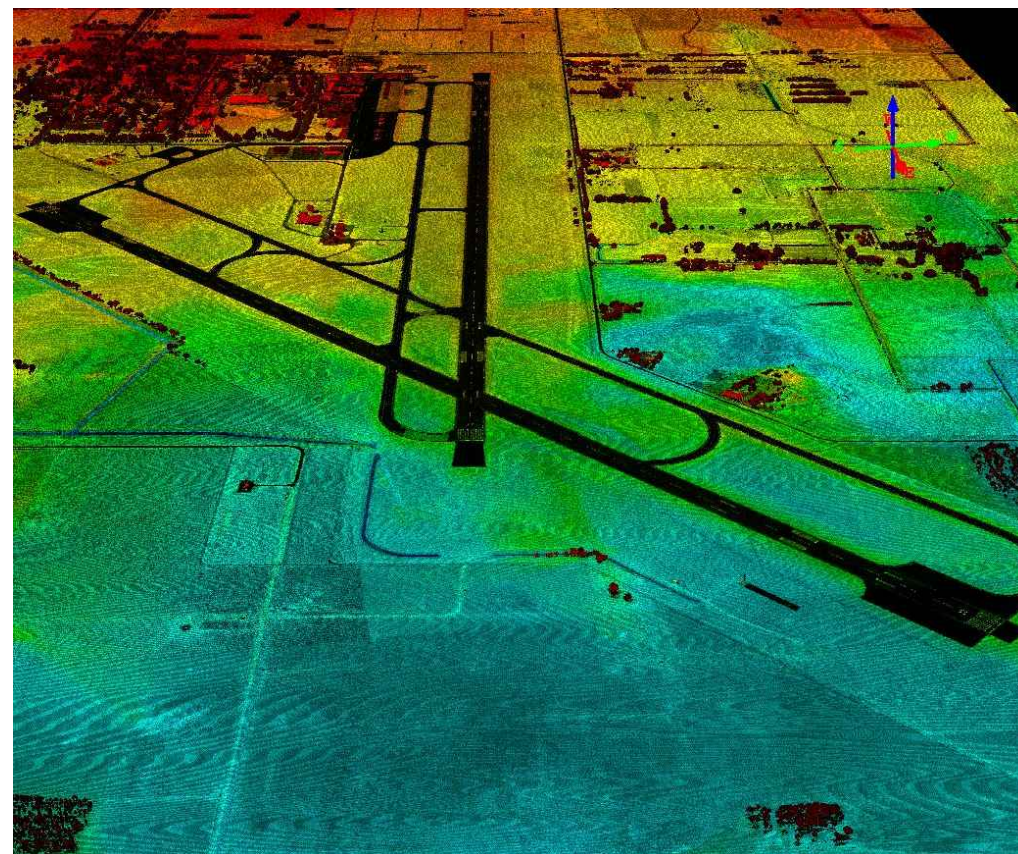


OBSTACLE LIMITATION SURVEYS AND ASSESSMENT

RAAF BASE EAST SALE AERODROME OBSTACLE CHART ICAO TYPE A
(OPERATING LIMITATIONS) ISSUED AUGUST 2016



REV	DATE	REVISION DETAILS	APPROVED
A	20.06.16	FINAL FOR REVIEW	
B	26.08.16	SIGNED FOR ISSUE	GG

SCALE	SIZE
AS SHOWN	A1/A3
DRAWN	
AM	
SURVEYED	
KI / AB / AAM	
CHECKED	
DGG	

SIGNED FOR ISSUE	DATE
NOT FOR CONSTRUCTION	26.08.16
	
GARRY GRAHAM	

PROJECT	TITLE	DRAWING No.	PROJECT No.	WBS	TYPE	DISC	NUMBER	REV
OBSTACLE LIMITATION SURVEYS AND ASSESSMENT	RAAF BASE EAST SALE AERODROME OBSTACLE CHART ICAO TYPE A (OPERATING LIMITATIONS) ISSUED AUGUST 2016 COVER SHEET	248842	D21007	DRG	CV	001	B	

