

MURRAY & DOWNS Newsletter

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New Dixon High School - Dixon, CA

Partnering with CHPS High Performance Incentive

Debra Smith, AIA
Project Architect

The Collaborative for High Performance Schools (CHPS) design criteria has become a standard for most of Murray &

Downs' K-12 school designs. However, we find that even with the rewards of better performing school buildings designed to CHPS criteria, not all school districts desire to pursue the complete CHPS program. The reasons for this reluctance are many, including the lack of understanding of the benefits, the lack of compliance confirmation, and design time constraints. Probably the most significant constraint is the perceived financial burden in meeting these criteria. To offset these perceived constraints of participating in the program, several agencies have formed partnerships with the program to develop various incentives for school districts.

The basic goal of CHPS is similar: to make the learning environment the best and most productive environment in which to teach our children.

The Division of State Architect (DSA) now has a plan review process for verifying compliance with Energy Efficient Regulations for funding that is available through the Office of Public School Construction (OPSC). The funding for energy

efficient buildings that is recognized by OPSC will help offset the costs in renovating and proving energy efficiency, both mainstays in the CHPS criteria. This review is based upon the Title 24 requirements and focuses on site orientation, lighting efficiency and mechanical ventilation. One additional set of plans and specifications is submitted at the same time of the typical DSA review process in order to be processed for energy review. Certification is then forwarded back to OPSC for verification and approval of funds.

The Savings by Design program provides direct financial incentives to districts for energy efficient design in new and renovation projects, and technical assistance and financial incentives for the design team as well. The program is funded by the rate payers and administered by local utility companies such as Pacific Gas and Electric Company (PG&E). The Savings by Design model can be used for a whole building approach, which endeavors to improve performance of the building to at least 10% above Title 24 requirements. Additional designed savings above this benchmark can provide higher financial incentives for both the Owner and the design team. The Savings by Design program also has a systems approach - lighting, mechanical, or hot water systems can be individually evaluated for their energy savings for the facility with incentives for the district. Murray and Downs is experienced

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MURRAY & DOWNS
AIA - ARCHITECTS, INC.

3025 Sacramento Street
Placerville, CA 95667
Tel. 530.626.1810
md@murraydowns.com
www.murraydowns.com

School Construction Substantially Complete?

Jeff Kennedy
K-12 Studio Leader

In the General Conditions of the Contract for Construction, **Substantial Completion** is defined as: "the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so the Owner can occupy or utilize the Work for its intended use."

Substantial Completion from the owner's perspective: There are two weeks before the first day of school and the owner, the architect, and the contractor begin reviewing the final punch list. Teachers prepare their new classrooms, administrative staff begin receiving parents in their new offices, and maintenance staff buff the new floors and water the well established turf. In the final days before the start of school, the contractor is busy putting the finishing touches on paint and plaster, cleaning the windows and testing the new fire alarm system.

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School Construction

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Ramon Tafoya Elementary School - Woodland, CA

Substantial Completion from the contractor's perspective: There are two weeks before the first day of school and the contractor shifts into his hurry-up offense—no huddles, no time-outs, just “git-r-done.” The site is an ant hill of activity with all trades feverishly working to meet their contractual obligations

and avoid liquidated damages. Carpet and sod are simultaneously rolled out. In the final days before the start of school, furniture is moving into the

classrooms as the contractor moves out. The paint is still wet. The telephones and the IT system are “installed” but not functioning. The last truck pulls away at 7:00 am on opening day. Whew! We made it! Everything that remains goes on the punch list. Here come the kids!

A Construction Contract involves the promise to perform a specific scope of work for monetary compensation within a given period of time. Failure to complete the work within the time limit of the Contract may result in a claim of liquidated damages by the Owner to be paid by the Contractor based on a pre-determined rate per day as established in the Contract.

Substantial Completion is a milestone event which stops the Contract time. If both parties agree that

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Employee Profile

Gerry Hughes



Gerry Hughes glances back at a computer screen filled with numbers, formulas and data lists. “You’re only as good as your last number,” he says with a smile. Gerry has some reason to smile. As the Cost Estimating Specialist for Murray & Downs, Gerry averages 95% accuracy with his cost estimates when compared to the actual bid results.

