



October 17, 2003

PROGRAM SURVEY

State: **Alaska**
Agency: **Alaska Department of Transportation & Public Facilities**

Respondent Information

First Name
Last Name
Email
Job Title
Organization
Phone 1
Phone 2
Fax
Address
Address (Cont.)
City
State
Zip Code

Definition of Key Terms Used in the Survey

- **Design-Bid-Build (D-B-B):** The traditional project delivery method in which design and construction are distinct, sequential steps in the project development process, subject to separate procurement approaches and processes.
- **Design-Build (D-B):** A project delivery method in which the design and construction phases are contractually-integrated activities of the project development process. As used in this study, design-build includes the design and construction development stages. The term can also be used to encompass services in addition to design and construction, such as maintenance, operations, and finance (i.e., design-build-maintain, design-build-operate-maintain, and design-build-finance). Franchise and concession agreements are included in the term if they provide for the franchisee or concessionaire to develop the project that is the subject of the agreement.
- **Design-Builder:** The entity contractually responsible for delivering the project design and construction that holds the design-build contract with the owner.
- **Designer:** The lead professional design firm for the project.
- **Builder:** The lead general construction contractor for the project.
- **Subconsultant:** A designer that has a design subcontract with the lead design firm.
- **Subcontractor:** A construction firm that has a subcontract with the lead general contractor.
- **Contracting Agency:** Public agency awarding and administering a design-build contract. The contracting agency may be the State Transportation Agency or another state or local public agency.
- **ITS:** Intelligent Transportation Systems.

Agency Procurement Practices

1. How important are the following factors when making the decision whether or not to use the design-build project delivery approach:

| Selection Criteria | Importance | | | | | | |
|---|----------------|---|---|---|---|--------------|-----|
| | Unimportant: 1 | | | | | Extremely: 6 | |
| Cost of Project | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Urgency of Project | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Opportunity for Innovation | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Opportunity for Appropriate Risk Transfer | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Federal Program Initiative (SEP-14) | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| State Program Initiatives | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Lack of In-House Resources | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Quality | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Other - Specify: | 1 | 2 | 3 | 4 | 5 | 6 | N/A |

2a. Rate the following cost and non-cost factors relative to their importance in awarding design-build contracts:

| Selection Criteria | Importance | | | | | | |
|------------------------------------|------------|---|---|---|---|---------|-----|
| | Least: 1 | | | | | Most: 6 | |
| Cost | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Duration | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Cost & Duration (A+B Contracts) | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Quality Management Plan | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Team Reputation (Past Performance) | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Other: | 1 | 2 | 3 | 4 | 5 | 6 | N/A |

2b. If factors other than cost are used for awarding of design-build projects, what is the average weighting of the cost factor?

(%)

3. Is project prequalification generally required for design-build projects?

- No
- Yes, general or annual prequalification
- Yes, one step, project specific prequalification
- Yes, two step, project specific prequalification reduced to short list
- Other?

4. Is there a minimum and/or a maximum percentage participation of total contract value typically required for the prime contractor on a design-build team?

No Yes
 If yes, indicate percentages below:

(%) Maximum Percent

(%) Minimum Percent

Agency Design-Build Policies and Procedures

5. Did your agency require special permission or legislation to use design-build contracting?

No Yes

If yes, check which of the following changes were needed (check more than one category if applicable):

- Special Legislation
- Change in agency regulation
- Other - specify:

6. Does your agency have written design-build contracting policies?

No Yes

If yes, did the development of design-build contracting policies and procedures precede the first design-build project?

No Yes

7. To what extent was the highway design/construction industry involved in developing the agency's design-build program?

| | | |
|----------------|----------------------|-----|
| None: 1 | Significant:6 | |
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| | | N/A |

8. Was any assistance provided to the highway design/construction industry to help them respond to design-build project opportunities?

No Yes N/A

If yes, check whichever applies:

- Training workshops
- Design-Build guidebook or manual
- Stipends
- Other - specify:

9. How adequate/appropriate are your agency's procedures and resources used for handling the procurement and contract administration of design-build projects:

| Administrative Procedures/Resources | Rating | | | | | |
|-------------------------------------|---------------|-------------|---|---|---|---|
| | Inadequate: 1 | Adequate: 6 | | | | |
| Procurement Procedures | 1 | 2 | 3 | 4 | 5 | 6 |
| Procurement Resources | 1 | 2 | 3 | 4 | 5 | 6 |
| Contract Administration Procedures | 1 | 2 | 3 | 4 | 5 | 6 |
| Contract Administration Resources | 1 | 2 | 3 | 4 | 5 | 6 |

10. At what point in the design-build project delivery process does your agency typically verify compliance with the contract requirements and accept/reject the work? (check one):

- As work progresses
- At project's end
- At warranty's end
- Other - explain:

11. Is the agency's role in performing these quality assurance activities specified in the design-build contract?

No Yes

General Experience with Design-Build versus Design-Bid-Build Projects

12. Relative to design-bid-build contracting, how much agency administrative time (pre-award and post award) is typically required for design-build project? (indicate a positive or negative percentage change in agency administrative time relative to design-bid-build contracting):

| Agency Project Administration | D-B Projects Relative to D-B-B Projects (%) |
|-------------------------------|---|
| Procurement time | % |
| Contract administration time | % |

