Alaska Department of Transportation & Public Facilities

The meeting will start promptly at 1:05PM.
Please mute all cell phones.

Alaska Department of
Transportation & Public Facilities

Construction Manager / General Contractor:
Airport Way / Cushman St. Intersection
and
Steese Expwy / Johansen Expwy Interchange

Presented by DOT&PF & Michael Baker International

January 7, 2022

A Quick Safety Moment from Interior Gas Utility

Airport Way / Cushman Street Intersection Overview

Airport Way/Cushman Intersection Project Scope

Scope: The proposed project will reconstruct Airport Way between Barnette Street and Noble Street, and along Cushman Street between Gaffney Road and 15th Avenue.

- Improve geometry and add auxiliary lanes
- Add off-set left turns to improve sight distance and safety
- New roadway surfacing, striping, and signage
- Upgrade signal controls
- Add raised corner islands with curb ramps for improved accessibility
- Relocate utilities
- Landscaping enhancements

Airport Way/Cushman Intersection Project Purpose and Need

Purpose:

- Enhance safety
- Improve air quality
- Decrease delays at the intersection

Need:

- Top 5 highest volume intersections in Fairbanks
- The intersection experiences significant delays
- The intersection crash rate is higher than average
- Highest number of non-motorized crashes within the FAST Planning area

Airport Way/Cushman Intersection Project Goals

- Minimize impacts of contaminated soils
- Optimize ROW activities
- Minimize traffic impacts during construction
- Improve cost certainty
- Minimize impacts of old utilidor and other utilities

Airport Way/Cushman Intersection CMGC Goals

- Develop a collaborative team with the CMGC, project consultants, ICE and DOT&PF
- Share and transfer knowledge and ownership of project design
- Identify, mitigate, and minimize risk
- Drive innovation
- Improve design constructability and maintainability
- Optimize the project schedule and budget

Airport Way/Cushman Intersection Innovations

What innovations do you have for:

- Minimizing traffic impacts
- Handling contaminated soils
- Prioritizing ROW activities
- Finding efficiencies
- Reducing future maintenance costs
- Others?

Airport Way/Cushman Intersection Risks

Known risks for this project include:

- Complicated utilities
- Pedestrian traffic management
- Contaminated soils
- ROW impacting schedule

Airport Way/Cushman Intersection Schedule

Milestone	Date
NTP for CMGC	5/1/22
Begin ROW Acquisition	7/1/22
Review PS&E	7/1/22
Final PS&E	12/1/22
Construction	3/23-10/23

Airport Way/Cushman: For more Information

Project Manager

Carl F. Heim, P.E.

Phone: (907) 451-5359

Email: Carl.Heim@alaska.gov

Project website: https://dot.alaska.gov/nreg/airport-cushman/
Procurement website: https://dot.alaska.gov/rfpmgr/lg.cfm

Steese Expressway / Johansen Expressway Interchange Overview

Steese/Johansen Expressway I/C Project Scope

Scope: Construct a Grade Separated Diverging Diamond Interchange

Steese/Johansen Expressway I/C Project Purpose and Need

Purpose:

- Reduce congestion
- Non-motorized user improvements
- Enhance safety

Need:

- Top 10 for vehicle volumes in Fairbanks
- Critical for North Slope traffic
- Substantial commercial development in the area since 2000
- Residential development associated with Fort Wainwright

Steese/Johansen Expressway I/C Project Goals

- Minimize traffic impacts during construction and ensure unimpeded freight and transit access.
- Develop positive relationships with area businesses and residents for consent on construction impacts and ROW acquisition
- Improve cost certainty
- Manage risks associated with supply chain and labor shortages during preconstruction stage

Steese/Johansen Expressway I/C CMGC Goals

- Develop a collaborative team with the CMGC, project consultants, ICE and DOT&PF
- Share and transfer knowledge and ownership of project design
- Identify, mitigate, and minimize risk
- Drive innovation
- Improve design constructability and maintainability
- Optimize the project schedule and budget

Steese/Johansen Expressway I/C Innovations

What innovations do you have for:

- Managing traffic impacts
- Minimizing permanent right-of-way acquisition
- Bridge installation
- Finding efficiencies (e.g. traffic impact durations, staging areas, cost, etc.)
- Reducing future maintenance costs
- Others?

