January 05

Los Angeles Section

Monthly: Est. 1913

ORANGE / SAN_BERNARDINO/RIVERSIDE / SAN_LUIS_OBISPO / SANTA_BARBARA/VENTURA / DESERT / SOUTHERN SAN_JOAQUIN / METROPOLITAN LOS ANGELES

" Suburbia is where the developer bulldozes out the trees, then names the streets after them. "

— Bill Vaughn

PRESIDENT'S MESSAGE

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

WHY DO HOUSES COST SO MUCH – PART III

This is the third in a series of articles about why houses in Southern California cost so much. We've talked about supply and demand, and the time and financial investment in entitling projects. Of equal importance is the huge increase in costs of just about everything involved in the building and construction industry. This applies to all types of construction, not just housing.

Recently, I had a chance to discuss these cost issues with those in my company who have been building homes and residential projects for more years than I have been practicing civil engineering. By learning from these and other experts in the industry, by reading many articles and doing research, and by being involved in the civil engineering, construction and building industries for many years, I have concluded that the cost of building generally can be broken down into three basic areas: the cost of doing business, the cost of materials, and the cost of labor.

For many years it has been indisputable that the cost of doing business follows the rise in inflation and any new government-imposed restrictions, taxes, etc. More recently, as you who are business owners know, the cost of doing business, particularly in California, has risen exponentially over the last 10 to 15 years. One major reason for this is the cost of insurance. I believe that the high cost of insurance is attributable to several factors, including the preponderance of lawsuits brought by trial attorneys on behalf of parties who might better have settled their issues themselves—with the result that insurance companies have elected to stop writing certain types of policies or have stopped doing business in California entirely. Less "supply" of insurance sources and consistent and growing demand have driven up the cost of premiums.

It used to be that most companies could pick and choose their insurance carriers in an effort to control costs. Today, with fewer carriers doing business in California, insurance companies are able to dictate costs to their customers. As an example, let's take a look at truss manufacturers. Every house, every building must have trusses. Thanks to the limited number of insurance carriers willing to cover manufacturers of vital building components such as trusses, some manufacturers have gone out of business. The result? Fewer manufacturers of trusses, delayed deliveries, reduced availability, and substantially increased costs.

This trend is quite evident in the building, consulting and construction industries where, according to my sources, insurance premiums for general liability, workers' compensation and employee medical coverage have risen 300 to 400 percent over just the last five years. This situation has raised the cost of everything needed to develop land and build a home. Think about that for a minute, the engineer's (civil, soil, structural, architect, etc.) insurance costs have gone up to provide service to clients, the contractor's insurance costs have gone up to provide service to clients, the sub-contractor's insurance costs have gone up to provide service to clients, and the builder's insurance costs have gone up to protect against claims from future buyers. All of these costs are then passed along to the buyer.

continued on page 4

VOL_XLV NO_1

In This Issue *page*

Reminder: *Copy deadline for the February 2005 newsletter is January 1, 2005; copy deadline for March 2005 issue is February 1, 2005.*

ASCE
American Society of Civil Engineers

www.ascelasection.org

EDITORIAL

A New Year of Plans

Happy New Year to All of You!!!

I wish the holidays had brought joy to all: both materially and spiritually.

If you were closely reading your newsletter last month, you may be surprised to receive this paper copy if you fall under the classification that is within the student member or life member categories. We were to launch in this new calendar year a new plan to provide the above categories with newsletter paper copies while the rest of us would receive notice that our copies are available on-line. While this is such a novel idea, because of technicalities, we had to abandon the concept at the last minute and prepare for a more organized launch in the coming months. I know that this is not typical of the way newsletters are run, especially with significant change planned. Nevertheless, we will advise the membership of how we can do this well, if we are able to, in the next few months.

