April 05

Los Angeles Section

Monthly: Est. 1913

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"People with goals succeed, because they know where they're going." —Earl Nightingate

PRESIDENT'S MESSAGE

By Neil D. Morrison, P.E. President, Los Angeles Section, ASCE

Reading the Newspaper

I think one of the most interesting things I do every day is read the newspaper. My morning newspaper has a lot to offer to educate me on what may affect my life and livelihood. The newspaper staff does all of the research, I have to do is read what they come up with, put it in my memory bank, and start the day a little bit smarter.

The following are a few recent news stories about events that affect the lives of millions of people in Southern California.

Rain!

Los Angeles Times, February 26, 2005 – "In 1884 L.A., A Hard Rain Kept Falling". One hundred twenty-one years ago, the rainfall in the Los Angeles basin was 38.18 inches. According to this article, the rain that year didn't start until late January, and lasted until May. As of February 26 this year, the Los Angeles basin had 33.87 inches since October, with the second wettest month of the average year, March, still to come. For all of you engineers out there, we are only 4.31 inches short of the record. Will we get there? Our newspaper will keep us posted.

The February 17, 1884, the Los Angeles Herald's headlines proclaimed "FURY OF THE FLOOD. Great and General Devastation. Railway and Other Bridges Swept Away. Hundreds of People Made Homeless. Temporary Suspension of the Telegraphs and the Railways. A Third of the City under Water for Hours. Washouts, Caves and Demolished Bridges and Dwellings the Order of the Day. Southern California Up to Her Ears in Water." The article said that it rained for more than 40 days and 40 nights—very interesting to read about all of the damage to structures and homes, and how it left people homeless, and with no way to get around.

Fast forward: *LA Times*, February 19, 2005: "Tough to Fix Slip-Sliding Homes, and Tougher Still to Fix the Blame; Rain has set Hillsides Moving, Crushing Homes and Pointing Up a Longstanding Problem, How to Be Sure It's Safe to Build on a Slope". Interesting article, but without any real answers, just conjecture.

LA Times, same date: "La Conchita Vulnerable to Slides, Federal Study Finds; But Not All Residents of the Coastal Hamlet are Convinced That the Entire Town is Imperiled". It is reported that a federal investigation by geologists and engineers indicates that, if there is not another monster storm, there should be no additional mudslides in the area. Interesting article from a study and analysis standpoint.

LA Times, February 21, 2005 "1 Killed in O.C. Canyon Mudslide; Worker Helping Fill Sun Valley Sinkhole is Missing; Storm Closes Roads, Snarls Rail Service" This article hit it all. Unfortunately, there have been numerous deaths caused by the recent rains and the two covered in this article were very tragic. The article also outlined the problems with washed-out bridges and crossings and the effect on local commuter and freight rail traffic.

LA Times, February 27, 2005: "Volunteers Get Storm-Trashed O.C. Wetlands Set for Spring", about volunteers' efforts to clean up the trash washed downstream by recent storms and

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Reminder:

Copy deadline for the May 2005 newsletter is April 1, 2005; copy deadline for June 2005 issue is May 1, 2005.



Engineering Issues

I am writing this on the heels of the most recent news that the current storm season totals just became the third highest total since records were kept in the late 1800's. Not bad, considering that this is not even an El Niño year. One news article that really caught my attention though was the one printed on February 27, 2005. The Los Angeles Times headline said: "Slides Reinforce the Point That Engineering Matters". How true is that?

Last month, our Section President mentioned the fact that a new generation of engineers need to emerge through education of the young individuals of our population about engineering, civil engineering. This editorial further mentioned the challenges of upgrading our infrastructure due primarily to funding issues. The Los Angeles Times article I mentioned above reinforces that fact and as it said, engineering matters. It reinforces the importance of engineering in our daily lives and how, by not properly employing the most appropriate engineering solutions to problems (especially to structural problems), more damage than good can occur in any given project.

Our section has passed through another Engineering Week 2005. I am not really sure if those celebrations are simply muted locally this time around. My point in this observation is that a few years ago as a member of the ever vibrant Los Angeles Section Younger Member, we had newspaper and t.v. coverages of our Engineering Week festivities. The nostalgia of seeing yourself in CNN talking about your profession and how you are teaching kids through practice the value and beauty of your profession is simply very empowering. When will see those moments again?

