

Draft Zoning Ordinance Recommendations – November 15, 2016

Overall Objectives

1. Make the zoning ordinance easy to understand and administer
2. Provide certainty to potential developers as to the requirements and process needed to allow development
3. Maintain adequate protection of the public health, safety, and welfare while minimizing standards and requirements placed on development

Approach to Achieving Objectives

1. Determine the level of administrative involvement needed. There is a tradeoff between ordinance simplicity and ease of development. For example, detailed standards could be established for certain land uses which pose potential conflicts but allow them as permitted uses. This would allow clear understanding of requirements without the public hearing process, but would require experienced administrative oversight to verify the standards are being met. On the other hand, the same land uses could be allowed as conditional uses and separate public hearings would be required for each one. This would make the ordinance short and simple but make requirements of approval uncertain.
2. Eliminate unnecessary zoning districts
3. Establish clear standards needed to protect public health, safety, and welfare and eliminate those which do not
4. Establish detailed standards for the following conditional uses: wind energy conversion facilities, waste management facilities, concentrated feeding operations, refineries, bio-refineries, adult entertainment, and crew housing facilities.

Definitions of Specific Conditional Uses for which detailed standards are recommended

Bio-refinery – an industrial plant that integrates biomass conversion processes and equipment to produce fuels, power, and chemicals from biomass at a scale intended for commercial production.

Refinery/Processing Plant – an industrial plant which separates and/or converts crude oil and/or natural gas into petroleum products such as diesel, gasoline, heating oils, pipeline quality natural gas, hydrocarbon liquids or other by-products.

Wind Energy Conversion Facility – any device, such as a wind turbine, or group of such devices located together and designed for or capable of generation exceeding one-half megawatt of electricity.

Concentrated Feeding Operation – any livestock feeding, handling, or holding operation, or feed yard, where animals are concentrated in an area that is not normally used for pasture or for growing crops and in which animal wastes may accumulate. The term does not include normal wintering operations for cattle.

Waste Management Facility - any facility used for the handling, storage, or processing of solid waste as defined herein.

Solid Waste - any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or

contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities. The term does not include: a. Agricultural waste, including manures and crop residues, returned to the soil as fertilizer or soil conditioners; or b. Solid or dissolved materials in domestic sewage, or solid or dissolved material in irrigation return flows or industrial discharges that are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended [Pub. L. 92-500; 86 Stat. 816; 33 U.S.C. 1251 et seq.], or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended [68 Stat. 919; 42 U.S.C. 2011 et seq.].

Adult Entertainment Business – any business where a customer is provided the opportunity to view materials, or live or recorded performances of activities of a sexual nature which are characterized by an emphasis on matters depicting, describing, or relating to specified sexual activities or specified anatomical areas, such as genitals, breasts, or buttocks. (NOTE – some experts recommend that Adult Entertainment Businesses not be listed as conditional uses because of potential complications relating to free expression/speech rights.)

Crew Housing Facilities – a housing facility approved by permit as temporary housing and not permanently affixed to the property which is used to house multiple employees of the owner’s company or a contracted company on a temporary basis. It is not used as the owner or occupant’s permanent residence, and is not used as a single family residence. (Williston) [or] One or more lodging units or skid units, ordinarily designed for human living quarters or a place of business, on a temporary or permanent basis, which are not real property, as defined in NDCC 57-02-04, and are not mobile homes, as defined in NDCC 57-55-01. A group of crew housing facilities that are connected physically or by common ownership may be treated as a single crew housing facility for purposes of imposition of crew housing permit fees and other applicable regulations of this ordinance. (NDCC 57-02.4-01)

Wind Energy Facilities

A wind turbine facility may be permitted in an Agricultural District upon approval as a conditional use, provided the criteria and submittal requirements are met.

I. DEFINITIONS

1. Decibel – A unit of sound measurement, abbreviated dB. dB(A) - A frequency weighting that relates to the response of the human ear. The weighted sound pressure level by the use of the A metering characteristic and weighting specified in American National Standards Institute (ANSI) Specification of Sound Level Meters.
2. Height (of turbine) - The vertical distance from the construction grade of the property to the highest point of a turbine rotor blade when in the upright position.
3. Non-Participating Dwelling - A dwelling on a non-participating parcel.
4. Non-Participating Parcel - A parcel of real estate that is not a participating parcel.
5. Occupied Structure - A building in which people live, work or frequent.
6. Participating Dwelling - A dwelling on a participating parcel.

7. Participating Parcel - A parcel of real estate on which any turbine of the wind turbine facility will be constructed, or for which a participation agreement has been executed.
8. Sound Pressure Level (SPL) - The physical intensity of sound.
9. Wind Turbine Facility - One or more wind turbines, including appurtenant structures and facilities, rated at an individual or combined nameplate capacity of 150 kilowatts or greater.