DECLARED DISTANCES FOR RUNWAY 27	
TAKE OFF RUN AVAILABLE (TORA)	2230m (7316')
TAKE OFF DISTANCE AVAILABLE (TODA)	2290m (7513') 1.73%
ACCELERATE STOP DISTANCE AVAILABLE (ASDA)	2230m (7316')
LANDING DISTANCE AVAILABLE (LDA)	2230m (7316')
SUPPLEMENTARY TAKE OFF DISTANCE AVAILABLE (STODA)	2266m (7434') 1.6%

LEGEND	
	LOWEST SURVEYED SLOPE
	GROUND LEVEL
	MOST LIMITING OBSTACLE
	OBSTACLE

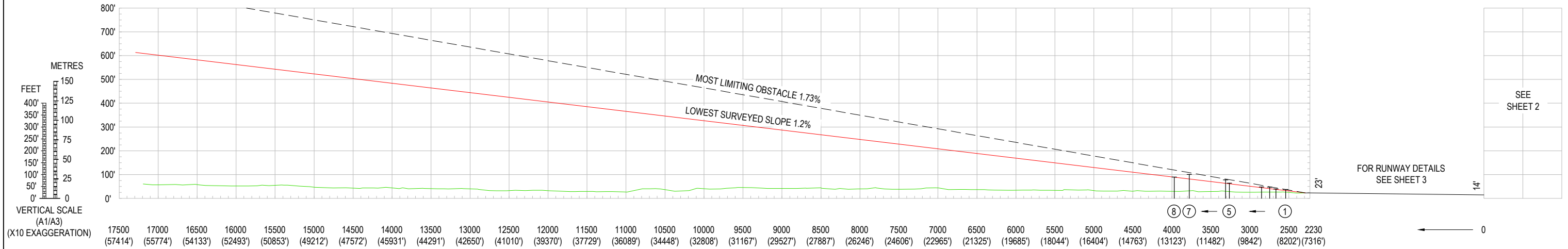
NOTES

- AZIMUTH AND COORDINATES FOR THIS SURVEY ARE BASED ON MGA (GDA94) ZONE 55 THE VERTICAL DATUM BEING AHD.
- HORIZONTAL DIMENSIONS IN METRES (FEET) ELEVATIONS IN FEET
- USERS OF THIS CHART SHOULD NOTIFY ANY ERRORS OR OMISSIONS AS SOON AS THEY BECOME APPARENT TO :-

PROJECT DIRECTOR
NATIONAL AIRFIELD PROJECT
BP26-1C-052
DEPARTMENT OF DEFENCE
CANBERRA ACT 2600
TEL: (02) 6266 8081
- FOR FURTHER INFORMATION REGARDING THIS CHART CONTACT THE ABOVE
- MAGNETIC VARIATION 12°36' E (AUGUST 2016)
- AERIAL SURVEY COMPLETED FEBRUARY 2016.
GROUND SURVEY CHECKS AND VERIFICATION MARCH / APRIL 2016.

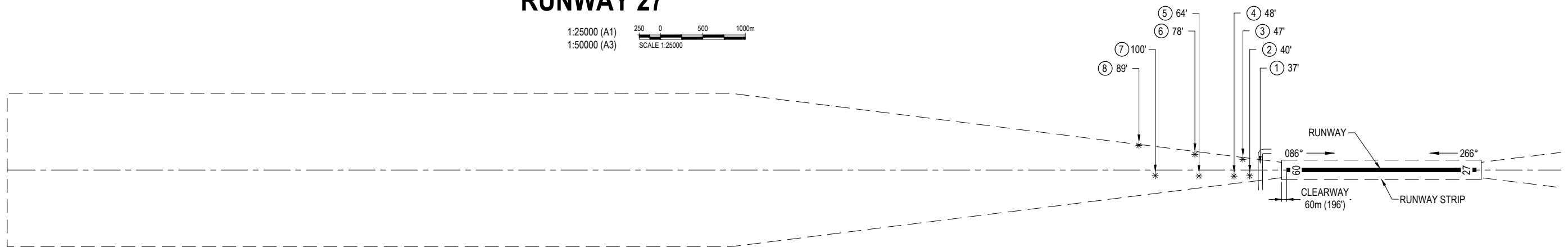
LEGEND

OBSTRUCTIONS AND OBSTACLES	
	OBSTACLE NUMBER
392'	TOP ELEVATION IN FEET
	TREE(S) OR VEGETATION
	BUILDING OR LARGE STRUCTURE
	POLE, TOWER, SPIRE ETC
	ANTENNA
	MOVING (ROADS, RAILWAY TRACKS ETC)
	TERRAIN PENETRATING LOWEST SURVEYED SLOPE
	OVERHEAD TRANSMISSION LINE
	FENCE LINE

