

Outsourcing of Alaska Department of Transportation & Public Facilities' Capital Improvement Program Delivery Staff Positions

Prepared by Greater Fairbanks Chamber of Commerce (GFCC)
Transportation & Infrastructure Committee

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Issue:

At issue is concern about recent proposals to increase the use of consultants to deliver transportation infrastructure projects within the Alaska Department of Transportation & Public Facilities (ADOT&PF). With over half of design work already outsourced, further increasing this activity will impact the State of Alaska by 1) increasing the cost of projects, 2) increasing the time to complete projects, 3) sacrificing project quality and 4) limiting the flexibility of the department to respond to dynamic conditions. Maintaining a core of seasoned engineers, planners and other professional staff at ADOT&PF is essential for the continued effective development of Alaska's transportation system.

Background

The Greater Fairbanks Chamber of Commerce's Transportation Infrastructure Committee advocates for improvement and growth in transportation infrastructure for the Interior and throughout the state. This includes the development of roads, rail, airports, terminals, as well as water access, pipelines, and communication/ transmission lines, with the goal of enhancing Fairbanks as the premier Northern Alaska transportation hub. In this role, the committee and its members regularly interact with ADOT&PF staff during the planning, design, construction and maintenance of transportation projects, which are vital to the ongoing economic health of the state. The GFCC, through the Transportation Committee, is concerned about the Governor of Alaska's initial FY18 ADOT&PF budget draft, in which a significant portion of the Department's design and construction engineering staff positions were proposed to be cut, with the intention of outsourcing the work to transportation industry consultants. The Transportation Committee believes that this proposal, if adopted, would have a detrimental effect on the long-term ability of ADOT&PF to deliver projects timely and efficiently, and to continue to be good stewards of the public resources allocated to them.

ADOT&PF currently uses consultants to execute approximately 50-60% of its design work. The GFCC is concerned that an expanded process of utilizing outside consultants to perform a greater percentage of the necessary pre-construction design and construction management services for transportation projects will be more expensive, delay project delivery, reduce final project quality, and limit the department's ability to respond to change.

In the following sections we will elaborate on some nuances for each of these points.

Project Delivery Cost

- **Consultant's services cost more than comparable in-house ADOT&PF project delivery services**
- **The "unique realities" of Alaska's project circumstances and terrain make it difficult for consultants to accomplish specialized work in the same amount of time as experienced state personnel**
- **Communication of surprises and resultant treatment of project changes is less expensive when contractual change orders aren't needed**

ADOT&PF is somewhat unique within the state's system in that a significant portion of the capital project delivery staff costs are not a direct cost to the state, and the engineering/construction staff is one of the best examples of this unique situation. Most of ADOT&PF's project planning, design and construction management work is funded by federal transportation dollars, and at this time when there are very few to no 100% state funded projects, those funds are paying 90%+ of the wages of many ADOT&PF design, pre-construction and construction management personnel. Engineering staff time designing and facilitating the construction (but not the maintenance) of Alaska roads and airports is paid with federal highway or aviation dollars, matched with a small percentage of state funds (typically the highway fund match is 8 to 9%, and the aviation fund match is 5%). While it may appear you will save the state match dollars by eliminating the DOT&PF Engineering positions funded by the Federal project, in reality these dollars would still be expended in paying consultants as the State still intends to match every federal dollar available and deliver the same total program. Furthermore, the savings of that small percentage will not offset the significant additional costs and impacts to the state budget that will result from the elimination of these jobs.

The cost of external design/construction consultants is generally higher than using state employees of the ADOT&PF to perform the planning, design and construction tasks required to bring a project to fruition. Using the terminology applied to consultants, indirect costs for work performed are measured as a multiplier of direct costs, and this amount is added to the direct costs to obtain the total cost for the work. For work performed by ADOT&PF personnel, the indirect costs are approximately 0.9 times the direct costs, and for external consultants the indirect costs are approximately 1.5 times the direct costs. For external consultants there is also a need to make a profit to sustain their business, and this is added to the direct and indirect costs. Ultimately, using external consultants can be 40% higher than accomplishing the same work by using internal ADOT&PF staff. This increase in project costs will result in fewer lane miles of work being accomplished for the same amount of money. The final cost of using external consultants is likely to be even higher:

- In engineering, proficiency and economies of scale are obtained by repeated practice and specialization. External consultants by necessity have many clients and broad knowledge, and not the depth of knowledge of regulatory requirements, processes and relationships to do the specialized Alaskan transportation design work as efficiently as internal ADOT&PF staff. Subsequently, it will take consultants more hours than ADOT&PF personnel to complete the work, raising the direct costs, the indirect costs and profit ultimately paid for the work.
 - If consultants were to dedicate personnel to become specialists in ADOT&PF pre-construction work, then they would only become equal to where the ADOT&PF is today.