II. CRITERIA

1. Appearance. Wind turbines shall be painted with a non-reflective coating and in a uniform, off-white color. Turbines shall not display any advertising except for reasonable identification of the manufacturer or operator of the wind energy facility. The design of the buildings and related structures at the wind energy facility sites shall use materials, textures and location that will blend the wind energy facility to the natural setting and existing environment. Turbines shall be installed on tubular, monopole-type towers.
2. Performance History. All turbines shall be commercially available, utility scale, with an operational history of at least one year. Prototype turbines are not allowed.
3. Lighting. Wind turbines shall not be artificially lighted, except to the extent required by the Federal Aviation Administration (FAA) or other applicable governmental regulatory authority.
4. Minimum Ground Clearance. The blade tip of any wind turbine shall, at its lowest point, have a ground clearance of not less than seventy-five (75) feet.
5. Turbine Access Roads and Protection of Agricultural Operations. The location and construction of access roads and other infrastructure shall, to the extent reasonably possible, not disrupt farming, agricultural operations, or the landscape within Ramsey County. In order to preserve the integrity of fields and capacity for efficient tilling, planting, and harvesting, the applicant shall work with the landowner to determine the most appropriate routing of access road locations.
 - a. Access roads shall be low profile roads with inslopes and backslopes of 10:1 or flatter so that farming equipment can cross them and roadway surfacing shall be Class 5 gravel or similar material, unless otherwise negotiated with the landowner.
 - b. A plan outlining the location and design of all access roads shall be provided to the County Planner for determination as to whether the plan conforms to the other terms of this section.
 - c. If the applicant wishes to build an access road on a section line, in accordance with North Dakota Century Code (NDCC) Section 24-07-05, the applicant shall first petition the township board or the Board of County Commissioners (in unorganized townships). If the petition is granted, the applicant must build the road to township or county standards under the supervision of the township district roadway overseer.
 - d. The applicant must protect and segregate topsoil from subsoil on all lands unless otherwise negotiated with the affected landowner. The applicant must minimize soil compaction of all

agricultural lands during all phases and confine soil compaction to as small of an area as possible.

e. The applicant shall, during all phases of construction, abide by the approved soil erosion control plan in accordance with Ramsey County Zoning Ordinance.

6. Fence and Gate Repair. The applicant shall promptly repair or replace all fences and gates removed or damaged during all phases of the wind energy facility's life and provide continuity of electric fence circuits unless otherwise negotiated with the affected landowner.

7. Drainage Tile Repair. The applicant shall take into account, avoid, promptly repair or replace all drainage tiles broken or damaged during all phases of project life unless otherwise negotiated with the affected landowner.

8. Road Repair (Private Roads). The applicant shall promptly repair any damaged private roads, driveways or lanes to a condition at least equal to the condition prior to construction of the wind energy facility, unless otherwise negotiated with the affected landowner.

9. Hazardous Waste. The applicant shall be responsible for compliance with all federal, state and local laws applicable to the generation, storage, transportation, clean up and disposal of hazardous wastes generated during any phase of the project's life.

10. Chemicals. The use of chemicals is limited to those herbicides and methods approved by the North Dakota Department of Agriculture and the North Dakota Department of Health. The applicant must contact the affected landowners prior to application.

11. Temporary Staging Areas. The applicant shall negotiate with landowners to locate sites for temporary equipment staging areas.

12. Tree Removal. The applicant shall minimize the removal of trees and shall not remove groves of trees or shelter belts without the written approval of the affected landowner. Trimming or removal of trees within the public right-of-way to allow for safe construction of power lines shall be allowed.

13. Waste Removal. The applicant shall remove all waste and scrap that is the product of construction, operation, restoration and maintenance from the site and properly dispose of it upon completion of each task. Personal litter, bottles, and paper deposited by site personnel shall be removed on a daily basis.

14. Land Restoration. The applicant shall, as soon as practical following construction of each turbine, considering the weather and preferences of the affected landowner, restore the area affected by any construction activities to the condition that existed immediately before construction began. The time period may be no longer than eight (8) months after completion of construction of the turbine. Restoration shall be compatible with the safe operation, maintenance, and inspection of the wind turbine facility.

15. Complaints. Prior to the start of construction, the applicant shall submit to the County Planner the company's procedures to be used to receive and respond to complaints.

16. Public Safety Plan. The applicant is encouraged to provide educational materials to landowners within the site boundaries and, upon request, to interested persons, about the project and any

restrictions or dangers associated with the project. The applicant is encouraged to also provide any necessary safety measures, such as warning signs and gates for traffic control or to restrict public access to turbine access roads, substations and wind turbines. The applicant shall comply with provisions outlined in their public safety plan.

17. Fire Protection and Medical Emergency Plans. Prior to construction, the applicant shall prepare fire protection and medical emergency plans in consultation with the rural fire district, Sheriff's Department, Emergency Management, and local emergency medical service providers having jurisdiction over the area. The applicant shall submit the project for registry in Ramsey County's emergency 911 system.

18. Road Use Arrangements. Prior to construction, the applicant shall make satisfactory arrangements (including obtaining permits) for road use, access road intersections, maintenance and repair of damages with governmental jurisdiction with authority over each road. The applicant shall notify the County Planner of such arrangements upon request.

19. Overweight Load Permits. The applicant is responsible for abiding by the state and local overweight load permitting processes in accordance with NDCC Chapter 39-12. A special use permit issued under this ordinance to erect a wind turbine facility does not negate a hauler's obligation to obtain overweight load permits prior to hauling.

20. Approach Permits. The applicant is responsible for obtaining an approach permit from the County Engineer or the affected township for any new or reconstructed approach.

