



RENDITION OF THE SAN DIEGO COURTHOUSE BY: SKIDMORE, OWINGS & MERRILL LLP

NEAL ELECTRIC

Live Wire

Spring 2016

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San Diego Courthouse

By Harold Carlisle

The new San Diego Central Courthouse located on a 1.4 acre block of downtown San Diego at 1100 Union Street will be 24 story 704,000 sq. ft. skyscraper with a 71 courtrooms for criminal, civil probate and family courts along with small claims services. The current substantial completion date is set for December 23rd of 2016 with a final completion date of February 17th 2017. The cost for this project is \$555 million with around \$50 million for the electrical scope of work. This new building will replace the existing county courthouse that was built in 1961 and will consolidate San Diego superior Court operations into a single building replacing the county courthouse, family law courthouse and the Madge Bradley courthouse.

Neal Electric currently has 100 electricians on the project installing over 250,000 feet of branch conduits, 500,000 feet of MC cable, 1,000,000 ft. of branch wire, 300,000 ft. of feeder wire and over 7,000 light fixtures on the project. These materials include the infrastructure for fire alarm, distributed antenna system, Tele/Data, security systems

and audio visual systems throughout the building. Coordination is required with multiple subcontractors for interconnection of building management systems, radiated floor systems, detention cells, signage and elevators.

This project would not be possible without the Neal team members that put so much time and effort into a project of this magnitude. Mike Wittbrodt is the General Foreman for Neal on this project and without his dedication and drive the project would not be where it is today. His management of the field personnel on site and understanding of the complex construction requirement is key to Neal being successful on the project. The field superintendent Jeff Loh has worked diligently with Mike and the project team to get the right manpower on site while managing the overall labor rate. The project is managed by Sr Project Manager Harold Carlisle and Project Engineer Paul Reddington. **Continued on page 3...**



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Letter from The President

By Dan Zupp

It seems hard to believe that over 4 years have passed since I joined Neal Electric. Although many things have changed over the past 4 years, one thing that has remained constant is our year by year growth. Neal Electric has ongoing projects throughout Southern California and in 2015 we added our first project in Northern California, The Rinconada Water Treatment Plant in San Jose. We continue to add projects to our resume that are new and



exciting. A few examples are The San Diego Courthouse, LAX/Crenshaw Light Rail Extension, and The East County Detention Center (prison) in Indio.

Now that 2016 is upon us, we will see another year of strong growth. With this growth comes challenges. Those challenges include maintaining a strong safety culture, finding new team members at all levels of the organization, cultivating new relationships, maintaining existing relationships, and finally maintaining a level of performance that our customers have grown to expect from Neal Electric throughout our company.

Training will be a major initiative for our company this year. We have 2 safety professionals, Odie Miller and Redstar, who are focused on not only providing a safe work environment, but providing safety training at all levels within the company. Our General Foreman and Foreman training will kick off mid-2016, along with our ongoing project management, project engineering and CADD/BIM training

Our investment in programs such as Spectrum V14, Accubid Live Count, Tool Watch and the numerous additions and upgrades to our CADD/BIM department programs will certainly streamline and improve our operations.

Our continuing affiliation with NECA and the Unions throughout California provide Neal with some of the best, well trained field personnel in the industry. The ongoing support of MEI at all levels continues to fuel our growth and success.

Last but certainly not least is a special thank you to all of our employees at every level, that day in and out make Neal Electric who we are. Without your dedication, hard work and resourcefulness, we could not be as successful as we are and/or have been. The future is bright, the challenges are many, but I am confident our employees will make the difference.

LAX Crenshaw Transit Project

By Mike Hardin

The Crenshaw/LAX Transit Corridor project is an 8.5 mile light commuter rail line that will run between the Expo Line on Exposition Blvd and the METRO Green Line. The southern end of the new line will tie in at the existing Metro Green Line then follow along a portion of the abandoned BNSF freight line until it reaches the intersection of West 67th St. and Crenshaw Blvd. From the intersection of W. 67th St and Crenshaw Blvd, the line will continue north along Crenshaw Blvd where it will ultimately end at the Expo line at West Exposition Blvd with traction power tie-in to existing Metro facilities

