

WECS (Wind Energy Conversion System) ORDINANCE 32

ARTICLE 1 PURPOSE

PURPOSE

The purpose of the Ordinance is to provide for the construction and permitting of small residential, rural and commercial wind energy conversion system WECS facility in the unincorporated areas of Meade County, subject to reasonable conditions that will protect the public health and safety.

ARTICLE II DEFINITIONS

Airspace Imaginary Surfaces A structure of imaginary control surfaces that exist primarily to enhance the safety and efficiency of aircraft operations by preventing existing or proposed manmade objects, objects of natural growth or terrain from extending upward into navigable airspace. These imaginary surfaces either slope out and up from all sides and ends of runways or are a horizontal plane or a sloping plain above airport. (Imaginary surface is shown on the Exhibits at the end of this Ordinance.)

Applicant is the person or entity filing an application under this Ordinance.

Hub Height The distance measured from the surface of the tower foundation to the height of the WECS unit hub, to which the blade is attached.

Class Delta (D) Airspace Class D airspace can generally be described as a controlled airspace that extends from the surface or a given altitude to a specific higher altitude. Ellsworth Air Force Base's Class D Airspace extends from the surface up to and including 5,800 feet Mean Sea Level (MSL) and a 5.9 nautical mile (6.8 mile) radius of the airport center.

Commercial WECS Facility (Wind Farm) An electric generating facility, placed on 73 acres or more, whose main purpose is to supply electricity. The wind farms consist of more than one WECS unit and other accessory structures and buildings, including substations, Meteorological Tower, electrical infrastructure, transmission lines and other appurtenant structures and facilities.

Engineering Certification For all Commercial WECSs or Meteorological Towers, the manufacturer's engineer or another qualified engineer shall certify that the turbine, foundation and tower design of a Commercial WECS or Meteorological Tower is within accepted professional standards, given local soil and climate conditions.

Facility Owner The entity or entities having an equity interest in the WECS facility, including their respective successors and assigns.

Meteorological Tower Meteorological Towers (temporary or permanent) are those towers which are erected primarily to measure wind speed and directions plus other data relevant to siting or proposed WECS. Meteorological Towers do not include towers and equipment used by airports, the South Dakota Department of Transportation, National

Weather Service or other similar applications to monitor weather conditions. Meteorological Towers, whether temporary or permanent must meet FAA requirements.

Non-Participating Landowner Any landowner except those on whose property all or a portion of a WECS facility is located pursuant to an agreement with the facility owner or operator.

Operator means the entity responsible for the day-to-day operation and maintenance of the WECS facility.

Occupied Building A residence, school, hospital, church, public library or other building used for public gathering that is occupied or in use when the permit application is submitted.

Rural Wind Turbines Small to medium size wind energy systems installed for on-site use on agricultural property for supplying electricity or other uses, not to exceed 120 feet in height.

Shadow Flicker The alternating pattern of sun and shade caused by the wind tower blades casting a shadow.

Small Residential WECS Small wind energy systems installed to reduce the on-site consumption of utility supplied electricity. Tower height for property sizes between 3+ acres and less than 10 acres shall be limited to 60 ft. Property sizes 10 acres and greater shall have a maximum Tower height of 80 ft.

Small Wind Turbine System (WECS) A wind energy conversion system consisting of a wind turbine, a tower, and associated control or conversion electronics, which has a rated capacity of not more than 10 kW and which is intended to primarily reduce on-site consumption of utility power.

Turbine Height The distance measured from the surface of the tower foundation to the highest point of the turbine rotor plane.

Tower Height The height above grade of the fixed portion of the tower, excluding the wind turbine itself.

Wind Turbine means A WECS that converts energy into electricity through the use of a wind turbine generator, and includes the nacelle, rotor, tower, and pad transformer, if any.

WECS - Wind Energy Conversion System An electrical generating facility comprised of one or more wind turbines and accessory facilities, including but not limited to: power lines, transformers, substations and Meteorological Towers that operate by converting the kinetic energy of wind into electrical energy. The energy may be used on-site or distributed into the electrical grid. The term WECS is synonymous for wind turbine.

