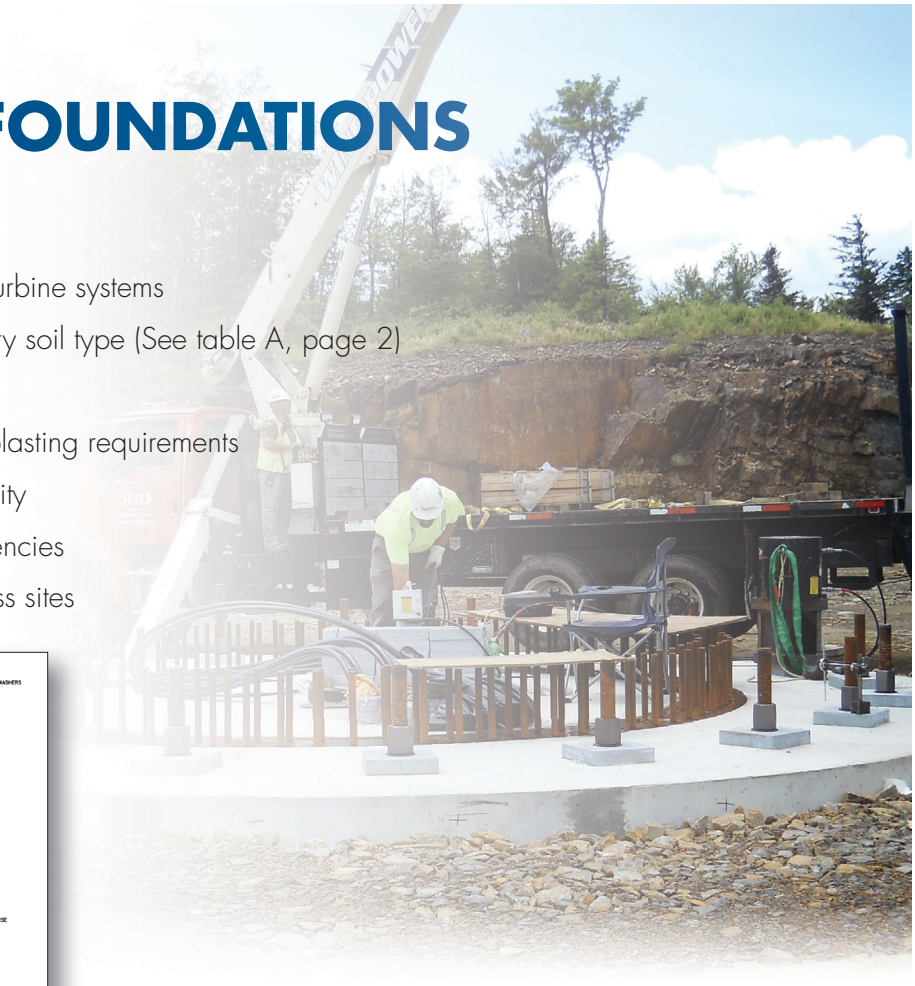
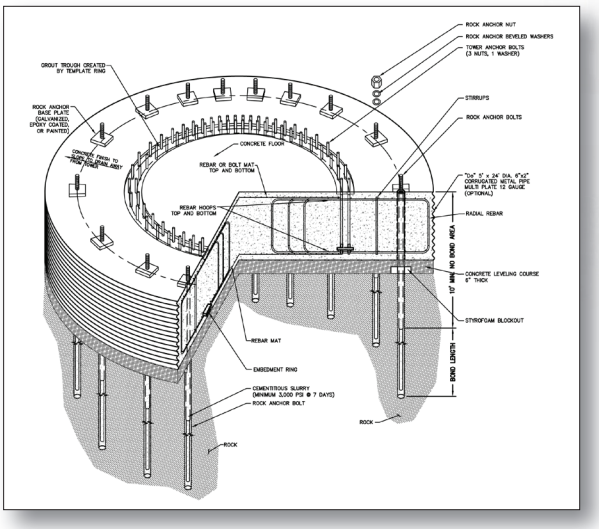
ANCHOR DEEP FOUNDATIONS



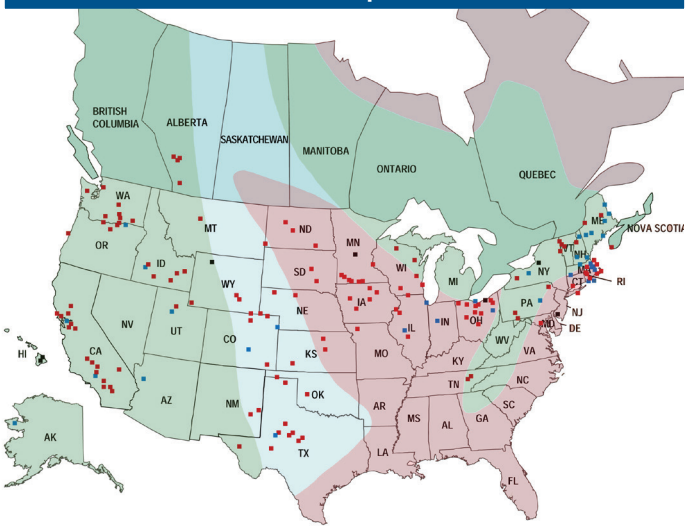
Advantages

- Ability to support the largest available turbine systems
- Anchor foundation systems excel in every soil type (See table A, page 2)
- Reduced footprint and site disturbance
- Reduction and potential elimination of blasting requirements
- Increased stiffness and long-term reliability
- Maximizes material and resource efficiencies
- Superior for mountain and remote access sites