Steese/Johansen Expressway I/C Risks

Known risks for this project include:

- Traffic impacts
- ROW impacting schedule, including business relocation
- Utility relocation (overhead power) potential for schedule impacts

Steese/Johansen Expressway I/C Schedule

Milestone	Date
NTP for CMGC	5/1/22
Begin ROW Acquisition	7/1/22
PS&E Review (Farmers Loop Connector)	12/1/22
Final PS&E (Farmers Loop Connector)	7/1/23
Farmers Loop Connector Construction	5/24-10/24
PS&E Review (Interchange)	9/22/23
Final PS&E (Interchange)	7/1/24
Interchange Construction	9/24-10/25

Steese/Johansen Expressway I/C
For More Information

Project Manager
Lauren Little, P.E.
Phone (907) 451-5371
Email: lauren.little@alaska.gov

Deputy Project Manager
Jennifer Wright, P.E.
Phone (907) 451-2275
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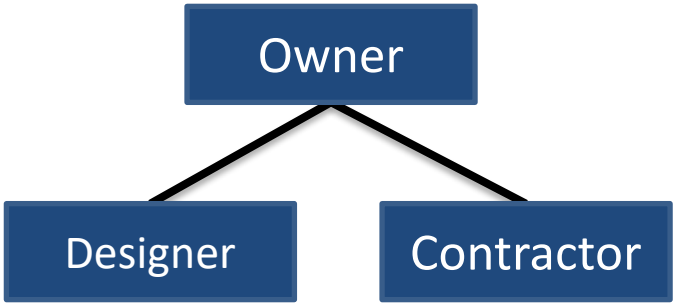
Project website: https://dot.alaska.gov/nreg/steese-johansen/
Procurement website: https://dot.alaska.gov/rfpmgr/lg.cfm

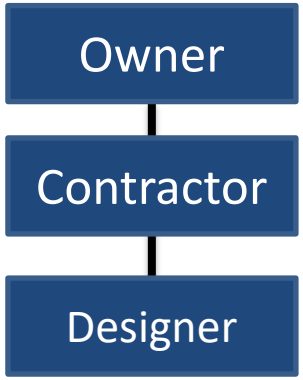
Delivery Comparison

Delivery Method Comparison - Relationships

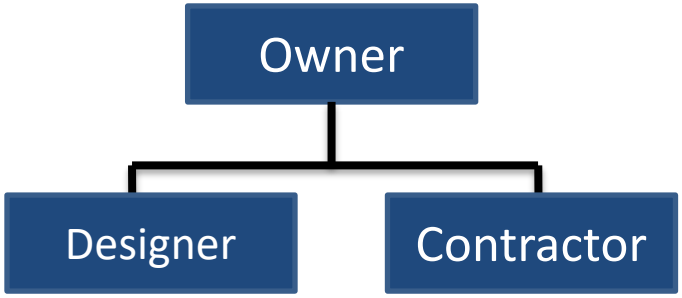
Design-Bid-Build (DBB)



Design-Build (DB)



Construction Manager/General Contractor (CMGC)

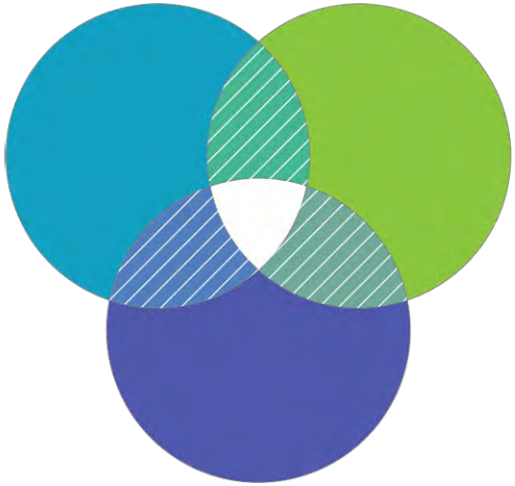


Deliver Method Comparison – CMGC

RESPONSIBILITIES

CONTRACTOR

- Design review with innovation
- Estimate refinement
- Reduce risk
- Quantities
- Quality



