APRON MARKINGS & SIGNS GUIDANCE

State Civil Aviation Agency of the Republic of Azerbaijan

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Baku

0. ADMINISTRATION AND CONTROL OF THE GUIDANCE

0.1 APPROVAL PAGE

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0.4 DISTRIBUTION CONTROL

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Master	**(S)**	Quality Control And Rulemaking	Zohrab Hasilov	Head of the Department
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2	**(S)**	Aerodromes Operators Oversight Department	Fikrat Akhundov	Head of the Department
3	**(S)**	-	Bahruz Malikov	Deputy
4	**(S)**	-	Aydin Mirzazada	Leading engineer – Inspector

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Note: *Electronic and hard copies are considered "uncontrolled" if they are printed or not included into this distribution list.*

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0.5 RECORD OF AMENDMENTS AND REVISIONS

Revision/Edition №	Revision Date	Inserted by	Signature
Edition # 1	01.NOV.2018	Head of the QC & Rulemaking Department	
Revision # 01	01.NOV.2019	Head of the QC & Rulemaking Department	

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0.6 ABBREVIATION

AAR- AS	Azerbaijan Aviation Regulations – Aerodrome Standards
ACI	Airports Council International
ATC	Air Traffic Control
Cm	Centimeter
ECAC	European Civil Aviation Conference
ICAO	International Civil Aviation Organization
Max	Maximum
Min	Minimum
M	Meter
SCAA	State Civil Aviation Agency

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0.7 FOREWORD

0.7.1 GENERAL

The Apron markings and signs Guidance (hereinafter - AMSG) presents a series of apron markings and signs, based on a survey of current best practice and practical application at a number of airport operators.

0.7.2 PURPOSE

The survey has been carried out under the auspices of ACI and the purpose of the Guidance is to assist the national operators of airports in markings and signs apron.

0.7.3 REGULATORY DOCUMENTS

It was developed to implement Article 9 of the Aviation Law of the Republic of Azerbaijan.

In preparing these instructions have been used by national regulatory documents governing the operation of civil aviation in the Azerbaijan Republic, the relevant Standards and Recommended Practices of the International Civil Aviation Organization (ICAO), as well as recommendations of the European Civil Aviation Conference (ECAC).

0.7.4 ADMINISTRATION AND CONTROL OF THE DOCUMENT

AMSG is published as a book on A4-sized sheets. The PDF files will be locked and signed to prevent changes.

If necessary, when there are amendments to ICAO, ECAC and national legislation, as well as in the requirements of regulatory legal acts - they may be included into this Guidance by the State Civil Aviation Agency (hereinafter - SCAA), and they are mandatory for airport operators.

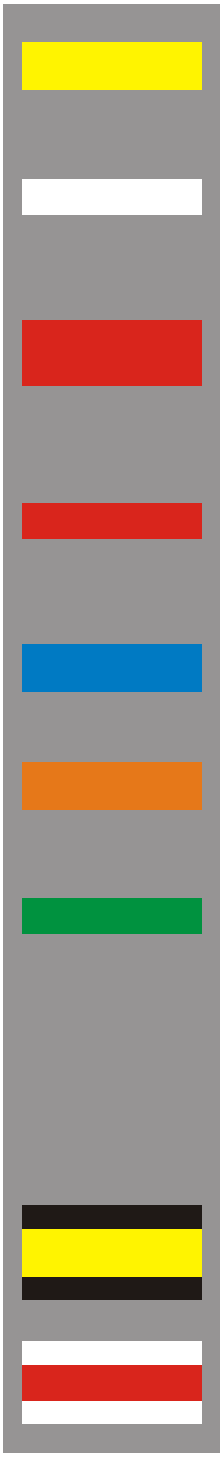
All amendments, revisions and additions will be published on the official website of the State Civil Aviation Agency – www.caa.gov.az.

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1. PRINCIPLES

1.1 RECOMMENDED COLORS

The proposed color coding of apron markings is therefore:



Yellow Taxiway / taxilane centerline markings and aircraft stand markings intended for the safe maneuvering of aircraft (according to AAR-Aerodrome Standards (AAR-AGA-001))

White Apron markings intended for the safe maneuvering of vehicle traffic and vehicle parking

Red Indicates that a vehicle must not cross except a clearance by ATC is received (Border of responsibility; ATC – Airport)

Red Red universally is seen as a color representing danger. It indicates areas which must never been crossed during aircraft maneuvering in the vicinity

Blue Color coding for multiple used taxiways or taxilanes.

Orange Color coding for multiple used taxiways or taxilanes.

Green Markings to support locating of underground service during winter contamination

To increase visibility of markings at night and in low visibility conditions and where necessary because of the color of the pavement, they should have a border in a contrasting color on both sides.

Black Border For yellow and white markings on light colored pavements (e.g. concrete)

White Border For red markings on dark colored pavement (e.g. bitumen)

1.2 RECOMMENDED CHARACTERISTICS

According to Azerbaijan Aviation Rules-Aerodrome Standards (AAR-AS) **lines for the safe maneuvering of aircraft** should have a width of not less than 15cm.

For better visibility it is recommended by ACI, that these lines should be minimum 20cm in width.

According to AAR-AS **apron safety lines** (e.g. service roads, parking areas) should have a width of at least 10cm.

For better visibility it is recommended by ACI, that these lines should be minimum 15cm in width. For stand safety lines it is recommended to use a width of not less than 20cm.

According to AAR-Aerodrome Standards at aerodromes where operations take place at night, pavement markings should be made with **reflective materials** designed to enhance the visibility of the markings. Guidance on reflective materials is given in the ICAO Aerodrome Design Manual, Part 4.

According to AAR-Aerodrome Standards the **character height** on mandatory instruction markings and information markings should be 4m.

Due to limited space especially when superimposed function of parking stands is given, the character size can be reduced.

It is recommended by ACI in such cases not to fall below a value of 2m.

According to AAR-Aerodrome Standards the **form and proportions of characters** on mandatory instruction markings and information markings should be in accordance to ICAO Annex 14, Appendix 3. (See chapter 5.1 of this Guidance)

ACI recommends that due to space and to prevent confusion **characters which must be read from a stationary position** (e.g. marshaller stop, stand identification on parking stand) should be minimum 1m in height. The form and proportions must be in accordance to ICAO Annex 14, Appendix 4. (See chapter 5.2 of this Guidance)

ATTENTION: Some drawings in this manual are not to scale.

2. APRON MARKINGS FOR AIRCRAFT

2.1 STAND LEAD IN LINE, TAXIWAY AND TAXILANE CENTRELINE

Taxiway / taxilane centre line markings are clearly defined in AAR-Aerodrome Standards. Stand lead-in lines are effectively a continuation of taxiway centre lines, and should have the same width. Their function is to allow an aircraft to taxi under its own power or to be towed whilst maintaining the necessary clearances from obstacles it is recommended that a contrasting color (black) be used when taxiway, taxilane or stand centre lines are painted on concrete.

The minimum acceptable with specified by AAR-Aerodrome Standards for a stand lead-in line is 15 cm, but a 20 cm minimum width, in order to give increased visibility.

Color	Centreline	Borderline
	Yellow	*Black*

Dimensions	A	B
	20 cm min.	*10 cm*



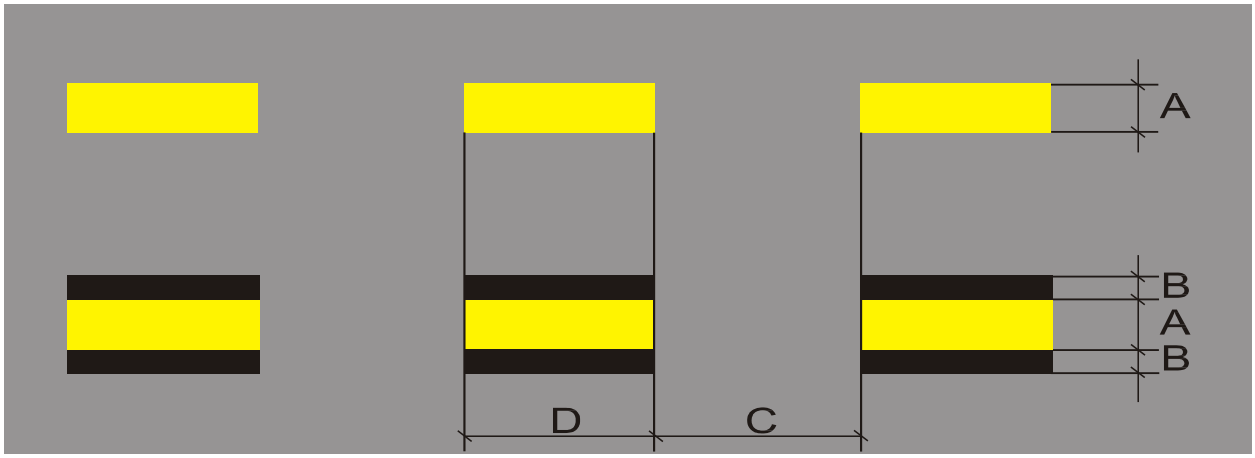
2.2 STAND LEAD IN LINE FOR MULTIPLE USEABLE PARKING STANDS

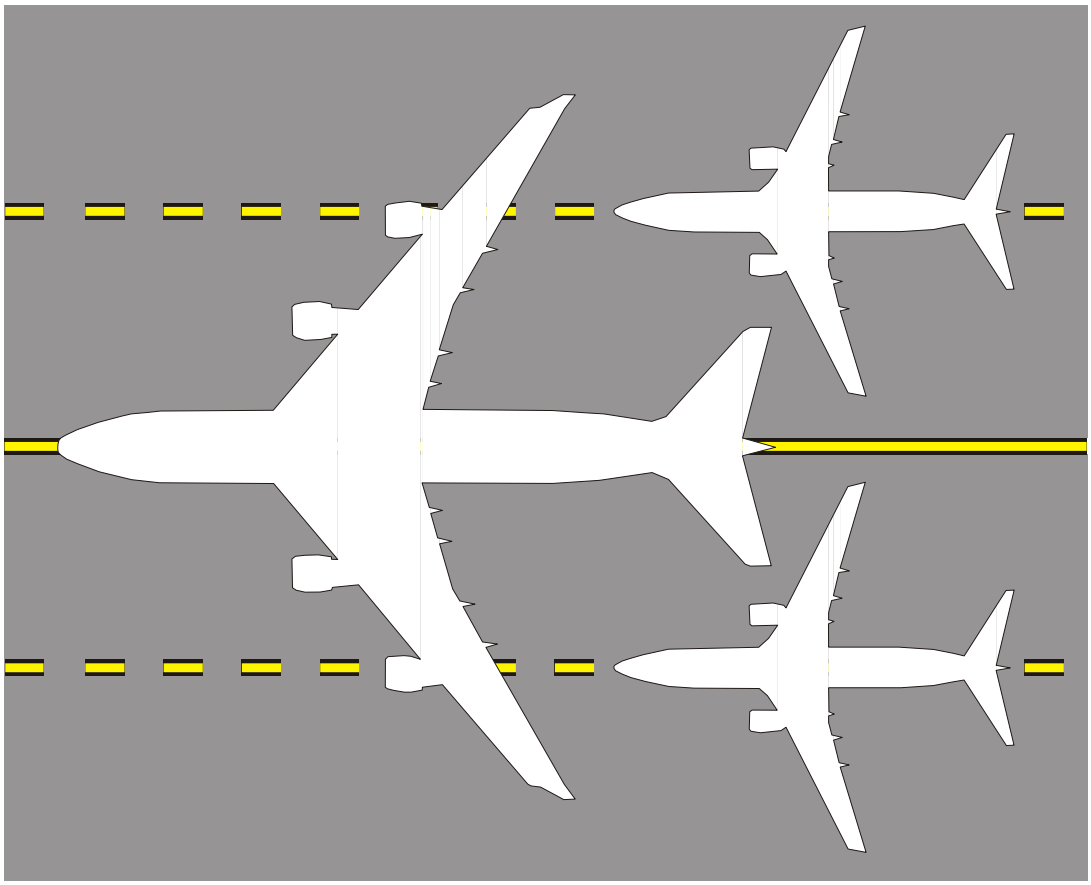
When aircraft stands are used superimposed and therefore a secondary guideline is provided, it should be a broken line to distinguish it from the primary line. The primary line should be for the most critical aircraft.

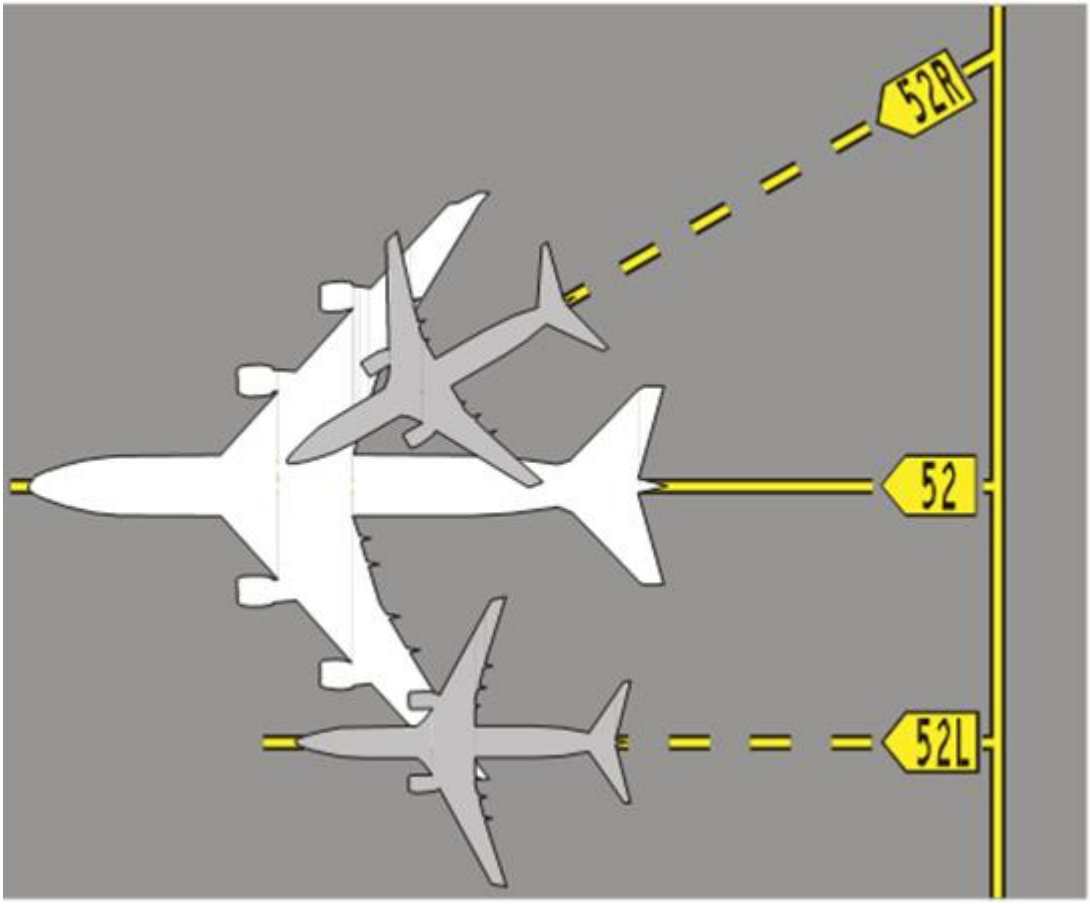
It is recommended that a contrasting color (black) be used when such lines are painted on concrete.

Color	Centreline	Borderline
	Yellow	*Black*

Dimensions	A	B	C	D
	20 cm min.	*10 cm*	*2,0 m*	*2,0 m*
	20 cm min.	*10 cm*	*4,0 m*	*4,0 m*






52R
52
52L

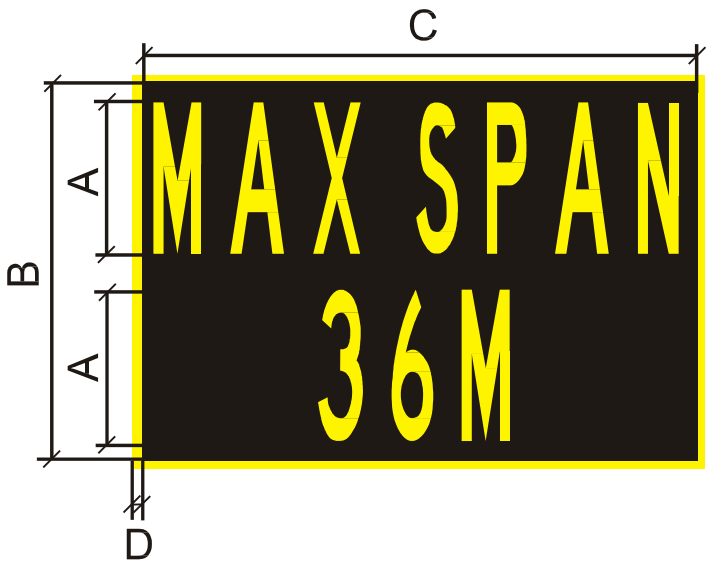
2.3 MAXIMUM WINGSPAN MARKING

A MAX SPAN marking is an information marking. It should be located across the surface of a taxiway / taxilane centerline.

When there is insufficient contrast between the marking and the pavement surface, it shall be surrounded by a yellow borderline.

Color	Characters	Background	Borderline
	Yellow	*Black*	*Yellow*

Dimensions	A	B	C	D
	2,0 m	*5,0 m*	*Acc. to character width*	*10 cm*
	4,0m	*9,5 m*	*Acc. to character width*	*10 cm*



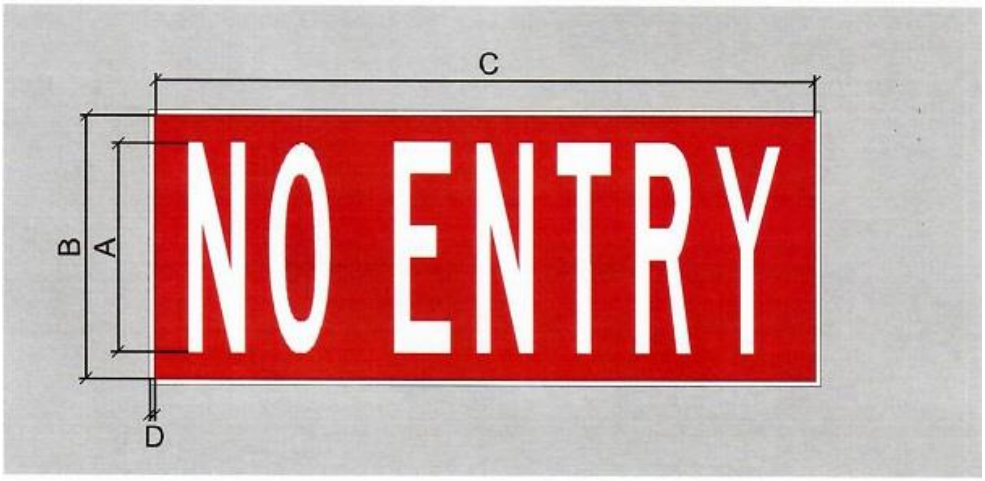
2.4 NO ENTRY MARKING

A NO ENTRY marking is a mandatory instruction marking according to AAR-Aerodrome Standards, Volume 1. It shall be located on the left hand side of a taxiway centreline in a minimum distance of 1 m from the centreline where an entry is prohibited.

When there is insufficient contrast between the marking and the pavement surface, it shall be surrounded by a white borderline.