It has come to my attention that our issues have come into your hands at a very late time. For a significant number of us, our February newsletters did not come in until late February to early March. That is really a shame because we always, always make sure that we print, collate, and bring these newsletters to the post office before the 15^{th} of every month prior to the month of publication. In other words, the February issue was delivered to the post office on January 14^{th} . We have embarked on investigating why it took almost 45 days for the post office to deliver these time-sensitive materials. But as you know, we can only complain, unless we want to break the newsletter's bank and send all of the 5,000 newsletters by first class mail.

Finally, on the issue of duplicate copies. Several of you have e-mailed, called, or faxed me about your receipt of duplicate copies of this newsletter. Rest assured we are not doing so in purpose. We are in the process of correcting that glitch. We hope to have resolved the same with this issue.

My lines are open for any communication. Please do not get offended if I do not get back to you or if I do, for the lateness of the response. Rest assured I listen to or read your messages and incorporate the resolution of any challenge you bring forth to future issues. I simply do not have enough time in any given day to respond fully to all. Despite the increasing workload, I sheepishly never asked for a raise on my \$0 annual salary. I enjoy my work volunteering for our publication and remain to have the energy to continue as your editor for sometime.

Thanks again.

- Dr. Cris B. Liban, P.E.

ARTICLE

PROJECT CLOSEOUT

By
Tony Antich, City Engineer
City of Santa Monica, California
And
Joyce Klenner, J.A.K. Networks Unlimited

This is the twelfth in a series of article dealing with keys to successful project management of a public works project. The Project Manager is responsible for closing out the project in an organized manner so that everything that should be completed or turned in to the City has been accomplished in a satisfactory manner.

RECORD OR AS-BUILT DRAWINGS

On small projects, typically it is the Contractor's responsibility to prepare the record drawings. On all other projects, the Project Manager has the option of having the Construction Manager prepare the record drawings.

The Project Manager should check at the beginning of the project that there has been a procedure established regarding documentation of changes on the project. This would include monitoring, reviewing, and documenting changes on the project and monitoring transference of that information onto the plans. The plans should also be checked periodically to make sure that any changes made are accurate.

Changes on the project should be documented periodically throughout and at the end of the project. The Contractor and the Construction Manager should review all changes made to ensure that they are accurate. As a check, the Project Manager should look at the record drawings to make sure the changes have been reflected on the plans every time a Change Order is issued.

WARRANTIES AND GUARANTEES

The Project Manager should collect the appropriate warranties and guaran-tees from the Contractor during the project closeout period. Once received, the Project Manager is responsible for comparing the length of warranties/guarantees in the contract to the length of time as actually submitted by the Contractor to verify that they match.

The Contractor is responsible for gathering together all warranties and guarantees for appropriate contract items; this includes those from all Subcontractors. Of particular importance are the warranties and guarantees for electrical, mechanical, and plumbing.

The Project Manager should:

- Obtain an appropriate number of copies of each warranty and guarantee from the Contractor.
- Check their length of time with the requirements in the Contract Documents.
- Bring any discrepancies to the attention of the Contractor.
- Distribute the copies of the warranties and guarantees as follows (along with any maintenance/operations manuals collected):
 - Client Department as part of the final documentation.
 - Maintenance or other appropriate entity responsible for on going operation and maintenance.
 - A copy filed in the project file.

RIBBON-CUTTING CEREMONY

The Client Department should be involved in preparation for any ribbon-cutting event that is organized at the end of the project. They will want to have input regarding the timing of the event, the people involved, and the publicity for the event. The Project Manager's job is to work with the Client Department in deciding whether a ribbon-cutting ceremony is needed and the magnitude of the event. The Project Manager will serve as the facilitator of the event, working with other City staff responsible for organizing and implementing the event.

In deciding whether or not to have a ribbon-cutting ceremony, the Client Department should be involved in all decisions. To evaluate the need for such an event, the Project Manager should consider the:

- Impact on the project area's businesses, residences, and community.
- Political and social support for the ribbon cutting.
- · Potential magnitude of such an event.

If both the Project Manager and the Client Department decide that a ribbon-cutting event is desirable, a ribbon-cutting team should be involved in the organization of the event. This ribbon-cutting team may involve people from within and outside of the Project Team.

Possible things that the ribbon-cutting team may want to discuss are the type of promotions or ads in local papers and/or on cable TV. Involving business groups and the contractor in the ceremony is definitely recommended.

PROJECT FILES

The Project Manager is responsible for overseeing the purging, consolidation/integration, and storage of the project files after completion of the project. When the project has been completed, the Project Manager should integrate all project files. This includes files of Inspection, the Consultant, the project files, and both the Project Manager's and Construction Manager's working files.