We continue in this newsletter the next in the series of articles written by Tony Antich and Debra Klenner on project management. There have been numerous requests for reprints regarding this document. In the upcoming revamp of the Section website, we will be including electronic versions of past issues. The membership will then be able to download past issues that include previous project management articles by the above authors.

Also included in this issue is a collage of the unveiling of the commemorative plaque designating Los Angeles City Hall as a Historic Civil Engineering Landmark within the Los Angeles Section of ASCE. The plaque was unveiled on the south lawn of the Los Angeles City Hall. The designation of civil engineering achievements such as the Los Angeles City Hall provides pride not only to those engineers who had a hand in building the structure, but to civil engineers in general who seek inspiration from highly visible engineering creations.

As always, your newsletter staff is here to assist you in whatever way we can. We have had such a great calendar year and this fiscal year is off to a great start. More power to all of us in the Section.

- Cris B. Liban, D.Env.

ARTICLE

CONSTRUCTION MANAGEMENT

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

This is the ninth in a series of articles dealing with the keys to successful project management of a public works project. The Project Manager is responsible for all aspects of construction management. This includes insuring that regular communications occur during the construction phase of a project, project work quality remains high and in compliance, and that the budget and schedule is monitored and controlled.

PROGRESS MEETINGS

The Project Manager should schedule regular weekly or biweekly progress meetings during construction to review the project status. In addition to the Project Manager, the meetings should include the Contractor, the Client Department, and others deemed appropriate to the successful completion of a project. The Project Manager may wish to include other City staff/ department representatives at times. The Contractor is responsible for inviting any subcontractors and/or material suppliers whom they want to attend the meeting.

The Project Manager is responsible for preparing an agenda for the meeting with input from the regular participants. The agenda may include items such as the following (the specific agenda will be tailored to the project and may include additional items):

- Progress of the work, including project milestones.
- Major project issues.
- Coordination details.
- Pending Change Orders.
- Status of Requests for Information (RFI).
- Status of shop drawings.
- Public outreach issues.
- Previous or potential problems.
- Schedule revisions (Contractor shall provide any schedule revisions at this time).
- Progress payments.
- Location, date, time, and agenda for next meeting.

The Project Manager should conduct the meeting and arrange for meeting minutes to be written. Whoever records the meeting events should present all information in an objective and complete manner. A copy of the meeting minutes should be sent to all attendees and the meeting minutes filed in the project file.

COMMUNICATIONS WITH THE CONTRACTOR AND CLIENT DEPARTMENT

RFI's usually come from the Contractor and are in written form. The Project Manager answers this type of communication with a Clarification Letter (CL). If an outside architect or engineer is being used, it may be appropriate to route the RFI to that person for a response. In either case, a copy of both the RFI and the CL must be placed in the project file.

The Project Manager is responsible for keeping communications open with the Client Department, which includes informing them of and involving them with anything in the project where:

- They may be impacted (e.g., where cost exceeds the budget, their resources are needed, etc.).
- They may have a preference as to sequence of work, schedule, selection of material, etc.
- Problems with the construction operation might impact project completion or final product.
- They have requested periodic updates.

INSPECTION AND TESTS

Inspection and tests are performed to determine that requirements detailed in the Contract Documents are being met and that materials used satisfy the level of quality which is called for in the Contract Documents.

The methods of construction are the responsibility of the Contractor (except where they are specifically called out in the Contract Documents). The Project Manager should NOT direct the Contractor on which methods or operations to use.

The materials are specified in the Contract Documents. Testing the type and/or quality of material to meet contract requirements is completed, paid for, and submitted by the Contractor. The Project Manager should request material safety data sheets (MSDS) and a copy of the product label for any new product handled or used by the Contractor on City projects.

After the materials have been delivered, other sets of tests/inspections may be run to determine that the materials being used are the same as previously submitted and approved. The Contractor should pay for these tests/inspections. Language to this effect should be included in the Contract Documents to alert the Construction Manager and Inspector to the possibility of the existence of hazardous materials.