21. Road Repair (Public Roads). Any road damage caused by the applicant, its independent contractor, employee, agent, contractor, or subcontractor shall be promptly repaired at the applicant's expense to current standards set out in the North Dakota Department of Transportation's (NDDOT) Standard Specifications for Road and Bridge Construction.

If it is reasonably foreseeable that continued trips will make prompt repair to this standard unreasonable, intermediary measures must be taken by the applicant, if approved by the political subdivision in charge of the road, to ensure the public road remains passable and useable as has been the tradition in the community. Final repairs to these standards must be made promptly after the completion of the construction of the wind turbine facility.

22. Collector Lines. The applicant shall place electrical lines, known as collectors, and communication cables underground when located on private property, unless otherwise negotiated with the affected landowner. Collectors and cables shall also be placed within or adjacent to the land necessary for turbine access roads unless otherwise negotiated with the affected landowner.

23. Feeder Lines. The applicant shall place overhead or underground electric lines, known as feeder lines, on private land immediately adjacent to public rights-of-way (whether improved or not) except as necessary to avoid or minimize human, agricultural, or environmental impacts.

a. Feeder lines may be placed on public rights-of-way only if approval or the required permits have been obtained from the governmental unit responsible for the affected right-of-way.

b. In all cases, the applicant shall avoid placement of feeder lines in locations that may interfere with agricultural operations.

- c. Any guy wires on the structures for feeder lines shall be marked with safety shields.
- d. When feeder lines are placed on private property, the applicant shall place the feeder lines in accordance with the easement negotiated with the affected landowner(s).
- e. All underground feeder lines must be placed at a depth of at least four (4) feet.

24. Electromagnetic Interference Assessment. The applicant shall submit an assessment of microwave signal patterns in the project area prior to commencement of construction of the project.

- a. The assessment shall be designed to provide data that can be used in the future to determine whether the turbines and associated facilities are the cause of disruption or interference of microwave patterns in the event residents complain about such disruption or interference after the turbines are placed in operation. The assessment shall be completed prior to operation of the turbines.
- b. The applicant shall be responsible for alleviating any disruption or interference caused by the turbines or any associated facilities of residents' cell phone, television, radio, computer, satellite or other electronic transmissions, receptions, or services.
- c. The applicant shall not operate the wind turbine facility so as to cause microwave, television, radio, telecommunications or navigation interference contrary to Federal Communications Commission (FCC) regulations or federal, state or local laws.
- d. In the event the wind turbine facility or its operations cause such interference as described in items b and c above, the applicant shall take measures necessary to correct the problem within thirty (30) calendar days.

25. Archeological Resource Survey and Consultation. Unless the project is under the purview of the North Dakota Public Service Commission (PSC), and an Archeological Resource Survey is being prepared as part of that process, the applicant shall work with the State Historic Preservation Office (SHPO) at the State Historical Society of North Dakota at the beginning of the planning process for the wind energy facility to determine whether an archaeological survey is recommended for any part of the proposed project. If recommended, the applicant shall contract with a qualified archaeologist to complete such surveys, and shall submit the results to the County Planner and the SHPO. The SHPO will make recommendations for the treatment of any significant archaeological sites which are identified. Any issues in the implementation of these recommendations will be resolved by Ramsey County Board of Commissioners in consultation with the SHPO. All information provided/submitted under this provision is subject to North Dakota Century Code Section 55-02-07.1.

In addition, if any archaeological sites or human remains are found during construction, the applicant shall follow standard operating procedures as established by the SHPO and in accordance with NDCC Section 23-06-27 and associated North Dakota Administrative Code 40-02-03.

26. Biological Resources Survey. The applicant, in consultation with the US Fish & Wildlife Service - Ecological Services Office (USFW) and the North Dakota Department of Game and Fish (NDGF) shall, for the project site, conduct a pre-construction inventory of existing wildlife management areas, scientific and natural areas, recreation areas, native prairies and forests, wetlands, and any other biologically sensitive areas and wildlife resources, particularly birds and bats, within the site and assess the presence

of state- or federally-listed or threatened species, and other protected species, such as migratory birds. The results of the survey shall be submitted to the County Planner, USFWS and NDGF.

27. Extraordinary Events. Within twenty-four (24) hours of an occurrence, the applicant shall notify the County Auditor\Treasurer of any extraordinary event. Extraordinary events include, but shall not be limited to, fires, tower collapse, thrown blade, collector or feeder line failure, or injured wind turbine facility worker or private person. The applicant shall, within thirty (30) calendar days of the occurrence, submit a report to the County Auditor\Treasurer describing the cause of the occurrence and the steps taken to avoid future occurrences.

28. Wildlife Incidents. Any fatality or injury to any state- or federally-listed species or migratory bird or bat shall immediately be reported to the U.S. Fish and Wildlife Service (USFWS)-North Dakota Field Office and the USFWS Office of Law Enforcement. Also, if a dead or injured whooping crane or sandhill crane is found, operation of all turbines shall be immediately curtailed until it has been determined by the USFWS that there is no longer a threat to other birds in the area. If a whooping crane or sandhill crane is sighted by a wildlife biologist within two (2) miles of any wind turbine, that turbine or turbines should be immediately shut down, and the USFWS should be contacted for further coordination. Cranes usually move on within a few days, at which time, in consultation with the USFWS, the turbine(s) may be restarted.