Color	Characters	Background	Border
	White	*Red*	*White*

Dimensions	A	B	C	D
	2,0 m	*3,0 m*	*Acc. to character width*	*10 cm*
	4,0 m	*5,0 m*	*Acc. to character width*	*10 cm*



2.5 MULTIPLE USEABLE AIRCRAFT STAND TAXILANE

To increase flow of traffic in aircraft stand taxilanes it may be helpful to use them multiple (e.g. two aircraft with maximum wingspan 36m or one aircraft with maximum wingspan 65m). Minimum distances from the centerlines to centerlines and/or to objects can be found in AAR-Aerodrome Standards.

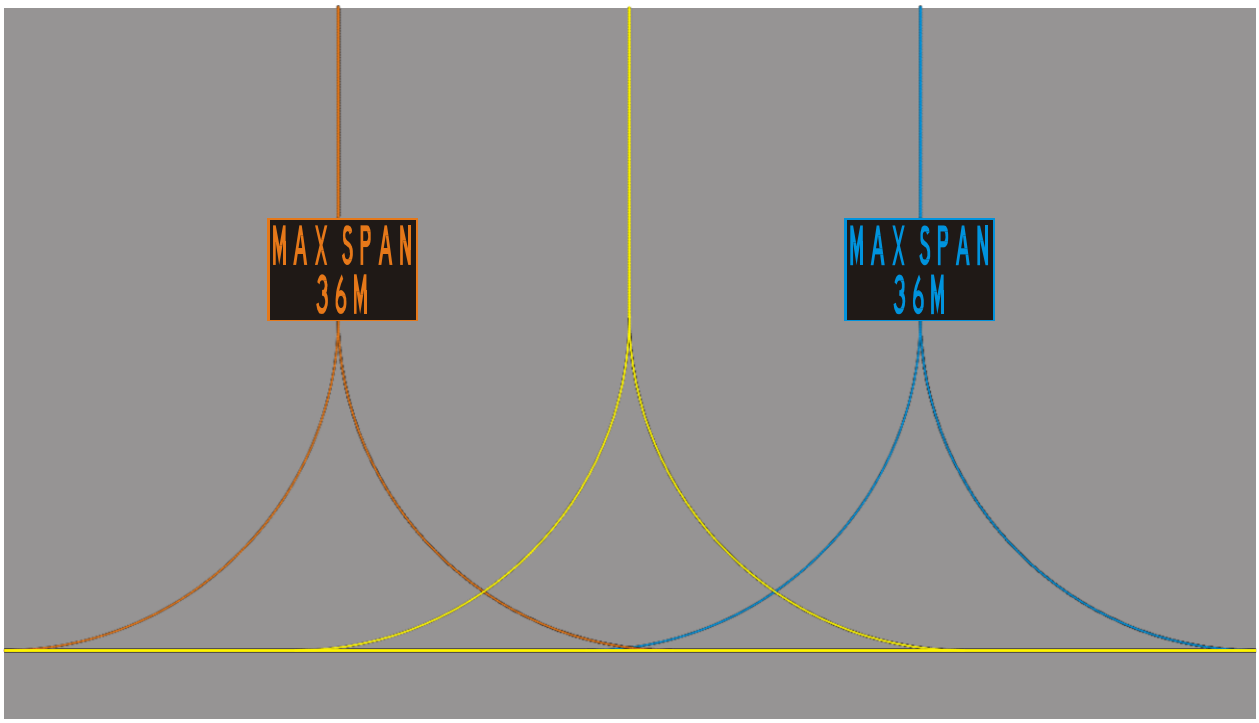
Current best practice on many airports has shown, that color coding of centerlines is recommended to guarantee safe operations and to provide proper guidance.

Due to lack of possibilities the colors blue and orange should be used. In addition the maximum wingspan for the restricted taxilane centre lines shall be marked in the same color. If installed, taxilane centerline lights shall be in the same color as the markings alternating with green lights.

To increase visibility of centerline markings and “MAX SPAN” markings because of the color of the pavement, they should have a border / background in a contrasting color.

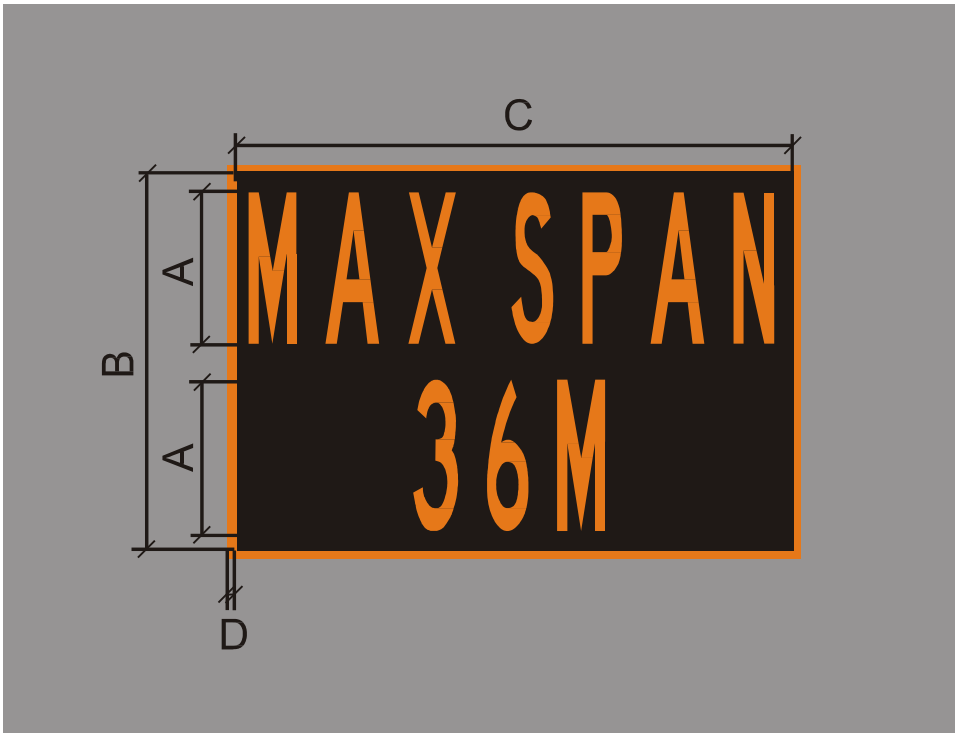
Color	Centreline	Borderline
	Blue / Orange	*Black*

Dimensions	Centreline	Borderline
	20 cm min.	*10 cm*

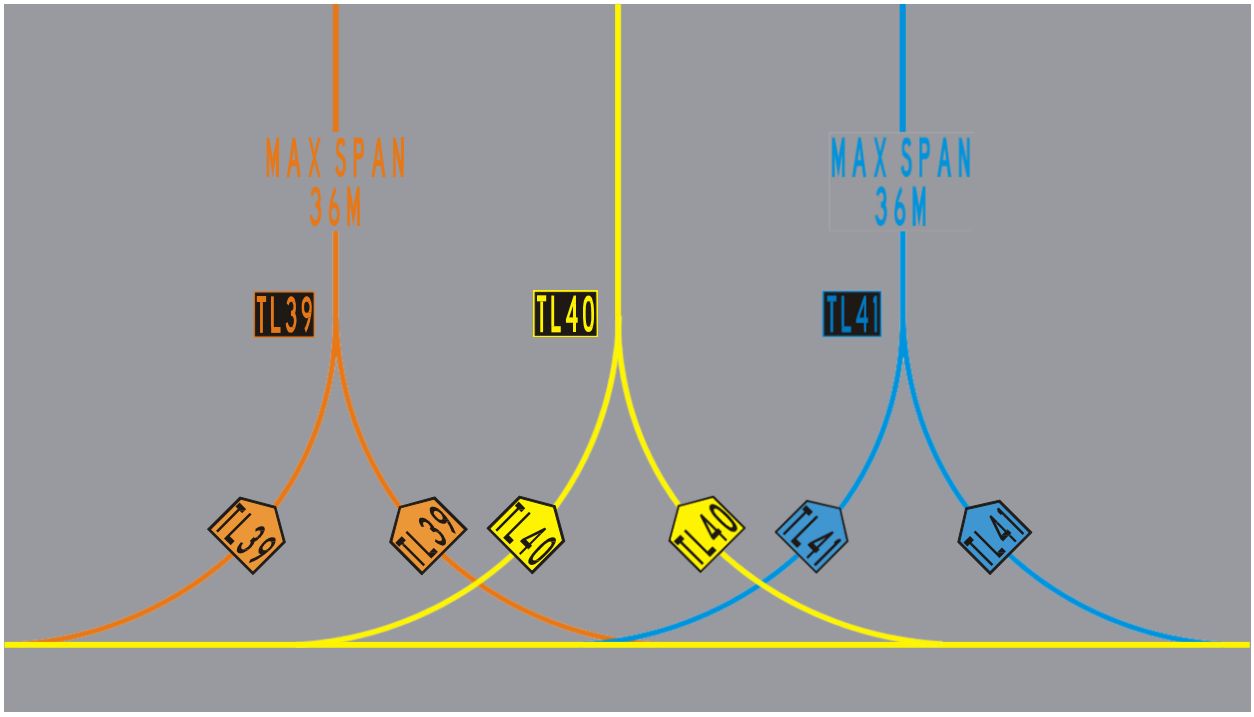


Color	Charakters	Background	Borderline
	Yellow /Blue / Orange	*Black*	*Yellow / Blue / Orange*

Dimensions	A	B	C	D
	2,0 m	*5,0 m*	*Acc. to character width*	*10 cm*
	4,0m	*9,5 m*	*Acc. to character width*	*10 cm*



Option 1


MAX SPAN
36M
MAX SPAN
36M
TL39
TL40
TL41
TL39
TL39
TL40
TL40
TL41
TL41

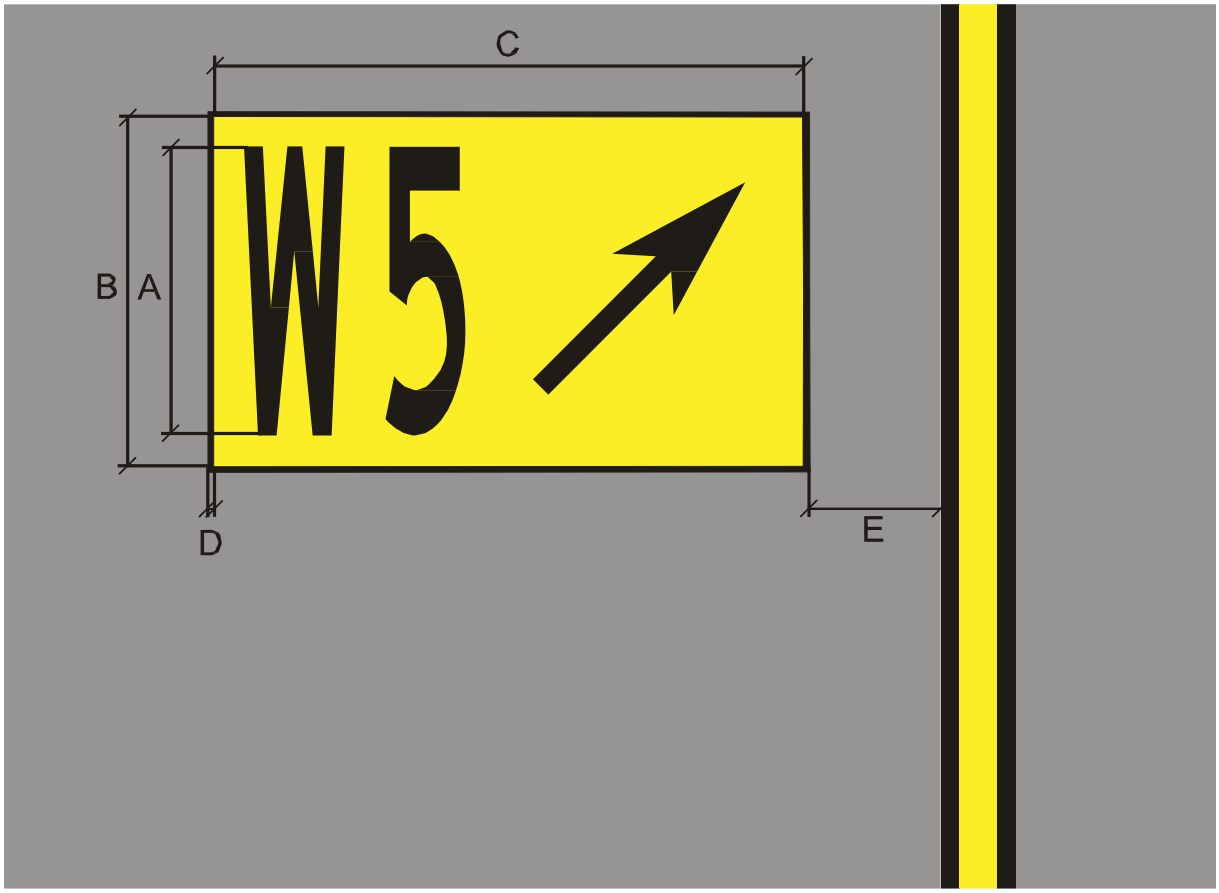
2.6 INFORMATION MARKING

AAR-Aerodrome Standards 9.3.17.1 where an information sign would normally be installed and it is impractical to install, an information marking shall be displayed on the surface of the pavement.

2.6.1 OPTION 1 – INDICATION OF DIRECTION AND DESTINATION

Color	Charakters	Background	Border
	Black	*Yellow*	*Black*

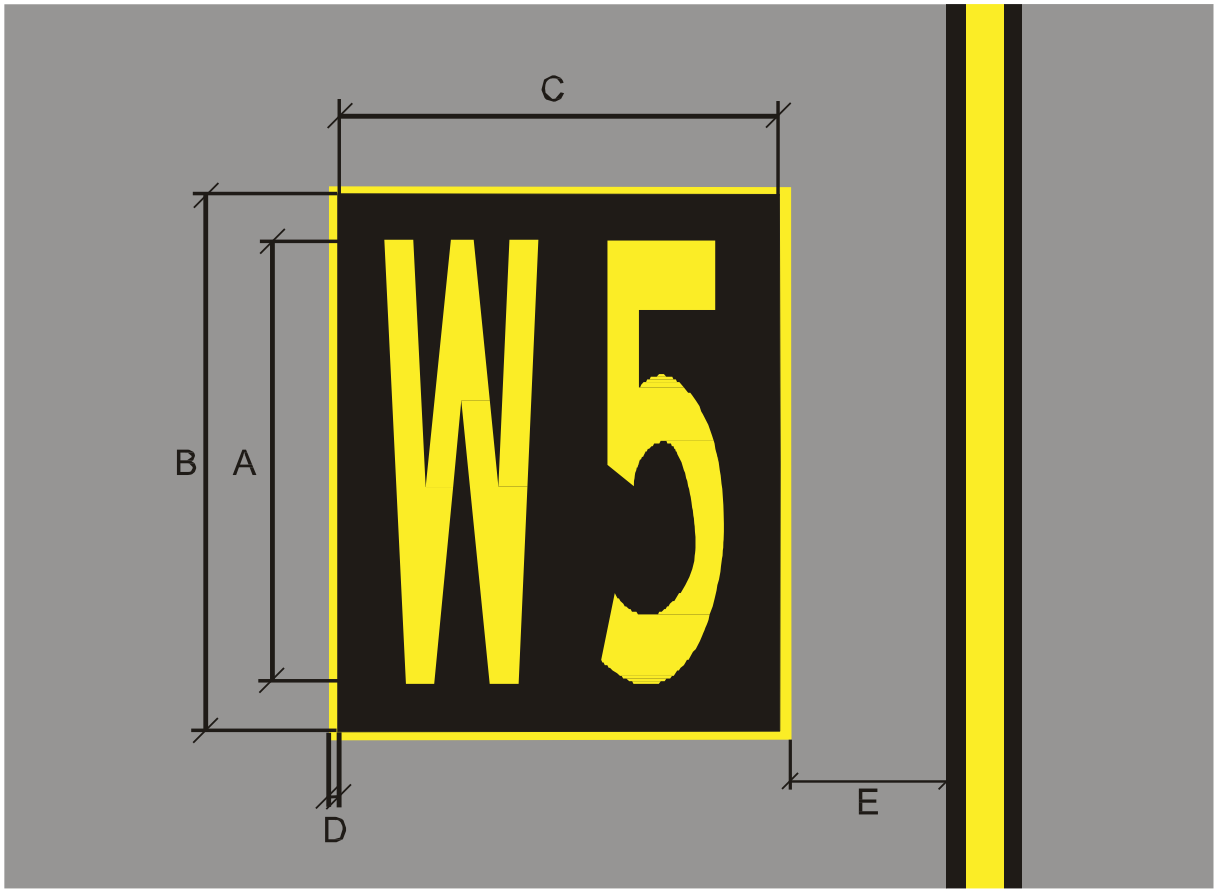
Dimensions	A	B	C	D	E
	2,0 m	*2,5 m*	*Acc. to character width*	*10 cm*	*1,0 m*
	4,0 m	*5,0 m*	*Acc. to character width*	*10 cm*	*1,0 m*



2.6.2 OPTION 2 – INDICATION OF LOCATION

Color	Characters	Background	Border
	Yellow	*Black*	*Yellow*

Dimensions	A	B	C	D	E
	2,0 m	*2,5 m*	*Acc. to character width*	*10 cm*	*1,0 m*
	4,0 m	*5,0 m*	*Acc. to character width*	*10 cm*	*1,0 m*



2.7 APRON AND TAXIWAY EDGE

Apron and taxiway edge lines are used to delineate the boundary of a taxiway or apron area where the edge of the full strength pavement cannot be easily discerned, or when a low strength shoulder adjoins the full strength pavement.

Color	Edgeline
	Yellow

Dimensions	A	B	C
	15 cm	*15 cm*	*10 cm*





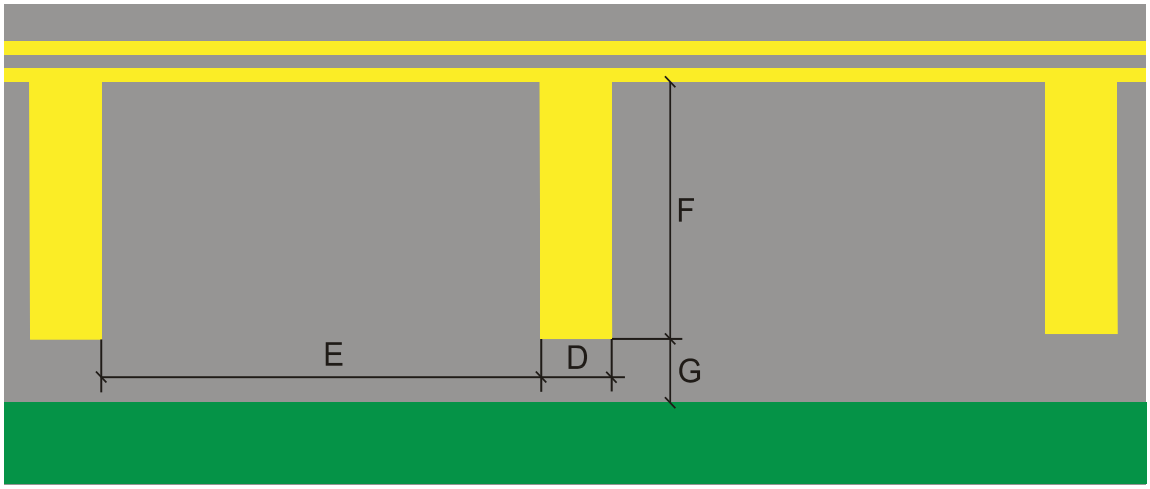
Additionally low strength taxiway shoulders should be marked with transverse stripes.

