

Quality PT Solutions Benefit All

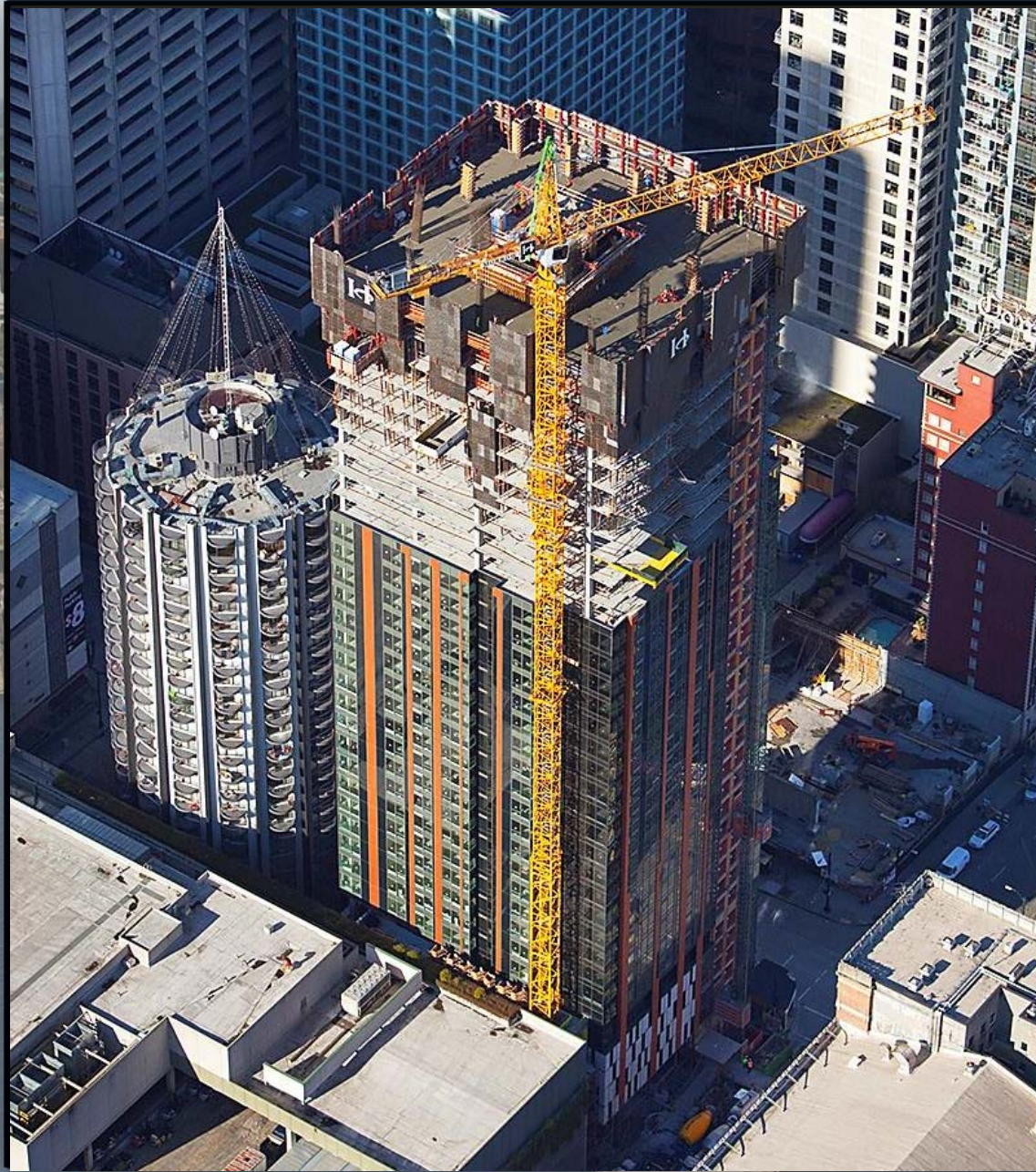


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MAY 5th, 2014



POST-TENSIONING INSTITUTE®
Stressing the Stronger Concrete Solution



815 PINE

SEATTLE, WASHINGTON



POST-TENSIONING INSTITUTE®
Stressing the Stronger Concrete Solution



THE MARTIN

SEATTLE, WASHINGTON



VIKTORIA

SEATTLE, WASHINGTON



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ESCALA

SEATTLE, WASHINGTON



THE VERMONT

LOS ANGELES, CALIFORNIA



LINCOLN SQUARE EXPANSION

BELLEVUE, WASHINGTON



POTALA TOWER

SEATTLE, WASHINGTON



1200 SOUTH FIGUEROA

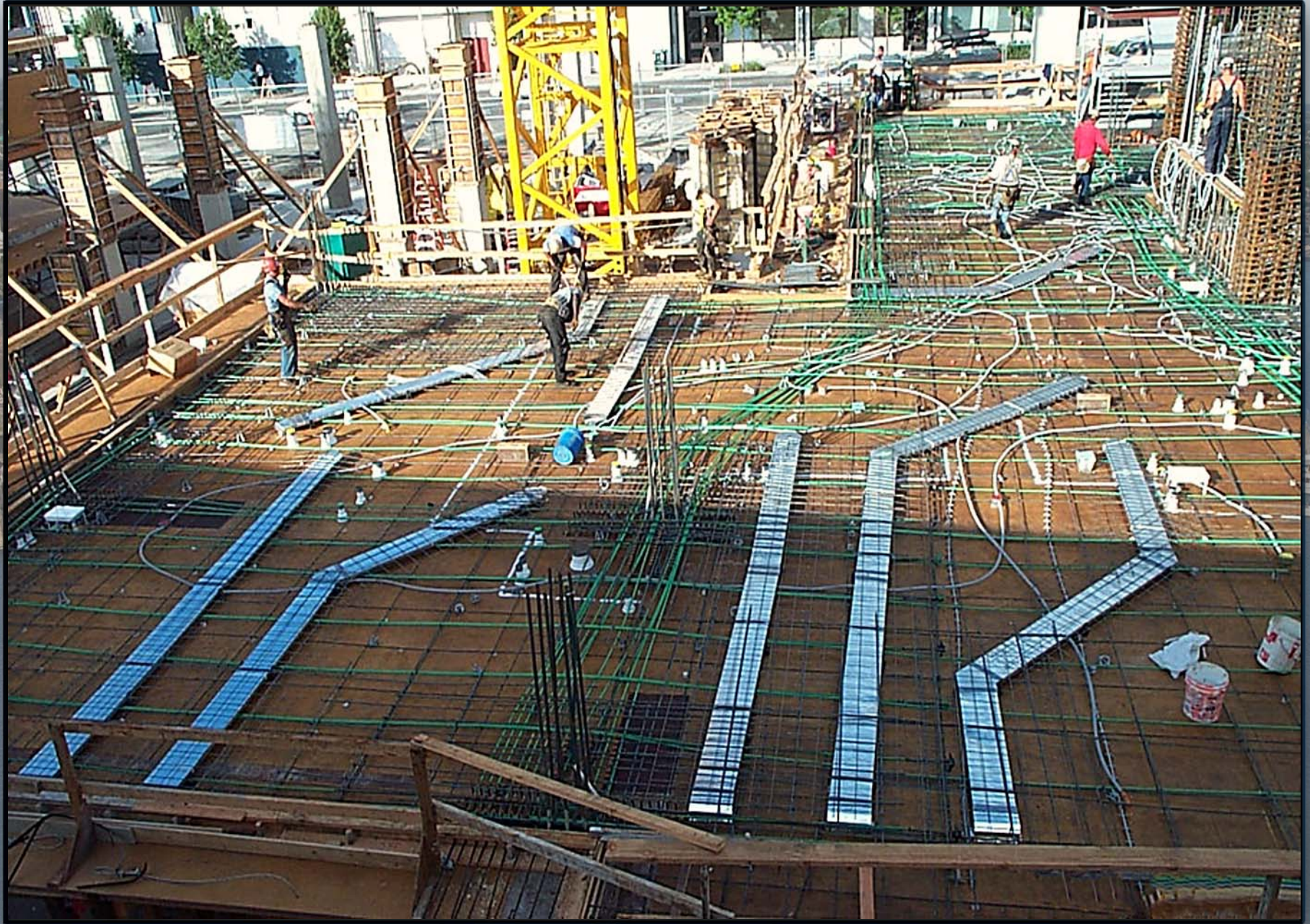
LOS ANGELES, CALIFORNIA

POST-TENSIONING ADVANTAGES

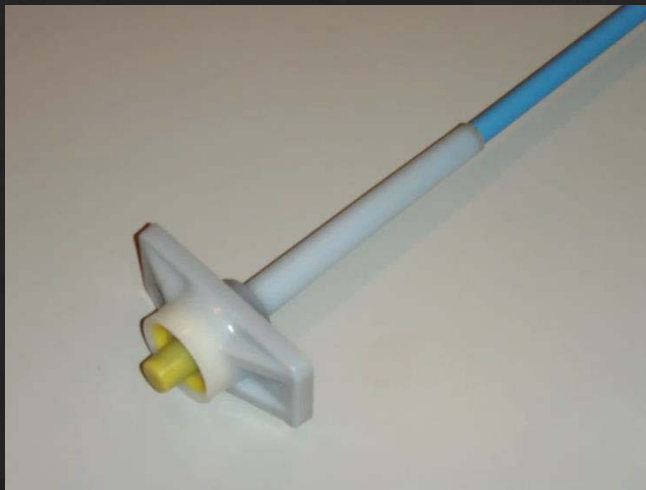
- THINNER SLABS & SHALLOWER BEAMS
- LONGER SPANS & FEWER COLUMNS
- REDUCED FLOOR TO FLOOR HEIGHT
- BETTER CONTROL OF DEFLECTION & CRACKING
