

DESIGN ASSIST

Mass timber and hybrid structural systems succeed when engineering, architecture, cost modeling, and constructability align early. WoodCore Engineering’s Design Assist service integrates structural engineering, estimating, and BIM/VDC modeling at the end of Schematic Design to protect cost, schedule, and design intent before details are locked in.

WHY DESIGN ASSIST?

- 1 Real-Time Cost + Structural Feedback**
Engineering and estimating collaborate to evaluate options, spans, grids, and system choices with cost clarity.
- 2 Early Digital Coordination (BIM/VDC)**
Architectural, structural, MEP, and envelope models are aligned early — preventing RFIs and redesign.
- 3 Supplier-Neutral Timber Optimization**
We keep all timber manufacturers viable during design, protecting budgets from vendor lock-in and market volatility.
- 4 Build-Ready Engineering**
Installation-informed engineering, connection concepts, and sequencing considerations eliminate downstream field issues.
- 5 Reduced Project Risk**
Early VE/VM ensures the project stays timber, stays on schedule, and avoids costly rework.



THE WOODCORE ADVANTAGE

- Digital-first, BIM/VDC-led engineering
- Constructability-first thinking
- Vendor-neutral product strategy
- Timber-forward expertise + hybrid system mastery
- Build-ready deliverables that reduce RFIs and field uncertainty

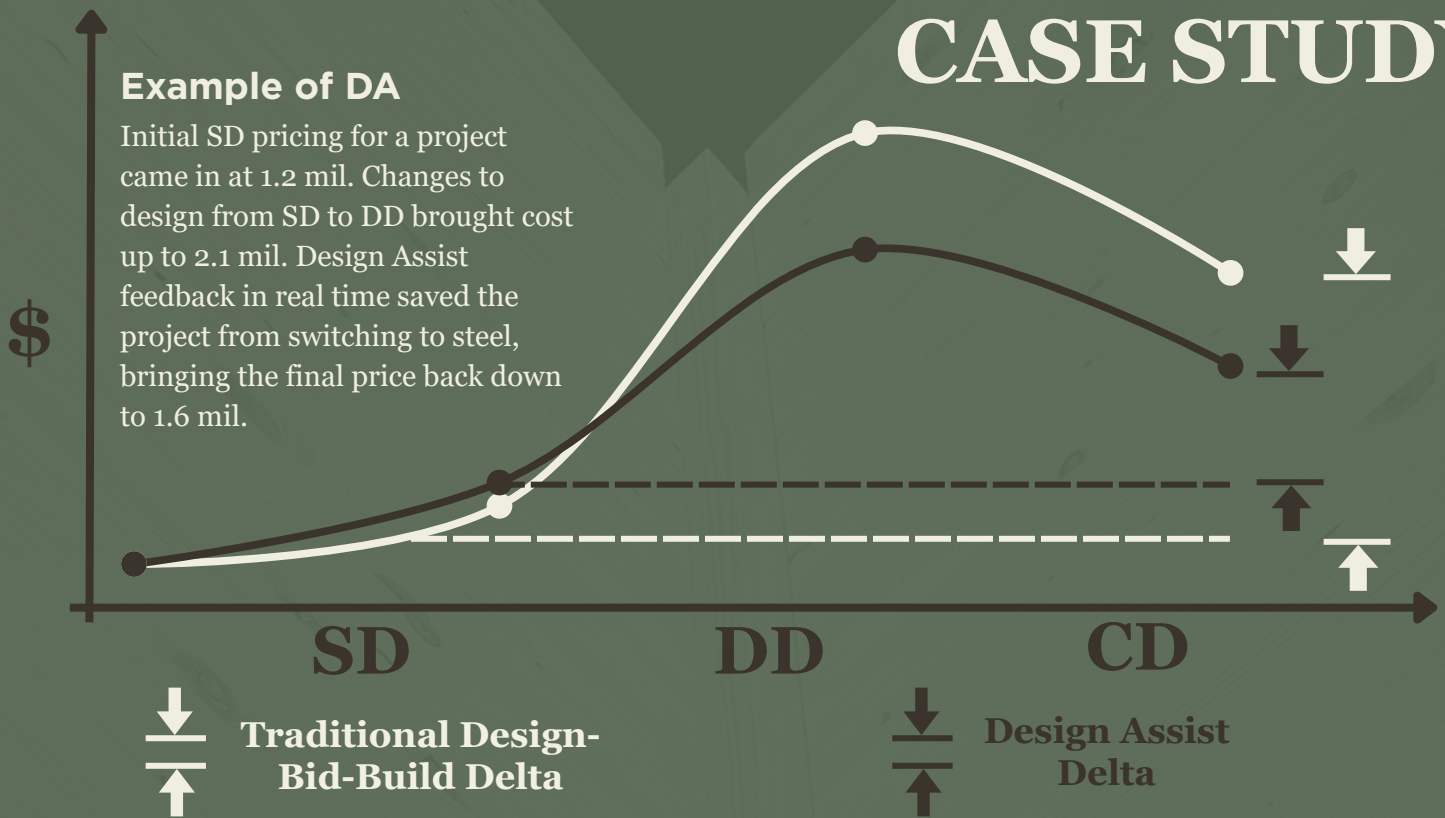
WCE DESIGN ASSIST FRAMEWORK

- | | | | | |
|--|---|--|--|---|
| <p>1) ALIGN</p> <ul style="list-style-type: none"> • Confirm intent + feasibility • Grid + span optimization planning • Budget alignment • Supplier-neutral assumptions | <p>2) MODEL</p> <ul style="list-style-type: none"> • BIM/VDC structural model • MEP/envelope interface • Clash detection + resolution • Digital coordination | <p>3) OPTIMIZE</p> <ul style="list-style-type: none"> • Fiber take-off refinement • Timber/hybrid comparisons hierarchy • Cost + performance modeling package • Product + manufacturer fit geometry | <p>4) DETAIL</p> <ul style="list-style-type: none"> • Early connection concepts • Exposed vs. concealed • Routing + penetrations • CNC/fabrication-intent | <p>5) ENABLE</p> <ul style="list-style-type: none"> • Permit-ready engineering path • Delegated design roadmap • Sequencing + lift strategy • Supplier selection support • Build-ready model transition |
|--|---|--|--|---|

CASE STUDY

Example of DA

Initial SD pricing for a project came in at 1.2 mil. Changes to design from SD to DD brought cost up to 2.1 mil. Design Assist feedback in real time saved the project from switching to steel, bringing the final price back down to 1.6 mil.



WHAT YOU RECIEVE?

- Structural feasibility + grid optimization repor
- Timber/hybrid system evaluations with cost modeling
- Fiber take-off + quantity optimization
- Product + species selection strategy (manufacturer-neutral)
- Coordinated BIM/VDC model (structure + MEP routing + envelope interfaces)
- Connection concepts (exposed vs concealed)
- Penetration + service routing plans
- VE/VM recommendations
- Risk + constructability review
- Sequencing + lift planning insights
- Delegated design roadmap + permit-ready prep

WHO BENEFITS?

General Contractors

Buildable details, fewer RFIs, clearer sequences, installation-aligned engineering.

Architects

Protect design intent, streamline coordination, eliminate late-stage structural surprises.

Developers

Reduce risk, gain early cost certainty, model timber ROI, accelerate schedule.

Manufacturers

Review-ready engineering packages, reduced shop drawing conflict, product compatibility support.