DESIGNER

- Design development
- Evaluate contractor ideas
- Quantities
- Quality

OWNER & Program Manager

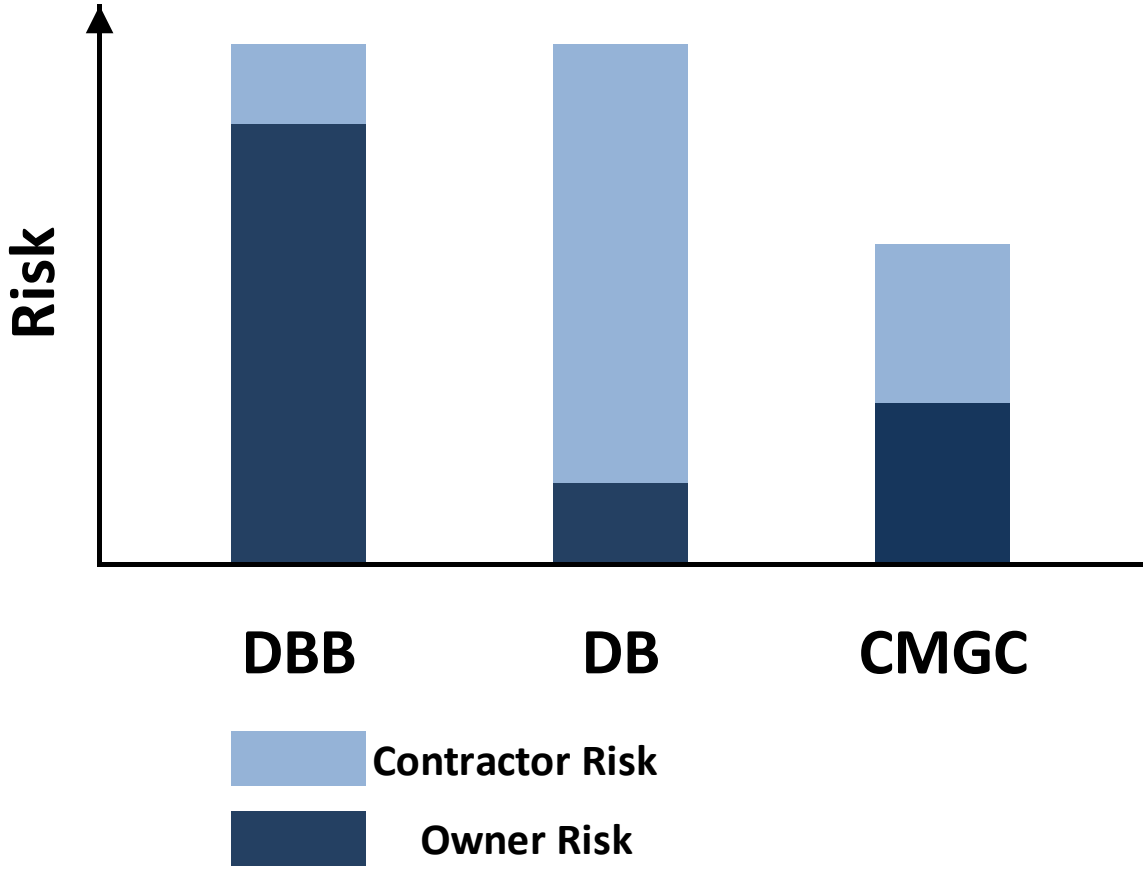
- Evaluate contractor innovations; maintain standards
- Independent Cost Estimator (ICE)
- Quality

Deliver Method Comparison – Project Development

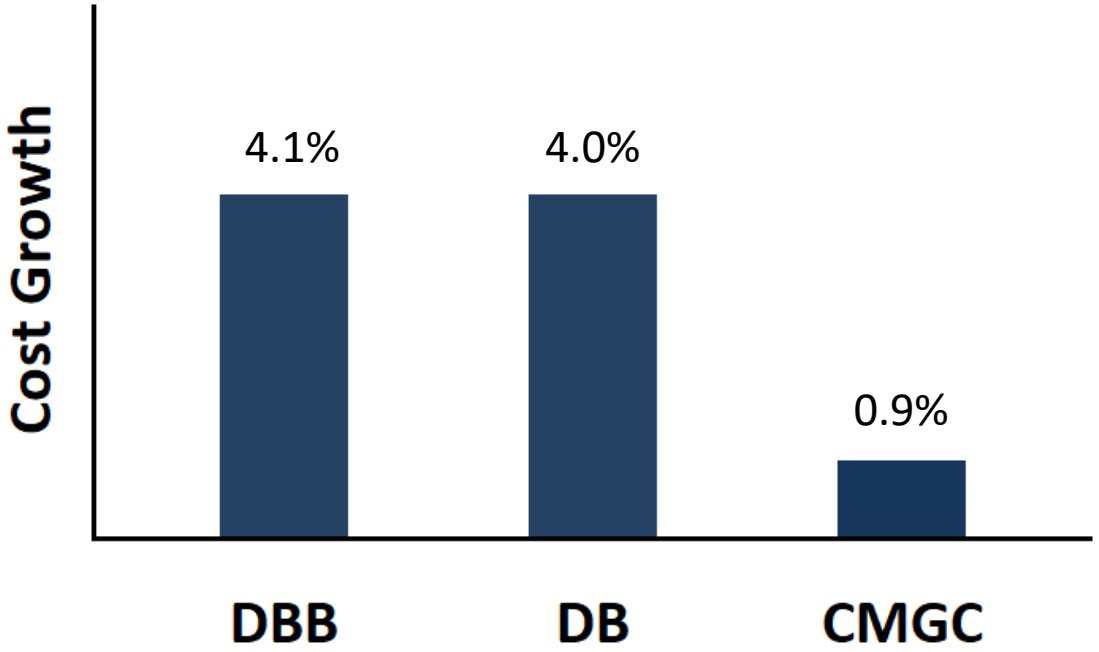
Task	Design-Bid-Build		Design-Build		CMGC	
	Owner	Contractor	Owner	Contractor	Owner	Contractor
Preliminary Design	✓		✓		✓	
Detailed Design	✓			✓	✓	✓
RFP/Bid/GMP	✓	✓	✓	✓	✓	✓
Construction		✓		✓		✓