ARTICLE III APPLICABILITY

A. This Ordinance applies to all WECS's, WECS facilities and temporary or permanent Meteorological Tower proposed to be constructed or placed after the effective date of the Ordinance, and also applies to stand-alone WECS'S constructed primarily for residential or farm use.

B. WECS's and WECS Facilities including Meteorological Towers constructed or placed prior to the effective date of this Ordinance shall not be required to meet the requirements of this Ordinance. Any physical modification to an existing WECS facility that materially alters the size, type or number of WECS units or other equipment shall require a permit under this Ordinance.

SECTION 1 PERMITTED USE

A. WECS facility or Meteorological Tower shall be considered a permitted use if approved by the Commission, with proper documentation required by this Ordinance.

1. PERMIT REQUIREMENT

A. No WECS facility, or an addition of a wind turbine to an existing WECS Facility or Meteorological Tower shall be constructed or located within the unincorporated boundaries of Meade County unless a permit has been issued to the facility owner or operator approving construction of the facility under this Ordinance.

B. The permit application or amended permit application shall be accompanied with a fee in an amount set by resolution by the County Commission, for all Commercial WECS units. Rural (non-commercial WECS units and Small Residential WECS units are exempt from permit fees; however, WECS units (wind turbines) require a building permit for the entire structure and equipment.

C. Any physical modification to an existing or permitted WECS facility that materially alters the size, type or number of WECS units or other equipment shall require a permit modification under this ordinance. Like-kind replacements shall not require a permit modification.

D. Commercial WECS facility and Meteorological Towers shall only be placed on agricultural property of 73 acres or more.

2. PERMIT APPLICATION

A. The permit application shall demonstrate that the proposed WECS facility, or Meteorological Tower, will comply with this Ordinance.

B. The application shall contain the following:

1. A narrative describing the proposed WECS facility, including an overview of the project; the project location; the approximate generating capacity of the WECS facility; the approximate number, representative types and height or range of heights of wind turbines to be constructed, including their generating capacity, dimensions and respective manufacturers, and a description of ancillary facilities. Meteorological Tower Application must include a decommissioning time table for data collection. Temporary Meteorological Towers will be permitted for a maximum duration of 5 years.

2. An affidavit or similar evidence of agreement between the property owner and the facility owner or operator demonstrating that the facility owner or operator has the permission of the property owner to apply for necessary permits for construction and operation of the Commercial WECS facility or a Meteorological Tower.

3. Identification of the properties on which the proposed Commercial WECS facility or Meteorological Tower will be located, and the properties adjacent to and within 2,500-foot radius where the Commercial WECS facility will be located.

4. A site plan showing the planned location of each wind turbine or Meteorological Tower, property lines, setback lines, access road and turnout locations, substation(s), electrical cabling from the Commercial WECS facility to the substation(s), ancillary equipment, buildings, and structures, including Meteorological Towers, associated transmission lines, and layout of all structures within the geographical boundaries of any applicable setback.

5. Documents related to decommissioning of all equipment.

6. Other relevant studies, reports, certifications and approvals as may be reasonably requested by Meade County to ensure compliance with this Ordinance.

7. Provide a copy of the agreement between the facility owner and the affected local power company.

C. Within (30) days after receipt of a permit application, Meade County Director of Equalization & Planning or designee will determine whether the application is complete and advise the applicant accordingly.

D. The applicant must appear before the Commission at the regularly scheduled meeting(s). The applicant shall participate in the hearing and be afforded an opportunity to present the project to the public and the Commission, and answer questions about the project. The public shall be afforded an opportunity to ask questions and provide comment on the proposed project.