Quality should meet or exceed the quality levels established in the Contract Documents. The following are some of the ways that quality levels are measured:

- Visual inspection (done by the Public Works Inspector) each day that construction is being done.
- Determining if finished work is within allowable tolerances.
- On-site and lab testing (e.g., soil tests water quality tests [done in-house], tests for soil compaction, etc.).
- Installation in accordance with manufacturer's printed instructions.
- Factory and/or plant inspection.
- Matching samples on display during bidding.
- Construction of a mockup.
- Submittal review.
- By means of warranties and/or guarantees.

If hazardous materials exist within the project area, the Project Manager should verify that the Contractor has taken all necessary measures to properly dispose of the material. It is important to check with the staff whose experience is in the area of environmental compliance to determine if material/field testing and on-site monitoring of the hazardous material removal is required.

NON-COMPLIANCE/STOPPING WORK

If the Project Manager determines that a non-compliance (or potential non-compliance) condition exists, the Project Manager should immediately notify the Contractor in writing. The Project Manager has the authority to reject that portion of the work/product and to order the Contractor to make the appropriate corrections.

If the Contractor does not take steps to rectify the situation immediately, the Project Manager should prepare a letter documenting the problem and the Contractor's non-compliance, a reference to the specification or drawing violated, the action required, and dated signatures by both the Project Manager and the Contractor (indicating receipt of the letter).

If the situation is not remedied by the time of the next scheduled progress payment, the continued non-compliance should be documented and the progress payment withheld for the estimated value of the work in question.

Stopping construction should be limited to areas where laws have been violated or where a safety issue affecting the public or the Contractor and workers exists. The Project Manager may stop work on the construction site. Whenever possible, this should be discussed with the Client Department prior to actually stopping work. The Public Works Inspector may also stop work but should discuss it with the Project Manager prior to acting (whenever possible). If work is to be stopped, the Project Manager should prepare a letter addressed to the Contractor. If possible, the letter should be hand carried to the Superintendent, who will sign the project file copy. The Project Manager should fax a copy to the Contractor's main office and copy the Contractor's Project Manager and Superintendent. If work is stopped, the Project Manager should make sure that the Contractorunderstands that the site must be secured (e.g., trench covered or other actions taken that are necessary to prevent loss or damage) prior to leaving the site. A copy of the "stop work" letter should be sent to the Client Department, with a copy placed in the project file.

PREVAILING WAGE

Generally, prevailing wage rates are required on Federal/State funded projects for certain grants, and when requested by a specific union or organization. Unless a concern exists, the information is not otherwise required. The Project Manager is responsible for being aware of the California Labor Code Sections which apply to prevailing wage, and of the language contained in the Contract Documents pertaining to it. It is also the Project Manager's responsibility to monitor prevailing wage rates and to approve each certified payroll.

BUDGET AND SCHEDULE

The Project Manager is responsible for monitoring and controlling the construction budget and schedule, as well as project quality. The schedule is for the Contractor and Subcontractors, equipment deliveries, permit approvals, and all completion/closeout tasks. It is prepared by the Contractor (immediately after receiving a Notice of Award) and submitted to the Project Manager for review and approval. It is updated and submitted at least on a biweekly basis. The tasks should each be detailed enough to reflect the work that can be completed in two (2) weeks or less.

During construction, the Project Manager is responsible for monitoring and controlling the project expenditures to ensure that the project remains within the contract amount (plus contingencies). This includes tracking Change Orders, potential Change Orders, and any outside expenditure such as inspection or testing services, material or equipment furnished by the City, blueprinting, etc., to ensure that they are within the approval budget.

When reviewing the construction schedule, the Project Manager should be sure that the project tasks are distinct and measurable, with timelines that do not exceed two (2) weeks for any identified task. The Project Manager will continue to monitor and control the schedule throughout the project.

