Antelope Valley Transit Authority

Regular Meeting of the Board of Directors

Tuesday, April 24, 2018

10:00 a.m.

Antelope Valley Transit Authority Community Room
42210 6th Street West, Lancaster, California
www.avta.com

AGENDA

For record keeping purposes, and if staff may need to contact you, we request that a speaker card, located at the Community Room entrance, be completed and deposited with the AVTA Clerk of the Board. This will then become public information. Please note that you do not have to complete this form or state your name to speak. A three-minute time limit will be imposed on all speakers other than staff members.

In accordance with the Americans with Disabilities Act of 1990, if you require a disability-related modification or accommodation to attend or participate in this meeting, including auxiliary aids or services, please contact the Clerk of the Board at (661) 729-2206 at least 72 hours prior to the scheduled Board of Directors meeting.

Translation services for Limited English Proficiency (LEP) persons are also available by contacting the Clerk of the Board at least 72 hours prior to the meeting.

Please turn off, or set to vibrate, cell phones, pagers, and other electronic devices for the duration of this meeting.

CALL TO ORDER

PLEDGE OF ALLEGIANCE

ROLL CALL:

Chairman Marvin Crist, Vice Chair Dianne Knippel, Director Steve Hofbauer, Director Austin Bishop, Director Angela Underwood–Jacobs, Director Michelle Flanagan

APPROVAL OF AGENDA

PUBLIC BUSINESS – AGENDIZED AND NON-AGENDIZED ITEMS:

If you would like to address the Board on any agendized or non-agendized items, you may present your comments at this time. Please complete a speaker card (available as you enter the Community Room) and provide it to the Clerk of the Board. Speaking clearly, state and spell your name for the record. **State law generally prohibits the Board of Directors from taking action on or discussing non-agenda items; therefore, your matter will be referred to the Authority's Executive Director/CEO for follow-up**. Each speaker is limited to three (3) minutes.

SPECIAL REPORTS, PRESENTATIONS, AND REQUESTS FOR DIRECTION (SRP): During this portion of the meeting, staff will present information not normally covered under regular meeting items. This information may include, but is not limited to budget presentations, staff conference presentations, or information from outside sources that relates to the transit industry. **Staff will seek direction as is necessary from the Board with regard to the following item(s).**

SRP 1 RECOGNITION OF AVTA EMPLOYEE OF THE THIRD QUARTER (JANUARY 1 – MARCH 31, 2018) – LEN ENGEL

SRP 2 PRESENTATION OF TRANSDEV OPERATOR AND EMPLOYEE OF THE MONTH FOR MARCH 2018 – HECTOR FUENTES, TRANSDEV

SRP 3 LEGISLATIVE REPORT FOR APRIL 2018 – JUDY FRY

PUBLIC HEARING:

PH 1 RESOLUTION NO. 2018-007, REJECTING ECO ENERGY SOLUTIONS, INC.'S BID ON CONTRACT 2018-10 FOR AVTA ELECTRIC BUS CHARGING AT SERGEANT STEVE OWEN MEMORIAL PARK AND AWARDING THE CONTRACT TO TAFT ELECTRIC COMPANY – MARK PERRY

Recommended Action: (1) Adopt Resolution No. 2018-007, a Resolution of the Board of Directors of the Antelope Valley Transit Authority finding Eco Energy Solutions, Inc. to be not responsible, rejecting Eco Energy Solutions, Inc.'s bid on Contract #2018-10 for the AVTA Electric Bus Charging Project at Sergeant Steve Owen Memorial Park ("SSOMP"), and awarding Contract #2018-10 to Taft Electric Company; and (2) Authorize the Executive Director/CEO to execute Contract 2018-10 for the AVTA Electric Bus Charging at SSOMP to Taft Electric Company ("Taft"), Ventura, CA, for the amount of $327,071, plus applicable permit fees and sales tax, as it is the lowest responsible and responsive bidder.

CONSENT CALENDAR (CC): Items 1 through 5 are consent items that may be received and filed and/or approved by the Board in a single motion. If any member of the Executive Board wishes to discuss a consent item, please request that the item be pulled for further discussion and potential action.

CC 1 BOARD OF DIRECTORS MEETING MINUTES OF MARCH 27, 2018 – KAREN DARR

Recommended Action: Approve the Board of Directors Regular Meeting Minutes of March 27, 2018.

CC 2 FINANCIAL REPORTS FOR FEBRUARY AND MARCH 2018 – JAMES MANNIE

Recommended Action: Receive and file the Fiscal Year-to-Date Budget versus Actual report dated February 28, 2018; the Interim, unaudited Financial Statements for the eight months ended February 28, 2018; the Cash Flow Projection/Treasurer's report for the month ended February 28, 2018; the Payroll History Report for the three months ended March 31, 2018; and the Cash Disbursements Report for the month ended March 31, 2018.

CC 3 FISCAL YEAR 2017/2018 THIRD QUARTER LOS ANGELES COUNTY SHERIFF'S DEPARTMENT (LASD) REPORT (JANUARY 1 – MARCH 31, 2018) – KELLY MILLER

Recommended Action: Receive and file the FY18 Third Quarter LASD report for the period covering January 1 – March 31, 2018.

CC 4 RESOLUTION NO. 2018-006, AUTHORIZING THE EXECUTIVE DIRECTOR/CEO TO EXECUTE AGREEMENTS NECESSARY FOR THE SERVER ROOM UPGRADE PROJECT WITH FUNDS FROM THE CALIFORNIA STATE OF GOOD REPAIR PROGRAM – JUDY FRY

Recommended Action: Adopt Resolution No. 2018-006, a Resolution of the Board of Directors of the Antelope Transit Authority authorizing the Executive Director/CEO to execute agreements necessary for the Server Room Upgrade Project with funds from the California State of Good Repair Program.

CC 5 RESOLUTION NO. 2018-008, AUTHORIZING THE EXECUTIVE DIRECTOR/CEO TO EXECUTE THE NECESSARY AGREEMENT TO PROCURE ONE (1) BATTERY ELECTRIC COMMUTER BUS WITH FUNDS FROM THE 2017/2018 (FY18) CAP AND TRADE LOW CARBON TRANSIT OPERATIONS PROGRAM (LCTOP) PROGRAM – JUDY FRY

Recommended Action: Adopt Resolution No. 2018-008, a Resolution of the Board of Directors of the Antelope Valley Transit Authority authorizing the Executive Director/CEO to execute the necessary agreement to procure one (1) battery electric commuter bus with funds from the 2017/2018 (FY18) Cap and Trade Low Carbon Transit Operations Program (LCTOP) Program.

NEW BUSINESS (NB):

NB 1 ELECTION OF BOARD OFFICERS FOR FISCAL YEAR 2018/2019 (FY19) – KAREN DARR

Recommended Action: Nominate and elect a Chair and Vice Chair for FY19.

NB 2 FISCAL YEAR 2019 PRELIMINARY BUSINESS PLAN REVIEW AND SHORT RANGE TRANSIT PLAN ASSUMPTIONS – LEN ENGEL

Recommended Action: Approve the Preliminary Fiscal Year 2019 Business Plan Assumptions and provide direction to staff regarding fiscal priorities for the Final Fiscal Year 2019 Business Plan.

NB 3 LEASE AGREEMENT BETWEEN THE ANTELOPE VALLEY TRANSIT AUTHORITY AND ANTELOPE VALLEY HEALTHCARE DISTRICT – SOUTH VALLEY TRANSIT HUB AND CHARGING STATION – NORM HICKLING

Recommended Action: Authorize the Executive Director/CEO to negotiate and execute a lease agreement with the Antelope Valley Healthcare District for a 30-year term, to support the construction and operation of an AVTA transit center and enroute charging facility adjacent to the South Valley Health Center.

CLOSED SESSION (CS):

PRESENTATION BY LEGAL COUNSEL OF ITEM(S) TO BE DISCUSSED IN CLOSED SESSION:

CS 1 Conference with Legal Counsel – Pursuant to Government Code Section 54956.9(a)
Pending Litigation: Clark v. AVTA, LASC Case No. MC026036
Pending Litigation: Sabina M. Andrade v. AVTA
Pending Litigation: Marsh v. AVTA USDC case No. 2:16-cv-0937-PSG

CS 2 Conference with Legal Counsel – Pursuant to Government Code Section 54956.9(d)(2)
Significant exposure to litigation (one potential case)

CS 3 Conference with Legal Counsel – Pursuant to Government Code Section 54956.9(d)(4)
Consideration of whether to initiate litigation (one potential case)

CS 4 Conference with Legal Counsel – Pursuant to Government Code Section 54956.9(D)(4)
Consideration of initiation of litigation (one potential case)

CS 5 Public Employee Performance Evaluation – Pursuant to Government Code Sections 54954.5 (e) and 54957(b))
Title: Executive Director/CEO

RECESS TO CLOSED SESSION

RECONVENE TO PUBLIC SESSION

REPORT BY LEGAL COUNSEL OF ACTION TAKEN IN CLOSED SESSION

REPORTS AND ANNOUNCEMENTS (RA):

RA 1 Report by the Executive Director/CEO

MISCELLANEOUS BUSINESS – NON-AGENDA BOARD OF DIRECTORS ITEMS:

During this portion of the meeting, Board Members may address non-agenda items by briefly responding to statements made or questions posed by the public, asking a question for clarification, making a brief announcement, or making a brief report on their own activities. **State law generally prohibits the AVTA Board of Directors from taking action on or discussing items not on the agenda.** Matters will be referred to the Executive Director/CEO for follow-up.

ADJOURNMENT:

Adjourn to the Regular Meeting of the Board of Directors on May 22, 2018 at 10:00 a.m. in the Antelope Valley Transit Authority Community Room, 42210 6th Street West, Lancaster, CA.

The agenda was posted by 5:00 p.m. on April 20, 2018 at the entrance to the Antelope Valley Transit Authority, 42210 6th Street West, Lancaster, CA 93534.

Copies of the staff reports and attachments or other written documentation relating to each proposed item of business on the agenda presented for discussion by the Board of Directors are on file in the Office of the Executive Director/CEO. Any disclosable public records related to an open session item on a regular meeting agenda and distributed by the AVTA to the Board of Directors less than 72 hours prior to that meeting are on file in the Office of the Executive Director/CEO. These documents are available for public inspection during regular business hours at the Customer Service window of the AVTA at 42210 6th Street West, Lancaster or by contacting the Clerk of the Board at (661) 729-2206.

DATE: **April 24, 2018**

TO: **BOARD OF DIRECTORS**

SUBJECT: **Resolution No. 2018-007, Rejecting Eco Energy Solutions, Inc.'s Bid on Contract 2018-10 for AVTA Electric Bus Charging at Sergeant Steve Owen Memorial Park and Awarding the Contract to Taft Electric Company**

RECOMMENDATION

That the Board of Directors: (1) adopt Resolution No. 2018-007, a Resolution of the Board of Directors of the Antelope Valley Transit Authority finding Eco Energy Solutions, Inc. to be not responsible, rejecting Eco Energy Solutions, Inc.'s bid on Contract #2018-10 for the AVTA Electric Bus Charging Project at Sergeant Steve Owen Memorial Park ("SSOMP"), and awarding Contract #2018-10 to Taft Electric Company; and (2) Authorize the Executive Director/CEO to execute Contract 2018-10 for the AVTA Electric Bus Charging at SSOMP to Taft Electric Company ("Taft"), Ventura, CA, for the amount of $327,071.00, plus applicable permit fees and sales tax, as it is the lowest responsible and responsive bidder.

FISCAL IMPACT

Sufficient grant funds have been included in the FY18 Business Plan to pay for Contract 2018-10.

BACKGROUND

The Board approved two infrastructure construction projects with Wireless Advanced Vehicle Electrification, Inc. ("WAVE") at the regular meeting held in February 2014. Since that time, AVTA has released an RFP and awarded a subsequent contract to WAVE. Under this agreement WAVE is to deliver up to fifteen additional charging stations.

AVTA then released an Invitation for Bids (IFB) on February 5, 2018 for the installation of three high-power 250kW chargers at SSOMP. The three WAVE charging infrastructure improvements include underground electrical service, concrete pads

for electrical equipment, transformer pad, electrical equipment installation, and associated improvements. The awarded firm is required to provide project management, supervision, scheduling, equipment, labor, materials, freight, taxes and applicable permits for this project.

Prior to the issuance of the IFB, the Board and Transit Advisory Committee members were notified and asked to submit any recommendations for potential vendors. The solicitation documents were posted to AVTA's procurement website and advertisements were placed in the Antelope Valley *Press* and the *Our Weekly Lancaster* newsletter. The local Chambers of Commerce and AV Board of Trade were also notified via their respective email lists. AVTA's procurement system provided the solicitation documents to 139 registered firms: eight (8) from Lancaster, three (3) from Palmdale, and an additional 128 firms outside of the Antelope Valley.

Staff conducted a mandatory pre-bid conference on February 15, 2018, with seven (7) firms attending. The bid opening was held on March 15, 2018. Two (2) addenda were released prior to the bid closing. Of the 139 firms that received the IFB, only four (4) submitted bids. The firms and their respective bid amounts are listed in the table below.

Firm	Location	Price
Eco Energy Solutions, Inc.[1]	Chatsworth, CA	$315,542.66
Taft Electric Company	Ventura, CA	$327,070.82
Amtek Construction	Whittier, CA	$375,542.66
CSI Electrical Contractors, Inc.	Santa Fe Springs, CA	$395,305.00

Under AVTA's procurement policy requirements, and California law, an IFB must be awarded to the lowest *responsive* bid from a *responsible* bidder. (Pub. Contracts Code § 20128.) All of the bids received were reviewed for requisite document submittal, pursuant to bid requirements, and all were determined *responsive*. A 'responsible bidder' is "a bidder who has demonstrated the attribute of trustworthiness, as well as quality, fitness, capacity, and experience to satisfactorily perform the public works contract." (Pub. Contracts Code § 1103.) For the reasons detailed in Attachment 1 hereto, and as demonstrated in the attached exhibits, Staff recommends that the Board conduct a public hearing and find that Eco is *not* a *responsible* bidder.

Pursuant to *City of Inglewood-Los Angeles County Civic Ctr. Auth. v. Superior Court* (1972) 7 Cal. 3d 861, when a public entity has evidence a low bidder is not responsible, it must conduct a hearing and make a specific finding that the low bidder is not responsible before rejecting the bid. Also, pursuant to *Boydston v. Napa Sanitation District* (1990) 222 Cal. App. 3d 1362, 1369, before a public entity may award a contract to a party other than the lowest bidder, the public entity must notify the low bidder of the evidence reflecting on the low bidder's responsibility, and give

[1] Eco Energy Solutions, Inc. also operates under a dba, High Volt Electric.

the low bidder an opportunity to respond to the evidence and present its own evidence of responsibility.

Although Eco submitted the *lowest responsive bid*, AVTA Staff believes the firm is *not a responsible bidder* due to its past construction performance on two inductive charging projects with AVTA, among other things.[2] Thus, in accordance with California law, Eco has been notified of the evidence demonstrating Eco's non-responsibility and advised of the opportunity to respond to the evidence and present its own evidence of responsibility at a public hearing on April 24, 2018.

Staff recommends that Contract 2018-10 be awarded to Taft as the lowest *responsible* bidder that submitted a *responsive* bid, with fair and reasonable pricing. Therefore, Staff is recommending the Board award Contract 2018-10 to Taft. This project is anticipated to take approximately 120 days to complete.

Prepared by:

_____
Lyle A. Block, CPPB
Procurement and Contracts Officer

Submitted by:

_____
Len Engel
Executive Director/CEO

Attachments: A - Resolution No. 2018-007

B - Analysis of Eco Energy Solutions, Inc.'s Non-Responsibility

[2] Eco also has two pending cases before the Labor Commissioner, State of California, Department of Industrial Relations (DIR), Division of Labor Standards Enforcement (DLSE), Civil Wage and Penalty Assessment Review Office concerning alleged wage violations. (*See* Exhibit S, Complaints.)

ATTACHMENT A

BOARD OF DIRECTORS

ANTELOPE VALLEY TRANSIT AUTHORITY

RESOLUTION NO. 2018-007

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE ANTELOPE VALLEY TRANSIT AUTHORITY FINDING ECO ENERGY SOLUTIONS, INC. TO BE NOT RESPONSIBLE, REJECTING ECO ENERGY SOLUTIONS, INC.'S BID ON CONTRACT #2018-10 FOR THE AVTA ELECTRIC BUS CHARGING PROJECT AT SERGEANT STEVE OWEN MEMORIAL PARK, AND AWARDING CONTRACT #2018-10 TO TAFT ELECTRIC COMPANY

WHEREAS, California law requires that public entities seek competitive bidding on public contracts, and award public contracts to the lowest responsive bid from the lowest "responsible bidder" (Pub. Contracts Code § 20128);

WHEREAS, the term "responsible bidder" is defined as "a bidder who has demonstrated the attribute of trustworthiness, as well as quality, fitness, capacity, and experience to satisfactorily perform the public works contract" (Pub. Contracts Code § 1103); and

WHEREAS, pursuant to *City of Inglewood-Los Angeles County Civic Ctr. Auth. v. Superior Court* (1972) 7 Cal. 3d 861, if and when a public entity determines a low bidder is "not responsible," it must conduct a hearing and make a specific finding the low bidder is "not responsible" before rejecting the bid; and

WHEREAS, pursuant to *Boydston v. Napa Sanitation District* (1990) 222 Cal. App. 3d 1362, 1369, before a public entity may thereafter award a contract to a party other than the lowest bidder, the public entity must notify the low bidder of evidence reflecting on the low bidder's responsibility, and give the low bidder an opportunity to respond to the evidence and present its own evidence of responsibility; and

WHEREAS, pursuant to California law, the Board of Directors of the Antelope Valley Transit Authority ("AVTA") (the "Board") released an invitation for competitive bids on February 5, 2018, for a contract to install three high-power 250kW electric bus chargers at Sergeant Steve Owen Memorial Park (the "Contract"); and

WHEREAS, AVTA received bids on the Contract from four (4) firms: Eco Energy Solutions, Inc. ("Eco"); Taft Electric Company ("Taft"); Amtek Construction; and CSI Electrical Contractors, Inc.; and

WHEREAS, Eco submitted the apparent low bid, and Taft submitted the second lowest bid; and

WHEREAS, AVTA has evidence that Eco is not a "responsible bidder," because: (1) Eco lacks the experience to perform under the Contract; (2) Eco lacks the capacity to perform under

the Contract; (3) Eco lacks the fitness to perform under the Contract; (4) Eco lacks the ability to deliver the desired level of quality under the Contract; and (5) Eco is untrustworthy (*See* Staff Report, Attachment); and

WHEREAS, in accordance with California law, AVTA notified Eco of the evidence demonstrating Eco's non-responsibility, and provided Eco an opportunity to respond to the evidence and present its own evidence of responsibility at a public hearing held on April 24, 2018; and

WHEREAS, after conducting a public hearing, considering any evidence, statements, testimony, and/or documents submitted by Eco, and analyzing and considering all evidence, statements, testimony, and/or documents presented to it, the Board makes the following findings:

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

Section 1. The Board of Directors of the Antelope Valley Transit Authority hereby rejects Eco Energy Solutions, Inc.'s bid on the Contract and finds that Eco is not a responsible bidder for the totality of the reasons and bases set forth in the Staff Report together with the attachment and exhibits thereto, as well as the evidence, statements, testimony, and/or documents presented at the public hearing held on April 24, 2018, and not based solely on any single factual statement or assertion therein.

Section 2. The Board of Directors of the Antelope Valley Transit Authority hereby awards the Contract to Taft Electric Company as Taft is the lowest responsible bidder that submitted a responsive bid.

PASSED, APPROVED and ADOPTED this __th day of _____, 2018.

AYES: _____ NAYS: _____

ABSTAIN: _____ ABSENT: _____

_____
Marv Crist, Chairman

ATTEST:

_____
Karen Darr, Clerk of the Board

APPROVED AS TO FORM:

_____
Allison E. Burns, General Counsel

ATTACHMENT B

Analysis of Eco Energy Solutions, Inc.'s Non-Responsibility

In 2015 and 2016, AVTA entered into two (2) separate contracts with Eco for the construction of electric bus charging facilities. Throughout the duration of these projects, Eco failed to adhere to set construction schedules, failed to provide necessary information when requested, misrepresented other critical information, and ignored repeated schedule reminders from AVTA in regard to each contract. In the end, Eco finished both projects close to a year beyond their set completion dates. Accordingly, Staff recommends that the Board find Eco is not a responsible bidder.

Facts and Timeline:

Lancaster City Park Project ("Project 2016-22")

Eco was issued a Notice to Proceed on Project 2016-22 on December 14, 2015. (*See* Exhibit A, Notice to Proceed.) As set forth in the Notice to Proceed, Eco was to finish this project on or before March 5, 2016. (*See id*.) Eco did not complete Project 2016-22 until March 27, 2017–more than one year after the originally established completion date. (*See* Exhibit B, Certificate of Completion.) Eco's failure to timely pursue project completion was the subject of numerous meeting discussions and correspondence between AVTA Staff and the project manager, Arrow Engineering.

Eco was repeatedly reminded of its repeated failure to adhere to the construction schedule. Specifically, on January 27, 2016, Staff wrote Eco stating its concern that Eco would be unable to meet the contract completion date. (*See* Exhibit C, Email.) In this email, Staff highlighted the fact that Eco did not begin onsite work on the project until January 11, 2016, which was nearly a month after AVTA issued the Notice to Proceed. (*See id*.) Staff also pointed out that January 21, 2016 was the date Eco first supplied an equipment submittal for the switchgear equipment–the most important piece of equipment required to complete the project. (*See id*.) To make matters worse, Eco knew there was a substantial lead time on the switchgear equipment, which it had not yet ordered. (*See id*.) AVTA Staff made it very clear to Eco that time was of the essence in completing the project, as the project had a heightened level of visibility in the community. (*See id*.)

Thereafter, on February 8, 2016, AVTA, Arrow Engineering, and Eco met to discuss the status of the project. (*See* Exhibit D, Minutes.) Prior to this meeting, Eco told AVTA it had placed the order for the switchgear. (*See id*.) However, at the meeting, AVTA discovered Eco had falsely represented this fact, and the equipment had not yet been ordered. (*See id*.) This false representation served to mislead AVTA staff as to the extent of the delays the project would face. Also during the meeting, AVTA again expressed its concerns with Project 2016-22 being behind schedule, and requested Eco submit a recovery schedule setting forth a more realistic schedule moving forward. (*See id*.) As indicated in the meeting minutes,

Eco was to provide this recovery schedule prior to the meeting, but failed to do so on time or at all. (*See id*.)

On February 18, 2016, AVTA again requested a recovery schedule from Eco. (*See* Exhibit E, Email.) AVTA notified Eco it was behind on its installation of the underground feeds for the WAVE system and its installation of the concrete. (*See id*.) AVTA followed up on its request for a recovery schedule again on February 19, 2016, and once more on February 22, 2016. (*See id*.) At this time, the project was less than two (2) weeks from its completion date, and Eco had not yet provided AVTA an updated recovery schedule despite AVTA's multiple requests.

Despite all of AVTA's prodding, Eco nonetheless failed to take the necessary steps to complete the project in a timely manner. (*See* Exhibit B, Certificate of Completion.) Eco did not place the order for the switchgear equipment until February 29, 2016, which was only one week before the project *completion date*. (*See* Exhibit F, Approval.) The project manager at Arrow Engineering wrote AVTA describing Eco's failure to timely procure the critical project components, "[i]f normal due diligence was followed and submittals started shortly after [the Notice to Proceed] date an order for the [switchgear] equipment should have taken place the first week of January at the latest." (*See* Exhibit G, Email.) As a result of Eco's delays, on March 29, 2016, Eco had still not yet received the switchgear. (*See* Exhibit H, Email.) The project did not reach substantial completion until more than a year later. (*See* Exhibit B, Certificate of Completion.)

Palmdale Transportation Center Project ("Project 2016-28")

Eco was issued a Notice to Proceed on Project 2016-28 on January 22, 2016. (*See* Exhibit I, Notice to Proceed.) Pursuant to the Notice to Proceed, Eco was to complete Project 2016-28 on or before April 6, 2016. (*See id*.) Eco did not complete Project 2016-28 until March 27, 2017–nearly one year after the original completion date. (*See* Exhibit J, Certificate of Completion.)

This project was also the subject of the February 8, 2016 meeting among Eco, AVTA, and Arrow Engineering staff. At that time, the project was less than two months from its completion date and Eco had yet to submit a single project schedule to AVTA. (*See* Exhibit D, Minutes.) This point was raised at the meeting. (*See id*.) Thereafter, on March 4, 2016, having still not received a project schedule, AVTA again requested a project schedule from Eco. (*See* Exhibit K, Email; *see also* Exhibit L, Email.) Eco responded on March 4, 2016, indicating it was still working on the schedule. (*See* Exhibit K, Email.) At this point, the project was roughly one (1) month from its completion date, and an initial project schedule had not yet been submitted. Pursuant to the Preconstruction Meeting Agenda from January 14, 2016, the construction schedule was due within 10 days of the Notice to Proceed date. (*See* Exhibit M, Email.) Eco's first time on the job site was February 18, 2016.

Similar to Project 2016-22, Eco failed to order the critical switchgear equipment for this project in a timely manner. (*See* Exhibit N, Approval.) The switchgear was submitted for approval on March 7, 2016, which was six (6) weeks after the Notice

to Proceed, and less than one (1) month from the completion date. Not only was Eco aware of the critical importance of the switchgear equipment as a result of its experience on Project 2016-22, Eco was aware of the substantial lead time required for this equipment. (*See* Exhibit C, Email.) The supplier for the switchgear in Project 2016-22 could have provided more than one switchgear at a time. Eco's failure to order the switchgear for Project 2016-28 at the same time it ordered the switchgear for Project 2016-22 evidences disregard for the project schedule, inadequate planning, and inadequate project management systems.

Pursuant to status notes created by AVTA, this project was 15-20% complete on March 30, 2016–one week from its completion date. (*See* Exhibit O, Project Status.) This project, like Project 2016-22, finished roughly a year after the contract completion date. (*See* Exhibit J, Certificate of Completion.)

