



CONSTRUCTION

Passion. Community. Trust.

Case Study: Las Cruces Convention Center.

Defying Odds Using Design-Build



The City of Las Cruces was facing a challenge. Its Convention Center expansion had stalled. The project, being delivered through the Construction Manager at Risk (CMAR) format, was significantly over budget. The City was unable to successfully negotiate with a contractor, and was then informed that its architect was unable to continue. To make matters worse, events were already booked for the upcoming year.

Faced with this unique challenge, the City pivoted to something they hadn't tried before. They went Design-Build. They negotiated with HB to manage both design and construction.

The process that followed proved that Design-Build empowers owners and team members to come together to solve big-picture challenges. Faced with tightening budget and time constraints, the project team defied the odds and finished the job.



TIME CRUNCH

The management group for the Convention Center booked a major convention for August of 2019 and was dependent on the expansion. After HB Construction was procured as Design-Builder, the project team got to work in order to value engineer the original design back into the budget and jump start construction progress.

With original design projecting construction costs 40% out of budget, it took three rounds of Value Engineering to bring the project within 5% of the original budget.

VE Round 1

Team begins to identify necessary changes with an “outside-in” approach.

Our team limited changes to square footage and architectural elements to avoid major impacts to building function.

First round of VE efforts led to a reduction in cost by 18%.

VE Round 2

Project team honed in on reduction in non-program space, which had cost savings implications in MEP and other scopes of work.

Construction means and methods engineering was considered to save cost.

Exterior components were reduced, creating a simplified approach to the building.

VE Round 3

Mechanical system required output and equipment reduced.

Results showed the project was still 6% over budget. HB reduced contingency to bringing the budget within 5% of original.



SOLUTION-BUILDING

The team was able to leverage the design phase to reach solutions spanning design and construction.

SPACE & LAYOUT ADJUSTMENTS

Gross square footage was reduced by 3,000 sq ft without sacrificing programmatic space. Assembly area, meeting rooms, and associated program space was preserved.

Reduced square footage/volume allowed for a reduction to the size of new rooftop HVAC units.

New ductwork layout was adjusted to smaller space.

Reduction in electrical floor boxes.

New location of IT Room.

Site work was re-evaluated to utilize existing features and grades adjusted to reduce site walls.

MEANS & METHODS ADJUSTMENTS

The need for spray on fireproofing and intumescent fire proofing was avoided by redesigning the partition walls. In doing so HB saved the City extra costs.

Work was packaged to begin site preparation and foundations before design was 100% finalized.

Due to tariffs, HB streamlined lighting package review, approval, and processing in order to avoid tariff impacts. The prioritization saved \$50,000 by allowing the electrical subcontractor and supplier to lock in pricing.

Redesign of sanitary sewer to eliminate sawcutting.

OTHER SYSTEM-SPECIFIC SOLUTIONS

Minor adjustments to AV system. Original specified system was maintained.

Structural steel and foundations were redesigned to reduce steel tonnage and concrete materials while preserving the structural integrity of the addition.

Reduction in footing size and slab thickness.

Redesign of light fixture package, to reduce overall number of fixtures



BENEFIT

The move to Design-Build produced real benefit to the City of Las Cruces. The delivery method created collaboration, unification of purpose, and continuity in shared goals.

By bringing subcontractors on during design, all parties were given a seat at the table. Once unified, the design and construction team's ability to develop solutions and build consensus increased dramatically.

RESULT

The Las Cruces Convention Center Expansion project persevered, and “win-win-win” outcomes were realized for all stakeholders. The schedule was maintained to meet a critical deadline while budget concerns were alleviated through an integrated value engineering process. The city did not have to sacrifice vital program space and were able to meet their obligations by hosting an their scheduled convention.

LET'S TALK ABOUT YOUR PROJECT.

HB industry experts are available to discuss your specific project challenges, whether you're just beginning the process or ready to build. By connecting financing, planning, construction, and management strategy, we make sure customer needs take center stage.



Travis Coker
Vice President

