July 21, 2015

TO: The Honorable Lance Mizumoto  
Chairperson, Board of Education

FROM: Kathryn S. Matayoshi  
Superintendent

SUBJECT: Presentation on the Development and Construction of Ho’okele Elementary School and the Design-Build Method

1 DESCRIPTION

The use of the design-build process to build the Department of Education’s most recent Ho’okele Elementary School.

2 UPDATE OR PRESENTATION

A discussion on the pros and cons of the design-build process as it related to Ho’okele Elementary School.

KSM:kb  
Attachment  

Office of School Facilities and Support Services
DOE HO'OEKELE DESIGN-BUILD
A Presentation to the Board of Education
July 21, 2015

Background - Low Bid

- In 2007, 95% of our construction bids were 'low bid'
- "Low Bid" best for straightforward R&M jobs.
- For other projects however, especially larger, challenging projects 'low bid' may not be the best solution
Issues in Low Bid

- Low price but not necessarily best value.
- Potential adversarial relationships between owner, designer and contractor.
- Process is sequential and can be time consuming.

Why Consider Design-Build?

- Design-Build is an alternative that provides another tool to deliver quality projects.
- Design-Build is a concept that is gaining acceptance across the country.
Why Consider Design – Build?

1. Change nature of Owner/Designer/Contractor relationships
2. Establish clearer lines of responsibility
3. Encourage ‘Best Value’
4. Improve timeliness of major projects

Structuring Our Version of Design-Build

- Two step process using established Request for Proposal (RFP) procedures
  - 1st Step – Qualifying
  - 2nd Step – Final Round
- Limit finalists to maximum 3
- Allow for payment of stipends in exchange for ownership of designs
- Follow Design Build Institute of America Best Practices
Project Description

750 Student Elementary School
12.4 acre lot in Kapolei, Hawaii

Site Plan

Precast Structure, wall panels & double tees
Wood-framed Arts & Science pavilion
Pre-Engineered Steel Covered Playcourt

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HawaiiPublicSchools.org
Design Build Team

Project Team
- **Kiewit**
  - Design Build Lead Contractor
- **KYA**
  - Architect of Record
- **NAC Architecture**
  - Educational Architect
- **Allison Ide**
  - Structural
- **RM Towill**
  - Civil
- **Belt Collins**
  - Planning & Landscape

Client Relations

**Partnering**

- Partnering Agreement
  - Issue Resolution Ladder
  - Vehicle for constructive feedback
  - Identifying Hot Buttons
- Quarterly Partnering Workshops
- Full Team Involvement on all levels
- Regular Evaluations

**Facilitator**
Craig Unger, DBIA

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Site Photos

Precast Panel Erection Time Lapse
Fly-over Site Time Lapse

Comparison of 2 projects

- Compare one project using ‘low bid’ against a similar project using Design-Build.
- Two new elementary school campuses were selected for the comparison:
  - Pu‘u Kukui: Low Bid
  - Ho‘okele: Design Build
Pu‘u Kukui Elementary School

- Low Bid 2010 (Design-Bid-Build)
- Wailuku, Maui
- 13.8 Acre Site (11% slope)
- 550 planned enrollment (K-5)
- Size: 98,849 square feet
- Cost: $34,929,411
Ho‘okele Elementary School

- RFP 2013 (Design-Build)
- Ewa Beach, Oahu
- 12.4 Acre Site (Flat)
- 750 planned enrollment (K-6)
- Size: 123,173 square feet
- Cost: $38,288,000

COST ANALYSIS

Puu Kukui
- $34,929,411 (2010)
- Geographic Factor (1.15%)
- Adjusted Cost: $30,373,400 (Oahu cost)
- Cost per Acre: $2,200,971
- Cost per Student: $55,224
- Cost per sq. ft.: $307
- Cost per sq. ft. $331 (2013)

Ho‘okele
- $38,288,000 (2013)
- Geographic Factor = (1.00%)
- Adjusted Cost: $38,288,000 (Oahu Cost)
- Cost per Acre: $3,087,741
- Cost per Student: $51,050
- Cost per sq. ft.: $310
Lessons Learned So Far

• Lump-sum funding can be an issue
• Design-Build (DB) takes time to do correctly
• May not be suited for all projects
• DB can allow for more creativity and flexibility in procuring construction

Mahalo