Analysis of Evidence that Eco is 'Not Responsible':

(1) Eco's lack of Experience:

Eco demonstrated a lack of experience in its dealings with both Project 2016-22 and Project 2016-28, as indicated above. An experienced bidder would have created and followed a construction schedule to meet the contract deadline and provided a recovery schedule as soon as it fell behind. Moreover, an experienced bidder would have known the most important piece of equipment needed to be ordered much sooner than one week prior to the completion date for Project 2016-22. Also, an experienced bidder would have ordered the switchgear for Project 2016-28 at the same time it ordered the switchgear for Project 2016-22, as it required substantial lead time. Lastly, an experienced bidder would have simultaneously worked on the two (2) projects, given the fact the completion dates were so close in proximity.

Eco's work prior to Project 2016-22 and Project 2016-28 consisted mainly of low-level light fixture installation. (See Exhibit P, Bid Submittal.) Project 2016-22 and Project 2016-28 involved more experience and capacity than Eco was able to provide, and its inexperience and lack of capacity showed.

Eco lacks the experience required to perform under Project 2018-10.

(2) Eco's lack of Capacity:

Eco failed to properly staff Project 2016-22 and Project 2016-28 to ensure these projects finished on time. (*See* Exhibit Q, Spreadsheet.) Despite prodding by AVTA's project manager (*See* Exhibit C, Email), Eco failed to timely perform under the contracts, and instead finished more than a year late on Project 2016-22, and nearly a year late on Project 2016-28. (*See* Exhibit B, Certificate of Completion; *see also* Exhibit J, Certificate of Completion.)

Eco lacks the capacity to perform under Project 2018-10.

(3) Eco's lack of Fitness:

As shown above, Eco lacks the ability to properly staff large scale projects to ensure they are timely completed. Eco is not fit to complete a project as large in scope as Project 2018-10 within the project timeline.

Eco lacks the fitness to perform under Project 2018-10.

(4) Eco's lack of Quality:

Project 2016-22 was not finished until March 27, 2017–more than a year after the initial deadline of March 5, 2016. (*See* Exhibit B, Certificate of Completion.) Project 2016-28 was not finished until March 27, 2017–nearly a year after the initial deadline of April 6, 2016. (*See* Exhibit J, Certificate of Completion.) Moreover, Eco damaged Southern California Edison property during its work on Project 2016-22. (*See* Exhibit R, SCE Letter.) This action indicates careless work and a lack of attention to detail.

Eco lacks the ability to deliver the quality required under Project 2018-10.

(5) Eco's Untrustworthiness:

Eco made false statements to AVTA about when it ordered the switchgear–the most important piece of equipment–for Project 2016-28. (*See* Exhibit D, Minutes.) On February 8, 2016, AVTA discovered Eco had not yet ordered the switchgear, contrary to Eco's prior representations. (*See id*.) Eco cannot be trusted to keep deadlines or to submit truthful and trustworthy construction documentation

Eco is not trustworthy and thus cannot be trusted to perform under Project 2018-10.

Based on all of the foregoing, Eco is not a responsible bidder. This finding is not predicated on any single isolated action or failure to act by Eco. It is instead based on the totality of Eco's actions and failures to act during Projects 2016-22 and 2016-28, as demonstrated above.

Antelope Valley Transit Authority

December 14, 2015

NOTICE TO PROCEED

Mr. Karo Gyonjyan, President
Eco Energy Solutions, Inc, dba
High Volt Electric
9410 DeSoto Avenue, Unit H
Chatsworth, CA, 91311

RE: IFB NO: 2016-22
IFB TITLE: AVTA Electric Bus Charging At Lancaster City Park

Mr. Gyoniyan:
You are hereby notified to commence WORK in accordance with the Construction Agreement dated December 14, 2015, and you are to complete the project by no later than March 5, 2016, as indicated on page 1, of said Construction Agreement No. 2016-22.

OWNER:
Antelope Valley Transit Authority

By: Lyle A. Block

Name: Lyle A Block
Title: Procurement and Contracts Officer

ACCEPTANCE OF NOTICE:

(NOTE: The Contractor shall return a signed copy of this Notice to the Owner)

Receipt of the above NOTICE TO PROCEED is hereby acknowledged this th day of December, 2015.

By: _____

Name: Karo Gyonjyan

Title: President

END

Antelope Valley Transit Authority

CERTIFICATE OF SUBSTANTIAL COMPLETION

ANTELOPE VALLEY TRANSIT AUTHORITY CONTRACT NUMBER: **2016-22**

PROJECT NAME: **AVTA ELECTRIC BUS CHARGING AT LANCASTER CITY PARK**

TO: Antelope Valley Transit Authority
42210 6th Street West
Lancaster, CA 93534

THROUGH: Len Engel, Executive Director

ARCHITECT/ENGINEER
/PROJECT MANAGER: Arrow Engineering Services, Inc.(AESI), Brian Glidden, PE
CONTRACTOR: Eco Energy Systems, Inc

CONTRACT FOR: Perform the necessary services to construct electric bus charging facilities at Lancaster City Park
(GENERAL, MECHANICAL, ELECTRICAL, OTHER)

CONTRACT DATE: December 14, 2015 CONTRACTOR P.O. NO: 2529

PROJECT OR DESIGNATED AREA SHALL INCLUDE: Location defined by project specifications and plans

The contractor hereby certifies the Work of this project to be in complete conformance to the Contract Documents and to be substantially complete, enabling the Owner to make use of the Work as intended.

By signature below, the Contractor further requests Architect/Project Manager and Owner to inspect the Work and to concur in the Work's substantial completion by their signature and/or to provide in a timely manner to Contractor a listing of work items adjudged by them as remaining to be completed or corrected. Contractor agrees to complete and correct all work items representative of such listing within 30 days from date of receipt from Architect/Owner.

Eco Energy Solutions, Inc/ dba High Volt Electric — Contractor Company Name
By (written) — (Shall be signed by same representative who signed Contract)
3-27-17 — Date

A list of items to be completed or corrected, verified by the Architect/Project Manager and Owner, is (is not) appended hereto. Failure to include any incomplete items on such list does not alter the responsibility of the Contractor to provide all Work in complete conformance with the Contract Documents.

AESI — Architect/Engineer/Project Manager Company
Brian D. Glidden — By (written)
3/21/17 — Date
(Shall be signed by Architect/Engineer/ Project Manager of Record with Certification Responsibility to AVTA)

The Work performed under this Contract has been reviewed and found to be substantially complete by the Executive Director who has hereby established the Date of Substantial Completion as September 21, 2015, which is also the date of commencement of all warranties and guarantees required by the Contract Documents. The Date of Substantial Completion of the Work or designated portion thereof is the date established by Executive Director when construction is sufficiently complete, in accordance with the Contract Documents, so the Owner may occupy the Work, or designated portion thereof, for the use for which it is intended.

The Owner accepts the Work or designated portion thereof as substantially complete and assumes full possession thereof, in accordance with the contract documents.

Antelope Valley Transit Authority — Owner
By: Len Engel, Executive Director — *(Shall be signed by Executive Director as Owner's representative)*
3/27/17 — Date

The responsibilities of the Owner and the Contractor for the maintenance, heat, utilities and insurance shall be set out in the Contract Doumnets.

PH-1 - Exhibit C, Email

Arrow Master - AVTA electric bus charging at LCP_Project Schedule concern (14-6366-07)

From: Jim Schroeter
To: Brian Glidden
Date: 1/27/2016 11:52 AM
Subject: AVTA electric bus charging at LCP_Project Schedule concern (14-6366-07)
Attachments: SIGNED_noticetoproceed.pdf

Eddie, Karo,

We are expressing our concern about your ability to meet the contract completion date of March 5, 2016, as indicated in the signed Notice to Proceed letter(see attached).

The contract time started December 14, 2015. Your initial construction schedule submitted on the 24th of December was returned with comments to show the proper completion time. You had time involved with organizing your space requirements at the Park and obtaining the Permits for construction in January. We understand you have had to work out with AVTA the bus aisle shut down for February 1 to the 14th so you can complete the trenching work across the bus aisle area.

Based on emails and conversations with you, your first onsite work commenced on January 11th with the construction fencing. This date is nearly a month after your Notice to Proceed.

On January 7th you inquired of the method to ask for more contract time based on weather delays. On the 8th of January our staff responded in an email indicating two ways of requesting additional time due to weather delays. At this time, we have not been given any written documentation from you indicating an official request for weather delays and how many days you want to extend the contract time.

You have submitted two RFIs which we have responded to in your favor.

However, last Thursday the 21st was the first supplied equipment submittal of the contract concerning the MSA switchgear. At that time, there was only 44 days left in your contract before the liquidated damages clauses of the contract agreement are activated. Your submittal, indicated in your email, said there was a substantial lead time for this product. Our staff spoke with you on the phone about our preliminary findings of the submittal on the 22nd even though we had not completed our submittal review. Our electrical sub-consultant responded in writing on Monday the 25th with a "revise and resubmit" status, indicating the reasons needed to comply.

Yesterday, at the field meeting in Palmdale, you indicated some requirement issues need to be resolved because of the time it takes to get this MSA switchgear. We indicated to you to speak directly with the electrical engineer to resolve these issues so the product can be ordered.

Time is of the essence with respect to the completion of the project within the contract time. This project has a high visibility in this community.
As a reminder the liquidated damages amount has been set in the agreement as $250.
We ask you send us submittals AS SOON AS POSSIBLE on the remaining supplied products and materials you will be incorporating into this project. The reason for this is to assist you in completing the project on time.

Sincerely,

Cover Page to Exhibit D, Minutes

The attached exhibit–Exhibit D, Minutes–is incorrectly dated. The correct date is February 8, 2016, the date of Meeting No. 1 regarding the WAVE Charger installation project status.

WAVE CHARGER INSTALLATION
PROJECT STATUS MEETING MINUTES

DATE: October 8, 2016 **TIME: 2:00 p.m.**
LOCATION: AVTA **MEETING NO.: 1**

Attendees: Karo Gyonjyan, Eddie Kulukian (HighVolt); Brian Glidden, Jim Schroeter (Arrow Engineering); Mike Lanni (Donald Dickerson); Mark Perry (AVTA)

Lancaster Site

1.0 Work Performed/Completed in Prior Weeks

- Partial trenching for Edison
- Trenching and partial conduits in bus area
- Procurement of material

2.0 Work to be Performed/Completed Next Week

- Dowels for concrete repairs on Wednesday
- Pour concrete on Friday
- Plate concrete areas for bus access on Friday

3.0 New Issues

- MSA is going to extend the construction schedule (GE – 6 weeks)
    - HighVolt indicated it takes 8 to 10 weeks for switchgear. Six weeks would require expediting and it could come as early as 4 weeks.
    - Last week Karo said he ordered the switchgear and today he said he has not ordered it yet.

- Contractor questions regarding MSA compression lugs. We resolved with conference call to Mike Lanni. We discussed specifics with Electrical Engineer regarding testing and types of lugs for equipment. AESI will provide a reduced list of required testing based on the Michigan testing list provided by HighVolt. Mike Lanni suggested that HighVolt contact GE and verify that they can provide compression lugs with cargo spring washers.

- Aluminum EFL needs to be changed to steel per Mike with WAVE
    - Extra costs and expediting will be incurred
    - They will drive down and pick up from distributor

- Seismic calculations for MSA equipment. We discussed that the manufacturer typically provides these calculation and they are part of the specifications and will need to be reviewed by the City of Lancaster

- We discussed our desire to receive change order costs with submittals or RFI's and not having the contractor indicate he is proceeding in

protest. We indicated that proceeding in protest is not desirable and that we prefer he provide time or cost impacts for us to deal with accordingly.

- We discussed the project being behind schedule and we need to see a "recovery" schedule or realistic schedule. AESI requested an updated/updated schedule on last Friday for this meeting, but it was not provided.

- We allowed the Edison trench to be reduced to 12" instead of the 18" in the plans. HighVolt indicated that 14" will actually be used due to excavation width variation using a 12" bucket. Okayed by RFI #2 and verified with Edison.

- We discussed that HighVolt found a source for A-Base and that they were concerned about compacting around the EFL conduit.

- HighVolt indicated that the WAVE supplied pedestal was different size than shown on the plans. They checked and confirmed that the conduits would still fit into the base.

4.0 Unresolved Issues

5.0 Resolved Issues

6.0 Request for Quotes/Change Orders

- We requested change orders be submitted for City of Lancaster requested work at the driveway near the inner connect for Edison

Palmdale Site

1.0 Work Performed/Completed in Prior Weeks

- HighVolt pulled permit from the City of Palmdale on 2/2/2016
- Site review with SCE, HighVolt, AESI and the City of Palmdale to discuss trench alignment, bollards, easements, etc. on 1/26/2016.

2.0 Work to be Performed/Completed Next Week

- Resolve SCE plans and requirements. Obtain approval from the City (AESI)
- Obtain easement letter from the City (AESI)

3.0 New Issues

- AESI/AVTA expressed concern regarding:
  - Work hasn't started in Palmdale & we have not received a project schedule.

- AVTA is offering a "pause" in working days through a suspension for two weeks to help HighVolt provide maximum man power at Lancaster site and allow us to resolve outstanding Edison plan updates and City approvals.

- Existing fence in aluminum not steel and expected. AESI indicated that the existing panels can be reused, but the contractor needs to find a supplier and determine a cost.

4.0 Unresolved Issues

- Aluminum fence manufacturer and costs

5.0 Resolved Issues

6.0 Request for Quotes/Change Orders

Next meeting will be held on **?**

The foregoing shall be considered as confirmed unless this office receives clarification or amendment within seven (7) calendar days.

PH-1 - Exhibit E, Email

Arrow Master - Fwd: Project progress schedule (14-6366-07)

From: Jim Schroeter
To: Karo Gyonjyan
Date: 2/22/2016 12:48 PM
Subject: Fwd: Project progress schedule (14-6366-07)
CC: Brian Glidden; Eddie Kulukian; Mark Perry
Attachments: sched_recvd_Feb_5.pdf

Karo,

We are expecting your updated construction schedule today.

Sincerely,

Jim Schroeter, P.E., L.S.
Arrow Engineering (AESI)
WBE/Small Business Enterprise
42140 10th Street West
Lancaster, CA 93534
661-940-0043
661-949-9775 Fax
jschroeter@aesi-consulting.com

>>> On 2/19/2016 at 2:42 PM, in message <56CB028D.FA2D.00B4.0@aesi-consulting.com>, Jim Schroeter wrote:

> Karo,
>
> We have still not received an updated schedule from you on this project.
>
> Please send an updated construction schedule by Monday afternoon February 22.
>
> Sincerely,
>
> Jim Schroeter, P.E., L.S.

Arrow Engineering (AESI)
WBE/Small Business Enterprise
42140 10th Street West
Lancaster, CA 93534
661-940-0043
661-949-9775 Fax
jschroeter@aesi-consulting.com

>>> On 2/18/2016 at 10:26 AM, in message <56C728F0.FA2D.00B4.0@aesi-consulting.com>, Jim Schroeter wrote:

> Karo,
>
> The last schedule we received was with the 2nd pay submittal on February 5th.
>
> Based on what you have submitted in that schedule you appear to be behind on "Install Underground Feeds for Wave System 1/27/2016"
> and "Install Concrete and allow to cure 2/12/2016"
>
> We note the "Install Transformer Box and Pad 2/25/2016" is complete except for backfill.
>
> We verbally asked you for a new schedule on February 8th at our meeting, but we have not received one from you.
>
> Please provide an updated schedule as soon as possible showing realistic dates.
>
> Sincerely,
>
> Jim Schroeter, P.E., L.S.
> Arrow Engineering (AESI)
> WBE/Small Business Enterprise
> 42140 10th Street West
> Lancaster, CA 93534
> 661-940-0043
> 661-949-9775 Fax
> jschroeter@aesi-consulting.com
>
> Confidentiality Notice: The information contained in this message and any attachments may contain

AESI
Arrow Engineering Services, Inc.
CIVIL ENGINEERING ▪ SURVEYING ▪ SOILS ▪ MAPPING/GIS
42140 Tenth Street West
Lancaster, CA 93534
661-940-0043
Fax: 661-949-9775
aesi@aesi-consulting.com

February 29, 2016 14-6366-07

Project: AVTA Electric Bus Charging at Lancaster City Park(LCP)
2016-22

TO: Eddie Kulukian, Project Manager
High Volt Electric, Inc.

FROM: Jim Schroeter, P.E., L.S.
Arrow Engineering Services, Inc.

RE: Response to Submittal MSA – EATON Switchgear

Mr. Kulukian,

Please see the response to your Submittal, MSA – EATON Switchgear, ref. spec. 262300 for this project, submitted February 29, 2016.

Sincerely,

Jim Schroeter
AESI

AESI
Arrow Engineering Services, Inc.
CIVIL ENGINEERING ▪ SURVEYING ▪ SOILS ▪ MAPPING/GIS
42140 Tenth Street West
Lancaster, CA 93534
661-940-0043
Fax: 661-949-9775
aesi@aesi-consulting.com

AVTA ELECTRIC BUS CHARGING AT LANCASTER CITY PARK

AVTA PROJECT No. 2012-22

Submittal: MSA – EATON Switchgear

Submittal Response:

ITEM	UPDATED RESPONSE
MSA – EATON Switchgear	FURNISH AS NOTED SEE COMMENTS IN RED ON THE FIRST PAGE OF THE EATON SUBMITTAL FROM DONALD F. DICKERSON. SHEET 1 OF 4 REFERS TO SHEET 1 OF THE "SWITCHBOARD GENERAL INFORMATION" SUBMIT A SEPARATE SUBMITTAL FOR THE SEISMIC DESIGN OF THE OVERALL EATON SWITCHGEAR UNIT. COMPLY WITH SECTION 260548.16 OF THE SPECIFICATIONS. PROVIDE MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE SEISMIC INSTALLATION DATA SHEET TD01508002E AND DRAWING 1A32497 AS REFERRED TO IN THE "SWITCHBOARD GENERAL INFORMATION".

SUBMITTAL TRANSMITTAL FORM

ATTENTION: BRIAN GLIDDEN, ARROW ENGINEERING SERVICES, INC.

Specification No. 262300

(Shall accompany all Submittals)

I hereby submit the following items for review:

Description of Items:	Specification Section & Drawing Reference:
Low Voltage Switchgear	AVTA Lancaster WAVE charging system Project

(use added sheets if necessary)

___This is the first Submittal of these items.

x___This is a resubmittal. x_____ number of previous submittals

Name and address of Subcontractor (if any):

Telephone:_____

Name of address of Supplier (if any):

Walters Wholesale Electric
7835 Canoga Ave,
Canoga Park, CA

Telephone: 818-264-2400

- Continued on Next Page -

SUBMITTAL TRANSMITTAL FORM (Continued)

ATTENTION: BRIAN GLIDDEN, ARROW ENGINEERING SERVICES, INC.

Specification No. 262300

Specific Deviations From The Contract Documents:

(Describe Here)

Description of Items:	Specification Section & Drawing Reference:

(use added sheets if necessary)

CERTIFICATION:

By submitting Shop Drawings, Product Data, Samples, and other Submittals, I represent that I have reviewed and approve all Submittals as listed on this form, and have determined and verified materials, quantities, field measurements, and field construction criteria related thereto, or will do so, and I have checked and coordinated the information contained within such Submittals with the requirements of the Contract Documents.

I further represent that I have specifically informed the Engineer in writing on this form of any deviations from the Contract Documents in Shop Drawings or Submittals at the time of their submittal.

Karo Gyonjyan	02/29/2016
Contractor	Date

Powering Business Worldwide

ATVA Electric Charging

Submittal for Approval

Negotiation Number

LA911013X5K1

Volume 1 of 1

Equipment:

Engineering Services & Systems
Switchboards

1.) INCOMING INFORMATION SHOULD BE BOTTOM NOT TOP.
(SHEET 1 OF 4) ATTACHED

donald f. dickerson associates
LOS ANGELES HEADQUARTERS

Review is only for general conformance of the submittal with information given and the design concept expressed in the Contract Documents. Comments made during this review do not relieve the Contractor from compliance with the requirements of those Contract Documents. The Contractor is responsible for confirming and correlating all quantities, dimensions, site conditions, construction means, methods, sequences, procedures and the coordination of all trades.

- ☐ No Exception Taken
- ☒ Furnish as noted
- ☐ Rejected
- ☐ Revise and resubmit
- ☐ Returned without Review
- ☐ Submit specified item

Date: 2/29/2016 By: MICHAEL LANNI, PE

Client Project Number: Consultant Project Number:

Date: 2/26/2016

Powering Business Worldwide

Main Table of Contents

Powering Business Worldwide

Engineering Services & Systems

Detail Bill of Material

Project Name: ATVA Electric Charging
General Order No:
Negotiation No: LA911013X5K1
Alternate No: 0005

Item No.	Qty	Product	Description
	1	EESS SAT	Eaton Site Acceptance Testing Services

Designation Startup

Qty	List of Materials
1	EESS Office: Los Angeles, CA
1	Jobsite: , Lancaster, California 93534
1	Drive Time: 1.43 Hours
1	8 Hour Days, 5 Days Per Week
1	PRLC Switchboard

Eaton Selling Policy 25-000 applies.

All orders must be released for manufacture within 90 days of date of order entry. If approval drawings are required, drawings must be returned approved for release within 60 days of mailing. If drawings are not returned accordingly, and/or if shipment is delayed for any reason, the price of the order will increase by 1.0% per month or fraction there of for the time the shipment is delayed.

Eaton Site Acceptance Testing Services

Notes

Customer Contact Information (name, phone, e-mail):
Preliminary Schedule (when these services are required):
Describe any special site conditions:
Describe any special testing requirements:
If airfare is included, define origin & destination:
If material are included, define materials to be purchased:
~
Comments & Clarifications
~
Testing Clarifications
- All testing will be performed by Eaton's Electrical Engineering Services & Systems (EESS) per Eaton's standard testing guidelines unless otherwise specified. All work supervision will be by a degreed electrical engineer. A second year of warranty shall be provided upon completion of electrical testing by Eaton to all Eaton provided equipment.
- If NETA testing is specified, and provided by Eaton, Eaton takes exception to NETA certification and membership or Nationally Recognized Testing Laboratory (NRTLs) requirements. Eaton is an independent service division of Eaton Corporation fully qualified to perform the required testing.
- Testing will be completed on the specific electrical equipment, whereas, if not clearly identified, circuit breakers below 200 amperes and transformers below 75kVA are not tested.
- No "Optional" NETA tests are included.
- Customer to provide settings for protective devices and relay input/output logic if Eaton has not performed the power system studies for the facility. Note: Eaton can provide an adder for the required power system studies.
- If Eaton has quoted cable testing in the BOM, cable tests are performed with the cables disconnected from their normal position.
- If Eaton has quoted cable testing in the BOM the customer should provide a safety watch at the opposite end of the cables to be tested.
- If Eaton has quoted cable testing in the BOM the ends of the cables to be tested should NOT be taped up so that the ends are not easily accessible
- All liquid filled transformers listed in the BOM will have oil samples tested per the following: The DGA test is tested per ASTM D-3612 and the GQ oil test is tested per the following: Moisture content (ASTM D-1533b), Interfacial Tension (ASTM D-971), Acid Number (ASTM D-974), Color Number & Visual Exam (ASTM D-1500, 1524), Dielectric Breakdown (ASTM D-877), & Specific Gravity (ASTM D-1298).
- No load bank testing is included with the testing of any battery systems listed in the Eaton BOM.
~
Specification Clarifications
- Specification Section #####
- Specification Section #####
- Specification Section #####
~
General Clarifications
Customer will be responsible for the following:
- Identify site contact for this project.
- Work together with Eaton on scheduling work.
- Customer shall supply a complete set of electrical plans, including the plant single-line diagram, specifications, and any pertinent change orders that may impact the acceptance testing of the equipment to Eaton before commencement of work.
- Provide plant personnel to work with Eaton test engineers as required during the planning phase and during the

on-site testing phase.
- Customer shall supply a suitable and stable source of power for operation of test and motorized equipment at each test site when normal power is removed or authorize Eaton to obtain a source of auxiliary power. Eaton shall specify requirements. Any non-standard generators rentals will result in a price adder to this proposal.
- Provide manufacturers maintenance manuals and tools (normally supplied with equipment) to Eaton for equipment prior to outage.
- All equipment shall be set in place and assembled prior to arrival on site for acceptance testing. Coordination on site during equipment installation and assembly can be provided as a separate order at the quoted hourly rates.
- The customer will coordinate all outages and perform all switching to de-energize and isolate equipment to be tested.
- The customer shall make all equipment available immediately upon arrival of Eaton personnel, including removal from service to permit continuous progression of work. Delay time in making equipment available will be treated as an extra.
- Only one mobilization is included. Our price is intended for continuous work of the complete BOM listed. Additional mobilizations may require a price adjustment.
- Provide crane and operator if required.
- Provide a secure storage area for any removed equipment, test equipment, and materials.

~

Eaton Responsibilities:
- Provide a project manager as a single point of contact that will work directly with customer personnel to create and manage the schedule and outages.
- Organize team meetings and establish safety procedures in accordance with your plant protocol.
- Survey project including electrical equipment contained with our scope of services.
- Meet as a project team to finalize schedule and establish staging areas for plant approval.
- Shall furnish test engineers, tools, equipment, materials, supplies and transportation.
- Provide and install safety locks, as required.
- Perform voltage test and install necessary circuit / equipment safety grounds to assure safe working conditions.
- Make necessary minor adjustments required to bring equipment to satisfactory operating condition.
- Obtain authorization in advance before performing any extra work.
- Upon completion of work:
  1) Remove safety grounds installed by Eaton
  2) Remove safety locks installed by Eaton.
- Provide detailed written reports on the condition of the equipment "as found" and "as left".

~

Terms:
Any order arising out of this offer will be governed by the conditions contained in Eaton Selling Policy 25-000 for US work, or 25-000C for Canada, unless both parties mutually agree to other terms and conditions in writing. This offer is valid for 30 days unless otherwise extended, modified, or withdrawn, in writing, by Eaton.

~

Safety Training of Eaton Field Personnel:
All Eaton field personnel receive training to comply with OSHA CFR1910.269 Electrical Safety Standard for US work, or Eaton Safety Standard for Canada, which sets minimum safety rules and practices for the design, operation, and maintenance of high-voltage systems (over 600 volts). Safety standards are in place to meet or exceed NFPA 70E requirements, and appropriate Personal Protective Equipment (PPE) has been issued.
Customer required safety training for Eaton personnel, beyond the time specified in the Bill of Material will be charged at the standard rates.