Along the line, 8 stations will be constructed. The first of those stations starting at the

southern end will be Aviation/Century which is an aerial, center platform station at the intersection of Aviation & Century Blvd. Proceeding north along the line in the following order are Hindry Station, at-grade with side platforms, Florence/La Brea, Florence/West & Crenshaw/Slauson Stations all of which are at-grade with center platforms. The final three stations are Leimert Park, Crenshaw/MLK & Crenshaw/Exposition. All of these are center platform stations but with the unique challenge of being constructed underground

Additional construction elements of the project consist of 5.5 miles of at-grade track with 16 at-grade crossings, 3,600' of bridge, 4,600' of U-wall, 4,700' of cut & cover trench



and 6,000' of bored tunnel. Systems for the project will include 7 Traction Power Sub-Stations (with provisions for 3 future Sub-Stations), train control and signals, traffic signals and grade crossing protection, communications and a Metro furnished and installed fare collection system.

The Big Move!

By Dan Zupp

Our new location in Vista is moving forward as July approaches fast. Our design is approved, out of plan check and construction has begun.

As you know, I have posted the latest design in the training room and I will continue to update it on a monthly basis. Jose Sarabia has created a 3D model that soon will be showing on our TV monitor in our building lobby. Thanks, Jose!

We are continuing to explore ideas and options to make the transition to Vista as smooth and comfortable for everyone as

possible. Some of the new and exciting things you will see at our new location is an outdoor dining area off the kitchen with tables and shade. A new collaborative work environment to promote teamwork and team building. A new modern phone system with added features and capabilities. The re-integration of our Pre-fabrication group and Toll group from our Slaughterhouse location.

As the moving day draws closer we will look for everyone's help and cooperation to facilitate an easy move to our new location. More to come! Stay Tuned!



San Diego Courthouse

(Continued from page 1)

We would also like to recognize the pre-planning and pre-fabrication departments for their efforts in getting the correct materials on site in a timely manner.

A project of this size and complexity does not come together without teamwork. If not for the coordination and effort of both the field and office personnel to identify constraints, concerns or avenues of recuperation, a project of this size and schedule constraints would falter and fall short. Please take a moment to thank the Neal team members for their effort on this project, specifically the field for all their hard work both normal and after hours. The new Central Court building will stand in the San Diego skyline for 100 years to come and Neal employees should be proud to put their name on it!



RENDITION OF THE SAN DIEGO COURTHOUSE LOBBY

Skidmore, Owings & Merrill LLP



Only 10% of energy in a light bulb is used to create light. Ninety percent of a light bulb's energy creates heat

10%

FOR MORE INFORMATION

www.Quora.com

www.express.co.uk

Fire Protection Research Foundation



Just Facts

If a person yelled for 8 years, 7 months, and 6 days, he or she would produce enough energy to heat one cup of coffee.

Spectrum Offers More with Version 14!

By Paula Menard

MEI has authorized exciting new upgrades from Spectrum v14 for Neal Electric. As most of us know, Spectrum delivers a highly scalable shared filing and reporting system. What will the new version offer our team in terms of efficiencies? Keeping it short and to the point, Ron Kimura from Meruelo Group LLC outlines Spectrum V14 key benefits below:

- Enhanced usability, robust search and navigation features; Easier access to data
- Ease of Use – Browser based User Interface "UI"; Microsoft Look & Feel "Excel Grids"
- Access to defined Dashboards & Reporting Capabilities



Just Facts

The electric eel can deliver shocks of up to 600 volts. It is not an eel but a type of knifefish.



- Enhanced Integration – Spectrum Data Exchange
- Supports growth across divergent businesses – capacity and scalability

