



Design / Build Contracts and Right-of-Way Activities

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Background

The design/build approach is an innovative construction technique which allows a single procurement for the design and construction of projects. It is one of four innovative contracting practices which are being explored and evaluated in the FHWA Special Experimental Project No. 14 (SEP 14). The design/build approach has been used successfully by many States, typically on bridge projects. Twenty-six states, several municipalities and local public agencies have utilized design/build to advance projects.

The design/build concept allows the contractor maximum flexibility for innovation in the selection of design, materials and construction methods. Under the design/build concept, the contracting agency identifies the end result parameters and establishes the design criteria minimums. The prospective bidders then develop proposals which optimize their construction capabilities. Design/build opens up a new degree of flexibility for innovation. Allowing the project design to be tailored to a contractor's advantage provides flexibility to compensate for cost increases in one area through efficiencies in another. This concept allows the contractor to optimize his work force, equipment and scheduling.

However, along with the increased flexibility, the contractor must also assume greater responsibility and risk. Because both design and construction are performed under the same contract, claims for design errors or delays are not allowed and the potential for other types of claims are greatly reduced. In addition, when right-of-way (R/W) activities are involved, special attention should be given to the anticipated construction schedule. The prime contractor should be cognizant of the risks associated with lengthy relocations and court cases. From a state highway agencies' perspective, the potential time savings is a significant benefit and sometimes outweighs the risks.

Recently, design/build projects have been authorized to include (R/W) acquisition in addition to design and construction, creating a "turnkey" project for the State. Prior to this authorization, necessary R/W for design/build projects was typically provided by the State or local transportation agency. To include R/W acquisition services as part of the design/build approach, it must be allowed by State procedures for procurement of such services.

Design/build projects including R/W acquisition are expected to increase nationwide. With the increase in funding provided by TEA-21, many States are turning to design/build contracting to advance projects. Section 1307 of TEA-21 expands and clarifies the circumstances under which design/build projects may be advanced (amended 23 USC Section 112 by adding design/build contracting for any ITS project over \$5 million and any other project over \$50 million). It also dictates that regulations will be developed in consultation with AASHTO. In the interim, States interested in advancing projects utilizing design/build contracting will continue to be approved under the SEP 14 program.

With generous cooperation from the states of South Carolina and Virginia, and the Transportation Corridor Agency, Orange County, California, the Office of Real Estate Services reviewed several design/build projects. We interviewed officials from the State and FHWA Division offices, along with key individuals from the prime contractor's team, to determine "best practices" and the extent of any problems associated with these projects. The following information is provided for your use in advancing design/build projects.

Unique Characteristics of Design/Build Projects

- R/W acquisition is accomplished by a consultant hired by the prime contractor. This fact has caused some problems for States in adequately monitoring the acquisition process since the consultant reports directly to the prime contractor.
- Control of the project, including scheduling, construction staging and acquisition segments are dictated by the contractor unless specified otherwise in the contract.
- Risk must be allocated to the proper entities who have been empowered with the trust and responsibility to advance the job. Advancing construction and acquiring property prior to final design is a risk generally acceptable to the contractor.