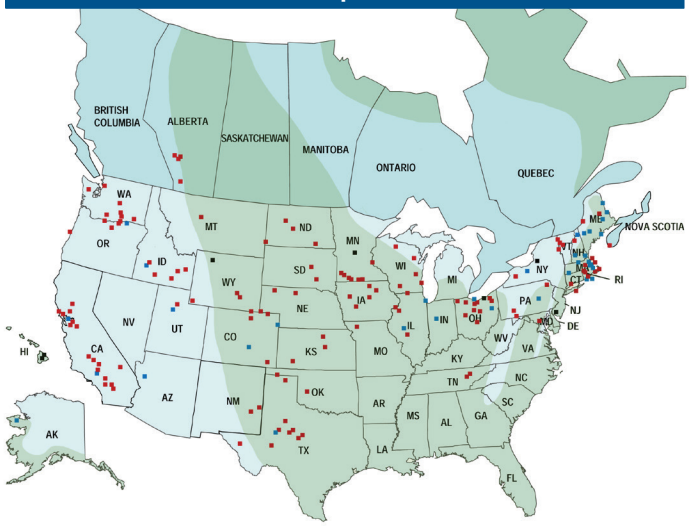


MAPS KEY			
PLOTS		SHADES	
Red	= Tensionless Pier	Green	= Good conditions
Blue	= Rock Anchor	Blue	= Need further investigation
Black	= Soil Anchor	Red	= Not recommended

Rock Anchor Deep Foundation



Helical and Soil Deep Anchor Foundation



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Site Conditions						
Site Conditions	**Tensionless Pier Foundation (Deep)**	**Rock Anchor Foundation (Deep)**	**Soil Anchor Flight Auger (Deep)**	**Soil Anchor Auger Cast Pile (Deep)**	**Soil Anchor Helical (Deep)**	**Gravity Spread Foundation (Shallow)**
Valley/Plains	B	Not Recommended	B	A	A	B
Hills	A	C	A	B	B	B
Mesa	A	A	D	Not Recommended	Not Recommended	B
Mountain	A	A	Not Recommended	Not Recommended	Not Recommended	C
Ground Conditions						
Hard Rock	A	A	Not Recommended	Not Recommended	Not Recommended	C
Soft Rock	A	A-	C	Not Recommended	D	B
Very Dense/Hard Soil	A	Not Recommended	A	D	C	B+
Soil with Boulders and Cobbles	A-	Not Recommended	Not Recommended	Not Recommended	Not Recommended	B
Soil Dry to Moist	A-	Not Recommended	A-	D	A	B
Silty Soil Dry to Moist	B+	Not Recommended	B+	B	A-	B-
Clay Soil Day to Moist	A-	Not Recommended	C	D-	C	B
Granular Soil Shallow Ground Water	D	Not Recommended	Not Recommended	A	A	C+
Silty Soil Wet	D	Not Recommended	D	D	B	C+
Clay Soil Wet	C+	Not Recommended	D	D	B	B
Organic Soil	D	Not Recommended	C	B	B	C+
Combined Ground Conditions						
Soil Over Shallow Rock	A	A	Not Recommended	Not Recommended	Not Recommended	B
Soil Over Deep Rock	B+	C	D	Not Recommended	Not Recommended	B
Intermittent Soil and Rock	B+	A-	Not Recommended	Not Recommended	Not Recommended	B+
Landfill Over Rock	Not Recommended	A*	Not Recommended	Not Recommended	Not Recommended	D
Landfill Over Soil	Not Recommended	Not Recommended	Not Recommended	Not Recommended	A*	D
Mine Spoil	B	D	Not Recommended	Not Recommended	Not Recommended	C
Hazardous Conditions						
Seismic	A	A	A	A	A	D
Liquefaction	A	n/a	Not Recommended	A	A	Not Recommended
Flood Water Inundation	A	A	A	A	A	C
Flood Scour and Erosion	A	A	A	A	A	D
Storm Surge	A	A	A	A	A	D
Frost Depth	A	A	B+	B+	B+	C
Creeps and Landslide	C	D	D	C	C	Not Recommended
Water Sensitive Collapsible Soil (Loess)	A	Not Recommended	A	C	A	D
Remediation						
Stability/Tilt Pressure Grouting	B	B	B	B	B	C
Structural Concrete Addition Stability/Tilt	B	C	B	B	B	D
Anchor Addition Stability/Tilt	C	A	A	A	A	C
Corrosive Conditions	B	B	B	B	B	B
Longevity						
Fatigue Failure	A	B+	B	B	B	D
Post Tensioned by Horizontal Reinforcing	n/a	A	A	A	A	C

* Coupled with Compression Pipe Pile

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