CMGC **Requires** Collaboration During Design

Deliver Method Comparison – Risk



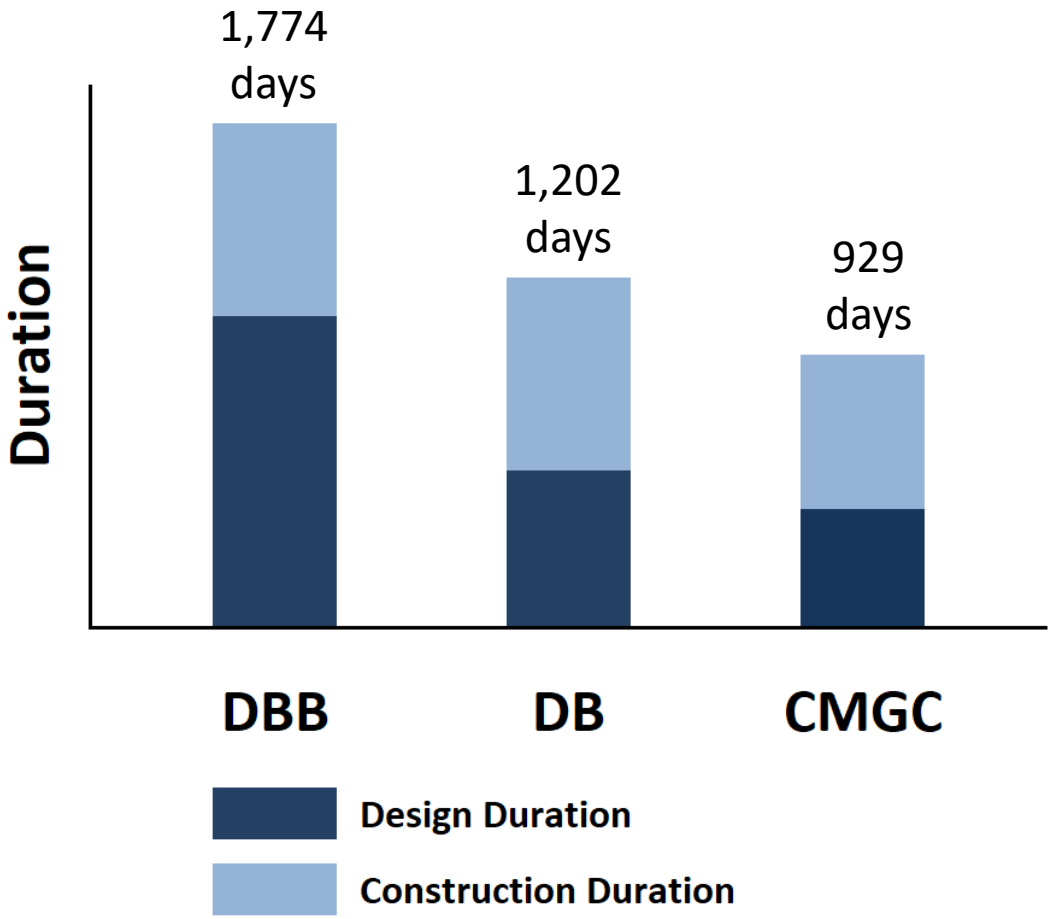
Deliver Method Comparison – Cost Growth



Source: Alternative Contracting Method Performance in U.S. Highway Construction
FHWA Publication No: FHWA-HRT-17-100, Table 14

Cost growth defined as cost growth from construction contract award to contract completion.