13. Which group(s) are typically responsible for the following functions, for design-build projects and for design-bid-build projects, respectively? (check all that apply):

| Risk/Responsibility Category | Design-Build | | Design-Bid-Build | | |
|---------------------------------------|--------------|----------------|------------------|----------|---------|
| | Owner | Design-Builder | Owner | Designer | Builder |
| Final Alignment Geometry | | | | | |
| Geotechnical Data | | | | | |
| Environmental Permits | | | | | |
| Design Criteria | | | | | |
| Design Defects | | | | | |
| Constructability of Design | | | | | |
| Obtaining ROW | | | | | |
| Coordinating with Utilities/Railroads | | | | | |
| Quality Assurance | | | | | |

14. Which project stakeholder(s) are typically responsible for providing the following type of insurance for design-build projects, and for design-bid-build projects (check all that apply):

| Type of Insurance | Design-Build | | Design-Bid-Build | |
|-------------------------------------|--------------|------------|------------------|------------|
| | Agency | Contractor | Agency | Contractor |
| Commercial General Liability | | | | |
| Excess Liability | | | | |
| Environmental Liability | | | | |
| Workers' Comp./Employer's Liability | | | | |
| Professional Liability | | | | |

Small Business Implication

15. In assessing the level and type of competition for design-build projects, provide your best estimate of the average number of teams/firms competing per project by project delivery approach below: (use N/A for Not Applicable or Not Available)

| Dimension (average per project) | D-B Projects | D-B-B Projects |
|--|--------------|----------------|
| Average number of teams responding to RFQ per project | | |
| Average number of teams responding to RFP per project | | |
| Average percentage of project costs to be provided by small firms (%) | | |
| Average number of local competing teams (led by local firms) per project | | |
| Average percentage of project costs to be provided by small local firms on local competing teams (%) | | |
| Average amount of stipends paid per team per project (\$000s) | | |

* **Note:** Small business is defined as any organization with less than 500 employees and \$6 million in average annual receipts for service organizations (\$28.5 million for general building and heavy construction contractors and \$12 million for special trade construction contractors) For applicable small business size standards by industry category, see the U.S. Small Business Administration's Small Business Size Regulations, 13 CFR Â§121 or the Table of Small Business Size Standards.

16. Have small businesses (engineering firms and construction contractors) been more or less involved in design-build projects versus design-bid-build projects? (check one for each category below):

| Type of Insurance | Rating | | | | | | |
|------------------------------------|---------|---|---|---------|---|---|-----|
| | Less: 1 | | | More: 6 | | | |
| Involvement by small design firms: | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Involvement by small contractors: | 1 | 2 | 3 | 4 | 5 | 6 | N/A |

17. On average, are design-build companies and their subcontractors similar in size to those of similar design-bid-build projects?

No Yes

If no, how do they differ from design-bid-build teams? (check one for each category)

| Design-Build Teams | Rating | | | | | |
|---------------------------------|------------|---|---|-----------|---|---|
| | Smaller: 1 | | | Larger: 6 | | |
| Design-Build Contractor Size | 1 | 2 | 3 | 4 | 5 | 6 |
| Design-Build Subcontractor Size | 1 | 2 | 3 | 4 | 5 | 6 |

The following questions seek information to characterize the nature and extent of your agency's Design-Build program

18. Please list the volume of design-build projects completed in the past fiscal year versus all capital projects for each project type:

| Design-Build Project Volume | Highway | | | Bridge | Tunnel | ITS | Total |
|---|----------------------------|--------------------------------|-------------|--------|--------|-----|-------|
| | New/ Realignment/ Widening | Rehabilitation/ Reconstruction | Resurfacing | | | | |
| Number of D-B projects finished in the past fiscal year (#) | | | | | | | |
| Total costs of D-B projects finished in the past fiscal year (\$000s) | | | | | | | |
| Number of all projects finished in past fiscal year (#) | | | | | | | |
| Total costs of all projects finished in past fiscal year (\$000s) | | | | | | | |

19. For each project type estimate the proportion (%) of all capital program costs that used each of the following project delivery approaches for projects completed during the past fiscal year: (each column should sum to 100%)

| Project Delivery Approach | | Highway | | Bridge | Tunnel | ITS |
|---|----------------------------------|-----------------------------------|-------------|--------|--------|-----|
| | New/ Realignment/ Widening | Rehabilitation/ Reconstruction | Resurfacing | | | |
| In-House (force account) | | | | | | |
| Design-Bid-Build Contract | | | | | | |
| Design-Bid-Build Warranty Contract | | | | | | |
| Standard Design-Build Contract | | | | | | |
| Design-Build Warranty Contract | | | | | | |
| Design-Build-Operate-Maintain Contract | | | | | | |
| D-B-Operate-Maintain-Finance Contract | | | | | | |
| Performance-Based Asset Mgt. Contract | | | | | | |
| Job Order Contracting (indefinite quantity) | | | | | | |
| Other : | | | | | | |
| Total All Projects (%) | 0% | 0% | 0% | 0% | 0% | 0% |

