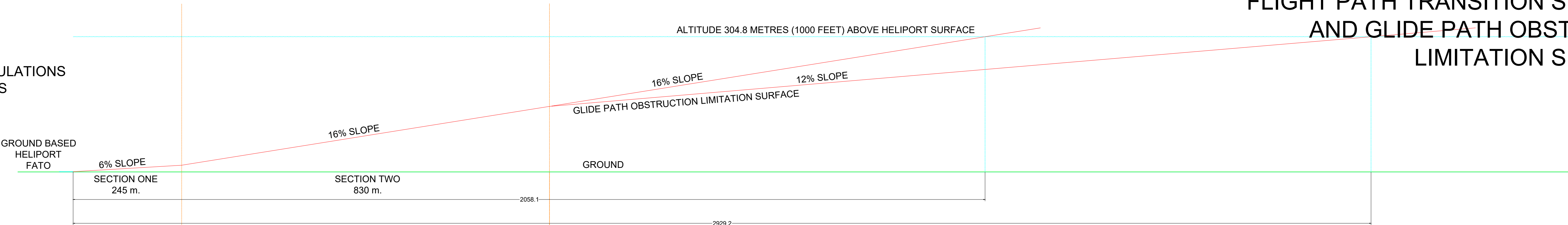
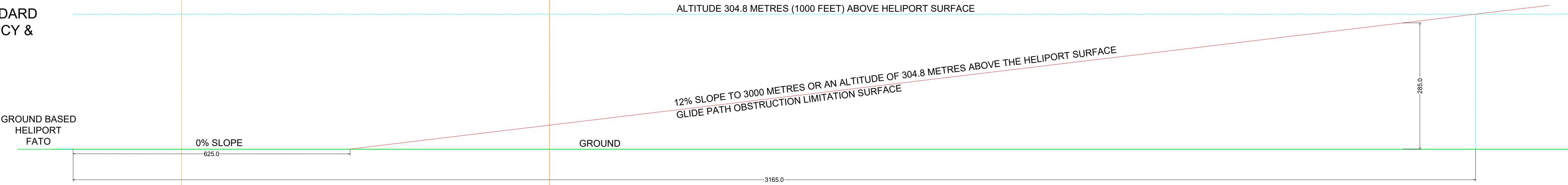