29. Sound. A sound study which includes modeling of sound levels of wind turbines within 100-feet of every occupied residence within 1-mile of a wind turbine shall be submitted with the application. Sound levels of wind turbines within 100-feet of any non-participating residence shall not exceed 45dBA (1eq). Construction noise or reasonable and necessary maintenance activities are allowed to exceed this sound limit except between the hours of 11 p.m. and 7 a.m. This sound standard does not apply to participating dwellings.

30. Setbacks from Dwellings. Minimum setbacks from dwellings are necessary to mitigate noise impacts.

Wind turbines shall be setback at least 1.1 times the height of the turbine from participating residences, and at least 1750 feet from existing non-participating residences (measured from the center of the turbine monopole), and further as necessary to meet the sound level requirement in Subsection 29 above.

The horizontal distance between the center of a turbine monopole and any park, boat ramp, swimming beach or other public recreation area shall not be less than one-half ($\frac{1}{2}$) mile (2,640 feet).

31. Reverse Setbacks. Building permits will not be issued to construct any proposed habitable structure within 1.1 times the height of any existing turbine (the center of a turbine monopole) or approved turbine location.

32. Setbacks from Non-participating Properties. Each wind turbine shall be set back not less than 1.1 times the height of the turbine from any non-participating parcel.

33. Setbacks from Public Roadways. Each wind turbine shall be set back not less than 1.1 times the height of the turbine from interstate or state roadway right-of-way.

Each wind turbine shall be set back not less than 1.1 times the height of the turbine plus seventy-five (75) feet from the centerline of any county or township roadway (whether improved or not).

Each wind turbine shall be set back not less than 1.1 times the height of the turbine from any railroad right-of-way or from any overhead utility.

34. Setback from Devils Lake: Each wind turbine shall be set back not less than one (1) mile beyond the ordinary high water mark.

35. Shadow Flicker. A shadow flicker analysis, assuming typical meteorological conditions, shall be submitted for all occupied residences of non-participants within one-mile of a wind turbine. The maximum acceptable level of shadow-flicker exposure for homes in the study shall be 30 hours per year. The applicant shall provide commercially reasonable efforts to remedy shadow-flicker complaints from any non-participating owners of an occupied residence with a window view of a wind turbine on a case-by-case basis by undertaking measures such as trees or vegetation plantings, awning installations, or providing light-blocking curtains or shades.

36. Pre-construction Meeting. Prior to the start of any construction, the applicant shall conduct a preconstruction meeting with the County Planning office to coordinate field monitoring of construction activities. The pre-construction meeting shall be open to all interested parties and shall address staging, complaints, emergency plans, and other pertinent issues.

37. As-Built Plans and Specifications. Within one hundred eighty (180) calendar days after completion of construction, the applicant shall submit to the County Planning office, a copy of the as-built plans and specifications in both hard copy and in electronic digital format as specified by the County Planner.

38. Decommissioning Plan and Bonding Requirement. The wind project shall develop a Wind Turbine Decommissioning Plan in accordance with NDCC 49-02-27 and NDAC 69-09-09 and this Plan shall be submitted as part of the Building Permit application.

39. Insurance Requirement. The owner/operator of a wind turbine facility must provide proof of liability insurance at the time of application. Ramsey County shall be listed as a certificate holder. Certificates shall provide not less than thirty (30) calendar days notification to the certificate holder prior to cancellation or material change in coverage.

Throughout the duration of this special use permit, the owner/operator of a wind turbine facility agrees to provide evidence of insurance coverages not less than the types and amounts specified below:

a. Workers' Compensation: Statutory

b. Employer's Liability:

Each Accident: \$1,000,000

Disease, Policy Limit: \$1,000,000

Disease, Each Employee: \$1,000,000

c. General Liability

General Aggregate: \$2,000,000

Each Occurrence

(Bodily Injury and Property Damage): \$1,000,000

d. Excess Umbrella Liability

Each Occurrence: \$5,000,000

General Aggregate: \$5,000,000

e. Automobile Liability

1) Combined Single Limit (Bodily Injury and Property Damage):

Each Accident \$1,000,000

f. Other Conditions (specify):

1) A Commercial General Liability policy shall be endorsed to add Ramsey County, its employees, officers, agents and contractors as additional insured.

2) Certificates evidencing required insurance shall be provided to Ramsey County upon approval of the special use permit and prior to commencement of construction.

40. Contact Information. The applicant must provide a local contact authorized by the applicant to receive service and respond to all notices, demands, complaints, concerns or other requests. Local contact information must include the name of the local representation, local phone number and physical address. Said contact information must be filed with the County Auditor\Treasurer prior to commencement of construction of the wind energy facility.