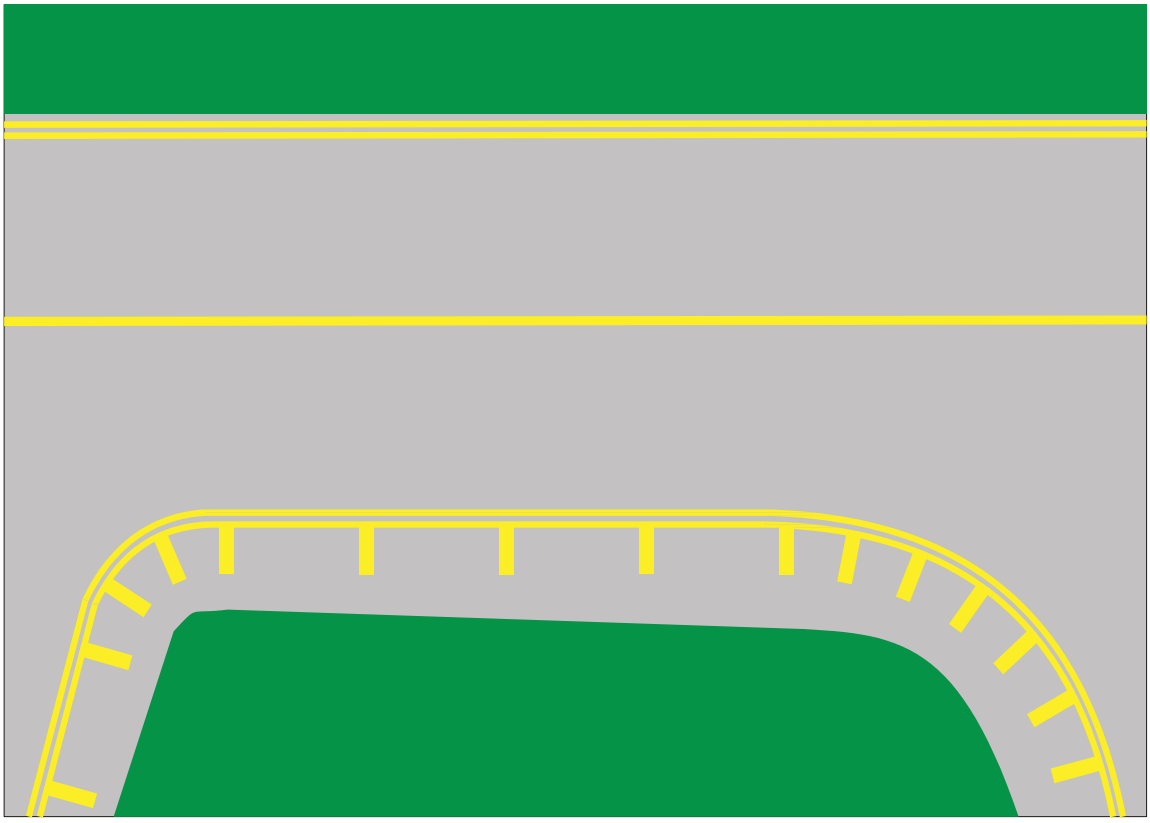
Note: In case of the use of non-load bearing pavement adjacent to aprons as service roads, transverse stripe markings shall not be marked on the portion of the non-load bearing pavement used as service roads.

Marking of the transverse stripes should be done in the dimensions are shown below and should be placed perpendicular to the side stripe marking.

The colour of the transverse stripes should be the same as that of the edge stripes.

Dimensions	D	E	F	G
	0.9 m	15-30 m max.	7.5 m max.	1.5 m min.





a. If the sum of the distances F and G is less than 9 m, the marking should be done so that the distance G is 1.5 m and the distance F is reduced to less than 7.5 m. If the sum of the distances F and G is more than 9 m, the distance F should be 7.5 m. (In any combination of sizes, distance F should not exceed 7.5 m; distance G should be no more than 1.5 m.).
b. The distance D should not exceed 30 m on straight sections and 15 m on curves.

2.8 STAND IDENTIFICATION TO PARKING STAND

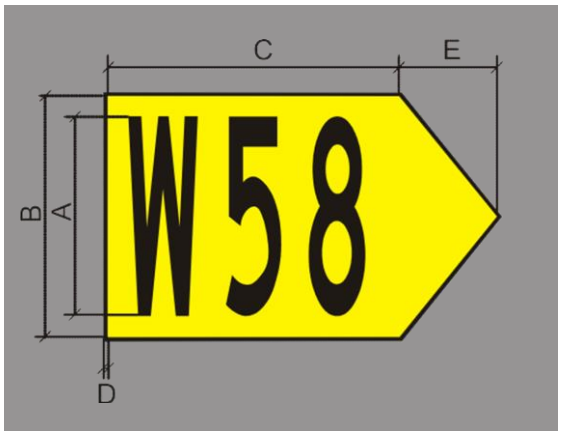
2.8.1 OPTION 1

This marking assists the pilot of an approaching aircraft to identify the appropriate parking stand, prior to initiating the turn.

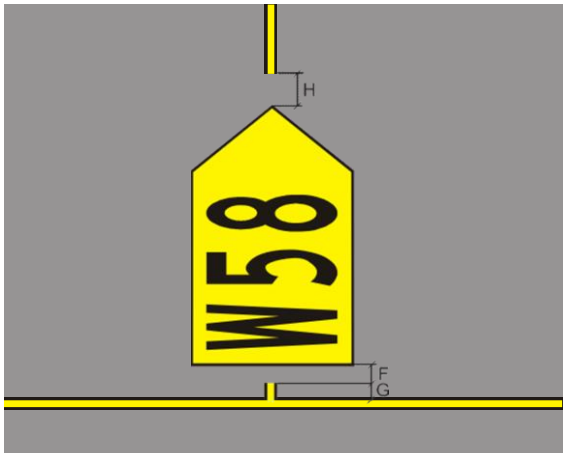
A stand identification marking is an information marking which indicates direction and destination. Option 1 shall be used for stand lead in lines at an angle of 61° to 90° to the taxilane / taxiway.

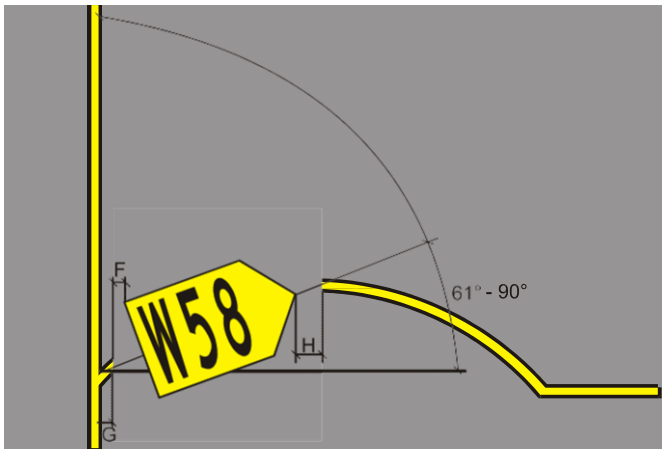
Color	Charakters	Background	Border
	Black	*Yellow*	*Black*

Dimensions	A	B	C	D	E
	2,0 m	*2,5 m*	*Acc. to character width*	*10 cm*	*1,0 m*
	4,0 m	*5,0 m*	*Acc. to character width*	*10 cm*	*2,0 m*

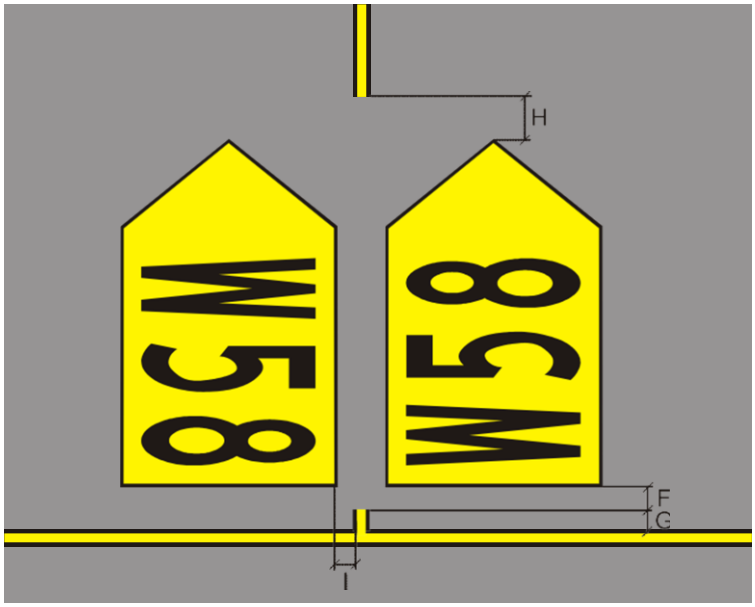


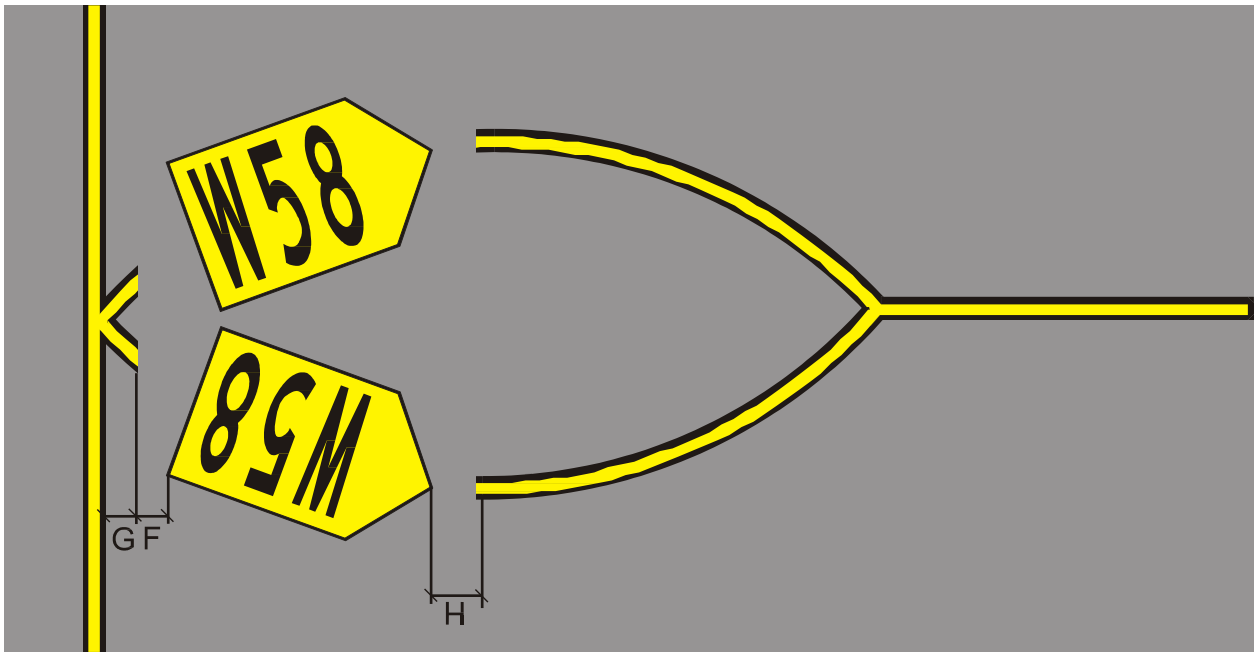
Dimensions	*F*	*G*	*H*
	50 cm	*50 cm min.*	*1,0 m*





Dimensions	*F*	*G*	*H*	*I*
	50 cm	*50 cm min.*	*1,0 m*	*0,3 m*




W58
W58
G
F
H

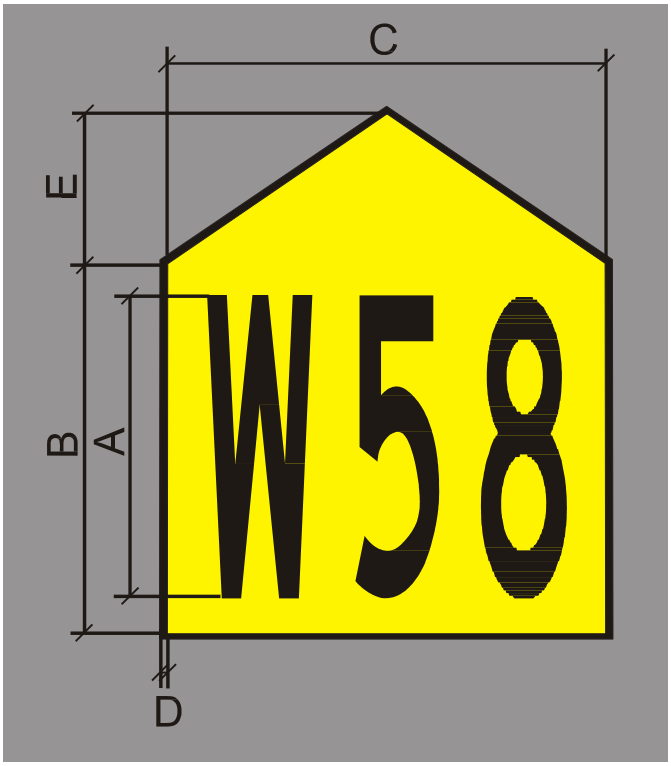
2.8.2 OPTION 2

This marking assists the pilot of an approaching aircraft to identify the appropriate parking stand, prior to initiating the turn.

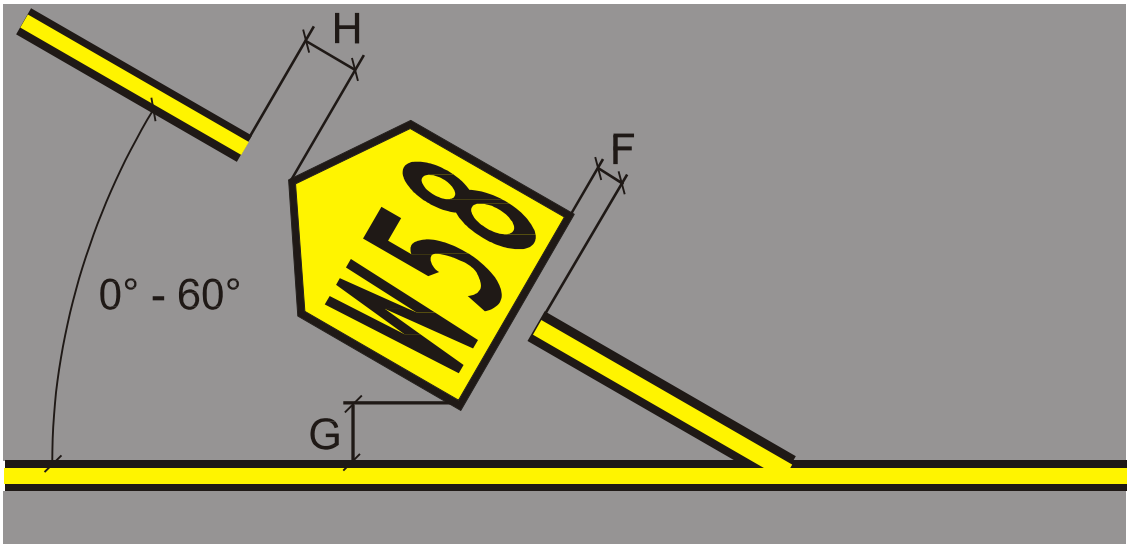
A stand identification marking is an information marking which indicates direction and destination. Option 2 shall be used for stand lead in lines at an angle of 0° to 60° to the taxilane / taxiway.

Color	Characters	Background	Border
	Black	*Yellow*	*Black*

Dimensions	A	B	C	D	E
	2,0 m	*2,5 m*	*Acc. to character width*	*10 cm*	*1,0 m*
	4,0 m	*5,0 m*	*Acc. to character width*	*10 cm*	*2,0 m*



Dimensions	*F*	*G*	*H*
	0,5 m	*50 cm min.*	*1,0 m*

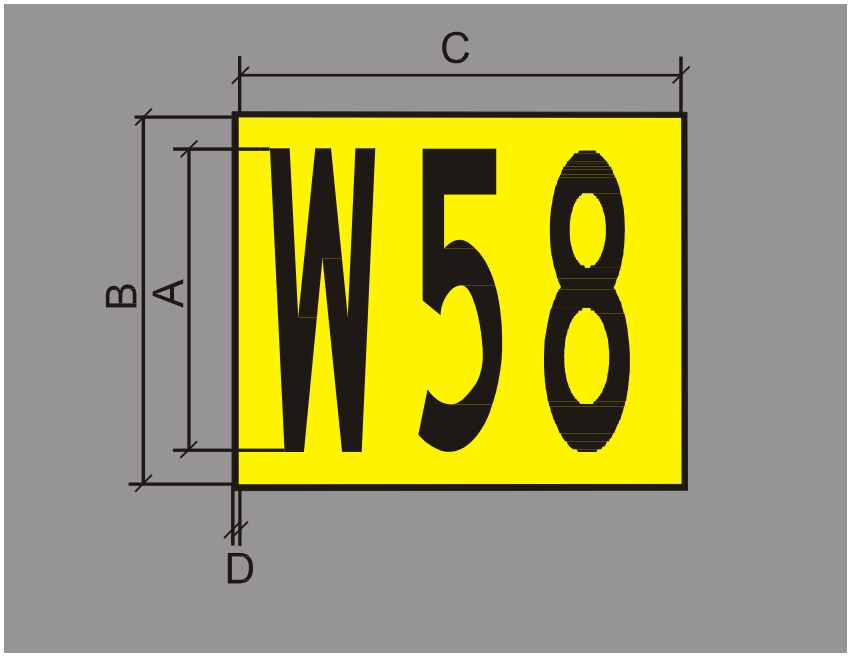


2.8.3 OPTION 3

The parking stand number is displayed on the lead in line.