The Project Manager should request a schedule update biweekly or whenever a major Change Order is issued. If a monthly status report is required for the project, it should detail the amount of work done (and by whom), the location, and the scheduled work for the following month—accompanied by a revised schedule. Any questionable areas should be discussed with the Client Department. The Project Manager should inform the Contractor to review the schedule with the Superintendent, subcontractors, manufacturers, and vendors.

PROGRESS PAYMENTS

A Progress Payment form is prepared by the Project Manager to enable Accounts Payable to pay the Contractor for work performed. The Public Works Inspector shall complete a progress payment report, including verified quantities. The completed form shall be signed by the Contractor's representative and the Public Works Inspector, and then submitted to the Project Manager by the end of each month for review.

As monthly progress payments are made on Contract projects funded by the City, the Public Works Inspector, in the presence of the Contractor's representative, if possible, should do the measurements for payments each month. The Public Works Inspector and the Contractor's representative shall sign the measured quantity form and submit it to the Project Manager by the end of each month.

President's Message *continued*

It may be argued that the 1994 Northridge earthquake, and recent wildfires, and the aftermath of 9/11, have had the most significant impact on insurance companies, and this certainly is true to a degree. However, the insurance companies program these types of catastrophic events into their business plans and self-insure accordingly. What they do not program into their business plans are the thousands of claims paid each year as the result of lawsuits, frivolous or otherwise, related to alleged "construction defects".

The cost of construction materials also contributes strongly to the sharply rising costs in the building industry. In my company alone, the average price increase for materials over the past five years has gone up over 40 percent. So the cost of a single-family detached home, which could have been built for maybe $45 per square foot five years ago, now costs $63 per square foot. The reason is the state of supply and demand for building materials. The demand for materials for construction nationwide is at an all-time high. But the supply can't meet the demand here at home because of the exportation of building materials to China, Iraq, etc. For example, during the last couple of years, reinforcing steel, structural steel, and cement have consistently been in high demand here and abroad, but the supply is so short that rationing has occurred. It is sometimes necessary to place an order for these materials months in advance of delivery to assure construction and delivery schedules. Has this resulted in high housing and other building prices? You bet it has!

The cost of materials also increases due to hidden costs, such as the price of gasoline. You may not see gasoline included in the cost breakdowns for most products, but it is having a significant impact on our industry. Take a look at your next blueprint/reprographic invoice: it now includes a surcharge for fuel. If you are in surveying or construction management, where you pay for or reimburse fuel expenses, how much have your costs gone up in the past couple of years? Have you had to revise your fee schedules to cover these higher costs? If so, you're not alone. Providers of materials such as concrete, steel, lumber, drywall, roofing material, etc., have had to raise their prices to cover the higher fuel costs.

Last on my list of reasons why houses cost so much is labor, and not just labor on the construction site. Because of the shortage of labor across the board in the homebuilding and construction industies, it has become more expensive to find and retain good help. This is very apparent in the civil engineering industry. The cost for an experienced designer, engineer, or project manager, has gone up dramatically, another example of the rule of supply and demand. This is why ASCE Outreach is encouraging students in high school, middle school and even elementary school, to learn about civil engineering and maybe pursue a career in this field.

Besides the difficulty of finding good professional staff, the trades industry has been hampered by reliance on workers from abroad who are willing to work for less money. This adds time and cost for training, and affects time of completion and quality of work. Prior to the late 1990s, most projects were constructed by labor union personnel who had spent time and effort learning their trade through internships required by the unions. However, due to the rising cost of union labor, more and more trade contractors have relied on a non-union work force. Today, most home building projects and many other types of projects are non-union. Unfortunately, in a desperate effort to save costs, these trade contractors and home builders have given up a skilled labor force, and that has translated into higher costs associated with delays and cost overruns.