Gerry came to the firm from the bay area 9 years ago. He began as a Senior Drafter and was later promoted to CAD Specialist, providing training, computer programming and in-house technical support. Four years ago, Gerry was asked to furnish cost estimates for several projects and it was immediately apparent that he had a knack for estimating. In subsequent years, Gerry has reinvented cost estimating at M&D with a combination of historical data, market analysis and detailed computer models.

More than a few people have asked how he manages to predict bid results with almost uncanny accuracy. “I think its part skill and part luck,” he says. “You start with historical data and a computer model to analyze the information. You need to continually update and refine your model. Finally, you talk to contractors, subcontractors and suppliers to see what’s happening in the real world. You want to put yourself in the contractor’s shoes in terms of both the general market conditions (bid climate) and the specifics of your project.”

Charles D. Downs, President of Murray & Downs says, “Estimating is a mix of art and science. Gerry understands the *art* of estimating as well as the science.” His statement would seem appropriate. Even in unpredictable bid climates, Gerry has established a consistent track record with many of his estimates coming within 1 - 2% of the actual bid results.

So what does Gerry like most about “the estimating game” as he calls it? “I’ve always enjoyed mathematics and I enjoy finding new ways to approach a problem. For me, estimating is an interesting mix of calculation and speculation. The *game* is trying to predict the outcome of something with so many variables that it is inherently unpredictable.”

And what does Gerry like least about estimating? “Well, I dislike giving people bad news. Costs go up every year and funding dollars never go as far as folks had hoped. It can also be a bit stressful. There’s a lot riding on these numbers. Project scope, allocation of funds, even the decision to move forward with a project, can all come down to the cost estimate and the bid results. Waiting for those bid results is exciting but it can also be a bit unnerving.”

Notwithstanding the uncertainty of estimating, Gerry says he loves what he does and owes a lot of his success to the people and the culture of Murray & Downs. “Putting together a good estimate is like putting together a puzzle. It requires cooperation and imagination. At Murray & Downs, every project is a team effort and every member of the team is encouraged to think outside the box.” □

CHPS

» *Continued from page 1*

in taking several projects through the *Savings by Design* process with our new Bass Lake HS as our most recent example.

Local municipalities also have incentive programs which should be researched for a specific school district's jurisdiction. Sacramento Municipal Utility District (SMUD) is one such district. If the construction documents meet the CHPS requirements, SMUD will give the School a \$5,000 incentive. In addition, they have rebate programs for construction incentives to save energy over *Title 24* requirements similar to the *Savings by Design* criteria. Gary Becker can be contacted for information on the programs within SMUD jurisdiction at (916) 732-6427. Other jurisdictions will need to be contacted on a case-by-case basis for information on what programs are locally offered.

The California Energy Commission (CEC) is also in partnership with CHPS. CEC has several programs available to assist schools in their goal of achieving high performance facilities. One program is "Bright Schools," which provides school districts with evaluations and technical assistance at little or no cost to the district, helping discover where potential savings may be for their district. This assistance includes energy audits, feasibility studies, design reviews, equipment specifications, and contractor selection. "Energy Efficient Financing" is also available for qualified programs at a 3% interest rate for school districts. There is also a "Cool Roof Program" that funds roof replacement or new roofs for 5-15¢ per square foot. This incentive will assist in providing a better quality roof that reflects the heat, improving the insulative benefits of the roof and reducing heat island effects in the community. The last program offered by CEC is the "Renewable Energy Buy-Down Program" which offers up to \$3,000/kilowatt or 50% off the cost of a renewable energy source for the school.

Rebuild America school partnerships is a federal program, which has found similar innovative ways to address school districts' growing needs for school buses and building projects. The *EnergySmart School (ESS)* is an integral and active part of this program. Not only does this program work with the district in planning and making energy smart choices for the school facilities (similar to the CEC), but the program also takes a proactive approach to energy education by maintaining an active web site on energy education for students (visit www.EnergyQuest.ca/gov). This website maintains a link for teachers to provide materials for use within the classroom and to teach energy

efficiency concepts. The goal of ESS is to assist districts in saving on energy expenditures within the physical environment, to allow more general funds for classroom curriculum and instruction.

