

# M&D Update

Volume 2, Issue 1, Winter 2003



Union Mine High School - El Dorado, CA

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## Improving Project Delivery for Public Projects

### Part 1: Informal Bidding for Small Projects

David P. Irons, Principal

#### What's Wrong with Design-Bid-Build?

Dissatisfaction with the traditional Design-Bid-Build delivery

method for construction of public buildings has led many agencies to consider alternative delivery methods. This has created a market for businesses that want to participate in the current boom in school construction.

A confusing variety of delivery methods, including Design-Build, CM-Multiple-Prime, CM-at-Risk, and Lease-Lease-Back are being promoted as "the" alternative to

Design-Bid-Build. Many of the delivery methods being promoted are untested or controversial. Sound legal advice is required before embarking on any of them. This article is the first in a series of articles presenting our perspective on the various delivery methods and how to use them effectively.

We have all heard (or told) horror stories about

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*"Building a new building or remodeling an existing space should be fun!"*

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low-bid contractors, design errors, expensive change orders, schedule problems, and adversarial relationships that have occurred on Design-Bid-Build projects. These kinds of problems are usually the result of the performance of one or more members of the project team (architect, contractor, and owner) and not the delivery system used. However, the delivery method determines how the project team is selected and the roles and responsibilities of the project team, which can both greatly influence the team's performance and their ability to reasonably resolve disputes.

For an alternative delivery method to gain wide acceptance for use on public projects, we believe it will have to improve on Design-Bid-Build in two ways. First, it should provide for more predictable results, in terms of project cost, schedule, and quality. Owners want to know, as early as possible, the final cost of their projects and they want to know that they will be able move into their facilities on time. Second, it should foster more cooperation and less animosity between team members. Building a new building or remodeling an existing space should be fun!

» *Improving Project Delivery, page 2*

## Sustainable Sites Stormwater Runoff - After the Contractors are Gone...

Patty Karapinar, Senior Project Architect

Environmental concerns regarding long-term stormwater runoff hinge on two key issues: depletion of the water table and local wetlands, and the pollution of nearby waterways.

On a raw site, most if not all surfaces are permeable – water can soak through and re-enter the water table below ground. Once there, it travels over time through soil and rock fissures until entering natural

surface waterways such as rivers and streams. This process filters and purifies the water (natural spring water, anyone?). It is also a source of well water for irrigation and domestic use. When a site is developed the way we are accustomed to, the amount of permeable surfaces are greatly reduced. Rainwater flows quickly over rooftops, concrete paving and asphalt parking lots, entering solid storm drains that empty directly into our rivers. Only a small amount of this water is absorbed back into the ground on the site, leaving little to "recharge" underground aquifers or contribute to local wetlands.

» *Sustainable Sites, page 4*

## Tidbit

(Internal Office Communications)

### Remember to Look Up!

When adding acoustic tiles (12 x 12 or 2 x 4) into a ceiling (or wall) where existing tiles are to remain, it is necessary to verify, during design, if the new tile will match the existing tile. If the existing tile is no longer made and we can't change out the entire surface to the new material due to budget constraints, a note stating that new tiles will not match existing tiles in the remarks column of the Finish Schedule would go a long way to answering the many field questions that arise during construction, as well as punch list review by the User, as to why the new tiles do not match the existing.

Following this approach would also indicate that we as architects actually considered the design implications of not matching finishes (editorial note: yuk!) and that the owner has agreed with, or hopefully even directed this solution.

## Improving Project Delivery

» Continued from page 1

In short, we are looking for a delivery method that is more predictable and more enjoyable than the traditional Design-Bid-Build. As we discuss each delivery method, we will be looking at the opportunities they provide for increasing predictability and reducing strife.

In Part 1, we will look at Informal Bidding for Small Projects. We feel this method does not get as much attention as it deserves and is a low risk way for school districts to try something different.

### Informal Bidding for Small Projects

Chapter 22000 of the Public Contract Code, also known as the "Uniform Public Construction and Cost Accounting Act", allows for an informal bidding procedure for projects whose construction

budget is \$100,000 or less. (Actual bid amounts cannot exceed \$110,000). Breaking large projects into several small projects to use these provisions is prohibited. Section 22030 describes the informal bidding procedures in detail. An attorney familiar with the public contract code and construction law should be involved in the implementation of any informal bidding procedures and would be able to describe the code provisions in more detail.