~

Safety Clarifications:
- Eaton will not perform work activities in situations where the proper level of PPE is not practical. At no time will work be performed when the arc-flash exposure levels are above 40 cal/cm2.
- Customer shall be responsible to perform all switching. Any requirement of Eaton for perform switching will

require customer signature and a minimum of two EESS personnel present. Additional charges will apply.

~

On Site Customer Training Time:

- All training listed in the Eaton BOM is provided during normal business hours (8AM - 5PM) at straight time prices. Any training which occurs during overtime hours will result in a price adder.
- Customer to provide classroom for onsite training if listed in the Eaton BOM. Customer to make equipment available for onsite training.
- Requests for videotaping of Eaton provided training will require signature of Eaton release form by end customer.

~

Communication Packages:

Configuration and testing of communication devices is not included in site acceptance testing.

~

Lifts:

The customer will need to supply any type of lift to mobilize equipment on site and the customer will supply personnel lifting equipment, if required. Any additional lifts supplied by Eaton will result in a price adder.

~

Extended Warranty:

An extra year of warranty will be applied at no additional cost to the customer from Eaton equipment manufacturers for which Eaton is supplying site acceptance testing services (per Eaton or NETA work scopes only) and power system studies.

~

Overtime:

If straight time work is required to be performed on an overtime basis, Customer will be billed the difference between the straight time and overtime rate. Saturday overtime rate applies to all time worked in excess of eight (8) hours / day Monday through Friday and all time worked on Saturday. Sunday / Holiday overtime rate applies to all time worked on Sundays and Holidays.

~

Delay time:

If Eaton arrives onsite to perform scheduled work and the work is cancelled, Eaton will charge Customer four (4) hours minimum per person, plus travel expenses if no replacement work can be scheduled. If sufficient notice (72 hours) is given to Eaton when canceling scheduled work, no extra charge will apply. Weather delays may be considered as an extra, if required. Weather delays may increase the estimated completion time.

~

Outside personnel:

If Eaton is required to bring additional personnel in from outside the area the following travel policy will be in effect: Travel will be based on portal-to-portal time not to exceed 8 hours at the quoted hourly rate per hour plus travel expenses at cost plus 25 percent.

~

Partial Discharge:

Eaton has partial discharge technology that can be used to diagnose medium voltage motors, medium voltage switchgear cables and transformers but is not included in this proposal. Pricing can be provided separately, if required.

~

Stand-by & re-connect fees:

Applicable fees for outage related costs including stand-by and re-connect services are not included.

~

Rates for Additional Work:

Field Service Specialist Straight Time - $253.00 per hour
Field Service Specialist Over Time - $380.00 per hour
Field Service Specialist Sunday/Holiday Time - $500.00 per hour
Field Service Technician Straight Time - $200.00 per hour

Field Service Technician Over Time - $300.00 per hour
Field Service Technician Sunday/Holiday Time - $400.00 per hour
Other Labor Classifications will be billed per the current Engineering Services Rate Schedule (Ref: PL02700001E)

Comments and Clarifications

See above.

PREPARED BY: DAN O'CONNELL	DATE: 2/26/2016	**Eaton**			
APPROVED BY:	DATE:	JOB NAME: ATVA Electric Charging			
		DESIGNATION: Startup			
VERSION: 1.0.0.0		TYPE: EESS		DRAWING TYPE: Customer Appr.	
NEG-ALT Number: LA911013X5K1-0005	REVISION:	DWG SIZE: A	G.O:	ITEM:	SHEET: 4 of 4

Powering Business Worldwide

Switchboards

Detail Bill of Material

Project Name: ATVA Electric Charging
General Order No:
Negotiation No: LA911013X5K1
Alternate No: 0005

Item No.	Qty	Product	Description
	1	Switchboards	Pow-R-Line C Switchboard, Front Access/ Front and Rear Align, Type 3R (nonwalk-in) Flat Roof 480Y/277V 3-Phase 4-Wire, 2000 Aluminum, Minimum Interrupt Rating: 65kA, Bus Bracing Rating: 65kA

Designation MSA

Qty	List of Materials
1	Pow-R-Line C
3	Type 3R (nonwalk-in) Flat Roof
1	Service Entrance Label
1	Seismic Freestanding Label (IBC/CBC Seismic Qualified)
1	2000 Amp AL Bussed Utility Pull Section
1	2000A Pull Section - SOUTHERN CALIFORNIA EDISON (SCE)
2	Horizontal Isol. Barrier (Service Entrance)
1	2000 Amp AL Main Structure
1	2000A Utility Metering - SOUTHERN CALIFORNIA EDISON (SCE)
2	Utility Meter Socket
1	Padlockable lockoff device
1	Digitrip 310+ LSG
1	Vertical Isol. Barrier (Service Entrance)
1	2000 Amp AL Distribution Structure
5	Thermal Mag Trip - Standard
3	Heater Package - (CPT, heater, thermostat, fused disconnect)
1	COMPRESSION LUGS ON ALL BREAKERS
1	FILTERED LOUVERS
1	1600A 3P [RGH 2000A Frame], Trip 1600 A, 310+
4	500A 3P [LGH 600A Frame], Trip 500 A, Thermal Mag, (2) #2-500 kcmil, Mechanical
1	175A 3P [HKD 400A Frame], Trip 175 A, Thermal Mag, (1) #3-350 kcmil (Cu/Al), Mechanical

Eaton Selling Policy 25-000 applies.

All orders must be released for manufacture within 90 days of date of order entry. If approval drawings are required, drawings must be returned approved for release within 60 days of mailing. If drawings are not returned accordingly, and/or if shipment is delayed for any reason, the price of the order will increase by 1.0% per month or fraction there of for the time the shipment is delayed.

Switchboard General Information

Pow-R-Line C - Specifications

Quantity: 1

Alignment: Front Access/ Front and Rear Align

Service: 480Y/277V 3-Phase 4-Wire

Minimum Interrupt Rating: 65 kA

Bus Specifications

Bus Amps: 2000

Bus Bracing Rating: 65kA

Neutral Amps: 2000

Bus Material: Aluminum

Heat Test

Aluminum .25 X 2.0 Ground Bus Bolted To Frame, (1) #6-350 kcmil Ground Lug

Incoming Information

Terminals, Mechanical, Top, See Utility Specifications

Incoming Entry: Top BOTTOM

Incoming Location: Left

Incoming Qty & Size: Terminals, Mechanical, Top, See Utility Specifications

Structure Specifications

Service Entrance

Enclosure Type: Type 3R (nonwalk-in) Flat Roof

House Keeping Pad: Seismic Label (IBC/CBC Seismic Qualified)

Refer to seismic installation data sheet TD01508002E and drawing 1A32497 for details.

Heater package - (CPT, heater, thermostat, fused disconnect)

Special Notes Description

1	COMPRESSION LUGS ON ALL BREAKERS	CN36654
1	FILTERED LOUVERS	CN10223

Utility Specfications

Struct # 1

2000 Amps Util. Mtr. Compt. - SOUTHERN CALIFORNIA EDISON (SCE)

Utility Service Requirements Page References:

UGPS Per Dwg. 345

7 Drillings

(7) EUSERC Press Bolts

Utility Specfications

Struct # 2

2000 Amps Util. Mtr. Compt. - SOUTHERN CALIFORNIA EDISON (SCE)

Utility Service Requirements Page References:

Lug Drillings Per Dwg. : 347

CT Compartment Per Dwg. 322/330

Meter Door per Dwg. 333

15J Meter Socket(s)

7 Drillings

None

Enclosure properties

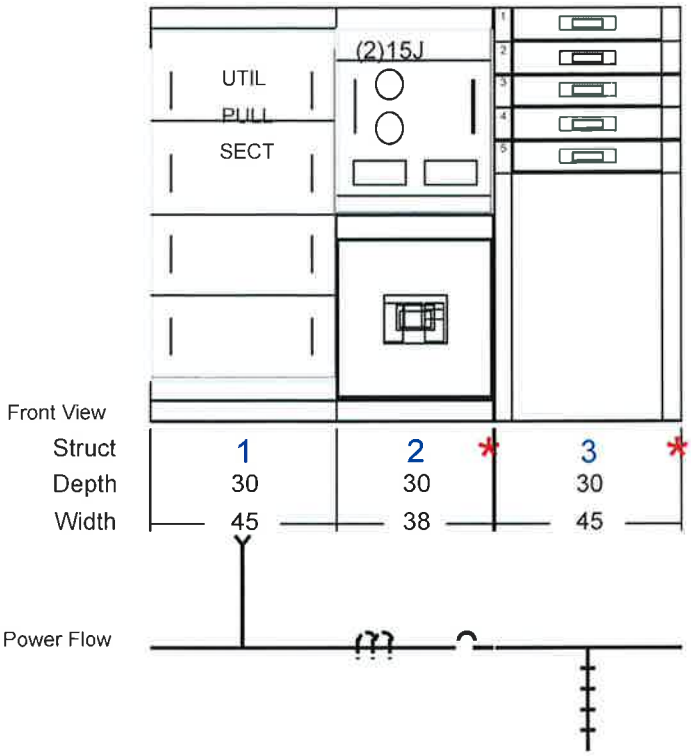
Struct #	Description/Modifications
1	Incoming Utility Structures (Incoming Utility Section) Horizontal isolating barrier
2	Utility Structures (Utility Structure) Vertical isolating barrier

PREPARED BY: DAN O'CONNELL	DATE: 2/26/2016	Eaton	SumterSC		
APPROVED BY	DATE	JOB NAME	ATVA Electric Charging		
		DESIGNATION	MSA		
VERSION: 8.0.8.0		TYPE: Switchboards		DRAWING TYPE: CustAppr	
NEG-ALT Number: LA911013X5K1-0005	REVISION: 0	DWG SIZE: DwgA	G.O	ITEM	SHEET: 1 of 4

Horizontal isolating barrier

3 50x chassis mounted feeders (Feeder Structure)

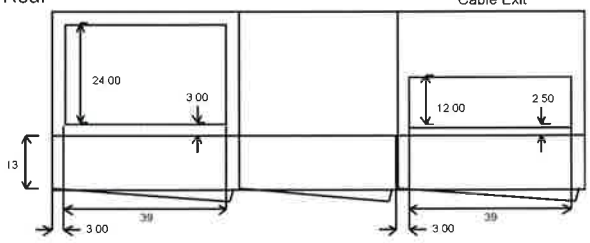
PREPARED BY: DAN O'CONNELL	DATE: 2/26/2016	**Eaton**	SumterSC		
APPROVED BY:	DATE:	JOB NAME:	ATVA Electric Charging		
		DESIGNATION:	MSA		
VERSION: 8.0.8.0		TYPE: Switchboards		DRAWING TYPE: CustAppr	
NEG-ALT Number: LA911013X5K1-0005	REVISION: 0	DWG SIZE: DwgA	G.O.	ITEM:	SHEET: 2 of 4



BOTTOM

See 1A32043 For
Floor Plan Detail
Top/Bottom
Cable Exit

Floor Plan
Rear



Total of 3 Structures, Total Weight of 2372 Weight-Lbs. with Front Hinged Doors.
Total of 3 Structures, Total Width of 128 Inches with Front Hinged Doors.

Structure	1	2	3			
Ship-Inches		83.00	45.00			
Ship-MM		2108	1143			
Wdth-Inches	45.00	38.00	45.00			
Wdth-MM	1143	965	1143			
Depth(Inner)-In.	30.00	30.00	30.00			
Depth(Inner)-MM	762	762	762			
Depth(Outer)-In.	43.00	43.00	43.00			
Depth(Outer)-MM	1092	1092	1092			
Height-Inches	90.00	90.00	90.00			
Height-MM	2286	2286	2286			
Weight-Lbs.(Est.)	650	782	940			
Weight-Kg.(Est.)	294	354	426			

PREPARED BY: DAN O'CONNELL	DATE: 2/26/2016	Eaton	SumterSC		
APPROVED BY:	DATE:	JOB NAME: ATVA Electric Charging			
		DESIGNATION: MSA			
VERSION: 8.0.8.0		TYPE: Switchboards		DRAWING TYPE: CustAppr	
NEG-ALT Number: LA911013X5K1-0005	REVISION: 0	DWG SIZE: DwgA	G.O.	ITEM	SHEET: 3 of 4

Switchboard Units Information

Str#	Unit	Description/Modifications	Nameplate
1		2000A Pull Section - SOUTHERN CALIFORNIA EDISON (SCE)	
2		Main Breaker - Ind Mtd-1600A 3P [RGH 2000A Frame], Trip 1600 A.310+, LSG Lockoff devices: Padlockable Hasp 2000A Utility Metering - SOUTHERN CALIFORNIA EDISON (SCE)	
3	1	Feeder Breaker - Chassis Mtd-175A 3P [HKD 400A Frame], Trip 175 A.Thermal Mag Terminals, Mechanical, (1) #3-350 kcmil (Cu/Al) Neutral Terminal, (1) #6-350 kcmil	
	2	Feeder Breaker - Chassis Mtd-500A 3P [LGH 600A Frame], Trip 500 A.Thermal Mag Terminals, Mechanical, (2) #2-500 kcmil Neutral Terminal, (2) #4-500 kcmil	
	3	Feeder Breaker - Chassis Mtd-500A 3P [LGH 600A Frame], Trip 500 A.Thermal Mag Terminals, Mechanical, (2) #2-500 kcmil Neutral Terminal, (2) #4-500 kcmil	
	4	Feeder Breaker - Chassis Mtd-500A 3P [LGH 600A Frame], Trip 500 A.Thermal Mag Terminals, Mechanical, (2) #2-500 kcmil Neutral Terminal, (2) #4-500 kcmil	
	5	Feeder Breaker - Chassis Mtd-500A 3P [LGH 600A Frame], Trip 500 A.Thermal Mag Terminals, Mechanical, (2) #2-500 kcmil Neutral Terminal, (2) #4-500 kcmil	

All terminals are compression, not mechanical as it appears on this sheet. Please see special note on page 11.

Powering Business Worldwide

Technical Documents

Pow-R-Line C Switchboards

Meets NEMA Standard PB-2 and UL 891.

Construction Details

- 6000A main bus maximum
- Front accessible—main sections front- and/or side-access
- Front- and rear-access; main sections front- and/or side-access
- Feeder devices group-mounted
- Sections rear-aligned or front- and rear-aligned

Main Devices, Individually Mounted

- Molded-case circuit breakers, 400–2500A, fixed-mounted
- Insulated-case circuit breakers, Magnum SB, 800–5000A, fixed and drawout
- Air power circuit breakers, Magnum™ DS, 800–5000A, fixed or drawout
- Air power circuit breakers with current limiting fuses, Magnum DSL, 800–5000A
- Bolted pressure switches, 800–5000A, fixed
- Fusible switches, 400–1200A, fixed

Feeder Devices, Group-Mounted

- Molded-case circuit breakers, 15–1200A
- Fusible switches, 30–1200A

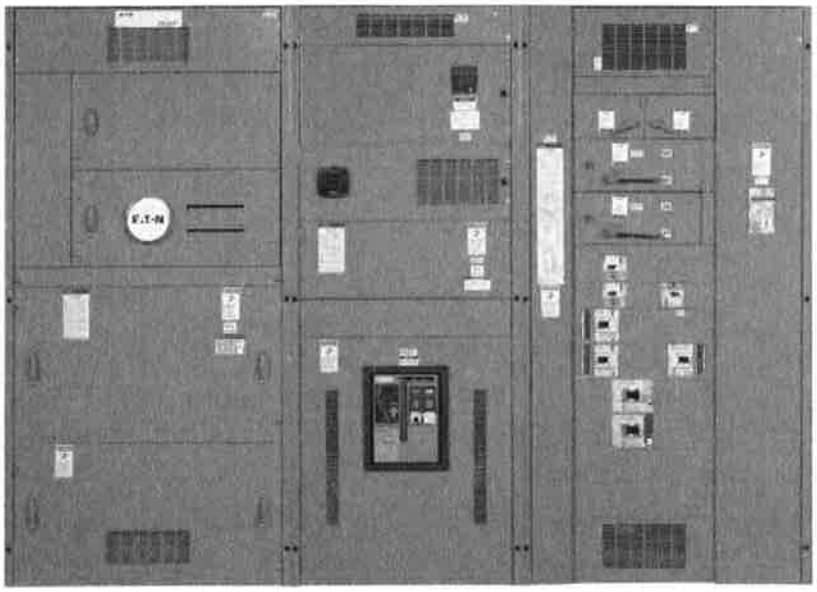
Feeder Devices, Individually Mounted

- Molded-case circuit breakers, 800–2500A, fixed
- Insulated-case circuit breakers, Magnum SB, 800–5000A, fixed and drawout
- Air power circuit breakers, DS and Magnum DS, 800–4000A, fixed and drawout
- Bolted pressure switches, 800–1600A, fixed

Selective Coordination

Selectively coordinated systems dictated by code and customer mandates may be achieved with Eaton switchboards to either 0.1 or 0.01 seconds as mandated by codes and/or customers. Refer to **Tab 1, Section 1.4** for additional details.

Note: For selection and layout guidelines, please reference **Page 21.1-1.**

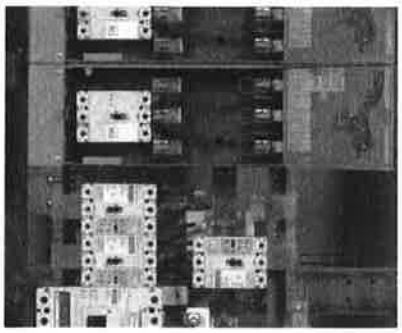


Pow-R-Line C Switchboard

For a complete product specification in CSI format, see Eaton's Product Specification Guide ..... **Section 16429**

Features

- Eaton's circuit breaker ratings up to 200 kAIC
- Trip units that integrate Eaton's Arcflash Reduction Maintenance System™ reduces potential arc flash available
- Integral ground fault protection available in electronic trip units from 15–5000A
- Electronic trip units that integrate zone selective interlocking capabilities available in molded-case, insulated-case and air power circuit breaker
- Available with circuit breakers and fusible switches on the same chassis

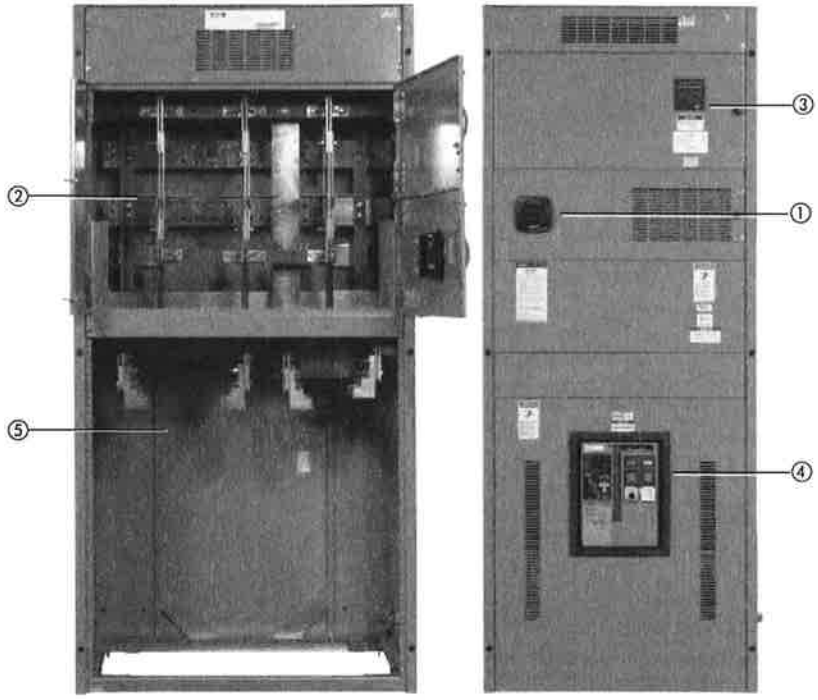


The Single Chassis Design Provides Device Flexibility

- UL listed and labeled. Meets NEC and NEMA standards
- Eaton microprocessor-based metering devices are standard when metering is specified. Conventional metering is available. IQ and Power Xpert devices can provide a communications capability. See **Tab 3**
- Optional integral surge protective device (SPD) is available in Pow-R-Line C switchboards, when specified. See **Tab 34**
- Aluminum, copper or silver-plated copper bus
- A full range of device modifications is available
- Available in NEMA Type 1 and 3R enclosures, UL listed

Modifications

- Ground fault protection on mains and distribution devices
- Coordination with other Eaton divisions for busway and transformer connections



Type 1 Pow-R-Line C Features

① Customer metering.
② Utility metering compartment.
③ Surge protective device.
④ Main breaker (Magnum SB).
⑤ Cable pull and termination space.

Table 21.0-1. Pow-R-Line C Group-Mounted Switchboards
Voltage: 240–480–600 Vac, 250 Vdc
Mains: 400–6000A

Main Device Type	Amperes	Short-Circuit Symmetrical Rating (kA)
Molded-case circuit breakers	400–2500	14–200
Insulated-case circuit breakers, Magnum SB	800–5000	30–100
Air power circuit breakers, Magnum DS		
Air power circuit breakers with CL fuses, DSL	800–5000	200
Bolted pressure switches	800–5000 ①	200
Fusible switches	400–1200	200
Main lugs only	400–6000	Rating determined by overcurrent protective device

Feeder Device Type	Amperes	Short-Circuit Rating (kA)
Molded-case circuit breakers	15–1200	10–200
Fusible switches	30–1200	200
Stacked—main with branch devices	400–2500	18–200
Magnum SB up to two high	800–2000	30–100
Magnum DS up to two high ②	800–2000	30–100

① 5000A bolted pressure switches are not UL listed.
② Third-party witness tested at 30 cycles.

Application Considerations and Definitions

Eaton's Pow-R-Line® family of distribution switchboards incorporates new design concepts that fit the ever-increasing need for applications on high short circuit systems, while retaining maximum flexibility, safety and convenience throughout the line.

Front Access

Front-access switchboards align at the rear, enabling them to be placed against a wall (Type Pow-R-Line C™ front accessible). If the main section is deeper than others, due to physical size of the main device, the necessary offset in lineup will occur in front, and the main section will be accessible from the side as well as from the front. Eaton also offers front accessible switchboards that align at the front and rear.

Rear Access

Rear-access switchboards align at the front and the rear. Bus maintenance and cable entry and exit require rear access. There are two types of rear accessible switchboards. Both types use the same incoming utility and/or main structures. The first type uses group-mounted feeder devices with panel construction (Type Pow-R-Line C rear accessible). The second type uses individually compartmentalized feeder devices with load side insulated bus bar extensions (Type Pow-R-Line *i*).

Individually Mounted

Larger overcurrent protective devices (OCPD) may be individually mounted. In most cases, this means that the OCPD is mounted vertically in the switchboard and is connected via bus bar. All insulated case circuit breakers, power air circuit breakers and bolted pressure contact switches are individually mounted. Molded-case circuit breakers 600A and above may be individually mounted when used as a main or as a feeder device feeding other OCPD within a section or adjacent sections.

Compartmentalized Feeder and Branch Devices

Compartmentalized molded-case circuit breakers and fusible switches provide additional isolation. Individually mounted molded-case circuit breakers and fusible switches through 1200A are available in a compartmentalized, rear-access, rear-connected switchboard. See Pow-R-Line *i* switchboards in this section for details.

Standard Switchboard Height

Standard Pow-R-Line switchboard height is 90.00 inches (2286.0 mm). Contact Eaton for special heights.

Group Mounting

Group-mounted circuit protective devices are an assembly of units mounted on a panelboard type chassis. Units may be molded-case breakers, fusible switches, customer metering and surge protective devices.

A main molded-case breaker or main fusible switch, within the sizes listed for panelboard design, can be included in the panel-mounted assembly in lieu of a separate, individually mounted unit.

Space Only for Future Devices Group-Mounted Construction

Where space only for future circuit protective devices is required, the proper space and a blank filler plate will be supplied. Connections and mounting hardware are not included.

Provision for Future Devices

Where provisions for future circuit protective devices are required, space for the device, corresponding vertical bus, device connectors and the necessary mounting hardware will be supplied.

Bus Bar System

Standard bus in the switchboards is tin-plated aluminum. Copper, silver-plated copper or tin-plated copper are also available.

Main bus and sub-main buses meet UL® and NEMA® standards for temperature rise on all Pow-R-Line switchboards. Special density rated bus is available.

Overcurrent Devices

To properly select and size overcurrent devices for use in a switchboard, the allowable temperature rise must be taken into account as to its effect on the tripping characteristics of the devices in question per UL 891.

Accordingly, the NEC® requires overcurrent devices to be rated not less than 125% of the continuous load they are protecting. To comply with this, an 80% derating factor must be used with all overcurrent devices such as molded-case breakers and FDPW fusible switches unless they are tested and listed for application at 100% of the rating. All Magnum type breakers and bolted pressure switches are 100% rated.

Short-Circuit Rating

Standard bus and connectors on all switchboards are rated for use on systems capable of producing up to 65,000A rms symmetrical short-circuit current at the incoming terminals.

Increased bus short-circuit ratings equal to that of connected switchboard devices, up to 200,000A rms symmetrical, are available in most Pow-R-Line C switchboards when approved main devices are installed. UL labeled switchboard sections are marked with their applicable short-circuit rating.

When air power circuit breakers are used as feeder devices in a switchboard, these devices may experience up to a 30-cycle (1/2 second) delay if the instantaneous setting is turned off. Eaton has qualified our low voltage switchboards when air power circuit breakers are used as feeders (and mains) to 30 cycles. This rating is not recognized under the UL 891 standard. However, Eaton has witness tested the structure bussing with a qualified National Recognized Testing Laboratory (NRTL) at 30 cycles (1/2 second) up to 100 kAIC symmetrical.

Provision for Busway Entrance and Exit

Busway connections to switchboard sections include cutout and drilling in the top of the switchboard with riser connections from the switchboard device or bus, up to the point where the bus duct enters the switchboard. No connections are furnished external to the switchboard.

In all transactions involving busway attached to switchboards, it is essential that information regarding orientation of the busway with respect to the front of the switchboard be supplied to the coordinating assembly plant.

On Pow-R-Line C switchboards, a solid bus bar is used to connect the bus duct to the individually mounted main device, main or sub-main switchboard bus, or vertical main bus of panel-mounted circuit protective device panels. **Busway fed by group-mounted branch devices are cable connected.**

Aluminum riser connections are standard. Copper- or silver-plated copper is available as an option.

Transitions

Transition structures are required for connecting switchboards to the secondary of power center transformer (fluid filled), motor control centers, and for other special switchboard configurations such as "L" or "U" shaped lineups. In some applications, an extra structure complete with connections is required; in others, where switchboard depth and space permit, only the connection conductors are required. Refer to Eaton for these applications.