- SMALLER COLUMNS & FOUNDATIONS
- REDUCED SEISMIC LOADS







POST-TENSIONING ANCHORS



COST VS. QUALITY

- MOST OWNERS WANT QUALITY
- WILL THEY PAY FOR IT?
- YES, IF THE RETURN ON INVESTMENT (ROI) IS SUFFICIENT
- WHAT IS “SUFFICIENT” ROI?

COMMERCIAL BUILDING CONSTRUCTION COST EXAMPLE

OPTION 1

| | |
|--|----------------|
| CONSTRUCTION COST WITHOUT ENCAPSULATION | \$200/SF |
| LAND COST + “SOFT” COSTS | \$150/SF |
| TOTAL COST | <hr/> \$350/SF |

OPTION 2

| | |
|---|-------------------|
| CONSTRUCTION COST WITH ENCAPSULATION | \$200.05/SF |
| LAND COST + “SOFT” COSTS | \$150/SF |
| TOTAL COST | <hr/> \$350.05/SF |

SUMMARY

- DESIGNING FOR EFFICIENCY AND COST CONTROL IS IMPORTANT
- HOWEVER, A SLIGHT INCREASE IN FIRST COST CAN OFTEN LOWER THE LIFE CYCLE COST AND REDUCE RISK
- LIFE CYCLE COST AND RISK MANAGEMENT ARE MORE IMPORTANT THAN FIRST COST...MOST OWNERS UNDERSTAND THIS