

TOWER CRANES NORTH AMERICA CONFERENCE & RECEPTION

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Compass Equipment

Self Erecting Tower Cranes

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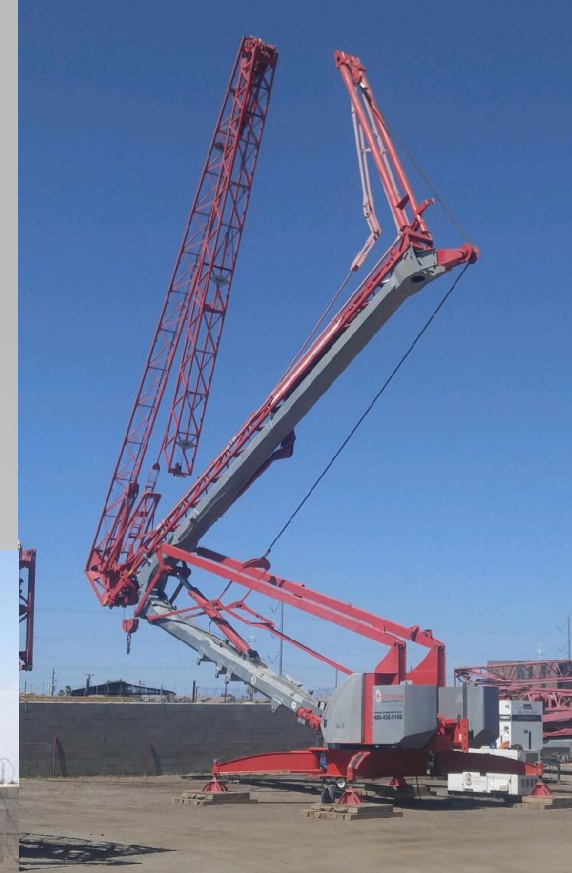
What is a Self Erecting Tower Crane?

- When erected, looks much like a traditional Tower Crane
- Bottom slewing
- On outriggers
- No counter-jib



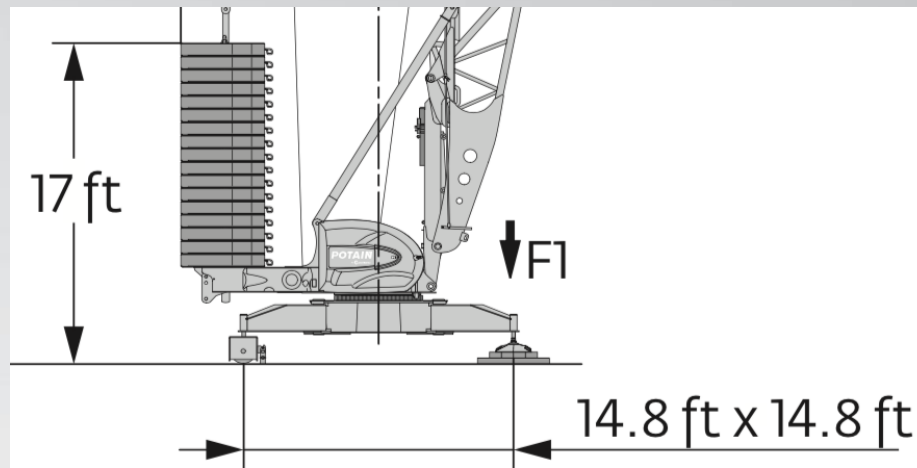
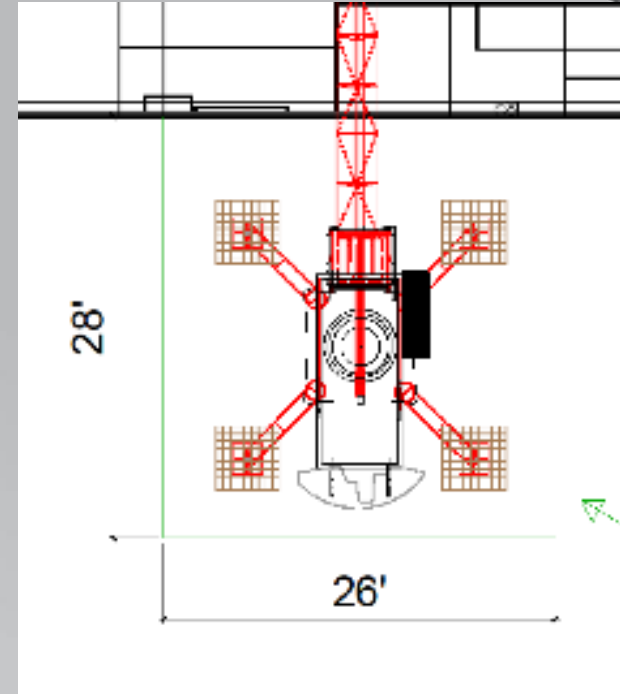
What is a Self Erecting Tower Crane?

