PUBLIC-PRIVATE PARTNERSHIPS

A LOOK FROM THE INSIDE AT THE RISK MANAGEMENT ISSUES

ACEC Risk Management Committee

The Risk Management Committee of the American Council of Engineering Companies (ACEC) believes the Public-Private Partnership (PPP) method of project delivery is becoming increasingly important, particularly in large tollway projects. This model is not native to the US and was largely unknown until a few years ago. The model rearranges the roles and relationships we have become used to in the conventional design-bid-build scheme. Conventional drivers of behavior have been shifted by the addition of new partners, differing payment schemes, long-term profit rather than short-term profit, and being owners and caretakers rather than designers and builders. If new players do not understand the new motivations, alliances, and relationships, the results can affect small and medium size firms, costing them significant monies, lost productivity and maybe even their existence.

To determine these impacts and role changes, the ACEC PPP Sub-Committee convened a roundtable of successful and experienced professionals in the Tollway PPP business to discuss the pertinent issues in a no-holds-barred discussion of the roles and relationships in a PPP. This group, including owners, concessionaires, financiers, builders, designers, and key subconsultants met for a full day in Houston, Texas on January 9, 2009 to create this document. We owe them a debt of thanks for sharing their knowledge and experience.

This document is provided solely for informational purposes as an issue-spotting guidance paper for those firms contemplating PPP projects. It is not intended to provide a standard of care or legal advice. ACEC is not responsible for, and expressly disclaims, liability for any claims arising out of use, reference to, or reliance on information contained in this document.

Public-Private Partnerships are a variation of the old Design-Build-Operate-Maintain model, which was occasionally used in highway construction. The financing and profit features have been added along with return of the facility to the public entity after the “lease” period. Agreements to perform the services inherent in a PPP have no standard conventional contracts and have been called “Comprehensive Development Agreements,” “Exclusive Development Agreements” and a wide variety of other titles by the various public entities. Each of these agreements is likewise unique and can have a wide variation in requirements, specifications, mandates, and rewards. Thus, the first and foremost of the considerations is the form and terms of the agreement itself. Among these considerations are:

- Right-of-Way acquisition and ownership.
- NEPA status and ROD status and control of process.
- Project Viability – Is the project financially viable and if not, has an alternate source of funding been identified?
- Public Perception on the Concept and PPP – Will the concept of PPP and tolling be supported by potential customers?
- Design parameters
    - AASHTO, State DOT, local agencies or others
    - Preliminary designs and the right to adjust designs during the proposal process and after complete investigation
- Design methodologies
    - Pavement design methodologies, i.e. empirical vs. mechanistic
    - Traffic (design vehicle) and number
    - Subgrade improvement
    - Slopes/retaining structures
    - Tolling systems
- Length of operating agreement or "lease."
- Requirements for "hand back" condition of the facility.
- Tolling limits/profit sharing.
- Maintenance minimums such as roughness, PCI, or other standard.

These contractual considerations need to be addressed and be satisfactory for the entire team, including subcontractors and subconsultants. Frequently the initial contract issued by the procuring agency will impose undue and unworkable requirements on the proposers, e.g. requiring the bid for pavement to be a guaranteed maximum before the subgrade is fully investigated. It is important for all team members to contribute to the identification and resolution of these matters, including encouraging the procuring agency to reconsider either its requirements or the data made available to teams during the procurement phase.

The Public-Private Partnership team is unique in the construction business since the owner, financier, concessionaire (leaseholder), builder, subcontractor, maintenance contractor, designer, and critical sub consultant are all part of the team and must work together for an extended period. Thus, team chemistry and communication are critical. Becoming part of a team where each party does not understand the required contribution of each other party could spell disaster.

Having discussed the contractual and teaming aspects, the remaining considerations were deemed secondary by the group and will be listed in no particular order with no particular team member in mind. These considerations include:

- It is important for the developer / concessionaire to take a long-term 30-50 year view. This long term view will allow the concessionaire to examine the trade-offs between short term vs. long term expenditure, which is difficult within a Design-Build or Design-Bid-Build procurement.
- Despite the desire of engineers to provide a long-lasting structure, it may be less expensive to replace the structure within or at the end of the contract.
- Public Relations during the public comment period are critical. Teams should be willing to help the owner with PR – many worthwhile projects have been terminated due to the public's lack of understanding.
- The "preliminary" pavement design becomes the final design as soon as the team is selected.
- Most concessionaires believe designers should participate in the financial risk associated with preparing a proposal in a competitive process, i.e., design the project for a discounted fee at the proposal stage.
- Traffic and revenue projections provided for financing studies should be considered very conservative for design purposes.
- Pavement designers should understand the risk of providing preliminary pavement designs that become final designs as soon as the proposal is accepted: (a) there is no room for error, (b) too conservative and the proposal will fail, (c) too aggressive and the pavement will fail. In order to manage these design and construction risks, designers and contractors should be pro-active in seeking additional information from the procuring agency or, as a last option, directly from field tests.
- Financiers closely monitor and influence the process by seeking independent advice in relation to the:
    - Cost of construction
    - Timing (opening date)
- Contractors/Concessionaires should consider the design must be relatively complete to properly bid the job, which requires a considerable effort on the part of the design partner.
- Liquidated damages tied to completion dates are very high due to the need to cover debt service (e.g. bond payments).
- Contractors are paid based upon milestone events rather than work performed and "materials on hand." Concessionaires recognize that the most efficient financing solution is one where the contractor is not required to provide financing on behalf of the project, and milestones should be set with regard to the work program and funding requirements of the contractor.

