taxiway 'Alpha' or 'Whiskey' only.
- ii. Whilst the aircraft is on the 'Alpha' taxiway, in order to maintain correct safety separation, the runway is to be restricted to use by Code E, or below, aircraft only.
- iii. In order to mitigate the effects of jet blast and FOD problems, ATC should instruct the aircraft to operate on minimum engine thrust whilst manoeuvring. The Airfield Safety and Compliance Officer (ASCO) should then carry out an inspection of the taxiway used.

c. Aircraft Arrival (Runway 27 Landing)

Procedures to be carried out whilst Code F aircraft are taxiing are as follows:

- i. The aircraft should vacate the runway via taxiway 'Golf' or 'Hotel', joining the 'Alpha' taxiway and should then enter the West Apron through the 'Foxtrot' or 'Juliet' entrances or the East apron through the 'Victor' entrance.
- ii. Whilst the aircraft is on the 'Alpha' taxiway, in order to maintain correct safety separation, the runway is to be restricted to use by Code E, or below, aircraft only.
- iii. Whilst the aircraft is on the 'Alpha' taxiway and, in order to maintain correct safety separation, the 'Bravo' taxiway on the West Apron and the 'Delta' taxiway on the East Apron is to be restricted to use by Code D, or smaller, aircraft only.
- iv. In order to mitigate the effects of jet blast and FOD problems, ATC should instruct the aircraft to operate on minimum engine thrust whilst manoeuvring. The ASCO should then carry out an inspection of the taxiway used.

d. In Low Visibility, above LVP3, the procedures listed above, together with full Cat. 3 runway/taxiway lighting should be followed, (see Airport Operational Instruction 21)

e. Aircraft Parking (Runway 27 and 09 Landing)

Procedures to be carried out whilst parking a Code F aircraft.

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- i. West Apron – stands 98, 107, 109 and 111 can be used for Code F aircraft parking.
 - ii. East Apron – stand 83 can be used for Code F aircraft parking (B747-8 max).
 - iii. Remote parking – stand 200 can be used for the remote parking of Code F aircraft. Aircraft using stand 200 must be towed-on and towed-off stand either from one of the stands in (i) above or from a position on the 'Bravo' taxiway.
 - iv. When entering any Code F stand the aircraft will be under full marshal control until shut down on stand.
 - v. In order to mitigate the effects of jet blast and FOD problems, ATC should instruct the aircraft to operate on minimum engine thrust whilst manoeuvring on the aprons. The ASCO should then carry out a FOD inspection of the taxiway/apron used.
- f. Aircraft Departure
- Procedures to be carried out prior to and during departure of a Code F aircraft:
- i. Code F aircraft parked on the East and West Aprons should pushback as per standard procedures detailed in the EMA Marshalling & Pushback Manual.
 - ii. Code F aircraft shall exit the West Apron via either Foxtrot or Juliet.
 - iii. In order to mitigate the effects of jet blast and FOD problems, ATC should instruct the aircraft to operate on minimum engine thrust whilst manoeuvring. The ASCO should then carry out a FOD inspection of the taxiway/apron.
 - iv. Code F aircraft shall exit the East Apron via Victor.
- g. Aircraft Take-Off (Runway 09 departure)
- i. Whilst the aircraft is on the Alpha taxiway, in order to maintain correct safety separation, the runway is restricted to Code E (or smaller) aircraft only and the Bravo and Delta taxiways to use by Code D (or smaller) aircraft only.
 - ii. The aircraft will enter the runway via taxiway Golf.
- h. Aircraft Take-Off (Runway 27 departure).
- i. Whilst the aircraft is on the Alpha taxiway, in order to maintain correct safety separation, the runway is restricted to Code E (or smaller) aircraft only and the Bravo and Delta taxiways to use by Code D (or smaller) aircraft only.
 - ii. The aircraft will enter the runway via taxiway Alpha.