- Folds up within a size that can be transported easily
- Often operates with remote control
- Sophisticated engineering and design compared to a traditional tower crane



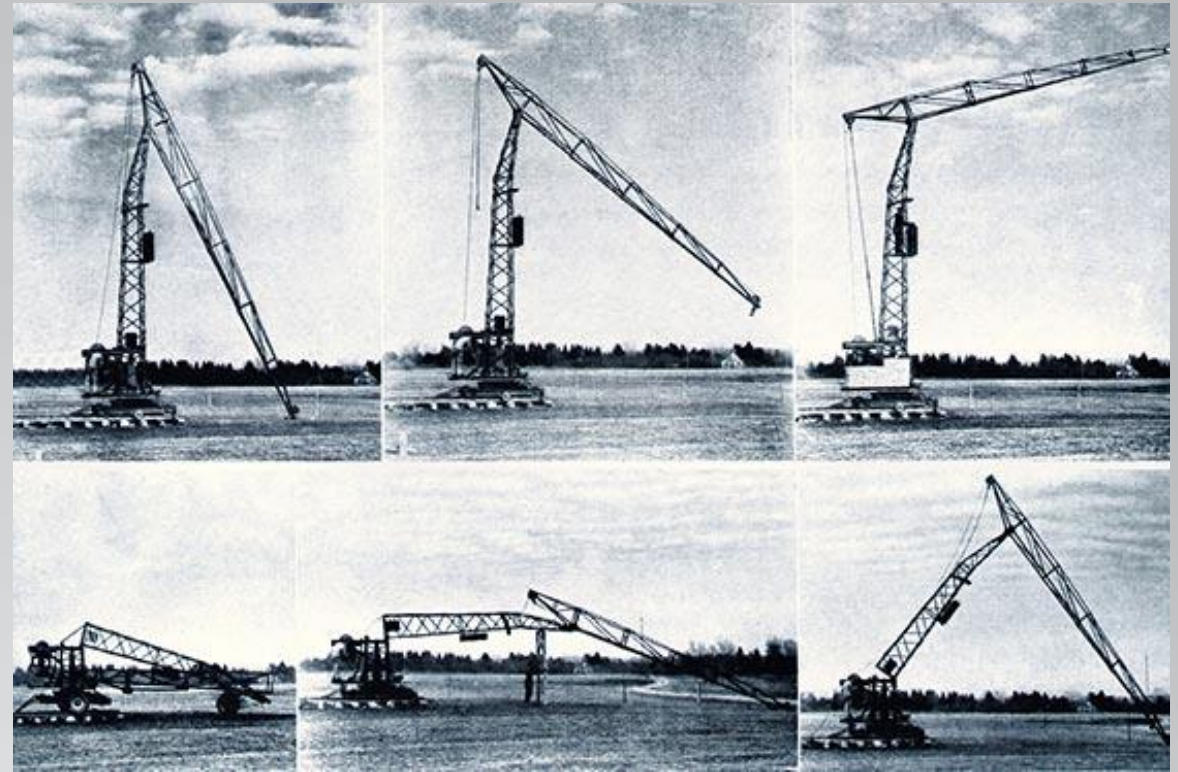
Benefits

- Once erected, takes up a very small foot-print
 - Much less than a mobile crane
- Covers a large area of the project from one location
- No expensive concrete foundation required
- Cost effective compared to other options
- Safer than other options



History of SETC

- Potain concepts in 1930's
- Liebherr in 1949: TK-10
- 70's and 80's:
- Modern machines:
- Today's population in USA is between 500 and 600. Compared to 15,000 in Germany alone



Different Sizes

- Small: up to about 26m
- Medium: up to about 40m
- Large: up to about 45m
- Extra Large: up to about 50m



Small SETC

- Self contained counterweights, and axle set are possible with the smaller range, making fast erection and on site moves possible
- Radius up to about 26m – 85ft
- Custom & Track homes
- 2 – 3 story apartment's with multiple buildings



Small SETC

- Easy to train to erect and dismantle
- Cheaper and Safer than Boom Truck

	2 Month Long Project Cost
Boom Truck	\$55,000
26m SETC w/ full time operator	\$22,000*

* 75% of this is the operator



Medium SETC

- Ctwts and axle set not permanently attached
- Can erect in just 2 hours with 3 men and 2 semi trucks
- Radius of up to about 40m – 130ft
- Ideal for 3 – 6 story wood framed structures
- Can move on site in 3 – 4 hours