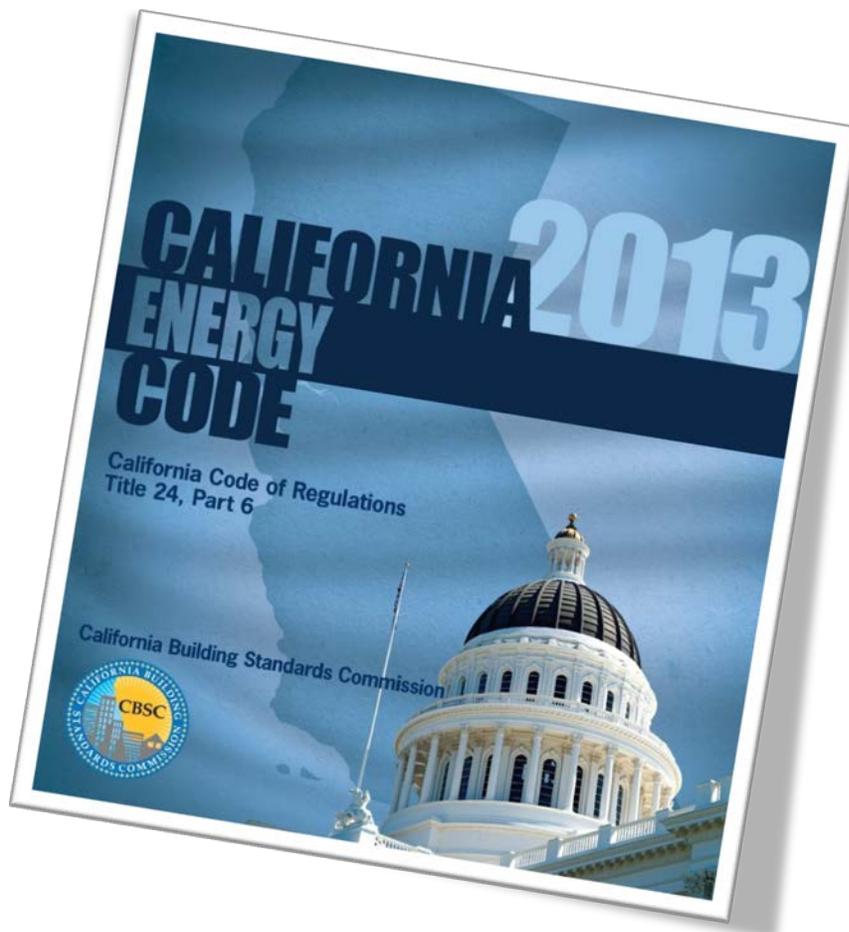
New California Title 24 Requirements

By Dave Lacombe

Now that we have been actively installing/complying with the new Title 24 requirements we thought it would be beneficial to outline some of the more common requirements that you can expect to run into. **DISCLAIMER:** This is very brief and may not outline other less common workarounds for some req., also there are exceptions to nearly every rule. Consult the document if you are hoping to qualify for one.

<http://www.energy.ca.gov/2012publications/CEC-400-2012-004/CEC-400-2012-004-CMF-REV2.pdf>

- 130.5(d) – Controlled receptacles tied to the motion sensors or time based controls, required within 6' of every uncontrolled receptacle in most office buildings spaces (half hots or quads half controlled).
- 130.1(a) – Area controls, manual dimmers needed in every room.
- 130.1(b) – Multi level lighting, rooms > 100 sq. ft. require dimming now; no more A/B switching.
- 130.1(c) – Shut off; EVERYTHING must turn off somehow, no more nightlights. Offices < 250 sq. ft. & conference/classrooms of any size must be motion controlled. Corridors must be motion controlled to dim when immediately unoccupied and shut off when typically unoccupied.
- 130.1(d) – Daylight controls, when lights are in a daylight zone they must be automatically/independently controlled by a photo sensor. Primary daylight zone is the height of the window back into space, secondary daylight zone is one more window height added onto the primary, back into the space, and skylight zone is the skylight footprint plus 0.7x the ceiling height in each direction. If a light falls onto one of these zones, it must be controlled with that zone. The hierarchy is:
skylight>primary>secondary.
- 130.1 (e) – Demand response, jobs >10,000 sq. ft. must be networked and capable of receiving/demonstrating that a signal from the utility can remotely dim the lighting.
- 130.2 (c) Outdoor lights that are mounted <24' (walls packs/poles included) must be motion controlled so they dim 50% when the area is unoccupied.
- 130.2(c) Outdoor lighting, no more than 1500 watts of lighting can be controlled together.





A Victory for One is a Victory for All

By Odie Miller

From the Safety Department here at Neal, I would like to congratulate the team at The East Valley Detention Center in Indio, Ca for winning the Cal/OSHA Golden Gate Award!