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1.5 Ground Movement Assessment – System Description.

a. Whilst the aircraft described within 1.4 are manoeuvring the following restrictions apply:

OPERATIONAL RESTRICTIONS		
Movement	Obstacle	Restriction
Code F aircraft of specified type taxiing on runway 09/27	Aircraft movement on Taxiway Alpha	Taxiway Alpha restricted to code E aircraft movements
Code F aircraft of specified type taxiing on Taxiway Alpha	Aircraft holding at runway entry points Golf, Hotel, Mike, Sierra, Whiskey	No aircraft to be holding at runway entry points Golf, Hotel, Mike, Sierra, Whiskey
Code F aircraft of specified type taxiing on Taxiway Alpha	Aircraft movement on runway 27/09	Runway restricted to code E aircraft movements
Code F aircraft of specified type taxiing on Taxiway Alpha	Aircraft movement on Taxiway Bravo	Taxiway Bravo restricted to Code D aircraft movements (West Apron)
Code F aircraft of specified type taxiing on Taxiway Alpha	Code C aircraft movement on stands 21 or 23 (Central Apron)	Code F aircraft of specified type to hold A5 or A6 until code C movement is complete on stands 21 or 23
Code F aircraft of specified type taxiing on Taxiway Alpha	Code D aircraft movement on stand 24 (Central Apron)	Code F aircraft of specified type to hold A5 or A6 until Code D movement is complete on stand 24
Code F aircraft of specified type taxiing on Taxiway Alpha	Aircraft movement on Taxiway Delta	Taxiway Delta restricted to Code D (excl. MD11) aircraft movements (East Apron)
Code F aircraft of specified type taxiing on Taxiway Alpha	Code C aircraft movement on stands 5 or 6 (Central Apron)	Code F aircraft of specified type to hold A4 or A6 until Code C movement is complete on stands 5 or 6
Code F aircraft of specified type taxiing on Taxiway Bravo (West Apron)	Aircraft movement on Taxiway Alpha	Taxiway Alpha restricted to Code D aircraft movements
Code F aircraft of specified type taxiing on Taxiway Delta (East Apron)	Aircraft movement on Taxiway Alpha	Taxiway Alpha restricted to Code D (excl. MD11) aircraft movements
Code F aircraft of specified type	Main gear clearance to pavement edge less than 4m	Runway<>Alpha link taxiways Mike and Sierra cannot be used
Code F aircraft of specified type	Main gear clearance to pavement edge less than 4m	Apron entrance/exits Kilo, Mike, November, Quebec, Romeo, Tango and Uniform cannot be used
Code F aircraft of specified type	Stand clearances	Only stands 83, 98, 107, 109, 111 and 200 to be used

1.6 The taxiway centreline lights are to be illuminated at all times whilst these aircraft are manoeuvring.

a. The above functions are the responsibility of Air Traffic Control (Tower/Ground Movement Control) and Airfield Operations.

b. Airfield Operations will carry out the following safety functions detailed within this assessment:

- Aircraft stand allocation.
- Marshalls, if required.
- Bird Control duties.
- Lead Car duties, if requested.