1. Neighbors within 2,500 feet of the property of the proposed WECS or Meteorological Tower must be notified at least 14 calendar days by certified mail in advance of any Commission meeting. along with;
 - a) a map of the location of the proposed construction.
 - b) Telephone number and address of the facility owner or operator.
 - c) Information regarding the right to participate in the Meade County Commission meeting on the application.
 - d) The applicant shall maintain a list of the property owners who received the notice, together with copies of the certified receipts for the notice sent to the listed property owners.
2. Within (30) days after the hearing or at the hearing of the Commission, Meade County will make a decision whether to issue or deny the permit application.
3. Throughout the permit process, the applicant shall promptly notify Meade County of any changes to the information contained in the permit application.
4. Changes to the pending application that do not materially alter the initial site plan may be adopted without a renewed public hearing.

SECTION 2 - DESIGN AND INSTALLATION OF COMMERCIAL WIND ENERGY CONVERSION SYSTEM FACILITIES.

A. Design Safety Certification

The design of the WECS facility shall conform to applicable industry standards, including those of the American National Standards Institute. The applicant shall submit an Engineering Certification for all Commercial WECS's or a Meteorological Tower. The manufacturer's engineer or another qualified engineer shall certify that the turbine, foundation and tower design of the Commercial WECS's or Meteorological Tower is within accepted professional standards, given local soil and climate conditions.

B. The current version of the International Building Code

To the extent applicable, the WECS facility shall comply with the current version of the International Building Code.

C. Controls and Brakes

All WECS facilities shall be equipped with an electronic shut down or a redundant braking system. This includes both aerodynamic over-speed controls (including variable pitch, tip, and other similar systems) and/or mechanical brakes. Mechanical brakes shall

be operated in a fail-safe mode. Stall regulation shall not be considered a sufficient braking system for over-speed protection.

D. Electrical Components

All electrical components of a Commercial WECS facility, Rural WECS and small Residential WECS shall conform to the National Electric Code and to relevant and applicable local, state and national codes, and relevant and applicable international standards, as well as the standards set forth by the affected local power company.

E. Visual Appearance; Power Lines

1. WECS's (wind turbines) shall be a non-obtrusive color such as white, off-white or gray.
2. WECS facilities shall not be artificially lighted, except to the extent required by the Federal Aviation Administration or other applicable authority that regulates air safety, and/or the Commission.
3. WECS units shall not display advertising, except for reasonable identification of the turbine manufacturer, facility owner and operator.
4. On-site transmission and power lines between wind turbines shall, to the maximum extent practicable, be placed underground.

F. Warnings

1. A clearly visible warning sign concerning voltage must be placed at the base of all pad-mounted transformers and substations.
2. Visible, reflective, colored objects, such as flags, reflectors, or tape shall be placed on the anchor points of guy wires and along the guy wires up to a height of ten feet from the ground.
3. Climb Prevention/Locks
 - a. WECS units and Meteorological Towers shall not be climbable up to fifteen (15) feet above ground surface.
 - b. All access doors to WECS units and/or Meteorological Towers and electrical equipment shall be locked or fenced, as appropriate, to prevent entry by non-authorized persons.

G. Shadow Flicker

1. Shadow Flicker shall be limited to 36 hours per year.

H. Decommissioning

Any and all WECS's or Meteorological Towers which are not used for twelve successive months shall be deemed abandoned and shall be dismantled, including excavating and removing concrete footings to a depth of 4 feet and all materials must be removed from the property at the expense of the facility owner or property owner. Facility owners of a Commercial WECS facility must provide a copy of financial surety, a surety bond, irrevocable letter of credit, or an insurance certificate which will cover the decommissioning of each WECS at the facility or wind farm, to the Meade County Department of Equalization & Planning. For every WECS unit and any Meteorological Tower (including Temporary Meteorological Tower) that is decommissioned or removed within Meade County, the facility or tower operator and/or owner must notify in writing by certified mail to the Meade County Director of Equalization and Planning their intent to decommission or remove the system or tower, at least 30 calendar days prior to the date the equipment and/or tower is to be decommissioned.