20. For each project type, estimate the proportion (%) of design-build program costs that used each of the following procurement approaches for projects completed during the past fiscal year: (each column should sum to 100%)

| Procurement Approach | | Highway | | Bridge | Tunnel | ITS |
|---|----------------------------------|-----------------------------------|-------------|--------|--------|-----|
| | New/ Realignment/ Widening | Rehabilitation/ Reconstruction | Resurfacing | | | |
| Low Bid | | | | | | |
| Bid Averaging Method (BAM) | | | | | | |
| Alternative Bids/Designs | | | | | | |
| Request for Proposals | | | | | | |
| Multi-Parameter Bidding, such as: Schedule, Cost-plus-time or Lane Rental, Traffic Control, Warranty, Warranty Credit, Quality Parameter | | | | | | |

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| | | | | | |
|--|----|----|----|----|----|
| Best-Value, such as: Adjusted Bid, Adjusted Score, Weighted Criteria, Cost-technical Tradeoff, Fixed Price- Best Design | | | | | |
| Total All Design-Build Projects | 0% | 0% | 0% | 0% | 0% |

21. For each project type estimate the proportion (%) of design-build program costs that used each of the following contract payment approaches for projects completed during the past fiscal year: (each column should sum to 100%)

| Contract Payment Approach | Highway | | Bridge | Tunnel | ITS |
|---------------------------|----------------------------------|-----------------------------------|-------------|--------|-----|
| | New/ Realignment/ Widening | Rehabilitation/ Reconstruction | Resurfacing | | |
| Unit Price | | | | | |
| Cost Plus | | | | | |
| Lump Sum | | | | | |
| Time & Material | | | | | |
| Other- please specify: | | | | | |
| Total All Approaches | 0% | 0% | 0% | 0% | 0% |

Agency Perspectives on Design-Build Program

22. Based on your agency's experience to date, indicate in general, how suitable certain types of highway projects are to design-build project delivery, versus design-bid-build project delivery?

| Highway Widening/New Alignment | Suitability | | | | | | |
|--------------------------------|-------------|---|---|---|---|-----------|-----|
| | None: 1 | 2 | 3 | 4 | 5 | Highly: 6 | |
| Mega (>\$100 million) | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Large (\$50-\$100 million) | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Medium (\$10-\$50 million) | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Small (\$2-\$10 million) | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Micro (<\$2 million) | 1 | 2 | 3 | 4 | 5 | 6 | N/A |

| Highway Rehabilitation/Reconstruction | Suitability | | | | | | N/A |
|---------------------------------------|-------------|---|---|---|---|-----------|-----|
| | None: 1 | 2 | 3 | 4 | 5 | Highly: 6 | |
| Mega (>\$100 million) | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Large (\$50-\$100 million) | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Medium (\$10-\$50 million) | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Small (\$2-\$10 million) | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Micro (<\$2 million) | 1 | 2 | 3 | 4 | 5 | 6 | N/A |

| Bridges/Tunnels | Suitability | | | | | | N/A |
|----------------------------|-------------|---|---|---|---|-----------|-----|
| | None: 1 | 2 | 3 | 4 | 5 | Highly: 6 | |
| Mega (>\$100 million) | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Large (\$50-\$100 million) | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Medium (\$10-\$50 million) | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Small (\$2-\$10 million) | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Micro (<\$2 million) | 1 | 2 | 3 | 4 | 5 | 6 | N/A |

| Highway Resurfacing | Suitability | | | | | | N/A |
|--------------------------|-------------|---|---|---|---|-----------|-----|
| | None: 1 | 2 | 3 | 4 | 5 | Highly: 6 | |
| Large (>\$5 million) | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Medium (\$1-\$5 million) | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Small (<\$1 million) | 1 | 2 | 3 | 4 | 5 | 6 | N/A |

| ITS | Suitability | | | | | | N/A |
|--------------------------|-------------|---|---|---|---|-----------|-----|
| | None: 1 | 2 | 3 | 4 | 5 | Highly: 6 | |
| Large (>\$2 million) | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Medium (\$1-\$2 million) | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Small (<\$1 million) | 1 | 2 | 3 | 4 | 5 | 6 | N/A |

23. Indicate the degree to which your agency plans to use design-build project delivery in the future, by project type:

| Project Type | Rating | | | | | | N/A |
|-------------------------|---------|---|---|---|---|-------------------|-----|
| | None: 1 | 2 | 3 | 4 | 5 | Significantly : 6 | |
| Highway new or widening | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Highway rehabilitation | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Pavement resurface | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Bridge | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| Tunnel | 1 | 2 | 3 | 4 | 5 | 6 | N/A |
| ITS | 1 | 2 | 3 | 4 | 5 | 6 | N/A |

24. What major changes have been made in the agency's design-build program to improve its effectiveness since its inception?

Have they accomplished their intended purpose? No Yes Partially N/A

25. What major changes are planned in the agency's design-build program to improve its effectiveness in future years?

26. Other comments (Optional)