The Informal Bidding delivery method is similar to traditional Design-Bid-Build, with two significant differences.

*"Prequalifying the contractors before placing them on the list could be necessary..."*

First, projects valued under \$25,000 do not have to be competitively bid (as compared to projects under \$15,000, traditionally). Second, projects valued under \$100,000 are bid to a select list of contractors without general advertising.

There are three major prerequisites to informal bidding required by the code. First, the agency must adopt a resolution to become subject to "uniform construction cost accounting procedures." This provision is not as onerous as it sounds. In fact, most school districts' current construction accounting methods probably comply. Second, the agency must act upon a resolution or ordinance stating that it is adopting the informal bidding procedure. This resolution must state certain provisions of the informal bidding procedures it will be using. Third, the agency must advertise once a year in a trade journal for contractors who want to be on the list. Unless there is also a prequalification procedure\*, any contractor who requests to be on the list must be put on the list and be allowed to bid. There is no stated minimum number of contractors that must be on the list before a bid is let.

» Improving Project Delivery, page 3

## Labor Compliance Fast Facts

- ♦ All state-funded projects breaking ground after April 1, 2003 will be required to have a Labor Compliance Program (LCP) per AB 1506.
- ♦ All LCP's will need to be approved by the Department of Industrial Relations (DIR).
- ♦ While a project can be approved for funding without an LCP, the Office of Public School Construction (OPSC) will not release funds without verification of an approved LCP.
- ♦ Specialty consulting firms are available to assist districts with establishing/monitoring an LCP.
- ♦ For more information, log on to the CA Department of Industrial Relations website at: [www.dir.ca.gov](http://www.dir.ca.gov).

## Did you know ...?

- 1) As of May 1, 2003, any project application submitted to the Division of the State Architect that utilizes a PC design will be reviewed at the time of submittal to determine whether or not the PC design is approved for the climate zone in which the project is located. Questions regarding this process may be directed to Panama Bartholomy, DSA Headquarters, 916.445.4229 or email: [panama.bartholomy@dgs.ca.gov](mailto:panama.bartholomy@dgs.ca.gov).
- 2) Disney used more than 100 network servers to create "Toy Story," the first fully computer-generated feature film.
- 3) It takes fourteen muscles to smile and seventy-two muscles to frown. So keep smiling, its easy! □

## Improving Project Delivery

» *Continued from page 2*

Does this delivery method increase predictability and reduce strife? If you can figure out a way to work with a competent contractor that you know and trust, it should significantly reduce the potential for adversarial relationships to develop. Having a top notch contractor on the job should also increase the predictability of the quality and schedule of the project. As far as predictability of project costs is concerned, this delivery method still exposes the owner to the volatility of the bidding market (the most common cause of surprises) and to the potential for change orders. Working with a trusted contractor, however, should make change order costs more reasonable.

Prequalifying the contractors before placing them on the list could be necessary to insure that a desired caliber of contractor is selected. More commonly, agencies rely on reminding preferred contractors to request to be on the list. They typically don't get a lot of response from the yearly advertisements, so they end up with a pretty good selection of contractors. Some agencies keep different lists for different trades. For example, having a list of 2 or 3 trusted roofing contractors could really simplify bidding a \$100,000 re-roofing project, and you may not even need an architect...

\*Prequalification of contractors will be the topic of a future article in this series. □

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## Staff News

### Introducing Our New Staff Members:

**Tony Harris** – Tony joins our staff as Senior Designer. He is a licensed architect in Mexico and is currently taking his exams for licensure in California. With his varied and international experience we are excited about his contribution to our design team!

**Mykel Davis** – Mykel came to us from Salt Lake City, Utah. With 15 years experience, he joins us as a Project Coordinator. His high level of experience and eye to quality will be instrumental in the growth of our medical department.

**Erin Curtis** – Erin graduated with her Masters in Architecture from Montana State University in 2001. A member of our design department, she also has a keen interest in sustainable design programs and will be assisting in the ongoing development of such programs for our clients.

## Construction Update

### Pioneer High School - Phases 1 & 2

With the successful passing of Proposition 47 last November, The Woodland JUSD was able to quickly proceed with construction of its Phase 2 buildings, including additional classrooms, a home economics/business building, separate art and music buildings, and necessary offsite road improvements. Construction of both phases is scheduled for completion this fall.