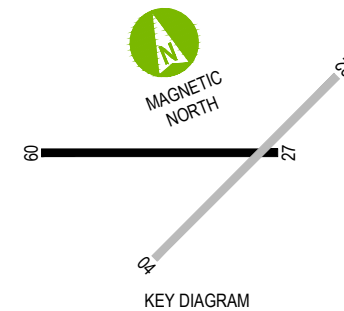


RUNWAY 27

1:25000 (A1)
1:50000 (A3)
SCALE 1:25000



RUNWAY STRIP:	2350m (7709') x 230m (754')
RUNWAY:	2230m (7316') x 45m (147') SEALED



THE TYPE A SURVEY HAS BEEN CONDUCTED IN ACCORDANCE WITH ICAO ANNEX 4 AND DEPARTMENT OF DEFENCE REQUIREMENTS. THE CHART CLEARLY SHOWS THE GRAPHICAL RESULTS OF THE SURVEY AND HAS BEEN CHECKED FOR ACCURACY AND COMPLETENESS OF INFORMATION. THE CHART IS CERTIFIED CORRECT FOR PUBLICATION.

[Signature]
DANIEL GEEVES
REGISTERED SURVEYOR
aurecon
26/8/2016
DATE



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B	26.08.16	SIGNED FOR ISSUE	GG

SCALE	AS SHOWN	SIZE	A1/A3
DRAWN	AM	APPROVED	
SURVEYED	KI / AB / AAM	DATE	26.08.16
CHECKED	DGG	SIGNED FOR ISSUE	NOT FOR CONSTRUCTION

[Signature]
GARRY GRAHAM

PROJECT	OBSTACLE LIMITATION SURVEYS AND ASSESSMENT				
TITLE	RAAF BASE EAST SALE AERODROME OBSTACLE CHART ICAO TYPE A (OPERATING LIMITATIONS) ISSUED AUGUST 2016 RUNWAY 27 - SHEET 1 OF 8				
DRAWING No.	PROJECT No.	WBS	TYPE	DISC	NUMBER
248842	D21007	DRG	CV	002	B

DECLARED DISTANCES FOR RUNWAY 09	
TAKE OFF RUN AVAILABLE (TORA)	2230m (7316')
TAKE OFF DISTANCE AVAILABLE (TODA)	2290m (7513') 1.68%
ACCELERATE STOP DISTANCE AVAILABLE (ASDA)	2230m (7316')
LANDING DISTANCE AVAILABLE (LDA)	2230m (7316')
SUPPLEMENTARY TAKE OFF DISTANCE AVAILABLE (STODA)	2229m (7312') 1.6%