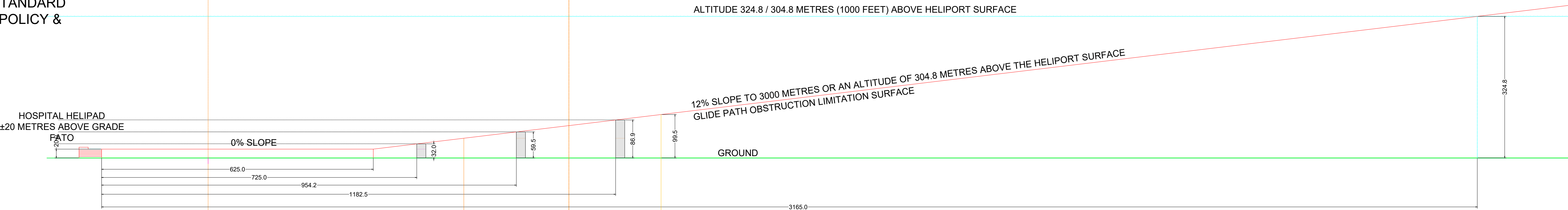
TRANSPORT CANADA
CANADIAN AVIATION REGULATIONS
STANDARDS 325 HELIPADS



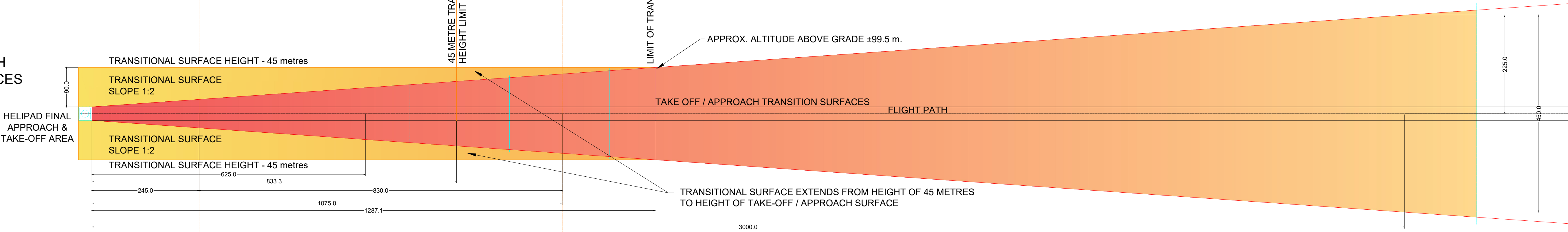
ORNGE H1 HELIPAD STANDARD
FLIGHT OPERATIONS POLICY &
PROCEDURES
MARCH 5, 2024

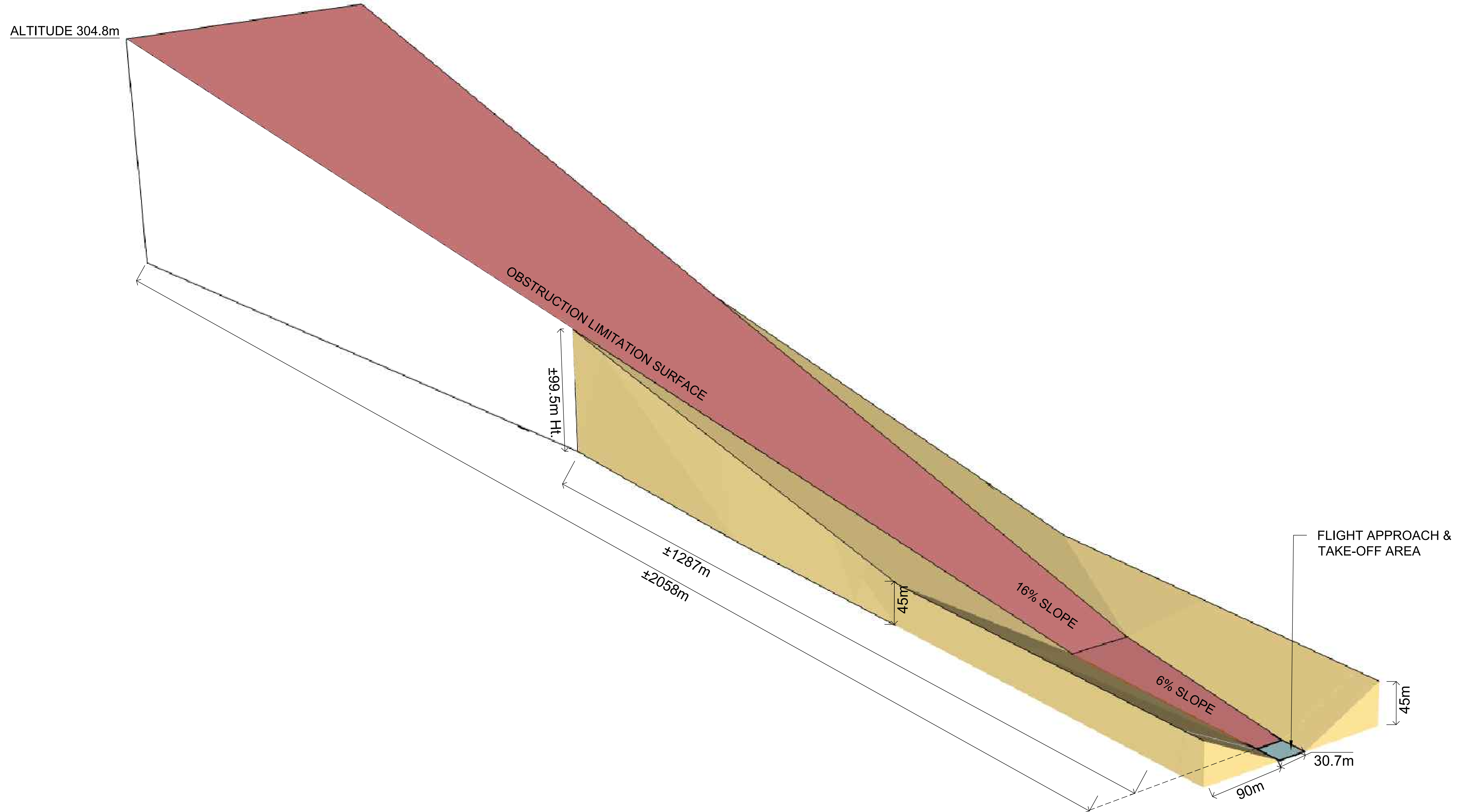


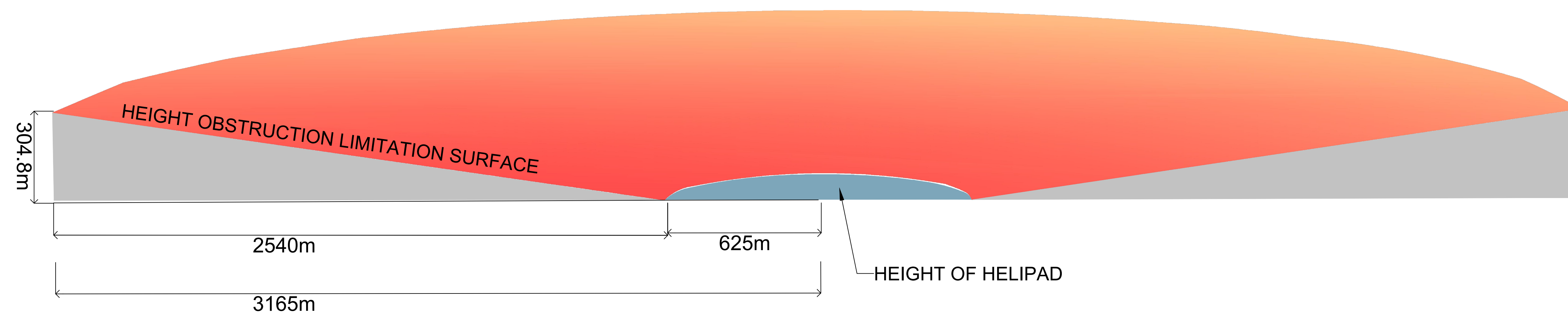
ORNGE H1 HELIPAD STANDARD
FLIGHT OPERATIONS POLICY &
PROCEDURES
MARCH 5, 2024



FLIGHT PATH
