

Comparative Analysis of Construction Delivery Methods

Selecting the right construction delivery method is a decision that influences cost, timeline, and risk management. The City of Castroville requires a method that delivers efficiency, cost certainty, and high-quality outcomes with minimal administrative burden. This brief provides an evaluation of four primary construction methods Design-Build (DB), Design-Bid-Build (DBB), and Construction Manager at Risk (CMAR), and Public-Private Partnership (P3)—to inform decision-making for the City Hall remodel.

Below is an overview of the different construction management approaches for the City Hall remodel project with their pros and cons:

1. Design-Build (DB) Approach (*Recommended*)

The owner (City of Castroville) hires a single entity responsible for both the design and construction phases of the project.

Advantages <ul style="list-style-type: none">• Accelerated Timeline: Eliminates sequential bidding delays, reducing project duration by up to 33.5% (source: Design-Build Institute of America).• Cost Efficiency: On average, unit costs are 6.1% lower, with change orders reduced by 5.2%, keeping the project within budget.• Streamlined Communication: With one entity overseeing design and construction, conflicts between architects and contractors are virtually eliminated.• Minimized Schedule Risk: Reduces the likelihood of costly delays by 11.4% compared to traditional methods.• Adaptability to Modern Construction Challenges: Design-Build thrives in fast-paced, complex projects requiring innovation and agility.• Single-Source Accountability: One entity manages both design and construction, ensuring transparency and avoiding disputes between separate firms.
Considerations <ul style="list-style-type: none">• Requires early owner engagement in the design process, which is a benefit for cities that want input but may require inclusion and collaboration in meetings. This is typically to reduce later changes during construction that introduce change orders.• Qualifications Bid: The selection process is qualifications-based, not lowest-bid.• Alternative Competitive Bidding: While the Design-Build model selects the design and construction team together, key materials and trade packages are still competitively bid through market-driven pricing.• Hiring a 3rd party reviewer before Design Build Proposal Approval: The city engages an independent third-party reviewer to evaluate the Design-Build proposal before final approval.

2. Design-Bid-Build (DBB) Approach (*Traditional Method*)

The city first hires an architect to complete the design, then puts the project out for competitive bidding before selecting a contractor.

Advantages
<ul style="list-style-type: none">○ Greater Design Control: The city gets a fully developed design before bidding begins.○ Competitive Pricing: Open bidding typically results in the lowest contractor price.○ Clear Separation of Responsibilities: Reduces conflicts of interest between designers and builders.
Considerations
<ul style="list-style-type: none">○ Longer Project Timeline: Each phase is sequential, adding delays (design completion, bidding, and then construction).○ Higher Risk of Cost Overruns: Errors or omissions in the design phase can lead to costly change orders.○ More Administrative Work: The city must manage multiple contracts and resolve potential disputes between designers and builders.

DBB is predictable but rigid and slow, often resulting in cost overruns and delays. It provides initial control over design but limits flexibility during construction.

3. Construction Manager at Risk (CMAR)

The city hires a Construction Manager (CM) early to assist in design, set a maximum project cost, and oversee construction bidding. CMAR is an option for highly complex projects but introduces additional costs and oversight requirements.

Advantages
<ul style="list-style-type: none">• Faster Than Design-Bid-Build: Construction can begin before the final design is complete.• Better Collaboration: Early CM involvement allows for cost-saving recommendations and improved efficiency.• Reduces Cost Overruns: The CM assumes financial risk if costs exceed the agreed maximum.
Considerations
<ul style="list-style-type: none">• Higher Fees: The city must pay the CM for preconstruction services.

- **Reduced Competitive Bidding:** The CM selects subcontractors, limiting full open-market competition.
- **Limited Price Certainty Until Later Stages:** While the CM provides cost input early, the final Guaranteed Maximum Price (GMP) is often not locked in until late in the design phase, making it harder to control budget adjustments earlier.
- **Complex Contract Negotiations:** The contract structure and fee arrangements in CMAR are more complex than Design-Build, requiring careful negotiation to ensure alignment between owner expectations and CM obligations.
- **Potential Conflicts of Interest:** If the CM self-performs work, there could be bias in subcontractor selection.

4. Public-Private Partnership (P3)

In a Public-Private Partnership (P3), a private entity finances, designs, builds, and sometimes operates a public facility. The city typically repays the private sector partner through lease payments, revenue-sharing agreements, or long-term contracts.