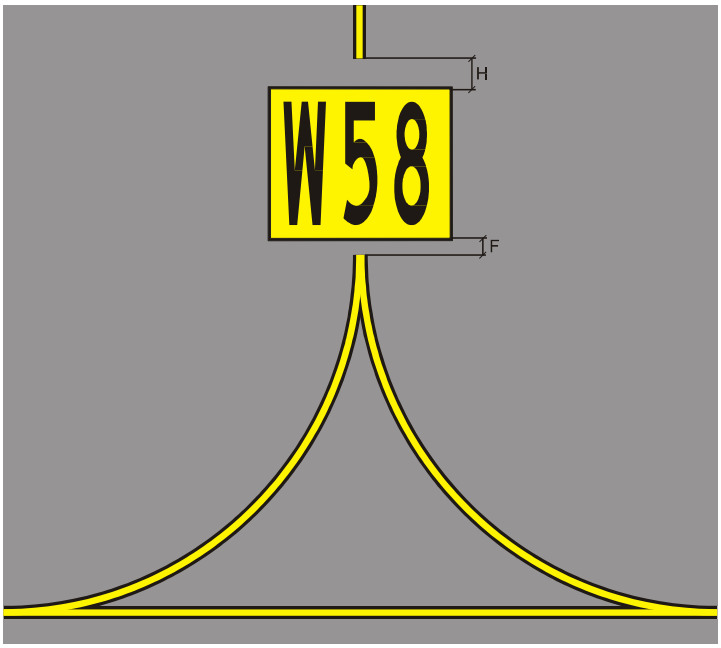
Color	Characters	Background	Border
	Black	*Yellow*	*Black*

Dimensions	A	B	C	D
	2,0 m	*2,5 m*	*Acc. to character width*	*10 cm*
	4,0 m	*5,0 m*	*Acc. to character width*	*10 cm*



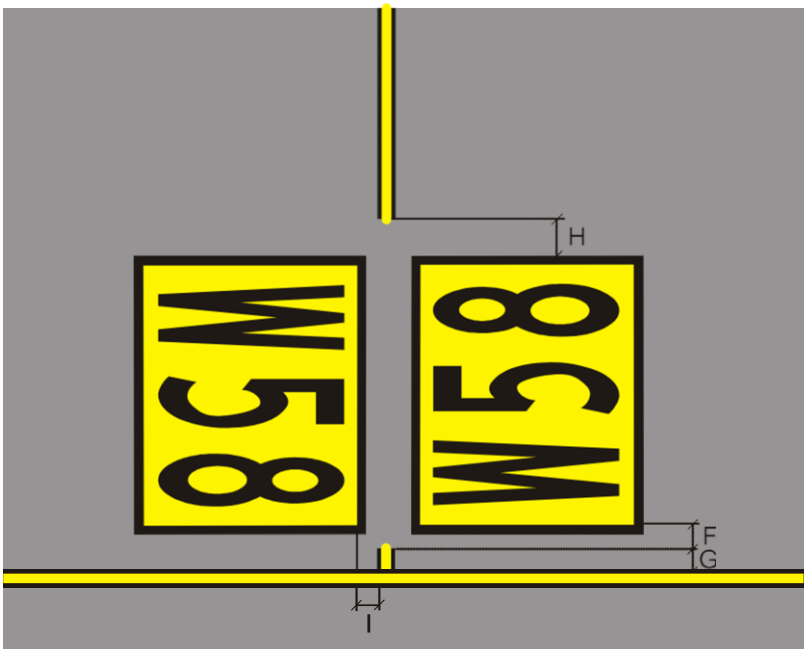
2.8.4 OPTION 3A

Dimensions	F	H
	50 cm	*1,0 m*



2.8.5 OPTION 3B

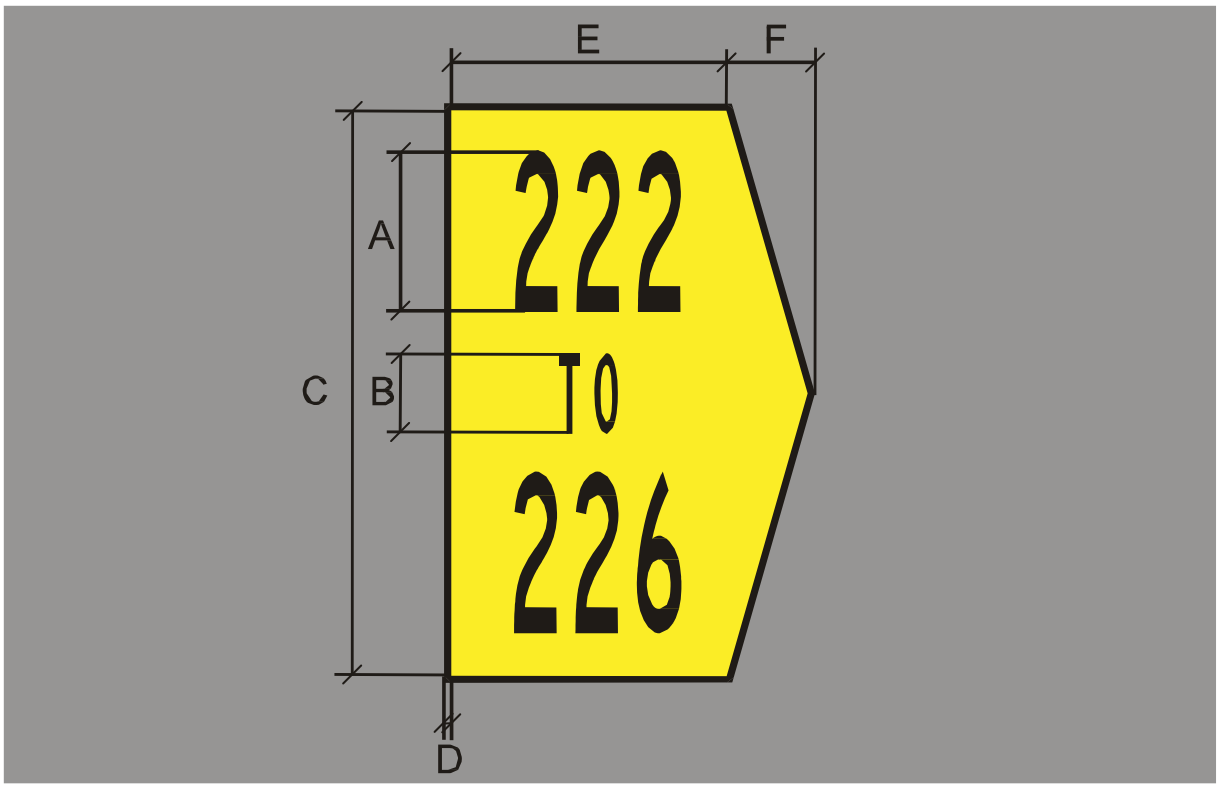
Dimensions	*F*	*G*	*H*	*I*
	50 cm	*50 cm*	*1,0 m*	*30 cm*



2.8.6 OPTION 4

This information (direction) marking assists the pilot of an approaching aircraft to identify an area of parking stands, prior to initiating a turn.

Dimensions	A	B	C	D	E	F
	2,0 m	*1,9 m*	*6,0 m*	*10 cm*	*Acc. to character width*	*1,0 m*

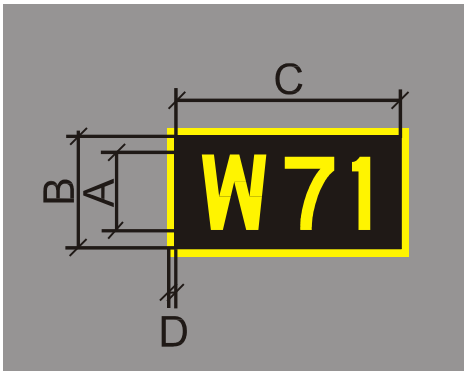


2.9 STAND IDENTIFICATION ON PARKING STAND

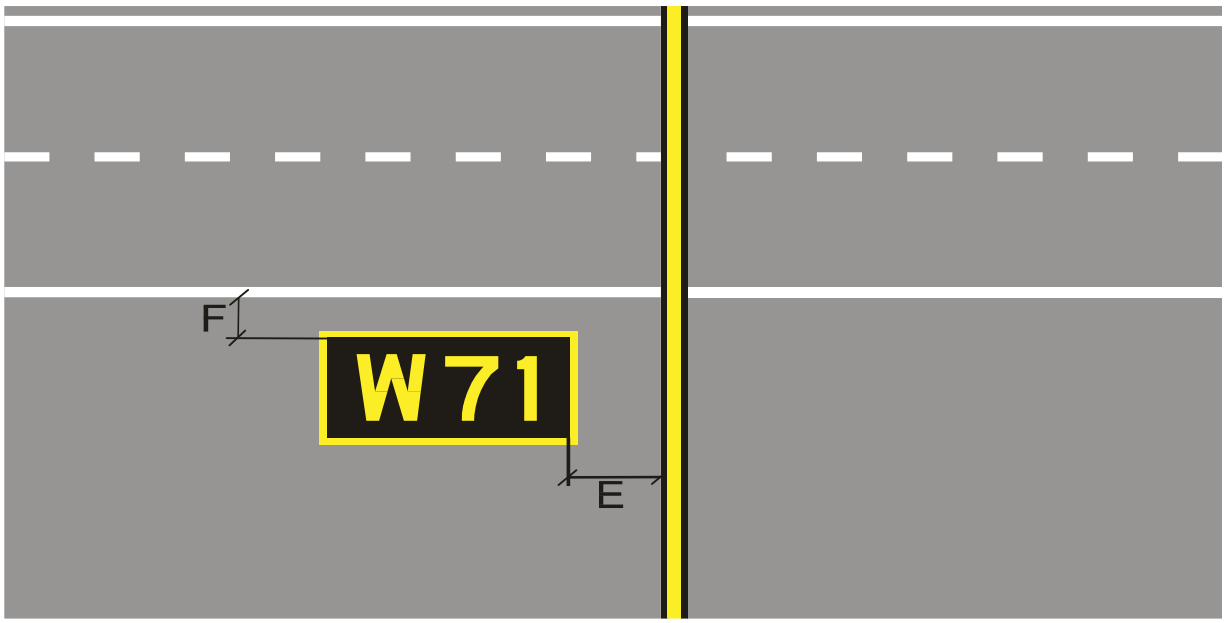
To indicate the location for pilots and apron staff a stand identification as displayed below, shall be established on a parking stand.

Color	Characters	Background	Border
	Yellow	*Black*	*Yellow*

Dimensions	A	B	C	D
	50 cm	*75 cm*	*Acc. to character width*	*10 cm*
	1,0 m	*1,5 m*	*Acc. to character width*	*10 cm*



Dimensions	E	F
	1,0 m	*50 cm*

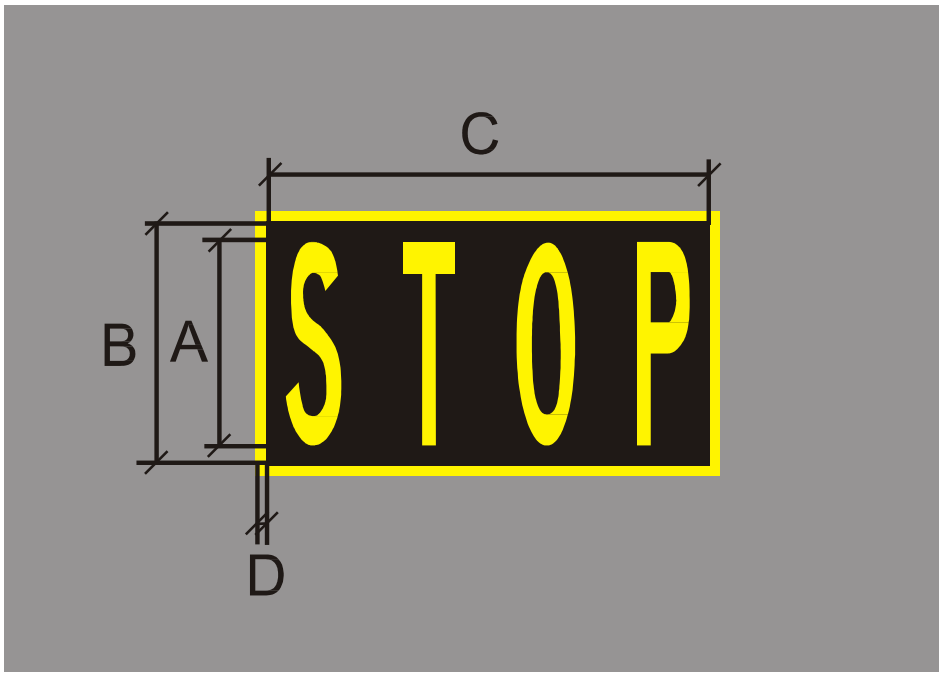


2.10 BASIC AIRCRAFT STOP LINE

This marking should be used where an aircraft is positioned on a stand without marshalling, where the transverse bar indicates the cockpit stop position. The marking should be suitable for the critical aircraft (usually the largest aircraft) which will be use the stand. The same markings are used on either a power through position or a power in, push out position. The dimension is believed sufficient to ensure visibility by the pilot in command.

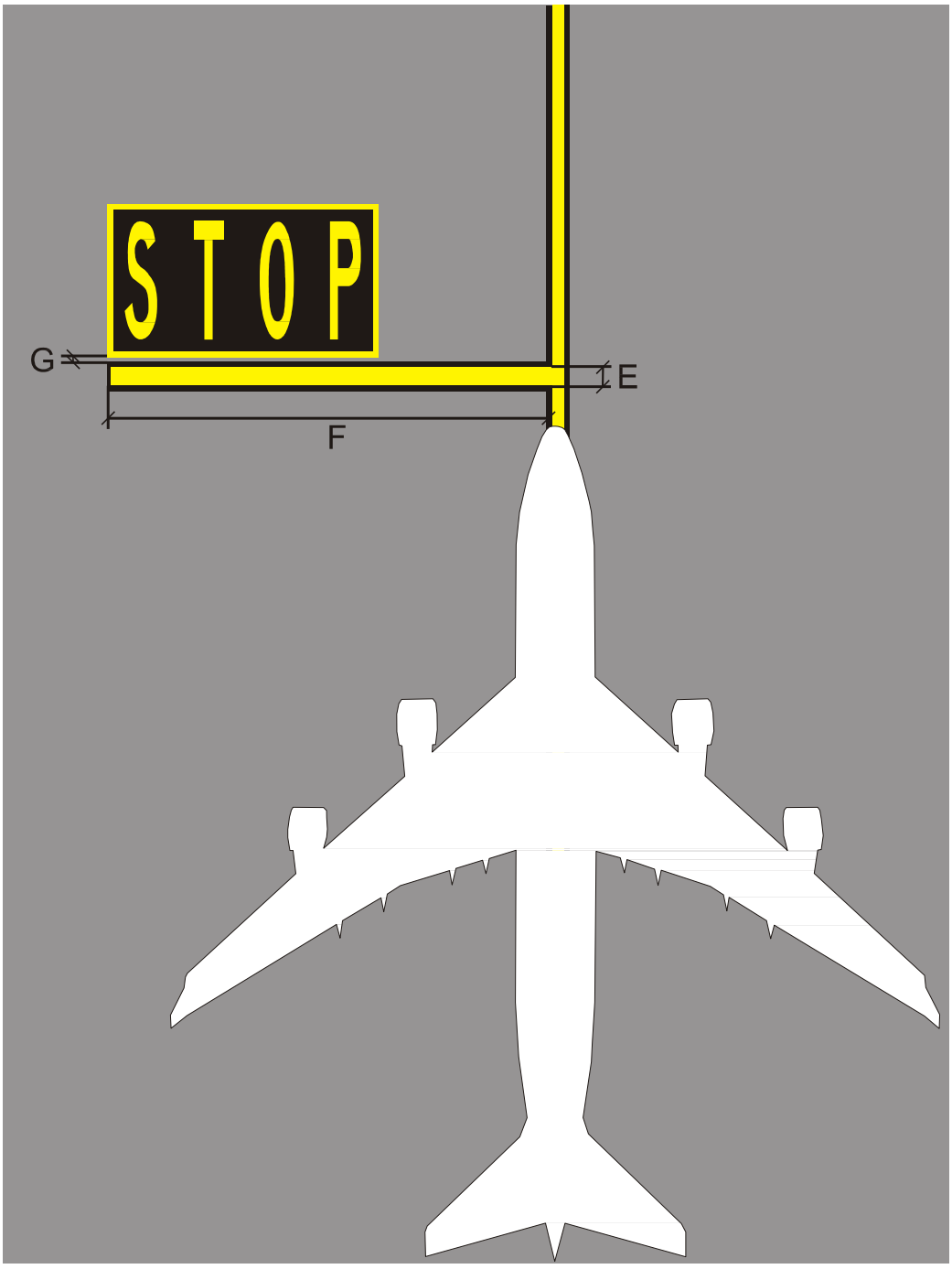
Color	Charakters	Background	Border
	Yellow	*Black*	*Yellow*

Dimensions	A	B	C	D
	2,0m	*2,5 m*	*Acc. to character width*	*10 cm*
	4,0 m	*5,0 m*	*Acc. to character width*	*10 cm*



Color	Stopline	Border
	Yellow	*Black*

Dimensions	ICAO Code Letter	E	F	G
	C	*30 cm*	*11,0 m*	*10 cm*
	D	*30 cm*	*16,0 m*	*10 cm*
	E	*30 cm*	*16,0 m*	*10 cm*
	F	*30 cm*	*16,0 m*	*10 cm*



2.11 MULTIPLE AIRCRAFT STOP LINE

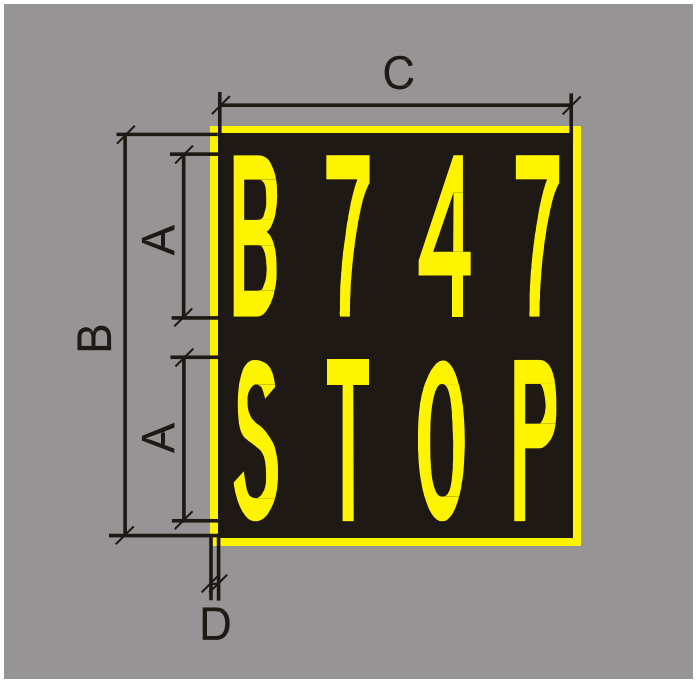
These marking should be used where an aircraft is positioned without a marshaller, but in association with an air bridge, or where fuel hydrant positions are critical, so that different cockpit stop positions are necessary for the different aircraft types to be accommodated. The dimensions of the markings are shown on the preceding page, including the dimensions F, which varies according to the maximum aircraft size to be accommodated.

Some airport operators may prefer to mark each of the different stop positions with a letter or a number (e.g. A, B or 1, 2), rather than an aircraft type. In this case the control tower would inform the pilot which stop line should be used.

The word STOP shown in the illustration on the facing page may be regarded as optional, and would be omitted where marking for different aircraft sizes would be to close together.
These markings may be supplemented by some form of Visual Docking Guidance System for the use of pilots. This handbook does not set out to provide information on such systems.