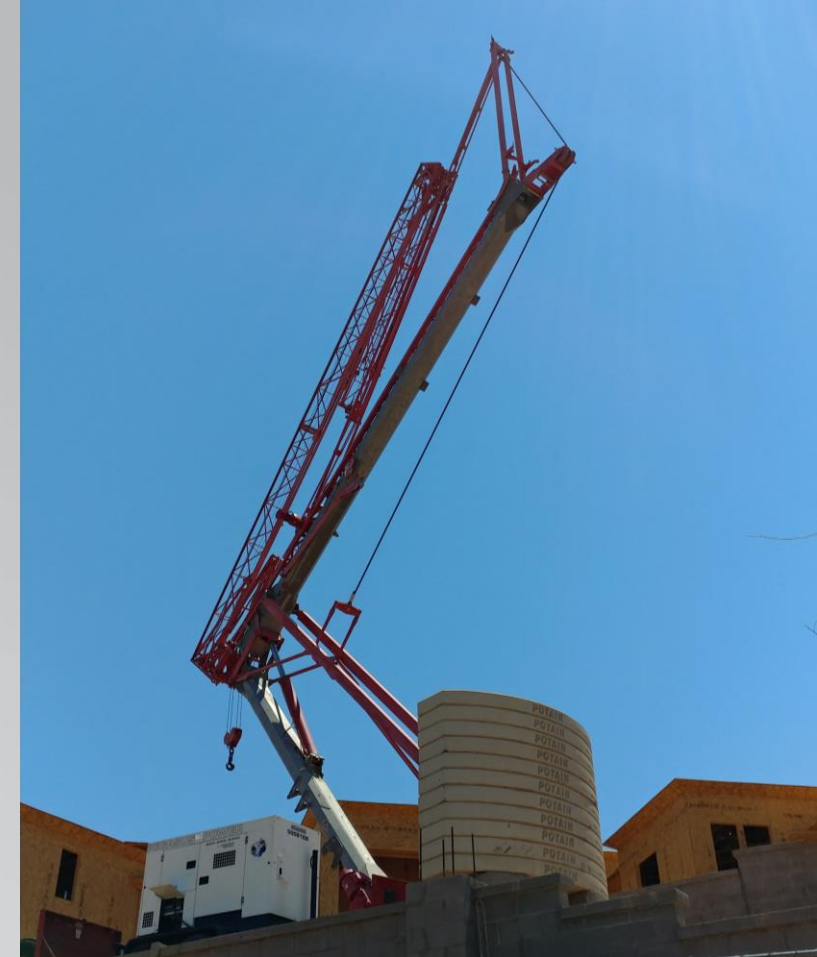


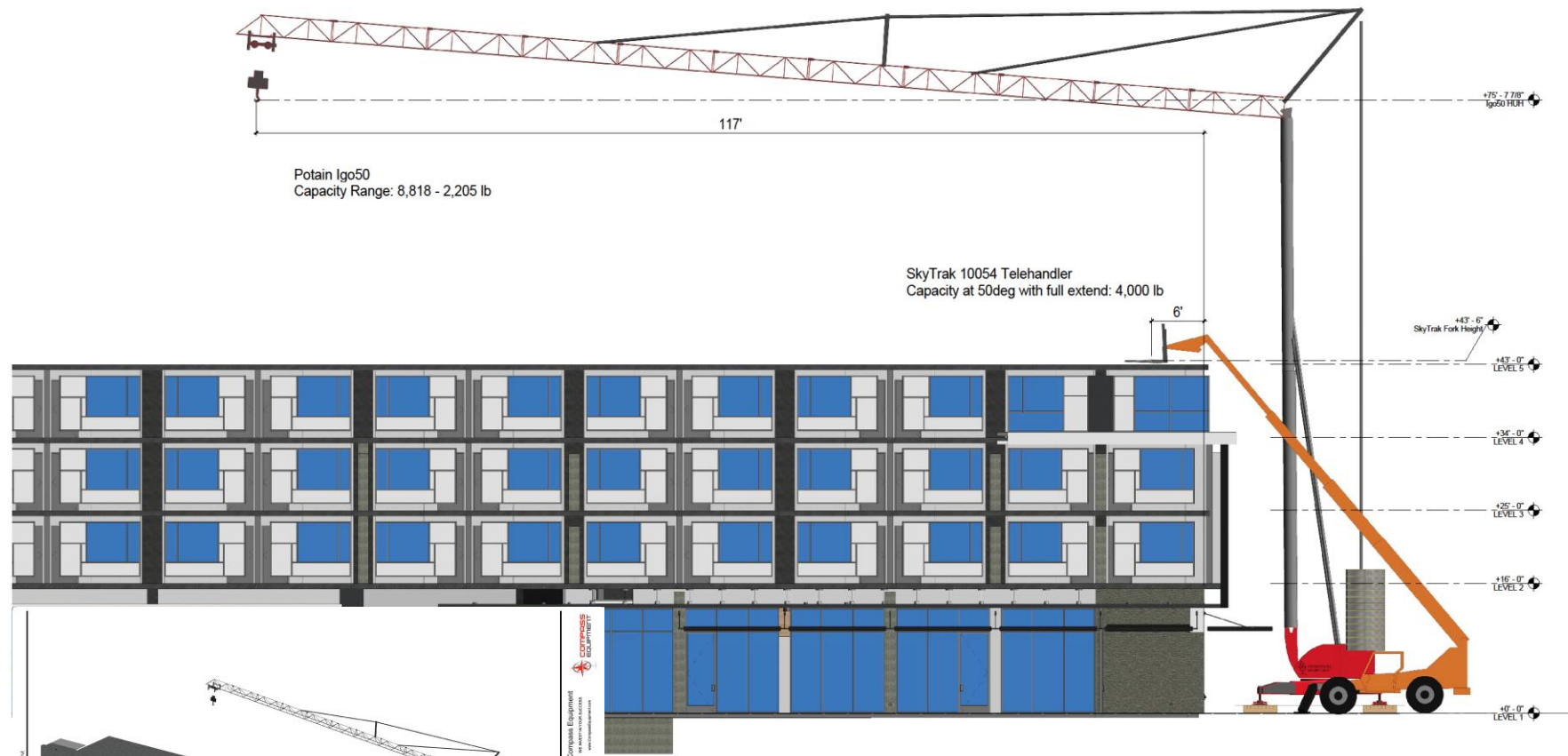
SETC vs Fork Lift and Labor



Medium SETC

- Consider Building a 4-story building
- Conventional Method:
 - 2 or 3 large Reach Fork Lifts
 - Extensive labor to move material around
 - Mobile crane to set heavy pieces, trusses
- SETC:
 - 40m SETC to place material where needed
 - 1 small reach Fork Lift
 - No mobile crane
 - Less labor needed
 - Complete project faster
 - Much safer





Potain Igo50
Capacity Range: 8,818 - 2,205 lb

SkyTrak 10054 Telehandler
Capacity at 50deg with full extend: 4,000 lb

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UEB

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SHEET CONTENTS