Auxiliary Structures

These are normally mounted adjacent to service structures or distribution structures, and used where incoming service or feeder conductors require additional space or facilities not included in the standard switchboard, such as:

1. Mounted adjacent to a top connected service structure and used as a cable pull structure where service conductors are brought in underground. Auxiliary structures are the same depth and height as the service structure, and are wide enough to accommodate the incoming cables.
2. Mounted adjacent to a service structure and used as a bus transition compartment for running riser bus from the load-side of the service structure up to top outgoing bus duct connection when distribution structures are not required. Auxiliary structures are the same depth and height as service structures.

In addition to the above applications, auxiliary structures may be mounted adjacent to a distribution structure and used as a structure for lighting panel or other device that may be cable-connected to a branch circuit device in the distribution structure. Dimensions are compatible with the arrangements required.

Switchboards Used as Service Equipment

Service equipment is the electrical equipment that constitutes the main control and means of power cutoff the electric service (normally Power Company supply) brought into the building.

Where switchboards are to be used as service equipment, certain NEC and UL requirements apply that necessitate modifications not normally supplied in switchboards.

The following is a summary of the requirements that are pertinent to the application of a switchboard for service equipment:

A. A switchboard with main lugs only (no main disconnect) must be designed so that all circuits in the switchboard can be disconnected from the supply source by the operation of no more than six operating handles (breaker or switch).

   Switchboard equipped with main disconnect devices are not subject to the above six disconnect limitation, as the entire board can be de-energized with the main disconnect device.

   Ground fault protection of equipment must be provided for solidly grounded wye electrical services of more than 150V to ground, but not exceeding 600V phase-to-phase for each service disconnecting means rated 1000A or more.

B. For testing purposes, means are also required to disconnect the switchboard neutral bus from the grounded service neutral conductor (single-phase, three-wire; and three-phase, four-wire systems). To comply with this requirement, a removable link (solid bar) is provided in the switchboard neutral bus. This link is generally located near the point where the main feeders enter the switch-board or in the area of the main disconnect device where one is provided.

To further comply with NEC and UL requirements, a separate bonding strap is connected from the neutral bus to the switchboard frame. This bonding connection is located on the line side of the removable neutral link, maintaining a service ground to the switchboard frame when the test link is removed. See **Figure 21.0-1**.

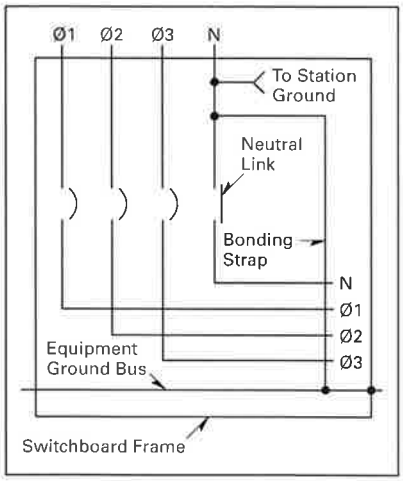


Figure 21.0-1. Neutral Link

UL labeling will clearly indicate service equipment listed switchboards.

Underwriters Laboratories Requirements and Labeling

The basic requirement for obtaining a UL label on a switchboard, is that all the component devices (breakers, switches, and so on) in the switchboard assembly are UL listed. In addition, the switchboard must comply with all applicable provisions of UL 891.

Today's modern electrical systems require that switchboards offer a wide selection of electrical devices, many of which do not fall within the scope of UL listed devices. Therefore, the conditions under which a switchboard may be labeled are limited.

Listed below are several important guidelines for consideration when a UL label is specified:

1. UL nameplates, where applicable, are supplied for each vertical structure rather than one common nameplate for the complete switchboard lineup. Where all of the component devices in the switchboard are UL listed and all applicable provisions of UL 891 are met, each of the switchboard sections may be labeled.
2. Individual vertical structures of a switchboard may be labeled where they comply with UL requirements, although other vertical structures in the same switchboard lineup may not meet the UL standards, and will not be labeled.
3. All Pow-R-Line C switchboards are UL labeled when all mounted devices are UL listed.

Alternate Power Source Capabilities

Multiple solutions are available to accommodate alternate power sources available. Due to the large number of customer and system requirements, details are not provided in this guide. Eaton offers solutions that include main-main configuration and main-tie-main configurations. Automatic transfer equipment, including UL 1008 listed transfer switches and other automatic transfer schemes, are available.

Automatic Transfer Equipment

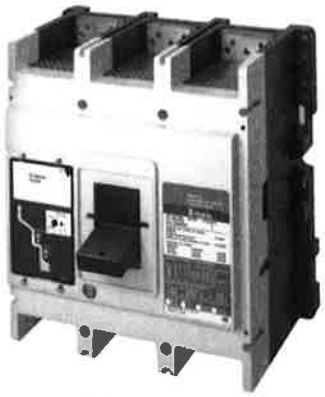
For continuity of service, automatic transfer equipment between two incoming sources may be required. This equipment transfers the load upon failure of the normal (or preferred) source to the standby (or alternate) source. Upon restoration of the normal source, the load is automatically transferred back to it. To accomplish this, electrically operated main protective devices (and bus tie devices, if required) must be employed. Additional relays also are required to detect source voltage failure and to transfer control power, when required. A manual selector switch is usually provided to select the mode of operation—automatic or manual transfer.

Seismic Qualification

Refer to **Tab 1** for information on seismic qualification for this and other Eaton products.


Powering Business Worldwide

Series G, R-Frame Electronic RMS, 800–2500A



R-Frame Breaker

Table 27.4-45. Dimensions in Inches (mm)

Number of Poles	Width	Height	Depth
3	15.50 (393.7)	16.00 (406.4)	9.75 (247.7)
4	20.00 (508.0)	16.00 (406.4)	9.75 (247.7)

Table 27.4-46. Digitrip 310 Electronic Trip Unit Rating Plugs

Frame	Rating Plugs
1600	800, 1000, 1200, 1250, 1400, 1500, 1600 ①
2000	1000, 1200, 1250, 1400, 1600, 2000 ①
2500	1200, 1250, 1600, 2000, 2500 ①

① Adjustable rating plug available.

Table 27.4-47. Digitrip 510/610/810/910 and Digitrip OPTIM Electronic Trip Unit Rating Plugs

Frame	Rating Plugs
1600	800, 1000, 1200, 1600
2000	1000, 1200, 1600, 2000
2500	1600, 2000, 2500

Table 27.4-48. Series G Molded-Case Circuit Breaker Interrupting Capacity Ratings

Circuit Breaker Type	Number of Poles	Trip Type	Interrupting Capacity (kA Symmetrical Amperes)—Volts AC (50/60 Hz)								
			UL 489			IEC 60947-2					
			240	480	600	220–240		380–415		660–690	
						I_{cu}	I_{cs}	I_{cu}	I_{cs}	I_{cu}	I_{cs}
RGH	3, 4	N.I.T.	125	65	50	135	100	70	50	25	13
RGC	3, 4	N.I.T.	200	100	65	200	100	100	50	35	18

Table 27.4-49. Line and Load Terminals

Maximum Breaker Amperes	Terminal Body Material ②	Wire Type	Hardware	AWG/kcmil Wire Range/Number of Conductors	Metric Wire Range (mm^2)	Catalog Number
Wire Terminal						
1600	Aluminum	Cu/Al	English	(4) 500–1000 kcmil	300–500	**TA1600RD**
1600	Copper	Cu	English	(4) 1–600 kcmil	50–300	**T1600RD**
2000	Aluminum	Cu/Al	English	(6) 2–600 kcmil	35–300	**TA2000RD**

② UL listed for use with copper or aluminum conductors as noted.

Powering Business Worldwide

Series G, L-Frame Electronic RMS, 100–630A* Thermal-Magnetic, 250–630A* *UL Maximum is 600A

L-Frame Breaker

Table 27.4-36. Dimensions in Inches (mm), Weight in Lbs (kg)

Number of Poles	Width	Height	Depth	Weight
3	5.48 (140)	10.13 (258)	4.09 (104)	16 (7.3)
4	7.22 (183)	10.13 (258)	4.09 (104)	20 (9.1)

Table 27.4-37. Thermal-Magnetic Trip Rating

Frame	Ratings
LG LG ①	250, 300, 350, 400, 500, 600 320, 630

① Not UL listed.

Table 27.4-38. Digitrip 310+ Electronic Trip Units

Frame	Ratings
LG_630	250, 300, 315, 350, 400, 500, 600, 630
LG_600	250, 300, 315, 350, 400, 450, 500, 600
LG_400	160, 200, 225, 250, 300, 315, 350, 400
LG_250	100, 125, 150, 160, 175, 200, 225, 250

Note: 160, 315 and 630 are IEC ratings only. LG breaker is HACR rated.

Table 27.4-39. UL 489/IEC 60947-2 Interrupting Capacity Ratings

Circuit Breaker Type	Number of Poles	Interrupting Capacity (kA rms Symmetrical Amperes) (kA)									
		Volts AC (50/60 Hz)								Volts DC ②	
		240–240		380–415		480	600	690		250 ③	
		Icu	Ics	Icu	Ics			Icu	Ics	Icu	Ics
LGE630	3, 4	65	65	35	35	35	18	12	6	22	22
LGS630	3, 4	85	85	50	50	50	25	20	10	22	22
LGH630	3, 4	100	100	70	70	65	35	25	13	42	42
LGC630	3, 4	200	200	100	100	100	50	30	15	42	42
LGU630	3, 4	200	200	150	150	150	65	35	18	50	50
LGX630	3, 4	200 ④	200	200	200	200	65	35	18	50	50

② DC rating applies to substantially non-inductive circuits.
③ Two-pole circuit breaker, or two poles of three-pole circuits.
④ IEC rating is 300 kA at 240 Vac.

Table 27.4-40. Line and Load Terminals

Maximum Breaker Amperes	Terminal Body Material	Wire Type	AWG Wire Range/Number of Conductors	Metric Wire Range mm^2	Number of Terminals Included	Catalog Number
400	Aluminum	Cu/Al	500–750 (1)	240–380 (1)	3	**3TA631LK** ⑤
400	Aluminum	Cu/Al	500–750 (1)	240–380 (1)	4	**4TA631LK** ⑥
400	Copper	Cu	500–750 (1)	240–380 (1)	3	**3T631LK** ⑤
400	Copper	Cu	500–750 (1)	240–380 (1)	4	**4T631LK** ⑤
630	Aluminum	Cu/Al	2–500 (2)	35–240 (2)	3	**3TA632LK** ⑤⑥
630	Aluminum	Cu/Al	2–500 (2)	35–240 (2)	4	**4TA632LK** ⑤⑥
630	Copper	Cu	2–500 (2)	35–240 (2)	3	**3T632LK** ⑤
630	Copper	Cu	2–500 (2)	35–240 (2)	4	**4T632LK** ⑤
400	Aluminum	Cu/Al	2–500 (1)	35–240 (1)	1	**TA350LK** ⑥
400	Copper	Cu	2–500 (1)	35–240 (1)	1	**T350LK**

⑤ Includes LTS3K (three-pole) or LTS4K (four-pole) terminal covers.
⑥ Standard terminal included with complete breaker.

Powering Business Worldwide

Series C, K-Frame Electronic RMS, 70–400A Thermal-Magnetic, 100–400A

K-Frame Breaker

Table 27.4-64. Dimensions in Inches (mm)

Number of Poles	Width	Height	Depth
2, 3	5.50 (139.7)	10.13 (257.2)	4.06 (103.2)
4	7.22 (183.4)	10.13 (257.2)	4.06 (103.2)

Table 27.4-65. Thermal-Magnetic Trip Ratings

Frame	Ratings
DK, KDB, KD, HKD, KDC, HKDDC,	100, 125, 150, 175, 200, 225, 250, 300, 350, 400

Table 27.4-66. Digitrip 310+ Electronic Trip Units

Frame	Ratings
KD, CKD, HKD, CHKD, KDC	100, 125, 150, 160, 175, 200, 225, 250, 300, 315, 350, 400

Table 27.4-67. Digitrip 310 Electronic Trip Unit Rating Plugs

Frame	Rating Plugs
KD, CKD, HKD, CHKD, KDC	70, 90, 100,125

Table 27.4-68. Digitrip OPTIM Electronic Trip Unit Rating Plugs

Frame	Rating Plugs
KD, CKD, HKD, CHKD, KDC	70, 90, 100, 110, 125, 150, 175, 200, 225, 250, 300, 350, 400

Table 27.4-69. NEMA/UL 489/CSA Interrupting Capacity Ratings

Circuit Breaker Type	Number of Poles	Trip Type ①	Interrupting Capacity (Symmetrical Amperes)				
			Volts AC (50/60 Hz)			Volts DC	
			240	480	600	250 ②③	600 ④
DK	2, 3	N.I.T.	65,000	—	—	10,000	—
KDB	2, 3, 4	N.I.T.	65,000	35,000	25,000	10,000	—
KD	2, 3, 4	I.T.	65,000	35,000	25,000	10,000	—
HKD	2, 3, 4	I.T.	100,000	65,000	35,000	22,000	—
KDC ⑤	2, 3, 4	I.T.	200,000	100,000	65,000	22,000	—
HKDDC	3	I.T.	—	—	—	42,000 ⑦	35,000 ⑧
CKD ⑥	3	I.T.	65,000	35,000	25,000	—	—
CHKD ⑥	3	I.T.	100,000	65,000	35,000	—	—

① N.I.T. is non-interchangeable trip; I.T. is interchangeable trip.
② Two-pole circuit breaker or two outside poles of three-pole circuit breaker.
③ Time constant is 3 milliseconds minimum at 10 kA and 8 milliseconds minimum at 22 kA.
④ 8 milliseconds time constant.
⑤ Current limiting.
⑥ 100% rated.
⑦ Two poles in series.
⑧ Three poles in series.

Table 27.4-70. Line and Load Terminals

Maximum Breaker Amperes	Terminal Body Material	Wire Type	AWG/Wire Range/Number Conductors	Metric Wire Range (mm^2)	Catalog Number
Standard Cu/Al Pressure Terminals					
225	Aluminum	Cu/Al	3–350 (1)	35–185	**TA300K** ⑨
350	Aluminum	Cu/Al	250–500 (1)	120–240	**TA350K** ⑨
400	Aluminum	Cu/Al	3/0–250 (2)	95–120	**2TA400K** ⑩⑪ **3TA400K** ⑩⑫ **4TA400K** ⑩⑭
Optional Copper and Cu/Al Pressure Type Terminals					
225	Copper	Cu	3–350 (1)	35–185	**T300K** ⑨
350	Copper	Cu	50–500 (1)	120–240	**T350K** ⑨
400	Copper	Cu	3/0–250 (2)	95–120	**2T400K** ⑪ **3T400K** ⑫ **4T400K** ⑬
400	Aluminum	Cu/Al	2/0–250 (2) or 2/0–500 (1)	70–120 70–240 70–240	**2TA401K** ⑩⑪ **3TA401K** ⑩⑫ **4TA401K** ⑩⑭
400	Aluminum	Cu/Al	500–750 (1)	300–400	**2TA402K** ⑩⑪ **3TA402K** ⑩⑫ **4TA402K** ⑩⑭
400	Copper	Cu/Al	500–750 (1)	—	**2T402K** ⑩⑪ **3T402K** ⑩⑫ **4T402K** ⑩⑭

⑨ Individually packed.
⑩ Terminal kits contain one terminal for each pole and one terminal cover.
⑪ Two-pole kit.
⑫ Three-pole kit.
⑬ Four-pole kit.
⑭ Terminal kits contain one terminal for each pole and three interphase barriers.

Powering Business Worldwide

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Electronic Trip Units

Circuit Breakers with Microprocessor Trip Units

Table 27.4-9. Digitrip RMS Circuit Breaker Trip Unit Selection (See Table 27.4-10 for details)

Description		Digitrip 310	Digitrip 310+	Digitrip 510	OPTIM 550	Digitrip 610	Digitrip 810	Digitrip 910	OPTIM 1050
Circuit Breaker Type									
Molded-case F-Frame 225A			■						
Molded-case JG250-Frame 250A			■						
Molded-case K-Frame 400A			■		■				■
Molded-case L-Frame 600A	LD	■			■				■
	LG		■						
Molded-case M-Frame 800A		■							
Molded-case N-Frame 1200A	ND	■			■				■
	NG		■						
Molded-case R-Frame 2500A	RD	■		■		■	■	■	■
	RG		■						
Features									
Curve shaping functions		5	6	9	10	9	9	9	10
Front adjustable		■	■	■		■	■	■	
Programmable					■				■
Zone selective interlocking			■	■	■ ①	■	■	■	■
Load monitoring			Option ②		■	■	■	■	■
Diagnostics (cause-of-trip)			Option ③	■	■	■	■	■	■
Power/energy monitoring			Option ④				■	■	■
Harmonics								■	■
Waveform capture								■	■
Communications			Option ④		■ ①		■	■	■
Arcflash Reduction Maintenance System (local and remote)			■ ⑤						
Ground fault alarm		■ ⑥	Option		■ ①⑥	■	■	■	■

① Optional feature.
② Requires ammeter/cause-of-trip display.
③ Requires cause-of-trip LED module or ammeter/cause-of-trip display.
④ Requires Power Metering and Monitoring Module (PM3). See **Page 27.4-41** for product details.
⑤ Only available in LG, NG and RG breakers.
⑥ Requires auxiliary alarm module below R-Frames.
Note: For time current curves for the trip units, see www.eaton.com.

Table 27.4-10. Molded-Case Digitrip Selection Guide

Trip Unit Type	Digitrip RMS 310+	Digitrip RMS 310	Digitrip RMS 510	Digitrip RMS 610	Digitrip RMS 810	Digitrip RMS 910	Digitrip OPTIM 550	Digitrip OPTIM 1050
rms sensing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Breaker Type								
Frame	FDE, JG, K , LG, NG, RG ①	L, M	R	R	R	R	K, L, N	K, L, N, R
Ampere range	15–2500A	300–800A	800–5000A	800–5000A	800–5000A	800–5000A	70–1200A	70–5000
Interrupting rating at 48V	35, 65, 100, 150 (kA)	35, 65, 100 (kA)	65, 100 (kA)	65, 100 (kA)	65, 100 (kA)	65, 100 (kA)	35, 65, 100 (kA)	35, 65, 100 (kA)
Protection								
Ordering options	LS LSG LSI LSIG	LS LSG LSI LSIG	LI, LS, LSI, LIG, LSG, LSIG	LI, LS, LSI, LIG, LSG, LSIG	LI, LS, LSI, LIG, LSG, LSIG	LI, LS, LSI, LIG, LSG, LSIG	LSI, LSI (A), LSIG	LSI (A), LISG
Arcflash Reduction Maintenance System	No ALSI ALSIG ②	No No	No	No	No	No	No	No
Fixed rated plug (I_n) Overtemperature trip	No Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes
Long Delay Protection (L)								
Adjustable rating plug (I_n) Long delay pickup Long delay time I^2t	No 40–100% frame 2–24 seconds	Yes 0.5–1.0(I_n) ③ 10 seconds	No 0.5–1.0 x (I_n) 2–24 seconds	No 0.5–1.0 x (I_n) 2–24 seconds	No 0.5–1.0 x (I_n) 2–24 seconds	No 0.5–1.0 x (I_n) 2–24 seconds	No 0.4–1.0 x (I_n) 2–24 seconds	No 0.4–1.0 x (I_n) 2–24 seconds
Long delay time I^4t Long delay thermal memory High load alarm	No Yes Yes	No Yes No	No Yes No	No Yes 0.85 x I_r	No Yes 0.85 x I_r	No Yes 0.85 x I_r	1–5 seconds Yes 0.5–1.0 x I_r	1–5 seconds Yes 0.5–1.0 x I_r
Short Delay Protection (S)								
Short delay pickup	Varies by frame ④	200–800% x (I_n)	200–600% S1 and S2 x (I_r)	200–600% S1 and S2 x (I_r)	200–600% S1 and S2 x (I_r)	200–600% S1 and S2 x (I_r)	150–800% x (I_r)	150–800% x (I_r)
Short delay time I^2t Short delay time flat	Yes No No Inst–300 ms	100 ms No No Inst–300 ms	100–500 ms 100–500 ms	100–500 ms 100–500 ms	100–500 ms 100–500 ms	100–500 ms 100–500 ms	100–500 ms 100–500 ms	100–500 ms 100–500 ms
Short delay time Z.S.I.	Yes	No	Yes	Yes	Yes	Yes	Optional	Yes
Instantaneous Protection (I)								
Instantaneous pickup	No Varies by frame ④	No 200–800% x (I_n)	200–600% M1 and M2 x (I_n)	200–600% M1 and M2 x (I_n)	200–600% M1 and M2 x (I_n)	200–600% M1 and M2 x (I_n)	200–800% x (I_n)	200–800% x (I_n)
Discriminator Instantaneous override	No Yes	No Yes	Yes ⑤ Yes	Yes ⑤ Yes	Yes ⑤ Yes	Yes ⑤ Yes	Yes Yes	Yes Yes
Ground Fault Protection (G)								
Ground fault alarm Ground fault pickup Ground fault delay I^2t	Yes 20–100% frame ⑥ No	Yes Var/frame ⑥ No	No 25–100% x I_n ⑥ 100–500 ms	No 25–100% x I_n ⑥ 100–500 ms	No 25–100% x I_n ⑤ 100–500 ms	No 25–100% x I_n ⑤ 100–500 ms	20/25–100% ⑥ 20/25–100% ⑧ 100–500 ms	20/25–100% ⑦⑧ 20/25–100% ⑦⑧ 100–500 ms
Ground fault delay flat Ground fault Z.S.I. Ground fault thermal memory	Inst–300 ms Yes Yes	Inst–500 ms No Yes	100–500 ms Yes Yes	100–500 ms Yes Yes	100–500 ms Yes Yes	100–500 ms Yes Yes	100–500 ms Optional Yes	100–500 ms Yes Yes
System Diagnostics								
Cause of trip LEDs Magnitude of trip information Remote signal contacts	No No No	No No No	Yes No No	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes No	Yes Yes Yes
System Monitoring								
Digital display Current Voltage	No No No	No No No	No No No	Yes Yes No	Yes Yes No	Yes Yes Yes	Yes ⑨ Yes No	Yes ⑨ Yes No
Power and energy Power quality-harmonics Power factor	No ⑨ No No	No ⑩ No No	No No No	No No No	Yes No Yes (over PowerNet only)	Yes Yes Yes	No No No	Yes Yes Yes
Communications								
PowerNet	No	No	No	No	Yes	Yes	Optional	Yes
Testing								
Testing method	Test kit	Test set	Integral	Integral	Integral	Integral	OPTIMizer, BIM, PowerNet (optional)	OPTIMizer, BIM, PowerNet

① No rating plugs necessary.
② Only available on LG, NG and RG breaker.
③ Adjust by rating plug.
④ FDE and JG 200–1200% x I_n
LG 200–1200% x I_n
NG 200–900% x I_n
RG 200–800% x I_n
⑤ LS/LSG only.
⑥ Not to exceed 1200A.
⑦ L- and N-Frames *20–100% x I_s.
R-Frame *25–100% x I_n.
⑧ By OPTIMizer/BIM.
⑨ Yes, with addition of power monitoring/metering module (PM3).
⑩ Yes, with addition of Energy Sentinel.

BIM = Breaker Interface Module
I_s = Sensor Rating
I_n = Rating Plug
I_r = LDPU Setting x I_n

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Electronic RMS Trip Unit

General

Eaton offers the most comprehensive range of electronic trip units in the industry for molded-case circuit breakers. All electronic trip units are rms sensing and can be applied from 70A up through 2500A. Eaton offers electronic trip units as standard for circuit breakers rated above 800A, and offers electronic trip units as optional for circuit breakers 70A up through 800A.

Digitrip electronic trip units are AC devices that employ microprocessor-based technology that provides a true rms current sensing means for proper correlation with thermal characteristics of conductors and equipment. The primary function of the Digitrip electronic trip unit is to provide circuit protection. This is achieved by analyzing the secondary current signals received from the circuit breaker current sensors and initiating trip signals to the circuit breaker shunt trip when pre-set current levels and time delay settings are exceeded. All Eaton electronic trip units use a high effective sampling rate to maintain measurement accuracy, monitoring, and protection with nonlinear loads having harmonic content up to the 27th order.

Electronic trip units are applied to distribution systems when high standards of protection and coordination are called for. In addition, electronic trip units can provide further enhanced features such as alarming, diagnostics, system monitoring and communications.

Eaton RMS sensing trip units fall into two main categories:

- Front adjustable trip units (Digitrip™ RMS 310, 310+, 510, 610, 810 and 910)
- Programmable trip units (Digitrip OPTIM™ 550 and 1050)

Front-Adjustable Trip Units

Front-adjustable trip units are electronic trip units that have up to nine time-current setting options that are set by switches mounted on the front of the trip unit. The application for front adjustable trip units would be distribution systems that can be coordinated within the range of settings available and that do not require sophisticated coordination strategies to be applied down through the distribution system to small rated breakers.

Programmable Trip Units (OPTIM)

Programmable trip units are electronic trip units that have up to 10 time-current setting options that are programmed electronically by the use of a programming device. The application for programmable trip units would be high integrity distribution systems that require superior levels of system coordination coupled with system alarming, diagnostics and monitoring.

Rating Plugs

Rating plugs provide a means to establish the breaker's continuous current rating. Rating plugs are color-coded and interchangeable to make it easy to match the correct rating plug with the correct trip unit. The same rating plug can be applied to both 50 and 60 Hz distribution systems. Some rating plugs are fixed and some have an adjustable range of amperage values for greater flexibility. Digitrip 310, 510, 610, 810 and 910 trip units can be supplied with either a fixed or adjustable rating plug. Digitrip 310+ trip units are equipped with adjustable rating plugs. OPTIM style trip units are furnished with fixed rating plugs but have a programmable Long Time Pickup rating to allow application over a range of amperage values.

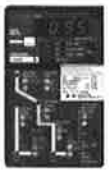
Cause of Trip Indication

All OPTIM and Digitrip 510, 610, 810 and 910 trip units include Cause-of-Trip indication LEDs. Breakers using the RMS 310+ electronic trip unit have the ability to output cause-of-trip information through the test port. The Cause-of-Trip LED module provides trip information via LED indication. The Digiview and Panelmount Digiview can be installed in the RMS 310+ test port to provide both cause-of-trip information and phase current through an LCD display.