Homebuilding and land development and their supporting industries—such as civil engineering—are crucial to the future of our communities and our society. I sincerely hope that this series of articles on the complex issues that affect the cost of building and development has been informative for you. If you would like to find out more about this great industry or become involved in it, you can contact the Building Industry of America Southern California (BIASC) via their website, www.biasc.org.

In closing, I would also like to thank those of you who have contacted me personally about my articles to date. I appreciate and look forward to receiving your feedback.

Irvine Institute of Technology and Continuing Professional Education Institute

8659 Research Drive, Irvine CA 9618

C. V. Chelapati, Ph.D., P.E., President

Announces outstanding programs for Civil Engineers

MS Degree Weekend Programs (IIT)

- Structural Engineering Design and Practice
- Environmental and Water Resources Engineering
- Transportation and Traffic Engineering

BS Degree Week-Day Programs (IIT)

- Building Construction and Management
- Land Surveying, Mapping and GIS

PE (Civil) License Review Seminars (CPEI)

- Structural, Environmental, Water Resources, Geotechnical & Transportation for 8-hour NCEES Examination
- Seismic Principles & Engineering Surveying
- PE Engineering License Manuals

For further information: www.irvine-institute.org or www.cpeinst.com
Phone 949-585-9137, Fax 949-585-9126
e-mail info@irvine-institute.org or info@cpeinst.com

ASCE's 2004 Member-Get-A-Member Drive Depends on You!

PERC P.E. License Review Classes

for the April 2005 Exam

Los Angeles and Orange County Review Classes

Sign Up Now!

Class Schedule:
Classes at UC Irvine start Saturday, 2/5/05
Classes at UCLA start Sunday, 2/6/05
All classes meet 9am to 5pm

We efficiently cover exam concepts and problems as described by the National Council of Examiners for Engineering and Surveying (NCEES) and the State of California.

- 8-hour Review PE exam-only ($595)
- Complete 8-hour, Seismic and Surveying Review ($895)
  Fees include complete class notes, step-by-step solved problems, parking, and continental breakfasts.

You will pass your PE exam or you can take our next course, FREE.

For more information, please visit:

www.pereviewclass.com
or email PERC at info@pereviewclass.com or call Course Coordinator Robert at (310) 722-4971

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.

Younger Member Forum (YMF)

Everyone is welcome to attend our upcoming events!!

OC YMF Happy Hour & Hockey Night, 1/09/05, TBD

SB/RC YMF General Meeting, 1/10/05, Riverside, CA

LA YMF Board Meeting, 1/11/05, Alhambra, CA

OC YMF Board Meeting, 1/18/05, Irvine, CA

LA YMF Speaker Series, 1/25/05, TBD

LA & OC YMF Mammoth Trip, 1/27/05 ~ 1/30/05, Mammoth, CA

Cal Poly/SB/RC YMF Presentation, 1/27/05, TBD

SB/RC YMF Speaker Series, Jan. 2005*, TBD

SB/RC YMF Community Outreach AVID Program, Jan. 2005*, Perris, CA

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/

JOB WANTED – GEOTECHNICAL

Seasoned SoCal G.E. seeks Senior Supervisory Job.
Office, field, report, and plan review, etc.

W.G. Nelson, M.Sc., P.E., R.C.E., G.E.
P.O. Box 7436
Laguna Beach, CA 92607-7436
Telephone: (949) 582-3553
Fax: (949) 305-3352

Los Angeles City Hall - Los Angeles

Councilman LaBonge, Director Blum at the podium, Jim Treadway, Maintenance Supervisor.

1994. The seismic retrofit of the structure, undertaken after the 1994 earthquake, included the most extensive base isolation project in Southern California. Original construction was completed in 1928 and the building was retrofitted in 2001. City Hall was designated a Los Angeles Historic Civil Engineering Landmark in 1975, however, only a Certificate of Recognition was issued at that time.

The present plaque was prepared in 2001 but, primarily because of the then ongoing retrofit project and other circumstances, the actual placement of the plaque had to be delayed until this time.