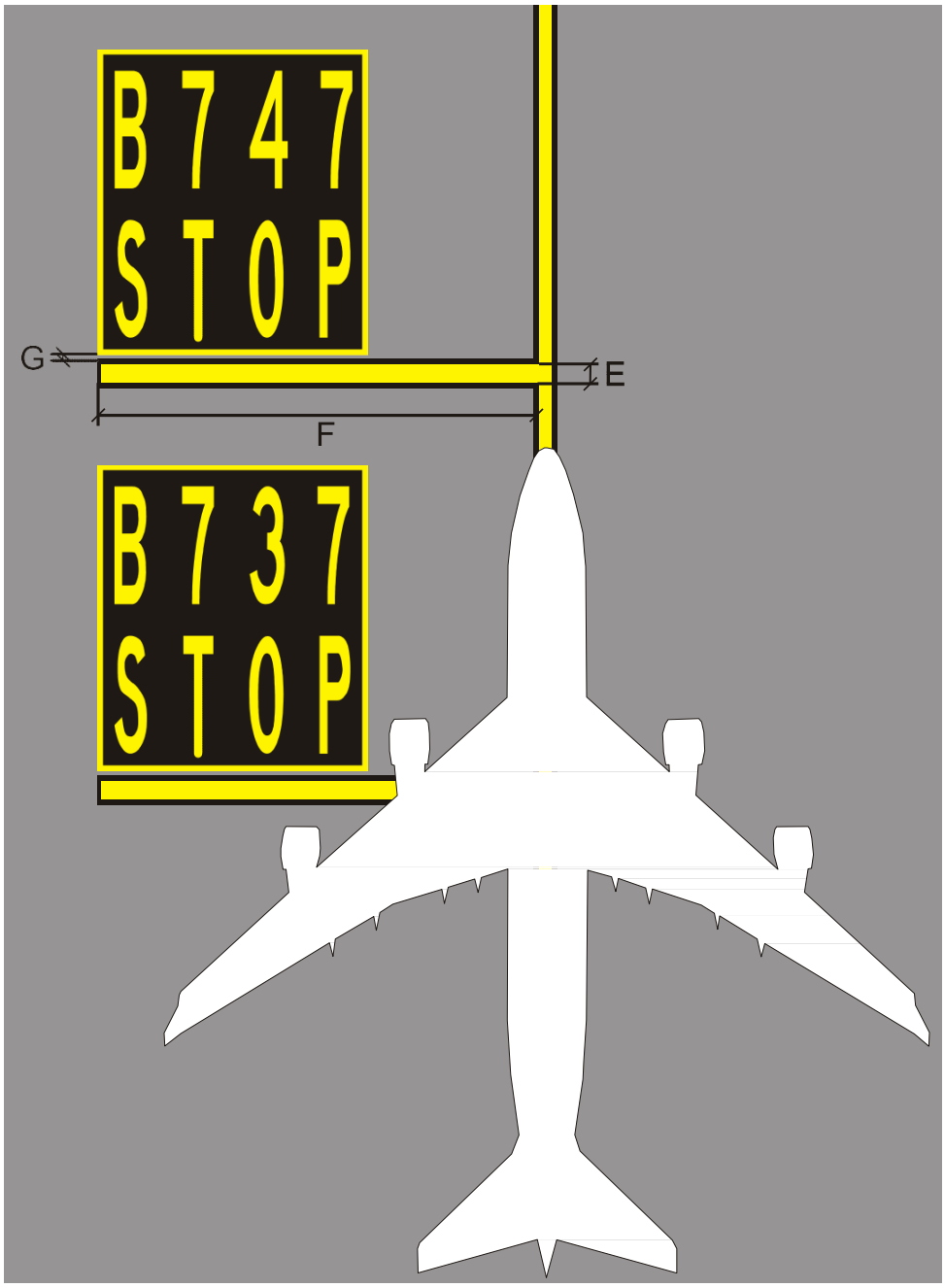
Color	Charakters	Background	Border
	Yellow	*Black*	*Yellow*

Dimensions	A	B	C	D
	2,0 m	*5,0 m*	*Acc. To character*	*10 cm*
	4,0 m	*9,5 m*	*Acc. To character*	*10 cm*



Color	Stopline	Border
	Yellow	*Black*

Dimensions	ICAO Code Letter	E	F	G
	C	*30 cm*	*11,0 m*	*10 cm*
	D	*30 cm*	*16,0 m*	*10 cm*
	E	*30 cm*	*16,0 m*	*10 cm*
	F	*30 cm*	*16,0 m*	*10 cm*

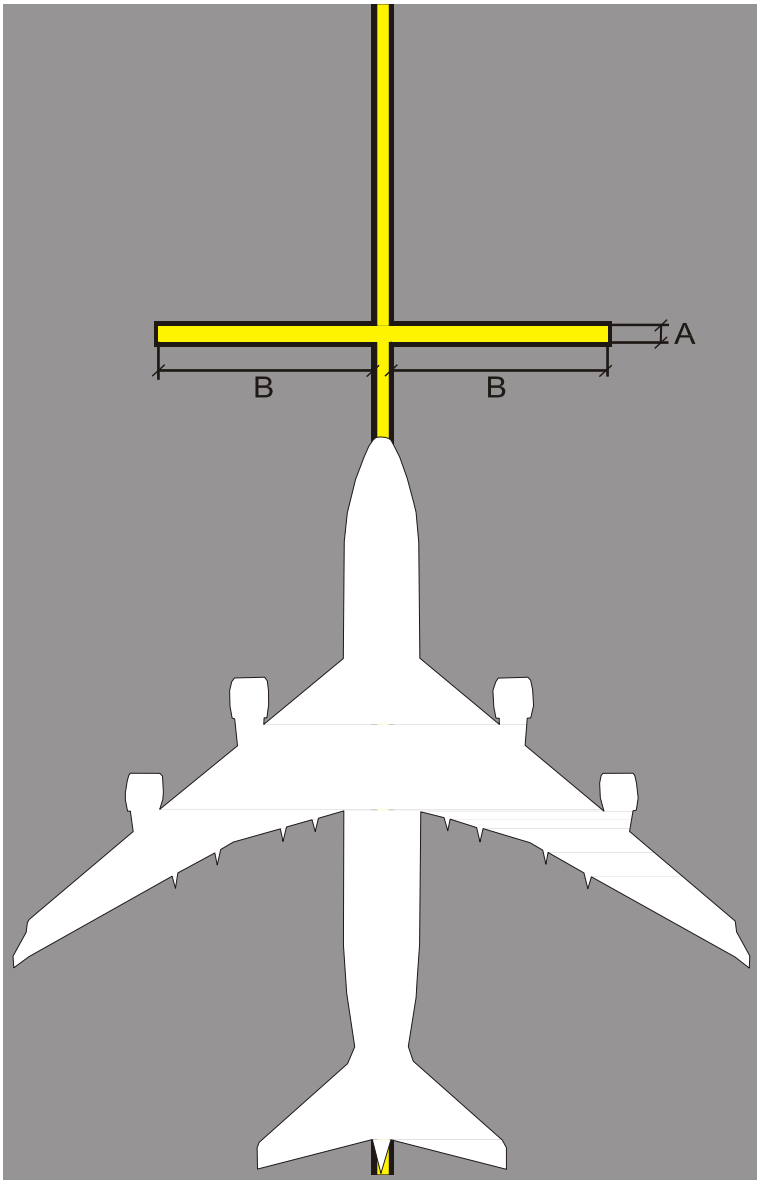


2.12 BASIC MARSHALLER AND TOWING STOP LINE

The marking should be used where an aircraft, either under power or tow, is positioned on stand by a marshaller. The transverse bar indicates the nose wheel stop position to the marshaller. The same marking is used on either a power through position or a power in, push out position. The design of the marking is dependent on the critical aircraft for the stand.

Color	Centreline	Borderline
	Yellow	*Black*

Dimensions	A	B
	20 cm min.	*3,0 m*



2.13 MULTIPLE MARSHALLER AND TOWING STOP LINE

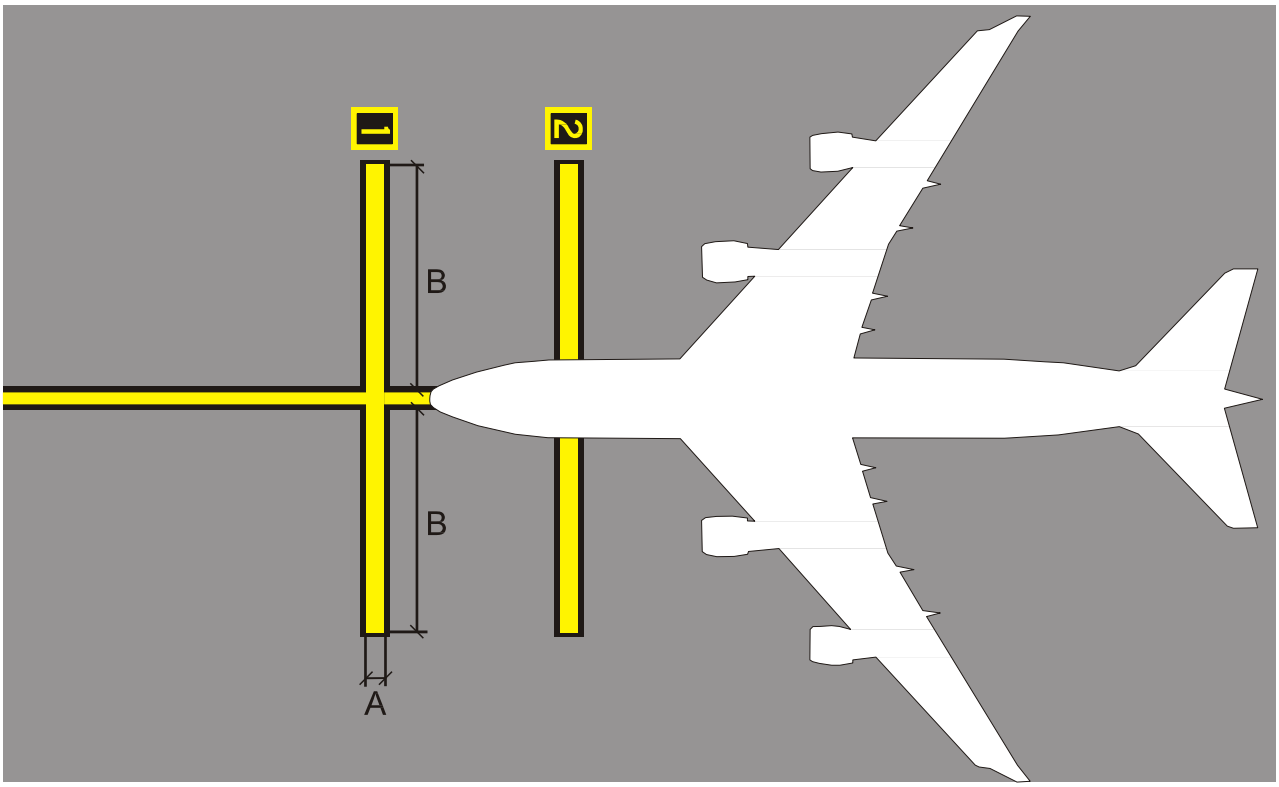
The markings opposite should be used where an aircraft, either under power or tow, is positioned on stand by a marshaller, but in association with an air bridge or where fuel hydrant positions are critical, so that different nose wheel stop positions are needed for the different aircraft types to be accommodated.

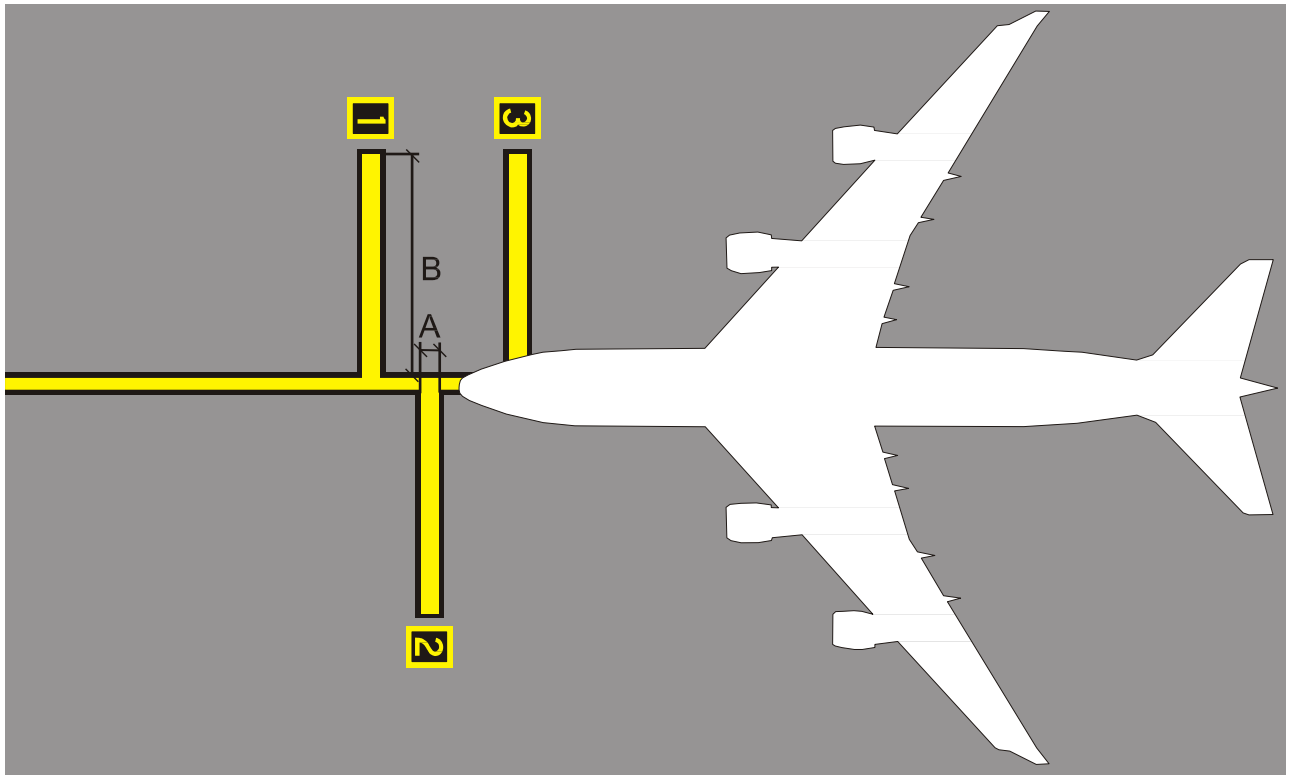
The dimensions of the markings should be sufficient to be readily visible to the marshaller or tug driver. Characters should be a minimum of 50 cm high, it is suggested. The number and position of the markings are determined by the number and type of aircraft using the stand.

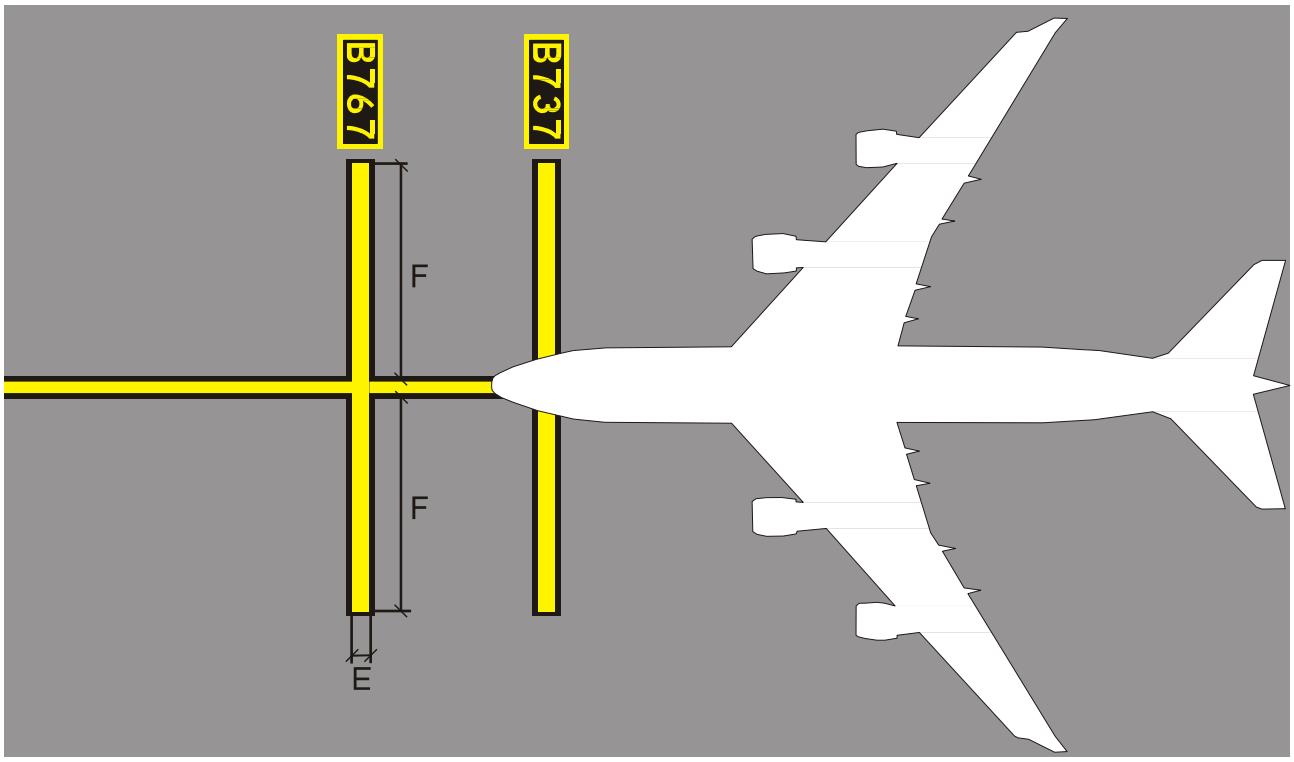
Some airport operators may prefer to mark each of the different stop positions with a letter or a number (e.g. A, B or 1, 2), rather than an aircraft type. In this case the marshaller should be informed as to which stop position should be used.