Cause-of-Trip LED Module

Digiview

Table 27.1-1. The Digitrip Family of Low Voltage Electronic Trip Units

RMS 310	RMS 310+	RMS 510	OPTIM 550	RMS 610	RMS 810	RMS 910	OPTIM 1050
							
rms sensing — 5 functions — Front adjustable	rms sensing — 6 functions — Front adjustable — Optional display for diagnostics and load monitoring — Zone selective interlocking — Optional Arcflash Reduction Maintenance System™	rms sensing — 9 functions — Front adjustable — Zone selective interlocking — Diagnostics	rms sensing — 10 functions — Programmable — Load monitoring — Diagnostics — Zone selective interlocking ① — Communications ①	rms sensing — 9 functions — Front adjustable — Zone selective interlocking — Load monitoring — Diagnostics	rms sensing — 9 functions — Front adjustable — Zone selective interlocking — Load monitoring — Diagnostics — Communications — Power and energy monitoring	rms sensing — 9 functions — Front adjustable — Zone selective interlocking — Load monitoring — Diagnostics — Communications — Power and energy monitoring — Harmonics	rms sensing — 10 functions — Programmable — Zone selective interlocking — Load monitoring — Diagnostics — Communications — Power and energy monitoring — Harmonics

① Optional features.

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Additional Protection Features

Discriminator/Making Current Release

Eaton's Digitrip RMS electronic trip units are designed and built with safety and reliability in mind, both to protect the user and the equipment, as well as to make sure the trip functions within its design parameters. By providing a discriminator circuit to Digitrip RMS 510, 610, 810 and 910 trip units, as well as to Digitrip OPTIM 550 and 1050 trip units that do not have an instantaneous setting, the user is protected should a faulted circuit exist. The discriminator (or making current releases as it is often called) is set at 11 times the rating plug ampere rating and is enabled for approximately the first 10 cycles of current flow. Should a fault condition exist, the breaker will trip with no intentional time delay on closing, protecting the user from a potentially unsafe condition.

Instantaneous Override

In addition to a discriminator, an instantaneous override is present in all molded-case and insulated-case circuit breakers to provide additional protection for the breaker. The instantaneous override is factory set nominally just below the breaker withstand rating.

Trip Unit Overtemperature

Digitrip electronic trip units can operate reliably in ambient temperatures that range from –20° to 85°C. In the unlikely event that temperatures exceed this ambient, the trip unit has a built-in overtemperature trip to protect the trip unit should the temperature exceed these design parameters.

Thermal Memory

Digitrip RMS and Digitrip OPTIM electronic trip units incorporate powered thermal memory, i.e., the units remember recent overcurrent events that may have initiated the trip timing sequence, and then returned to nominal levels, halting the sequence prior to trip initiation. In the event that the current levels again exceed the pickup set point within a few cycles of the original pickup, the unit's memory recalls the previous near trip and automatically imposes a shorter delay time. In effect, the unit treats multiple time-related events as a single continuous event thereby preventing system damage due to cumulative overheating.

As a further enhancement, the trip units incorporate an unpowered thermal memory feature. In the event that current levels cause the breaker to trip and the breaker is immediately reclosed, the trip unit remembers the previous overcurrent trip and again imposes a shorter delay time should an additional overcurrent occur before a sufficient cooldown period has elapsed.

Thermal memory protects the distribution system from cumulative overheating caused by repeated overcurrent conditions. OPTIM trip units allow this to be turned ON or OFF.

System Alarms

Digitrip RMS 610, 810 and 910 electronic trip units incorporate a high load alarm capability. Set at 85% of I_r, the alarm will be initiated once the load current exceeds 85% for 40 seconds. Once this occurs, the HILD message will flash in the display window and the power/relay module will operate to send a remote signal.

Digitrip OPTIM electronic trip units also offer a high load alarm capability but with more flexibility. OPTIM trip units have a high load alarm that can be programmed to operate between 50% and 100% of I_r.

Digitrip OPTIM electronic trip units incorporate a ground fault alarm capability. Settings available for ground fault alarm are the same as for ground fault trip. Once a ground fault alarm occurs, both local and remote signal indication is available (OPTIM 550 is remote only).

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System Diagnostics

Whenever a circuit breaker trips, it is normally imperative that the cause of trip be determined quickly, the faulty conditions rectified, and the breaker put back into service. Digitrip RMS 510, 610, 810 and 910, and Digitrip OPTIM electronic trip units incorporate a complete package of systems diagnostics to meet this challenge.

Four cause-of-trip LEDs are embedded in the front of the trip unit case, indicating that the cause-of-trip was either a long delay, short delay, instantaneous or ground fault. Remote signal indication for cause of trip as well as magnitude of trip information is also available.

Breakers using the RMS 310+ electronic trip unit have the ability to output cause-of-trip information through the test port. The Cause-of-Trip LED module provides trip information via LED indication. The Digiview and Panelmount Digiview can be installed to provide both cause-of-trip information and phase current through an LCD display.

Systems Monitoring

Digitrip RMS and Digitrip OPTIM electronic trip units offer a complete menu of monitoring capability to include current, power and energy, power factor, power quality harmonics, and other related parameters with a high level of accuracy.

Digital Display

Digitrip RMS 610, 810 and 910 have a large, easy-to-read four-digit alpha-numeric display mounted on the trip unit. The display is supported by LEDs that indicate which parameter is being displayed along with the unit the value is displayed in, e.g., kA and so on.

Current Monitoring

Digitrip RMS 610, 810 and 910 trip units are capable of monitoring currents in individual phases (A, B, C) as well as ground currents. Digitrip OPTIM 550 and 1050 trip units are capable of monitoring currents in individual phases (A, B, C) as well as neutral and ground currents.

Values are displayed in the digital display window in kA. Accuracy of the current monitored values is ±2% of full scale sensor rating.

Breakers using the Digitrip 310+ electronic trip unit have the ability to output phase current monitoring information through the test port. The Digiview or Panelmount Digiview can be installed to provide phase current through an LCD display.

For current and voltage monitoring with 0.5% accuracy of reading that can be used with thermal-magnetic or electronic trip units, refer to the Power Monitoring/Metering Module (PM3) on **Page 27.4-41**.

Power and Energy Monitoring

For the trip unit to calculate true power and energy values, a Potential Transformer Module (PTM) is required. This PTM is mounted internally (R-Frame and larger) or externally (N-Frame or smaller) to the breaker, and provides voltage to the trip unit.

Digitrip RMS 810 and 910 trip units are capable of monitoring peak power demand, present power demand, and reverse power flow in MW. Additionally, both forward and reverse energy consumption in MWh can be monitored. Digitrip OPTIM 1050 trip units can also monitor the same power and energy parameters, but the units are displayed in kW and kWh.

The accuracy of power monitored values is ±4% of full scale sensor/frame rating.

The accuracy of energy monitored values is ±5% of full scale sensor/frame rating.

Both the RMS 910 and OPTIM 1050 report power factor. Digitrip RMS 910 trip units have the additional capability of monitoring line-to-line voltage.

For Real Power and Reactive Power monitoring with ANSI C12.1 revenue class accuracy that can be used with thermal-magnetic or electronic trip units, refer to the Power Monitoring/Metering Module (PM3) on **Page 27.4-41**.

Harmonics Monitoring

Digitrip RMS 910 and Digitrip OPTIM 1050 trip units are capable of monitoring values of current harmonics. Percentage of total harmonic content can be monitored for each level of harmonic content up to the 27th harmonic. Additionally, a total harmonic distortion (THD) value can be calculated and displayed providing the user with total system current harmonic monitoring capability.

Time-Current Curve Shaping

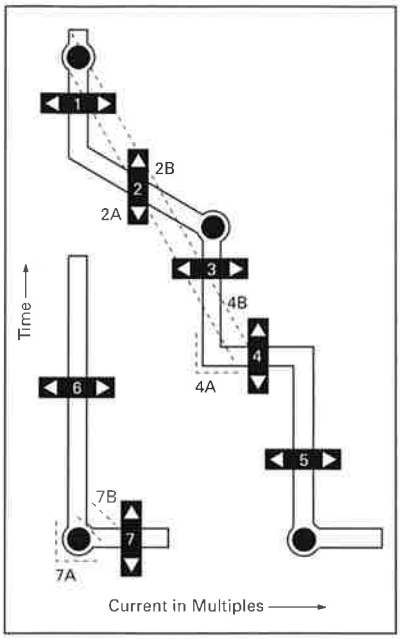


Figure 27.1-1. Time-Current Curve Shaping
Note: See selection guide charts for availability of adjustments.

Long Delay (L)

1. Long Delay Pickup
   Determines the continuous ampere rating of the breaker.
2. Long Delay Time
   Determines the amount of time the breaker will carry a low level overload before tripping.
   a. I^2t Response
      I^2t in: For coordination with other circuit breakers with electronic trip devices and for coordination with thermal-magnetic circuit breakers.
   b. I^4t Response
      I^4t in: For coordination with fuses and upstream transformer damage curves.

Short Delay (S)

3. Short Delay Pickup
   Determines or sets the level of fault current at which the short-time trip delay countdown is actuated.
4. Short Delay
   Sets the amount of time the breaker will carry both a low level and high fault currents before tripping.
   a. Flat Response
      I^2t out: For coordination with other circuit breakers with electronic trip devices.
   b. I^2t Response
      I^2t in: For coordination with fuses and thermal-magnetic breakers.

Instantaneous (I)

5. Instantaneous Pickup
   Determines the level of fault current that will actuate a trip with no time delay.

Ground Fault (G)

6. Ground Fault Pickup
   Determines the level of fault current at which the ground fault trip delay countdown is actuated.
7. Ground Fault Delay
   Determines the amount of time the breaker will carry a ground fault before tripping.
   a. Flat Response
      I^2t out: For coordination with other circuit breakers with electronic ground fault settings.
   b. I^2t Response
      I^2t in: For coordination with zero sequence ground fault relays, fuses and thermal-magnetic breakers.

Curve Shaping

Eaton Digitrip RMS 310 trip units are available with up to five phase and ground adjustments on the front of the trip unit. Digitrip RMS 310+ trip units are available with up to six phase and ground adjustments on the front of the trip unit. Selective system coordination with both upstream and downstream devices can be achieved to provide an economic solution for less sophisticated distribution systems.

For more sophisticated selective coordination systems Digitrip RMS 510, 610, 810 and 910 trip units are available with up to nine curve shaping choices via switches on the front of the unit. Curve shaping flexibility is provided by dependent long and short delay adjustments that are based on continuous amperes (I_r) selection.

Digitrip OPTIM 550 and 1050 trip units offer programmable curve shaping via 10 curve shaping choices that are programmed electronically into the trip unit. OPTIM also offers virtual infinite settings to allow the user to optimize coordination for a selectively coordinated distribution system. In addition, time-current set points can be downloaded via a communication system from a central personal computer. Digitrip OPTIM is normally applied to systems where system integrity is very important.

Zone Selective Interlocking

Zone selective interlocking capabilities are available with Digitrip RMS 310+ 510, 610, 810 and 910 trip units as well as Digitrip OPTIM 550 and 1050 trip units.

Note: Optional accessory on the OPTIM 550.

Zone selective interlocking provides increased system protection and can reduce arc flash risk by allowing the breaker closest to the fault to trip without any preset time delays. This is achieved by setting up the distribution system as shown in **Figure 27.1-2.** The hardwired connection between the trip units sends a restraining signal upstream, allowing the breaker closest to the fault to act instantaneously. Zone selective interlocking reduces stress on the distribution system and can reduce arc flash risk by isolating faults without time delays.

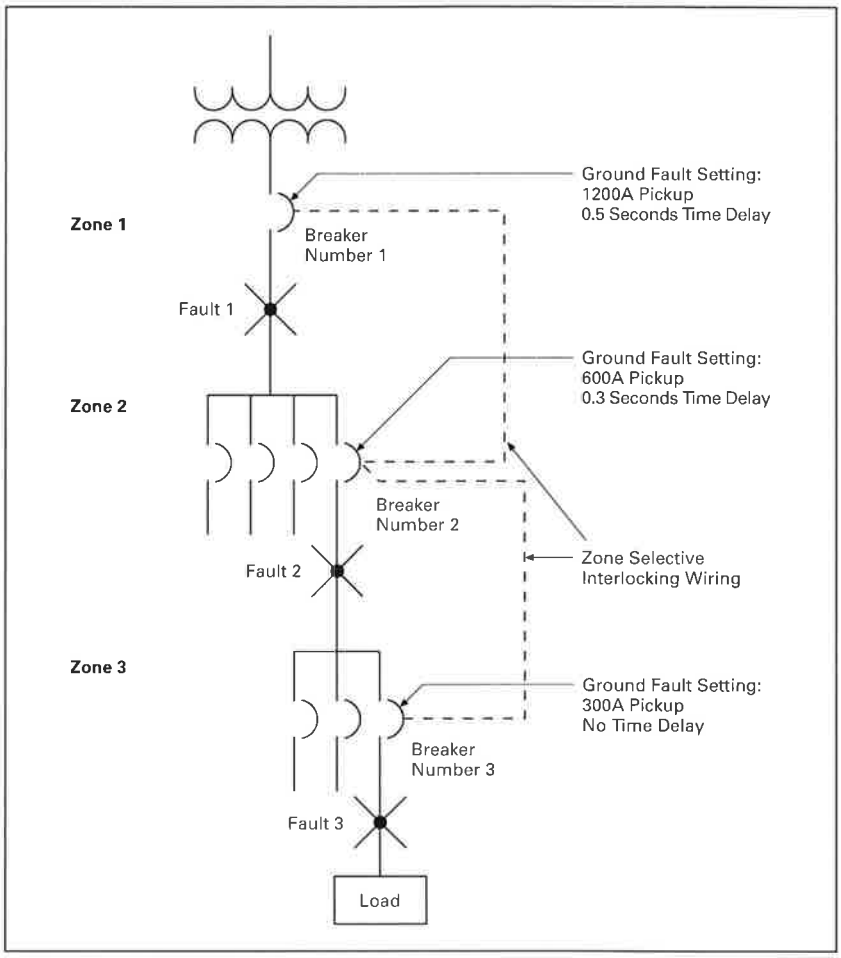


Figure 27.1-2. Zone Selective Interlocking

Fault 1

There are no interlocking signals. The main breaker trip unit will initiate the trip instantaneously.

Fault 2

The feeder breaker trip unit will initiate the trip instantaneously to clear the fault; and Zone 2 will send an interlocking signal to the Zone 1 trip unit. The Zone 1 trip unit will begin to time out, and in the event that the feeder breaker in Zone 2 would not clear the fault, the main breaker in Zone 1 will clear the fault in 0.5 seconds.

Fault 3

The branch breaker trip unit will initiate the trip instantaneously to clear the fault; and Zone 3 will send an interlocking signal to the Zone 2 trip unit; and Zone 2 will send an interlocking signal to Zone 1.

Zone 1 and Zone 2 trip units will begin to time out, and in the event that the branch breaker in Zone 3 would not clear the fault, the feeder breaker in Zone 2 will clear the fault in 0.3 seconds. Similarly, in the event that the feeder breaker in Zone 2 would not clear the fault, the main breaker in Zone 1 will clear the fault in 0.5 seconds.

PH-1 - Exhibit G, Email

From: Brian Glidden
To: Len Engel; Mark Perry
CC: Jim Schroeter; helenlw@dfda1.com
Date: 3/1/2016 12:00 PM
Subject: Re: WAVE Chargers at LCP - Switchgear RFI #08 (14-6366-07)

Hi Len & Mark,

Since the contractor is not performing you could contact his bonding company to see if they can push the contractor. This may be worth bringing up with Lyle.

Thanks,

Brian

>>> Brian Glidden 3/1/2016 11:32 AM >>>
Dear Len and Mark,

We have received an RFI from High Volt Electric regarding additional costs for the switchgear. The following is a list of our concerns:

1.) Contractor is asking for additional money to expedite the switchgear and will not include structural calculations.

2.) The contract Notice to Proceed was December 14th. If normal due diligence was followed and submittals started shortly after that date an order for the equipment should have taken place the first week of January at the latest. If the switchgear would have taken 8 to 10 weeks we would be close to the original schedule.

3.) When bidding this project an electrical contractor must contact a supplier for cost and availability. Since our contract time was 75 days he should have taken this into account and included expediting if necessary.

4.) We find it surprising that we are delayed til now for the switchgear and in this RFI the contractor is stating that he included $17,526 for an Eaton switchgear in his original bid. His submittal on January 21st was for a GE unit that did not meet the requirements. If he had researched the Eaton unit for his original bid he could have submitted this info immediately after his bid and been on schedule.

5.) The contractor has provided no back-up information showing the cost from the supplier for expediting.

6.) The contractor is responsible for providing timely submittals. He has not performed timely.

7.) Now we are in a $20,000 dispute if you want the Eaton unit in 4 weeks. If he processes this as a change order he may request markups of 15% as well.

8.) All specifications and requirements remain unchanged and were in the original bid documents. He has no ground to stand on. There have been no delays on the part of the owner.

9.) Original Bid Schedule on line 15 shows $27,285.90 for the equipment and installation. $10,000 to install seems unreasonable.

If you would like to discuss this matter further please give us a call.

Thanks,

Brian

Brian Glidden, P.E., P.L.S.
AESI

WBE/Small Business Enterprise
42140 10th Street West
Lancaster, CA 93534
661.940.0043 Phone
661.949.9775 Fax
bglidden@aesi-consulting.com

Please consider the environment before printing this e-mail

PH-1 - Exhibit H, Email

Arrow Master - Question about delivery of switchgear for Lancaster(14-6366-07)

From: Jim Schroeter
To: Karo Gyonjyan
Date: 3/29/2016 1:51 PM
Subject: Question about delivery of switchgear for Lancaster(14-6366-07)
CC: Brian Glidden; Eddie Kulukian; Mark Perry

Karo,

Do you have a firm date on delivery of the switchgear for Lancaster?

Please let us know.

You still need to submit engineering calculations for the switchgear for overturning (wind or seismic, whichever governs), with design for anchor bolts, type and size. All compliant with 2013 California Building Code.

Sincerely,

Jim Schroeter, P.E., L.S.
Arrow Engineering (AESI)
WBE/Small Business Enterprise
42140 10th Street West
Lancaster, CA 93534
661-940-0043
661-949-9775 Fax
jschroeter@aesi-consulting.com

Antelope Valley Transit Authority

January 22, 2015

NOTICE TO PROCEED

Mr. Karo Gyonjyan, President
Eco Energy Solutions, Inc, dba
High Volt Electric
9410 DeSoto Avenue, Unit H
Chatsworth, CA, 91311

RE: IFB NO: 2016-28
IFB TITLE: AVTA Electric Bus Charging At Palmdale Transportation Center

Mr. Gyoniyan:
You are hereby notified to commence WORK in accordance with the Construction Agreement dated January 22, 2016, and you are to complete the project by no later than April 6, 2016, as indicated on page 1, of said Construction Agreement No. 2016-22.

OWNER:
Antelope Valley Transit Authority

By: Lyle A. Block

Name: Lyle A Block
Title: Procurement and Contracts Officer

ACCEPTANCE OF NOTICE:

(NOTE: The Contractor shall return a signed copy of this Notice to the Owner)

Receipt of the above NOTICE TO PROCEED is hereby acknowledged this th day of January 2016.

By: _____

Name: Eddie Kulukian

Title: Project Manager

END

CERTIFICATE OF SUBSTANTIAL COMPLETION

ANTELOPE VALLEY TRANSIT AUTHORITY CONTRACT NUMBER: **2016-28**

PROJECT NAME: **AVTA ELECTRIC BUS CHARGING AT PALMDALE TRANSPORTATION CENTER**

TO: Antelope Valley Transit Authority
42210 6th Street West
Lancaster, CA 93534

THROUGH: Len Engel, Executive Director/CEO

ARCHITECT/ENGINEER
/PROJECT MANAGER: Arrow Engineering Services, Inc.(AESI), Brian Glidden, PE

CONTRACTOR: Eco Energy Systems, Inc

CONTRACT FOR: Perform certain services to construct electric bus charging facilities at Palmdale Transportation Centr
(GENERAL, MECHANICAL, ELECTRICAL, OTHER)

CONTRACT DATE: January 22, 2016 CONTRACTOR P.O. NO: 2567

PROJECT OR DESIGNATED AREA SHALL INCLUDE: Location defined by project specifications and plans

The contractor hereby certifies the Work of this project to be in complete conformance to the Contract Documents and to be substantially complete, enabling the Owner to make use of the Work as intended.

By signature below, the Contractor further requests Architect/Project Manager and Owner to inspect the Work and to concur in the Work's substantial completion by their signature and/or to provide in a timely manner to Contractor a listing of work items adjudged by them as remaining to be completed or corrected. Contractor agrees to complete and correct all work items representative of such listing within 30 days from date of receipt from Architect/Owner.

Contractor Company Name	By *(written)*	Date
	(Shall be signed by same representative who signed Contract)	

A list of items to be completed or corrected, verified by the Architect/Project Manager and Owner, is (is not) appended hereto. Failure to include any incomplete items on such list does not alter the responsibility of the Contractor to provide all Work in complete conformance with the Contract Documents.

AESI	Brian D. Glidden	3/21/17
Architect/Engineer/Project Manager Company	By *(written)*	Date
	(Shall be signed by Architect/Engineer/ Project Manager of Record with Certification Responsibility to AVTA)	

The Work performed under this Contract has been reviewed and found to be substantially complete by the Executive Director who has hereby established the Date of Substantial Completion as September 21, 2015, which is also the date of commencement of all warranties and guarantees required by the Contract Documents. The Date of Substantial Completion of the Work or designated portion thereof is the date established by Executive Director when construction is sufficiently complete, in accordance with the Contract Documents, so the Owner may occupy the Work, or designated portion thereof, for the use for which it is intended.

The Owner accepts the Work or designated portion thereof as substantially complete and assumes full possession thereof, in accordance with the contract documents.

Antelope Valley Transit Authority		
Owner	By: Len Engel, Executive Director/CEO	Date
	(Shall be signed by Executive Director as Owner's representative)	

The responsibilities of the Owner and the Contractor for maintenance, heat, utilities and insurance shall be as set out in the Contract Documents.

PH-1 - Exhibit K, Email

Arrow Master - RE: Lancaster Bus Charger Construction Schedule (14-6366-07)

From: "Karo Gyonjyan" <karo@highvoltelectric.com>
To: "'Jim Schroeter'" <jschroeter@aesi-consulting.com>
Date: 3/4/2016 3:56 PM
Subject: RE: Lancaster Bus Charger Construction Schedule (14-6366-07)
CC: "'Brian Glidden'" <bglidden.GDMS-PO.GDMS-DOM@aesi-consulting.com>, "'Mar...

Jim,

I'm working on the schedule for Palmdale.

1. I was just wondering if you have an update on the HDPE pipe and sweeps?
2. Also can we use the existing fence panels on the project or not?
3. What are we going to use on the additional panels?

High Volt Electric
Karo Gyonjyan, President
P. 888-554-8658
C. 310-266-7876
F. 818-993-3739
E. karo@highvoltelectric.com
www.highvoltelectric.com

From: Jim Schroeter [mailto:jschroeter@aesi-consulting.com]
Sent: Friday, March 04, 2016 3:24 PM
To: karo@highvoltelectric.com
Cc: Brian Glidden; Mark Perry; 'Eddie Kulukian'
Subject: Re: Lancaster Bus Charger Construction Schedule (14-6366-07)

Karo,

This is fine for Lancaster for now.

When do we see the Palmdale construction schedule?

Sincerely,

Jim Schroeter, P.E., L.S.
Arrow Engineering (AESI)
WBE/Small Business Enterprise
42140 10th Street West
Lancaster, CA 93534
661-940-0043
661-949-9775 Fax
jschroeter@aesi-consulting.com

>>> On 3/4/2016 at 3:07 PM, in message <005801d1766a$a63ab010$f2b01030$@highvoltelectric.com>, "Karo Gyonjyan" <karo@highvoltelectric.com> wrote:

> Jim,
>
> Please see attached schedule.
>
> High Volt Electric
> **Karo Gyonjyan, President**
> **P. 888-554-8658**
> **C. 310-266-7876**
> **F. 818-993-3739**
> **E. karo@highvoltelectric.com**
> **www.highvoltelectric.com**
>
>

intended recipient (or responsible for delivery of the message to such person), you may not use, copy, distribute or deliver to anyone this message (or any part of its contents) or take any action in reliance on it. In such case, you should destroy this message, and notify us immediately. If you have received this email in error, please notify us immediately by e-mail or telephone and delete the e-mail from any computer. If you or your employer does not consent to internet e-mail messages of this kind, please notify us immediately. All reasonable precautions have been taken to ensure no viruses are present in this e-mail. As our company cannot accept responsibility for any loss or damage arising from the use of this e-mail or attachments we recommend that you subject these to your virus checking procedures prior to use. The views, opinions, conclusions and other informations expressed in this electronic mail are not given or endorsed by the company unless otherwise indicated by an authorized representative independent of this message.

PH-1 - Exhibit L, Email

From: Jim Schroeter
To: Mark Perry
CC: Brian Glidden
Date: 3/1/2016 8:26 AM
Subject: Question about fence submittal or RFI for Palmdale(14-6366-07)

Mark,

I have double checked submittals and RFIs from the Contractor High Volt Electric. I have only received submittals and RFIs concerning the Lancaster project.

I have received no submittals on the Palmdale project. Not for the fence or anything else for Palmdale.

Sincerely,

Jim Schroeter, P.E., L.S.
Arrow Engineering (AESI)
WBE/Small Business Enterprise
42140 10th Street West
Lancaster, CA 93534
661-940-0043
661-949-9775 Fax
jschroeter@aesi-consulting.com (mailto:661-949-0043jschroeter@aesi-consulting.com)

PH-1 - Exhibit M, Email

PRECONSTRUCTION MEETING
AGENDA

PROJECT NO. 2016-28

PROJECT: AVTA Electric Bus charging at Palmdale Transportation Center

DATE: 01/14/16 TIME: 1:30 pm

LOCATION: AVTA Conference room

I. ATTENDANCE SHEET SIGN-IN AND INTRODUCTIONS

II. PROJECT CONTROL

Administration: All communications about the construction, project plans, progress, and related items shall be sent to the attention of Brian Glidden, Project Manager, Arrow Engineering. The project is to be inspected by the City of Palmdale. All specific contract questions shall be directed to Lyle Block, AVTA Procurement and Contracts Officer, with copies to Arrow Engineering. All formal pay requests shall be submitted to Labor Compliance, with copies to Lyle Block and Arrow Engineering. Mark Perry, Fleet Manager, will be project manager for AVTA.