41. Transfer of Ownership of a Wind Turbine Facility. Prior to any change in ownership or assignment of a controlling interest of any entity owning a wind energy facility permitted in Ramsey County, including any assignment or transfer of a controlling interest to any corporation, partnership, or other entity controlled by or a subsidiary or affiliate of the wind energy facility permitted in Ramsey County, application shall be made to Ramsey County Planning Commission, requesting transfer of the wind energy facility special use permit. Approval of such transfer shall be conditioned upon explicit agreement by the new applicant to comply with the requirements and conditions of this ordinance, as amended, and the special use permit. The application shall also include the new applicant's agent and contact information. A change of ownership that results in inability, unwillingness, or failure to abide by the conditions of this ordinance can be a basis for revocation of the special use permit. [This limitation shall apply to all transfers by operation of law and any transfers by trustee in bankruptcy, receivers, administrators, executors, and legatees.]

42. Changes. Any minor changes in the location or character of wind turbine facilities and structures may be authorized in writing by the County Planner. All other changes shall require approval of an amended special use permit under these same ordinance requirements.

III. SPECIAL USE PERMIT APPLICATION SUBMITTAL ITEMS

The following items shall accompany the special use permit application:

1. Two (2) copies of a site plan submitted on high quality paper on sheets thirty (30) inches by thirty-six (36) inches, provided that when more than one sheet is required, there shall also be submitted an index sheet on high quality paper and of the same dimensions, showing the entire wind turbine facility project on one sheet and giving section, township and range numbers. The applicant must also submit this data in electronic digital format as specified.
2. The site plan shall be drawn to a scale of one (1) inch equals one thousand (1,000) feet or less with scale to be shown graphically.
3. To provide adequate coverage, the site plan shall show an area up to a minimum of three-quarters ($\frac{3}{4}$) mile (3,960 feet) beyond the outermost wind turbine towers, meteorological towers, all wind turbine facility access roads and appurtenant project structures.
4. Site plans shall contain the following elements:
 - a. Name of the wind turbine facility
 - b. Name and address of the wind turbine facility owner
 - c. Name, address, and registration number of professional surveyor involved in preparing the site plan
 - d. Date the site plan was prepared
 - e. North point indication
 - f. Section, township and range numbers
 - g. Topographic contours with a minimum contour interval of ten (10) feet, with indication of datum used
 - h. A location map inset showing the township(s) in which the project is located and the boundary of the proposed project
 - i. Location of all existing public roadways and rights-of-way within five hundred (500) feet of proposed turbine locations
 - j. General location and railroad rights-of-way, as available from public documents, within five hundred (500) feet of proposed turbine locations
 - k. Name, dimensions and location of any utility easements, as available from public documents, within five hundred (500) feet of proposed turbine locations
 - l. Name, dimensions and location of any parks, public land, historic resources, multi-use trails, or areas of recreational significance, as available from public documents, within three thousand (3000) feet of proposed turbine locations
 - m. Name, dimensions and location of habitable structures

- n. Location of any corporate or township boundaries
- o. General location and identification of section lines, as available from public documents
- p. General property ownership boundary lines, as available from public documents, for properties within five hundred (500) feet of proposed turbine locations
- q. Names of property owners, identified as participating or non-participating, within five hundred (500) feet of proposed turbine locations
- r. Streams, rivers, watercourses, lakes, and any marshy or swampy areas
- s. Federally designated wetland areas
- t. All affected public or private airstrips with the FAA identification number
- u. Proposed turbines locations
- v. Names of property owners, as available from public documents, within five hundred (500) feet of proposed turbine locations
- w. Participating residences within five hundred (500) feet of proposed turbine locations, non-participating residences within two thousand (2000) feet of proposed turbine locations, and parks, boat ramps, swimming beaches or other public recreation areas within three thousand (3000) feet of proposed turbine locations, as available from public documents

5. Other Submittal Items

- a. Statement of assurance that the project will not alter any existing surface water drainage patterns.
- b. Plan for Restoration of the Site Due to Construction
- c. Plan for Receiving and Responding to Complaints
- d. Public Safety Plan
- e. Fire Protection and Medical Emergency Plan
- f. Biological Preservation Study
- g. Shadow Flicker Study
- h. Decommissioning Plan

6. Copies of letters of application from the applicant to the following agencies requesting review of the proposed wind turbine facility:

- a. United States Fish and Wildlife Service (USFW)
- b. North Dakota Game and Fish Department (NDGF)
- c. The State Historic Preservation Office (SHPO) at the State Historical Society of North Dakota
- d. Federal Aviation Administration (FAA)

7. Fees. The special use permit fee is .001 (1/10th of 1%) of the value of each wind turbine in accordance with the Ramsey County Zoning Ordinance. An application fee of \$1000 shall be payable at the time of application for a special use permit, with the remainder of the special use permit fee remitted by the applicant prior to building permit application(s).

