

Managing Risk and Cost in Transportation Projects

Risk is something each of us encounters every day. So is risk management. For example, when crossing a street we control our risk of being hit by looking both ways or using the traffic controls at the intersection.

Transportation projects almost always include areas of risk that need to be managed in order to avoid costly problems. Just as with crossing the street, it is wise to “look both ways” and put a risk management system in place well before the start of construction.

Common risk factors for transportation projects may include:

- Purchase of additional right-of-way
- Overruns and schedule delays
- Delivery/contract terms: Contractor/Owner relationship

Most decisions and solutions on a project will include cost and risk impacts. Typically, the lowest risk option to the Owner places the most risk burden on the Contractor and involves higher cost and a longer delivery time. Having the Owner assume all the risk will typically result in lower costs and shorter delivery time, but what if something goes wrong?



Here are some real life examples of how risks can be reduced:

- Before the final roadway alignment and new right-of-way (ROW) limits are established, consider securing right-of-entry agreements from each potentially impacted property. This strategy allows for a much more detailed analysis of potential impacts on the project budget and schedule in the planning phase. As a bonus, early contact with property owners promotes good relationships well before the land acquisition process takes place.
- Schedule-driven financial bonuses/penalties can be proposed in agreements with contractors doing work in the same area. Proposed or mandatory weekly coordination meetings and partnering help mitigate overlapping construction concerns.
- Consider setting up a shared risk/contingency fund with the Contractor based on predetermined areas of risk. For example, the Contractor could be allowed to keep the balance of this fund at the end of the project – an incentive for the Contractor to take on more risk and manage his risk wisely as problems arise during construction.

Your professional consulting engineer plays a key role in the management of risk on your major construction projects. The consultant can anticipate many of the potential risk elements at a very early stage and can help lead you through a matrix-based decision process that helps balance risks and costs. Risk management is an important aspect to consider in the overall consultant selection process. ACEC Indiana consulting engineering firms are highly skilled in the risk management process and can help deliver on the many challenging public works projects a municipality will take on. For more information, call ACEC Indiana at (317) 637-3563 or visit www.acecindiana.org.