



**CITY COUNCIL AGENDA ITEM**

**To:** Mayor Graham and City Council

**From:** Ted Shekell, Planning Director  
Walter Denton, City Administrator

**Date:** June 4, 2007

**Subject:** Ordinance No. \_\_\_\_\_: An Ordinance Amending Ordinance 3389,  
Planned Development for “Frieze Harley Davidson” – **First Reading**

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**List of committees that have reviewed:** The Planning Commission conducted a public hearing on May 22, 2007, and the PC recommended the project for approval with a vote of 5-1 with the conditions outlined in the staff recommendation below. The Community Development Committee voted 3-0 to approve the amendment at their meeting on May 29, 2007.

**Application Summary**

The applicant, Gary Karasek on behalf of Jenny Frieze of Frieze Harley-Davidson, requests an amendment to the Planned Use Ordinance No. 3389 at 1560 North Green Mount Road. The applicant is requesting an amendment to construct a 60-foot high wind turbine with a blade length of 5 ft 3 inches, for a total height of 65 ft 3 inches. The Planned Use Ordinance No. 3389 was passed on November 21, 2005. At the time, the applicant did not contemplate a wind turbine as part of the site development. Since then, the applicant has determined that a wind turbine would be a beneficial addition to the site and would help the building obtain LEED green building certification. The property is zoned B-1(P) Planned Community Business District.

The applicant is requesting to construct a wind turbine for Frieze Harley-Davidson in an effort to obtain enough points for Gold certification with LEED (Leadership in Energy and Environmental Design) for the project. In addition, the applicant will also be applying for a grant for 50 percent of the cost of the wind turbine through the Illinois Department of Commerce and Economic Development’s Renewable Energy Resources Small Wind Grant Program. The wind turbine will generate approximately 1.25% electricity savings, with an estimated \$2,500 monthly electric bill.

It should be noted that the applicant originally applied for an Area-Bulk Variance from the Zoning Hearing Officer. The petition was denied by the Zoning Hearing Officer in favor of applying for a Planned Use amendment. The City Council had a 21-day right-of-review over the Zoning Hearing Officer’s decision. During that timeframe, the Council voted to review the decision, and it currently sits in Committee while the applicant pursues an amendment to the Planned Use.

## **Background on Wind Turbines**

Wind turbines are an increasingly popular source of renewable energy, especially since electricity costs continue to rise. Wind turbines harness the energy produced by wind – free, nonpolluting, and renewable. Often, multiple wind turbines are grouped together into a wind farm. Wind turbines range from small 400 watt generators for residential use to several megawatt machines for wind farms and offshore. A single wind turbine, like the one considered in this variance, can supplement electricity to run low power equipment.

Opposition to wind turbines includes complaints about negative visual impacts, noise and birds being killed. The noise generated by a wind turbine of the size proposed for Frieze Harley-Davidson will generate a small amount of noise equal to 45 dB at 40 feet from the base of the turbine. This is similar to the noise produced by a refrigerator running. Also, improvements in blade design and gearing have decreased noise production from modern turbines to the point where a normal conversation can be held underneath one. The number of birds killed by wind turbines is negligible compared to the number that die as a result of other human activities such as traffic, hunting, power lines, and high rise buildings.

## **Wind Turbine Specifications**

The applicant is proposing to install a Skystream 3.7 1.8 kW Residential Power Appliance. Made in the USA, the Skystream 3.7 is marketed towards residential and small business applications because of its quiet, compact design and ability to generate power in light winds. The Skystream was developed in collaboration with the U.S. Department of Energy's National Renewable Energy Laboratory. The wind turbine connects directly to the home (or in this case, Frieze Harley-Davidson's building). When the wind blows, the home or business receives supplementary power. When the wind is not blowing, the home or business is powered by the utility company. In order to work properly, the property must have at least an average wind speed of 10 mph and the property must be at least 0.5 acres and have unobstructed views.

## **Surrounding Property**

The subject property is surrounded by commercial property to the north, east and south, including CVS Pharmacy and office buildings. To the west is Misty Valley residential subdivision and Reliance Bank.

**Review and Approval Criteria:** Section 9.050 of Article IX "Planned Uses" lists several criteria for evaluating planned uses. As presently designed:

- Development of this parcel as presently shown will not impede the normal and orderly development and improvement of the surrounding property, nor impair the use, enjoyment, or value of neighboring properties.
- The wind turbine is designed, located and proposed to be operated so that the public health, safety, and welfare will be protected.
- Although an identified community need does not exist for the proposed wind turbine, it will serve as a symbol of the City's progressive attitude regarding environmental sustainability.
- The proposed wind turbine meets all area-bulk requirements within the B-1 Zoning District, with the exception of the accessory structure height

requirement. However, the unique nature of the wind turbine, specifically the need for it to be at a height tall enough to function properly, warrants consideration.

**Legal Considerations, if any:** None

**Budget Impact:** none

**Staff Recommendation:** Staff believes this project has significant merit. Staff recommends approval with the following conditions:

1. The wind turbine shall be limited to the location as shown on the site plan.
2. The wind turbine shall be painted a non-reflective gray color.
3. The wind turbine shall have a pole height not to exceed 60 ft with a blade length of 5 ft 3 inches, for a total height not to exceed 65 ft 3 inches.
4. The area around the base of the wind turbine shall be landscaped.
5. There shall be no visible temporary or permanent advertising permitted to be displayed on the wind turbine..
6. There shall be no direct or indirect artificial lighting of the wind turbine.
7. Electrical controls and control wiring and power lines shall be wireless or not above ground.
8. The authority granted by this ordinance shall be conditioned on the property owner securing and maintaining a LEED certification for the site within one year of construction of the wind turbine.
9. Audible sound from the wind turbine shall not exceed forty (45) dBA for any prolonged period of time within 100 feet of the turbine and shall not exceed fifty (50) dBA for any period of time at the property line or greater distance.
10. The turbine shall be removed from the site if, for any period of six months or greater, the turbine is (1) mechanically non-functional, (2) disconnected from any the electricity generation consumer, (3) any of the requirements or conditions of this ordinance are not satisfied after notice of deficiency by the City.
11. This approval shall be subject to any generally-applicable requirement hereinafter enacted, including but not limited to, regulations regarding wind turbines.