1. Extensions may be granted upon request to the Commission prior to the expiration of the one (1) year requirement for decommissioning.
2. The Commercial WECS project must contain a decommissioning plan to ensure it is properly decommissioned upon the end of the project life, inoperability of individual WECS unit or facility abandonment. The decommissioning plan shall state how the facility will be decommissioned, the Professional Engineer's estimated cost of decommissioning, the financial resources to be used to accomplish decommissioning, and the escrow agent with which the resources shall be deposited.
3. The County shall have access to the escrow account funds for the expressed purpose of completing decommissioning if decommissioning is not completed by the applicant within one (1) year of the end of project life, inoperability of individual WECS, or facility abandonment. Escrow funds may be used for administrative fees and costs associated with decommissioning.
4. The County is granted the right of entry onto the site, pursuant to reasonable notice, to effect or complete decommissioning.
5. The County is granted the right to seek injunctive relief to effect or complete decommissioning, to seek reimbursement from applicant or applicant successor for decommissioning costs in excess of the amount deposited in escrow, and to file a lien against any real estate owned by applicant or applicant's successor, or in which they have an interest, and to take all steps allowed by law to enforce said lien.
6. An approved permit for a Commercial WECS shall expire if construction of the WECS facility has not commenced within 24-months from the date of issuance.

I. Liability Insurance. The owner or operator of the WECS facility, shall maintain a current insurance policy with a bond rating acceptable to the County to cover installation and operation.

J. Meteorological Tower permit will expire in 5 years of the application date and must be removed from the siting location.

SECTION 3 - SETBACKS FOR COMMERCIAL WIND ENERGY CONVERSION SYSTEM WECS FACILITY AND METEOROLOGICAL TOWERS.

A. WECS Unit Setbacks

1. WECS shall be set back from the nearest participating property line at a distance not less than 2 times the height of the WECS unit measuring from the base at ground level to the height of the blade fully extended, (measured vertically from center of the WECS unit). The setback distance shall be measured from the center of the WECS unit base to the nearest point on the foundation of the occupied building.
2. WECS units or Meteorological Towers shall be setback from the nearest non-participating landowner's property line at a distance of not less than five (5) times the height of the WECS unit measuring from the base at ground level to the height of the blade fully extended, (measured vertically from center of the WECS unit), (or in the case of a Meteorological Tower, 2 times the entire height) or 1000 feet, whichever is greater.
3. WECS units or Meteorological Towers shall be prohibited within the Imaginary Airspace of Ellsworth Airforce Base
 - a.) NOTE: For a more complete description of airspace and control surfaces, see Federal Aviation Regulations Part 77, Subpart C, or U.S. Airforce (USAF) Instruction 32-106. See 14 CFR Part 77.9 for notification requirements to the FAA for construction or alterations of structures or systems that exceed 200 feet or above in total height from ground level or penetrate Airspace Imaginary Surfaces and/or Class D Airspace, whichever is lowest. Imaginary surfaces, including heights and elevations are shown on the Exhibits at the end of this Ordinance.

B. Public Roads: All WECS units shall be set back from public road(s) a distance of not less than 2 times the height of the WECS unit measuring from the base at ground level to the height of the blade fully extended, (measured vertically from center of the WECS unit), or for Meteorological Towers, 2 times the total height of the tower, as measured from the nearest edge of the right-of-way line from any public road to the center of the WECS unit or Meteorological Tower base or 1000 feet, whichever is greater.

C. WECS facilities (Wind Farms) and Meteorological Towers must comply with applicable FAA regulations, including any necessary approvals for installations close to commercial or private airports including Ellsworth Air Force Base and critical flight paths of Ellsworth Airforce Base.

SECTION 4 - USE OF PUBLIC ROADS FOR COMMERCIAL WIND ENERGY CONVERSION SYSTEM (WECS) FACILITY.

A. The Applicant shall identify all state and local public roads to be used within Meade County to transport equipment and parts for construction, operation or maintenance of the Commercial WECS facility.

B. The Meade County Highway Superintendent, and a qualified third-party engineer hired by the applicant (with the approval of the Meade County Commission for the third-party engineer the applicant has selected), shall document road conditions prior to construction. The Meade County Highway Superintendent and ~~or~~ the third-party engineer, shall document road conditions again thirty (30) days after construction is complete or as weather permits. Costs related to a third-party engineer will be paid for by the applicant.