Color	Centreline	Borderline	STOP line
	Yellow	*Black*	*Yellow*

Dimensions	A	B
	20 cm min.	*3,0 m*

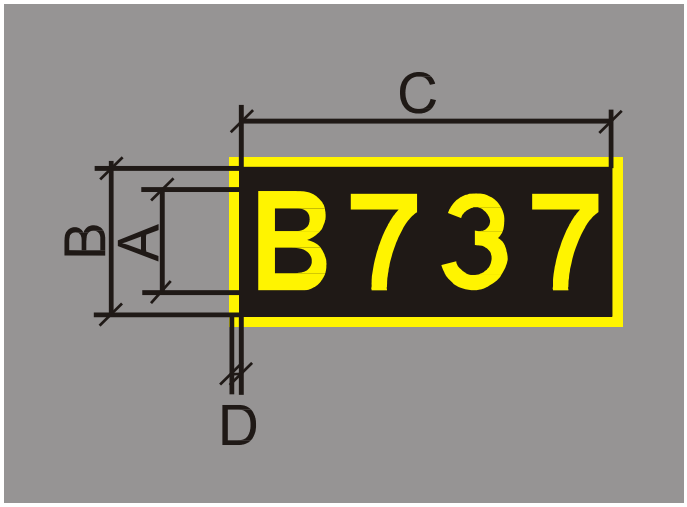



1
3
B
A
2


B767
B737
F
F
E

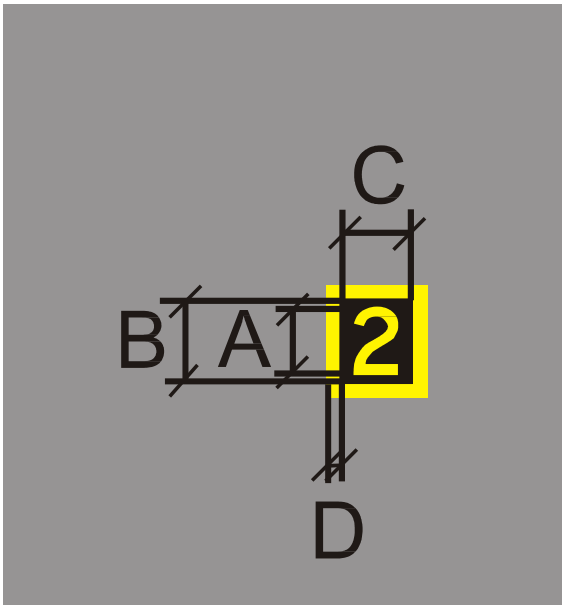
Color	Centreline	Borderline
	Yellow	*Black*

Dimensions	A	B	C	D
	50 cm	*75 cm*	*Acc. to character width*	*10 cm*
	1,0 m	*1,5 m*	*Acc. to character width*	*10 cm*



Color	Centreline	Borderline
	Yellow	*Black*

Dimensions	A	B	C	D
	50 cm	*75 cm*	*Acc. to character width*	*10 cm*
	1,0 m	*1,5 m*	*Acc. to character width*	*10 cm*

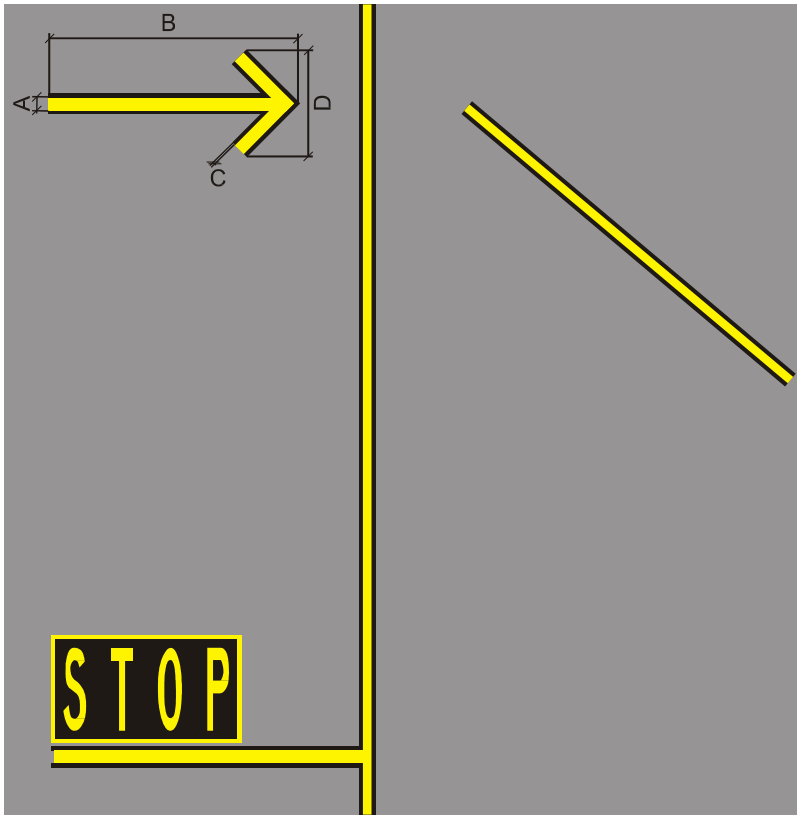


2.14 POWER OUT TURNBAR AND ALIGNMENT LINE

The turn bar is used to advise the pilot of the position where the aircraft should commence turning when it leaves the stand. The alignment line allows the pilot of a widebody aircraft to align the aircraft on the centre line prior to bringing the aircraft to a stop or when the aircraft is under power, prior to leaving the stand.

Color	Centreline	Borderline
	Yellow	*Black*

Dimensions	A	B	C	D
	20 cm min.	*6,0 m*	*10 cm*	*2,0 m min.*

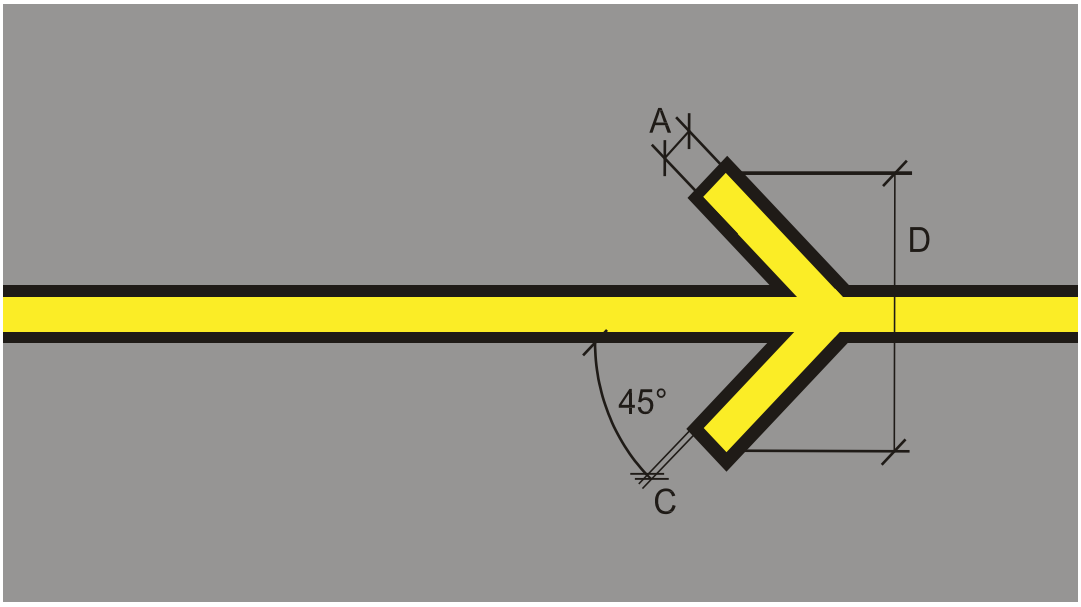


2.15 ONE WAY ARROW MARKING

Where it is intended that an aircraft proceeds in one direction only, arrows pointing in the direction to be followed should be added as part of the lead-in and lead-out lines.

Color	Arrow line	Borderline
	Yellow	*Black*

Dimensions	A	C	D
	20 cm min.	*10 cm*	*2,0 m min*



INTENTIONALLY LEFT BLANK

3. APRON MARKINGS FOR VEHICLES

3.1 BOUNDARY OF RESPONSIBILITY LINE

To display a boundary of responsibility (e.g. Airport – ATC) it is recommended to mark this in red color at a width of not less than 30cm.

When there is insufficient contrast between the marking and the pavement surface, it shall be surrounded by a white borderline.

Color	Line	Borderline
	Red	*White*

Dimensions	A	B
	30 cm min.	*10 cm*





3.2 STAND SAFETY LINE

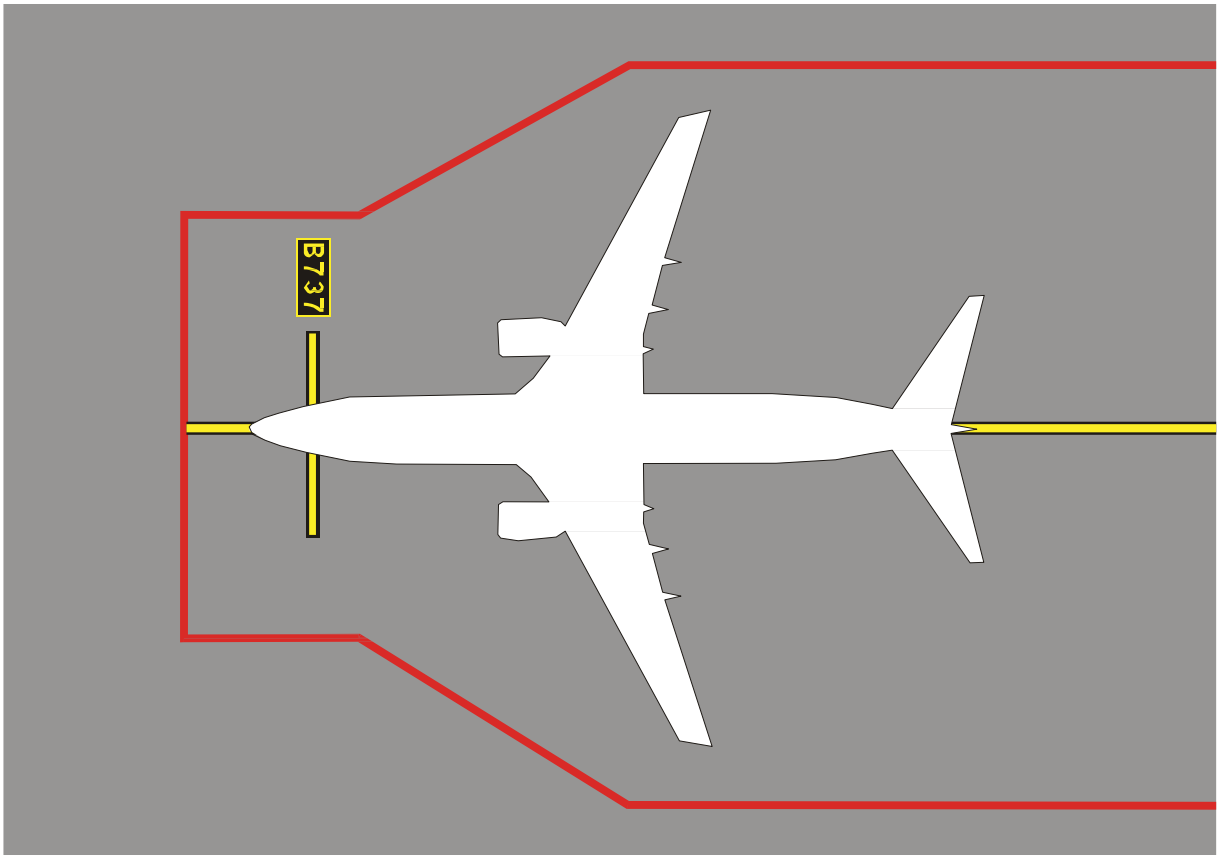
This line depicts the area that must remain free of staff, vehicles and equipment when an aircraft is taxiing (or being towed) into position or has started engines in preparation for departure. Once all engines have been shut down and the area is safe, vehicles may then cross the line to service the aircraft.

The size of this area depends on the type of aircraft using the stand position. The area should be dimensioned to allow for a safety zone around jet engine intakes, which must be kept free to avoid suction dangers, Aircraft manufactures give guidance on safety zones required around engines operating on ground idle. A similar safety zone should also be taken into account on stands used by propeller-driven aircraft.

Color	Line	Borderline
	Red	*White*

Dimensions	A	B
	20 cm min.	*10 cm*




B737

3.3 RESTRICTED STAND BY AREA

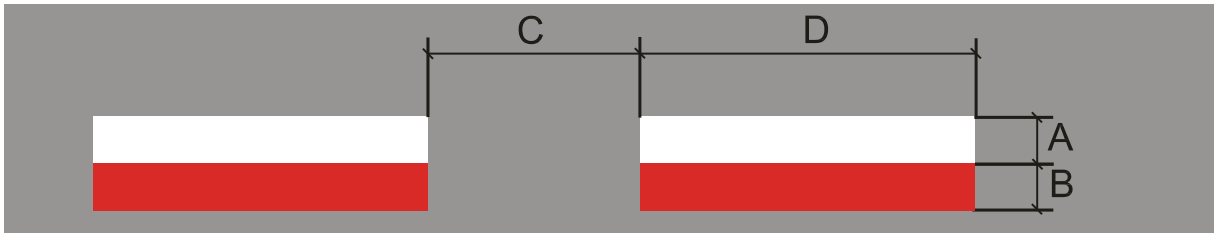
On drive through aircraft parking stand it may be helpful to mark restricted stand by areas. These areas indicate where it is possible to park a vehicle in a safe distance to an in taxiing aircraft.

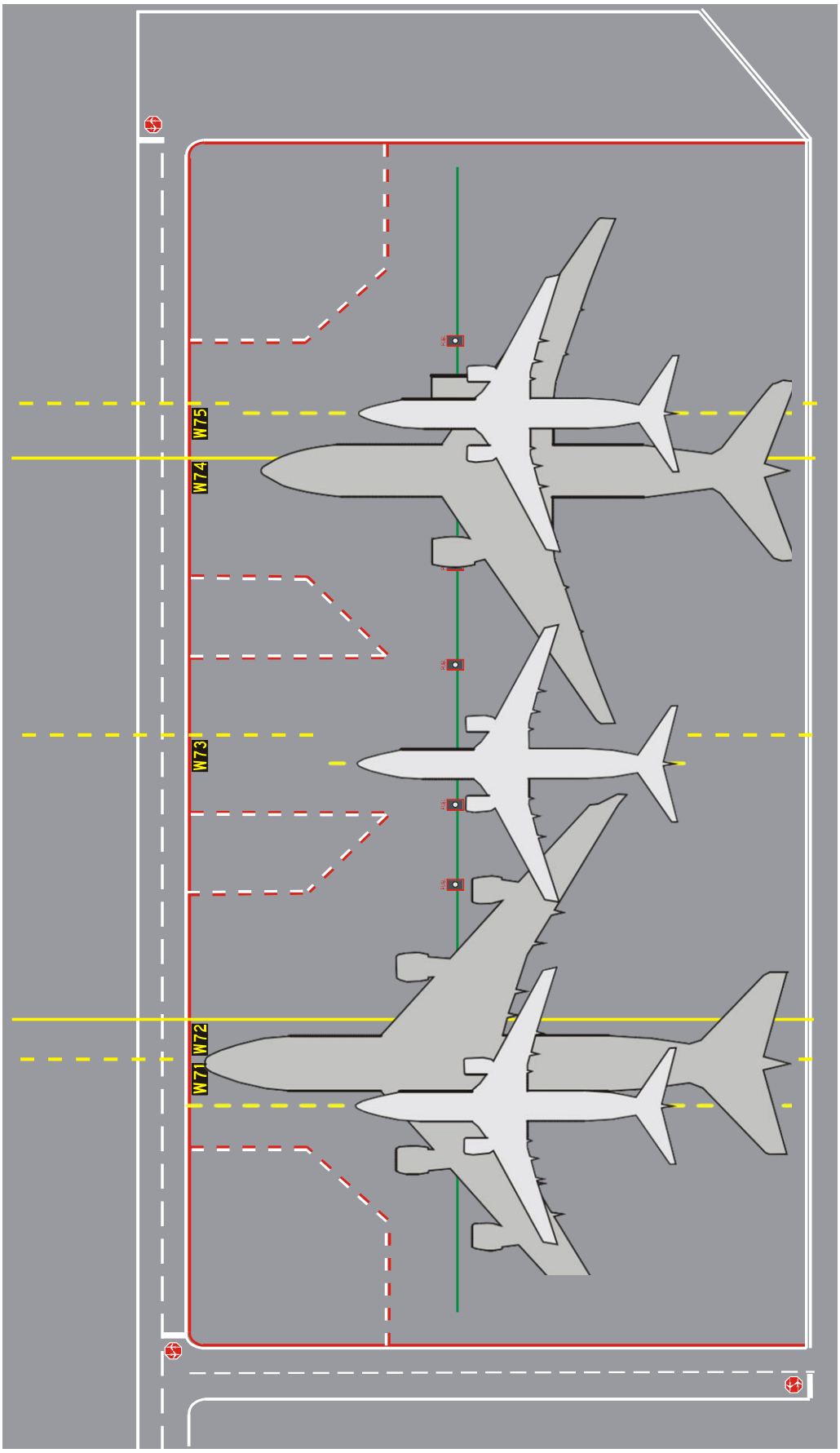
The size of this area depends on the type of aircraft using the stand position. The area should be dimensioned to allow for a safety zone around jet engine intakes, which must be kept free to avoid suction dangers. Aircraft manufactures give guidance on safety zones required around engines operating on ground idle. A similar safety zone should also be taken into account on stands used by propeller-driven aircraft.

Prior out taxiing of an aircraft such areas must be completely cleared.

Color	Line
	White- Red

Dimensions	A	B	C	D
	10 cm min.	*10 cm min.*	*50 cm*	*1,0 m*




W75
W74
W73
W72
W71

3.4 TRACTOR PUSHBACK LINE AND PUSHBACK LIMIT LINE

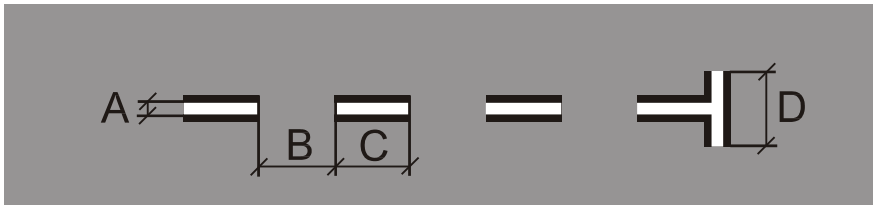
This line marking is for the use of a tractor (tug) driver when pushing back an aircraft from a stand. It may be used to ensure sufficient obstacle clearance, on stands where clearances around maneuvering aircraft are restricted.

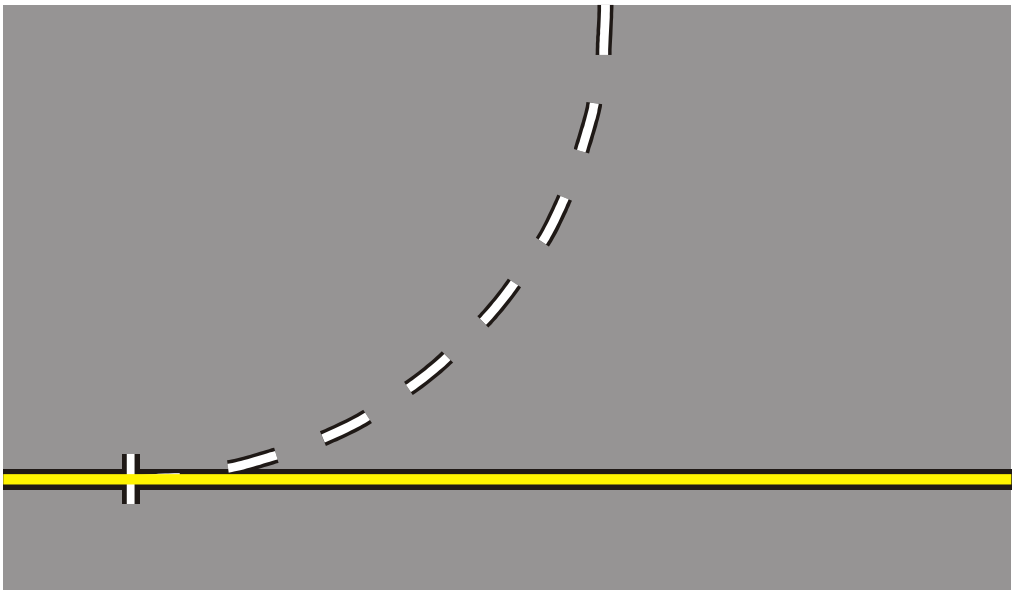
A transverse bar indicates the position where the aircraft (nose wheel) is to be stopped, prior to being disconnected from the tractor (tug). A width of 10 cm is considered sufficient to be visible to tractor drivers; greater width may prove distracting to pilots.

The white color used, and the broken line, should avoid confusion with markings for aircraft. Note: the black border shown is only required on light colored pavement.

Color	Centre line / Bar	Borderline
	White	*Black*

Dimensions	A	B	C	D
	15 cm	*1,0 m*	*1,0 m*	*1,0 m*





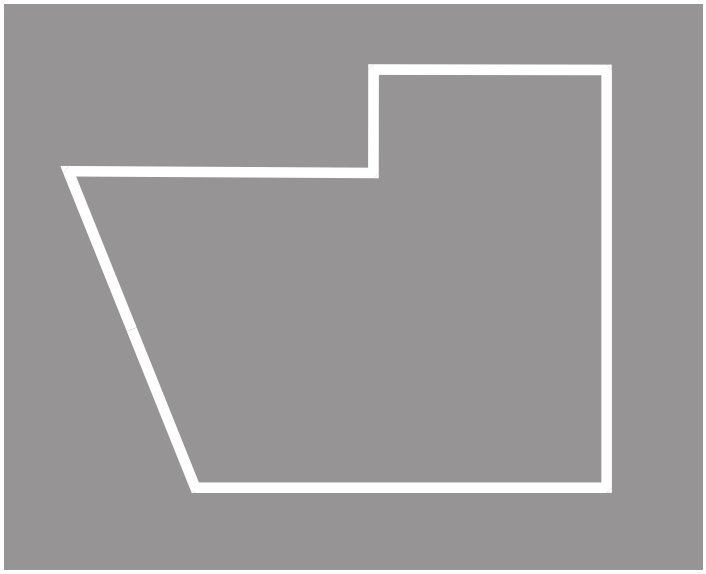
3.5 EQUIPMENT PARKING LINE

This marking is used to delineate the area within which vehicles and equipment can park freely without infringing any stand areas or taxiways, including taxiway strip surfaces.

