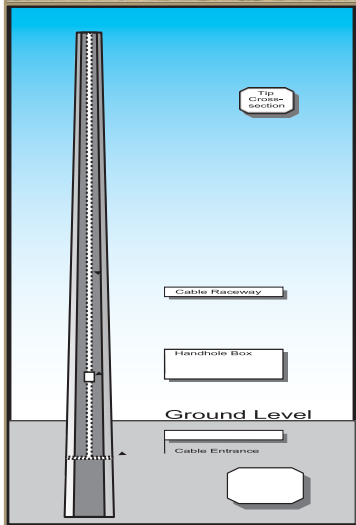


# Glossary of Terms



## **BREAKING STRENGTH**

This is the approximate load which, when applied at a point two feet below the tip of the pole, will cause structural failure of the pole.

## **CONCRETE STRENGTH**

This is a reference to the compressive strength of the concrete in pounds per square inch as measured by testing representative samples at twenty-eight days after casting.

## **DEAD LOAD**

This refers to the load on the pole resulting from the attachment of luminaires, luminaire supports and other permanent attachments.

## **E.P.A "Effective Projected Area"**

This is the effective projected area in square feet of luminaires, luminaire supports and other permanently attached items which are subject to wind load.

## **GROUND LINE**

The point at which an embedded pole enters the ground or is otherwise restrained. The point at which a pole with a bolt-down base is attached to the foundation.

## **GROUND LINE BENDING MOMENT**

The product of any horizontally applied load at any point on the pole multiplied by its height above ground line.

## **LIVE LOADS**

These are loads applied to the pole as a result of wind, ice or other loads of temporary nature.

## **ULTIMATE GROUND LINE BENDING MOMENT**

This is the bending moment, applied to the pole which will cause structural failure of the pole. This is the result of multiplying the load indicated in the column titled "Breaking Load" times a distance of two feet less than pole height (length of pole above ground). The ultimate ground line moment is the product of the nominal bending strength multiplied by a strength reduction factor of 0.9 per ACI 318 latest edition. Figures in "Ultimate Ground Line Moment" column assume embedment of 10% of pole length plus two feet; however, these same Moments apply to bolt-down base poles. The figures in this column on technical charts are maximum moments expected to be applied to the pole (or foundation). Appropriate load factors should be used by the designer.

## **General Information**

- 1) Different colors, finishes and exposed aggregate are available upon request.
- 2) Longer lengths of poles available upon request.
- 3) 7000 PSI concrete is standard; higher strengths are available if required.
- 4) **STRENGTH:** In most cases a higher ground line moment, breaking strength and EPA can be attained without going to a larger pole.
- 5) **EFFECTIVE PROJECTED AREA (EPA):** Lonestar Prestress Mfg., Inc. concrete poles and mounting arms have been designed in accordance with accepted engineering practices to be structurally capable of withstanding wind loads and velocity pressure using a gust wind speed of at least 140 mph. Poles to meet higher wind loads are available.
- 6) **HOLEs:** Holes are precast to meet your specifications and requirements for mounting attachments, most any desired arrangement can be provided. Contact Lonestar Prestress Mfg. for any questions about field drilling poles.
- 7) **INSTALLATION:** Lonestar Prestress Mfg. concrete poles are designed for setting directly into the ground, without the use of poured in place foundations, similar to the setting of wood poles. After the hole is drilled, the pole is set and plumbed, the earth is then back-filled and tamped. The depth is dependent on the nature of the soil and the anticipated load. Where it is impossible to embed the poles in the ground, such as on bridges or over-



# Product Code Legend Continued

<b>BRACKETS</b>									
The 1st two digits of the product code depicts the type of product.		The 3rd digit of the product code depicts the number and angle of bracket arms.		The 4th digit of the product code depicts the metal used to make the bracket.		The 5th digit depicts the length in feet.		The 6th digit of the product code depicts the bracket finish.	
Ex: <b>966967</b>		Ex: 96 <b>6</b> 967		Ex: 966 <b>9</b> 67		Ex: 9669 <b>6</b> 7		Ex: 96696 <b>7</b>	
94	Panel	6	Single arm Single Light	8	Steel	1	1 Foot	6	Special
95	Foundation	7	Double Arm 180° Double Light	9	Aluminum	2	2 Foot	7	Aluminum
96	Bracket	8	Triple Arm 120° Three Light			3	3 Foot	8	Primed
97	Pole Cap	9	Quad Arm 90° Four Light			4	4 Foot	9	Galvanized
99	Stores	0	Custom Design			5	5 Foot		
						6	Clamp Type 6 Foot		
						7	Bull Horn 7 Foot		
						8	Upsweep 8 Foot		
						9	Special 9 Foot		
						0	10 Foot		

## Basic Wind Speed ASCE 7-05, Minimum Design Loads for Buildings and Other Structures, American Society of Civil Engineers.

The basic wind speed,  $V$ , used in the determination of design wind loads on buildings and other structures, shall be as given in Figure 6-1 of ASCE 7-05.