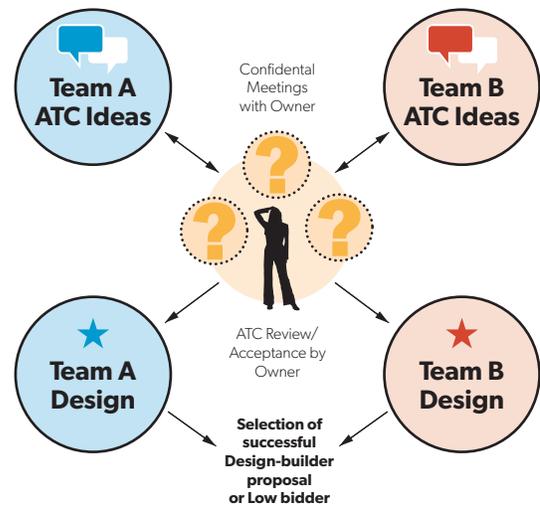




## ALTERNATIVE CONTRACTING METHODS: ALTERNATIVE TECHNICAL CONCEPTS

**Challenging highway projects require innovative solutions. Using a contracting tool called Alternative Technical Concepts (ATCs), State departments of transportation (DOTs) and local public agencies are harnessing construction contractors' expertise to incorporate efficiencies, reduce risks, accelerate schedules and reduce project costs. The tool allows for early contractor involvement during project procurement that often leads to creative solutions and the best value for Americans.**

The use of ATCs is becoming increasingly popular with design-build (DB) contracting and has even been used with the traditional design-bid-build (DBB) and construction manager/general contractor project delivery methods. An ATC is a request by a proposer to modify a contract requirement, specifically for that proposer's use in gaining competitive benefit during the bidding or proposal process. An ATC must provide a solution that is equal to or better than the owner's base design requirements in the invitation for bid (IFB for DBB) or request for proposal (RFP for DB) document. The ATC method differs from the more established Value Engineering Change Proposal (VECP), which occurs after contract award and is limited to the successful bidder.



The ATC process works generally as shown:

- ▶ An owner agency issues an IFB or RFP containing the base project design and construction criteria
- ▶ The owner works confidentially with each contractor team desiring to submit one or more ATCs based on their expertise
- ▶ The owner reviews the final submissions
- ▶ Each contractor team incorporates its own approved ATCs into its proposal or bid. ATCs from one contractor are not shared with other contractors during the DBB procurement process; however, some agencies offer stipends to unsuccessful DB proposers in exchange for the right to use their ATCs in final negotiations with the successful firm.

### BENEFITS AND COSTS

Primary costs include those related to owner time, as well as costs for evaluating ATCs and performing necessary re-design for DBB. The key to assuring cost effectiveness is working together with consultant and contractor industry partners and establishing a good ATC process.

With regard to benefits, the Missouri DOT (MoDOT) says of ATCs, *"MoDOT has been engaging transportation stakeholders to identify new ways to develop innovative contracting strategies. The feedback and collaboration we have received from these meetings indicate that early involvement of contractors during the bidding phase leads to the best value for our customers. Our experience shows that integration of the contractors' experience and innovation during the pre-bidding process has resulted in better competition and lower bids."*



Potential benefits might include:

- ▶ Shortens construction time
- ▶ Enables early contractor involvement with innovation and constructability options
- ▶ Allows contractors to submit confidential proposals for competitive edge during procurement
- ▶ Advances new and more effective designs, technology, materials and construction methods
- ▶ Promotes best-value solutions because ATCs provide an equal or better product during procurement competition
- ▶ Allows owners to receive full value for savings versus a 50-percent share through VECs.

For DBB ATCs, MoDOT has demonstrated that the benefits outweigh the costs by using and refining the method over the last 5 years. Most projects where MoDOT has used ATCs have seen a good return on investment, even after consideration of staff time and redesign costs, either as initial savings or life-cycle cost benefits. For example, an ATC brought MoDOT an estimated savings of \$7.4 million on its Mississippi

River Bridge project. For MoDOT’s Hurricane Deck bridge, the initial savings were less, however, they were able to build a new bridge instead of rehabilitating the old one as originally planned.

During the Every Day Counts 2 Summits, many other States noted successful use of DB ATCs. Washington State DOT (WSDOT) said, *“The sheer volume of ATCs submitted confirms their popularity. WSDOT’s ATC process and practice is a valuable and effective tool that helps to further refine our design-build projects and obtain the best value for taxpayers.”* Caltrans has reported savings of over 10 percent on its DB projects due to ATCs.

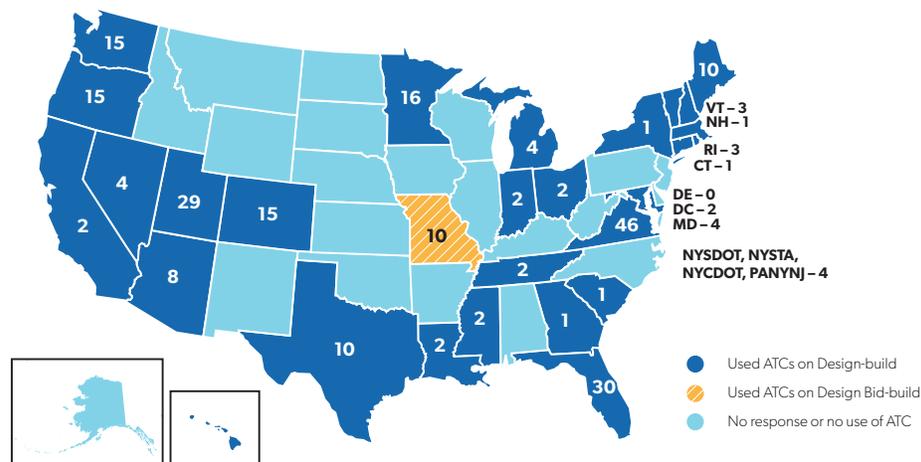
## CURRENT STATE OF THE PRACTICE

Figure 1 shows States that have used ATCs as of December 2012.

## SUPPORT AND AVAILABLE TOOLS

- ▶ FHWA’s Alternative Technical Concepts Website, including links to State DOT ATC Websites, <http://www.fhwa.dot.gov/construction/cqit/atc.cfm>
- ▶ Contact your FHWA Division Office, <http://www.fhwa.dot.gov/about/field.cfm>

**FIGURE 1:** Use of Alternative Technical Concepts; Estimated Number of Projects; FHWA Division Office Survey 2012/ EDC 2 Summit Information



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Every Day Counts (EDC), a State-based initiative of FHWA’s Center for Accelerating Innovation, works with State, local and private sector partners to encourage the adoption of proven technologies and innovations aimed at shortening and enhancing project delivery