Color	Line	Borderline
	White	*Black*

Dimensions	A
	15 cm



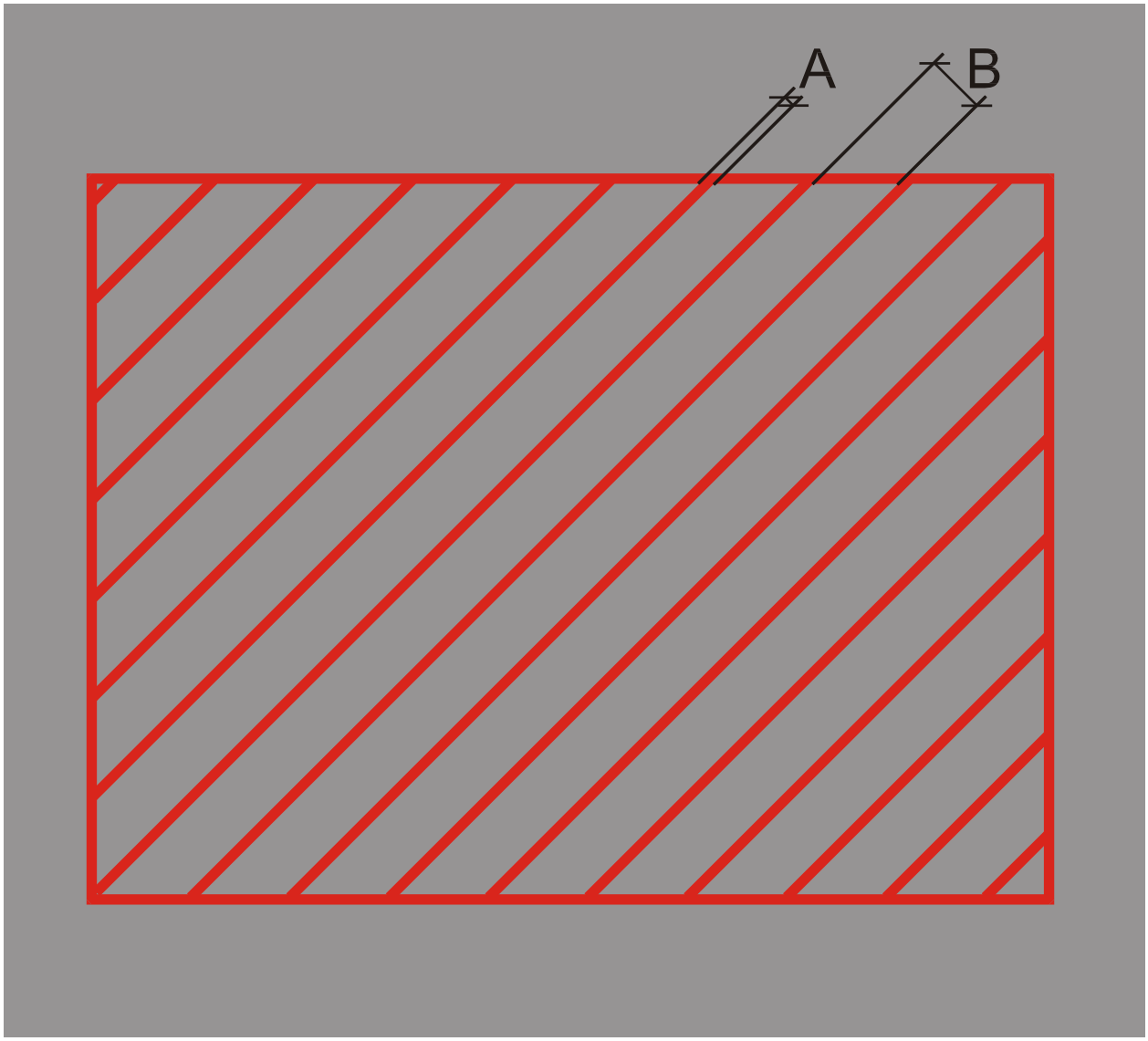


3.6 NO PARKING AREA

A no parking area for vehicles is indicated by red hatchings inside a red border.

Color	Borderline	Shapeline
	Red	*Red*

Dimensions	A	B
	15 cm	*50 cm - 1,0 m*

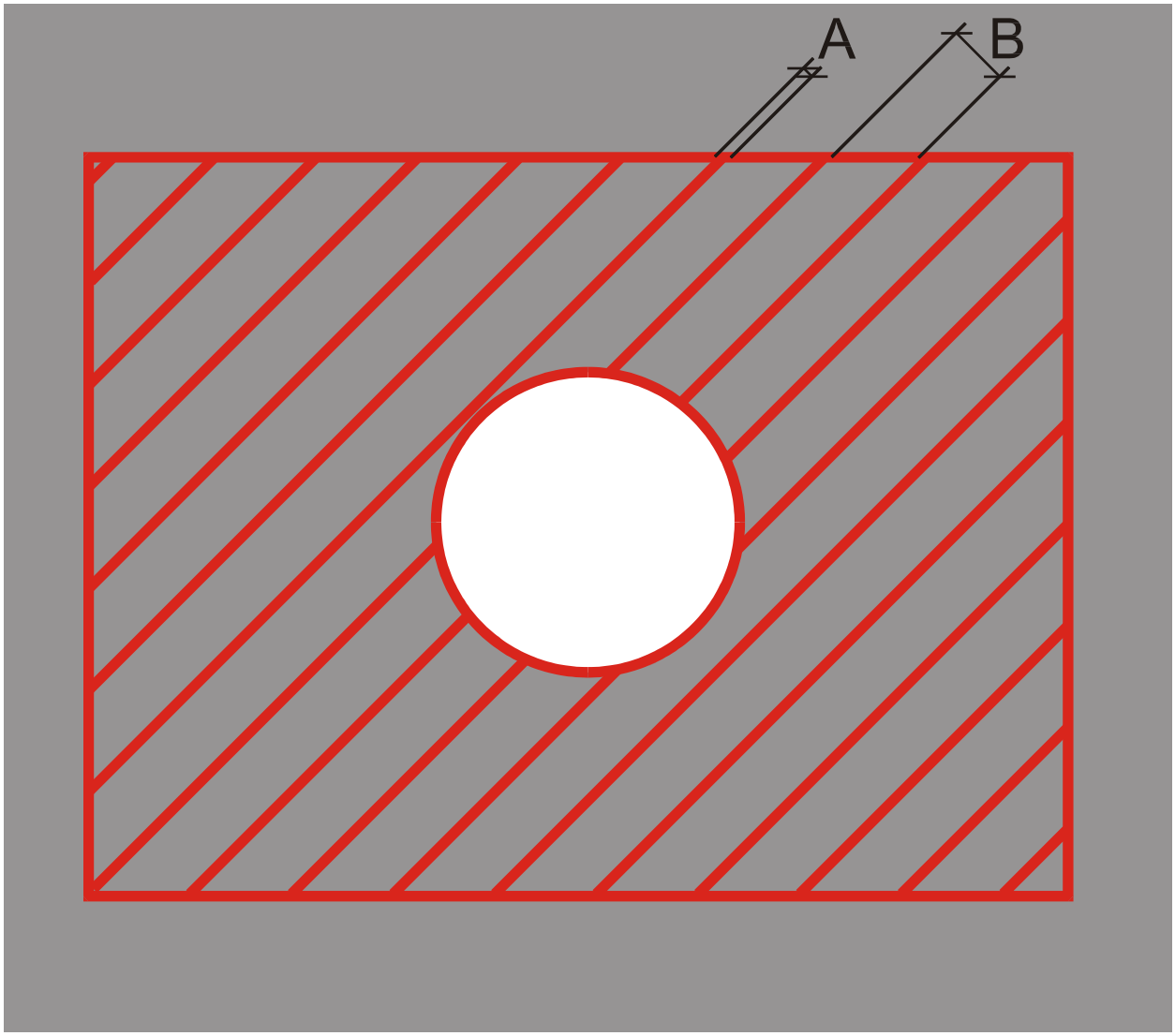


3.7 AIRBRIDGE WHEEL POSITION

The area under an airbridge has to be kept free of vehicles and equipment to ensure the safe operation of the airbridge. Wheel positions are recommended for the airbridge itself, using either a square or circle, to locate the airbridge in a safe position if not in use and to allow aircraft to enter the stand safely.

Color	Borderline	Shapeline	Parking circle
	Red	*Red*	*White*

Dimensions	A	B
	15 cm	*50 cm – 1,0 m*

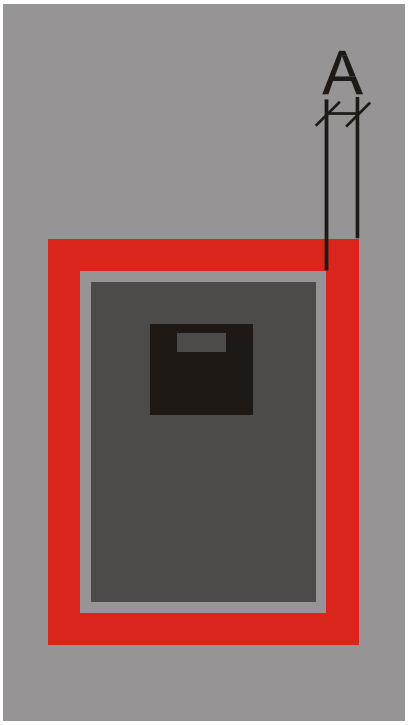


3.8 UNDERGROUND SERVICE

This marking is indicative of the markings recommended for the use with all underground services. The size and shape of the markings depends on the size of the service opening. Clearly marked reflective warning flags should also be placed adjacent to an open and/or lifted underground service. Any above ground projection, such as a lift-up hydrant connection system or cover, should preferably be painted red.

Color	Borderline
	Red

Dimensions	A
	20 cm

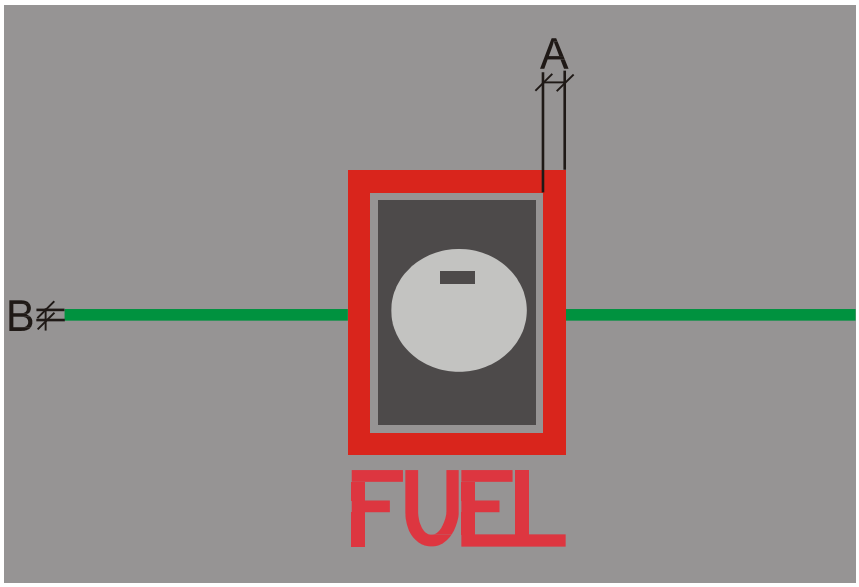


3.9 FUEL HYDRANT

Markings used for fuel hydrants may include the word “FUEL” painted in red. To support locating of underground service during winter contamination a green connection line between underground services can be marked.

Color	Borderline	Connection line	Characters
	Red	*Green*	*Red*

Dimensions	A	B	Character height
	20 cm	*15 cm*	*50 cm*



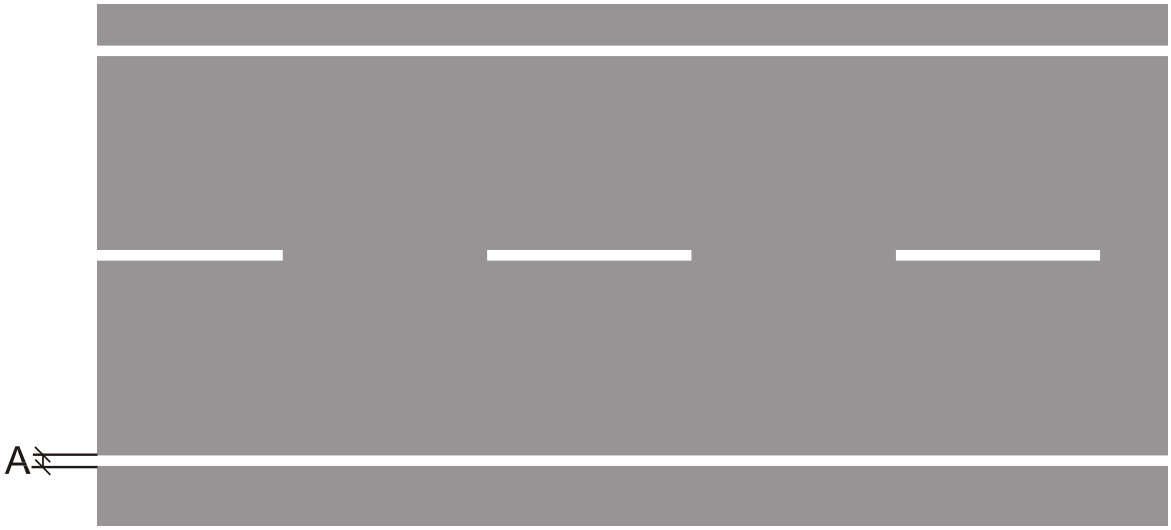
3.10 SERVICE ROAD

Each lane of a service road should be of a minimum width to accommodate the widest equipment in use at that location e.g. emergency vehicles or ground support equipment. It is important to mark roads on apron areas, to keep vehicle traffic clear of aircraft, taxiways and to minimize the risk to vehicle-to-vehicle accidents.

The side of the road on which vehicles drive and the dimensions of markings should conform to national highway traffic regulations

Color	Line	Borderline
	White	*Black*

Dimensions	A
	15 cm



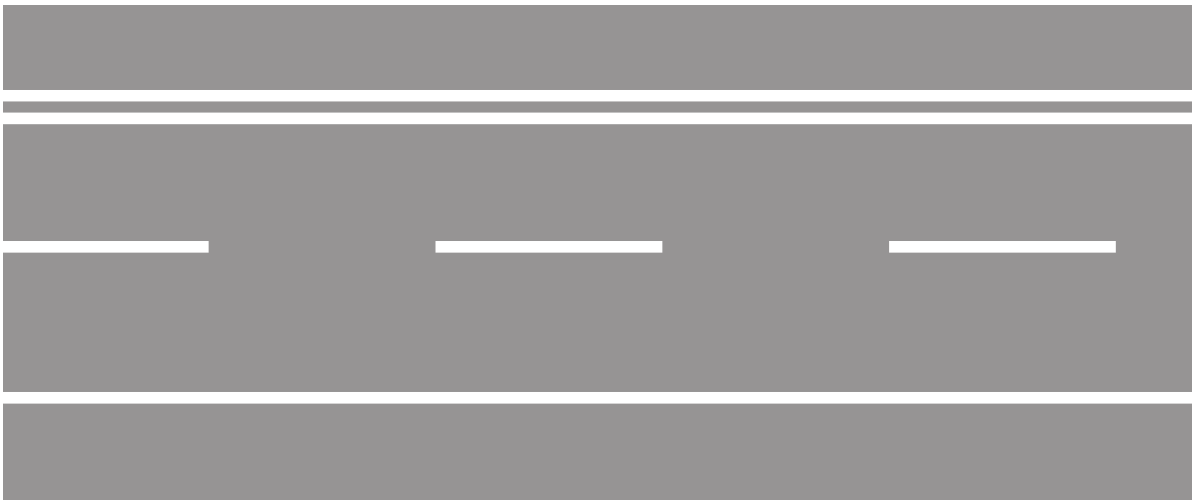
3.11 VEHICLE LIMIT LINE

Where a service road is also the limit of vehicle activity on an apron, this should be shown with a double white line. This indicates “DO NOT CROSS”. The reason for the limitation may be varied, although the most common limitation is to provide adequate clearance for adjacent taxiing aircraft.

Color	Line	Border
	White	*Black*

Dimensions	A	B
	15 cm	*15 cm*



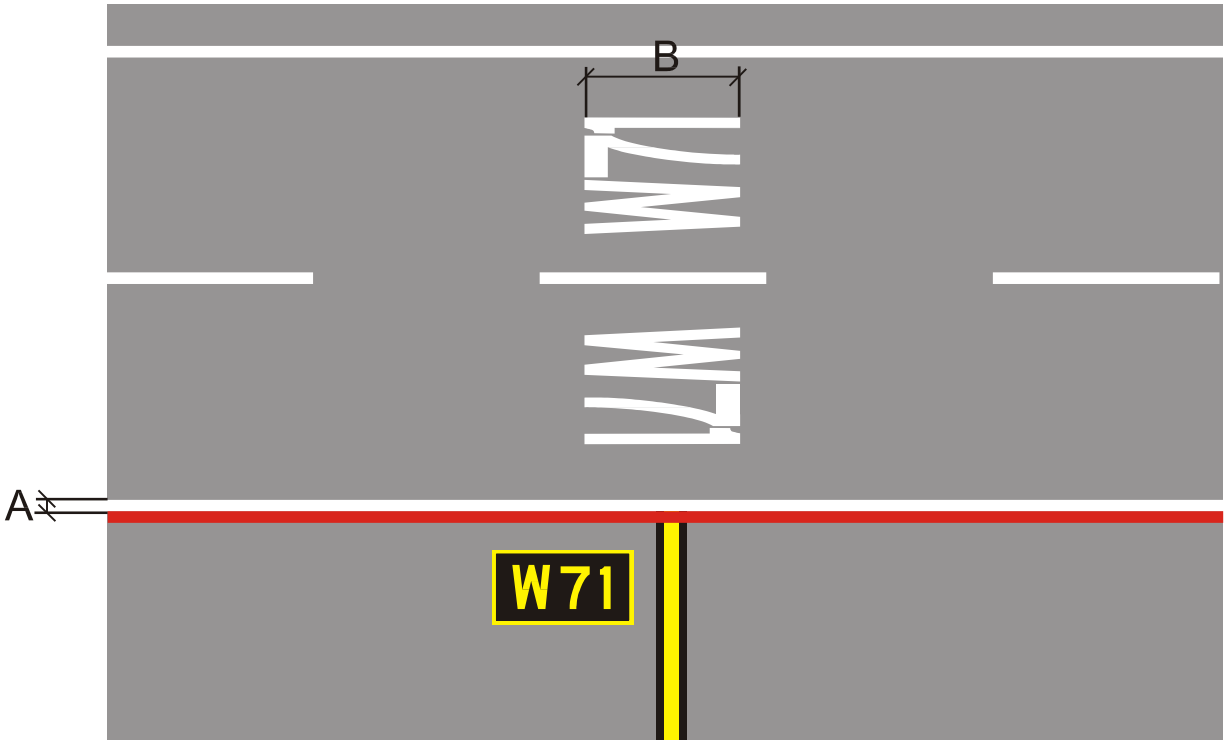


3.12 STAND IDENTIFICATION ON SERVICE ROAD

A stand identification on a service road should be established to support knowledge of a place.

