



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ENGINEER'S DAILY REPORT
LAN Engineering Consultant

AC 3-10-08

REPORT NO.	455 {7-day}	DATE	March 12, 2008	M T W T F S S (DAY)
NORMAL WORK HOUR:	START: 7:00AM	STOP: 3:30PM	WEATHER:	CLOUDY/SUNNY
LOCATION :	Construction Field Office :	333 Burma Road, Oakland 94607		
	Working Drawing Campus Office :	375 Burma Road, Oakland 94607		

04-SF-80-13.2/13.9
Contract No. 04-0120F4
{SAS Superstructure}

Caltrans Supervisor:
Gary Lai
Senior Bridge Engineer

Office Work:

❖ **MEP Shop Drawing Work.**

- Worked with Maxwell Takaki (PB) on the penetration layout on shop drawings.
- Worked on the Master penetration list (Updated).

❖ **W2 / T1 / E2 As-Built Grounding issue.**

- Received an email from Sandy Michelotti about the grounding at W2. The email had constructions photos of the bare 250 MCM copper ground conductors that were installed in that contract.
- The bare copper conductors are next to the chain link metal material and metal tie-back system. There is no protection for these conductors and any way of verifying the existing condition of them. Due to the way they were installed and the environment in which they are in it would be safe to say that these conductors cannot be approved for the grounding system for this bridge structure. An alternate solution needs to be developed to assure proper ground is performed at the point.

❖ **CCO # 42S1 – Review and Comments.**

- Started the review of the CCO with Sandy Michelotti.
- On-going review.
- Due Date for review comments is March 17, 2008.

❖ **CCO # 72 – Priority for processing - Review and Comments.**

- Will start this review after the completion of CCO#42S1 with Sandy Michelotti.
- See Email attachment.

❖ **CCO # 70 / RFI 1134 / CCR 42 issues.**

- Received cc Emails covering the update status of these documents.



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❖ **Aviation Warning Light Issue.**

- Received forward email from Sandy Michelotti about the Aviation Warning lights on the other bridge structures in the area. She has been communicating with the Caltrans Maintenance Crews to determine the problems with the existing lights from the same manufacture being submitted in this contract.
- See attached email covering this subject.

Any questions or comments you can reach me at (916) 919-7158. My E-Mail address is Mike.Travis@LANEngineering.com or Michael_Travis@dot.ca.gov

END OF REPORT

Work hours 0535-1810 – 8 hours regular / 2 hours OT (9Hours office / 3 hours Telecommute)

Attachments:

1. Aviation Warning Lights Email.
2. CCO 72 email
3. CCO 70_CCR42 Email PB.
4. RFI 1134_CCR 42 Email PB.
5. W2 ground electrode as-built email.
6. W2 ground electrode construction photos.

SIGNATURE

Name	TITLE
Michael F. Travis	Electrical Engineer – LAN Engineering



Sandra Michelotti/D04/Caltrans/CAGov

03/12/2008 01:33 PM

To Bill Shedd/D04/Caltrans/CAGov@DOT

cc Michael Travis/HQ/Caltrans/CAGov@DOT

bcc

Subject Fw: Aviation Warning Lights

History: This message has been forwarded.

For your info. This email is from Pat McCard, supervisor of the Carquinez Bridge.

Sincerely, Sandra Michelotti Electrical Inspector Cell 510-681-4275 Office 510-286-0514 Fax 510-286-0550

----- Forwarded by Sandra Michelotti/D04/Caltrans/CAGov on 03/12/2008 01:27 PM -----

Patrick McCard/D04/Caltrans/CAGov

03/12/2008 12:01 PM

To Sandra Michelotti/D04/Caltrans/CAGov@DOT

cc Renato Fortaleza/D04/Caltrans/CAGov@DOT

Subject Re: Aviation Warning Lights

Sandy- we had the FLOB FA250 fixtures with Halogen-3 to 4 years old, and we were changing out the burned up contacts because of the high amperage. They also contributed to burned up power supplies. We replaced them with the LED version and they look great, but it is up to the test of time since they were recently installed. On another note, please consult with Rene Fortalaza since his input is vital because of their vested interest. Also, it was optional, but we had a sync wire tied to a GPS so that the flashes were synchronized. This feature is not mandated by FAA and it never functioned as designed. The excuse was of the electro-magnetic interference from High Voltage lines.



Lanterns

Aviation & Helideck Lighting Steady Burning Red - Flashing - Helideck - Runway/Taxiway

Steady Burning Red Obstruction Lights

- Lanterns
 - Marine
 - Aviatic Helideck



Model OB-249 LED L-810 Aviation Light — This low intensity, omnidirectional, red obstruction light complies with the requirements of FAA L-810. The light consists of a precision 155mm clear acrylic drum lens with a high flux LED array.