TAKE-OFF & APPROACH
TRANSITIONAL SURFACES

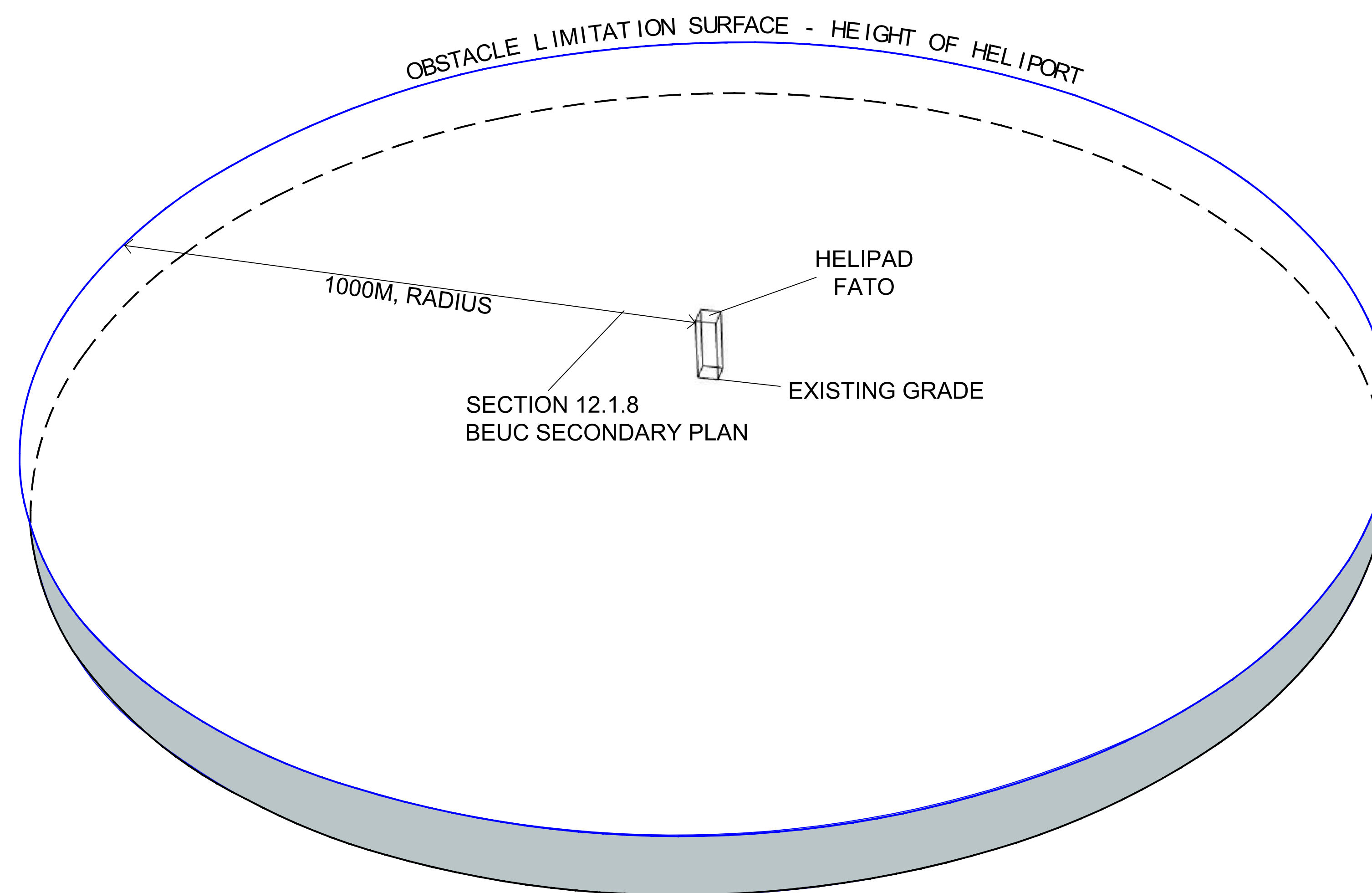






NOTES:

1. THIS DRAWING IS A CONCEPTUAL ILLUSTRATION OF THE HEIGHT OBSTRUCTION LIMITATION SURFACES BASED UPON THE ORNGE HI HELIPAD STANDARD FLIGHT OPERATIONS POLICY AND PROCEDURES PUBLISHED MARCH 5, 2024. THE EXTENT OF THE AREA BENEATH THE OBSTRUCTION LIMITATION AND TRANSITIONAL SURFACES ILLUSTRATED ON FIGURE 1 WOULD BE DETERMINED FOLLOWING THE FILING OF AN AERONAUTICAL ASSESSMENT, BY THE PROPONENT, FOR APPROVAL BY TRANSPORT CANADA AND CERTIFICATION OF THE SITE. UPON APPROVAL AND CERTIFICATION OF THE SITE BY TRANSPORT CANADA, THE ARRIVAL - DEPARTURE HEADINGS AND OTHER RELATED SITE INFORMATION WOULD BE SET OUT IN THE CANADA FLIGHT SUPPLEMENT PUBLISHED BY NAV CANADA.
2. THE VERTICAL SCALE MATCHES THE HORIZONTAL SCALE.



NOTES:

THE RATIO OF THE VERTICAL SCALE TO THE HORIZONTAL SCALE IS 5:1

Annual Wind Rose Data
Bowmanville⁽¹⁾
2010 - 2024

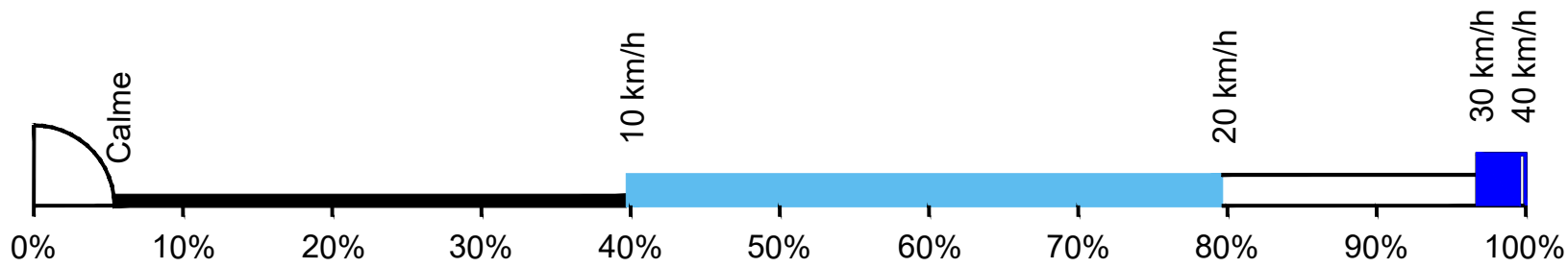
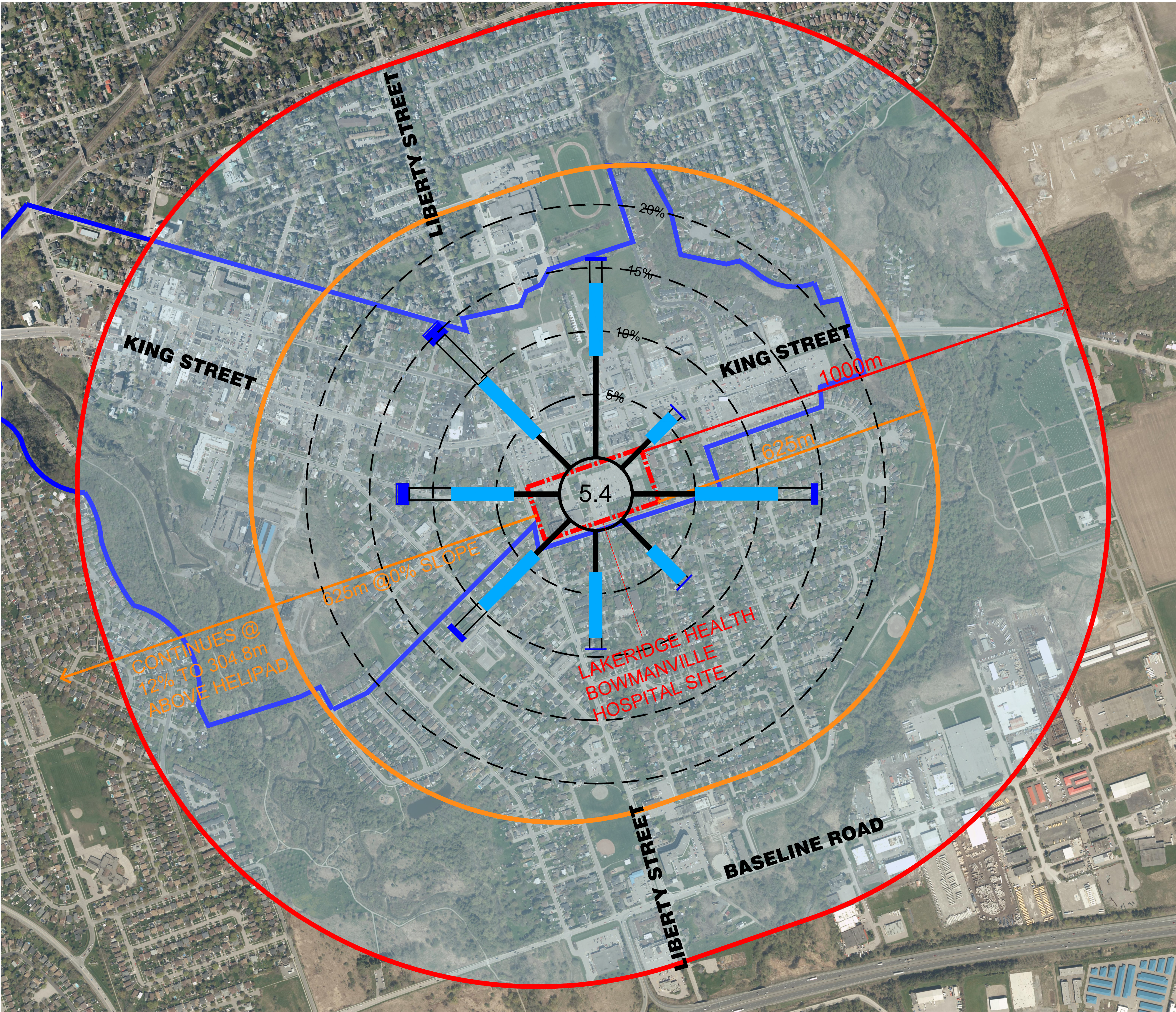
Speed km/h	Frequency By Percentage Per Direction									Average
	NE	E	SE	S	SW	W	NW	N		
Calm										5.4
0 to 10	3.3	5.0	3.3	3.4	3.9	3.7	3.8	8.1		34.4
11 to 20	2.5	6.5	3.4	5.1	5.8	4.8	6.0	5.6		39.7
21 to 30	0.6	2.7	0.4	0.9	2.7	3.4	4.7	1.8		17.2
31 to 40	0.0	0.4	0.0	0.0	0.3	0.8	1.0	0.2		2.8
41 or Above	0.0	0.1	0.0	0.0	0.0	0.2	0.2	0.0		0.4
Overall Frequency	6.3	14.7	7.0	9.4	12.8	12.9	15.6	15.8		
Average Speed	11.0	14.2	11.1	12.6	14.9	16.6	17.2	11.6		13.3