Section
SHEET NUMBER
CE305
SCALE 3/16" = 1'-0"



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SETC vs Fork Lift and Labor



3 Month Project SETC vs Fork Lift and Labor

	Using Only Fork Lifts	Using a SETC
Equipment	Three large FLs \$20,000	1 small FL, SETC, Gen. . \$27,000
Mobile Crane Usage	≈ 24 Hours \$3,600	None \$0
Equipment Operators	2.5 \$60,000	1.5 \$35,600
Laborers Onsite	20 \$264,000	18 \$237,600
Finish 2 days faster	None \$0	16 <\$7,200>
Total Expense	\$347,600	\$300,200

\$47,400 Saved When Using a SETC



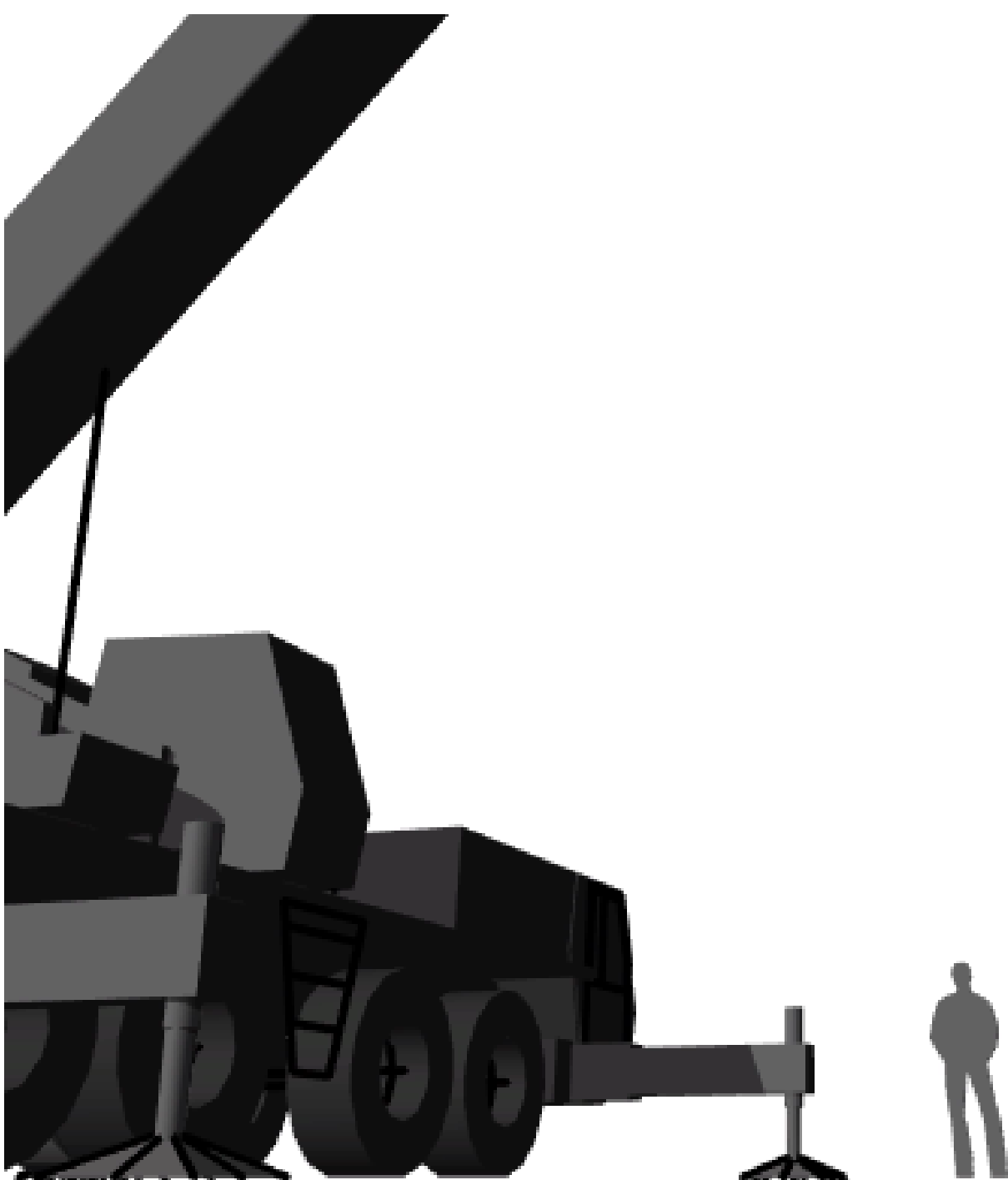
* Estimated cost savings are conservative numbers based on customer survey averages.