Color	Character	Background
	White	*Black*

Dimensions	A	B
	15 cm	*2,0 m*



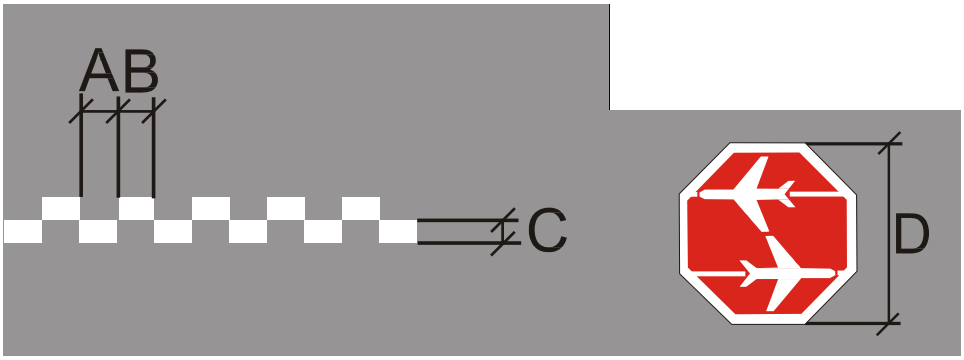
3.13 TAXIWAY AND TAXILANE CROSSING

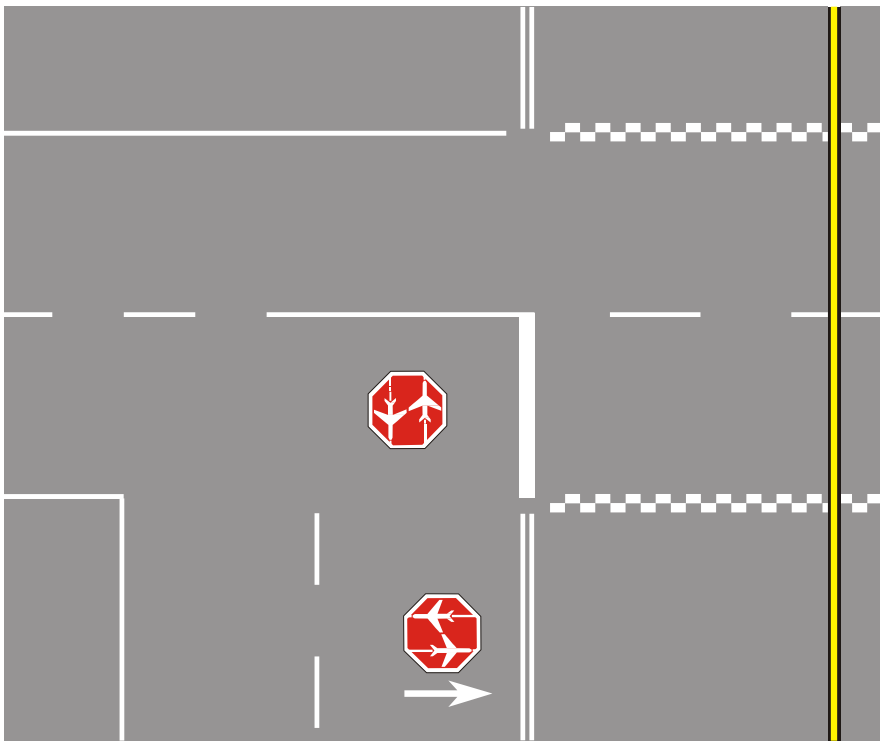
The drawing below shows the recommended marking where a service road crosses a taxiway or aircraft stand taxilane. A separate sign may indicate that vehicles are only required to stop if an aircraft is in movement on the taxiway.

The vehicle stop line should be located at a safe distance from the taxiway centre line, according to the wingspan of the largest category of aircraft using the taxiway.

Color	Line	Background
	White	*Black*

Dimensions	*A*	*B*	*C*	*D*
	1,0 m	*1,0*	*20 cm*	*2,0 m min.*





3.14 PEDESTRIAN CROSSING

White is the suggested color for a pedestrian crossing, although color and design should conform to the standard usage roads outside the airport environment.

Color	Stripes	Background
	White	*Black*



4. APRON SIGNS

Road signage and / or road marking should follow the applicable road traffic regulations in each country. A series of typical signs appear on the following pages.

4.1 STAND IDENTIFICATION SIGN FOR AIRCRAFT AT TERMINALS

Such signs should include the aircraft parking stand number and the associated coordinates to inform the pilot.



4.2 SIGN “ATTENTION TO CROSSING AIRCRAFT” FOR VEHICLES

This sign and painted marking should be placed at taxiway and taxilane crossings.



4.3 JETBLAST SIGN FOR VEHICLES

It is recommended that jet blast signs or painted markings on the ground should be placed at appropriate locations such as service roads.



4.4 TYPICAL ROAD TRAFFIC SIGNS FOR VEHICLES

MANDATORY TURN:



PEDESTRIANS AHEAD



GIVE WAY:



MAX. VEHICLE HEIGHT



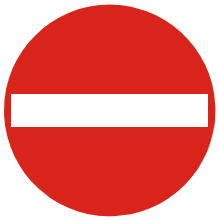
NO SMOKING



SPEED LIMIT



NO ENTRY



STOP



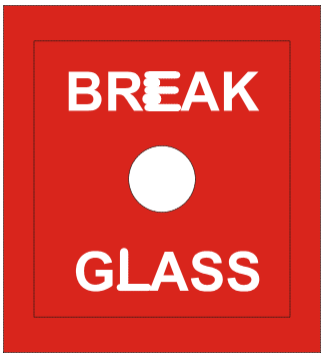
4.5 EMERGENCY SIGNS FOR APRON USERS

Emergency Stop for fuel hydrant system

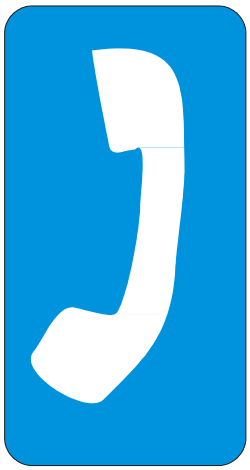




Alarm Button

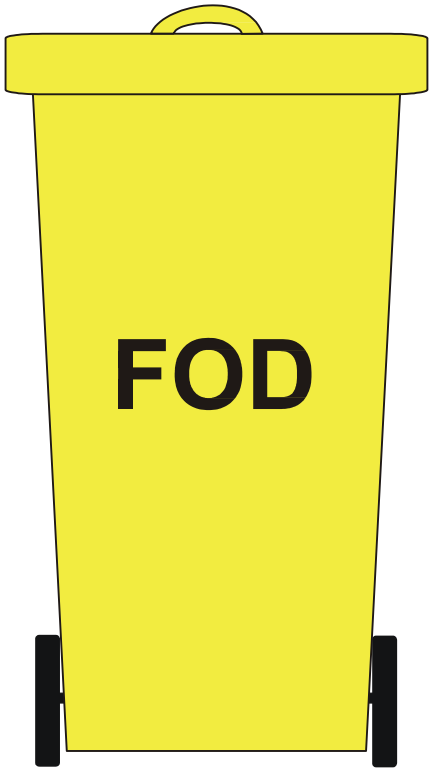


Emergency Telephone



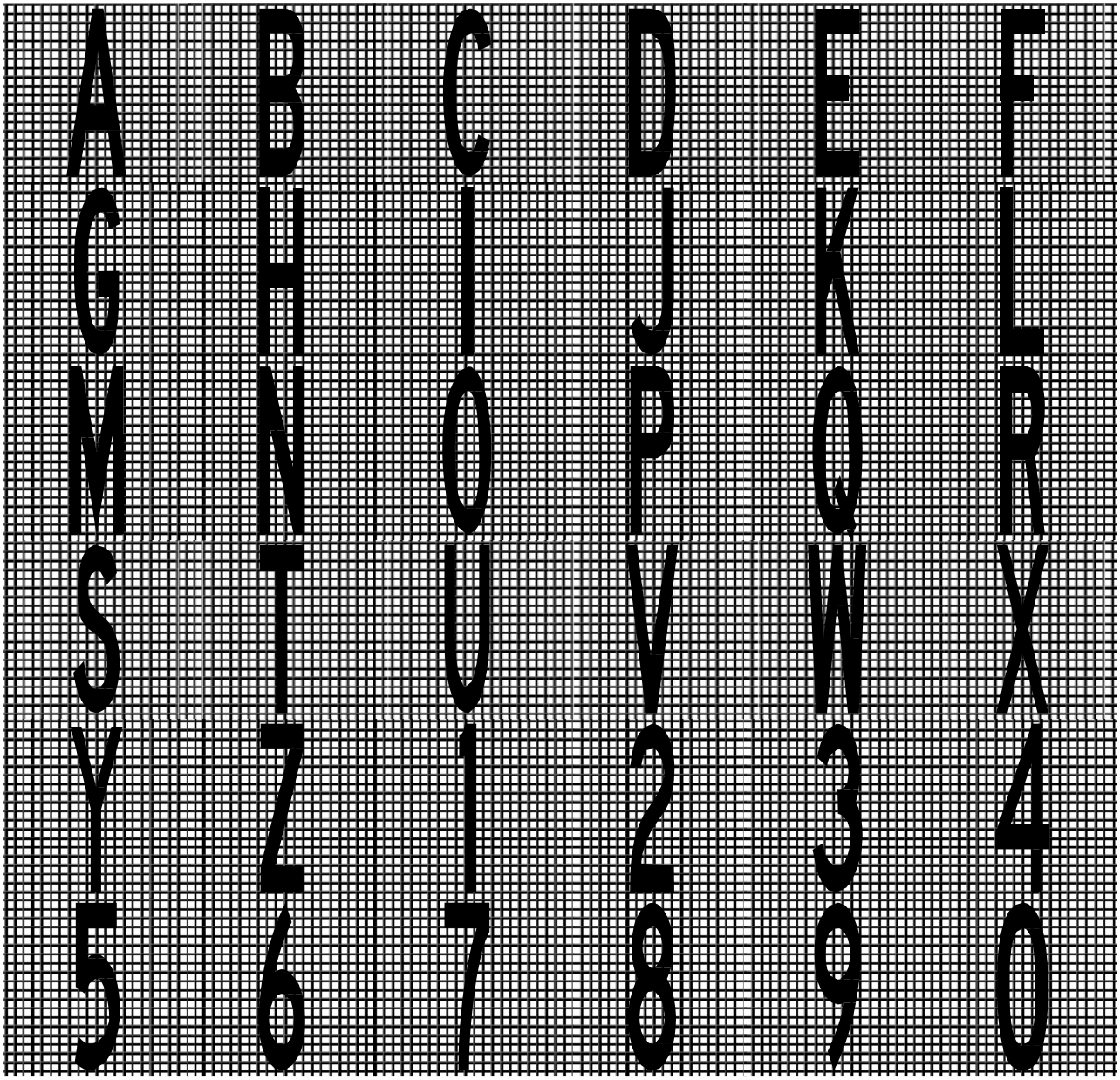
4.6 FOD BIN

Safety on the apron does not end with signs and marking. Foreign Object Damage (FOD) is an ever present hazard to aircraft. Appropriately marked bins can assist in reducing this hazard by reminding staff of their obligation to collect and dispose of FOD correctly. They should be placed on or near each aircraft stand.

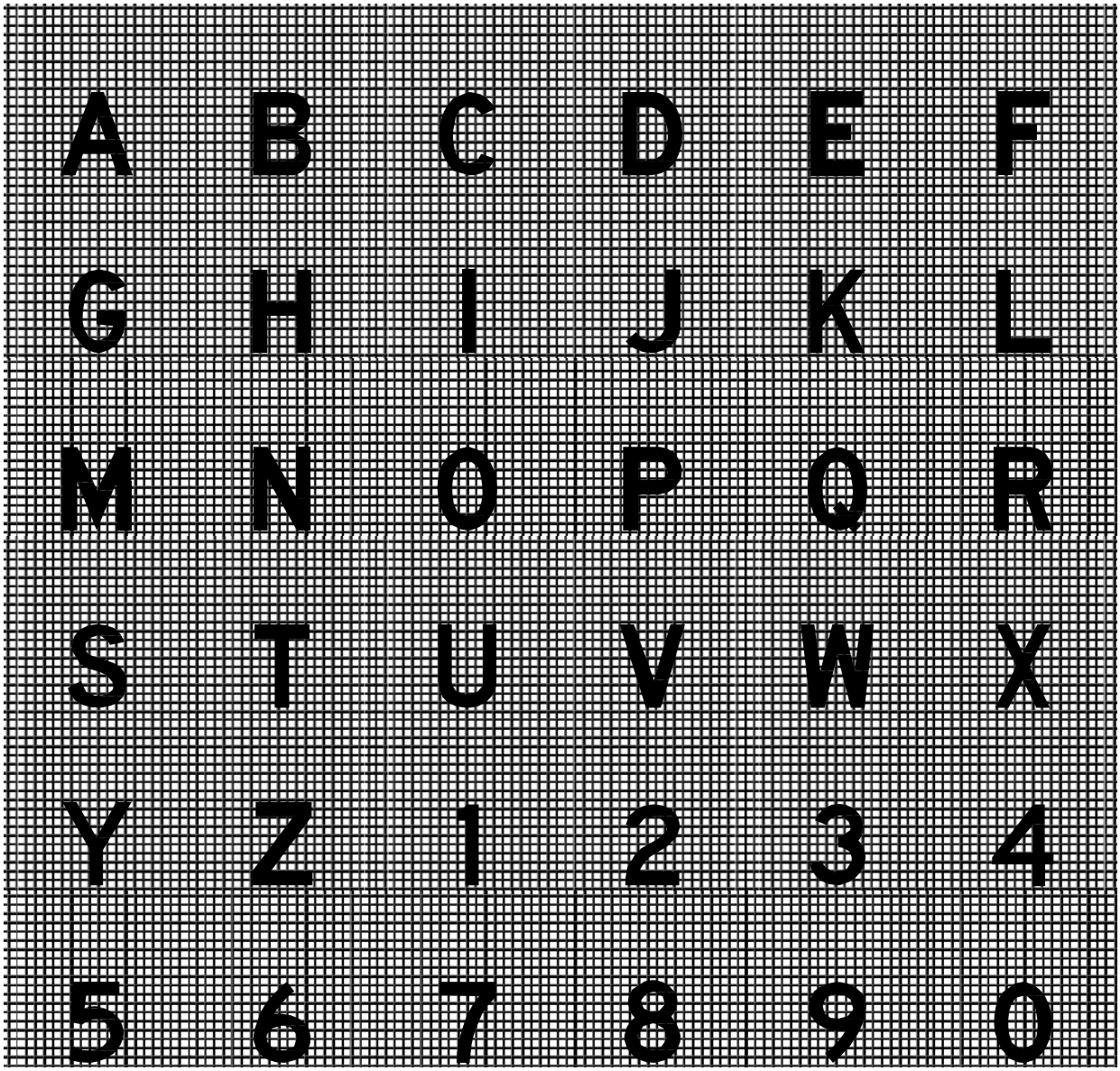


5. FORM AND PROPORTIONS OF LETTERS AND NUMBERS

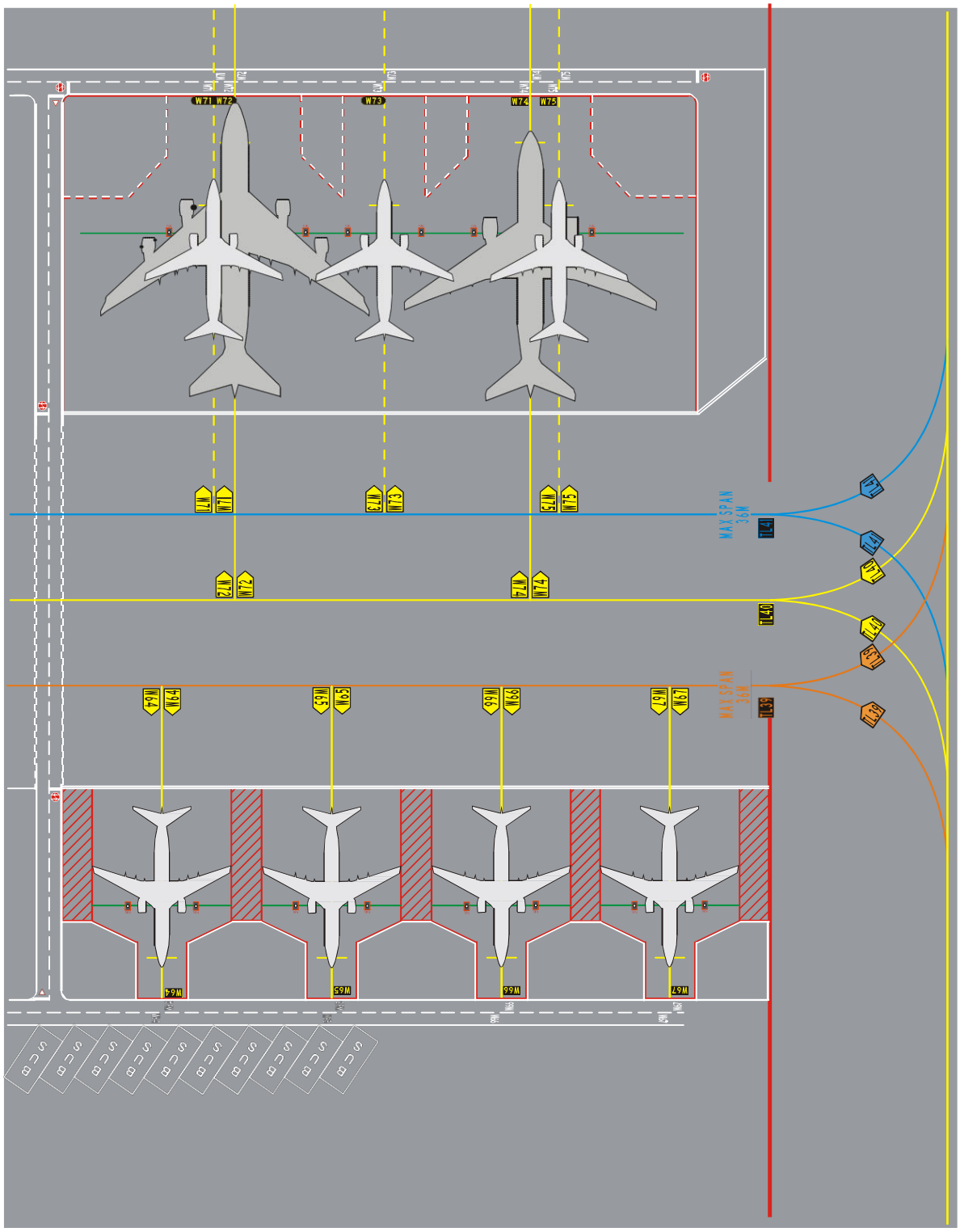
5.1 CHARACTERS ACC: AAR-AERODROME STANDARDS FOR MARKINGS



5.2 CHARACTERS ACC: AAR-AERODROME STANDARDS FOR SIGNS



6. EXAMPLES OF APRON LAYOUTS



INTENTIONALLY LEFT BLANK