- If consultants intend to buy this expertise by hiring current ADOT&PF employees, then the higher costs of private industry wages and benefits will simply be passed on to the State, with the primary benefit being to the consultant's bottom line profit.
- ADOT&PF personnel often transition in their career paths from one ADOT&PF department to another, expanding the reach of their historical knowledge of projects and the variety of actions needed to complete the planning AND design AND construction AND maintenance of the project's circumstances. Communication and collaboration occur across sections, so that lessons learned and knowledge of identified best practices can increase the value of future construction dollars, as the current depth of Department knowledge is incorporated into new projects.
- With expanded use of external design/construction consultants, the ADOT&PF will still have to oversee the work products that the consultants develop, in order to ensure compliance with FHWA/FAA regulations and assure that the consultant's work fully addresses the purpose and need for the project. This will cost an additional amount, likely 10% or more, compared with normal internal staff oversight.

Quality and Schedule

- **Consultant's personnel typically have less road and airport field experience than ADOT&PF's staff**
- **The ADOT&PF's close relationship with permitting agencies is seldom transferable to others**
- **Having a deep, experienced and well led project team makes ADOT&PF more flexible in accomplishing projects despite the discovery of various complications, problems and changes**

The quality of the diverse project designs and remote construction management efforts will often be lower due to the lack of substantial Arctic engineering experience and unfamiliarity with the unique conditions of Alaska, resulting in more impacts in schedule and costs to projects as non-compliance issues are discovered and resolved at the expense of the ADOT&PF.

ADOT&PF's normal Preconstruction work involves a variety of design services including right of way acquisition, utility relocates, embankment and road prism materials selection, bridge and roadway design and environmental permitting. As ADOT&PF's Pre-Construction group specializes in these fields by executing the needed work on almost every project, they have well-defined and efficient processes as well as deep internal knowledge of federal and Alaskan requirements. Each item of work can presently be managed directly by the ADOT&PF project lead, with daily adjustments made as needed to most efficiently meet the project requirements. Every project has unique characteristics, challenges and decision points. Coordinating these with external consultants will be more costly due to the involvement of an additional management entity, changes to contract scopes of work and the inevitable miscommunication that occurs whenever new links are added to a chain.

Most external consultants do not have the established relationships or experience required to deal efficiently with Federal, State and local agencies to coordinate all the different phases and funding of the work, and it would be unreasonable to expect these agencies to maintain working relationships with innumerable consultants working on different projects with different execution timelines.

Delivering the Federal Highway and Aviation capital project programs (\$850M+/-) every year is a constant juggling act. Every project has numerous schedule milestones that are continually being adjusted due to finances, permitting and changing priorities. Having an in-house design capability allows for easy response to shifting priorities and unanticipated project complications. ADOT&PF designers and construction staff can and do readily shift their focus from one project to another as the program requirements, and funding complications dictate. The Department has a long history of not only obligating all of the federal funding designated to Alaska but also has been able to take advantage of funding that other states have failed to obligate which has then been redirected to Alaska. The flexibility of the in-house design staff is a key reason for this excellent track record of fully leveraging ALL available Federal funding.

It would be difficult for any Federal or State agency to determine the relative priorities of competing projects, and the State cannot expect these other agencies to teach Outside consultants how each process flows and what the pre-requisites are for each approval that is needed. Each non-conforming or out of sequence submittal will lead to delays in project delivery which will impact all end users, and may in the extreme threaten the availability of funding for a project. Examples of design or construction management consultants following their own methods are evident in some project packages today, with some designers forgetting or ignoring the standard details prescribed by the State in favor of standard details proprietary to their company, or the state they are domiciled in. This usually adds unforeseen costs to the construction contractors with no benefit to the State or the end user.