Large SETC

- Ctwts and axles set not permanently attached
- Some models ship tower sections separately to insert on job site
- Can erect in about 4 hours with 4 men and 3 semi trucks.
- Radius of up to 45m – 148ft
- Can move on site in about 6 – 8 hours





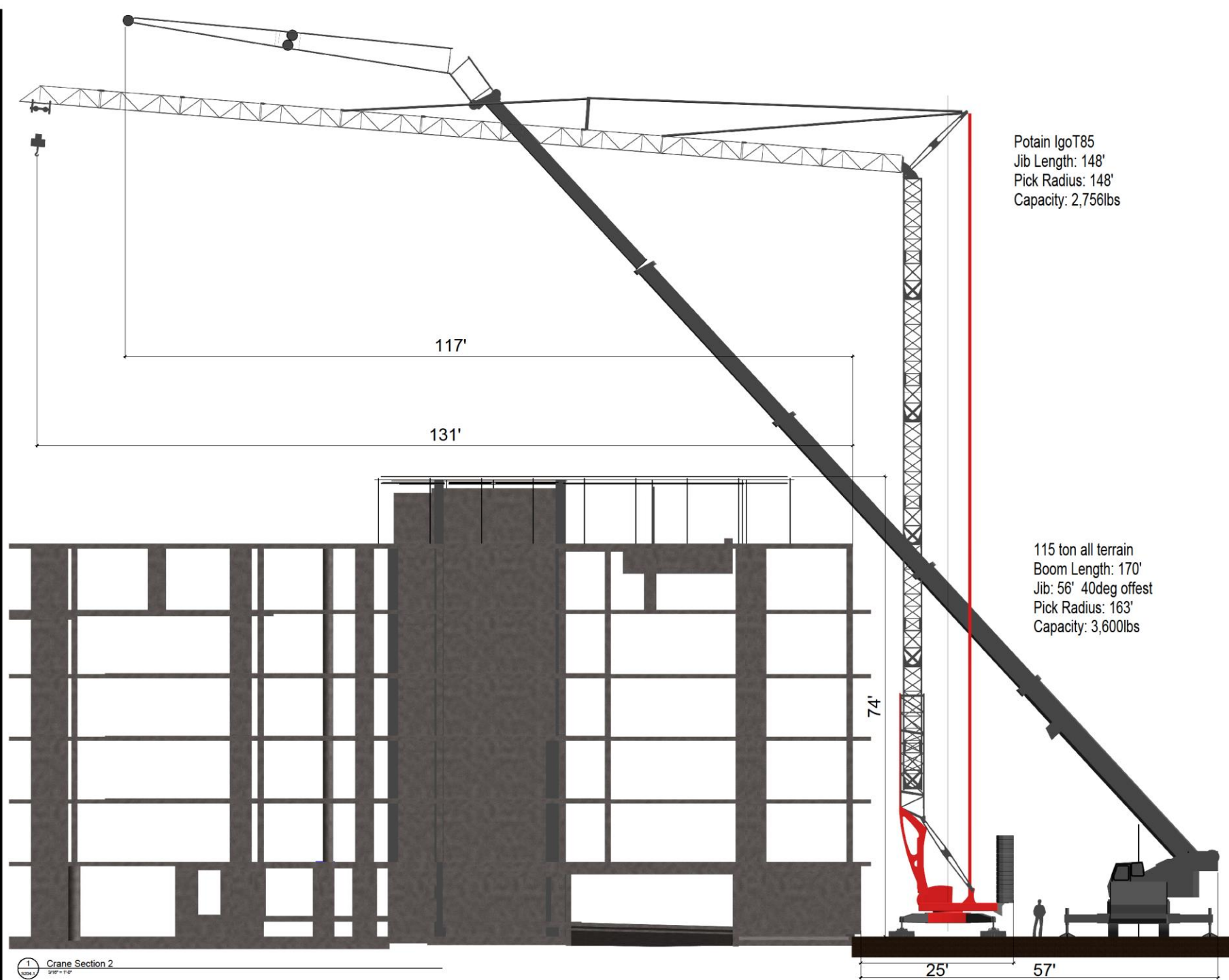
SETC vs Mobile Crane

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Large SETC

- Compare using a mobile crane on a 6-story building vs a SETC:





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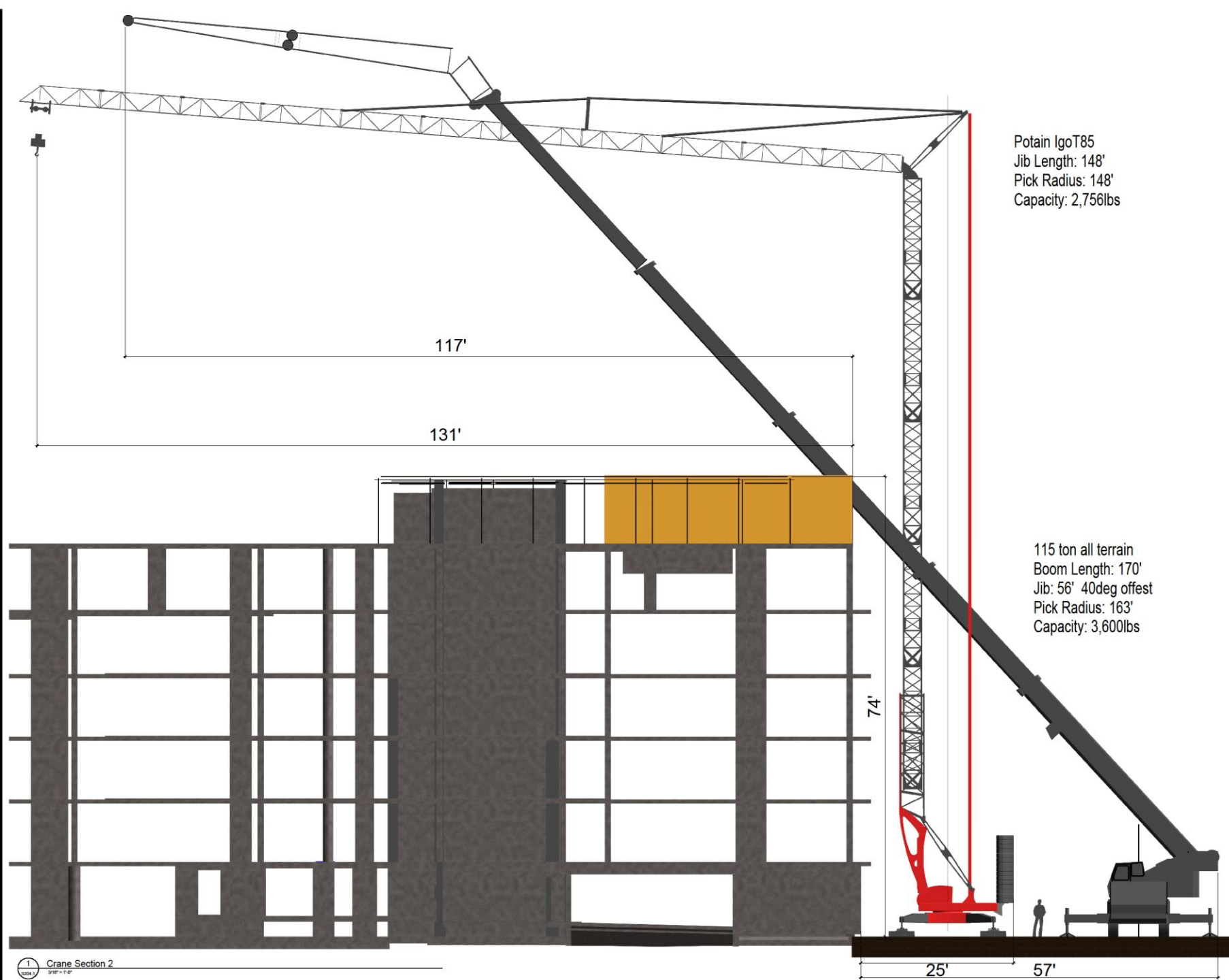
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CE301
SCALE: 3/16" = 1'-0"