C. Meade County Commission will require that the county road(s) to be used as a haul road, must be bonded for by the applicant.

D. Any road damage caused by the applicant or its contractors shall be promptly repaired at the applicant's expense, and repairs must be approved by Meade County Highway Superintendent and/or the Commission.

E. The applicant and/or WECS facility owner shall demonstrate that ~~it~~ the facility owner has appropriate financial assurance to ensure the prompt repair of damaged roads either through a bond or an irrevocable letter of credit.

SECTION 5 - LOCAL EMERGENCY SERVICES AND ELLSWORTH AFB FOR COMMERCIAL WIND ENERGY CONVERSION SYSTEM (WECS) FACILITY.

A. The Applicant shall provide a copy of the project summary and site plan also to local emergency services, including volunteer Fire Department(s).

B. Upon request, the Applicant shall cooperate with Meade County Emergency Management and other emergency services to develop and coordinate implementation of an emergency response plan for the Commercial WECS facility or Meteorological Tower.

C. The Applicant shall send the application package with the plans of the proposed commercial WECS project to Ellsworth AFB for review.

SECTION 6 REGULATIONS FOR RURAL (NON-COMMERCIAL) AND SMALL RESIDENTIAL WECS

A. Purpose: It is the purpose of this regulation to promote the safe, effective and efficient use of small wind energy systems installed to reduce the on-site consumption of utility supplied electricity.

B. Permitted Use: Small WECS's shall be a permitted use on Agricultural land and in Medium and Rural Density subdivision classifications (per Ordinance No. 20) where structures are allowed; subject to certain requirements as set forth below:

- 1 Tower Height: Property sizes between 3+ acres and less than 10 acres, the Tower height shall be limited to 60 ft. Property sizes of 10 acres up to 39 acres shall have a maximum Tower height of 80 ft. Property size of 40 acres or greater for a Rural WECS, the maximum Tower height is 120 ft.
- 2 Set-back: 2 times the height of the WECS unit, measuring from the base at ground level to the height of the blade fully extended, (measured vertically from center of the WECS unit).
- 3 Noise: Small wind energy systems shall not exceed 55 dBA for lot sizes of 3+ to less than 10 acres, as measured at the closest neighboring inhabited dwelling. The dBA level, however, may be exceeded during short-term events such as utility outages and/or severe wind storms.
- 4 Approved WECS: Small WECS and rural WECS must be approved under the Emerging Technologies program recognized by the American Wind Energy Association.
- 5 Compliance with the current version of the International Building Code: Building permit applications for small and rural wind energy systems shall be accompanied by standard drawings of the wind turbine structure, including the tower, base, and footings. Building permits expire in 1 year.
- 6 Compliance with FAA Regulations: Small and rural wind energy systems must comply with applicable FAA regulations, including any necessary approvals for installations close to airports.
- 7 Compliance with National Electric Code: Building permit applications for small and rural wind energy systems shall meet the National Electrical Code and the local power companies' requirements.
- 8 Utility Notification: No small or rural wind energy system shall be installed until

evidence has been given that the utility company has been informed of the customer's intent to install an interconnected customer-owned generator. Off-grid systems shall be exempt from this requirement.

- 9 Evidence: indicating the proposed height of the WECS unit does not exceed the height recommended by the manufacturer or distributor of the system.

SECTION 14 - REMEDIES

A. It shall be unlawful for any person, firm, or corporation to violate or fail to comply with or take any action which is contrary to the terms of the ordinance.

B. If Meade County determines that a violation of this Ordinance or the permit has occurred, the county shall provide written notice to any person, firm, or corporation alleged to be in violation of this Ordinance or permit. If the alleged violation does not pose an immediate threat to public health or safety, Meade County and the parties shall engage in good faith negotiations to resolve the alleged violation. Such negotiations shall be conducted within thirty (30) days of the notice of violation.