LEGEND	
	LOWEST SURVEYED SLOPE
	GROUND LEVEL
	MOST LIMITING OBSTACLE
	OBSTACLE

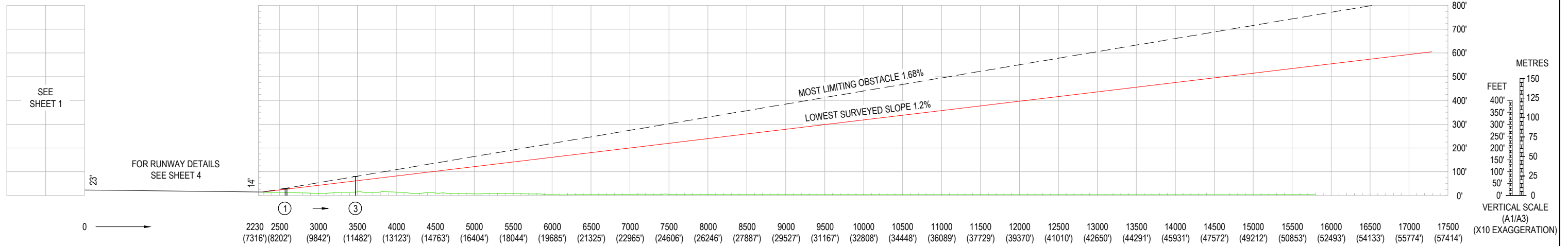
NOTES

- AZIMUTH AND COORDINATES FOR THIS SURVEY ARE BASED ON MGA (GDA94) ZONE 55 THE VERTICAL DATUM BEING AHD.
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BP26-1C-052
DEPARTMENT OF DEFENCE
CANBERRA ACT 2600
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- MAGNETIC VARIATION 12°36' E (AUGUST 2016)
- AERIAL SURVEY COMPLETED FEBRUARY 2016.
GROUND SURVEY CHECKS AND VERIFICATION MARCH / APRIL 2016.

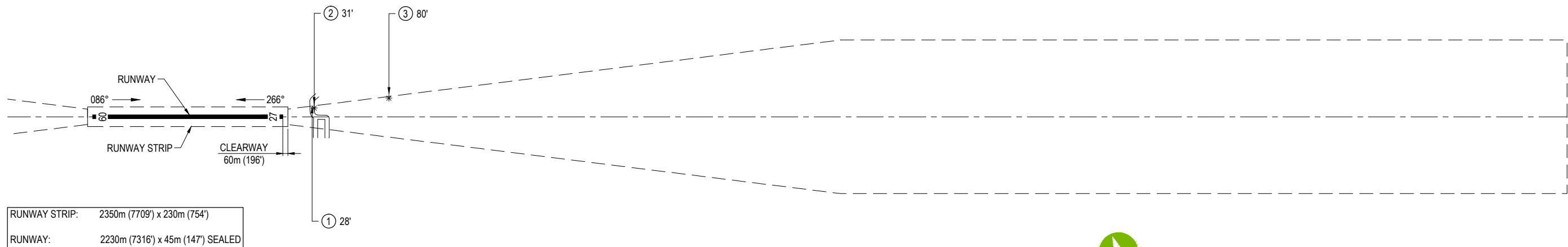
LEGEND

OBSTRUCTIONS AND OBSTACLES	
	OBSTACLE NUMBER
392'	TOP ELEVATION IN FEET
	TREE(S) OR VEGETATION
	BUILDING OR LARGE STRUCTURE
	POLE, TOWER, SPIRE ETC
	ANTENNA
	MOVING (ROADS, RAILWAY TRACKS ETC)
	TERRAIN PENETRATING LOWEST SURVEYED SLOPE
	OVERHEAD TRANSMISSION LINE
	FENCE LINE

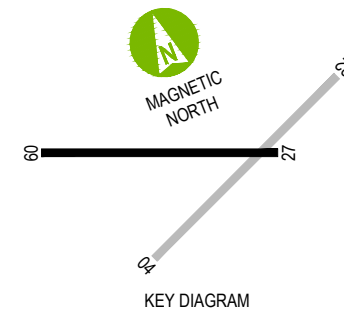


RUNWAY 09

1:25000 (A1)
1:50000 (A3)
SCALE 1:25000



RUNWAY STRIP: 2350m (7709') x 230m (754')
RUNWAY: 2230m (7316') x 45m (147') SEALED



THE TYPE A SURVEY HAS BEEN CONDUCTED IN ACCORDANCE WITH ICAO ANNEX 4 AND DEPARTMENT OF DEFENCE REQUIREMENTS. THE CHART CLEARLY SHOWS THE GRAPHICAL RESULTS OF THE SURVEY AND HAS BEEN CHECKED FOR ACCURACY AND COMPLETENESS OF INFORMATION. THE CHART IS CERTIFIED CORRECT FOR PUBLICATION.