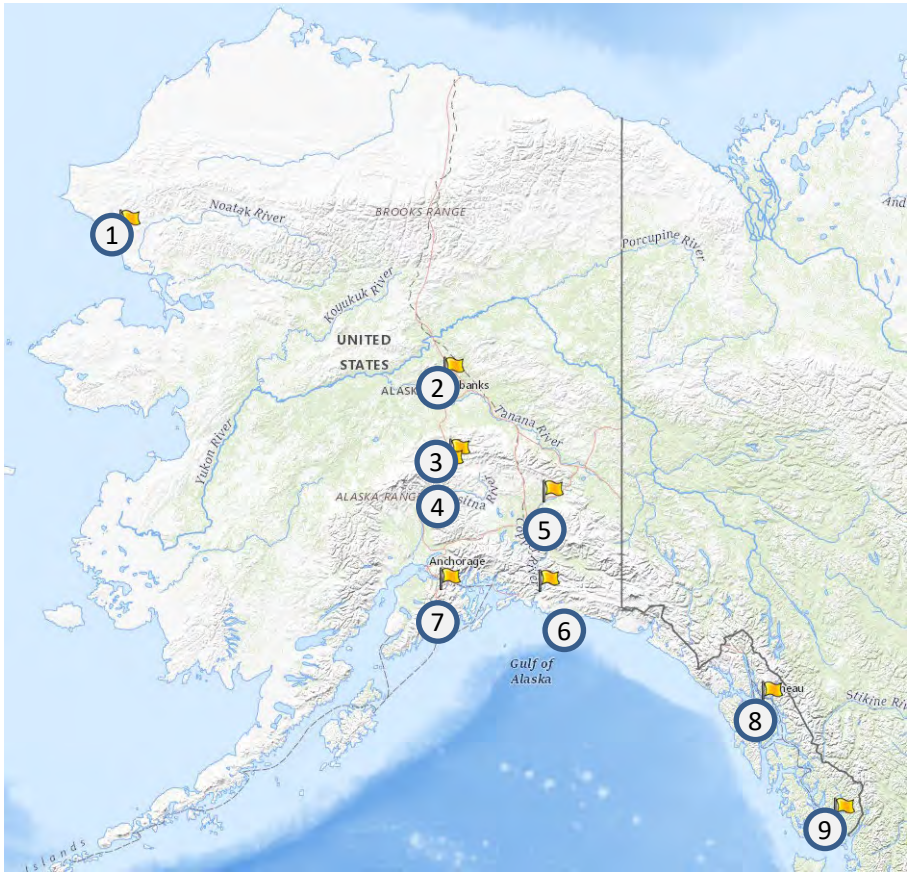
Deliver Method Comparison – Schedule



Source: Alternative Contracting Method Performance in U.S. Highway Construction
FHWA Publication No: FHWA-HRT-17-100, Table 7

DOT&PF Horizontal CMGC Delivery

DOT&PF Horizontal CMGC Projects



1. Kivalina Access Road
   - Completed 2020
2. Fairbanks University Avenue Rehab
   - 4 Phases Complete; 1 in Construction; 1 in Design
3. Parks Hwy MP 237 Riley Creek Bridge
   - Completed 2015
4. Parks Hwy MP 231
   - Design 90% Complete
5. Tok Cutoff MP 38-50
   - Completed 2020
6. Cordova Whitshed Road
   - Design 50% Complete
7. Sterling Hwy MP 45-60
   - Design began spring 2020
8. Kake Access Road Project
   - Completed 2021
9. Ketchikan Herring Cove Bridge
   - Construction 2022

DOT&PF Horizontal CMGC Delivery

Project Development Team:

- Owner (DOT&PF)
- Designer (DOT&PF or Consultant)
- Independent Cost Estimator (ICE)
- Contractor (CMGC)

Project Teams

Airport/Cushman Intersection

DOT&PF Design

- Carl Heim, P.E., Design Project Manager
- Josh Cross, P.E., Kinney Engineering, Designer

DOT&PF Construction

- Dave Arvey, P.E., Construction Manager
- Andrew Pagel, Project Engineer

DOT&PF Contracts

- Barbie Tanner, P.E., Contracts Engineer

Project Teams

Steese/Johansen Expressways Interchange

DOT&PF Design

- Lauren Little, P.E., Design Project Manager
- Jenny Wright, P.E., Deputy Project Manager
- Leslie Daugherty, P.E., Bridge Designer
- Kristen Kiefer, P.E., HDR Alaska, Designer

DOT&PF Construction

- Dave Arvey, P.E., Construction Manager
- Jacob Helton, Project Engineer

DOT&PF Contracts

- Barbie Tanner, P.E., Contracts Engineer

Project Teams

CMGC Assistance

Michael Baker International, Inc.