1. Source: Applied Climatology Services, Meteorological Services of Canada, Environment & Climate Change, Government of Canada

NOTES:
INTERPRETATION OF WIND ROSE
THE DIFFERENT COLOURS OF EACH SPOKE OF THE WIND ROSE PROVIDE DETAILS ON THE SPEED, IN KILOMETRES PER HOUR (I.E. KM/H), OF THE WIND FROM EACH DIRECTION. AS ILLUSTRATED ON THE ANNUAL WIND ROSE FOR BOWMANVILLE, THE WINDS WERE CALM APPROXIMATELY 5.4 PERCENT OF THE TIME.

THE ANNUAL DATA PUBLISHED BY ENVIRONMENT CANADA FOR BOWMANVILLE INDICATES THAT, FROM 2010 TO 2024, THE WINDS BLEW FROM THE NORTH AT SPEEDS OF 1 TO 10 KM/H 8.1 PERCENT OF THE TIME, 11 TO 20 KM/H 5.6 PERCENT OF THE TIME, AND 21 TO 30 KM/H 1.8 PERCENT OF THE TIME. SIMILARLY, THE WINDS BLEW FROM THE NORTH-WEST AT SPEEDS OF 1 TO 10 KM/H 3.8 PERCENT OF THE TIME, AT SPEEDS OF 11 TO 20 KM/H 6.0 PERCENT OF THE TIME, AT SPEEDS OF 21 TO 30 KM/H 4.7 PERCENT OF THE TIME, AT SPEEDS OF 31 TO 40 KM/H 1.0 PERCENT OF THE TIME, AND, AT SPEEDS GREATER THAN 41 KM/H 0.2 PERCENT OF THE TIME.

THE DATA PUBLISHED BY ENVIRONMENT CANADA FURTHER INDICATES THAT WINDS BLEW FROM THE NORTH 15.8 PERCENT OF THE TIME AT AN AVERAGE SPEED OF 11.6 KM/H, AND, FROM THE NORTH-WEST 15.6 PERCENT OF THE TIME AT AN AVERAGE SPEED OF 17.2 KM/H.



- LEGEND:**
- APPROXIMATE BOUNDARY OF BEUC SECONDARY PLAN
 - 1KM ASSESSMENT ZONE BOUNDARY
 - SECTION 12.1.8 BEUC SECONDARY PLAN (401.7 - Ha)
 - ORANGE HELIPAD STANDARD NON-SPECIFIED FLIGHT PATH (178.6 - Ha)
 - BOUNDARY OF BOWMANVILLE HOSPITAL LANDS
 - WIND ROSE DIRECTION & SPEED

NOTES:
THIS DRAWING ILLUSTRATES THE EFFECT OF SECTION 12.1.8 OF THE PROPOSED BEUC SECONDARY PLAN AND THE OPERATIONAL PROCEDURES & POLICIES OF ORNGE IN THE ABSENCE OF DEFINED FLIGHT PATHS.