- Many participants in PPP projects have experience in international markets. It is important to marry their international experience with U.S. practice and standards and to manage any differences in approach closely to ensure that design and construction risks are appropriately managed.
- Most financiers are foreign-based and may have their own ideas about design and construction, which may not mesh with our concepts.
- Do not underestimate the power of the governmental entity to control/rewrite the agreement, terms, conditions, alignment, etc., even after the contract is signed.
- Naturally, designers/Engineers may not intimately understand the financing viewpoint (and vice versa). A strong team will communicate and reconcile competing priorities.
- Owners typically have their own engineers who have an interest in protecting their own designs as well as the interests of the owner.
- The uncertainty of traffic volumes is a critical risk and provision should be made fpr counting the traffic loads (as part of a broader traffic and revenue study).
- The contract should explicitly allocate the risk of needing to expand the facility before the scheduled expansion date or end of lease.
- Weigh-in-motion sensors not only protect the team from heavy traffic damage but can also be used as enforcement of weight restrictions.
- Environmental project approvals are usually owner- or concessionaire-controlled.
- Profit distribution between the owner/concessionaire/builder/designer/sub-consultants is often not addressed or is confusing. Some transparency is required so financiers can understand the "buffer" built into the project economics.
- Design/builder has ultimate responsibility for completing the project on time and within budget.
- Concessionaire legal entity – owner wants only one to be responsible; joint-venture/corporate/etc. Subcontracts will usually outline the roles, responsibilities and rewards of the team members.
- How does the concept of negligence fit into this project delivery model?
- Dealing with the cost, delays, etc., of utility relocation/improvement is problematic – generally the concessionaire team will seek some risk sharing with the owner.
- Dispute resolution – consider dispute avoidance program including risk allocation, partnering, and alternative dispute resolution (DRB, Mediation, and Arbitration).
- Who determines when the documents are good enough for construction – is a detailed set of design documents really necessary?
- Contingencies – who owns them and how are they distributed?

- Maintenance costs must be a primary consideration in selecting competing designs – “whole of life” costs must be taken into account.
- Contract must consider traffic in “hand over” condition. Contract must consider smoothness and Pavement Condition Index versus number of ESALs applied.
- Owners and financiers have their own designers, legal, and maintenance advisors that often will disagree with the design/build team. How are these conflicts handled?
- How are change orders to be handled – contingencies, builder pay, and financier pay?
- Cost (profit) sharing in value enhancements and innovations.
- Ethical consideration for designers and engineers.
- Schedule-driven builders versus perfection-driven design engineers.
- Third party reliance on engineering documents (bondholders, rating agencies, SEC, underwriters, etc.).
- What should reliance documents look like (limitations, qualifiers, assumptions, disclaimers, etc.)?
- Internal communications – how to be open, honest, and complete with the design/build team.
- Hazardous materials ownership and potential delays.
- Alternative Technical Concepts or ATC, Alternative Design Concepts or ADT, etc. Owner treatment - independent evaluation to eliminate prideful protectionism.
- Ownership and protection of innovations and alternative design/construction techniques.
- Owner canceling project after proposals are complete – ownership of proposals and reuse of concepts and ideas.
- Differences between concessionaire/builder/designer business models. Cash flow, risk/reward, insurance, fee structure, billing methods, etc.
- Public resistance to tolling – how can proposal teams support the owner.
- Owner/team sharing innovations/savings.
- Third party review of designs – picky or hypercritical?
- Changed conditions –
    - Unanticipated soil conditions
    - High water
    - Fill or deleterious materials
    - Land owner alteration – mining
- Pressure to reduce costs resulting in faulty or unserviceable designs.
- Owner delay in the proposal process.
- Owner’s representatives’ role – advisory, authority, or neutral – handling appeals.
- Risk allocation – contractual process – fairness or just risk avoidance.

- Payment to unsuccessful proposers should be sufficient to make them whole for proposal preparation costs.
- Prequalification of proposers to limit the cost of preparing and reviewing proposals.
- Dealing with unavoidable external pressures – NAFTA, vehicle weight allowances, speed limit changes, vehicle designs, etc.
- Diversion of productive staff in proposal preparation.
- Selection criteria – best value, best price – role of qualifications, price vs. experience.
- Inspections/testing – advisory or acceptance – given the 30-50 year lease are these appropriate? Should owner dictate quality or just performance?
- Scope creep during and after the proposal process.
- Accuracy of owner investigations, particularly geotechnical and subgrade, can significantly affect cost of proposal, conservativeness and accuracy of pavement design.
- Is success fee adequate compensation for risk and cost expended?
- Proposal preparation impact on other segments of the business.
- Pavement design risk vs. reward vs. responsibility.
- Flexibility to innovate.
- Schedule impacts – nights, weekends, overtime, etc. (100% commitment to proposal)
- Personnel impacts – quality of life vs. compensation.
- Letter of credit – differences between European and US definitions.
- Team structure – who is conflicted out.
- Competitiveness of “free route” versus “toll route” – public entity competition.
- Public perception of “foreign” ownership of public facilities.

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