- Derek Christianson, P.E., CMGC Lead
- Karin McGillivray, CMGC Outreach and Facilitation

Independent Cost Estimator (ICE)

Stanton Constructability Services, LLC

- Ed Jones, Lead Estimator
- Gary Lindley, Civil Estimator

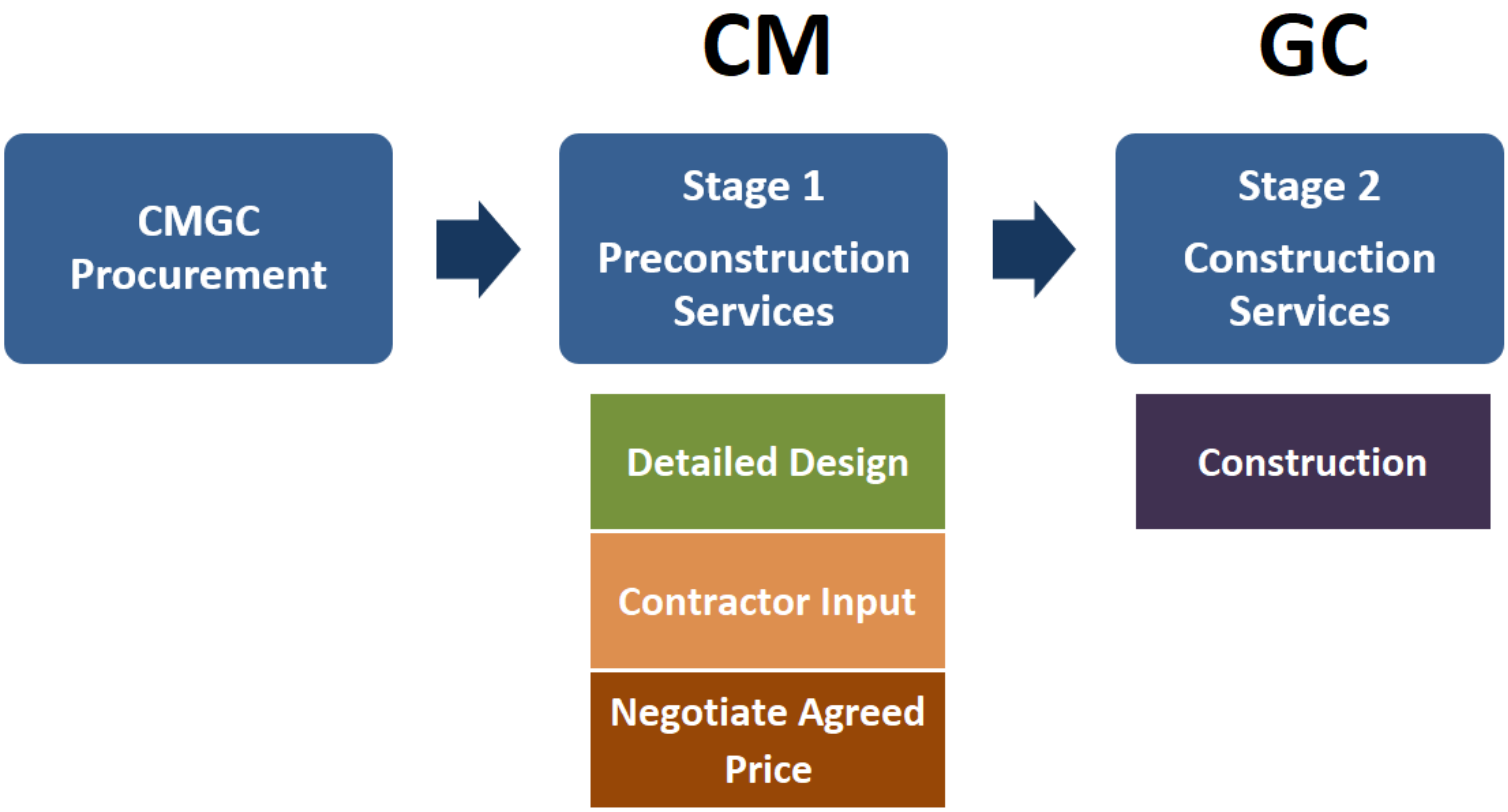
CMGC RFP – Project Team

CMGC Contractor

- Who will be your **Contract Manager?**
- Who will be your **Project Manager?**
- Who will be your **Civil and Bridge Superintendents?**
- Who will be your **Cost Estimator?**
- Who will be your **Traffic Control Supervisor?**