Once all the project files have been integrated, the Project Manager should go through all the existing documentation, organizing them and purging any duplicates. Organization means sorting the documents so that like documents are together (e.g., Change Orders and Change Order backup).

When preparing records for storage off-site, permanent records (e.g., Specifications, Change Orders, etc.) should be boxed separately. Likewise, documents with a finite storage life should be boxed together, with the destruction date included on the outside of the box. Any information regarding maintenance and operations of the project facility or equipment should not be stored offsite. The Project Manager should make a duplicate of the maintenance and operation files and give them to the operators of the facility being constructed.

FINAL PAYMENTS/ACCOUNTING

Final payments (i.e., Final Progress Payment and the release of the retention amount) should not be made nor the project closed out until everything required has been completed. This includes settlement of all claims, submission of all Change Orders, completion of all punch list items, etc.

Once the Contractor has reached substantial completion on the project, the Project Manager should process the Final Progress Payment according to the guidelines for progress payments throughout the project. It is important to be sure that the guidelines for final completion and final payment are in agreement with those identified the Contract Documents.

Before processing the Final Progress Payment, the Project Manager should determine whether there are still items remaining on the punch list. If there are, the value of all of these items yet to be done should be estimated and one and one-half times the estimated value of those items withheld from the final payment.

In addition, the Project Manager should make sure that the project has been completed (e.g., there are no stop notices), the maintenance/operations manuals have been received; the punch list items have been completed, etc.

<u>Final payment should not be withheld from the contractor because of uncompleted work.</u> The Project Manager may, however, retain one and one-half times the actual value of the uncompleted work.

As part of the final accounting and closeout process, the Project Manager should:

- Process a Change Order to balance/adjust the contract to reflect the actual work completed.
- Process any reimbursement requests and project reports that need to be submitted to the funding agency at this time.
- Prepare a project acceptance report this will include items such as the:
 - Summary of Change Orders.
 - Date maintenance period was completed.
 - Summary of all payments.
 - Cost of construction to date.
 - Construction period to date.
 - Number of additional days on contract.
- Have those responsible for future operations and maintenance sign their acceptance of the report.
- Release the amount retained within 35 days after the recording of the Notice of Completion in the County Recorder's Office only if no stop notices are received.

NOTICE OF COMPLETION

The Notice of Completion is prepared and sent to the County for recording <u>after</u> the project reaches final completion.

Once the project reaches final completion as defined in the Contract Documents, identify any things that are not finalized when the Notice to Completion is about to be executed. Include these items in the Notice of Completion as <u>exceptions</u>.

Once the document has been prepared, send it to the County Recorder's Office. The Notice of Completion will be recorded and a copy returned to you. Within 35 days of receipt, you may release any retention funds owed to the Contractor.

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YMF Los Angeles Section Wins Awards

The Metropolitan Los Angeles Younger Member Forum of ASCE is the recipient of a Public Service Award for 2004. This award is presented to organized components within the American Society of Civil Engineers who have contributed significant energy to enhance the recognition of civil engineering as a respected profession through their involvement in public-serving activities.

The Younger Member Forum's significant public-service accomplishments are indeed praise-worthy. The Forum was selected for this award for introducing an engineering component to the HOPE worldwide the Child Development Program's weekend mentoring program. Haile Ford, a young engineer with the county of San Bernardino, was the team captain for the first series, which was an egg-drop competition. The Metro LA YMF also participated in the Christmas Train Event by decorating the train engine with stuffed animals and drawing the attention of younger members to the plight of poverty stricken families and the failing infrastructure just south of the border. Dolores Ventura, a young engineer with Infrastructure Engineering Corporation in San Diego, coordinated the YMF volunteers. Lastly, they were recognized for their efforts in hosting the Popsicle Stick Bridge Competition, which attracted over 300 high school students from the Los Angeles area. Julian Garcia, a young engineer with the Los Angeles Department of Public Works, coordinated this event. Individually, each of these endeavors are significant. As a whole, they are of special importance.

The award was presented to members of the Metro LA Younger Member Forum at the President's Luncheon at the Zone IV Leadership Conference of the American Society of Civil Engineers on February 19, 2005 at the Sheraton Crescent in Phoenix, Arizona.

For further information please contact:

Dolores Ventura 14271 Danielson Street Poway, CA 92064 Tel: 858-413-2400

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A Great Idea From the Life Members

The ASCE Life Members' Public Image Committee request that members take their (to be discarded) Civil Engineering magazines to their doctor's office or barber shop and merge them with the stack of magazines. We feel that this will be an effective way to make the general public more aware of what civil engineers do.