IV. BUILDING PERMIT APPLICATION SUBMITTAL ITEMS

1. An application for a building permit for the construction of a wind turbine facility must include:

a. A copy of the special use permit, with the site plan, as approved by the Ramsey County Board of Commissioners and, if applicable, a copy of the permit as approved by the North Dakota Public Service Commission (PSC).

b. Additional site plan items not included with special use permit site plan submittal, including:

1. Name, location and width of all existing public roadways and rights-of-way within five hundred (500) feet of proposed turbine locations, including the type and width of surfacing

2. Existing and proposed access points along public rights-of-way

3. All existing wind turbine facility fixtures, regardless of ownership, accessory structures or buildings, including substations, meteorological towers, electrical infrastructure, and collector or transmission lines

4. Proposed turbine locations showing turbine heights, roads, electrical equipment, collector and feeder lines and all other associated facilities

5. Location and dimensions of proposed utility easements, including easements for storm water management facilities and proposed locations of culverts and retention/detention areas, if applicable

6. Boundaries of any filed lease, easement, or option for wind energy facilities, whether they benefit the applicant, the applicant's probable operator, or an unrelated party

c. Dimensioned engineering drawings of all wind turbine facility structures, including electrical schematic line drawings of the electrical components in sufficient detail to allow for a determination that the manner of installation will meet compliance with the electrical code.

d. Documentation certifying structural loading requirements.

e. The applicant shall identify, by map, each public road in Ramsey County that the applicant may or will travel on with a gross weight in excess of 80,000 lbs.

f. Reclamation Performance Bonding

g. Electromagnetic Interference Assessment

h. Proof of Insurance

- i. Soil Erosion Control Plan in accordance with the Ramsey County Zoning Ordinance
 - j. National Pollution Discharge Elimination System (NPDES) construction permit
 - k. A building permit fee of \$500 per wind turbine.
- l. Copies of letters of acceptance regarding the proposed wind turbine facility from the following agencies:
- 1. United States Fish and Wildlife Service (USFW)
 - 2. North Dakota Game and Fish Department (NDGF)
 - 3. The State Historic Preservation Office (SHPO) at the State Historical Society of North Dakota
 - 4. Federal Aviation Administration (FAA)

Refinery and Bio-refinery Standards

Consider referencing API Refining Standards

Consider referencing

<http://www.codepublishing.com/NV/StoreyCounty/html/StoreyCounty17/StoreyCounty1736.html>

Bulk Storage of Chemicals and Other Hazardous Materials

- 1. Engineered containment area such as a dike or catchment basin sufficient to contain the capacity of the largest single compartment or container with sufficient freeboard to also contain precipitation.
- 2. At least two systems for monitoring for spills and testing the integrity of the storage containers on a regular basis.
- 3. Container design and construction shall be compatible with the material stored and conditions of storage such as pressure and temperature.

Waste Management Facility Standards

Solid waste disposal facilities as regulated by this section shall include all facilities for the incineration or disposal of solid waste or solid waste residue which are required to be permitted under statute or rule by the North Dakota Department of Health and consolidated Laboratories. A solid waste disposal facility may be allowed in any A Agricultural District as a conditional use provided:

- 1. It is located at least one-half (1/2) mile from any residence or residentially zoned area unless written approval is obtained from the owner of any residence within this area.
- 2. It is continuously licensed and approved by the State Health Department as to location and operation.
- 3. There is no substantive evidence that the facility will endanger the public health or the environment.
- 4. A engineering analysis of the location of groundwater and aquifer resources and the potential for contamination of such resources shall be completed, and the results of the analysis shall be considered

as part of the review and approval process for any waste management facility that shall potentially store or dispose of any materials or chemicals which could be harmful to people.

5. Any proposed waste management facility shall be required to complete a long term transportation and community impacts analysis which identifies potential financial, environmental and physical consequences of its development. This shall include potential effects on property values, road hazards, aesthetics, health, and other topics as may be requested by the planning commission.

6. No waste management facility shall be approved without appropriate insurance and bonding as defined below:

a. Bonding requirements shall be sufficient to cover the costs of landfill closure and long term maintenance of the site. The bonding requirements shall be based on anticipated total costs for restoring the landfill to other beneficial uses.

b. Insurance requirements shall include \$10 million liability insurance and \$3 million accident insurance coverage at all times.

Concentrated Feeding Operation Standards

My initial thought was to go with the model ordinance standards which had been created by industry and government officials over a decade ago. However, given the past history of Ramsey County there may be specific differences which are better to include. I would like to discuss these details with someone familiar with the whole lawsuit situation.

The standards could be similar to these:

1. Concentrated feeding operations as defined by this Ordinance are only permitted as conditional uses subject to the provisions of this Ordinance and the requirements of the North Dakota State Health Department.
2. All concentrated feeding operations shall be designed and constructed with all reasonable preventative measures to avoid surface run-off including construction of sealed collection and retention ponds.
3. There shall be sufficient drainage to avoid pollution of the ground and surface water from the standing effluents.
4. Concentrated feeding operations shall not be placed in the Floodplain Overlay District.
5. The applicant shall submit a plan for removal and disposal of the liquid and/or solid waste generated by the concentrated feeding operation.
6. No concentrated feeding operations shall be located nearer than one-half mile from a dwelling other than the owner/operator's. New development, whether a new concentrated feeding operation or other development such as residences, parks, churches, or schools shall maintain the setbacks listed in the Setback Distances for Concentrated Feeding Operations Table.
7. Setback Distances for Concentrated Feeding Operations Table

Number of Animal Units	Hog Operations	Other Operations
100-299	1 Mile	0.50 Mile
300-999	2 Miles	1 Mile
1,000 or more	2 Miles	2 Miles

8. An “animal unit equivalent” is a unitless number developed from the nutrition and volume characteristics of manure for a specific livestock types. The term “animal units” is used to normalize the number of animals (e.g., head) for each specific livestock type which produce comparable bulk quantities of manure. The animal equivalent units for types of livestock and the number of livestock for facility size thresholds of three hundred (300) animal units (a.u.), and so forth, are listed in the following table.