Daniel Geeves
DANIEL GEEVES
REGISTERED SURVEYOR
aurecon

26/8/2016
DATE



REV	DATE	REVISION DETAILS	APPROVED
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B	26.08.16	SIGNED FOR ISSUE	GG

SCALE	SIZE
AS SHOWN	A1/A3
DRAWN	AM
SURVEYED	KI / AB / AAM
CHECKED	DGG

SIGNED FOR ISSUE	APPROVED
NOT FOR CONSTRUCTION	

PROJECT	TITLE	DRAWING No.	PROJECT No.	WBS	TYPE	DISC	NUMBER	REV
	RAAF BASE EAST SALE AERODROME OBSTACLE CHART ICAO TYPE A (OPERATING LIMITATIONS) ISSUED AUGUST 2016 RUNWAY 09 - SHEET 2 OF 8	248842	D21007	DRG	CV	003	B	

DECLARED DISTANCES FOR RUNWAY 22	
TAKE OFF RUN AVAILABLE (TORA)	2437m (7995')
TAKE OFF DISTANCE AVAILABLE (TODA)	2497m (8192') 2.05%
ACCELERATE STOP DISTANCE AVAILABLE (ASDA)	2437m (7995')
LANDING DISTANCE AVAILABLE (LDA)	2437m (7995')
SUPPLEMENTARY TAKE OFF DISTANCE AVAILABLE (STODA)	2301m (7549') 1.6%, 2441m (8008') 1.9%, 2477m (8126') 2.0%

LEGEND	
	LOWEST SURVEYED SLOPE
	GROUND LEVEL
	MOST LIMITING OBSTACLE
	OBSTACLE

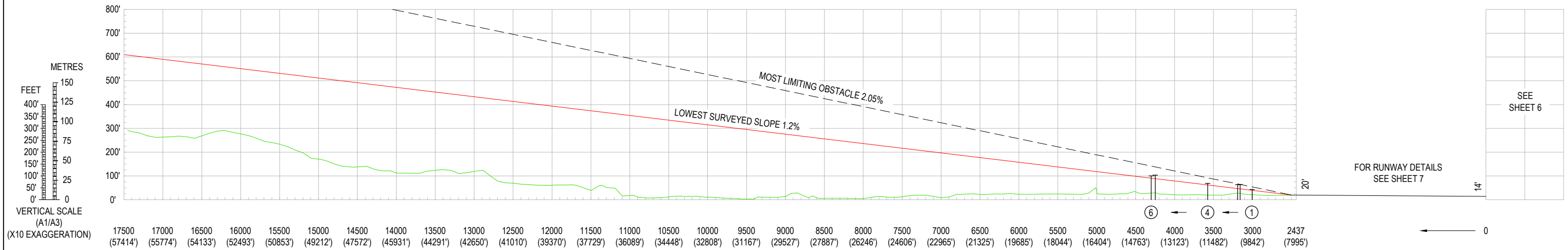
NOTES

- AZIMUTH AND COORDINATES FOR THIS SURVEY ARE BASED ON MGA (GDA94) ZONE 55 THE VERTICAL DATUM BEING AHD.
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DEPARTMENT OF DEFENCE
CANBERRA ACT 2600
TEL: (02) 6266 8081
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- MAGNETIC VARIATION 12°36' E (AUGUST 2016)
- AERIAL SURVEY COMPLETED FEBRUARY 2016.
GROUND SURVEY CHECKS AND VERIFICATION MARCH / APRIL 2016.

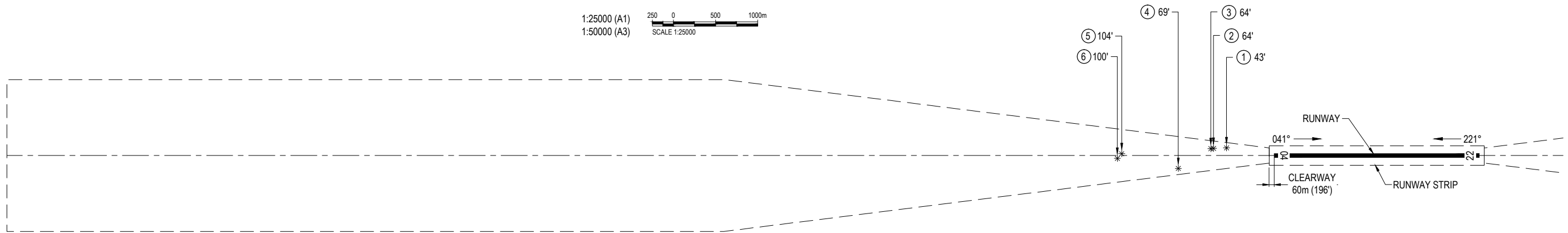
LEGEND

OBSTRUCTIONS AND OBSTACLES	
	OBSTACLE NUMBER
392'	TOP ELEVATION IN FEET
	TREE(S) OR VEGETATION
	BUILDING OR LARGE STRUCTURE
	POLE, TOWER, SPIRE ETC
	ANTENNA
	MOVING (ROADS, RAILWAY TRACKS ETC)
	TERRAIN PENETRATING LOWEST SURVEYED SLOPE
	OVERHEAD TRANSMISSION LINE
	FENCE LINE