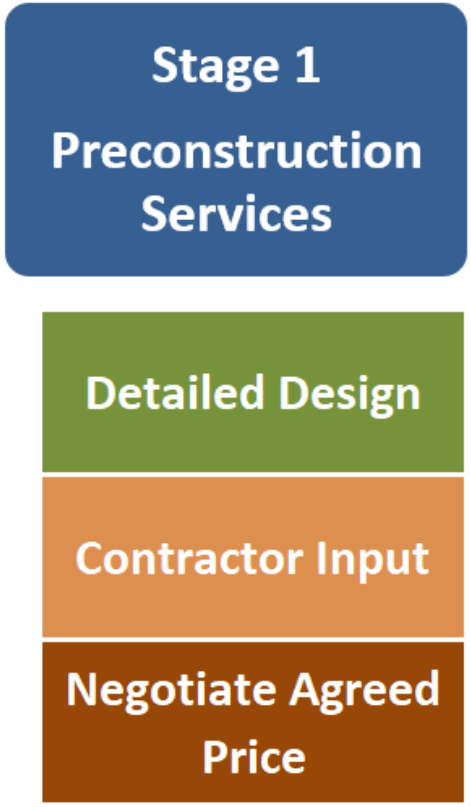
CMGC Project Development

Development Stages



CMGC Project Development

Stage 1: Preconstruction Services

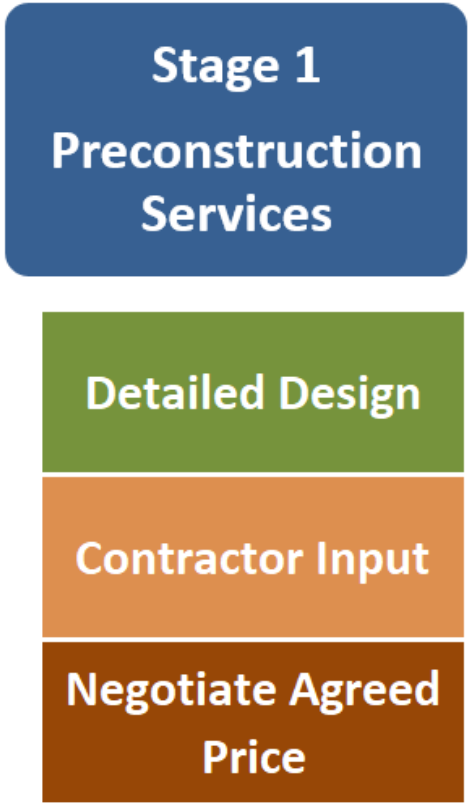


Anticipated Contractor Activities:

- Active participation with DOT&PF Team
- Design innovations and efficiencies
- Identifying construction impacts
- Constructability reviews
- Cost estimates and project pricing
- Identifying and mitigating risks
- Permitting assistance

CMGC Project Development

Stage 1: Preconstruction Services

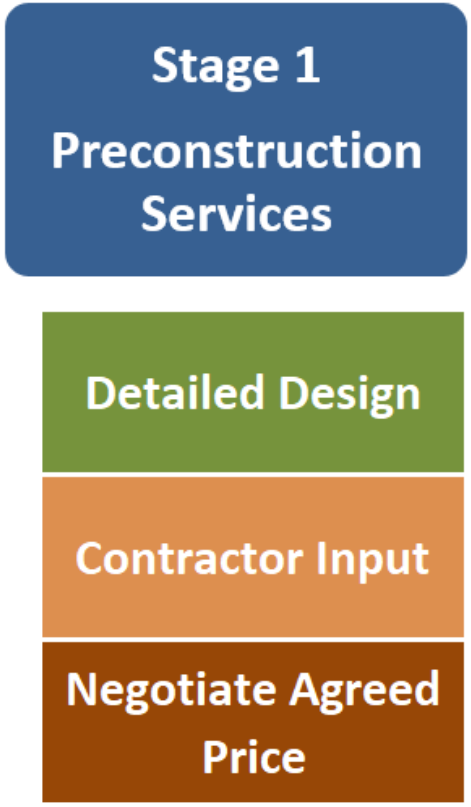


Risk Mitigation:

- Identify, track and manage risk
- Eliminate or minimize risk
- Owner retains design control

CMGC Project Development

Stage 1: Preconstruction Services

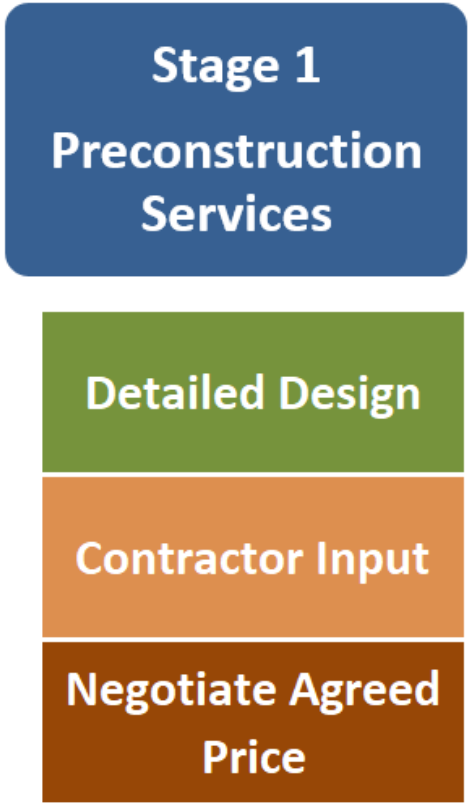


Value Added:

- Early impact identification
  - Permitting
  - ROW
- Risk management
  - Change orders
  - Claims
- Maximize innovation and efficiencies
- Improved quality

CMGC Project Development

Stage 1: Preconstruction Services



Schedule:

- Permitting assistance
- Construction sequencing
- Potholing and utility company coordination

CMGC Project Development

Stage 1: Preconstruction Services

Stage 1
Preconstruction Services

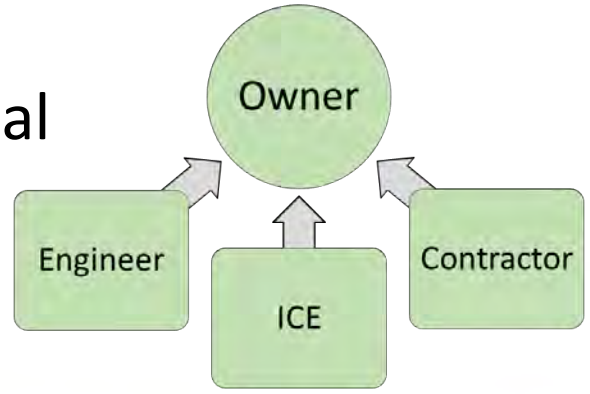
Detailed Design

Contractor Input

Negotiate Agreed Price

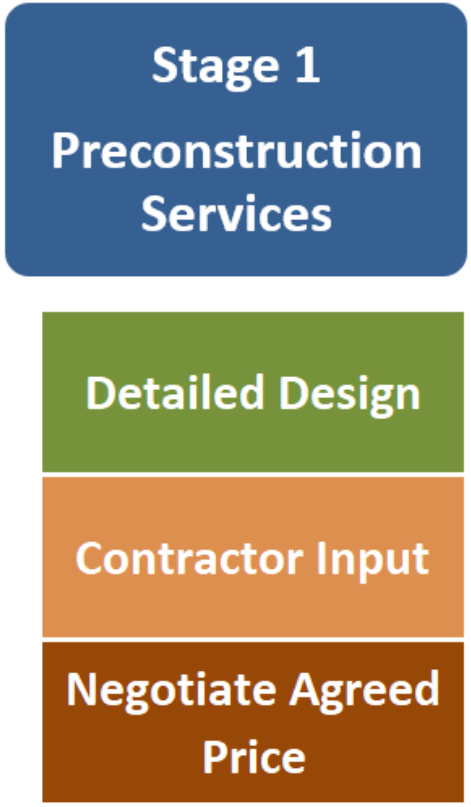
Pricing:

- Engineer's Estimate
- Contractor's Estimate
- Independent Cost Estimate
- 35%, 75%, 95%, Final



CMGC Project Development

Stage 1: Preconstruction Services



Negotiations:

- Negotiate Agreed Price:
  - If agreement is reached – proceed to Construction
  - If an agreement is not reached – proceed to advertise for Bids

CMGC Project Development

Stage 2: Construction Services

- Agreed Price Acceptance
- Similar to DBB at this point, follow Division 100's of Standard Specifications

Request For Proposal

RFP to select CMGC:

Airport Way / Cushman Street Intersection

- Week of January 17, 2022

Steese Expressway /Johansen Expressway Interchange

- February 2022

- 4 weeks to prepare a response
- Opportunities available for subcontractors

Request For Proposal

Anticipated RFP Selection Criteria

1. Project Approach
2. Risk Management
3. Innovation
4. Proposed Project Staff
5. Methods of Partnering and Claims Mitigation
6. Management and Resources
7. Past Performance
8. Cost Controls

12. Labor Billing Rates
13. Fee Price Proposal

Questions?

How can we help you provide the best proposal to DOT&PF?

ONLINE: To “Raise Hand” go to the “Reactions” button on the bottom of your computer screen.

ONLINE: On a mobile device, you may find the “Reactions” button by clicking the three dots next to the “Participants”

ON PHONE: To Raise Your Hand in the meeting when you’re on the phone, press star (*) 9

For More Information

Steese/Johansen Expressway Interchange

Project Manager
Lauren Little, P.E.
Phone (907) 451-5371
Email: lauren.little@alaska.gov

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