9. Animal Unit Equivalency Table

Livestock Type Equivalent	Animal Unit	300 a.u.	1,000 a.u.	2,000 a.u.	5,000 a.u.
1 horse	1.0	300	1,000	2,000	5,000
1 dairy cow	1.33	225	750	1,500	3,750
1 mature beef	1.0	300	1,000	2,000	5,000
1 beef feeder-finishing	1.0	300	1,000	2,000	5,000
1 beef feeder- Backgrounding	.75	400	1,333	2,667	6,667
1 mature bison	1.0	300	1,000	2,000	5,000
1 bison feeder	1.0	300	1,000	2,000	5,000
1 swine>55 lbs	0.4	750	2,500	5,000	12,500
1 goose or duck	0.2	1,500	5,000	10,000	25,000
1 sheep	0.1	3,000	10,000	20,000	50,000
1 turkey	0.2	1,500	5,000	10,000	25,000
1 chicken	0.1	3,000	10,000	20,000	50,000

10. Water Resource Requirements for Concentrated Feeding Operations. The owner of a new concentrated feeding operation that has more than 2,000 animal units shall not locate or establish that operation:

- (a) Within a delineated source water protection area for a public water system.
- (b) Within 1,200 feet of a private ground water well which is not owned by the operator or within 1,500 feet of a public ground water well which does not have a delineated source water protection area.
- (c) Within 1,000 feet of surface water which is not included in a source water protection area.

11. Application Procedure and Requirements for Concentrated Feeding Operations - The application for a conditional use permit to operate a facility for a commercial feeding operation shall include a scaled site plan. If the facility will handle more than 2,000 animal units, the scaled site plan shall be prepared by a registered land surveyor, a civil engineer, or other person having comparable experience or qualifications. The application shall also list or provide:

- (a) The proposed number of animal units. It is a violation of this Ordinance for a concentrated feeding operation to exceed the number of animal units proposed in the application.
- (b) Total acreage of the site of the facility.
- (c) Existing and proposed roads and access ways within and adjacent to the site of the facility.
- (d) Surrounding land uses and ownership, if the operation will have the capacity to handle more than 1,000 animal units.
- (e) A copy of the permit application submitted by the applicant to the North Dakota State Department of Health.

Crew Housing Facility Standards

1. There shall be adequate provision for the protection of the health, safety and welfare of the inhabitants and workers of the surrounding area and the County
2. In the case of a proposed temporary housing camp designed to house at least 100 occupants, a person with CPR and First Aid Certification is on-site full-time, and an AED is located where readily accessible to each housing unit at all times
3. All buildings shall be clearly marked and identified with lighted signs for emergency response purposes
4. The applicant shall demonstrate a made a diligent effort to minimize impacts to surrounding area
5. The applicant shall provide a detailed plan for removing all facilities and structures from the site and returning it to its pre-development conditions
6. Issues raised by public comment shall be appropriately addressed
7. Any bonds or fees required by the Board of County Commissioners must be provided prior to approval by the Board
8. Any development agreement required by the Board of County Commissioners must be signed by the applicant
9. Applicant has provided a site plan detailing the location and design of facilities required by the supplemental design standards
10. Conditional use permits for large crew camps must be reviewed annually by the Planning and Zoning Commission

Zoning District Analysis and Commentary

After reviewing the permitted and conditional uses of each zoning district, it seems apparent that uses are not the basis for distinguishing the various zoning districts. If it were just a matter of specific uses allowed in specific areas, many of the zoning districts would not be needed because more than one district allows the exact same uses.

After analyzing the yard requirements for each zoning district, it seems apparent that there is potential for consolidation of some zoning districts and that the requirements are somewhat artificial without a clearly established purpose. The following comments on yard requirement components illustrate their somewhat artificial nature.

Typically, height requirements serve at least three purposes:

1. They ensure that buildings are not so high fire departments cannot effectively fight fires and rescue people from them.
2. They provide consistency in scale that provides for aesthetic and possibly market value benefits within a neighborhood.
3. They prevent inappropriate blockage of access to sunlight, and potentially, of views.

The height limitations for commercial and industrial seem so tall that fire fighters would have difficulty effectively fighting them, so is there any purpose to having a height limitation at all? What residential building heights can be effectively fought?

Typically, yard setback requirements serve at least three purposes:

1. They ensure that buildings are not so close fire departments cannot effectively fight fires and rescue people from them.
2. They provide consistency in scale that provides for aesthetic and possibly market value benefits within a neighborhood.
3. They prevent inappropriate blockage of access to sunlight, and potentially, of views.

In townsite settings where densities are greater compared to countryside settings, some areas like main commercial streets were intended to have zero lot lines. Since there are no yard requirements for commercial and industrial zones, this intent is not harmed. One of the development patterns inherent in townsites of the early settlement period was a build-to line that creates a sense of enclosure and consistency that can have aesthetic and market value benefits to a neighborhood. The front yard setback does not promote that benefit.