The basic goal of CHPS is similar: to make the learning environment the best and most productive environment in which to teach our children. Classrooms that are quiet, well-lighted, and properly ventilated with healthy air will provide learning environments where students will learn faster because they are more comfortable, can see and hear better, and are less distracted. The primary areas contributing to a high performance school are day-lighting, indoor air quality, acoustics, commissioning and maintenance. The above partnerships aid in a design that contributes to all of these areas with the added benefit of energy savings, confirmation of results, and financial incentives. Even without these incentive partnerships, schools meeting CHPS design criteria show the benefits of energy savings, improved indoor air quality, better acoustics and a longer life cycle of use. Murray & Downs Architects encourages the use of these criteria in all of our school designs to provide better learning environments in which to teach our children. □



26th Annual C.A.S.H. Conference

Our firm is continuing our active involvement in the annual Coalition for Adequate School Housing (C.A.S.H.) conference being held in Sacramento February 28th - March 3rd. Over the past several years, we have helped out with the creation of the golf tournament T-Box Sponsorship signs and have participated as panel members and moderators in numerous workshops. This year we have 2 staff members participating in the discussions- Kathy Witherow is moderating the clinic "Do School Facilities Affect Academic Outcome?" and Jeff Kennedy is presenting at the workshop "Design Standards - Saving Money & Creating Parity Through Standardization". If you're attending the conference, stop by and say hello.

A Day in the Life An Administrative Perspective

Chris Branco
Support Services Supervisor



I came in this morning at 7:30 so that I could catch up on some filing, and brew a fresh mug of hot tea. On my way to the kitchen I'm first spotted by an architect at 7:35, who needs a follow up phone call made to the structural engineer regarding the shop drawings that are overdue;

I am armed and ready. What? The water filter is on its last few drops of good water? This will only take a second to replace...

And so begins another adventure filled day as Support Services Supervisor, and de facto department head of all things *miscellaneous*, "Chris, have you asked one of the Jr. Drafters to change out the bulbs in the north wing? The lights are still flickering and Joy is certain she will be having a seizure if that is not taken care of this morning." I reply "relax, we're on it." Between leaving the office at 6:00 pm last night and arriving early this morning, 4 sets of shop drawings have appeared, all from different projects, and 2 *post-it notes* are on my monitor, directing me to 1) confirm that the as-built drawings of the new Tenant Improvement project have been procured from the client, as the kick off meeting is at 8:30 this morning with said client, and 2) rally the troops, we have an addendum going out for the new high school. The project bids 4 days from two o'clock today; with overnight delivery we'll make the 72 hour deadline tomorrow. I open my e-mail program and see a cryptic e-mail from a concerned co-worker, "Dying plant needs love, stop by extension 191." Stop by a phone extension?

I glance up at my *Daily Inspirations* calendar, looking for a pinch of guidance for the day, which is shaping up to be a logistical challenge. "The fool who thinks he is a fool is for that very reason

Celebrating 20 years of Client-Centered Solutions!

The year was 1985. Ed Murray & Charlie Downs were finally fed up competing against each other for educational and civic projects, so they joined forces and formed Murray & Downs Architects.

Today, we are reaching a professional staff of 60, with more growth expected. Here are some other fascinating things that happened in 1985:

- *The Kansas City Kings came to Sacramento*
- *The song of the year was Tina Turner's "What's Love Got to Do With It"*
- *The San Francisco 49ers actually WON the Super Bowl*
- *Nintendo was introduced*
- *Jennifer, Alex and Dan (our junior drafters) were just babies, literally!*

a wise man; but the fool who thinks he is a wise man is rightly called a fool." OK, we have all the materials for the client's kick off meeting ready, and deliver them to the meeting attendees with 2 minutes to spare. The project architect looking to issue the addendum is on the phone. A quick survey of the project team tells me we are waiting on one consultant to hand-deliver their addendum drawings "first thing" this morning. They must be stuck in traffic at the one stoplight between the freeway and our office.