- SOURCES:**
- AERIAL PHOTOGRAPH - MAY 2024 FIRST BASE SOLUTIONS.
 - WIND ROSE DATA BOWMANVILLE ANNUAL 2010-2024 ENVIRONMENT CANADA

Annual Wind Rose Data
Bowmanville⁽¹⁾
2010 - 2024

Speed km/h	Frequency By Percentage Per Direction									Average
	NE	E	SE	S	SW	W	NW	N		
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41 or Above	0.0	0.1	0.0	0.0	0.0	0.2	0.2	0.0		0.4
Overall Frequency	6.3	14.7	7.0	9.4	12.8	12.9	15.6	15.8		
Average Speed	11.0	14.2	11.1	12.6	14.9	16.6	17.2	11.6		13.3

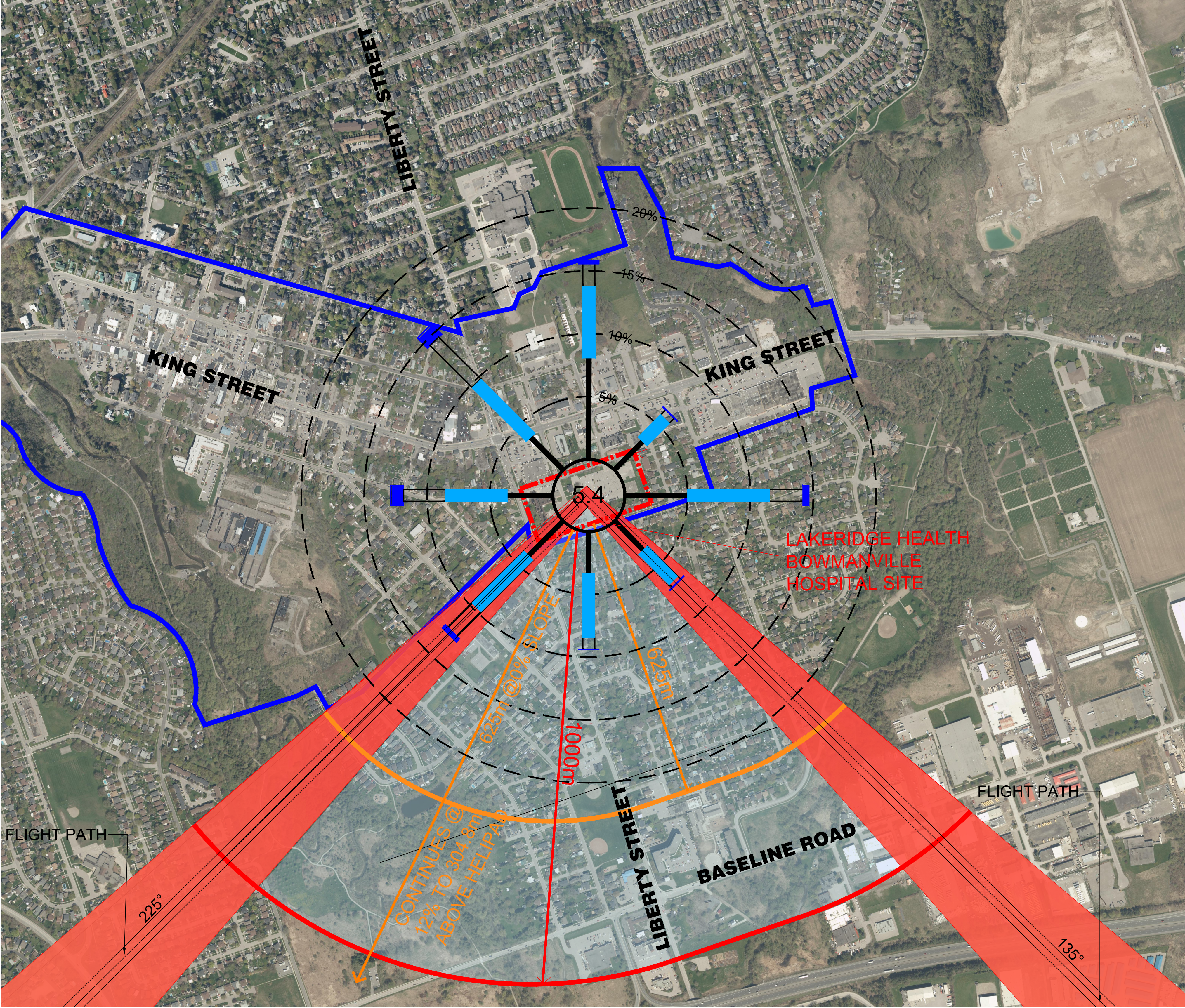
1. Source: Applied Climatology Services, Meteorological Services of Canada, Environment & Climate Change, Government of Canada