In the Open, Ag, Shoreline and Suburban Zoning Districts, the intent appears to include creating a greater separation between primary buildings than in townsite settings. This is evidenced by the larger minimum lot sizes and front yard setbacks, and by the percentage used for rear yard setbacks. However, the minimum lot sizes for the Shoreline and Suburban Zoning Districts are too small to allow onsite septic systems. Additionally, there is a potential inconsistency between the minimum lot sizes and the density requirements. One cannot achieve the density maximums with the minimum lot sizes.

The concept of a transect that defines landscape and building characteristics in different settings may be a useful way to consider the zoning districts needed for Ramsey County. At one end of the spectrum is natural setting without development, then natural setting with agricultural production and very low

density development, and parallel with but different from the ag production character is the natural setting with more recreational or residential uses, a fourth setting is rural residential subdivisions, then there is the small town residential setting, the small town commercial/industrial setting, and the small town main street setting, finally there is a fringe urban commercial and industrial setting. These different settings can be somewhat matched up with some of the existing zoning districts:

- Open zoning district seems to fit the idea of natural setting without development
- Ag zoning district matches the natural setting with ag production and very low density development
- Shoreline zoning district somewhat matches the natural setting with recreational or residential uses
- Suburban residential zoning somewhat matches the rural subdivision setting
- Single family, multiple family, and mobile home zoning districts are all typical parts of small town residential setting
- The two commercial and two industrial categories do not match up so well although general commercial and limited industrial might be considered approximate descriptions of small town commercial/industrial setting. There is nothing that jives well with small town main street but yet the general commercial could fit it.
- Highway commercial category and general industrial zoning districts might best approximate the urban commercial/industrial setting in their own ways

Therefore, it is suggested that the County establish the following six zoning districts with their stated purposes:

1. Agricultural District – the purpose of the agricultural district is to reserve land for all agricultural production, open space, and single lot single family residential uses
2. ~~Shoreline District – the purpose of the shoreline district is to reserve land for residential, recreational, limited specific shoreline related commercial, and open space uses~~
3. Rural Residential District – the purpose of the rural residential district is to reserve land for large lot residential subdivisions (perhaps including mobile home parks)
4. Village Residential District – the purpose of the village residential district is to reserve land for small lot single family uses, appropriately sited multi-family uses, and mobile home parks
5. Village Business District – the purpose of the village business district is to reserve land for commercial and industrial uses that do not conflict with neighboring residential uses
6. Highway Commercial District – the purpose of the highway commercial district is to provide for commercial and industrial uses that are dependent on direct access to major roadways while separating them from potential conflicting uses

Three additional potential zoning districts are noted in the following paragraphs:

7. Depending on values and preferences, a separate mobile home park district could be maintained, but I think it makes more sense to establish mobile home parks as a conditional use within a residential zoning district and place certain minimum conditions which would match those for allowing the separate district to be created.

8. Floodplain Overlay District – may be useful depending on how floodplains are managed in the County
9. Hazardous Uses Overlay District – may be useful depending on how it could be structured and administered

In this suggested scenario, certain districts would not allow certain potentially problematic uses (such as anhydrous ammonia tanks, petroleum storage depots, refineries, CAFOs, wind farms, waste management sites) at all. Such problematic uses would only be allowed in the Ag District or the Highway Commercial District or when in a Hazardous Uses Overlay District.

Specific Suggested Additional Changes

1. Remove the term “day nurseries,” create a definition for childcare center, and allow childcare centers as permitted or conditional uses in all zoning districts (possibly except industrial zoning districts)
2. Change the term “feed lots” to “concentrated animal feeding operations (CAFO’s)” and define it
3. Make “churches, schools, libraries, community centers, public parks and other public buildings and public or quasi-public recreational facilities” a conditional use instead of a permitted use in order to allow review of potential land use conflicts, and access or safety issues.
4. Note that “educational, religious and philanthropic institutions, but not including penal or mental institutions” could fit within the term “other public buildings” and if desiring to keep the term, at a minimum make it a conditional use instead of a permitted use in order to allow review of potential land use conflicts, and access or safety issues.
5. Allow “nursing homes” in residential zones as a conditional use.
6. Remove the duplicate reference to “churches” and the additional requirement for 30 foot sideyard setbacks in the shoreline zoning district.
7. Make “lodges and resorts” a conditional use in the shoreline zoning district.
8. Make “golf courses” a conditional use in the shoreline zoning district.
9. Separate standards from uses. Examples include greenhouses and nurseries with provisions about manure, and storage of ag products, and riding academies with similar provisions.
10. Radio and television towers may not need to be allowed only in the open district (proposed ag district).
11. What is the difference between “growing and preservation of trees” and “nurseries?” If the former is part of the later, eliminate the former reference.
12. Consider whether there is any significant difference between “automobile parking lots” and “commercial and public parking lots” and use just one term if there is not.
13. Change the reference to “domestic animals....” to just “household pets”
14. Change the reference to “fences, hedges, walls....” to “landscaping features such as fences, hedges, walls...”
15. Consider removing the “1500 square feet of floor area” limitation on “Wholesaling of products...”
16. What is a “community service agency?”
17. Define “junk yards.”

18. Define key new terms introduced by the addition of new uses to be regulated. (Examples would include terms pertaining to floodplain regulation, waste management, and wind farms.)
19. Consider if a separate Industrial Zone is needed.
20. Identify and protect aquifer recharge areas, etc