I settle into shop drawing review mode, log in the necessary dates, and type up the transmittals for their distribution. Looking up, it's now 9:33, indicating 1 hour of uninterrupted, focused work. Smiling to myself, I believe miracles do happen! I must be dreaming. A reminder pops up on my screen- 3 minutes overdue: Safety Committee

» *Life, page 6*

Did you know ?

- 1) Student enrollment is increasing - After falling steadily in the 1990's, births statewide began rising again in 2000. "We are going to be seeing an enormous increase in enrollment... starting this fall, with larger kindergarten classes every year for probably at least the next 10 to 15 years." Vern Weber, a school demographic consultant
(The Sacramento Bee 2/06/05)
- 2) Smokey the Bear has his own zip code - it's 20252.
- 3) When Google was a Stanford University research project, it was nicknamed BackRub because the technology checks backlinks to determine a site's importance. □

Staff News

Introducing Our New Staff:

Debra Smith – A graduate of the University of Oregon, Debra Smith has come on board as a Project Architect with specialization in programming and project management for Community College, K-12 and Civic project types. She joins us after six years with Phillips Metsch Sweeney Moore in Paso Robles where she was the Project Architect on the successfully completed Facility Master Plan for the first permanent buildings at the North County Campus for the San Luis Obispo Community College District.

Jan Seaman – Filling the role of Specifications Writer/Quality Review Specialist, Jan joins us from Lansing, Michigan. She is a graduate of Lawrence Technological University. Her previous position gave her the opportunity to perform project architect services on a variety of project types such as military, healthcare, schools, churches and correctional facilities. We are very happy that she decided to come out West to join our team and assist us in our on-going pursuit of quality.

Michael VanRy – Michael joins us from Fountain Valley in Southern California. He is filling the position of Drafter. He earned his Associates Degree from the Westwood College of Technology. His previous employment gave him the opportunity to work on the design and construction documents of Harley Davidson dealership showrooms.

Marjorie Pretzer – Filling the position of Drafter, Marjorie joins us after graduating from California State University, Sacramento with her Bachelor of Arts Degree in Interior Design. She won first place honors for her kitchen design in 2003. Marjorie is a native of El Dorado County and makes her home in Shingle Springs. It is great to have her on our team!

Joy Jackson – Welcome Joy! It will be her smiling voice that you hear on the telephone if you have questions regarding your monthly statements. She joins us as our new Accounting Assistant. Her main duties include processing all Accounts Receivables as well as our Architect/Client and Architect/Consultant contracts. Her previous position was with Frito Lay.

Alicia Loveridge – Talk about a smiling voice– the one that greets you both on the telephone and when you visit our office is Alicia. She is our new receptionist. She has very quickly learned the ins and outs of the front desk and is also able to provide superb administrative support to other staff members.

Promotions for 2005:

Jeff Kennedy – Jeff first joined Murray & Downs in 1986 making him the longest tenured employee, second only to Charlie! He has provided over 18 years of exceptional service to the firm mainly in the area of providing project management for K-12 projects. When our firm decided to formalize our studio structure, he was the natural choice for the K-12 Studio Leader position. He brings over 29 years of experience in the industry and has completed many successful projects while here at Murray & Downs. We hope you will join us in congratulating Jeff on his promotion to K-12 Studio Leader.

John Graifenberg – John joined the firm in the fall of 2003. With extensive experience in the project management of healthcare related projects, he was brought in as a Senior Project Architect in the Healthcare Department. With the formalization of our studio structure, John was promoted to the position of Healthcare Studio Leader. John brings a high level of skills to the position in the areas of project management, mentoring and leadership. We congratulate him and thank him for his acceptance of the position of Healthcare Studio Leader.