Contractor: HIGH VOLT ELECTRIC
9410 DeSoto Avenue, Unit H
Chatsworth, CA 91311
818 993-3732

Superintendent: Note: Full time presence of the superintendent is required during construction activities.

After hours contact: _____
Phone No.: _____

Safety officer: _____
Note: Contractor is responsible for maintaining job site in a safe condition at all times for workers and the general public.

3. Inspection: The Contractor shall comply with the provisions of the permits issued by the City of Palmdale. They have the authority to reject any and all unsatisfactory work.

4. Surveyor: Arrow Engineering: 661-940-0043

5. Material Testing: Arrow Engineering: 661-940-0043, soil, base, concrete

6. Special Inspector Arrow Engineering: Anchor bolts for electrical equipment

III. PERMIT REQUIREMENTS

- City of Palmdale Permits

  The contractor is required to secure all applicable permits from the City of Palmdale prior to commencement of work. Submit receipts of permit fees paid to Agencies for reimbursement, without markup, from AVTA. The Contractor and any subcontractor must possess a current City of Palmdale business license prior to construction activity.

IV. SUBMITTALS

- Construction Schedule – Due within 10 days of the Notice-to-Proceed date
- Certified Payrolls (General & Subcontractors) – Labor Compliance
- Invoices – Contractor to coordinate with Arrow Engineering to meet one or two days before the 25th of each month to determine the appropriate quantities and the expected billing. Actual invoices for pay requests are to be submitted on or about the 25th of each month. An updated project schedule shall be provided with each invoice, except the final invoice. Payment Retention is 5% per contract agreement.
- Electrical items as outlined in the specifications, concrete mix design.

V. UTILITY COORDINATION - Contractor to coordinate with applicable utility companies to ensure that all the utilities are shut off, disconnected, and capped prior to demolition work. Contractor shall determine location of utilities by contacting Dig Alert at 1-800-422-4133.

VI. NOTIFICATION TO EMERGENCY SERVICES, AFFECTED AREA RESIDENTS, OR OTHER INTERESTED PARTIES

The Contractor is to notify all interested public agencies concerning the timing of the traffic control measures and any other construction related delays and relocations. A list of required agencies to be notified is included in the Contract Documents.

VII. MEETING AND COORDINATION

Contractor is encouraged to provide an updated project schedule at the pre-construction meeting.

VIII. NOTICE TO PROCEED DATE

Tentative Notice to Proceed date is January 15, 2016, subject to approval by AVTA. Contract time is 75 calendar days or the date as indicated in the contract agreement, as approved by AVTA.

IX. TRAFFIC CONTROL

Traffic control is required for this project. The site of construction activities is located in an area frequented by pedestrians and bus traffic. Traffic Control must meet City of Palmdale requirements and be approved by the City Inspector.

X. PROJECT SIGN

Coordinate with AVTA and Arrow Engineering on the placement of the project sign, if any.

XI. LABOR COMPLIANCE

Labor Compliance will be monitoring the labor compliance aspects of this project.

XII. AVTA BUS STOP DISRUPTION

Contractor shall coordinate with AVTA concerning temporary bus stop relocation, if any, during construction activities.

XIII. AVTA PROVIDED ELECTRICAL EQUIPMENT

AVTA/WAVE is providing some equipment for this project. Such equipment will initially be delivered to AVTA's facility at 42210 6th St West, Lancaster. Prior to installation of this equipment, the items will be available to the Contractor for inspection/measurement/verification to confirm conduit placement at the final installed location. Refer to Contractor Special Installation Instructions…. located on sheet one of the Grading Plan for this project.

XIV. ITEMS OF NOTE:

AVTA and WAVE(manufacturer) are responsible for satisfaction of acceptable testing lab or 3rd party inspection of the total system.

AESI
Arrow Engineering Services, Inc.
CIVIL ENGINEERING ▪ SURVEYING ▪ SOILS ▪ MAPPING/GIS
42140 Tenth Street West
Lancaster, CA 93534
661-940-0043
Fax: 661-949-9775
aesi@aesi-consulting.com

March 9, 2016 14-6366-08

Project: AVTA Electric Bus Charging at Palmdale Transportation Center(PTC)
2016-28

TO: Karo Gyonjyan, Project Manager
High Volt Electric, Inc.

FROM: Jim Schroeter, P.E., L.S.
Arrow Engineering Services, Inc.

RE: Response to Submittal Switchgear Square D

Mr. Gyonjyan,

Please see the response to your Submittal, Switchgear Square D: Ref 262413, submitted March 7, 2016.

Sincerely,

Jim Schroeter
AESI

AESI
Arrow Engineering Services, Inc.
CIVIL ENGINEERING ▪ SURVEYING ▪ SOILS ▪ MAPPING/GIS
42140 Tenth Street West
Lancaster, CA 93534
661-940-0043
Fax: 661-949-9775
aesi@aesi-consulting.com

AVTA ELECTRIC BUS CHARGING AT PALMDALE TRANSPORTATION CENTER

AVTA PROJECT No. 2012-28

Submittal: Switchgear Square D

Submittal Response:

ITEM	RESPONSE
Submittal Switchgear Square D	**FURNISH AS NOTED** See response from Donald F Dickerson. NO EXCEPTION TAKEN on manufacturer's installation instructions. Comply with general instructions as attached ANSI/NEMA PB 2.1 Provide seismic engineering as indicated in the specifications.

SUBMITTAL TRANSMITTAL FORM

ATTENTION: BRIAN GLIDDEN, ARROW ENGINEERING SERVICES, INC.

Specification No. 262413

(Shall accompany all Submittals)

I hereby submit the following items for review:

Description of Items:	Specification Section & Drawing Reference:
Low Voltage Switchgear	AVTA ELECTRIC BUS CHARGING AT PALMDALE TRANSPORTATION CENTER

(use added sheets if necessary)

x This is the first Submittal of these items.

___This is a resubmittal._____ number of previous submittals

Name and address of Subcontractor (if any):

Telephone: _____

Name of address of Supplier (if any):

Walters Wholesale
7835 Canoga Avenue
Canoga Park, CA 91304

Telephone: 818-264-2400

- Continued on Next Page -

SUBMITTAL TRANSMITTAL FORM (Continued)

ATTENTION: BRIAN GLIDDEN, ARROW ENGINEERING SERVICES, INC.

Specification No. 262413

Specific Deviations From The Contract Documents:

(Describe Here)

Description of Items:	Specification Section & Drawing Reference:
1.) THE INCOMING SERVICE TO BE ON THE RIGHT SIDE OF THE LINEUP, NOT THE LEFT SIDE.	
2.) SWITCHGEAR TO MEET THE SEISMIC REQUIREMENTS PER, CALIF. CODES, AND SPECIFICATION DOCUMENTS.	

donald f. dickerson associates
LOS ANGELES HEADQUARTERS

Review is only for general conformance of the submittal with information given and the design concept expressed in the Contract Documents. Comments made during this review do not relieve the Contractor from compliance with the requirements of those Contract Documents. The Contractor is responsible for confirming and correlating all quantities, dimensions, site conditions, construction means, methods, sequences, procedures and the coordination of all trades.

- ☐ No Exception Taken
- ☐ Rejected
- ☐ Returned without Review
- ☒ Furnish as noted
- ☐ Revise and resubmit
- ☐ Submit specified item

Date: 3/09/2016 By: M. LANN

Client Project Number: Consultant Project Number:

(use added sheets if necessary)

CERTIFICATION:

By submitting Shop Drawings, Product Data, Samples, and other Submittals, I represent that I have reviewed and approve all Submittals as listed on this form, and have determined and verified materials, quantities, field measurements, and field construction criteria related thereto, or will do so, and I have checked and coordinated the information contained within such Submittals with the requirements of the Contract Documents.

I further represent that I have specifically informed the Engineer in writing on this form of any deviations from the Contract Documents in Shop Drawings or Submittals at the time of their submittal.

Karo Gyonjyan — Contractor

03/07/2016 — Date

Customer Quotation

Schneider Electric

Phone: ()- Fax: ()-

Project Name: AVTA ELECTRIC CHARGING
Project Location: CHATSWORTH
Customer Name: HIGH VOLT ELECTRIC
Q2C Number: 37815101
Quote Number: 1

Accessories

Fuses NOT Included
Overloads NOT Included
Lamps NOT Included
Lug Kits NOT Included

Item Number	Quantity	Catalog Number / Details	Unit Price	Extended Price
001-00	1	**Designation:** MSA Square D Standard Swbd QED Switchboard --- Square D Standard Swbd Designed and Tested in accordance with: UL 891/NATIONAL ELECTRIC CODE/NEMA PB-2 System Voltage - 480Y/277V 3Ph 4W 60Hz Source Description - Single Main System Ampacity - 1600A Bussing - Aluminum Plated w/Tin and Copper Plated w/Silver Neutral Bus - 100% Max Available Fault Current (RMS) - 65kA Enclosure - Type 3R Non-Walk-in Accessibility: Front Only Rodent Barrier Exterior Paint Color - ANSI 49 Ground Lug provided for each device Strip Heaters - Wired with Thermostat Aluminum Ground Bus Dimensions --- 2 - 42" Wide Section(s) 1 - 36" Wide Section(s) 1 - Dimensions: 120.00" W X 35.5" D X 91.5"H 3 - 35.5" Deep Enclosure(s) Approximate Weight: 2762.00 lbs / 1252.84 kgs Incoming Requirements --- Suitable for Use As Service Entrance Entry Point: Left of Lineup, Through the Bottom Connection Type: Cable Reverse Feed Hot Sequence Utility: Southern Cal Edison (CA) Standard Door Pattern 1-30in Door, 2 Sockets Mains --- 1 - 1600AS/1600AT 480V 80% Rated 65 kA 3 Pole UL, Fixed Mounted Electronic Trip Circuit Breaker: Type RK Ammeter Trip Unit, Long Time, Short Time, Instantaneous, Ground Fault Padlock Attachment Feeders --- 3 - 500AT 480V 80% Rated 65 kA 3 Pole UL, Group Mounted Basic Electronic Trip Circuit Breaker: Type MJ Load Lug Type: Aluminum Compression Lug/Aluminum or Copper Cable 1 - 500AT 480V 80% Rated 3 Pole UL, Group Mounted Basic Electronic Trip Prepared Space: Type MJ 1 - 175AT 480V 80% Rated 65 kA 3 Pole UL, Group Mounted Thermal Magnetic Circuit		

Schneider Electric

Phone: ()- Fax: ()-

Project Name:	AVTA ELECTRIC CHARGING
Project Location:	CHATSWORTH
Customer Name:	HIGH VOLT ELECTRIC
Q2C Number:	37815101
Quote Number:	1

Accessories

Fuses NOT Included
Overloads NOT Included
Lamps NOT Included
Lug Kits NOT Included

Item Number	Quantity	Catalog Number / Details	Unit Price	Extended Price

Breaker: Type JJ
Load Lug Type: Aluminum Compression Lug/Aluminum or Copper Cable

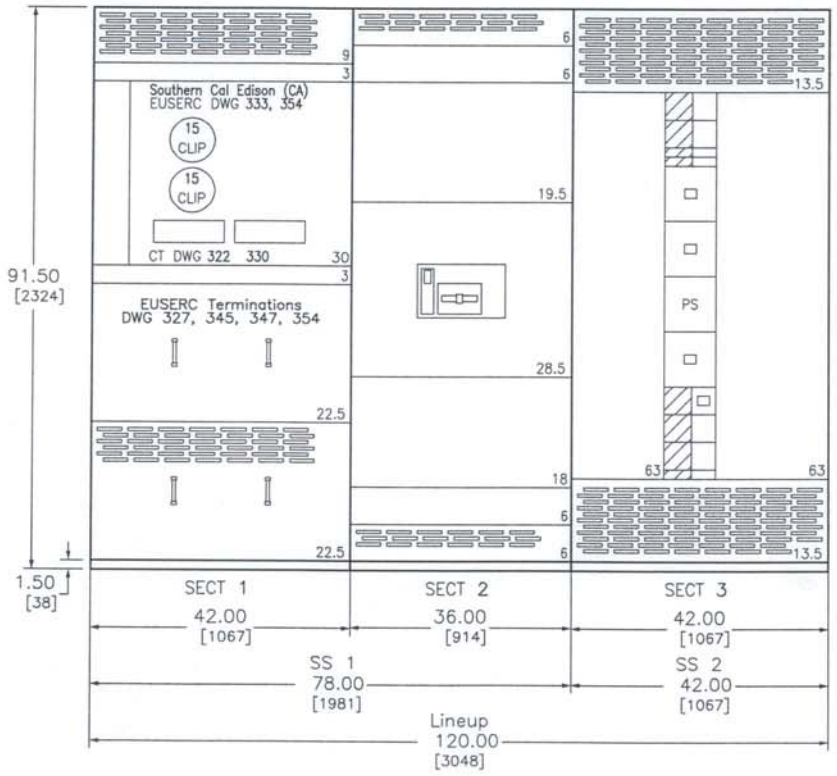
Estimated Ship Days (ARO): 20 Working Days

REV	DESCRIPTION	BY	DATE
–	----	--	--/--/--

T–bus
19.5 in

T–bus
19.5 in

T–bus
19.5 in



SWITCHBOARD GENERAL NOTES

PRODUCT DESCRIPTION & RATINGS

Power System Data

480Y/277V 3Ph 4W 60Hz / 3 Phase Wye
Solidly Grounded
System Short Circuit Current Rating: 65kA RMS
Incoming Section 1 Cable Through the Bottom Left of Lineup

Bus System Data

1600A Tin/Aluminum & Silver/Copper Main Bus
(4) .25x2.00 IN/6x51 mm Al Bus Bar Per Phase/Neutral
(1) .25x1.50 IN/6x38 mm Al Ground Bus

Enclosure Data

Type 3R Free Standing
Exterior Paint Color: ANSI 49
Front Accessibility Only Required
Handling: Rollers
Rodent barriers
1.5H Corrosion Resist Base Channels
Strip Heater w. Thermostat
Base channels cannot be removed from EUSERC switchboard line–ups
Utility sealing hardware installed for unmetered bus compartments

Estimated Shipping Weight

Shipping Split 1 1676.00 lbs / 760.23 kgs
Shipping Split 2 1086.00 lbs / 492.61 kgs
Complete Lineup 2762.00 lbs / 1252.84 kgs

Code Standards

U.L. Deadfront and suitable for use as Service Entrance
when not more than six (6) disconnecting means are provided.

Rating Nameplates

ST1– Deadfront– Section Bus 1600A
ST2– Service Entrance – Section Bus 1600A
ST3– Deadfront– Section Bus 1600A

PRODUCT INFORMATION

Wiring

All wiring to be Machine Tool Wire type

Instruction Bulletins

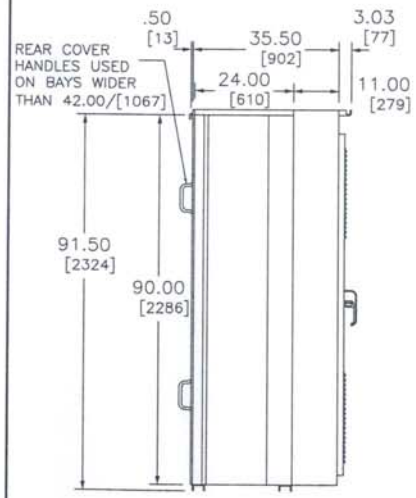
Reference 80043–055 For Handling, Installation,
Anchoring, Inspection And Maintenance Information

Product Accessories/Options

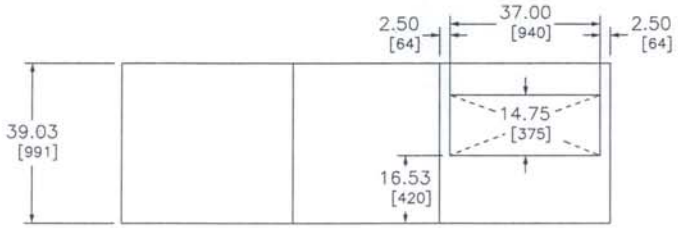
ENGLISH DIMENSIONS: INCHES

JOB NAME:	AVTA ELECTRIC CHARGING	EQUIPMENT DESIGNATION:	MSA
JOB LOCATION:	CHATSWORTH CA	EQUIPMENT TYPE:	QED Switchboard
DRAWN BY:	(Q2C)	DRAWING TYPE:	GENERAL NOTES
ENGR:			
DATE:	March 02 2016		
DRAWING STATUS:	QUOTE	DWG# F37815101–01	PG 1 OF 2 REV –

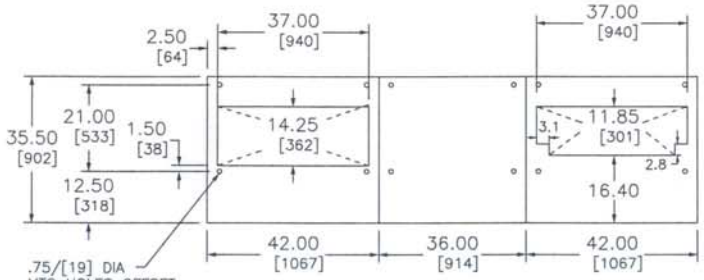
REV	DESCRIPTION	BY	DATE
–	----	--	--/--/--



LEFT SIDE VIEW



TOP VIEW – FRONT



FLOOR PLAN – FRONT

ENGLISH DIMENSIONS: INCHES

NOTE:
A MINIMUM OF 2.00/[51] CLEARANCE BEHIND THE SWITCHBOARD IS REQUIRED FOR TOP COVER OVERHANG.

JOB NAME:	AVTA ELECTRIC CHARGING	EQUIPMENT DESIGNATION:	MSA
JOB LOCATION:	CHATSWORTH CA	EQUIPMENT TYPE:	QED Switchboard
DRAWN BY:	(Q2C)	DRAWING TYPE:	SIDE, TOP VIEW & FLOOR PLAN
ENGR:			
DATE:	March 02 2016		
DRAWING STATUS:	QUOTE	DWG#	F37815101-01

REV	DESCRIPTION	BY	DATE
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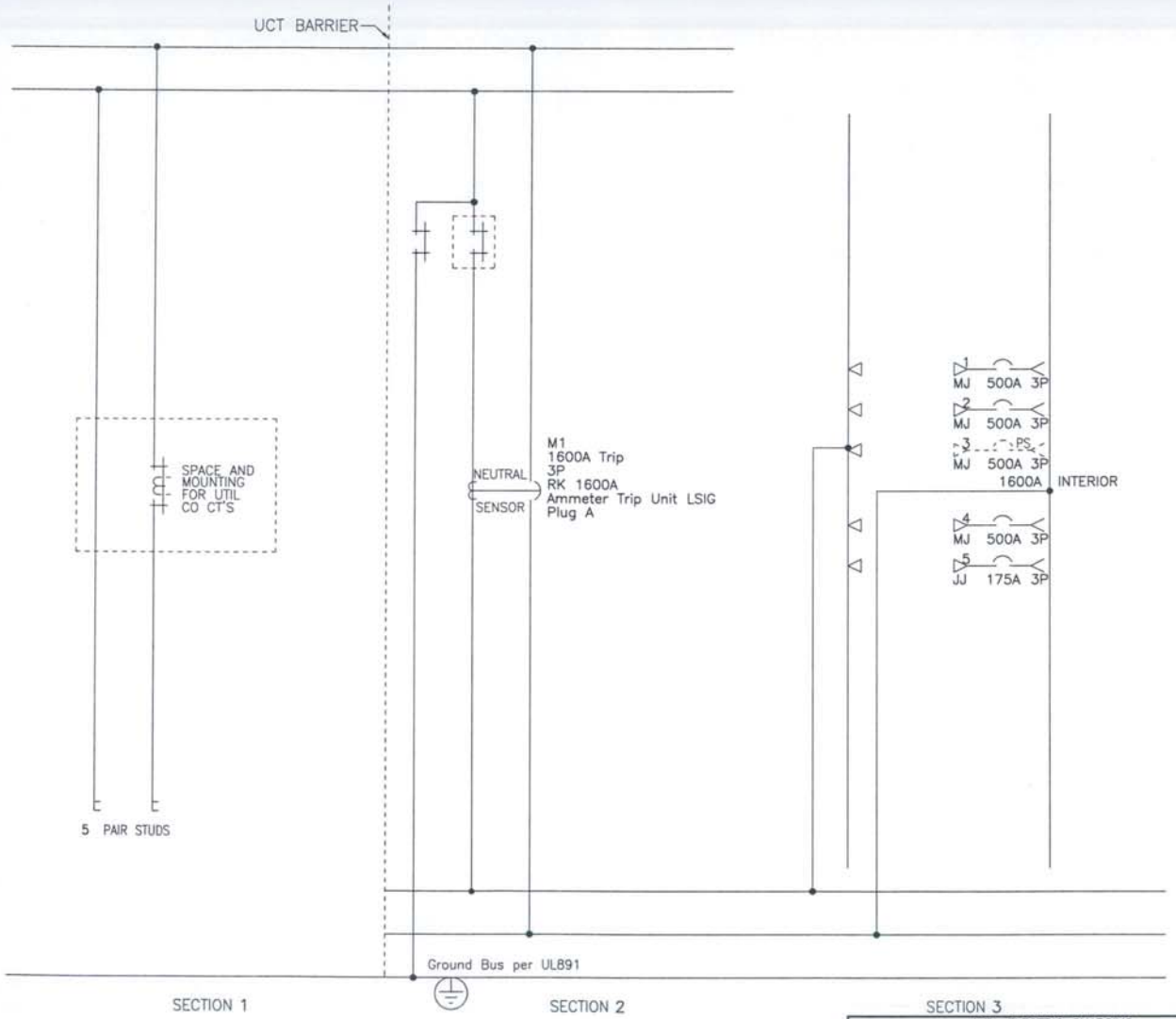

JOB NAME: AVTA ELECTRIC CHARGING	EQUIPMENT DESIGNATION: MSA
JOB LOCATION: CHATSWORTH CA	EQUIPMENT TYPE: QED Switchboard
DRAWN BY: (Q2C)	DRAWING TYPE: ONE LINE
ENGR:	
DATE: March 02 2016	
DRAWING STATUS: QUOTE	DWG# 037815101-01 PG 1 OF 2 REV -

REV	DESCRIPTION	BY	DATE
–	----	--	--/--/--

POWER STYLE QED-2 SWITCHBOARD

SECT NO	CKT NO	GMD HEIGHT	DEVICE/FRAME RATING	TRIP AMP	FUSE/ TRIP	#P	DESIGNATION	N/P	LUG/WIRE INFORMATION				ACCESSORIES / NOTES
									QTY	PHASE WIRE RANGE	QTY	NEUT WIRE RANGE	
1	–	–	Strip Heater	–	–	–	–	–	–	–	–	–	SHR
1	UCT	–	1600A	–	–	–	Southern Cal Edison (CA)	No	5	Pair Studs	5	Pair Studs	
2	–	–	Strip Heater	–	–	–	–	–	–	–	–	–	SHR
2	M1	–	RK 1600A Plug A	1600A	A-LSIG	3P	MSA	No	–	–	–	–	GF,PLA
3	–	–	Strip Heater	–	–	–	–	–	–	–	–	–	SHR
3	1	9 in	MJ	500A	–	3P		No	2	4/0 – 500kcmil	2	4/0 – 500kcmil	CL(AI)
3	2	9 in	MJ	500A	–	3P		No	2	4/0 – 500kcmil	2	4/0 – 500kcmil	CL(AI)
3	3	9 in	MJ (PS)	(500A)	–	3P		No	2	4/0 – 500kcmil	2	4/0 – 500kcmil	CL(AI)
3	4	9 in	MJ	500A	–	3P	MSA-3	No	2	4/0 – 500kcmil	2	4/0 – 500kcmil	CL(AI)
3	5	4.5 in	JJ	175A	–	3P	MSA-1	No	1	1/0 – 3/0 AWG	1	4/0 – 500kcmil	CL(AI)

LEGEND	
CL(AI)	Aluminum Compression Lugs
GF	Ground Fault
PLA	Padlock Attachment-Fixed
SHR	Strip Heater

JOB NAME:	AVTA ELECTRIC CHARGING	EQUIPMENT DESIGNATION:	MSA
JOB LOCATION:	CHATSWORTH CA	EQUIPMENT TYPE:	QED Switchboard
DRAWN BY:	(Q2C)	DRAWING TYPE:	SCHEDULE
ENGR:			
DATE:	March 02 2016		
DRAWING STATUS:	QUOTE	DWG# 037815101-01	PG 2 OF 2 REV –

ANSI/NEMA PB 2.1

General Instructions for Proper Handling, Installation, Operation, and Maintenance of Deadfront Distribution Switchboards Rated 600 Volts or Less

Approved as an American National Standard
ANSI Approval Date: June 14, 2010

ANSI/NEMA PB 2.1-2007

General Instructions for Proper Handling, Installation, Operation, and Maintenance of Deadfront Distribution Switchboards Rated 600 Volts or Less

Published by

National Electrical Manufacturers Association
1300 North 17th Street, Suite 1752
Rosslyn, Virginia 22209

www.nema.org

NOTICE AND DISCLAIMER

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Foreword

This publication is a guide of practical information containing instructions for the proper handling, installation, operation, and maintenance of deadfront distribution switchboards rated 600 Volts or less.

These instructions do not purport to cover all details or variations in equipment, nor to provide for every possible contingency regarding handling, installation, operation, or maintenance.

It is recommended that work described in this set of instructions be performed only by qualified personnel familiar with the construction and operation of switchboards and that such work be performed only after reading this complete set of instructions. For specific information not covered by these instructions, you are urged to contact the manufacturer of the switchboard directly.

PB 2.1-2007 revises and supersedes PB 2.1-2002.