[[pdf / en Español](#)]

>> [See FAA Certificate](#)



Model LBEX-85LED (Zone 1) - This low intensity, omni-directional, red obstruction light is Zone 1 rated and complies with the requirements of ICAO Annex 14 6.3.1. The light consists of a precision 85mm clear polycarbonate glass drum lens insided a tempered glass house with a high flux, red LED array mounted at the focal point of the lens.

[[pdf](#)]

Flashing Obstruction Lights



Model FLOB-249-BP — This flashing, omnidirectional, red/yellow obstruction light complies with the requirements of ICAO Annex 14 6.3.12 for mobile objects.

[[pdf](#)]



Model FLOB-250.24V FAA L-864 & ICAO Annex 14, Chapter 6

— This medium intensity, omnidirectional, red obstruction light complies with FAA L-864 for a flash rate of 20 flashes per minute. The light consists of an aviation red, FA-250 lantern containing six each, 24-volt, 150 watt, prefocussed, high pressure halogen, marine signal lamps mounted on a six-place flashchanger.

[[pdf](#)]



Model IFLOB-250-SOL — This medium intensity, omnidirectional, red obstruction light complies with ICAO Annex 14, Chapter 6 for a flash rate of 20 flashes per minute. The light consists of an aviation red, FA-250 lantern containing six each, 12 volt, 108 watt, prefocussed, high pressure halogen, marine signal lamps mounted on a six-place FLASHCHANGER®.

[[pdf](#)]



Model L-865 -This medium intensity, omni directional, aircraft obstruction light is designed to operate in explosive environments. It complies with FAA L-865 and ICAO Medium Intensity Type A. The light consists of a 320 mm precision molded fresnel lens mounted on Zone 1 EEx d enclosure.

- [Marine](#)
- [Rotating Beacons](#)
- [Beacon Accessories](#)
 - [Flashers](#)
 - [Lampc](#)
 - [FLASHCHANGER®](#)
 - [LED C](#)
 - [UNIFL](#)
 - [TR-3 F](#)
- [Xenon Beacons](#)
- [Solar Self-Charging Systems](#)
 - [Buoy & Range](#)
 - [Platform](#)
 - [Aviatic](#)
- [Radar Equipment](#)
- [Fog Signals & Lights](#)
 - [Half M](#)
 - [Two M](#)
 - [Long F](#)
 - [Fog De](#)
- [Industrial Air Energy](#)
- [Power Supply Batteries](#)
 - [Primary](#)
 - [Secondary](#)
- [Battery](#)
- [Battery](#)
- [Support Structures](#)
- [AIS & Monitoring](#)
- [Traffic Signal](#)
- [Buoys](#)
 - [Steel](#)
 - [Rotating](#)
 - [Molded](#)
 - [Molded](#)
 - [Buoyal](#)
 - [Smart](#)
- [Services](#)

[\[.pdf\]](#)

• [Tools](#)

[See also: Aviation Systems](#)

Helideck Lighting



[Helideck Marker Lighting](#) — Automatic Power offers a complete line of high-efficiency, helideck marker lights for offshore platforms. In addition to traditional glass lenses, a line of low wattage lights with high efficiency, polycarbonate fresnel lenses and 12-volt signal lamps are also offered.

Runway/Taxiway Lights



[Model FA-85801R](#) — Rugged & compact runway/taxiway light suited for remote locations where ac mains power is not available.
[\[.pdf\]](#)

LED Lanterns

Pharos/API have developed long lived light emitting diode (LED) arrays that are compatible with precision fresnel drum optics. The LED arrays are available in new lanterns or as conversion kits for existing lanterns.

[Marine Lanterns](#)

[LED-85](#)

[FA-249 LED](#)

[FA-250 LED](#)

[FA-240 LED](#)

[FA-143 LED](#)

[LITEPIPE II LED](#)

[FA-250 LED LR \(15 NM.\)](#)

[Emergency Wreck Marking Light](#)

[FA-250 LED LR \(12 NM.\)](#)

[FA-410 LED LR \(20-MILE\)](#)

[Aviation Lanterns](#)

[FA-85801& FA-85801HR](#)

[FA-249801](#)

[LBEX-85LED](#)

[SCS85LED](#)

[FA-249801HR](#)

[<< To Marine Lanterns](#)

[To Rotating Beacons >>](#)

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Sandra Michelotti/D04/Caltrans/CAGov



Sandra
Michelotti/D04/Caltrans/CAG
ov
03/12/2008 08:18 AM

To Renato Fortaleza/D04/Caltrans/CAGov@DOT, Patrick
McCard/D04/Caltrans/CAGov@DOT, Joe
Gillis/D04/Caltrans/CAGov@DOT
cc Renato Dacque/D04/Caltrans/CAGov@DOT, Bill
Shedd/D04/Caltrans/CAGov@DOT
Subject Aviation Warning Lights

Hello Rene, Pat and Joe,

As you may know, I am now working with Caltrans on the New Bay Bridge Project. I have a few questions regarding the aviation warning lights that were installed on the bridges you and your crew maintain. I know you have been replacing the aviation warning lights, can you please provide me with a brief description of the fixture failure, the model number and the life years of those being replaced? Thank you for your time.