Jim Connerley – Jim has been with the firm for two years. Beginning his employment as a Production Coordinator, Jim has shown a level of knowledge and experience that warranted our promoting him to the position of Project Coordinator. He is currently in the process of completing his architectural exams. Congratulations Jim!

Paul Beam – Paul joined the firm in the summer of 1999, filling the position of Drafter. Since that time, he has gained knowledge and experience not only in the areas related to drafting and construction documents, but he has also assisted in the never-ending needs of IT. He has demonstrated the skills and experience required for a promotion to the Production Coordinator position. Congratulations Paul!



Life

» *Continued from page 4*



Pioneer High School - Woodland, CA

Meeting. Huh? Right, our Illness & Injury Prevention Policy Plan needs its yearly review and implementation. This should be quick, I hope I don't have a mishap on the way to the meeting...

No clock in the front conference room? Note to self, talk to Thoma about those custom M&D clocks left over from a previous year's gift basket - having one in each room would help with our efficiency. Too embarrassed to ask the time, I make a quick break for the restroom. "CB, glad you're out of that meeting, have you started the transmittals for the addendum? Talk to John Inman and verify he has reviewed it before going to print." Good thing our constructability reviewer's desk is on my way to the restroom. Before I'm around the corner I hear "Chris, the wife called for you. It sounded like squealing tires and glass breaking in the background, and your dogs were barking too. Give her a call right away, I think she's having the baby". Thanks Andrea for that very humorous message. Baby? Wasn't my son born two weeks ago? Is my wife still due? This could be trouble. Think, man, think! I find John. "John, how's that addendum coming?" "What addendum?" Oh man, another comedian in the office. "Seriously, addendum # 2 for the new high school has to go out by 3 o'clock today for overnight delivery tomorrow". John looks at me, shrugs his shoulders, trying not to smile, and says "No problem, you 'da man! When I get it, you'll get it"

Is it lunch yet? I get back to my meeting, only to see the lights are off in the conference room. Perfect, meeting adjourned. I settle back into my comfy chair at my desk, and see an e-mail from my brother in the Navy. Oh, no one will mind if I take a moment and catch up with my brother. I open the message and see a picture of my niece and nephew. Seconds later Charlie Downs is right behind me "Branco, what project is that you're working on?..."

Today is a good day to get out for a bike ride. I re-prioritize my list for the day, putting the product submittals and shop drawings towards the end, with time for a 15 minute walk up and down Main Street, for some fresh air. A quick succession of phone calls to 2 contractors and a consultant, and things seem to be leveling out. I take a call from a client who is expecting the O&M Manuals and as-built drawings for the modernization completed last summer. I reassure him that we are on the case, and

what we have received thus far has been reviewed. We're just awaiting the as-built drawings from the contractor, due in any day now. He hangs up, not entirely convinced.

12:15 pm. John proudly walks up to my desk, "here it is, the addendum you've been nervously awaiting". Great, time to rock people. Alicia will be typing up all address labels, with names taken from the planholder's list. Veronica will be creating the transmittals, and I'll be making 42 copies on pink paper, sorted, stapled, and ready for insertion into the envelope. What? My support team is at lunch? Never again, I vow. I'll get us ahead by making the copies. "Paper Jam", I hear a voice call out from behind the wall. Of course there was an 11 x 17 folded in the addendum; there always is. At 1:05 pm everyone is briefed and ready for action. Amid the crazed typing and stuffing of envelopes comes a phone call from the client. "We're extending the bid date by one week." Everyone breathes a sigh of relief, though the unspoken question hangs in the air - "What will we do with all this stuff we've started?"

It's now 3:15 pm and time to resume working on some shop drawings. Wait a second, where did all these new submittals come from? Standing there, looking dazed and confused at my paper covered desk, one of our project architects comes up to me and says "since you're not too busy right now, we need to follow up with the DSA application for the new gym. We need to get the check for the plan check fees from the client, make sure that Charlie has signed those apps. in triplicate, and by the way, they need to be redone as we've switched mechanical engineers. There's something else, too, but I cannot remember what it is..." I finish her sentence..."there is a portable building in the project as well, which means another signature at the bottom of the page." Yep, that's it.