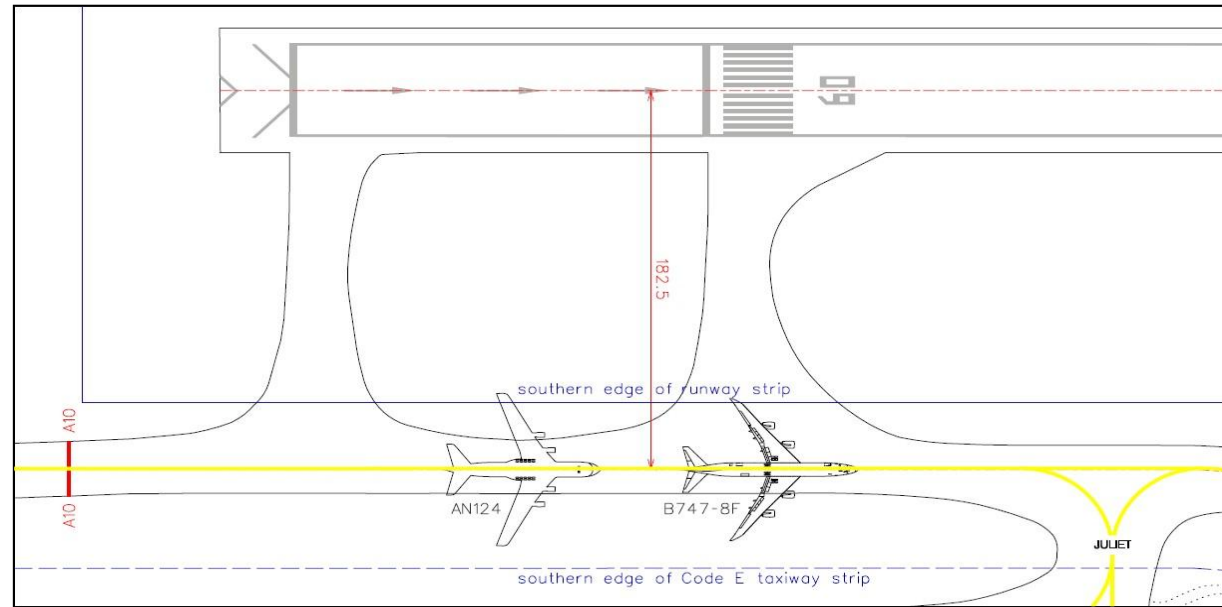
c. Whilst Code F movements are taking place no upstanding obstacles will be within the UK Reg (EU) No. 139/2014 Code E taxiway strip (43.5m).

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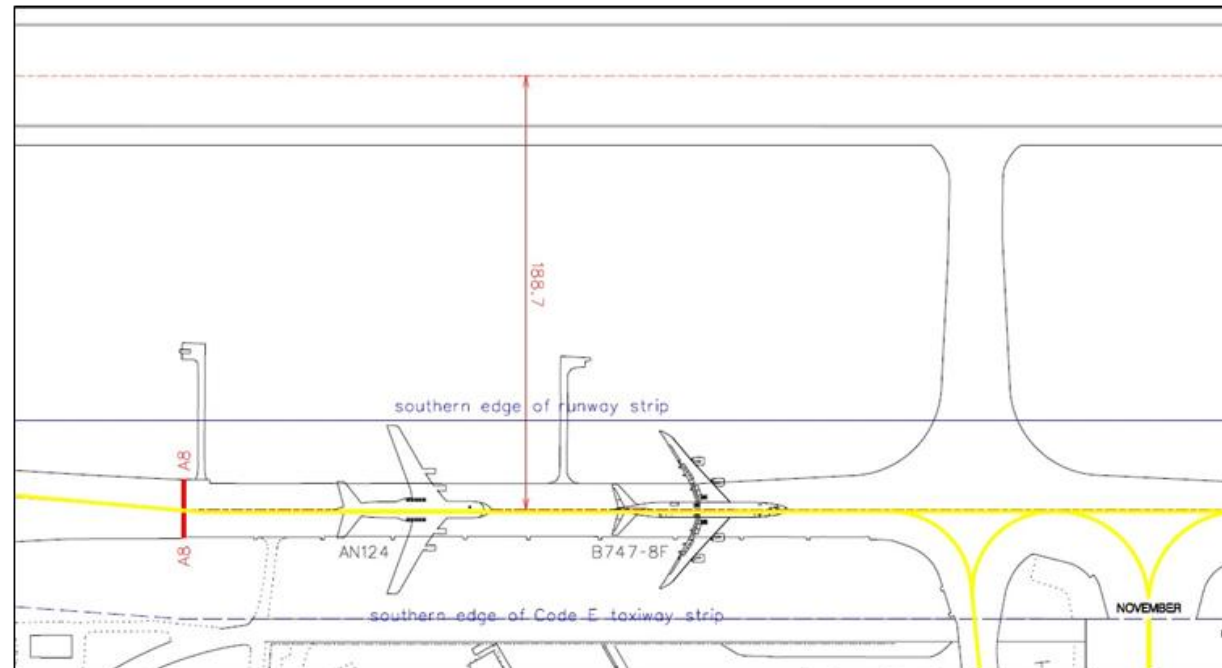
- d. This strip is further extended to 47.7m for Code F movements and is designated by double white lines, where appropriate, for the full length of the Alpha taxiway on adjacent manoeuvring areas.
- 1.7 All Code F movements shall only use runway entrances Alpha and Golf (except when backtracking). This is to avoid any infringements to the Alpha taxiway when these aircraft are holding at the CAT I/II/III runway holding points.
- 1.8 Aircraft Taxying Charts
The below illustrations show the narrowest and the widest aircraft types that will use the Alpha taxiway Code F operations within this document.

