ARTICLE 34 – AIRPORT HEIGHT COMBINING ZONE (AH)
(Amended by Ordinance #295 – Effective June 26, 2009)

Section 34.10 - Purpose and Intent
The purpose of the Airport Height Combining Zone (AH) is to protect the public's safety and welfare and to protect property adjacent to and surrounding both the Cascade Locks State Airport and the Hood River Airport) through the use of height restrictions Ken Jernstedt Airfield (formerly the and other provisions in this ordinance. The AH Zone shall regulate various types of air space obstruction and other hazards which may interfere with safe landing and taking off of aircraft including: (a) the height of structures and objects of natural growth; (b) conditions or activities which may cause electronic interference with air navigation communication systems; (c) lights which may interfere with airport lighting systems; (d) conditions or activities which produce levels of smoke, dust and glare that would interfere with safe operations; and (e) conditions or activities creating bird strike hazards. The AH Zone is an overlay zone to be used in conjunction with any base zone.

The protected airspace and Runway Protection Zone (RPZ) standards depicted in the attached exhibit entitled “Airport Zones Current and Future Conditions” (see Appendix “C-1”) will apply to present runway configuration until the runway shift identified in the 2009 Airport Master Plan is completed. Once the runway is shifted east, the newly located airspace and RPZ standards depicted in the exhibit as “future” will automatically apply and supersede the “current” airspace and RPZ regulations.

Section 34.15 – Definitions
A. Aircraft. Helicopters and airplanes, but not hot air balloons or ultralights.
B. Airport. The strip of land used for taking off and landing aircraft, together with all adjacent land used in connection with the aircraft landing and taking off from the strip of land, including but not limited to land used for existing airport uses.
C. Airport Imaginary Surfaces (and zones). Imaginary areas in space and on the ground that are established in relationship to the airport and its runways. The airport imaginary surfaces are defined by the Approach Surface, Transitional Surface, Horizontal Surface, Conical Surface, and Runway Protection Zone, which are described in Section 34.30 and depicted in Appendix “B-2” (Current) and B-3” (Future).
D. Airport Noise Criterion. The State criterion for airport noise is an Average Day-Night Sound Level (DNL) of 55 decibels (dBA or dB) or greater. The Airport Noise Criterion is not designed to be a standard for imposing liability or any other legal obligation except as specifically designated pursuant to OAR 340, Division 35.
E. **Average Day-Night Sound Level (DNL).** Average day-night sound level is the FAA standard measure for determining the cumulative exposure of individuals to noise. DNL is the equivalent of noise levels produced by an aircraft operations during a 24-hour period, with a ten-decibel penalty applied to the level measured during nighttime hours (10:00 p.m. to 7:00 a.m.).

F. **Aviation Recreation and Sporting Activities.** Activities, facilities, and accessory structures at airports that support recreational use of aircraft and sporting flight. Aviation recreation and sporting activities on airport property shall be subject to approval of the airport sponsor. Aviation recreation and sporting activities include but are not limited to: fly-ins; glider flights; hot air ballooning; ultralight aircraft flights; displays of aircraft; aeronautic flight skills contests; gyrocopter flights; flights carrying parachutists/skydivers; and parachute/skydiving drops onto an airport, when a minimum 10 acre drop zone, which roughly approximates a square or circle, has been secured from the airport sponsor.

G. **Aviation Recreational Vehicle:** A type of vehicle, other than planes or helicopters, that are primarily used or intended to be used for recreational flight. Examples of an aviation recreational vehicle include but are not limited to gliders, hot air balloons, and ultralights.

H. **FAA.** Federal Aviation Administration

I. **FAR.** Regulation issued by the FAA.

J. **FAR Part 77.** Regulation, Part 77, “Objects Affecting Navigable Airspace, establishes standards for determining obstructions to navigable airspace.”

K. **Height.** The highest point of a structure or tree, plant or other object of natural growth, measured from mean sea level.

L. **Obstruction.** Any structure or tree, plant or other object of natural growth that penetrates an imaginary surface.

M. **Other than Utility Runway.** A runway that is constructed for and intended to be used by turbine-driven aircraft or by propeller-driven aircraft exceeding 12,500 pounds gross weight.