While on the phone with the client, I'm reminded that one of their projects, currently in construction, has an issue. DSA still has a deferred approval for a basketball backstop in their possession. "Chris, would you mind checking into that as soon as this call is over and get back to me, the contractor is threatening a delay claim. Thanks!"

Deferred Approvals, DSA applications, addenda during bidding, missing as-builts, a meeting regarding office safety, a pregnant wife (I'm a new, sleepless father now), shop drawing review and tracking, cryptic post-it notes, flickering light bulbs, plants that need watering, and a kitchen sink that needs attention. Just another awesome day in the life on the front lines of a busy architecture firm in the beautiful foothills of the Sierra Nevada. □

School Construction

» *Continued from page 2*

the project is “substantially” complete, the work is inspected and a list of remaining incomplete work (“the punch list”) is prepared and issued to the contractor for completion and the Owner may then occupy the buildings while the contractor continues to work on the punch list. If Substantial Completion occurs before the Contract time limit, liquidated damages do not apply. However, if Substantial Completion occurs after the set time limit expires (including any agreed upon time extensions), the Owner may choose to make a claim against the contractor (liquidated damages) based on the elapsed number of days at the established rate.

Oftentimes, what is stipulated in a contract and the reality of a situation may not agree. What happens if the owner needs to occupy a building that isn’t complete? What is the risk if an owner occupies a building before it is complete? What happens when the contractor is still on site and the students arrive? When should the owner ask for liquidated damages?

Partial occupancy of a site can and often does occur. The parties to the Contract for construction may agree to any such modifications as they deem to be mutually beneficial and agreeable. Partial occupancy may also result in a reduction of the daily rate of liquidated damages.

When partial occupancy does occur, the contractor’s motivation to avoid a liquidated damages claim may be lost. It may become more difficult for the general contractor to get subcontractors to the site to finish the work. Once the buildings are occupied, it also becomes more difficult to determine who is responsible for any physical damage that may occur and the owner is usually stuck with it.

If students and construction personnel are to be present on site at the same time, safety and security are of foremost importance. All construction personnel must clear a Department of Justice criminal background check as mandated by law. Contractor areas and access routes should be well defined and secure. Often, a temporary double fence is established. The contractor erects a 6-foot high chain link construction fence around all construction and staging areas. A few feet away, a second fence (usually the 3-foot high orange plastic type) is set up to prevent students from approaching

the contractor’s fence. On fully occupied sites, construction activities may be limited to after school hours and weekends to avoid disruptions and conflicts with school activities.

In my experience, liquidated damages are rarely enforced. In most cases, the parties to the Contract recognize their shared mutual interests early in the project and establish a positive working relationship. Liquidated damages must be proven and should only be pursued under the advice of legal counsel.

“It was opening day for the first new school built by the District in 25 years. The school was completed just days before after a huge push by the contractor. Anticipation was high and excitement was in the air.

The Architects, the District Superintendent, the Contractor and the Project Inspector were standing together at the front of the school watching the orchestrated chaos as 600 plus students arrived for the first day of school. As the first bell rang and the students all found their seats, the Superintendent turned to the Inspector and asked if the fire alarm system was working properly. Without a word, the inspector calmly walked over to the wall and pulled the fire alarm. It worked.

Horns sounded, strobes flashed and out they came—students and teachers in neat single files. “Who planned a fire drill on the first day of school?” one annoyed teacher asked. The inspector’s face was as red as the brand new metal roof...” (opening day for Indian Creek ES, Fall 1988) □



McCaffrey Middle School - Galt, CA



Indian Creek Elementary School - Placerville, CA

Construction Costs: Taking the Long View

Gerry H. Hughes
Estimating Specialist

On the cover of the *Hitchhiker's Guide to the Galaxy*, are written the words, "**DON'T PANIC**" in large, friendly letters. In the wake of the our recent rise in construction costs, I decided to look to history to see if this "storm" is something we might consider more of a bump on the highway or if, indeed, there is genuine reason to panic.