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Taxiway ALPHA abeam BRAVO

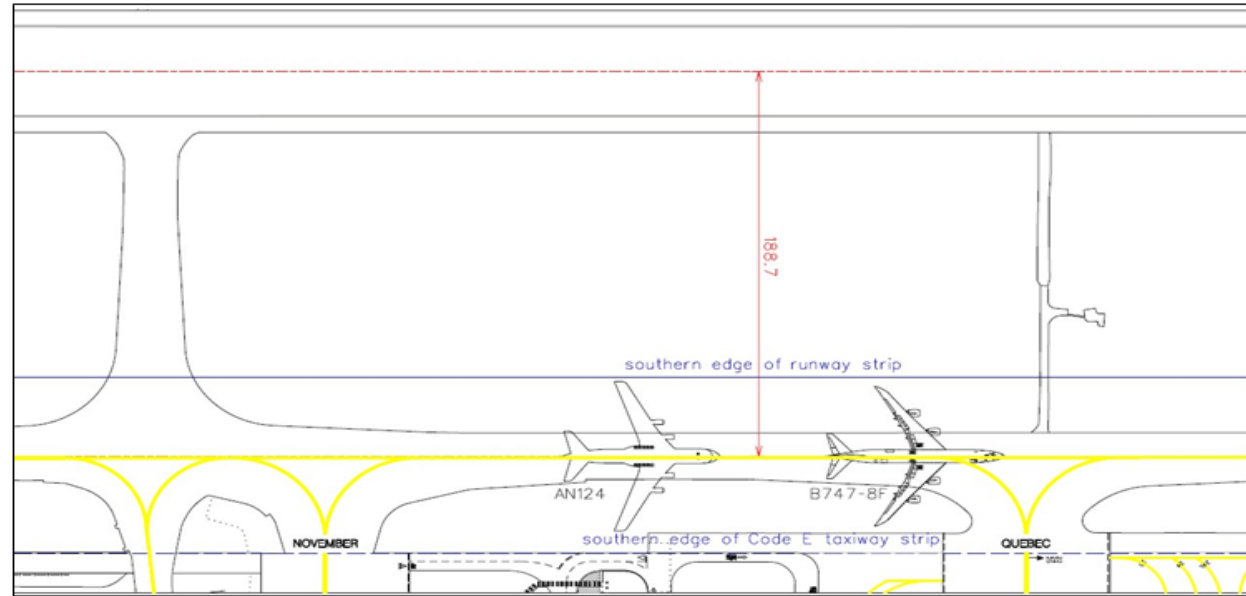


Taxiway ALPHA abeam the Maintenance Area

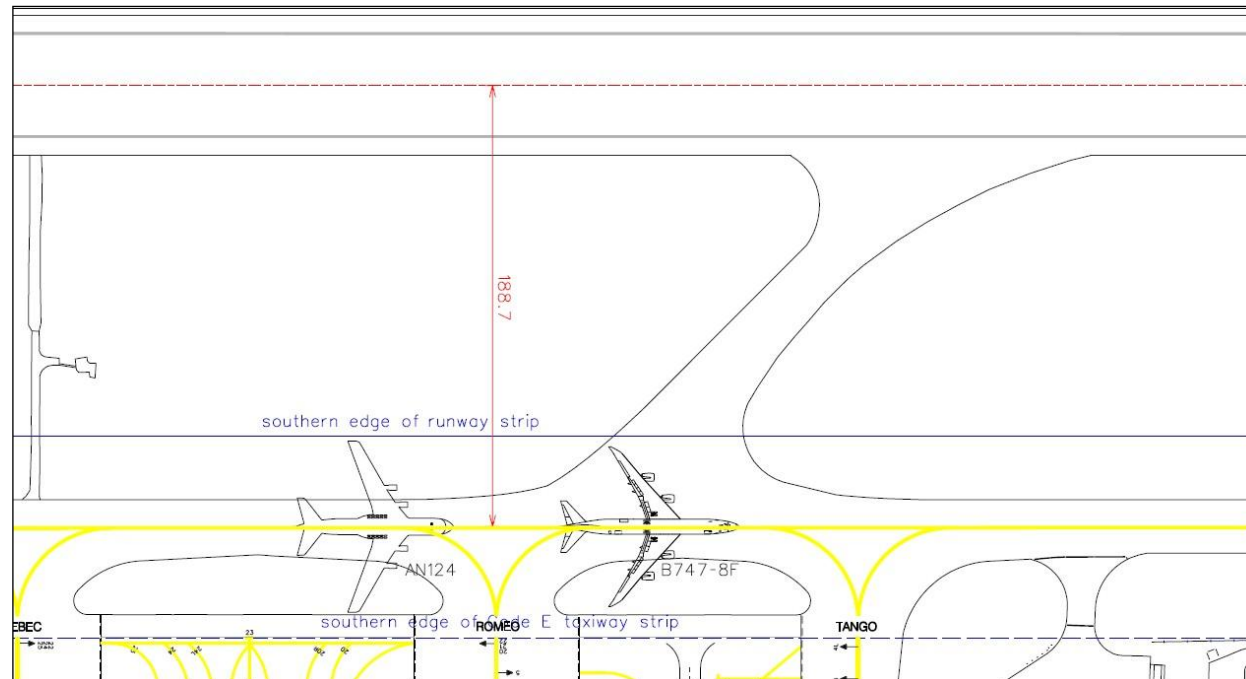


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Taxiway ALPHA abeam
November/Quebec