N. **Public Assembly Facility.** A permanent or temporary structure or facility, place or activity where concentration of people gather in reasonably close quarters for purposes such as deliberation, education, worship, shopping, employment, entertainment, recreation, sporting events, or similar activities. Public assembly facilities include, but are not limited to, schools, churches, conference or convention facilities, employment and shopping centers, arenas, athletic fields, stadiums, clubhouses, museums, and similar facilities and places, but do not include parks, golf courses or similar facilities unless used in a manner where
people are concentrated in reasonably close quarters. Public assembly facilities also do not include air shows, structures or uses approved by the FAA in an adopted airport master plan, or places where people congregate for short periods of time.

O. **Runway.** A defined area on an airport prepared for landing and takeoff of aircraft along its length.

P. **Structure.** Any constructed or erected object, which requires a location on the ground or is attached to something located on the ground. Structures include but are not limited to buildings, decks, fences, signs, towers, cranes, flagpoles, antennas, smokestacks, earth formations and overhead transmission lines. Structures do not include paved areas.

Q. **Visual Runway.** A runway intended solely for the operation of aircraft using visual approach procedures, where no straight-in instrument approach procedures or instrument designations have been approved or planned, or are indicated on an FAA-approved airport layout plan or any other FAA planning document.

Section 34.20 - Application
The provisions of this ordinance shall apply to all lands in Hood River County under the following surfaces: (a) airport approach; (b) conical; (c) horizontal; and (d) transitional which are shown in Appendix "A", Cascade Locks State Airport Plan, Cascade Locks, Oregon (4/18/83); and Appendix “B” Ken Jernstedt Airfield Airport Master Plan Sheets 1-5, 2009. (Originals at a larger scale are available in the Hood River County Planning Department.) Dark shaded or diagonal lines and irregular bounded areas as noted in both Appendices show topography penetrating the imaginary surfaces making it difficult to apply provisions of this ordinance.

Section 34.30 - Height Limitations
No structure or tree shall be erected, altered, allowed to grow, or be maintained in the Airport Height Combining Zone to a height in excess of height limitations established by each of the following goals which underlie each designated surface as shown in Appendices "A", "B", and "C":

A. **Primary Surface**: A surface longitudinally centered on a runway. The primary surface extends 200 feet beyond each end of the runway and is 250 feet wide along each side, as measured from the centerline of the runway.

1. Applies only to lands outside the Cascade Locks Urban Growth Boundary. It is recommended (see County Policy Document and Goal 12- Transportation) that the City of Cascade Locks update their Comprehensive Plan to apply the Airport Height Combining Zone to Cascade Locks State Airport in the UGA and designate the airport in their plan.
B. Approach Surface (for Other than Utility Visual Runway): Slopes twenty (20) feet outward for each foot upward (20:1) beginning at the end of and at the same elevation as the Primary Surface and extending to a horizontal distance of 5,000 feet along the extended runway centerline.

C. Transitional Surface: Slopes seven (7) feet outward for each foot upward (7:1) beginning at the sides of and at the same elevation as the Primary Surface and the Approach Surface and extending to a height of 150 feet above the airport elevation.

D. Horizontal Surface: Established at 150 feet above the airport elevation or at a height of 301 feet above mean sea level at the Cascade Locks Airport and 780 feet at the Ken Jernstedt Airfield. (Note: The elevation of the Ken Jernstedt Airfield is subject to change should the runway shift to the east as detailed in the 2009 Airport Master Plan.) The Horizontal Surface extends 5,000 feet from the center of each runway end, as shown on Appendix “B-2” (current) and “B-3” (future), and begins where the Transitional Surface reaches a vertical height of 150 feet.

E. Conical Surface: Slopes twenty (20) feet outward for each foot upward (20:1) for 4,000 feet beginning at the periphery of the Horizontal Surface and at 150 feet above the airport elevation and extending to a height of 350 feet above the airport elevation.

F. Runway Protection Zone: Extending 1,000 feet from the ends of existing and planned runway termini as shown on attached Appendix C, Sheets 1 though 3. The RPZ is trapezoidal in shape and centered about the extended runway centerline. The inner width of the RPZ is the same as the width of the Primary Surface. The outer width of the RPZ is a function of the type of aircraft and specified approach visibility minimum associated with the runway end.

G. The Plan Diagram in the Appendices shall be utilized to assist in determining any air space obstructions.

Section 34.40 - Permitted Uses
Any permitted use in the base zone subject to compliance with the provisions of the AH Zone, including provisions in Section 34.60 below.

Section 34.50 - Uses Subject to a Conditional Use Permit
Conditional uses listed in the base zone shall be subject to compliance with provisions of the AH Zone, including provisions in Section 34.60 below.

