

Wind Construction Vehicles

Types of Construction Vehicles

The following list of construction vehicles are likely to be used on the project site during the construction of the wind turbine:

- Excavators
- Skid Steers
- Graders
- Bulldozers
- Backhoe
- Concrete Trucks
- Rough Terrain Crane

The values for height and weight for these vehicles were determined based on manufacturer specifications and trusted sources. The values in the table are maximum values for vehicle height and weight. The table below assumes that all the construction vehicles, except for the concrete trucks, will be transported to the site with a lowboy trailer. The total height is the larger of the delivery truck cab height and the sum of the construction vehicle height and the trailer height. Smaller equipment may be brought to the site in a shipping container transported on a lowboy trailer as well.

Table 1. Heights and weights of standard construction vehicles

Construction Vehicle	Approx. Height [ft]	Approx. Weight [lb.]	Trailer Height [ft]	Transport Weight [lb.]	Cab Height [ft]	Total Height [ft]	Total Weight [lb.]
Excavators	12	81,000	1.5	50,000	13.5	13.5	131,000
Skid Steers	8	2,701	1.5	50,000	13.5	13.5	52,701
Graders	12.5	35,494	1.5	50,000	13.5	14	85,494
Bulldozers	13	87,600	1.5	50,000	13.5	14.5	137,600
Backhoe	13.7	2,321	1.5	50,000	13.5	15.2	52,321
Concrete Trucks	14	66,000	-	-	-	14	66,000
Rough Terrain Crane	12.4	190,000	1.5	50,000	13.5	13.9	240,000

Turbine Component Delivery Vehicles

Per the recommendations of the manufacturer (Vestas), all obstructions up to 20 feet should be removed for the delivery of the V163 wind turbine. Below is an approximation of the heights and weights of the turbine component delivery vehicles traveling to the project site. The values in the table take into account the height and weight of the delivery vehicles as well as the turbine components.

Table 2. Heights and weights of turbine components plus their delivery vehicles.

Turbine Component	Approx. Height [ft]	Approx. Weight [lb.]
Blade	15.5	237000
Nacelle	13.5	560000
Tower Section	14	121254
Hub	13.5	144000
Drivetrain Tent	13.5	243000