On November 9, 2004 a commemorative plaque was unveiled on the south lawn of the Los Angeles City Hall, which is another previously designated Historic Civil Engineering Landmark within the Los Angeles Section of ASCE. At a well attended ceremony, Director Carl Blum made the presentation on behalf of the Society, with Los Angeles City Councilman Tom LaBonge accepting the honor on behalf of the City of Los Angeles. The councilman subsequently presented a Certificate of Appreciation to the American Society of Civil Engineers.

The Los Angeles City Hall was the first high-rise in Southern California and until 1964 the tallest building in Los Angeles. Originally designed only for gravity and wind loads by Albert C. Martin, the city hall nevertheless survived the earthquakes of 1933, 1971, 1987, and

History & Heritage Committee Chairman Irv Sherman at the podium.

irv Sherman holding the City's Certificate of Appreciation.

Historic Civil Engineering Landmark

Close-up of the City's Certificate of Appreciation.

Close up of the commemorative plaque.

Bob Burks, LeVal Lund, History & Heritage Committee Chairman Irv Sherman, John Morris, and Director Carl Blum with the plaque.

City Councilman LaBonge at the podium, ASCE Director Carl Blum, City Hall retrofit manager Jim Treadway, City building and grounds maintenance supervisor, H & H Committee Chairman Irv Sherman.

Photographs were taken by George Horowitz at the unveiling ceremony.

BOYLE ENGINEERING CORPORATION

Boyle Engineering Corporation is an employee-owned firm, where success provides direct personal benefits for professional staff. Our decentralized operating philosophy encourages teamwork in an entrepreneurial environment. Boyle is recognized for its technical excellence.

We currently have the following openings in California (Fresno, Newport Beach, Sacramento, San Diego, San Luis Obispo, Ventura):

Assistant Engineers (Water Resources)
Associate Engineers (Water/Wastewater, Transportation), PE required, CA preferred
Senior Engineers (Water, Water/Wastewater), PE required, CA preferred
Civil Engineers (Civil, Water Resources, Water/Wastewater), PE required, CA preferred
Construction Managers, PE required, CA preferred

We are proud to be an equal opportunity employer of talented professionals. We offer competitive salaries and benefits, a career development program and a professional work environment. Please visit our website at www.boyleengineering.com for more information about our Company and locations. EOE M/F/V/H

Please send resume and letter of interest to:
Boyle Engineering Corporation
Attention: Recruiting Manager
1501 Quail Street • Newport Beach, CA 92660
FAX (949) 721-7142
or apply on line at www.boyleengineering.com

SEEKING OPPORTUNITY!

Senior Civil/Structural engineer, MSCE, PE, experienced in design and construction management of industrial, commercial, and residential projects. Also experienced as forensics engineer/ home inspector. Seeking opportunity to join/partner with a Los Angeles firm. Please call Mike at

(310) 207-8590

KPFF CONSULTING ENGINEERS

KPFF Consulting Engineers seeks motivated and energetic **civil and structural engineers** and **CAD operators.** 2+ years of design experience desired. California P.E. preferred. Also seeking CAD Operators with 1+ years of experience. Excellent communication and teamwork skills are essential. Substantial growth opportunity for all levels, and the opportunity to work on a wide variety of interesting and challenging projects. **Positions available in our Los Angeles location.**

Please contact, fax or e-mail resume to the following:
Ms. Tamara Kealty
KPFF Consulting Engineers
6080 Center Drive, Suite 300
Los Angeles, CA 90045
Phone: (310) 665-1536
Fax: (310) 665-9070
e-mail: tkealty@kpff-la.com

JOIN A LEADER!

PBS&J is nationally ranked in *Engineering News Record* as the nation's 21 st Largest Engineering Firm; 5th in "Pure Design;" 9th in Transportation. Even more important, *CE News* ranks PBS&J as the 2nd best place to work and BEST place for firms larger than 600 employees!