Advantages
<ul style="list-style-type: none"> • Reduces Upfront Public Funding Needs: The private sector provides financing. • Innovation and Efficiency: The private partner has a vested interest in cost-effectiveness. • Risk Transfer: The private entity bears much of the financial and operational risk.
Considerations
<ul style="list-style-type: none"> • Loss of Public Control: The city may have less say in design and operations. • Complex Contracts: Requires detailed agreements and long-term commitments. • Higher Long-Term Costs: The city may end up paying more over time through lease or service fees. • If the partnership relies on revenue generation (e.g., parking fees, facility rentals), the city may face financial risk if revenue projections fall short.

P3 is best suited for large-scale infrastructure or revenue-generating projects (e.g., toll roads, airports, water treatment plants). For a City Hall remodel, where direct revenue generation is minimal, P3 may introduce unnecessary financial and operational complexity.

Analysis of Construction Management Approaches for Castroville:

Method	Description	Pros	Cons	Suitability for Castroville
Design-Build (DB) (Recommended)	Single entity handles design and construction. McKinstry's expertise in funding could be leveraged.	<ul style="list-style-type: none"> - Faster timeline - Lower risk of cost overruns - McKinstry can manage funding sources - Less administrative burden on city staff - Higher likelihood of securing competitive contractor pricing 	<ul style="list-style-type: none"> - Less design control (but design is already complete, minimizing this issue) - Potential for conflicts of interest (if not properly managed) 	Best Fit: Reduces burden on city staff, avoids multiple bidding rounds, and leverages McKinstry's funding expertise.
Design-Bid-Build (DBB)	Traditional method: City hires architect, then selects the lowest-bidding contractor.	<ul style="list-style-type: none"> - Full design control (but not relevant since design is done) - Competitive pricing through multiple bids (if bidders participate) 	<ul style="list-style-type: none"> - Slow process (as seen with the Community Center delays) - City staff must manage bids and funding - Risk of few or no bids (as experienced before) - Requires competitive bidding to attract a CMAR (which previously failed in Castroville) - City still needs to manage funding and oversight 	Not Ideal: Prior experience suggests difficulty in getting multiple bids, increasing project risk.
Construction Manager at Risk (CMAR)	CM oversees the project and guarantees a max price.	<ul style="list-style-type: none"> - Early cost and constructability input - Lower risk of cost overruns - Faster than DBB 	<ul style="list-style-type: none"> - Loss of city control - Complex contracts - Higher long-term costs 	Not Feasible: The city already attempted CMAR and failed to receive bids.
Public-Private Partnership (P3)	Private firm finances, builds, and may operate the facility, with the city repaying costs over time.	<ul style="list-style-type: none"> - Reduces upfront costs - Private sector expertise in funding and construction 	<ul style="list-style-type: none"> - Loss of city control - Complex contracts - Higher long-term costs 	Not Practical: P3s are typically used for revenue-generating projects (e.g., toll roads, utilities), not a municipal building remodel.

Key Considerations for Castroville:

1. **Design Already Completed:** Since the floor plan and exterior design are complete, Castroville does not need a delivery method that heavily emphasizes early design-phase collaboration (such as CMAR). The focus now shifts to selecting a construction delivery method that ensures efficiency, funding management, and competitive pricing.
2. **Infrastructure Already Evaluated:** The city has already assessed structural, plumbing, and electrical systems, reducing the risk of unexpected issues that could cause cost overruns.
3. **Limited Staff Expertise & Resources:** City staff have constraints in managing funding sources, contractor selection, and project oversight. A method that minimizes administrative burden would be beneficial.
4. **Prior Challenges with CMAR & DBB:**
 - The city previously **failed to attract a CMAR bid** for the community center project.
 - The **DBB process initially received only one bid**, requiring multiple bid cycles before achieving competitive pricing.
 - These indicate that traditional bidding methods may be challenging in Castroville's market.
5. **McKinstry's Strengths:**
 - Extensive experience with diverse funding sources (federal and state grants).
 - Ability to **scale projects** to match funding availability.
 - Experience managing construction projects efficiently.

Final Recommendation:

✓ **Design-Build (DB)** is the most practical and effective option for Castroville. **It aligns with the city's needs for efficiency, funding support, and reduced administrative burden.** Given the city's past struggles with DBB and CMAR, DB provides the best path forward while leveraging the consultant's expertise in securing funding and managing construction projects efficiently.