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SETC vs Mobile Crane

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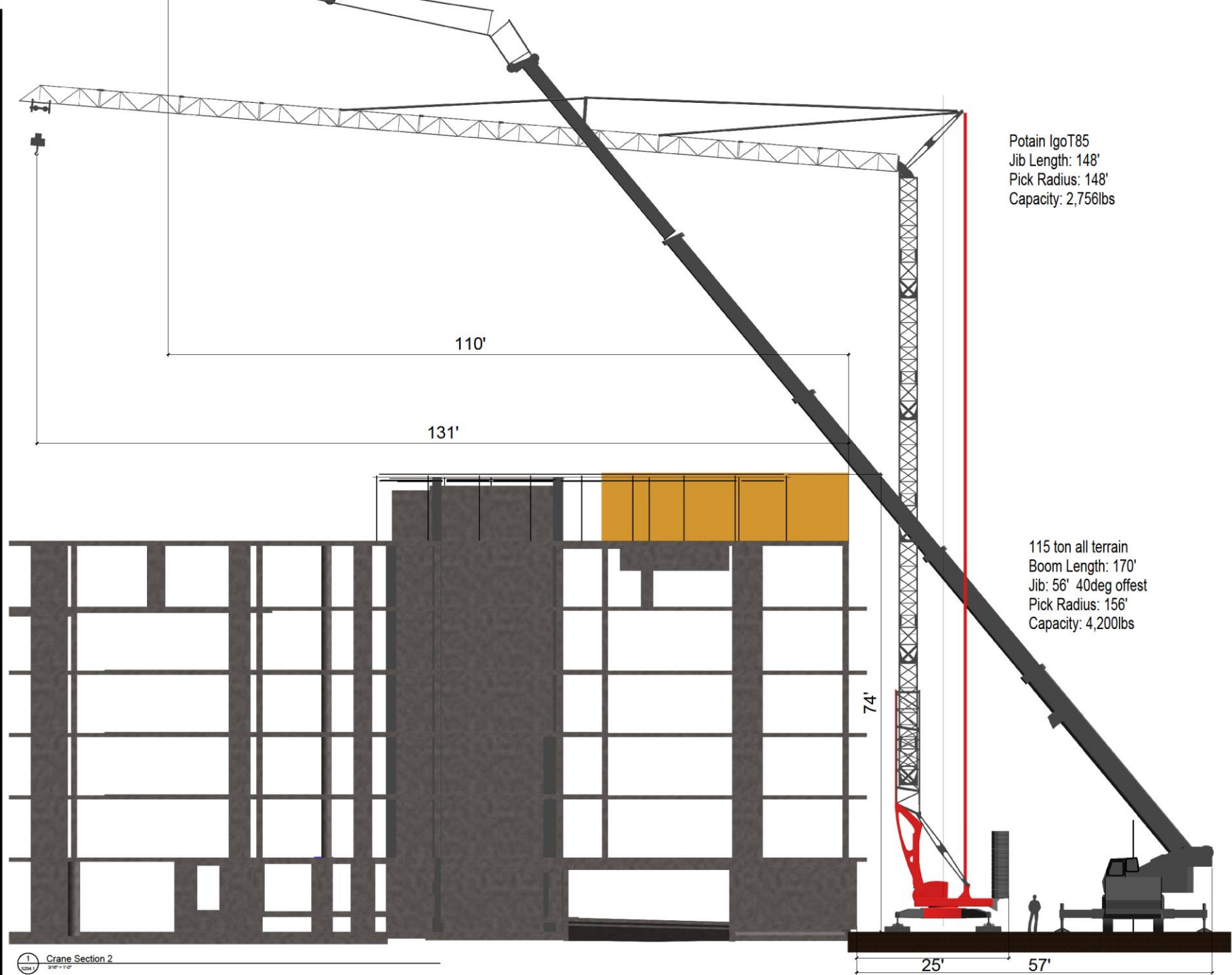


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SETC vs Mobile Crane

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1 Crane Section 2
3/16" = 1'-0"



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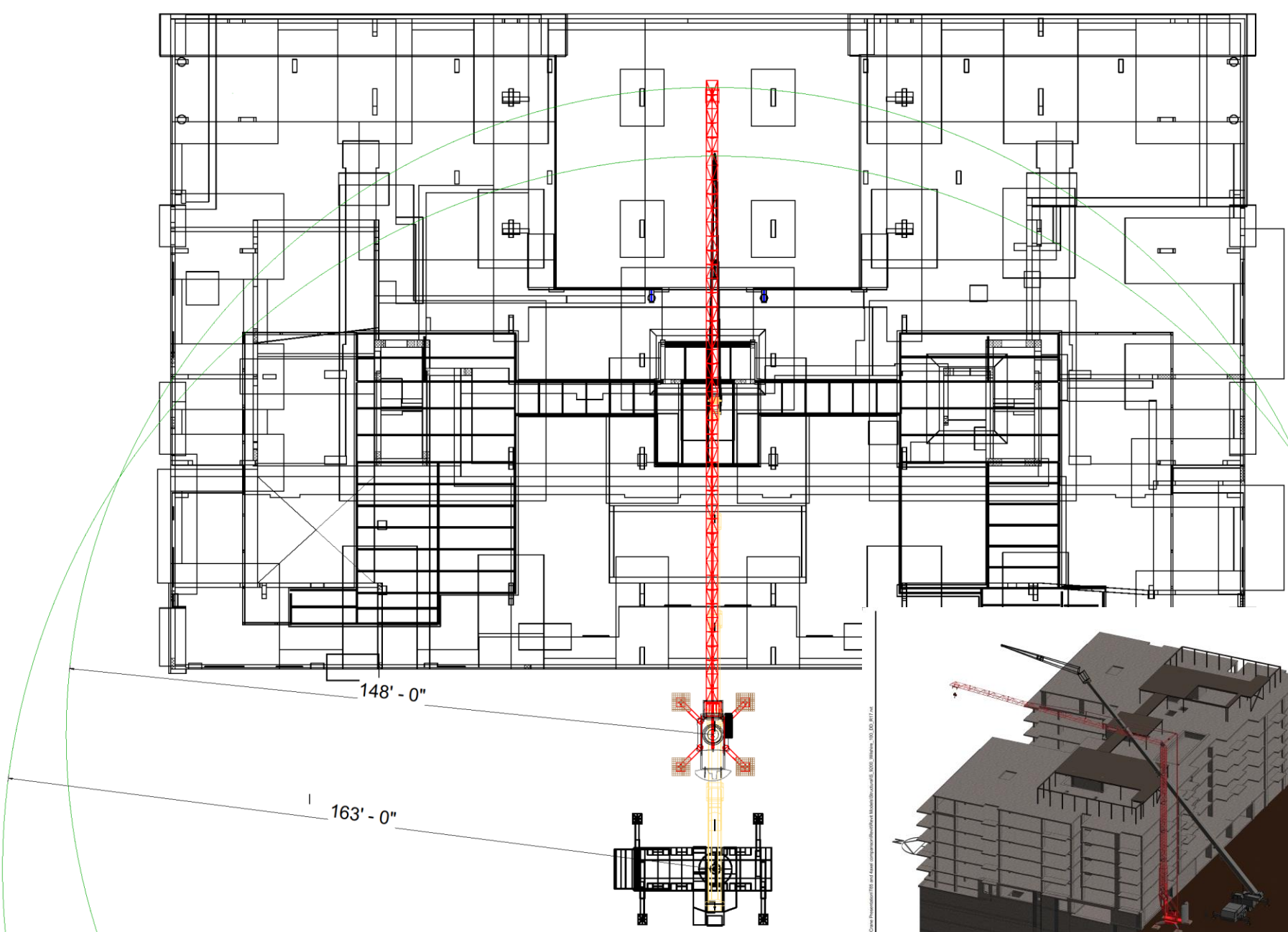
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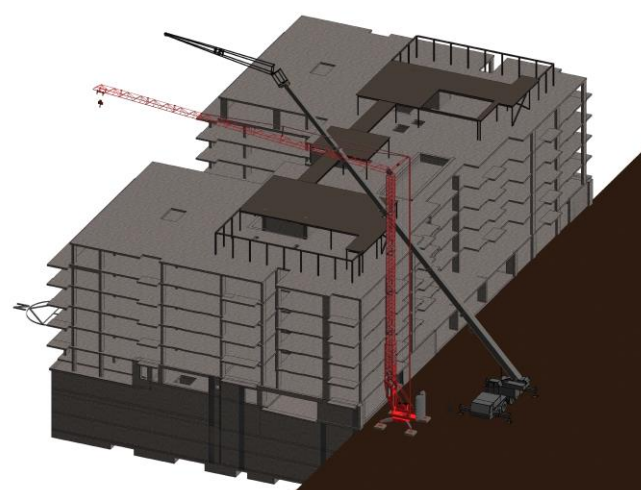
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SETC vs Mobile Crane