Our rapidly growing offices need motivated people with residential & commercial land development, water/wastewater and municipal project experience. We have positions available in our Civil Engineering Division in Riverside County and Orange County with salaries ranging from $40k - $120k; from CAD Designers to Engineers, from Project Managers to Senior Project Managers. PBS&J has numerous "career ladders" designed to suit your individual growth goals - whether it be through a management path or honing your technical skills. Apply on-line at www.pbsj.com

We have an amazing financial history spanning 44 years, with 28 consecutive years of profitability - come be a part of our bright future!

Check us out at www.pbsj.com - you will like what you see!

PBS&J

18022 Cowan, Suite 100A, Irvine, CA 92614-6805 ♦ Fax: 949.440.8183
AA/EEO ♦ Smoke-Free Workplace

ASCE Officers of the Los Angeles Section, FY 2004-2005

Neil Morrison	President	Stonefield Development	nmorrison@stonefielddevelopment.com	(949) 581-4663
Rich Haller	President-Elect	SAWPA	rhaller@sawpa.org	(951) 354-4240
Shahn Ahmad	Past President	SA & Associates	sahmad@saassociates.net	(626) 821-3456
Don Sepulveda	Vice President (Student Chapters)	DMJM Harris	Don.Sepulveda@dmjmharris.com	(213) 922-9519
Rosanna D'Antonio	Vice President (Tech Groups)	LADPW	rdanton@ladpw.org	(626) 458-4925 X3857
Mark Norton	Secretary	SAWPA	mnorton@sawpa.org	(951) 354-4221
Mark Tufenkjian	Treasurer	Cal State LA	mtufenk@calstatela.edu	(323) 343-4434
Ted McConville	Life Member Forum Chair	Retired	tedmcconville@aol.com	(949) 673-4475
Dolores Ventura	Younger Member Forum Chair	Infrastructure Engineering Corp.	dventura@iecorporation.com	(855) 413-2400
Mike Thornton	CASCE Representative	TKE Engineering	mthornton@tkeengineering.com	(909) 680-0440
Valerie Beard	SLO Chapter	CalTrans	vrbeard@aol.com	(805) 549-3165
Nicholas Sprague	Desert Area Chapter	CalTrans	nick.sprague@dot.ca.gov	(760) 872-0635
Mark Baumruk	Southern San Joaquin Chapter	Provost & Pritchard Engineering Group	mbaumruk@ppeng.com	(661) 327-1985
Greg Heiertz	Orange County Chapter	Irvine Ranch Water Dist.	heiertz@irwd.com	(949) 453-5560
Jay Higgins	LA Metro Chapter	URS Corporation	Jay_Higgins@urscorp.com	(213) 996-2506
Bill Flores	San Bernardino / Riverside	Boyle Engineering Corporation	bflores@boyleengineering.com	(909) 933-5225
Esau Blanco	Santa Barbara / Ventura Chapter	RBF Consulting	eblanco@rbf.com	

Newsletter Information

Publisher

ASCE LA Section
Steve Sumner
1405 Warner Ave.
Tustin, CA 92780
Phone (714) 258-8306
Fax (714) 258-8391
E-mail: ssumner@associationplanet.com

Editor

Cris B. Liban, D.Env.
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 4,000 subscribing members of the Los Angeles Section, ASCE.

National ASCE (800) 548-2723 (ASCE)
Access National ASCE at: www.asce.org
L.A. Section web site at: www.ascelasection.org

Postmaster: This contains time-sensitive materials. Please deliver promptly.

This newsletter is printed on recycled paper.

NON-PROFIT U.S. POSTAGE *PAID* PERMIT NO. 1441 Santa Ana, CA

Los Angeles Section
Monthly: Est. 1913
1405 Warner Ave.
Tustin, CA 92780

Please contact ASCE Membership at 1-800-548-ASCE for any address changes.