Nominations for Los Angeles Section Board

The Los Angeles Section Nominations Committee has nominated the following persons to fill Section Board positions beginning October 1, 2005:

President: Rich Haller, P.E., Santa Ana Watershed Project Authority
 President-Elect: John T. Morris, P.E., Morris Water Resources Consultants
 Treasurer: Diego Cadena, P.E., Los Angeles County Department of Public Works

The following individuals will continue in the 2nd year of their two year term:

Secretary: Mark R. Norton, P.E., Santa Ana Watershed Project Authority

Vice President Technical Groups: Rossana D'Antonio, P.E., Los Angeles County

Department of Public Works

Vice President Student Activities: Don Sepulveda, P.E., DMJM+Harris

Additional nominations for each office to be filled may be made by a petition signed by not less than 50 subscribing members of the Section provided that such petition is accompanied by a written acceptance for the nomination by the nominee and is filed with the Secretary prior to May 1, 2005.

If no petitions are received under this procedure, the persons nominated shall be deemed to have been elected to each office unanimously by general election. If more than one nominee is presented for any office to be filled, the Secretary shall conduct a general election.

President's Message continued

deposited in the Bolsa Chica Wetlands. This article points up the water quality problems that accompany storms of the magnitude we have been getting. This is a major problem all along our coastline, one that is being addressed daily by civil engineers and others.

LA Times, February 28, 2005: "3 Homes Get Red Tags; Road Closed" and "Mudslides Continue to Force Evacuations". These two articles concentrated on the continuing mudslides in the Hollywood Hills due to recent rains and the evacuation of homes and closures of roads due to slides and potential slides. The second article also discussed the fact that even though it seems to be drying out, the ground is so saturated that groundwater may continue to cause slides for months to come.

Just When You Thought You Had a Project:

The Huntington Beach *Independent*, February 24, 2005: "Bolsa Development In Limbo". After nearly 30 years of trying to get a project approved on the Bolsa Chica property, the parties, developer and the Coastal Commission staff, have once again agreed to disagree on certain issues, thus delaying the project again.

LA Times, February 28, 2005: "2 Groups File Suit to Halt Sea Cliff Project". After over 30 years of wrestling with various parties, and actually receiving approval in 2002 from the City of Dana Point (after a threat by a California court and from the Coastal Commission in 2004) a lawsuit has been filed against the California Coastal Commission in an attempt to stop the project. Those who brought the suit are trying to get an injunction to stop all work until the suit is settled in court, which could take years.

On a more positive note, the Laguna Beach *Coastline Pilot*, February 25, 2005: "Land Use Element Workshop Scheduled". It appears that the City of Laguna Beach is seeking input from its citizens in a review of the land use element of their General Plan. This would seem to be an excellent opportunity for civil engineers living or working in the City to provide expert advice

In summary, as a civil engineer, I find that my daily newspaper is a great source of interesting information about my community, my profession, and about those we have elected or who have been appointed to serve us. And every day, there is at least one article related in some way to civil engineering. It's worth reading and learning.

Neil D. Morrison, P.E. President

OBITUARY

Younger Member Forum (YMF)

Everyone is welcome to attend our upcoming events!!

SB/RC YMF General Meeting, 4/4/05, Riverside, CA

LA YMF Student Night, 4/8/05, TBD

LA YMF Board Meeting, 4/12/05, Alhambra, CA

LA & SB/RC YMF Game Night - Lakers vs. Pacers, 4/17/05, Los Angeles, CA

OC YMF Board Meeting, 4/19/05, Irvine, CA

OC YMF Baseball Night - Anaheim vs. Oakland, 4/23/05, Anaheim, CA

OC YMF Speaker Series, 4/26/05, TBD

OC YMF Rebuilding Together, 4/30/05, TBD

SB/RC YMF Speaker Series, TBD

Contact Greg Sommer at gsommer@ladpw.org to be added to the Younger Member e-mail distribution list and receive announcement on all upcoming YMF events, tours, and other activities.

Please visit our websites:

LA YMF - http://www.asce-laymf.org/ OC YMF - http://www.ascelasection.org/ymf_main.cfm?ID=9

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Founding Member of C.A.S.H. Passes (Adapted from CASH Register, January 2005)

Dave King, founding member of the California Coalition for Adequate School Housing (C.A.S.H.), passed away on January 17 in Orange, California. Dave was 78.

Dave was the loving husband for 57 years of Audrey King; adored father of Kathy Hanks, and devoted grandfather of John and Christina.