### Robert McCaffrey Middle School

Construction of this new 56,400 sf middle school in Galt, CA began in July 2002. With a scheduled completion of August 2003, the district will be welcoming an initial enrollment of 680 students to the new campus. Situated on 24 acres, the school consists of an Administration Building, Classrooms, Library/Media Center, Science Labs, a Multi-purpose Building, and playfields. A future phase will include a gymnasium and additional classrooms. □



**Del Horne** – With experience in educational, medical, and civic projects, Del comes to us from Denver, Colorado with over 27 years experience. In his role as Project Architect, Del will be a valuable addition to our firm.

**Jim Connerley** – Jim decided it was time to stop commuting down the hill to Natomas! Like several of our staff, he now lives *and* works right here in Placerville. Jim earned his Bachelor of Architecture degree from the University of Oregon and is in the process of obtaining his architectural license. He joins us as a Production Coordinator.

**Debra Keirse** – The newest addition to our administration department, Debby assists in the production of project manuals and administrative documents. She will also be providing support to our firm's three principals. Debby spent 12 years as a wildland firefighter with the US Forest Service, she must have been ready for some real excitement!

» *Staff News, page 4*

## Tidbit

(Internal Office Communications)

### Check Your Doors!

When providing new flooring material over existing flooring material (as in encapsulating hazardous material) provide a note to advise the contractor to verify door undercuts and trim them as necessary (perhaps requiring no more than 1/4" space between doors and thresholds?). This would apply to existing doors to remain as well as new doors added to existing frames. If we don't note it, it could easily be missed by the contractor during bidding and become an issue during construction.

## Sustainable Sites

» *Continued from page 1*

Pollution of our waterways from stormwater occurs when water running off of roofs and parking lots picks up dirt and other sediment, motor oil, fuel, lubricants and other pollutants. This then flows through the storm drains directly to our waterways with no permeable surfaces to filter out these pollutants along the way.

All building projects are required to comply with established stormwater control regulations during construction. As of March 1, 2003, new regulations come into effect that also require stormwater control by the project owner after construction, for the life of the project. These measures are referred to as "Best Management Practices." These practices challenge us to take new design approaches to such elements as parking lots and storm drain systems, and also need to be included in the construction documents so that they are set in place by the contractor for management by the client after construction.

The regulations are still being drafted, so we don't yet know exactly what will be required. However, we can look to sustainable, or "green" design guidelines such as LEED and the California High Performance Schools Program to gain insight into effective stormwater management practices that can be included as part of an integrated design approach with your architect.

The objective of managing stormwater is to slow down run-off and let as much as possible soak in on site. Various options are available, from low-cost (passive) to high-cost (with active mechanical parts). Each has advantages and disadvantages which your design professional can discuss with you.

Here are some areas to consider:

- ♦ Limit building footprint, road surfaces, parking and other paving to the minimum necessary.
- ♦ Harvest stormwater from roofs for landscape irrigation.
- ♦ Consider pervious paving for moderate-traffic parking or fire lane areas. There are several systems available with proven track records, such as durable plastic grids through which grass can grow or gravel can be placed.
- ♦ Instead of directing parking lot drainage directly to interior drain inlets, sheet drain parking areas off the edges of the parking lot into planted drainage swales that lead to storm drains.
- ♦ Detention Ponds: Design treatment and detention ponds to remove pollutants and sediment before the water is released to storm drains. These could be designed as site amenities, but may pose safety problems.
- ♦ Construct wetlands to receive runoff, mimicking natural wetlands. These do require maintenance and space, however.
- ♦ Install drain inlet filters and oil grit separators to capture sediment and pollutants. □

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## Staff News

» *Continued from page 3*

### January 2003 Promotions

We are pleased to announce the promotions that were given in January to our deserving staff. We value their hard work and contributions they bring to the firm.

**Patty Karapinar** – Senior Project Architect

**Denis Stroup** – Project Coordinator

**Charles Dandy** – Project Coordinator

**Gerry Hughes** – Estimating Specialist

**Eric Peterson** – Production Coordinator

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# M&D Update



Volume 2, Issue 1, Winter 2003 - Supplemental Insert

## The Rising Cost of School Construction

Gerry Hughes, Estimating Specialist

With the passage of Prop. 47, California's \$12 Billion state bond as well as the passage of numerous other local school bonds, it seemed prudent to partake in a bit of prognostication into how school construction costs might react to these new construction dollars.