If we look back at the last 11 years, the period from 1994 through 2004, we see that despite recent events, construction costs rose a total of 69% for this 11 year period, or approximately 5% per year as reported in the *Saylor Publications Current Construction Cost*. If we were to presume that last year's 11.29% inflation was something of an anomaly and that inflation in 2005 were to be more in line with the recent average inflation of 5% per year, we would wind up with a total escalation for this latest 12-year period of 78%, or about twice the escalation of the construction industry nation-wide and 1 ½ times the growth of the broader economy for the same 12-year period.

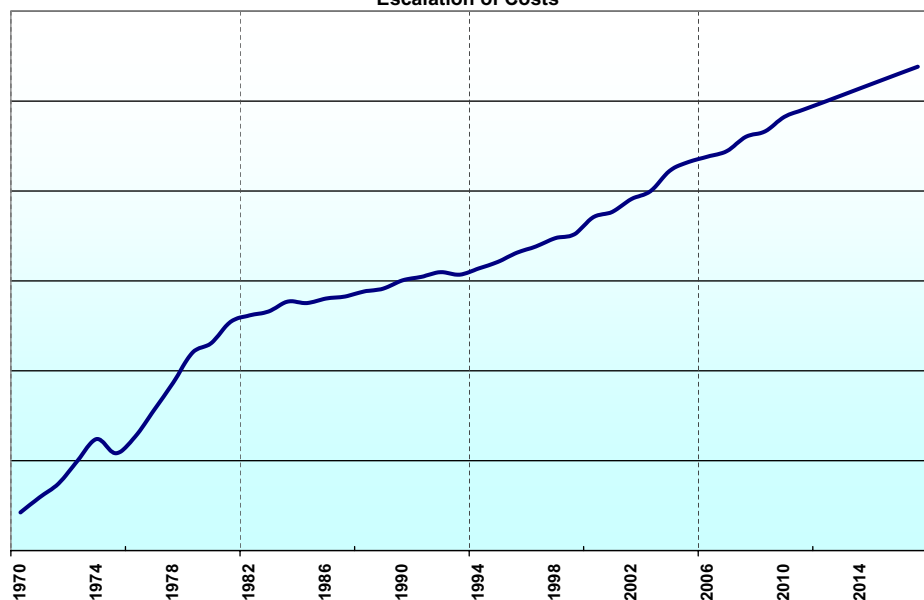
If we look back even further, the 12-year period from 1982 through 1993 showed a total escalation of 29%, or only 2.2% per year - significantly less than the growth of the broader economy for the same period. In stark contrast is the 12-year period from 1970 through 1981, when construction costs rose a whopping 184%, or 9.25% per year. This rise was due in large part to double-digit inflation and a booming construction industry.

As for the future, we are already seeing indications that the construction industry as a whole may be "cooling off" just a bit. Real estate prices are stabilizing, housing starts are slowing, interest rates appear to be slowly rising, and requests for State funds for K-12 construction have slowed considerably. Conversely, we project a strong demand for construction in hospitals and in the California Community College system that should last well through 2012. The need for modernization of K-12 schools will remain strong and there are early indications statewide that Kindergarten enrollments will be rising over the next several years, possibly sparking a need for expansion of many K-8 facilities as early as 2010.

In stark contrast is the 12-year period from 1970 to 1982, when construction costs rose a whopping 184% ...

Given the very specific circumstances that contributed to the "storm of 2004," including overseas demand for construction materials, weakness in the US dollar, and \$18 billion in State funding (which exacerbated the current boom in California construction), it would seem that while one or more of the individual components of the storm may continue their accelerated growth for another year or two, the construction industry as a whole in California will stabilize at its current trend and continue to grow at 4 - 5% per year through 2008. So when the smoke clears, the dust settles and all is said and done, we concur with that sage advice on the *Hitchhiker's Guide*—*Don't Panic*. □

Escalation of Costs



MURRAY & DOWNS
AIA - ARCHITECTS, INC.

3025 Sacramento Street
Placerville, CA 95667
Tel. 530.626.1810
md@murraydowns.com
www.murraydowns.com