The East Valley Detention Center will be built on a six-acre site and add 1,273 beds to the overall detention center bed capacity of the country. One of the main goals of the new detention center is to provide programs to reduce the amount of returning offenders. Many of these programs include; residential substance abuse treatment, high school diplomas, career technical education, and much more to help the inmates return to civilian life. This facility will also be helping the community by generating 450 permanent staff positions.

The team consists of Foreman Damien Collins under the leadership of Superintendent Jeff Loh working with our new Safety Specialist Redstar.

The Golden Gate Award is presented to High Risk Employers as an incentive to excel in workplace safety. In this case, we are part of a bigger program with Clark Construction who is in the process of maintaining their VPP status and we were recognized for maintaining an effective Safety and Health Management System.

The requirements for qualifications are:

- We must have at least one employee
- Our company meets the definition of Cal/OSHA as a High Hazard Employer
- Our company receives a Full Service Evaluation from Cal/OSHA
- Our company has no final order willful repeat, or a willful-repeat citations on the worksite within twenty-four (24) months from the date of the opening conference, and no serious citations related to a serious injury or exposure at the worksite within twelve (12) months prior to the date of the opening conference
- Have established and maintained an effective injury and illness prevention program and all other Title 8 of California Code of Regulations required programs as a basis for your safety and health management systems. The sample review elements found in this information packet may be used for self-assessment of your injury and illness prevention program

The process involved Redstar and Damien meeting with John Ford (Cal/OSHA Senior Engineer) and Julia McCourt (Cal/OSHA Safety Consultant) on monthly job walks and submitting our safety programs for a thorough review insuring that our programs were up to par. If there were any deficiencies, we were made aware of them and allowed to correct the situations.

As standards are always being improved, it is important to stay current with California strict occupational safety requirements. One of the main areas of concerns this year was the changes that were made last year to Cal/OSHA's Heat Injury and Illness Prevention Plan requirements. This is an area that sorely needed revision and without argument, we were happy to comply as temperatures historically in Indio are above 100 degrees between the months of May through October. Field employees can expect to receive training in the new standard in the near future.

I'd like to thank everyone involved for their diligence in making any needed corrections in a timely manner. This process was an opportunity to partner with Cal/OSHA to gauge where we are in our efforts to keep our Neal employees and make any needed improvements. It's your safety which is our number one priority! I would also like to congratulate all of you in the Neal Family because "A Victory for One is a Victory for All"!

Where it all Began

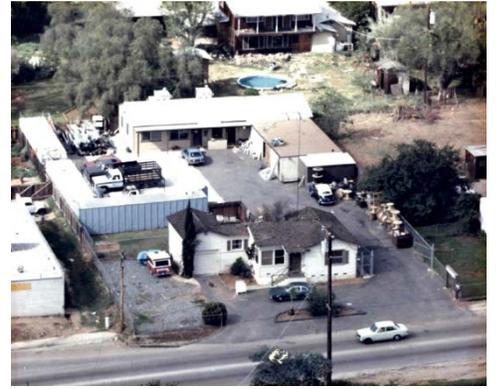
By Barbee Mayer

Neal Electric has not always been at 13250 Kirkham Way, Poway. We started out at 985 Greenfield Dr., El Cajon.

We moved here to Poway from Greenfield in Aug 1999. A huge change from the little house to this beautiful building with the best of everything.



Neal Electric (November, 1984)



Neal Electric's, previously Holmes Eddings Electrical Construction, first office. (1984)



Neal Electric's future home!

RESOURCES

- Open Positions
(Contact HR 858-513-2525 x108)
 - CAD Drafter
 - Jr. Estimator
 - Sr. Estimator
 - Payroll Specialist
 - Project Engineer
 - Project Manager
 - Sr. Project Manager
 - VP of Operations

- Upcoming Holidays
 - May 30 – Memorial Day
 - July 4 – Independence Day

Resources

On site HR Manager – Mauricio Penalosa
858-513-2525 x108

G & J Party Rentals – (760)978-2364 /
gandjpartyrentals@gmail.com
(Jumpers, Tables, Chairs & More)

Congratulations to Redstar on winning the Newsletter Title Contest!



13250 Kirkham Way
Poway, CA 92064