C. If after thirty (30) days from the date of the notice of violation Meade County determines, in its discretion, that the parties have not resolved the alleged violation; the county may institute civil enforcement proceedings or any other remedy at law to ensure compliance with this Ordinance or permit.

ARTICLE IV: VARIANCES

Section 1: VARIANCE PROCEDURE

The Meade County Commission shall hear and decide appeals and requests for variances from the terms of this ordinance. The board shall base its determination on technical justifications, and has the right to attach such conditions to variances as it deems necessary to further the purposes and objectives of this ordinance.

A. Conditions

1. In granting variances, modifications, and approvals for the WECS application, the Commission may require such conditions at will, in its judgment, secure substantially the objectives or the standards or requirements so varied, modified, or approved. In granting any variance, the Commission shall prescribe conditions that it deems

necessary to, or desirable for the public interest. These conditions may include and without being limited to; personal, surety, performance, or maintenance bonds, affidavits, covenants, or other legal instruments.

2. In making its findings, as required herein, the Commission shall take into account the nature of the proposed use of land and the existing use of land in the vicinity, the number of persons to reside or work near the proposed WECS facility site, and the probable effect of the proposed WECS facility upon living conditions in the vicinity.
3. That the variance is necessary for the preservation and enjoyment of a substantial property right of the petitioner.
4. That there are special circumstances or conditions affecting said property such that the strict application of the provisions of this Ordinance would deprive the applicant of the reasonable use of his/her land

B. Application Required

1. Applications for any such variance shall be submitted in writing by the Facility Owner and/or property owner at the time when the WECS facility application is filed for consideration by the Commission stating fully and clearly all facts relied upon by the petitioner and shall be supplemented with maps, plans or other additional data which may aid the Commission in the analysis of the proposed WECS project. The plans for the proposed WECS or Meteorological Tower shall include such covenants, restrictions other legal provisions necessary to guarantee the full achievement of the proposed plan.
2. Applications for variance shall be considered with the WECS facility application, and the Meade County Commission will render its decision at the hearing or no later than thirty (30) days after the hearing at which the preliminary package and request for a variance was submitted. All variances must be approved by the Governing Board.

C. Requirements for granting Variance

1. The Meade County Commission shall have the authority to give a variance. The person claiming the variance has the burden of showing:
 - a) That the granting of the variance will not be contrary to the public interest;
 - b) That the literal enforcement of the ordinance will result in unnecessary hardship;
 - c) That by granting the variance contrary to the provisions of the Ordinance the spirit of the ordinance will be observed; and
 - d) That by granting the variance, justice will be done.

D. Report to the County Board

For each application for a variance, the facility owner and/or property owner will coordinate with the Administrative Assistant to the Commission to set a date and time for a public hearing regarding a variance request.

Section 2: PENALTIES FOR VIOLATION OF ORDINANCE NO. 32

A: Violation of this ordinance shall be a Class 2 misdemeanor, and each day's violation shall constitute a separate offense. In addition to the criminal penalty set forth above, the Commission may immediately suspend all of the permits or the construction activities of a WECS facility which does not meet the requirements of the Meade County WECS Ordinance. If a suspension occurs, the reasons for such suspension shall be clearly stated by the Commission. The suspension on WECS facility permits or construction activities shall be lifted by the Commission upon satisfactory proof that the reasons which led to the suspension have been remedied.

ARTICLE V: SEVERABILITY AND SEPARABILITY

Should any Article, Section, Sub-section or Provision of the WECS Ordinance be declared by a court of competent jurisdiction to be invalid or unconstitutional, such decision shall not affect the validity or constitutionality of the WECS Ordinance as a whole or any part thereof other than the part so declared to be invalid or unconstitutional.

ARTICLE VI: EFFECTIVE DATE

WECS Ordinance No. 32 shall take effect and be in force from and after 20 days from the date of completed publication. Adopted this 23rd day of April, 2019.

Dated at Sturgis, South Dakota, this 23rd day of April, 2019.