Sincerely,
Sandra Michelotti
Electrical Inspector (CEII)
Cell 510-681-4275
Office 510-286-0514
Fax 510-286-0550

Mike Travis

From: Bill Shedd [bill_shedd@dot.ca.gov] **Sent:** Wed 3/12/2008 4:03 PM
To: Saeed Shahmirzai
Cc: Grady Hart; George Boughosn; Sharad Patel; Sandra Michelotti; Mike Travis; tho@tylin.com
Subject: CCO 72
Attachments:

Saeed,

We are reviewing the CCO 72 package and we intend to respond back to you by the end of next week with our comments. Please confirm if RFI 270 is included in your package.

This CCO is hot and we need to get it to the Contractor ASAP.

Thanks,

Bill Shedd
Construction Senior, SAS Bay Bridge

Mike Travis

From: Takaki, Maxwell [Takaki@pbworld.com] **Sent:** Wed 3/12/2008 11:40 AM
To: King, Nick
Cc: Sanei, Abdi; Tom Ho; Michael_Travis@dot.ca.gov; Mike Travis
Subject: RE: 13103 -SFOBB, SAS, CCO 070/CCR 042 89.85 M Elevations
Attachments:

Nick,

Item 1 may not be a contractor's call. The first comment on Mike Travis' meeting minutes states that ABF/Bleyco expressed that the detail for mounting a vertical unistrut support on the diaphragm would be problematic, and we talked about this afterward, and then Jim Stevens changed to end plate instead. We need to get a firm direction from T-Y-Lin (Tom Ho) that they would allow ABF/Bleyco to drill and tap.

Regards,
Max

-----Original Message-----

From: King, Nick
Sent: Tuesday, March 11, 2008 4:58 PM
To: Stevens, James; Takaki, Maxwell; Lucas, Ellery
Cc: Sanei, Abdi; Estoque, Saturnino; Walieddine, Fadi; Shahmirzai, Saeed; VanDeRee, Mark; Crouthamel, Bert
Subject: RE: 13103 -SFOBB, SAS, CCO 070/CCR 042 BASE Communication Box on Tower 53.85 M and 89.85 M Elevations

Gentlemen,

I just spoke with Anna Lee regarding RFI 1134. She clarified the following:

- 1.) says that the vertical support shown in Section B-B can be fastened to the floor by drilling and tapping if necessary.
- 2.) 96MM is not enough clearance for the elbows under the transformer, so it should be drawn as side entry. LTFM conduit can be routed along side of cabinet, and elbows at panel and disconnect cases can be turned 90 degrees to accommodate new routing.
- 3.) The uses knockouts, so it can be either top, bottom, or side entry

Nick King
Lead Design/Construction Coordinator
Parsons-Brinckerhoff
kingn@pbworld.com

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Mike Travis

From: Takaki, Maxwell [Takaki@pbworld.com] **Sent:** Wed 3/12/2008 12:17 PM
To: Stevens, James
Cc: Sanei, Abdi; VanDeRee, Mark; Crouthamel, Bert; Estoque, Saturnino; King, Nick
Subject: RE [1]: 13103 - SFOBB, SAS, CCR042/RFI 1134 Issues
Attachments:  Olsun_SGT15NC-2.pdf(48KB)

Jim,

1. Square D gave me the same runaround about entering/leaving 15 kVA dry type transformer's side wall. One of the reasons may be that they do not manufacture low kVA transformer. In my previous jobs, I've seen conduits into the side walls and bottom. Their distributor in Pleasanton, CA told me that Olsun Electric is one of their manufacturer so I contacted them, and they gave me their transformer drawing, which shows knockout on the side walls.
2. Bleyco goes by the bending radius called out in NEC so I would go by Table 2 in Chapter 9 of NEC.
3. Nick's other e-mail message indicates that Bleyco have not yet placed an order for approved panelboard so if you want to keep your design as is, then it's OK by me. The only concern that I had was that we approved the bottom entry, and therefore, the main CB is located at the bottom, the top entry of panelboard feeder would create an extra bending that is not desirable as you are aware.
4. If your definition of "penetration" refers to conduit penetrations on Skin A between A3 and A4 stiffeners, then the answer is yes. Sheet 288S2/1204 (E-285B) was removed from the response to RFI because it does not pertain to the RFI. Either Abdi or I will e-mail you the complete table.
5. CCR 042 is alive but added to CCO 070. CCO 070 covers more than CCR 042. We are only responsible for CCR 042. I will update the scope of CCR 042 and redeposit it into ProjectSolve2.
6. Abdi and I will compile shop drawings of all diaphragms and e-mail or put in ProjectSolve2, depending on the memory capacity of this file.