In the preparation of this Standards Publication input of users and other interested parties has been sought and evaluated. Inquiries, comments, and proposed or recommended revisions should be submitted to the concerned NEMA product section by contacting the following:

Vice President, Technical Services
National Electrical Manufacturers Association
1300 North 17th Street
Rosslyn, Virginia, 22209

This Standards Publication was developed by the Panelboard and Distribution Board Section. Section approval of the standard does not necessarily imply that all section members voted for its approval or participated in its development. At the time it was approved, the Panelboard and Distribution Board Section was composed of the following members:

Eaton Electrical Inc.—Pittsburgh, PA
GE—Plainville, CT
Hubbell, Inc.—Bridgeport, CT
Milbank Manufacturing Company—Kansas City, MO
Penn Panel & Box Company—Collingdale, PA
Reliance Controls Corporation—Racine, WI
Siemens Industry, Inc.—Norcross, GA
Square D Company—Palatine, IL

Section 1
GENERAL

1.1 SCOPE

This publication covers floor-mounted deadfront switchboards which consist of an enclosure, molded case and low-voltage power circuit breakers, fusible or non-fusible switches, instruments, and metering, monitoring, or control equipment, with associated interconnections and supporting structures. These units are used in the distribution of electricity at:

a. 600 volts and less
b. 6000 amperes or less

1.2 REFERENCES

National Electrical Manufacturers Association
1300 North 17th Street
Rosslyn, Virginia 22209

AB 4- 2003 *Guidelines for Inspection and Preventive Maintenance of Molded Case Circuit Breakers Used in Commercial and Industrial Applications*

PB 2.2- 2004 *Application Guide for Ground Fault Protective Devices for Equipment*

Guidelines for Handling Water Damaged Electrical Equipment

National Fire Protection Association
Batterymarch Park
Quincy, MA 02269

NFPA 70- 2005 *National Electrical Code*

NFPA 70E- 2004 *Safety Related Work Practices*

1.3 GENERAL

WARNING—HAZARDOUS VOLTAGES IN ELECTRICAL EQUIPMENT CAN CAUSE SEVERE PERSONAL INJURY OR DEATH. UNLESS OTHERWISE SPECIFIED, INSPECTION AND MAINTENANCE SHOULD ONLY BE PERFORMED ON SWITCHBOARDS AND EQUIPMENT TO WHICH POWER HAS BEEN TURNED OFF, DISCONNECTED, AND ELECTRICALLY ISOLATED SO THAT NO ACCIDENTAL CONTACT CAN BE MADE WITH ENERGIZED PARTS. FOLLOW ALL MANUFACTURER'S WARNINGS AND INSTRUCTIONS.

Safety related work practices, as described in NFPA 70E, should be followed at all times.

CAUTION—Hydrocarbon spray propellants and hydrocarbon based sprays or compounds will cause degradation of certain plastics. Contact the switchboard manufacturer before using these products to clean, dry, or lubricate switchboard components during installation or maintenance.

1.3.1 Successful Operation

The successful operation of switchboards is dependent upon proper handling, installation, operation, and maintenance. Neglecting fundamental installation and maintenance requirements may lead to severe personal injury, death, or damage to electrical equipment or other property.

1.3.2 Qualified Personnel

Installation, operation, and maintenance of switchboards should be conducted only by qualified personnel.

1.3.3 Definition of Qualified Personnel

For purposes of these guidelines, a qualified person is one who is familiar with the installation, construction, and operation of the equipment and the hazards involved. In addition, the person is:

1.3.3.1 Knowledgeable of Requirements

Knowledgeable of the requirements of the *National Electrical Code* and of all other applicable codes, laws, and standards.

1.3.3.2 Trained and Authorized to Test, Energize, Clear, Ground, Tag, and Lockout

Trained and authorized to test, energize, clear, ground, tag, and lockout circuits and equipment in accordance with established safety practices.

1.3.3.3 Trained in Proper Care and Use of Protective Equipment

Trained in the proper care and use of protective equipment such as rubber gloves, hard hat, safety glasses or face shields, and flash resistant clothing in accordance with established safety practices.

1.3.3.4 Trained in Rendering First Aid

Trained in rendering first aid.

Section 2
HANDLING

NOTE—These guidelines are provided to help avoid personal injury and equipment damage during handling and to facilitate moving the switchboard at the job site.

2.1 MANUFACTURER'S HANDLING INSTRUCTIONS

Follow the manufacturer's handling instructions for the specific equipment, if available.

2.2 CARE TO AVOID DAMAGE

Handle the switchboard with care to avoid damage to components, the frame or finish.

2.3 UPRIGHT POSITION

Keep the switchboard in an upright position unless otherwise indicated by the manufacturer.

2.4 EQUIPMENT CAPACITY

Verify that handling equipment capacity is sufficient for the switchboard weight.

2.5 CONCEALED DAMAGE

When the switchboard is received, unpack it sufficiently to inspect it for concealed damage and to determine that the shipment is complete and correct.

2.6 STORAGE PRIOR TO INSTALLATION

If the switchboard is to be stored prior to installation, replace the packing for protection during that period. When conditions permit, leave the packing intact until the switchboard or sections are at their final installation location. If the packing is removed, cover the top and any openings to protect the equipment against dust and debris during the construction period. (See section 3).

2.7 SHIPPING SKID

The switchboard should remain secured to the shipping skid to prevent distortion of the bottom of the frame during moving.

2.8 ROD OR PIPE ROLLERS

Rod or pipe rollers, with the aid of pinch bars, provide a simple method of moving the switchboard on one floor level if there is little or no incline. Steady the load to prevent tipping.

2.9 FORKLIFT TRUCK

A forklift truck may offer a more convenient method of handling the switchboard and has the added advantage of permitting it to be hoisted between levels. Balance the load carefully and use a safety strap when handling or moving switchboards with a forklift.

2.10 OVERHEAD HOISTING

When it is necessary to move the switchboard between elevations without a suitable platform elevator, overhead hoisting may be required. Lifting plates and eye bolts (Figure 2-1), or channels, angles, or bars with lift holes (Figure 2-2) may be provided as a permanent or removable part of the switchboard. If they are not, cable, chain, or band slings (Figure 2-3) may be rigged around the switchboard.

2.10.1 Rigid Spreaders or Spanner Bars

Use rigid spreaders (Figure 2-1) or spanner bars (Figure 2-3) to provide the vertical lift on eye bolts and lifting slings to avoid crushing or otherwise damaging the frame or its finish. Lifting bars on long lineups may require additional spreaders to reduce the horizontal compressive force.

2.10.2 Rigging Lengths

Select or adjust the rigging lengths to compensate for any unequal weight distribution of load and to maintain the switchboard in an upright position.

2.10.3 Angle between Lifting Cables and Vertical

Do not allow the angle between the lifting cables and vertical to exceed 45 degrees in order to reduce the tension on the rigging and the compressive load on the lifting or spanner bars and spreaders.

2.10.4 Slings with Safety Hooks or Shackles

Do not pass ropes or cables through the lift holes in bars, angles, or channels. Use slings with safety hooks or shackles.

2.10.5 Removal of Switchboard Top Covers

The switchboard may contain a heavy transformer with overhead lifting means. Consult the manufacturer regarding the removal of the switchboard top covers and the utilization of such internal lifting means.

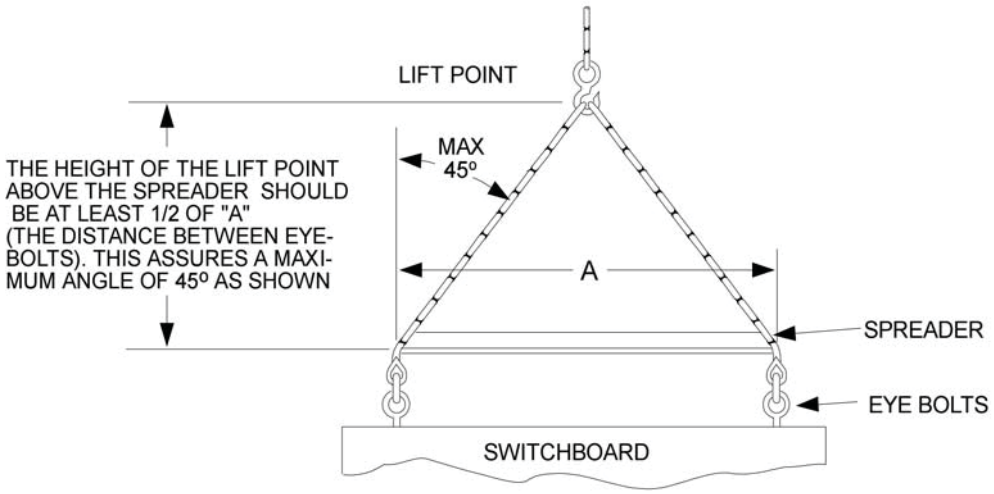

Figure 2-1
LIFTING WITH EYE BOLTS

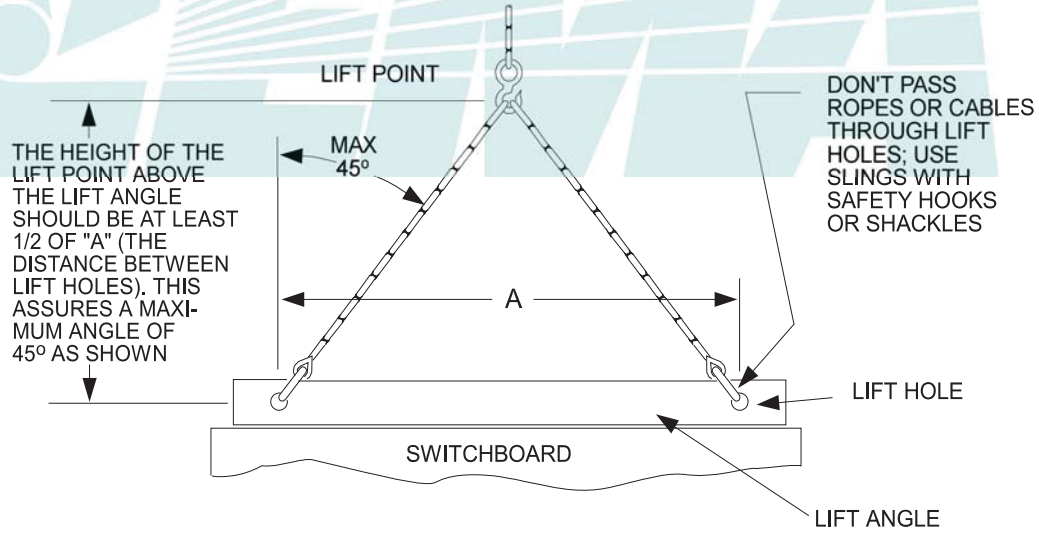

Figure 2-2
LIFTING WITH INTEGRAL LIFT ANGLE

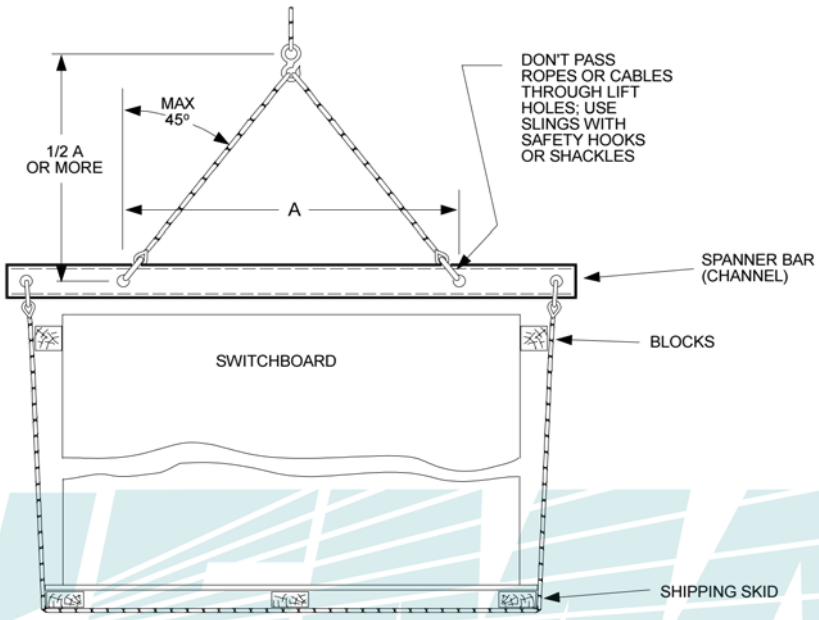

Figure 2-3
LIFTING WITH SLING RIGGING

Section 3
STORAGE

3.1 CLEAN, DRY SPACE HAVING UNIFORM TEMPERATURE

A switchboard that is not installed and energized immediately should be stored in a clean, dry space having a uniform temperature to prevent condensation. Preferably, it should be stored in a heated building having adequate air circulation and protected from dirt, fumes, water, and physical damage.

3.2 PROTECTION FROM WEATHER AND DIRT

It is recommended that switchboards should not be stored outdoors. However, if it must be stored outdoors, cover it securely to provide protection from weather and dirt. Temporary electrical heating should be installed to prevent condensation; approximately 250 watts per section is adequate for the average switchboard size and environment. All loose packing or flammable materials inside the switchboard should be removed before energizing space heaters.

3.3 OUTDOOR SWITCHBOARDS ARE NOT WEATHER RESISTANT UNTIL INSTALLED

Outdoor switchboards are not weather resistant until completely and properly installed and should be treated exactly the same as indoor switchboards until after they are installed.

3.4 UN-ENERGIZED OUTDOOR SWITCHBOARD SHOULD BE KEPT DRY INTERNALLY

An un-energized outdoor switchboard should be kept dry internally by installing temporary heating (see 3.2) or by energizing any self-contained space heaters.

Section 4
INSTALLATION OF SWITCHBOARD OR ENCLOSURE

4.1 MANUFACTURER'S INSTALLATION INSTRUCTIONS

Install the switchboard in a neat and workmanlike manner following the manufacturer's installation instructions, if available.

4.2 LOCATION

Locate the switchboard in the area indicated on the building plans. The switchboard enclosure should be suitable for the environment or protected by other means. Additional precautions may be necessary, during installation, to prevent moisture, water, or other contaminants from entering and accumulating within the enclosures. Clearances or working spaces are as follows:

4.2.1 Clearance from Walls

Clearance from walls (not rear accessible)—minimum of 1/2 inch

4.2.2 Working Clearances

Working clearances vary substantially depending on voltage and specific applications. See Section 110.26 of the *National Electrical Code.*

NOTE—Spaces for working clearances and clearances from walls should not be used for storage. Working spaces should have adequate lighting.

4.3 CHANNEL SILLS

When channel sills are used, they should be embedded in the concrete floor or grouted on the surface. In either case, they should be installed in an aligned position and be level over the entire length prior to installing the switchboard.

4.4 CONDUIT AND OTHER RACEWAYS

Position the switchboard so that the raceway stubs or floor openings are located in the area specified on the manufacturer's drawing. In the absence of drawings, locate the switchboard over the raceways or floor openings so as to provide cable bending space and clearances to energized parts or other obstructions. See Section 408.10 of the *National Electrical Code*.

4.5 LEVELING AND SECURING

Install the switchboard in its final position, progressively leveling each section and bolting the frames together if they are separated. If necessary, secure the switchboard to walls or other supporting surfaces. Security should not depend on wooden plugs driven into holes in masonry, concrete, plaster, or similar materials.

4.6 SPLICE BUS

Connect all through and ground bus at shipping breaks, using the splice bus and hardware supplied with the switchboard. Tighten bolted connections in accordance with the manufacturer's torque specifications. If not furnished, consult the manufacturer.

4.7 GROUNDING AND BONDING

Ground and bond the switchboard as follows:

4.7.1 Grounded Systems

Switchboard used as service equipment for a grounded system or as a main switchboard for a separately derived system.

4.7.1.1 Grounding Electrode System in Switchboard

If the connection for the grounding electrode system is to be in the switchboard, install a grounding electrode conductor sized in accordance with Sections 250.66 or 250.166 of the *National Electrical Code* from the grounding electrode to the switchboard ground bus or ground terminal designated by the manufacturer. See Sections 250.62 and 250.64 of the *National Electrical Code*.

4.7.1.2 Switchboards Used as Service Equipment on Grounded Systems

Switchboards used as service equipment on systems that are grounded at any point are required to have a grounded conductor brought to the switchboard in accordance with Section 250.24(C) of the *National Electrical Code*. This conductor is required even if the switchboard is supplying loads that are only phase-to-phase connected.

4.7.1.3 Installation of Main Bonding Jumper

Unless already done at the factory, install the main bonding jumper from the incoming grounded conductor bus (neutral) to the ground bus or other location designated by the manufacturer.

4.7.1.4 Steps 4.7.1.1 Through 4.7.1.3

Steps 4.7.1.1 through 4.7.1.3 must effectively connect together the grounding electrode, the switchboard frame, all outgoing equipment grounding conductors, and the grounded conductor bus (neutral) of the system on the supply side of any neutral disconnecting link.

4.7.1.5 Neutral Disconnecting Link

Do not connect any grounding conductors to the load side of any neutral disconnecting link or any sensor used for ground fault protection. Do not connect equipment grounding conductors directly to the grounded conductor bus (neutral).

4.7.1.6 Dual Fed Switchboard or System

Where the switchboard or system is dual fed (double-ended) and has ground fault protection, special precautions are necessary to accomplish proper grounding and bonding. Follow the manufacturer's instructions.

4.7.2 Ungrounded Systems—Service Equipment or Separately Derived System Main

4.7.2.1 Conductor Sized in Accordance with *National Electrical Code*

Install a grounding electrode conductor sized in accordance with Sections 250.66 or 250.166 of the *National Electrical Code* from the grounding electrode to the switchboard ground bus or ground terminal designated by the manufacturer. See Sections 250.62 and 250.64 of the *National Electrical Code*. This should effectively connect together the grounding electrode, the switchboard frame, and all outgoing equipment grounding conductors.

4.7.3 Grounded or Ungrounded Systems

Applications other than service equipment or other than main for separately derived systems.

4.7.3.1 Grounding Conductor Size in Accordance with *National Electrical Code*

Ground the switchboard frame and any ground bus by means of an equipment grounding conductor having a size in accordance with Section 250.122 of the *National Electrical Code* and run with the main supply conductors or by bonding to the raceway enclosing the main supply conductors in accordance with Sections 250.118 and 250.120 of the *National Electrical Code*.

4.8 UNUSED OPENINGS

Effectively close all unused openings in the switchboard enclosure.

4.9 DAMP INDOOR LOCATIONS

In damp indoor locations, shield the switchboard so as to prevent moisture and water from entering and accumulating therein.

4.10 UNUSUAL SERVICE CONDITIONS

Unless the switchboard has been designed for unusual service conditions, it should not be located where it will be exposed to ambient temperatures above 40°C (104°F), high humidity, corrosive or explosive fumes, dust, vapors, dripping or standing water, abnormal vibration, mechanical shock, tilting, or other unusual operating conditions.

Section 5
INSTALLATION OF CONDUIT AND CONDUCTORS

5.1 PREVENT MOISTURE OR WATER FROM ENTERING

Conduits and other raceways should be installed to prevent moisture or water from entering and accumulating within the enclosure. All metallic raceways (including stubs) should be bonded to the switchboard. All raceways should be located in the areas recommended by the manufacturer to avoid conductor interference with structural members and live parts. Before pulling any conductors into the switchboard, verify that their size, temperature rating, and conductor insulation comply with the switchboard markings. See Section 110.14(C) of the *National Electrical Code*.

5.2 TEMPERATURE RATINGS

Care should be exercised to ensure that the types and temperature ratings of conductors being installed in the switchboard are suitable for use with the terminals which have been provided.

5.3 COMPRESSION (CRIMP) TERMINALS

If compression (crimp) terminals are used, crimp with the tool(s) recommended by the manufacturer.

5.4 STRIPPING INSULATION FROM CONDUCTORS

Care should be exercised in stripping insulation from the conductors so as not to nick or ring the conductor. For aluminum, clean all oxide from the stripped portion and apply an oxide inhibiting compound. All mechanical terminals should be tightened per the manufacturer's torque specifications. If not furnished, consult the manufacturer.

5.5 PROPER WIRING METHODS

Refer to Article 300 of the *National Electrical Code* for proper wiring methods. Conductors should enter the switchboard in the section in which they are to be terminated, except as noted in Section 408.3(A)(3) of the *National Electrical Code.*

5.6 CONDUCTOR LOCATION IN SWITCHBOARD

Provision should be made to locate conductors in the switchboard so that they will be free from physical damage and to avoid overheating. If required by the manufacturer's instructions, secure the conductors as necessary in order to withstand short-circuit forces. The largest practical bending radii should be maintained to avoid damaging the insulation and causing terminals to loosen. Exercise care so that the conductors will not interfere with any moving parts.

5.7 CONDUCTORS 1/0 AWG IN SIZE AND LARGER

Conductors 1/0 AWG in size and larger may be run in parallel. All parallel conductors should be of the same size, length, and material to assure the equal division of current, as required by Section 310.4 of the *National Electrical Code*. If conductors pass through metal having magnetic properties, all of the circuit conductors, including the neutral, should be run through the same opening, as specified by Section 300.20(A) of the *National Electrical Code*.

5.8 INCOMING AND OUTGOING CONTROL CONNECTIONS

All incoming and outgoing control connections should be made in accordance with the switchboard manufacturer's schematic and wiring diagrams.

5.9 PREVENT CONDUCTOR INSULATION FROM CRACKING OR SPLITTING

Installation of conductors should be done at temperatures above freezing to prevent conductor insulation from cracking or splitting, unless the conductor insulation is suitable for installation at temperatures below freezing.

5.10 *NATIONAL ELECTRICAL CODE*, SECTION 725.54

Refer to the National Electrical Code, Section 725.54 for the separation requirements for conductors of Class 2 and Class 3 remote control, signaling and power-limited circuits.

Section 6
INSTALLATION OF SWITCHBOARD INTERIOR

6.1 INSTRUCTIONS IF SWITCHBOARD INTERIOR WAS NOT FACTORY–MOUNTED

Follow these instructions if the switchboard interior(s) was not mounted at the factory.

6.2 UNPACKING

Exercise care in unpacking the switchboard interior to prevent damage.

6.3 INSPECTION

Check for shipping damage and check to make sure the interior is the correct one for the installation.

6.4 STORAGE

Store the switchboard interior in a clean dry place where it will not be subject to physical damage.

6.5 CLEANING

Clean the switchboard enclosure of all foreign material prior to the installation of the interior. If parts at connection points are splattered with cement, plaster, paint, or other foreign material, remove the foreign material with great care to avoid damage to the plating.

CAUTION—Hydrocarbon spray propellants and hydrocarbon based sprays or compounds will cause degradation of certain plastics. Contact the switchboard manufacturer before using these products to clean, dry, or lubricate switchboard components during installation or maintenance.

6.6 MANUFACTURER'S INSTRUCTIONS

Carefully follow the switchboard manufacturer's instructions.

6.7 INTERIOR INSTALLATION

Install the interior and tighten it securely in the enclosure. Install the section bus connection to the through bus, if needed.

Section 7
STEPS TO BE TAKEN BEFORE ENERGIZING

7.1 ACCESSIBLE ELECTRICAL CONNECTIONS

Tighten all accessible electrical connections to the manufacturer's torque specifications. If such information is not provided with the equipment, consult the manufacturer.

7.2 BLOCKS OR OTHER TEMPORARY HOLDING MEANS

Remove all blocks or other temporary holding means used for shipment from all component devices and the switchboard interior.

7.3 INTEGRITY OF ALL BUS MOUNTING MEANS

Check the integrity of all bus mounting means.

7.4 ENCLOSURE

Check the enclosure to see that it has not been damaged in such a manner as to reduce electrical spacings.

7.5 OPERATING MECHANISMS

Manually exercise all switches, circuit breakers, and other operating mechanisms to make certain that they operate freely.
Check the integrity of all electrical and mechanical interlocks and padlocking mechanisms. For key interlocked systems, assure that only the required number of keys are accessible to the operator

7.6 ELECTRICAL INSULATION RESISTANCE TEST

Conduct an electrical insulation resistance test to ensure that the switchboard is free from short circuit or ground fault conditions. With the neutral isolated from ground and the switches and circuit breakers open, conduct electrical insulation resistance tests from phase to phase, phase to ground, phase to neutral, and neutral to ground. If the resistance reads less than 1 megohm while testing with the branch circuit devices in the open position, the system may be unsafe and should be investigated. If after the investigation and possible corrections, low readings are still observed, the manufacturer should be contacted. Some electronic equipment (metering, TVSS, etc.) may be damaged by this testing. Refer to the manufacturer's equipment markings for guidelines.

7.7 ELECTRICAL RELAYS, METERS, AND INSTRUMENTATION

Check electrical relays, meters, and instrumentation to determine that connections are made properly and that the devices function properly.

7.8 ELECTRICALLY OPERATED SWITCHES, CIRCUIT BREAKERS, AND OTHER MECHANISMS

With loads disconnected, electrically exercise all electrically operated switches, circuit breakers, and other mechanisms to determine that the devices operate properly. An auxiliary source of control power may be necessary to provide power to the electrical operators.

7.9 GROUND FAULT PROTECTION SYSTEM

Test the ground fault protection system (if furnished) in accordance with the manufacturer's instructions. See Section 230.95 of the *National Electrical Code* and NEMA Standards Publication PB 2.2.

7.10 ADJUSTABLE TIME CURRENT TRIP DEVICE SETTINGS

Set any adjustable time current trip device settings to the proper values.

NOTE—Experience has indicated that damage from overcurrent can be reduced if the devices used for overload and short-circuit protection are set to operate instantaneously (that is, without intentional time delay) at 115 percent of the highest value of phase current which is likely to occur as the result of any anticipated motor starting or welding currents.

7.11 FIELD WIRING

Make certain that field wiring is clear of live parts and, when specified by the manufacturer, physically secured to withstand the effects of short circuits.

7.12 GROUNDING CONNECTIONS

Check to determine that all grounding connections are properly made. If the switchboard is used as service equipment, make certain that the neutral, if present, is properly bonded to the cabinet. If there is no ground bus, make certain that the sections of the switchboard which are shipped separately are connected in such a way as to ensure a continuous grounding path.

7.13 FOREIGN MATERIAL

Remove all foreign material from the inside of the switchboard before closing the enclosure.

7.14 COVERS AND DOORS

Install covers, close doors, and make certain that no conductors are pinched and that all enclosure parts are properly aligned and tightened.

Section 8
ENERGIZING EQUIPMENT

WARNING—HAZARDOUS VOLTAGES IN ELECTRICAL EQUIPMENT CAN CAUSE SEVERE PERSONAL INJURY OR DEATH. ENERGIZING A SWITCHBOARD FOR THE FIRST TIME AFTER INITIAL INSTALLATION OR MAINTENANCE IS POTENTIALLY DANGEROUS.