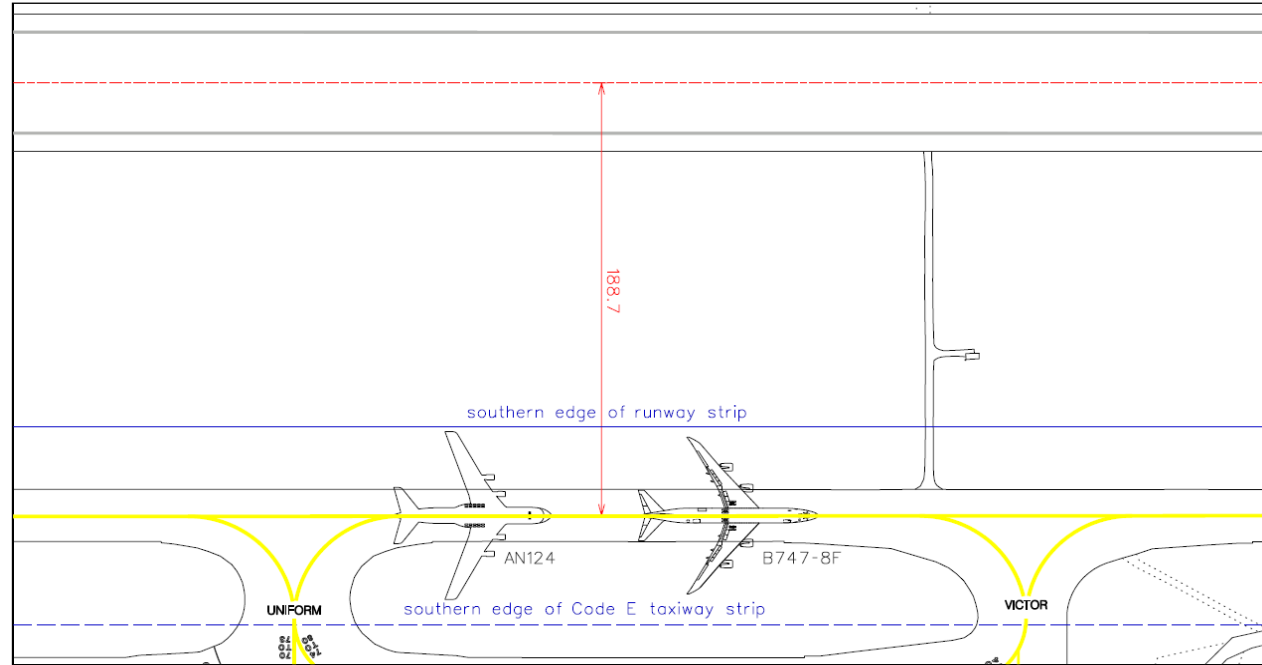


Taxiway ALPHA abeam ROMEO

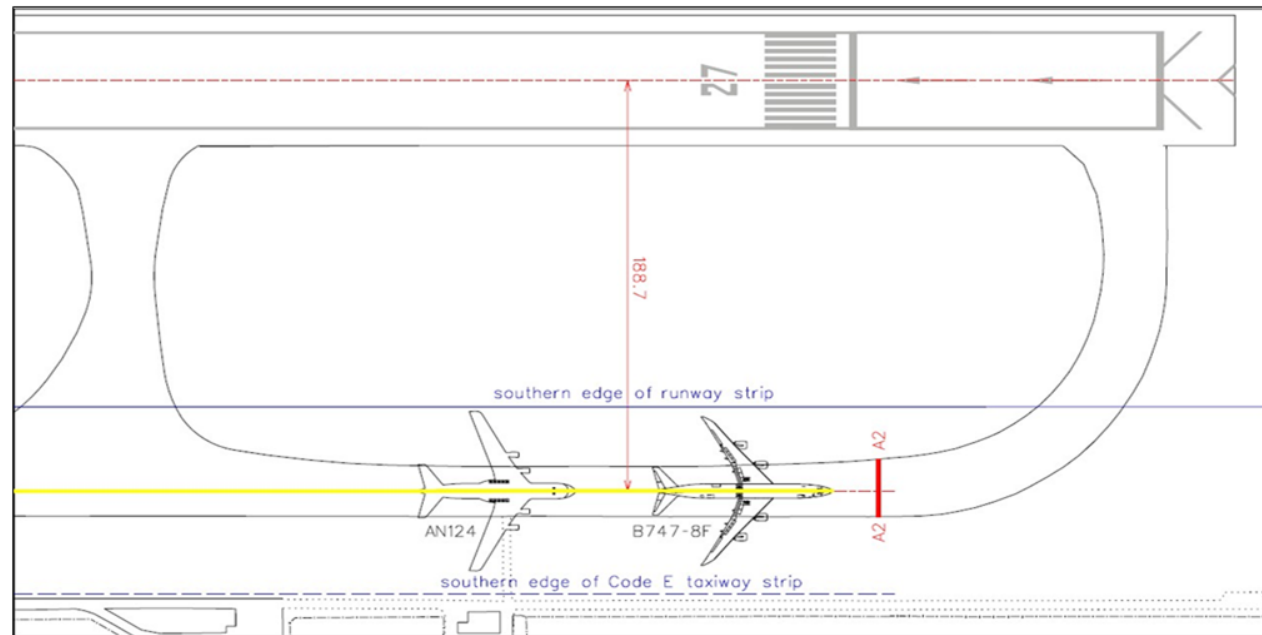


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Taxiway ALPHA abeam DELTA



Taxiway ALPHA west of A2



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