Regards,
 Max Takaki
 PB Oakland FO
 510-808-4558
 415-290-1056 cell

-----Original Message-----

From: John A Cherry [<mailto:John@OrmondAssoc.com>
 <<mailto:John@OrmondAssoc.com>>]
 Sent: Tuesday, March 11, 2008 6:08 PM
 To: Takaki, Maxwell

Subject: Fwd: Sil Pac Drawing

Max,

Per our conversation of a couple of days ago please find attached the Olsun standard 15 kVA SilPac drawing. They show a knockout for side entrance. Any questions give me a call. Thanks.

John A. Cherry
Ormond Associates, Inc.
925/377-7070
Fax: 925/377-7071

From: Stevens, James
Sent: Wednesday, March 12, 2008 7:26 AM
To: Takaki, Maxwell
Cc: Sanei, Abdi; VanDeRee, Mark; Crouthamel, Bert; Estoque, Saturnino; King, Nick
Subject: RE: 13103 - SFOBB, SAS, CCR 042 and RFI 1134 comment responses

Max,

I just got off the phone with Square D, and they cannot verify that there is enough room between the base of the transformer and the bottom of the encapsulating resin to install the fittings on the side of the unit. Square D indicated that there may be room, but one would have to wait to receive the transformer before finding out for sure. This being the case, I do not want to indicate a detail that may not work. If upon receiving the unit, Bleyco wishes to do things differently, I would have no objections as long as they do not damage the windings.

I have shown on the SK-RFI 1134-E-285A R1 that the dimensions are approximate and may be modified to accommodate installation. There is no problem with adding 25-50 mm to the space under the transformer. Do we know how much room they want?

I can show the feeds to the distribution panel from the bottom, but do not understand why one would not come in the top with the feeds since that's where the connection points are located.

The RFI sketches will only have the revisions indicated here? Will the sheet with the penetrations schedule be left out?

Is CCR 042 still alive or has it been converted to CCO 070? I will need a clearly defined scope if things have changed, e.g. detailing the ladder lighting above EL 53.

I have been unable to locate shop drawing details for all of the diaphragms. I need drawings of every diaphragm, shown complete with ladders, grating, and structural members to see if I will have problems using the cable tray junction boxes at all locations.

Thank you.

James Stevens
PB

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Sandra
Michelotti/D04/Caltrans/CAGov
v

03/12/2008 08:29 AM

To Grady Hart/HQ/Caltrans/CAGov@DOT, Michael
Travis/HQ/Caltrans/CAGov@DOT

cc

bcc

Subject Fw: Grounds at W2

For your information.

Sincerely,
Sandra Michelotti
Electrical Inspector (CEII)
Cell 510-681-4275
Office 510-286-0514
Fax 510-286-0550

----- Forwarded by Sandra Michelotti/D04/Caltrans/CAGov on 03/12/2008 08:27 AM -----

Todd
Smith/D04/Caltrans/CAGov

03/12/2008 06:34 AM

To Sandra Michelotti/D04/Caltrans/CAGov@DOT

cc

Subject Re: Grounds at W2



ground.jpg



ground2.jpg



ground3.jpg

ground2 is the north side of W2east and the other two pictures are the south side of the W2east foundation. Pictures were taken during backfilling operations.
Sandra Michelotti/D04/Caltrans/CAGov



Sandra
Michelotti/D04/Caltrans/CAGov
v

03/11/2008 04:45 PM

To Todd Smith/D04/Caltrans/CAGov@DOT

cc

Subject Grounds at W2

Hello Todd,

We met at W2 a few weeks ago on YBI to help me locate the existing grounds. Did you find any photos depicting the location of the grounds on W2 east? Thanks for your help.

Sincerely,
Sandra Michelotti
Electrical Inspector (CEII)
Cell 510-681-4275
Office 510-286-0514
Fax 510-286-0550

**W2 GROUND ELECTRODE AS-BUILT PHOTOS
250 MCM BARE COPPER CONDUCTORS**