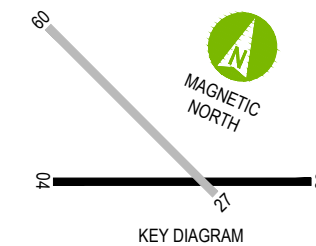


RUNWAY 22

1:25000 (A1)
1:50000 (A3)
SCALE 1:25000



RUNWAY STRIP:	2557m (8389') x 230m (754')
RUNWAY:	2437m (7995') x 45m (147') SEALED



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DANIEL GEEVES
REGISTERED SURVEYOR
aurecon

26/8/2016
DATE

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B	26.08.16	SIGNED FOR ISSUE	GG

SCALE	AS SHOWN	SIZE	A1/A3
DRAWN	AM	APPROVED	
SURVEYED	KI / AB / AAM	DATE	26.08.16
CHECKED	DGG		

SIGNED FOR ISSUE	NOT FOR CONSTRUCTION
DRAWING No.	248842

PROJECT	TITLE	DRAWING No.	PROJECT No.	WBS	TYPE	DISC	NUMBER	REV
OBSTACLE LIMITATION SURVEYS AND ASSESSMENT	RAAF BASE EAST SALE AERODROME OBSTACLE CHART ICAO TYPE A (OPERATING LIMITATIONS) ISSUED AUGUST 2016 RUNWAY 22 - SHEET 5 OF 8	248842	D21007	DRG	CV	006	B	

DECLARED DISTANCES FOR RUNWAY 04	
TAKE OFF RUN AVAILABLE (TORA)	2437m (7995')
TAKE OFF DISTANCE AVAILABLE (TODA)	2497m (8192') 1.88%
ACCELERATE STOP DISTANCE AVAILABLE (ASDA)	2437m (7995')
LANDING DISTANCE AVAILABLE (LDA)	2437m (7995')
SUPPLEMENTARY TAKE OFF DISTANCE AVAILABLE (STODA)	2463m (8080') 1.6%

LEGEND	
	LOWEST SURVEYED SLOPE
	GROUND LEVEL
	MOST LIMITING OBSTACLE
	OBSTACLE

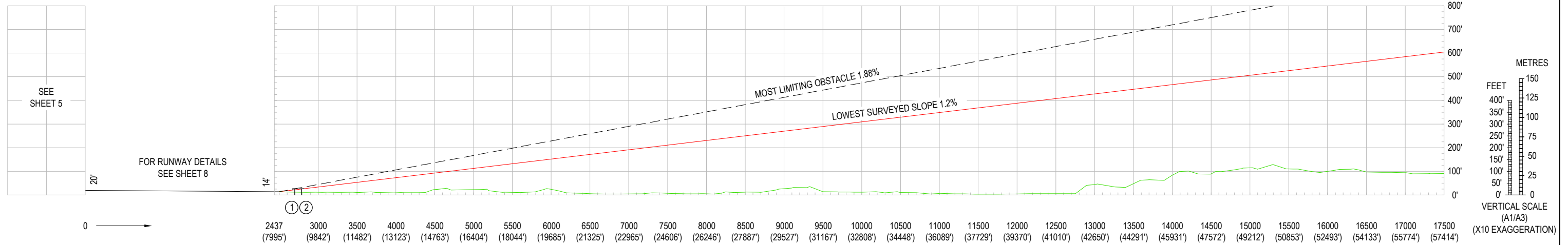
NOTES

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- AERIAL SURVEY COMPLETED FEBRUARY 2016.
GROUND SURVEY CHECKS AND VERIFICATION MARCH / APRIL 2016.