Section 34.60 - Other Conditions to Use and Occupancy:
Uses permitted in the base zone will also be governed by the following restrictions:
A. No building, pipe, chimney, tower, steeple, stand, platform, pole, wire or structure or erection or object of natural growth, or obstruction of any kind of nature whatsoever, shall be built, placed, hung, or permitted to grow or allowed to be built, placed or hung which shall at any point project into the zones as delineated in Appendices "A", "B" and "C" to this ordinance.

B. No residential development or uses that promote public gathering are permitted in the Runway Protection Zone, as detailed in Appendix C (Sheets 1 through 3). Any residential development or uses that promote public gatherings that lawfully existed as of the adoption date of this amendment (June 26, 2009) shall be treated as nonconforming uses, subject to the provisions of Article 65 (Nonconforming Uses).

C. No searchlight, beacon light, or other glaring light shall be used, maintained, or operated within one-half mile of said airports, so that the same shall reflect, glare, or shine upon or in the direction of said airports.

D. No glare producing materials such as unpainted metal or reflective glass shall be used on the exterior of any structure located within or below the Airport Height Combining Zone, where glare could impede a pilot’s view.

E. Any electromagnetic radiation that would interfere with normal aircraft communication is prohibited.

F. Any land use or activity that produces smoke or haze to a degree that would interfere with normal aircraft operations is prohibited.

G. Any land use or activity that produces excessive bird strike hazard in the designated zones is prohibited.

H. Where a zone is covered by more than one height limitation the more restrictive shall prevail.

I. It is the applicant’s responsibility to provide elevation profiles and a site plan, both drawn to scale, including the location and height of all existing and proposed structures, measured in feet above mean sea level to demonstrate compliance with the height limitations of this Article.

J. Except as provided in Subsection K, below, for areas within the airport imaginary surfaces, but outside the Approach and Transition Surfaces, where the terrain is near or higher than the airport imaginary surface elevation such that existing structures and/or permitted development penetrate or would penetrate the airport imaginary surfaces, structures up to 35 feet in height may be authorized subject to the following standards:
Notice to the Federal Aviation Administration (FAA) is required by Part 77 of the Federal Aviation Regulations where construction and/or alteration of structures may penetrate regulated airspace described within this Section. It is the applicant’s responsibility to notify the FAA and the Oregon Department of Aviation (ODA) and secure approvals via FAA Form 7460-1. Once notification has been made, the FAA or ODA will either make a “determination of no hazard” (DNH) or require mitigation through structure relocation on the subject site, aviation safety lighting or other means. The Planning Department will require a DNH or ensure mitigation is met as part of its approval process.

K. Pursuant to FAA Form 7460-1, FAA notification is not required for any of the following construction activities or alterations:

1. Any object that would be shielded by existing structures of a permanent and substantial character or by natural terrain or topographic features of equal or greater height, and would be located in the congested area of a city, town, or settlement where it is evident beyond all reasonable doubt that the structure so shielded will not adversely affect safety in air navigation.

2. Any antenna structure of 20 feet or less in height, except one that would increase the height of another antenna structure.

3. Any air navigation facility, airport visual approach or landing aid, aircraft arresting device, or meteorological device, of a type approved by the Administrator, or an appropriate military service, the location and height of which is fixed by its functional purpose.

4. Any construction or alteration for which notice is required by any other FAA regulation.

5. Any other construction activities or alterations deemed by FAA as exempt from notification.

L. Except as provided in Subsection 34.60(J), any person desiring to erect or increase the height of a structure causing it to penetrate into or penetrate further into the airport imaginary surface may apply for a variance, subject to the provisions of Article 66 (Variances) and the following:

1. Prior to making application for a variance, the applicant shall submit a Form 7460-1 to and receive approval from the Oregon Department of Aviation and Federal Aviation Administration.

2. An approved variance may be conditioned as to require the owner of the structure to install, operate, and maintain obstruction markers at the owner’s expense.
(3) An approved variance may not allow a structure to exceed the height limitations prescribed in the base zone.

M. The following requirements and conditions shall apply to safety risks associated with potential bird strike hazards resulting from new water impoundments proposed in close proximity to an airport identified under ORS 836.610 (1):

(1) No new water impoundments of one-quarter acre or larger shall be allowed:

(A) Within an approach corridor and within 5,000 feet from the end of a runway; or

(B) On land owned by the airport or airport sponsor where the land is necessary for airport operations;

(2) Wetlands mitigation required for projects located within the areas identified in paragraphs (A) and (B) of this subsection shall be authorized where it is not practicable to provide off-site mitigation.
Appendix “A”
Appendix “B-5”