Outsourcing most or all of the design and construction management functions would compound the complexities that the state has to address when coordinating multiple projects in close proximity to one another. It is already difficult when the state's interests are fairly easy to discern, but adding a consultant aspect to the situation will make it even more fraught with frustration and expense.

Retention of Skills

- **The ADOT&PF system is a successful model, with experience and dedication rewarded by increasing responsibility, challenges and increased pay grades.**
- **Exposure of internal personnel to many varied projects over time leads to project efficiencies and the successful use of new ideas and techniques as they become proven.**
- **Training young staff members and retaining them is thriftier than training consultants' personnel.**

A distinct majority of the civil and transportation design/construction management firms available for work in urban and rural Alaska are either in Anchorage or Outside. Therefore, because of the months and years of time required to expand the number of capable, experienced people available to deliver these skilled services, it is likely that we will effectively be exporting the federal transportation funds that are currently expended to accomplish engineering design work to economies both outside of the local area, and often outside the State of Alaska. This purported "cost saving" will have significant economic impact in the loss of jobs that were caused by the availability of the funds provided by the federal government, and therefore not a full cost to state government.

Once the engineering work has been exported outside of the current ADOT&PF, decades of valuable institutional knowledge that has been transferred and shared among engineers, planners and others within ADOT&PF will be lost, with the work then performed by rotating consultant design/construction staffs, subject to staff turnover or relocation, with project details and institutional history archived outside of ADOT&PF. Decimating this experienced workforce would take decades to recover from. The impact is already being felt as the word “downsizing” has rippled through Alaska, impacting morale and affecting career decisions. These concerns become paramount when applied to the fact that a project’s life from concept to construction can easily range from 5 to 10 years, with complex projects on an even longer timeline.

Alaska design work encompasses a number of factors – regional considerations due to Alaska’s immense size being just one of them. Both the Federal Highway Administration and Federal Aviation Administration work are unique niches, compounded by the unique geographies present in our state. Outside design staff will have significantly less Arctic design experience than the Alaska-raised, Alaska based, and Alaska committed staff currently at ADOT&PF, and will be learning at our expense.

Alaskan students attend the University of Alaska and then put their education to work for the benefit of the State of Alaska within the ADOT&PF. For decades, Alaska has benefited greatly from the Alaska based experience and institutional knowledge developed internally at ADOT&PF. The use of local interns has allowed ADOT&PF to make the best possible hiring decisions, as they are familiar with applicants’ knowledge and work practice, ultimately creating an even better workforce.

The continued employment and use of internal ADOT&PF engineering staff is essential to the long-term health of the ADOT&PF. Exporting these jobs to private employers will have little benefit to the State, and will have both short and long term consequences that will be hard to rebound from.

Emergency Response

The Department is one of the primary responders when damage occurs to State owned infrastructure. It is difficult to overestimate the advantage that having in-house engineering and environmental resources gives to the ability of the department to respond to them. The collective in-house knowledge that design and construction Engineers have of the State’s infrastructure allows for a cohesive, well-planned and coordinated response from the State. Working closely with the Department, Federal and State agencies leverage relationships built over years of emergency response. There is a whole set of rules for qualifying for Emergency funding and then documenting the response to be eligible for reimbursement. The in-house Department staff have the experience and knowledge to ensure access to those funds.

In-house design and construction Engineers also work closely with the Maintenance Department during design and construction projects and have a working relationship with the front line initial responders. In an emergency, this saves valuable time in expediting the proper coordinated response. ADOT&PF is the lead responder when Alaska’s infrastructure is threatened or damaged. Timely, appropriate and coordinated emergency response starts and finishes with the in-house design and construction engineers.

Conclusion

Maintaining a healthy balance between work performed within the department, while using the resources of consultants, is essential to delivering a continuing series of successful and efficient transportation projects to enhance and maintain Alaska's transportation system. Keeping a core staff of well trained, motivated engineers, planners and other technical staff is important to continuing to deliver these services, which are counted on by businesses and the public to support and enhance the economy of Alaska.

The Greater Fairbanks Chamber of Commerce currently represents over 750 businesses throughout Interior Alaska. The success of our members is directly linked to their ability to do business in an environment that has the necessary infrastructure to support and promote economic development. Our work on behalf of the business community is primarily supported by the volunteers that serve on the Chamber's public policy and advocacy committees.