NOTES:

INTERPRETATION OF WIND ROSE
THE DIFFERENT COLOURS OF EACH SPOKE OF THE WIND ROSE PROVIDE DETAILS ON THE SPEED, IN KILOMETRES PER HOUR (I.E. KM/H), OF THE WIND FROM EACH DIRECTION. AS ILLUSTRATED ON THE ANNUAL WIND ROSE FOR BOWMANVILLE, THE WINDS WERE CALM APPROXIMATELY 5.4 PERCENT OF THE TIME.

THE ANNUAL DATA PUBLISHED BY ENVIRONMENT CANADA FOR BOWMANVILLE INDICATES THAT, FROM 2010 TO 2024, THE WINDS BLEW FROM THE NORTH AT SPEEDS OF 1 TO 10 KM/H 8.1 PERCENT OF THE TIME, 11 TO 20 KM/H 5.6 PERCENT OF THE TIME, AND 21 TO 30 KM/H 1.8 PERCENT OF THE TIME. SIMILARLY, THE WINDS BLEW FROM THE NORTH-WEST AT SPEEDS OF 1 TO 10 KM/H 3.8 PERCENT OF THE TIME, AT SPEEDS OF 11 TO 20 KM/H 6.0 PERCENT OF THE TIME, AT SPEEDS OF 21 TO 30 KM/H 4.7 PERCENT OF THE TIME, AT SPEEDS OF 31 TO 40 KM/H 1.0 PERCENT OF THE TIME, AND, AT SPEEDS GREATER THAN 41 KM/H 0.2 PERCENT OF THE TIME.

THE DATA PUBLISHED BY ENVIRONMENT CANADA FURTHER INDICATES THAT WINDS BLEW FROM THE NORTH 15.8 PERCENT OF THE TIME AT AN AVERAGE SPEED OF 11.6 KM/H, AND, FROM THE NORTH-WEST 15.6 PERCENT OF THE TIME AT AN AVERAGE SPEED OF 17.2 KM/H.



LEGEND:

- APPROXIMATE BOUNDARY OF BEUC SECONDARY PLAN
- PROPOSED ASSESSMENT ZONE BOUNDARY - REGULATED 110.7 - Ha
- ORANGE HELIPAD STANDARD NON-SPECIFIED FLIGHT PATH - REGULATED 49.9 - Ha
- BOUNDARY OF BOWMANVILLE HOSPITAL LAND
- WIND ROSE DIRECTION & SPEED
- FLIGHT PATH TAKE-OFF & APPROACH TRANSITIONAL SURFACES

NOTES:

THIS DRAWING HAS BEEN PREPARED FOR DEMONSTRATION PROPOSES ONLY. A DETAILED AERONAUTICAL ASSESSMENT, PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF TRANSPORT CANADA IS NECESSARY TO DETERMINE ARRIVAL / DEPARTURE FLIGHT PATHS TO AND FROM THE PROPOSED HELIPORT TO BE DEVELOPED IN ASSOCIATION WITH THE BOWMANVILLE HOSPITAL.

SOURCES:

- AERIAL PHOTOGRAPH - MAY 2024 FIRST BASE SOLUTIONS.
- WIND ROSE DATA BOWMANVILLE ANNUAL 2010-2024 ENVIRONMENT CANADA