1 Radii View



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SETC vs Mobile Crane



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SETC vs Small Tower Crane

- No foundation needed
- Erects in a couple hours
- No assist crane needed
- Trucking costs significantly less
- Easier to operate



Cost Comparison: Mobile vs Small Tower Crane vs SETC

	Mobilization Costs	Monthly Costs (w/ operator)	Total 4 Month Cost
120 ton Mobile	\$1,000	\$57,000	\$230,000
50m Tower Crane	\$50,000	\$24,500	\$150,000
45m SETC	\$9,000	\$26,500	\$110,000



Extra Large SETC

- Faster to erect than tower crane
- May use a small assist crane
- 4 men, 6-8 hours, 5 semi trucks
- Radius of up to 50m – 160ft



More SETC Benefits

- Reduced schedule
- Improved efficiencies
- Eliminates double handling of materials
- Helps in SWPPs dust control, Law 310
- Takes little space
- Cost efficient
- Easy to learn and operate
- It's a GREEN product.

Better for environment



SAFETY

- Built in SAFTEY Features and Limits
- Does not drive around site all day
- Very easy for operator – no choices to make about configuration
- No override button for operator



Dis-Advantages

- More difficult to move on site than mobile crane
- More expensive to purchase than small tower crane of equivalent size
- Limited capacities and reach
- Very sophisticated machine – hydraulics / rope and pulleys for folding

PEOPLE

FIVE REASONS TO WORK SAFE

1. YOUR HEALTH

Your health and well being should be the primary motivator for you to work safely. If you compromise your health it could result in you never reaching your full potential. It is imperative that you think about how a severe injury would impact the rest of your life.

2. PROVIDING FOR YOUR FAMILY

Your family depends on you to generate an income to support them and provide financial stability. If you are unable to work due to injury or illness, the financial and emotional effects on you and your family can be devastating.

3. YOUR REPUTATION

While productivity is the typical measurement for employee compensation, many employers are introducing incentives for employees who consistently produce while working safely. Your reputation for a safe working history can help you in your current position as well as future opportunities.

4. YOUR COWORKERS

Engaging in unsafe work practices can risk harm not only to you, but can also result in harm to fellow co-workers. Everyone's safety in the workplace depends not only on their own choices and habits, but the choices and habits of all of those working around them.

5. YOUR COMPANY

Creating a safe work environment and safety culture enhances your employer's chances of success and longevity, which will provide you continuing opportunity to generate wealth for your family and opportunity for growth and advancement.



CONCLUSION

- Fantastic product that in the right application is un-beatable
- Growing in popularity and population in USA
- Significant cost savings to customer
- Good ROI for crane companies