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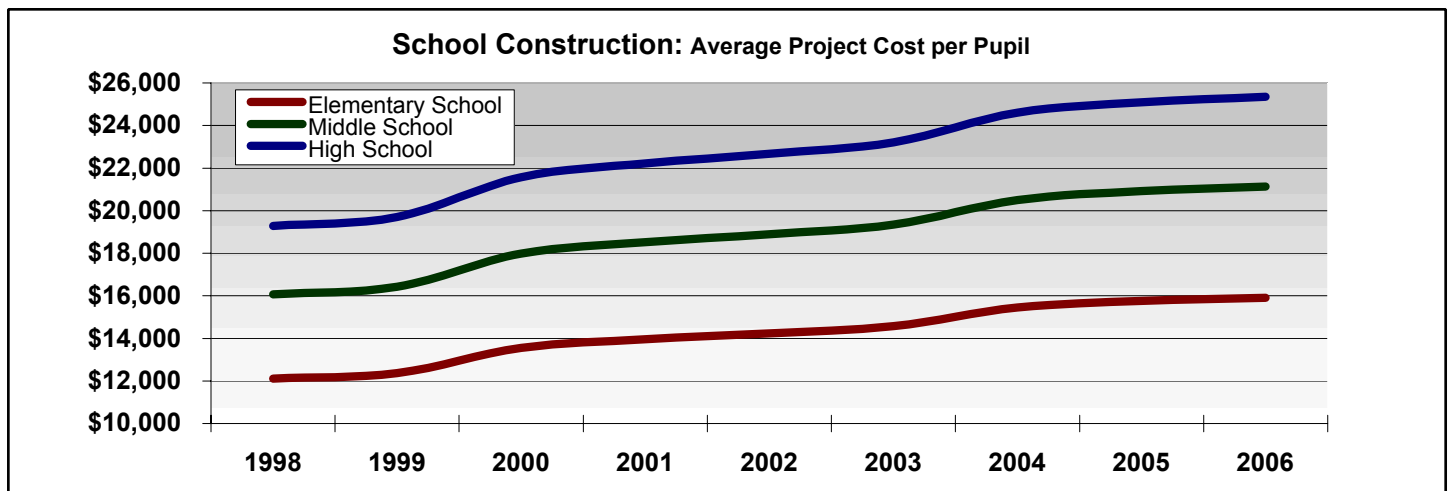
*"In the fall of 2000, some subcontractors were demanding as much as a 20% premium to retain their services."*

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As some will recall, it was just over four years ago when Californians passed the \$9.2 Billion Prop. 1A which, at the time, was the largest state school bond in history. Prop 1A represented a major shift in school funding policy. Even at first glance, it appeared per-student funding levels had been reduced by up to 10%, as compared to previous programs. This was subsequently

confirmed over the next four years as bids came in and school districts struggled to maintain programming standards with even tighter construction budgets.

As substantial amounts of Prop. 1A funds continued to be injected into the construction market, labor shortages of qualified trades drove demand (and subsequently costs) for their services rapidly higher. In the fall of 2000, some subcontractors were demanding as much as a 20% premium to retain their services. According to Saylor Publications (the manual of construction costs accepted by the Office of Public School Construction), the subcontractor index in California *overall* increased by 9.5% for the year 2000. This was the largest annual jump in CA construction costs since 1981 and did not correspond to the broader Consumer Price Indexes (approx. 3%) or the increase in national construction costs for the same period (approx. 2.8%). If we extrapolate from this history, it seems reasonable to expect a similar trend for the future (see chart below).



As we previously noted, it would seem that state funding appeared to decrease on a per-pupil basis with the passage of Prop 1A. In

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*"...we project that construction costs will continue to rise over the next four years and that there will be a significant spike in construction costs in the fall of 2004."*

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analyzing the difference between the historical annual increases in state funding and the increases in construction costs per Saylor Publications, it is our projection that state funding will not keep pace with the actual cost of school construction in California.

In summary, we project that school construction costs will continue to rise over the next four years and that there will be a significant spike in construction costs in the fall of 2004. We also project that state funding will not keep pace with the actual cost of school construction and that school districts will be faced with increasingly tighter overall project budgets. While the design industry as a whole has responded well to developing more cost-effective solutions, we recognize that these changes in both school construction costs and funding programs will place even greater demands on both design professionals and school districts in developing and building future educational facilities. □