- In effect, design/build contracts authorize construction at the time of the award. This allows construction to commence as soon as a "buildable segment of R/W" is acquired. Such a segment could be a single parcel of acquired R/W or a grouping of such parcels that form an area that is viable for construction activities to begin. Because of the construction authorization, the "turnkey" projects we reviewed did not require traditional R/W certifications, which were waived. In lieu of these certifications, the R/W consultant was required to provide a written update of parcel availability to the prime contractor on a weekly basis or more often if a given parcel was critical to advancing construction activities.
- Since construction is authorized at award, the prime contractor must understand the impact R/W has on the schedule, not just the budget. On the projects reviewed, it was the first time that the prime contractor had been involved in highway R/W acquisition activities.
- Design/build contracts that include R/W activities in air quality non-conformity areas are treated differently than standard projects. If the design/build contract was executed prior to the conformity lapse, then R/W activities could continue. If the R/W authorization is separate from the design/build contract or is not approved prior to a conformity lapse, then we could not authorize the R/W acquisition or allow it to continue except under specific circumstances.
- The decision to advance a R/W segment to the construction stage shall not impair the safety of or in anyway be coercive in the context of 49 CFR 24.102(h) with respect to unacquired or occupied properties on the same or adjacent segments of project R/W. The design/build contract documentation would include this requirement and specify a mechanism to implement it.
- Incentives to complete the project ahead of schedule are typical on design/build projects. Cost savings incentives, cash bonuses, interest savings on bond projects, and the reputation for delivering projects on time and under budget all have an affect on the acquisition/relocation phase of these projects.
- Cost and time savings are anticipated on design/build projects based on streamlined or improved internal coordination of the project development process including the R/W acquisition function.

Recommendations and Best Practices for Design/Build Contracting

R/W must be acquired and cleared in accordance with the Uniform Relocation and Real Property Acquisition Policies Act of 1970, as amended, and State DOT R/W procedures. Actions which create an undue hardship for property occupants must be minimized to the greatest extent practicable or avoided altogether. Staging of R/W acquisition, adequate relocation lead time, coordination with construction activities, and creation of hold off zones related to occupied properties are all critical to integrating R/W acquisition activities into the design/build concept. The following is provided for consideration in utilizing design/build contracting to advance projects including R/W activities. Not all of the items are applicable to all projects; however, each one should be analyzed for relevance to a particular project.

Design/Build Proposals - Essential Considerations

- How will R/W acquisition and relocation services be managed by the prime contractor?
- What type of quality control methods will be employed to assure that all property owners rights under the Uniform Act and State requirements are being met?
- Who will provide negotiation and relocation services, and what are their qualifications?
- What safeguards will be in place to assure that occupied properties are protected from unsafe conditions?
- How will the prime contractor ensure that no coercive actions as described in 49 CFR 24.102(h) will result from advancing a R/W segment to the construction stage or any other actions that may be undertaken that could adversely affect the R/W process and compliance with governing state and federal requirements?
- What oversight will be provided by the state for the R/W acquisition part of the design/build contract?

Recommended Design/Build Contract Requirements

- The R/W certification process can be incorporated into the design/build contract. The contract could include language that provides that construction will not commence until all property is acquired and relocations have been completed. In situations where large, multi-year construction projects are undertaken, the construction could be phased or segmented to allow R/W activities to be completed in phases thereby allowing certification for each section.
- A reasonable schedule for the design, R/W acquisition/relocation and the construction phases of the project.
- Consider whether the State shall have the right to participate and approve selection of the R/W consultant.

- Submission of written acquisition and relocation procedures to the State DOT for approval prior to commencing R/W activities. These procedures should contain a prioritized appraisal, acquisition, and relocation strategy and should set out possible check points for State DOT approval, specifically the approval of just compensation. In addition, any of the following could be set up as check points or approvals by the state for monitoring purposes: replacement housing payment (RHP) calculations; RHP and moving cost claims; appraisals; administrative and stipulated settlements that exceed determined thresholds based on a risk management analysis, etc.
- Based on the scope, complexity, local support and the R/W consultants home office location; establishment of a local R/W office, either on the project or a short distance from the project, should be considered. The hours of operation of such an office should be customer oriented and convenient.
- Submission to the contractor and the State DOT of a written relocation plan which provides reasonable time frames for the orderly relocation of residents and businesses on the project. It should be understood that these time frames will be based on best estimates of the time it will take to acquire the R/W and relocate families in accordance with certain legal requirements and time frames which must be adhered to. Accordingly, the time frames estimated for R/W acquisition will not be compressed in the event other necessary actions preceding R/W acquisition miss their assigned due dates.
- Establishment of a project tracking system and quality control system. The contractor shall provide a project tracking system acceptable to the State DOT which shall show the appraisal, acquisition and relocation status of all parcels or requiring regularly scheduled reports.
- Consider whether the contractor shall develop a quality control system which reviews the R/W consultants work product for regulatory compliance or if the State will provide a monitor for the project. The quality control system may consist of an independent consultant with the necessary expertise in appraisal, acquisition and relocation policies and procedures, who can make periodic reviews and reports to the State DOT and contractor.
- Consider the establishment of a "hold off" zone around all occupied properties. The limits of this zone should be established by the State DOT prior to the contractor entering on the property. There should be no construction related activity within the "hold off" zone until the property is vacated. The contractor should have written notification of vacancy from the R/W consultant or DOT prior to entering the "hold off" zone.
- Based on the type of work taking place and the relative location to occupied property, consider that active work areas adjacent to "hold off" zones may need to be delineated by orange plastic fencing.
- Adequate access shall be provided to all occupied properties to insure emergency and personal vehicle access.
- Utility service must be available to all occupied properties at all times prior to and until relocation is completed.
- Open burning should not occur within 1000 feet of an occupied dwelling.
- The State DOT will provide a R/W project manager who will serve as the first point of contact for the consultant R/W firm and the contractor with respect to R/W concerns.

