

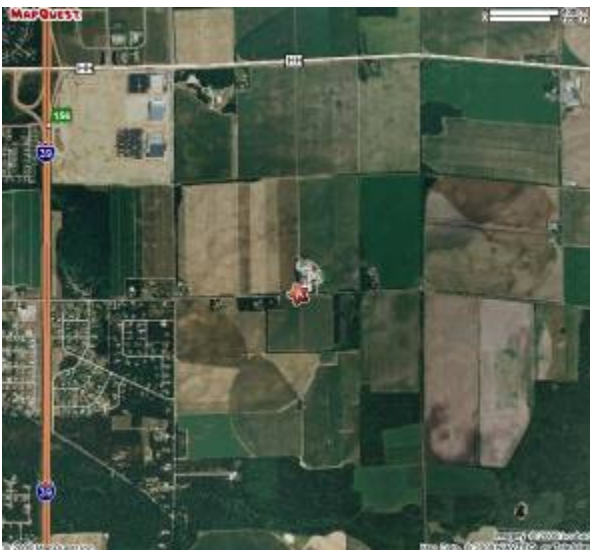
## Revised Wind Shear Values

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### Assumptions:

Shear value reflects more macro effects of terrain and obstacles on the wind profile versus very local effects and ground clutter which cause turbulence. When very close (< 500') to trees and buildings in an otherwise open area, you need to raise turbulence intensity versus raising the shear value.

Surface Description	Wind Shear $\alpha$
Smooth Hard Ground, Lake, or Ocean	.20
Level country with foot-high grass Tree lines > 1000' away	0.25
Level and uniform open terrain with crops with Occasional trees and buildings 500'-1000'	0.30
Terrain is open with scattered Trees/buildings <500'	0.35
Terrain is less open, not densely wooded; Trees/buildings <500' Or Mixed densely wooded areas & open areas; Tree lines > 500' away	0.4
Mixed densely wooded areas & farm fields, Trees/buildings <500'	0.45
Densely Wooded	0.50
Urban areas with tall buildings	0.60 assumed, but must monitor



**Open Farm fields**



**Scattered Woods and Open Areas**



**Dense Woods and Open Areas**

**Examples of Proposed Wind Shears:**



**0.20**

**Smooth Hard Ground, Lake, or Ocean**



0.25



Level country with foot-high grass; Tree lines > 1000' away



0.30



**Level and uniform open terrain with crops and 500' < occasional trees and buildings <1000'**



**0.35**



**Open terrain with scattered Trees/buildings <500'**



**0.40**



(also would have a high TI)



**Terrain is Scattered woods; Trees/buildings <500'**



**0.40**



**Mixed densely wooded areas & open areas Tree lines > 500' away  
Wind map less accurate**



**0.40**





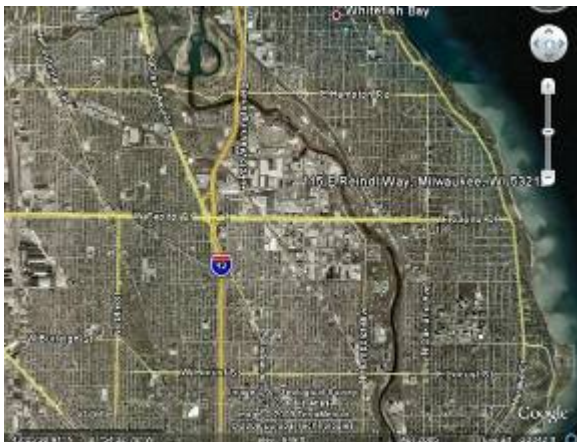
**Mixed densely wooded areas & open areas Tree lines > 500' away**



**0.45**



**Mix of densely wooded and open areas trees <500' away**



**0.50**





**suburbs/industrial or in dense woods  
(also use DH)**