Chairman Ted Seaman: _____
Meade County Commissioner

Attested: _____

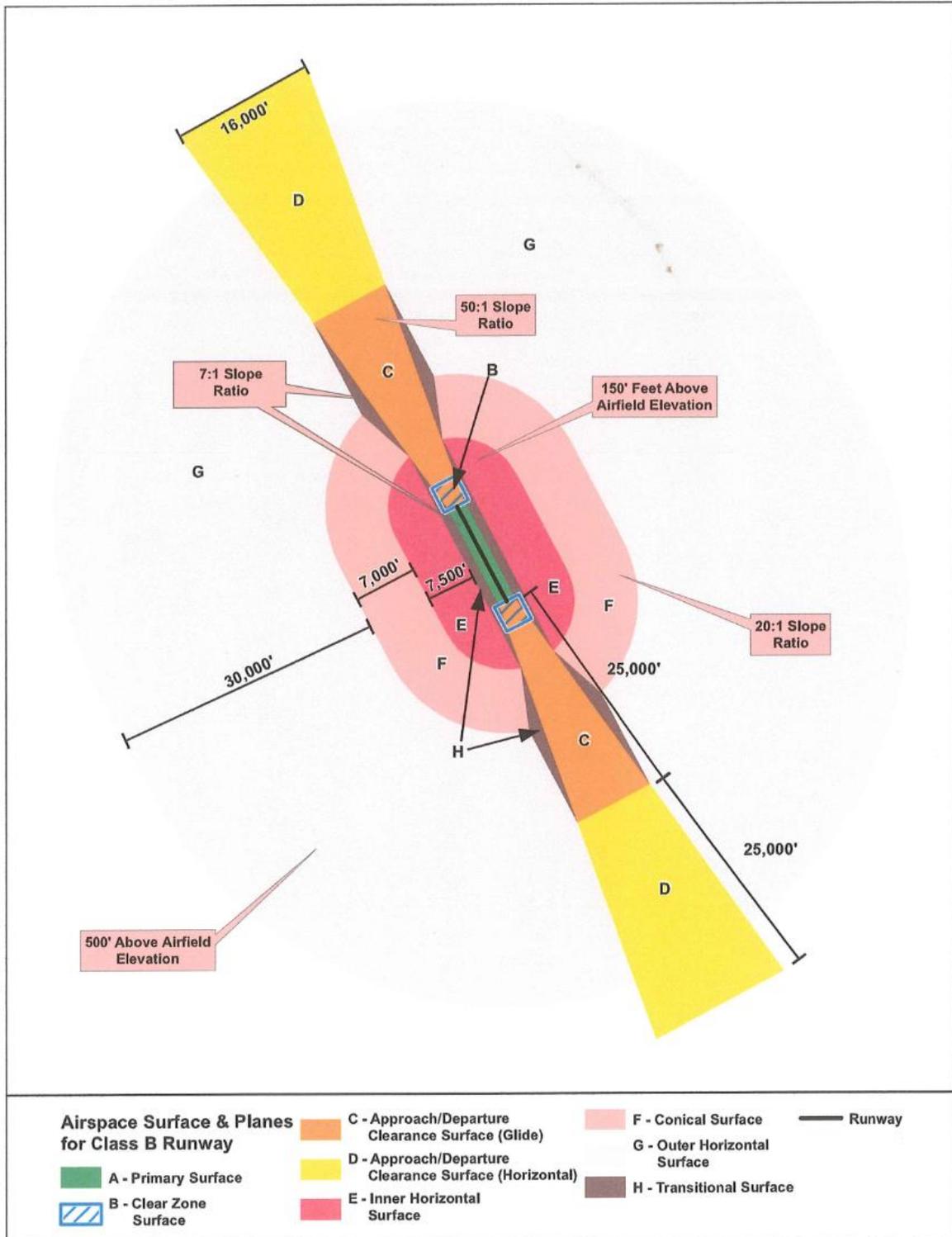
Lisa Schieffer, Meade County Auditor

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EXHIBIT



Source of Airspace & Planes: Federal Aviation Administration Regulation Part 77, Subpart C.