Memorial services were held on Thursday, January 27 at 11:00 a.m. at the Saddleback Chapel in Tustin, California.

As the founding member of C.A.S.H., Dave took the reigns of leadership with vigor in 1980 and spent many years serving as an active member of the Board and was Director Emeritus. Dave gave C.A.S.H. a viable voice for school facility needs, particularly as the creator, Editor-in-Chief, and publisher of the CASH Register. Dave had the astuteness to recognize the value in hiring Jim Murdoch as C.A.S.H.'s legislative advocate, which enabled the organization to evolve into what it is today.

Under Dave's leadership, C.A.S.H. sponsored and passed the first statewide school bond worth \$500 million in 1982. And the legacy that began under Dave's guidance continues with the passage of more than \$43 billion in state bonds for school construction.

In 1970, Dave joined the Irvine School District where he served as Director of Facilities for 17 years. He brought to the district his expertise as a registered Civil Engineer who specialize in educational facility planning. Dave was not only active in C.A.S.H., but in other circles such as the American Society of Civil Engineers and the Council of Educational Facility Planners. When Dave retired from the Irvine School District in 1987, he continued assessing school districts through private consulting; planning new schools up and down the state. Dave's influence in the school facilities industry was so pervasive that the California State Legislature recognized him with two legislative resolutions for his extraordinary dedication to providing California's school children with safe learning environments.

One cannot say enough about Dave King and the tremendous legacy he has impressed upon all of us. For those who were fortunate enough to work with and learn from him personally, we are forever indebted. Dave's work with schools, the Legislature, and with C.A.S.H. was without question a labor of love. And it is unequivocal that without Dave King, C.A.S.H. would not be here today.

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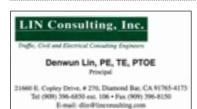
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NEWSLETTER INFORMATION

Publisher

ASCE LA Section Steve Sumner 1405 Warner Ave. Tustin, CA 92780

Phone (714) 258-8306 (714) 258-8391

E-mail: ssumner@associationplanet.com

Editor

Dr. Cris B. Liban, P.E.

LACMTA

One Gateway Plaza Mail Stop 99-17-2 Los Angeles, CA 90012 Phone (213) 922-2471

FAX (801) 457-2687 E-mail: cliban@UCLAlumni.net

Typesetting & Layout: The Center Quickprint



Please send all copy to the Editor by the first of the month preceding publication.

Identification Statement

ASCE Newsletter, (ISSN 0273-6233) is published monthly by ASCE, Los Angeles Section, 1405 Warner Avenue, Tustin, California 92780. Subscription price included in Section dues of \$45.

Circulation

Circulated monthly (except for a joint July/August issue) to the 5,000 subscribing members of the Los Angeles Section, ASCE.

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The Huntington Fund for the Heritage of Civil Engineering

cordially invites you to the

2005 Trent R. Dames Lecture

by

Todd and Robin Mason

Palomar's 200-inch Telescope: The Impossible Challenge

Thursday, April 14, 2005 7:30 pm Friends' Hall Huntington Library

Building the million-pound Hale telescope on Palomar mountain presented funding, designing, engineering, chemical, optical and logistical challenges so daunting that many said it couldn't be done. Certainly, none of it could have been done without George Ellery Hale. California historian Dr. Kevin Starr calls Palomar the "moon-shot" of the 1930s. Some have called it "The most famous telescope in the world." Conceived by a man born just after the Civil War, the Hale telescope was finally completed in 1948 and reigned supreme for almost 50 years, making discoveries undreamed of even by its builders and is still being used today for cutting edge science. Yet at every turn, the project could easily have failed.

Los Angeles documentary filmmakers Todd and Robin Mason will present an hour-long talk on some of the major technological and intellectual breakthroughs set against sheer human will that enabled the giant telescope to work. For the past five years, the Masons have been working on a PBS television documentary entitled The Journey to Palomar about George Ellery Hale and his famous telescopes at the Yerkes, Mount Wilson and Palomar observatories. They have filmed at the Yerkes Observatory, as well as Mount Wilson and Palomar, and conducted on-camera interviews with top astronomers, historians and authors knowledgeable on the topic. They expect to complete the project some time this year.

Their presentation will also include an exclusive ten-minute preview sample from the documentary involving the first attempt to pour the 200-inch mirror glass for the Palomar telescope at Corning Glass Works in 1934 and a short slide show featuring 3D images of all three of Hale's observatories.

Reception to follow talk Free to the public

For additional information call 626-405-2206 or email dlewis@huntington.org Please enter at the Allen Avenue Gate