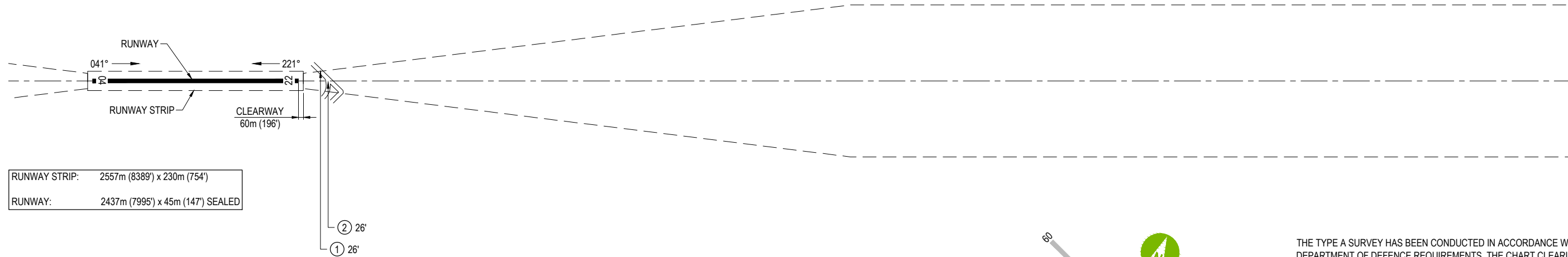
LEGEND

OBSTRUCTIONS AND OBSTACLES	
	OBSTACLE NUMBER
392'	TOP ELEVATION IN FEET
	TREE(S) OR VEGETATION
	BUILDING OR LARGE STRUCTURE
	POLE, TOWER, SPIRE ETC
	ANTENNA
	MOVING (ROADS, RAILWAY TRACKS ETC)
	TERRAIN PENETRATING LOWEST SURVEYED SLOPE
	OVERHEAD TRANSMISSION LINE
	FENCE LINE

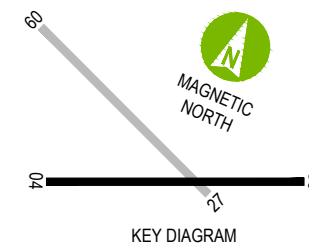


RUNWAY 04

1:25000 (A1)
1:50000 (A3)
SCALE 1:25000



RUNWAY STRIP: 2557m (8389') x 230m (754')
RUNWAY: 2437m (7995') x 45m (147') SEALED



THE TYPE A SURVEY HAS BEEN CONDUCTED IN ACCORDANCE WITH ICAO ANNEX 4 AND DEPARTMENT OF DEFENCE REQUIREMENTS. THE CHART CLEARLY SHOWS THE GRAPHICAL RESULTS OF THE SURVEY AND HAS BEEN CHECKED FOR ACCURACY AND COMPLETENESS OF INFORMATION. THE CHART IS CERTIFIED CORRECT FOR PUBLICATION.

Daniel Geeves
DANIEL GEEVES
REGISTERED SURVEYOR
aurecon

26/8/2016
DATE



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SCALE	SIZE
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DRAWN	AM
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CHECKED	DGG

SIGNED FOR ISSUE	DATE
NOT FOR CONSTRUCTION	26.08.16
<i>Garry Graham</i>	
GARRY GRAHAM	

PROJECT	TITLE	DRAWING No.	PROJECT No.	WBS	TYPE	DISC	NUMBER	REV
OBSTACLE LIMITATION SURVEYS AND ASSESSMENT	RAAF BASE EAST SALE AERODROME OBSTACLE CHART ICAO TYPE A (OPERATING LIMITATIONS) ISSUED AUGUST 2016 RUNWAY 04 - SHEET 6 OF 8	248842	D21007	DRG	CV	007	B	

DEPARTMENT OF DEFENCE

ESTATE AND INFRASTRUCTURE GROUP

AERODROME OBSTACLE CHART - ICAO TYPE A
(OPERATING LIMITATIONS) AUGUST 2016, COMPILED BY AURECON

TO BE READ IN CONJUNCTION WITH CURRENT NOTAMs

THE ORIGIN OF THE TAKE OFF SURFACE IS LOCATED AT THE END OF THE CLEARWAY
DISTANCES COMMENCE FROM THE RAAF RE-PSM AT THE START OF THE TAKE-OFF RUNWAY (SOT)