Right-of-Way Best Practices to Consider in Design/Build Projects

- Develop the project goals, then develop the request for proposals.
- Early involvement of R/W, at the design level, is imperative to the success of the project.
- All parties, including the state R/W section, should be involved at contract origination.
- The determination of just compensation is a State responsibility and may not be delegated to the contractor. The contract should specify the method or steps to be used by the State to approve just compensation.
- Consider phasing the construction and R/W acquisition to concentrate efforts in segments. Acquisition and relocation could be completed by segment and then a notice given to allow construction to proceed.
- Begin acquisition as early as possible.
- Initiate title searches as soon as an alignment is determined.
- Identify whole takings where R/W activities such as appraisal and even acquisition may be accomplished before design is final.
- Anticipate and identify difficult acquisitions early in the process and concentrate early efforts on acquisition/relocation that will require more lead time.

- Consider that attorneys will need information about the property in the event condemnation is necessary. Pictures of the property prior to construction activities taking place are essential.
- Specify how the R/W consultant is to handle uneconomic remainders and landlocked properties.
- Review anticipated stages of construction and acquire necessary parcels in the phases which will occur first in the construction cycle along with properties that are expected construction starting points.
- Properties already owned by the DOT and available to the contractor as staging areas should be identified in the contract.
- The contractor must notify the DOT immediately upon the discovery of any assumed hazardous materials, historical or archeological site.
- Additional temporary easements for the convenience of the contractor can be acquired and the cost deducted from the Contract Price.
- Where the contract provides a "pass through" or actual cost method for R/W acquisition (costs borne by the State, not the contractor), safeguards should be built into the process to prevent incentive payments to property owners. Incentive payments to owners of difficult acquisitions and/or relocations are contrary to the Uniform Act requiring fair and equitable treatment of all property owners.
- Agreements for a Right of Entry should only be used as an exception and the property owner must be fully informed in writing of the rights and benefits to which they are entitled.
- Have regularly scheduled community meetings to keep the public informed.
- Consider providing the prime contractor the ability to process checks for title work, land acquisition, relocation, court, and closing costs or to establish an account with a local attorney. This could save significant time over normal state procedures for processing claims and could aid negotiations.
- Limit the number of people contacting the property owners.
- The purchase of borrow material by the contractor can have an impact on negotiations for the property. Consider the implications of higher prices for borrow than for land values.
- Ensure the R/W consultant knows how to prepare and maintain project acquisition files.

For additional information, contact:

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or refer to the following FHWA resource: <http://www.fhwa.dot.gov/ipd/finance/index.htm>

or the following private sector resource: The Design/Build Institute of America <http://www.dbia.org>

To provide Feedback, Suggestions or Comments for this page contact Dave Leighow (dave.leighow@dot.gov).

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