



valmont[®] 
UTILITY

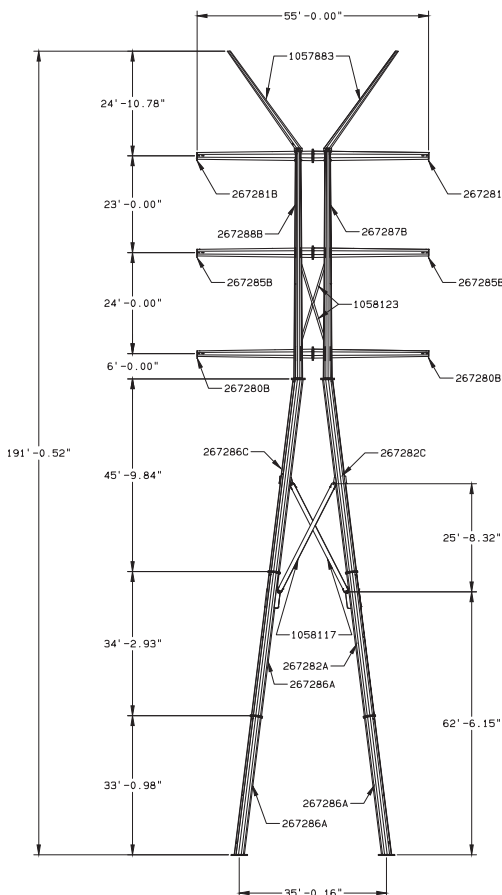
PyraMAX[®]

MAXIMIZE STRUCTURE CAPACITY THROUGH DESIGN FLEXIBILITY

PyraMAX[®], a new family of scalable structures engineered by Valmont[®] Utility, is designed to deliver cost savings for projects requiring lattice, large spans, transposition, dead-end and crossing structures. As a new alternative to standard structures, PyraMAX achieves optimal results through structural integrity, scalable loads and substantial savings.

FORMIDABLE STRENGTH

- Vertical, longitudinal and transverse loads create moment in the structure
- Battered legs and proper connections convert the moment into axial load
- Foundations are smaller because the forces travel with the axis of the leg (parallel)



The Advantage of Elevated Engineering

PyraMAX features are conducive to environmental conditions and in comparison with standard structures, deliver the leverage you need to achieve your cost-containment goals.

- Reduces labor intensity with fewer connections than lattice.
- Mitigates material costs through environmentally friendly, smaller-scale foundations using less concrete, smaller equipment and shallower depths than traditional tubular construction.
- Full structural testing is not required for new designs unlike the full-scale testing that lattice requires.
- Flexible design allows for multiple design families to be generated, accelerating the speed of production.
- Small member sizes and flexible designs are ideal for difficult terrain.

THE NEW ALTERNATIVE

Where PyraMAX Fits Best

LATTICE ALTERNATIVE

- One-third the construction cost
- No structural testing required
 - Implement where terrain presents challenges (lightweight sections, helicopter lift capable, uneven terrain, multiple foundation types – cages, grillages, micro piles, caissons)
 - Reduce time to market on new designs

LONG SPAN / CROSSING STRUCTURES

- Scalable - from 100ft AGH to 500ft+ AGH, single circuit to 6+ circuits, 66KV to 1000+KV
- Significantly reduced foundation sizes
- Capable of FAA “Candy Stripe” painting and lighting for tall structures

FINISHING

- Galvanized, Dulled, Darkened
- Corten steel (weathering)
- Aesthetic paint

A FOUNDATION COST ANALYSIS

Converting moment to axial load

CHALLENGE

- Two (2) structures needed for a Floodplain/River Crossing
- Double circuit 345kV
 - 190' tall
 - 1,575' span length



THREE (3) DESIGN OPTIONS OFFERED

2 MONOPOLE STRUCTURE



Requires 240 yards of concrete for the foundation

\$345,000 Installation Costs (each)
\$1,100/yard (Concrete) x 240 yards
+ \$81,000 Construction Labor



LATTICE TOWERS



Requires 33.5 yards of concrete for the foundation

\$320,350 Installation Costs (each)
\$1,100/yard (Concrete) x 33.5 yards
+ \$283,500 Construction Labor



PYRAMAX STRUCTURE



Requires 33.5 yards of concrete for the foundation

\$122,850 Installation Costs (each)
\$1,100/yard (Concrete) x 33.5 yards
+ \$86,000 Construction Labor



Total install cost
reduction of
\$222,150

Project savings: More than \$395,000!

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