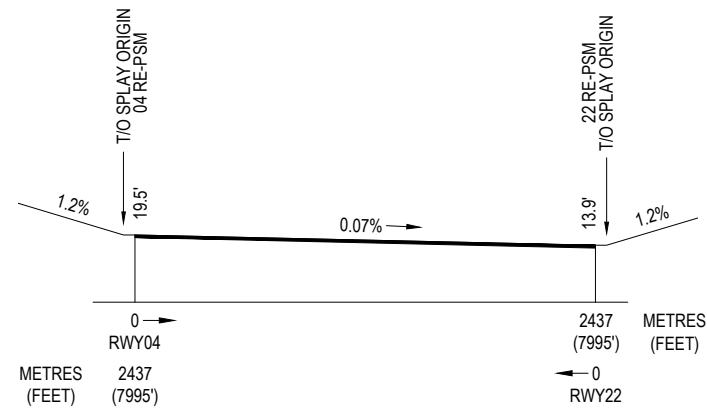
DATUM

AZIMUTH AND COORDINATES FOR THIS SURVEY ARE BASED ON MGA (GDA94) ZONE 55
THE VERTICAL DATUM BEING AHD.

DEFINITIONS

- RE-PSM: RUNWAY END PERMANENT SURVEY MARK
- LENGTH OF INNER EDGE 180m
- RATE OF DIVERGENCE OF SPLAY (EACH SIDE) 12.5%
- FINAL WIDTH 1800m
- OVERALL LENGTH 15000m

04 TAKE OFF																		
RE - PSM AT START OF TORA										RUNWAY MAGNETIC BEARING		TORA		TODA		ELEVATION AT T.O. ORIGIN		
GEOGRAPHIC					MGA		ELEVATION		RUNWAY MAGNETIC BEARING			(m)	(FT)	(m)	(FT)	(m)	(FT)	
(DEG)	(MIN)	(SEC)	(DEG)	(MIN)	(SEC)	EASTING	NORTHING	(m)	(FT)	(DEG)	(MIN)	(SEC)	(m)	(FT)	(m)	(FT)	(m)	(FT)
-38°	06'	21.78"	147°	08'	18.82"	512147.82	5782409.46	6.0	19.5	41°	16'	29"	2437	7995	2497	8192	4.2	13.9
OBJECTS THAT APPEAR ON THE CHART																		
REF No	GEOGRAPHIC					MGA		ELEVATION TOP		TYPE OF OBSTACLE	DISTANCE FROM SOT		OFFSET		GRADIENT TO TOP			
	(DEG)	(MIN)	(SEC)	(DEG)	(MIN)	(SEC)	EASTING	NORTHING	(m)		(FT)	(m)	(FT)	(m)	(FT)	%		
1	-38°	05'	27.19"	147°	09'	45.56"	514262.98	5784088.47	8.0	26.3			2699.2	8855.7	113.6L	372.8L	1.88	
2	-38°	05'	28.79"	147°	09'	51.59"	514409.89	5784038.94	8.0	26.3			2788.9	9150.0	12.9R	42.3R	1.31	



04/22 RWY LONGITUDINAL SECTION
NOT TO SCALE

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[Signature]
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REGISTERED SURVEYOR
aurecon
26/8/2016
DATE



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DRAWN	APPROVED
AM	<i>[Signature]</i>
SURVEYED	DATE
KI / AB / AAM	26.08.16
CHECKED	
DGG	

SIGNED FOR ISSUE
NOT FOR CONSTRUCTION
GARRY GRAHAM

PROJECT	TITLE	DRAWING No.	PROJECT No.	WBS	TYPE	DISC	NUMBER	REV
OBSTACLE LIMITATION SURVEYS AND ASSESSMENT	RAAF BASE EAST SALE AERODROME OBSTACLE CHART ICAO TYPE A (OPERATING LIMITATIONS) ISSUED AUGUST 2016 RUNWAY 04 - SHEET 8 OF 8	248842	D21007	DRG	CV	009	B	