8.1 QUALIFIED PERSONNEL PRESENT

Only qualified personnel should energize equipment for the first time. If short circuit conditions caused by damage or poor installation practices have not been detected in the checkout procedure specified in Section 7, serious personal injury and damage can occur when the power is turned on.

8.2 NO LOAD ON SWITCHBOARD

There should be no load on the switchboard while it is being energized. Turn off all the downstream loads.

8.3 ENERGIZED IN SEQUENCE

The equipment should be energized in sequence by starting at the source end of the system and working towards the load end. In other words, energize the main devices, then the feeder devices, and then the branch-circuit devices. Turn the devices on with a firm positive motion.

8.4 AFTER ALL MAIN, FEEDER, AND BRANCH CIRCUIT DEVICES HAVE BEEN CLOSED

After all main, feeder, and branch circuit devices have been closed, loads such as lighting circuits, contactors, heaters, and motors may be turned on.

Section 9
MAINTENANCE

9.1 MAINTENANCE PROGRAM FOR SWITCHBOARDS

A maintenance program for switchboards should be conducted on a regularly scheduled basis in accordance with the following:

9.2 FIELD TEST

A switchboard which has been carrying its regular load for at least 3 hours just prior to inspection should be field tested by feeling the deadfront surfaces of circuit breakers, switches, interior trims, doors, and enclosure sides with the palm of the hand. If the temperature of these surfaces does not permit you to maintain contact for at least 3 seconds, this may be an indication of trouble and investigation is necessary. Thermographic (infrared) scanning has become a useful method of investigating thermal performance.

WARNING—HAZARDOUS VOLTAGES IN ELECTRICAL EQUIPMENT CAN CAUSE SEVERE PERSONAL INJURY OR DEATH. UNLESS OTHERWISE SPECIFIED, INSPECTION AND MAINTENANCE SHOULD ONLY BE PERFORMED ON SWITCHBOARDS TO WHICH POWER HAS BEEN TURNED OFF, DISCONNECTED AND ELECTRICALLY ISOLATED SO THAT NO ACCIDENTAL CONTACT CAN BE MADE WITH ENERGIZED PARTS. FOLLOW ALL MANUFACTURER'S WARNINGS AND INSTRUCTIONS.

Safety related work practices, as described in NFPA 70E, should be followed at all times.

CAUTION—Hydrocarbon spray propellants and hydrocarbon based sprays or compounds will cause degradation of certain plastics. Contact the switchboard manufacturer before using these products to clean, dry, or lubricate switchboard components during installation or maintenance.

9.3 SWITCHBOARD INSPECTION ONCE EACH YEAR

Inspect the switchboard once each year or after any severe short circuit.

9.4 ACCUMULATION OF DUST AND DIRT

If there is an accumulation of dust and dirt, clean out the switchboard by using a brush, vacuum cleaner, or clean lint-free rags. Avoid blowing dust into circuit breakers or other components. Do not use a blower or compressed air.

9.4.1 All Visible Electrical Joints and Terminals

Carefully inspect all visible electrical joints and terminals in the bus and wiring system.

9.4.2 All Conductors and Connections

Visually check all conductors and connections to be certain that they are clean and secure. Loose and/or contaminated connections increase electrical resistance which can cause overheating. Such overheating is indicated by discoloration or flaking of insulation and/or metal parts. Pitting or melting of connecting surfaces is a sign of arcing due to a loose, or otherwise poor connection. Parts which show evidence of overheating or looseness should be cleaned and re-torqued or replaced if damaged. Tighten bolts and nuts at bus joints to manufacturer's torque specifications.

CAUTION—Do not remove plating from aluminum parts in joints or terminations. Damage to plating can result in overheating. Replace damaged aluminum parts.

9.4.3 Fuse Clip Contact Pressure and Contact Means

Examine fuse clip contact pressure and contact means. If there is any sign of overheating or looseness follow the manufacturer's maintenance instructions or replace the fuse clips. Loose fuse clips can result in overheating.

9.4.4 All Conditions Which Caused Overheating

Be sure that all conditions which caused the overheating have been corrected.

9.5 PROPER AMPERE, VOLTAGE, AND INTERRUPTING RATINGS

Check circuit breakers, switches, and fuses to ensure they have the proper ampere, voltage, and interrupting ratings. Ensure that non-current-limiting devices are not used as replacements for current-limiting devices. Never attempt to defeat rejection mechanisms which are provided to prevent the installation of the incorrect class of fuse.

9.5.1 All Mechanisms Are Free and in Proper Working Order

Operate each switch or circuit breaker several times to ensure that all mechanisms are free and in proper working order. Replace as required. See NEMA AB 4 for maintenance of molded case circuit breakers.

9.6 OPERATION OF ALL MECHANICAL COMPONENTS

Check the operation of all mechanical components. Replace as required.

9.6.1 Full On and Off Positions

Exercise switch operating mechanisms and external operators for circuit breakers to determine that they operate freely to their full on and off positions.

9.6.2 Integrity of Electrical and Mechanical Interlocks

Check the integrity of all electrical and mechanical interlocks and padlocking mechanisms. For key interlocked systems, assure that only the required number of keys are accessible to the operator.

9.6.3 Missing or Broken Parts

Whenever practical, check all devices for missing or broken parts, proper spring tension, free movement, corrosion, dirt, and excessive wear.

9.6.4 Manufacturer's Instructions

Adjust, clean, and lubricate or replace parts according to the manufacturer's instructions.

9.6.4.1 Clean, Nonmetallic, Light, Grease or Oil

Use clean, nonmetallic, light grease or oil as instructed.

9.6.4.2 Molded Case Circuit Breakers

Do not oil or grease parts of molded case circuit breakers.

9.6.4.3 Lubrication with Clean, Light Grease

If no instructions are given on the devices, sliding copper contacts, operating mechanisms, and interlocks, they may be lubricated with clean, light grease.

9.6.4.4 Excess Lubrication

Wipe off excess lubrication to avoid contamination.

CAUTION—Hydrocarbon spray propellants and hydrocarbon based sprays or compounds will cause degradation of certain plastics. Contact the switchboard manufacturer before using these products to clean, dry, or lubricate switchboard components during installation or maintenance.

9.6.5 Readily Accessible Copper Electrical Contacts, Blades, and Jaws

Clean and dress readily accessible copper electrical contacts, blades, and jaws according to the manufacturer's instructions when inspection indicates the need.

9.7 DETERIORATED INSULATING MATERIAL AND ASSEMBLIES

Look for and replace deteriorated insulating material and assemblies where sealing compounds have melted.

9.8 MOISTURE OR SIGNS OF PREVIOUS WETNESS

Look for any moisture or signs of previous wetness or dripping inside the switchboard.

NOTE—Condensation in conduits or dripping from outside sources is one known cause of switchboard malfunction.

9.8.1 Conduits Which Have Dripped Condensate

Seal off any conduits which have dripped condensate, and provide means for further condensate to drain away from the switchboard.

9.8.2 Cracks or Openings

Seal off any cracks or openings which have allowed moisture to enter the enclosure. Eliminate the source of any dripping on the enclosure and any other source of moisture.

9.8.3 Insulating Material Which is Damp

Replace or thoroughly dry and clean any insulating material which is damp or wet or shows an accumulation of deposited material from previous wettings.

9.8.4 Moisture Damaged Component Device

Inspect all component devices. Replace any component device which shows evidence of moisture damage or has been subjected to water damage or flooding. Additional information may be found in the NEMA document *Guidelines for Handling Water Damaged Electrical Equipment*.

9.9 WATER DAMAGE

In the event of water damage, e.g., flooding or sprinkler discharge, the manufacturer should be consulted before clean up and corrective action is attempted.

9.10 SEVERE ELECTRICAL SHORT CIRCUIT

If a severe electrical short circuit has occurred, the excessive currents may have resulted in structural component and/or bus and conductor damage due to mechanical distortion, thermal damage, metal deposits, or smoke. Examine all devices and bus supports for cracks or breakage. The manufacturer should be consulted before clean up and correction is attempted.

9.11 GROUND FAULT PROTECTION SYSTEM

Test the ground fault protection system (if furnished) in accordance with the manufacturer's instructions. See Section 230.95 of the *National Electrical Code* and NEMA Standards Publication PB 2.2.

9.12 INSULATION RESISTANCE

Check insulation resistance (See 7.6) under any of the following conditions:

a. If a severe short circuit has occurred. (See 9.10)
b. If it has been necessary to replace parts or clean insulating surfaces
c. If the switchboard has been exposed to high humidity, condensation, or dripping moisture.

Section 10
PERMISSIBLE LOADING OF SWITCHBOARDS

10.1 SWITCHBOARDS WITHOUT MAIN OVERCURRENT PROTECTIVE DEVICES

For switchboards without main overcurrent protective devices (main lug switchboard), the total continuous load current through the supply bus should not exceed the current rating of the switchboard.

10.2 SWITCHBOARDS WITH A SINGLE MAIN OVERCURRENT PROTECTIVE DEVICE

For switchboards with a single main overcurrent protective device, the total continuous load current on the protective device should not exceed 80 percent of its ampere rating unless the device is rated to carry 100 percent of its ampere rating.

10.3 SWITCHBOARDS WITH A MULTIPLE MAIN OVERCURRENT PROTECTIVE DEVICE

For switchboards with a multiple main overcurrent protective devices, the total continuous current through the supply bus should not exceed the current rating of the switchboard. The total continuous load current on each main overcurrent protective device should not exceed 80 percent of its ampere rating unless the device is rated to carry 100 percent of its ampere rating.

10.4 FEEDER AND BRANCH CIRCUIT OVERCURRENT PROTECTIVE DEVICES IN SWITCHBOARDS

For feeder and branch circuit overcurrent protective devices in switchboards, the total continuous load current on the overcurrent protective device should not exceed 80 percent of its ampere rating unless the device is rated to carry 100 percent of its ampere rating.

10.5 HARMONICS IN THE ELECTRICAL SYSTEM

Some types of electrical equipment cause harmonics in the electrical system which may result in overheating. This condition should be considered when determining switchboard loading.

§

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PROJECT STATUS: MARCH 30, 2016

AVTA electric bus charging at Lancaster LCP and Palmdale PTC.

Lancaster status:

80-85% complete

Switchgear scheduled for April 5 delivery

Edison wiring up to two weeks after switchgear install

Still need structural calculations by licensed engineer for seismic force resistance. Part of Contractor's responsibility in contract.

Palmdale status:

15-20% complete. No pay application submitted as of 3/30/2016.

Transformer pad in place with uncovered conduits to POC

Uncovered conduits in place between transformer pad and switchgear area and from switchgear area to excavated area for WAVE equipment

Need fence submittal/change order from Contractor for minor changes and credits due to bollards elimination and re-use of existing fence.

Still need structural calculations by licensed engineer for seismic force resistance. Part of Contractor's responsibility in contract.

AVTA electric bus charging (85 ebus) at AVTA

Design 70-75% complete(Site Plan, Grading, Electrical Design, Traffic Control, Horizontal Control, Erosion Control)

Received Edison plans for review

Our final design will go to Edison for final review and any necessary modifications

SECTION C - BID FORMS

ATTACHMENT 1 – ACKNOWLEDGEMENT AND AGREEMENT FORM

IFB NO.: 2016-22

IFB TITLE: AVTA ELECTRIC BUS CHARGING AT LANCASTER CITY PARK

TO THE ANTELOPE VALLEY TRANSIT AUTHORITY, as AGENCY

In accordance with AGENCY'S notice of Invitation For Bid, the undersigned BIDDER hereby proposes to furnish all materials, equipment, tools, labor, permits, taxes and incidentals required for the above-stated project as set forth in the Plans, Specifications, and contract documents therefore, and to perform all work in the manner and time prescribed therein.

BIDDER declares that this bid is based upon careful examination of the work site, Plans, Specifications, Instruction to Bidders and all other contract documents. If this proposal is accepted for award, BIDDER agrees to enter into a contract with AGENCY at the unit and/or lump-sum prices set forth in the following Bid Schedule. BIDDER understands that failure to enter into a contract in the manner and time prescribed will result in forfeiture to AGENCY of the guarantee accompanying this bid.

BIDDER understands that a bid is required for the entire work that the estimated quantities set forth in the Bid Schedule Form are solely for the purpose of comparing bids and that final compensation under the contract will be based upon the actual quantities of work satisfactorily completed. THE AGENCY RESERVES THE RIGHT TO INCREASE OR DECREASE THE AMOUNT OF ANY QUANTITY SHOWN AND TO DELETE ANY ITEM FROM THE CONTRACT. It is agreed that the unit and/or lump-sum prices bid include all appurtenant expenses, taxes, royalties and fees. In the case of discrepancies in the amounts bid, unit prices shall govern over extended amounts, and words shall govern over figures.

If awarded the Contract, the undersigned further agrees that in the event of the BIDDER'S default in executing the required contract and filing the necessary bonds and insurance certificates within 10-working days after the date of AGENCY'S notice of award of contract to the BIDDER, the proceeds of the security accompanying this bid shall become the property of the AGENCY and this bid and the acceptance hereof may, at the AGENCY'S option, be considered null and void.

Eco Energy Solutions, Inc. High Volt Electric

Bidder

11/02/2015

Date

FAILURE TO SUBMIT THIS FORM SHALL BE CAUSE FOR BID REJECTION

ATTACHMENT 2 – NON-COLLUSION DECLARATION

IFB NO.: 2016-22

IFB TITLE: AVTA ELECTRIC BUS CHARGING AT LANCASTER CITY PARK

The undersigned declares under penalty of perjury as follows:

1. I am employed by High Volt Electric of California the party making the foregoing bid as Primary Contractor.

2. The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation.

3. The bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding.

4. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract.

5. All statements contained in the bid are true.

6. The bidder has not, directly or indirectly, submitted the bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Date: 11/02/2015 By: Karo Gyonjyan

FAILURE TO SUBMIT THIS FORM SHALL BE CAUSE FOR BID REJECTION

ATTACHMENT 3 – BIDDER'S INFORMATION FORM

IFB NO.: 2016-22

IFB TITLE: AVTA ELECTRIC BUS CHARGING AT LANCASTER CITY PARK

BIDDER certifies that the following information is true and correct:

Bidder's Name: Eco Energy Solutions, Inc. High Volt Electric

Business Address: 9410 DeSoto Ave, Unit H

Chatsworth, CA 91311

Telephone: 818-993-3732

State Contractor's License No. and Class: 963370, A, B, C10

Original Date Issued: 6/14/2012 Expiration Date: 6/30/2016

The following are the names, titles, addresses, and telephone numbers of all individuals, firm members, partners, joint venture's, and/or corporate officers having a principal interest in this bid:

Karo Gyonjyan, President, 17927 Chase Street, Northridge, CA 91325 818-339-6786

Frank Mirjahangir, Officer, 15145 Woodlawn Ave, Suite 200, Tustin, CA 92780

The dates of any voluntary or involuntary bankruptcy judgments against any principal having an interest in this bid, or any firm corporation, partnership or joint venture of which any principal having an interest in this proposal was an owner, corporate officer, partner, or joint venture are as follows:

N/A

All current and prior DBA's alias, and/or fictitious business names for any principal having an interest in this bid are as follows:

Amiran Construction Company

[Signature on Next Page]

IN WITNESS WHEREOF, BIDDER executes and submits this bid with the names, title, hands, and seals of all forenamed principals this 22 day of November, 2015.

BIDDER Eco Energy Solutions, Inc. High Volt Electric

Subscribed and sworn to (or affirmed) before me on this 22 day of November, 2015, by _____, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

See Attach

(Seal) NOTARY PUBLIC Signature _____

FAILURE TO SUBMIT THIS FORM SHALL BE CAUSE FOR BID REJECTION

California Jurat Certificate

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of Los Angeles S.S.

Subscribed and sworn to (or affirmed) before me on this 29 day of Oct,

20 15, by KARO GYONJYAN and

_____, proved to me on the basis of

satisfactory evidence to be the person(s) who appeared before me.

Patricia Bird

PATRICIA BIRD
Commission # 2046217
Notary Public - California
Los Angeles County
My Comm. Expires Oct 20, 2017

OPTIONAL INFORMATION

Description of Attached Document

The certificate is attached to a document titled/for the purpose of

Bidders Information Form

containing 02 pages, and dated 10/29/15

Method of Affiant Identification

Proved to me on the basis of satisfactory evidence:
form(s) of identification credible witness(es)

Notarial event is detailed in notary journal on:

Page # _____ Entry # _____

Notary contact: _____

Other

Affiant(s) Thumbprint(s) Describe: _____

ATTACHMENT 4 – BID SCHEDULE FORM

IFB NO.: 2016-22

IFB TITLE: ELECTRIC BUS CHARGING AT LANCASTER CITY PARK

ITEM NO	DESCRIPTION	QUANTITY ESTIMATE	UNIT	UNIT PRICE	EXTENDED $ AMOUNT
1	Provide 5" underground conduit per the plans, from existing SCE pull box to transformer; patch and repair asphalt surfaces	397	LF	48.10	19,095.70
2	Construct 8' x 10' transformer slab box	1	LS	3,342.60	3,342.60
3	Provide 6 - 4" underground conduits from slab box to 2000 amp panel	20	LF	586.96	11,739.20
4	Construct 6" PCC slab for MSA/DB meter cabinet.	72	SF	419.40	30,196.80
5	Construct 6" PCC curb at MSA/DB and the WAVE equipment support slab	73	LF	47.23	3,447.79
6	Construct 8" thick, 4000 PSI reinforced PCC slab	4.3	CY	233.49	1,004.00
7	Construct 6' iron fence with 5' gate (SPECIALTY)	1	LS	12,616.50	12,616.50
8	Construct 1-3" underground conduit from the MSA/DB meter to the pedestal and 8 -2 1/2" underground conduit from the MSA/DB to stubout locations as shown on the plans.	1	LS	1,209.73	1,209.73
9	Construct Inductive Power Transfer (IPT) unit primary pad 20" thick, 5,000 PSI reinforced PCC with steel frame	1	LS	7,067.82	7,067.82
10	Construct 3" Sealtite underground conduit from the electronics cabinet to the IPT	1	LS	20,624.30	20,624.30
11	Construct 2 1/2" underground conduit from the pedestal to the BYD interface charger, backfill and patch per plans	1	LS	3,866.60	3,866.60
12	Provide and place conduit risers at wave equipment enclosure	1	LS	1,518.01	1,518.01
13	Replace existing 6" PCC curb and gutter at Inductive Power Transfer (IPT) unit	28	LF	94.64	2,649.92
14	Receive and install WAVE equipment	1	LS	8,560.40	8,560.40
15	Provide and install MSA/DB cabinet and equipment	1	LS	27,285.90	27,285.90
16	Provide and install all wiring as specified in the plans and specifications	1	LS	7,526.20	7,526.20
17	Saw cut AC paving (SPECIALTY)	1180	LF	18.76	22,136.80
18	Saw cut PCC walks/gutter (SPECIALTY)	81	LF	18.76	1,519.56

ATTACHMENT 4 – BID SCHEDULE FORM (Continued)

IFB NO.: 2016-22

IFB TITLE: ELECTRIC BUS CHARGING AT LANCASTER CITY PARK

ITEM NO	DESCRIPTION	QUANTITY ESTIMATE	UNIT	UNIT PRICE	EXTENDE $ AMOUN
19	Construct BYD foundation pad	1	LS	1,750.76	1,750.7
20	Install BYD interface charger	1	LS	2,150.96	2,150.9
21	Seal WAVE conduits and equipment as required	1	LS	5,860.61	5,860.6
22	Repair and/or landscaping (SPECIALTY)	1	LS	5,860.61	5,860.6
23	Provide for traffic control (SPECIALTY)	1	LS	4,154.50	4,154.5
24	Restore all striping effected by construction (SPECIALTY)	1	LS	5,860.61	5,860.6
25	Cold Mill (SPECIALTY)	1	LS	5,860.61	5,860.6
26	Construct 12" crushed aggregate base under the Wave equipment pad	1	LS	5,860.61	5,860.6
27	Construct 21" crushed aggregate base under the IPT primary pad	1	LS	5,860.61	5,860.6
28	Construct 6" crushed aggregate base under MSA/DB	1	LS	5,860.61	5,860.6
29	Construct 6" crushed aggregate base at City Park Way side walks, curb & gutter, aprons and drains	1	LS	5,860.61	5,860.61
30	Pot holing	10	LS	179.74	1,797.4

TOTAL AMOUNT OF BID IN FIGURES	$ 242,146.33

TOTAL AMOUNT OF BID IN WORDS: (provide written words in space below)

two hundred forty-two thousand one hundred forty-six and thirty-three cents

ATTACHMENT 4 – BID SCHEDULE FORM (Continued)

IFB NO.: 2016-22

IFB TITLE: ELECTRIC BUS CHARGING AT LANCASTER CITY PARK

PERMIT FEES

CONTRACTOR TO BE REIMBURSED BY AVTA FOR ALL PERMITTING FEES		
Item No	PERMIT DESCRIPTION	ESTIMATED AMOUNT
1	City of Lancaster Encroachment Permit Fees	$625.37
2	City of Lancaster B&S permit fees	$1,661.73
3		
	TOTAL ESTIMATED FEES	$2,287.10

ADDENDUM ACKNOWLEDGMENT

(Indicate receipt of the information below)

The modifications to the bid documents noted therein have been considered and all costs thereto are included in the bid sum stated on the Bid Schedule Form. (Contractor to indicate receipt of the information by listing the Addendum No. and Date Issued)	
ADDENDUM NUMBER	DATE OF ADDENDUM ISSUANCE
Addendum #1	9/23/2015
Addendum #2	10/1/2015
Addendum #3	10/6/2015
Addendum #4	10/20/2015

FAILURE TO SUBMIT THIS FORM SHALL BE CAUSE FOR BID REJECTION

ATTACHMENT 5 – BID GUARANTEE BOND

IFB NO.: 2016-22

IFB TITLE: ELECTRIC BUS CHARGING AT LANCASTER CITY PARK

KNOW ALL MEN BY THESE PRESENTS that Eco Energy Solutions, Inc. dba High Volt Electric, as BIDDER, and American Contractors Indemnity Company, as SURETY, are held and firmly bound unto the Antelope Valley Transit Authority, as AGENCY, in the penal sum of Ten Percent of the Total Amount Bid Dollars ($ 10%), which is 10 percent of the total amount bid by BIDDER to AGENCY for the above-stated project, for the payment of which sum, BIDDER and SURETY agree to be bound, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH that, whereas BIDDER is about to submit a bid to AGENCY for the above-stated project, if said bid is rejected, or if said bid is accepted and a contract is awarded and entered into by BIDDER in the manner and time specified, then this obligation shall be null and void, otherwise it shall remain in full force and effect in favor of AGENCY.

IN WITNESS WHEREOF the parties hereto have set their names, titles, hands, and seals this 5th day of October, 2015.

BIDDER Eco Energy Solutions, Inc. dba High Volt Electric
9410 De Soto Ave, Unit H, Chatsworth, CA 91311 (818) 993-3732

SURETY* American Contractors Indemnity Company
625 The City Drive So #130, Orange, CA 92868 (714) 740-7000

James Faustina, Attorney-in-Fact JAZ Bond & Insurance Services, Inc.
18039 Chatsworth St #33166, Granada Hills, CA 91394
(818) 998-9529

Subscribed and sworn to (or affirmed) before me on this _____ day of _____, 201__, by _____, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

(Seal)

NOTARY PUBLIC Signature

* Provide BIDDER/SURETY name, address, and telephone number and the name, title, address, and telephone number for authorized representative.

FAILURE TO SUBMIT THIS FORM SHALL BE CAUSE FOR BID REJECTION

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Los Angeles)

On 10/5/15 before me, A. Weiss Faustina, Notary Public
(insert name and title of the officer)

personally appeared James Faustina,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

A. WEISS FAUSTINA
Commission # 2125958
Notary Public - California
Los Angeles County
My Comm. Expires Sep 28, 2019

Signature A. Weiss Faustina (Seal)

POWER OF ATTORNEY

AMERICAN CONTRACTORS INDEMNITY COMPANY UNITED STATES SURETY COMPANY U.S. SPECIALTY INSURANCE COMPANY

KNOW ALL MEN BY THESE PRESENTS: That American Contractors Indemnity Company, a California corporation, United States Surety Company, a Maryland corporation and U.S. Specialty Insurance Company, a Texas corporation (collectively, the "Companies"), do by these presents make, constitute and appoint:

James Faustina of Granada Hills, California

its true and lawful Attorney(s)-in-fact, each in their separate capacity if more than one is named above, with full power and authority hereby conferred in its name, place and stead, to execute, acknowledge and deliver **any and all bonds, recognizances, undertakings or other instruments or contracts of suretyship to include riders, amendments, and consents of surety, providing the bond penalty does not exceed** *****One Million***** **Dollars** ($ **1,000,000.00**).
This Power of Attorney shall expire without further action on December 08, 2016. This Power of Attorney is granted under and by authority of the following resolutions adopted by the Boards of Directors of the Companies:

Be it Resolved, that the President, any Vice-President, any Assistant Vice-President, any Secretary or any Assistant Secretary shall be and is hereby vested with full power and authority to appoint any one or more suitable persons as Attorney(s)-in-Fact to represent and act for and on behalf of the Company subject to the following provisions:

Attorney-in-Fact may be given full power and authority for and in the name of and on behalf of the Company, to execute, acknowledge and deliver, any and all bonds, recognizances, contracts, agreements or indemnity and other conditional or obligatory undertakings, including any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts, and any and all notices and documents canceling or terminating the Company's liability thereunder, and any such instruments so executed by any such Attorney-in-Fact shall be binding upon the Company as if signed by the President and sealed and effected by the Corporate Secretary.

Be it Resolved, that the signature of any authorized officer and seal of the Company heretofore or hereafter affixed to any power of attorney or any certificate relating thereto by facsimile, and any power of attorney or certificate bearing facsimile signature or facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached.

IN WITNESS WHEREOF, The Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 10th day of December, 2012.

AMERICAN CONTRACTORS INDEMNITY COMPANY UNITED STATES SURETY COMPANY U.S. SPECIALTY INSURANCE COMPANY

Corporate Seals

State of California :

Daniel P. Aguilar, Vice President

County of Los Angeles SS:

On 10th day of December, 2012, before me, Vanessa Wright, a notary public, personally appeared Daniel P. Aguilar, Vice President of American Contractors Indemnity Company, United States Surety Company and U.S. Specialty Insurance Company who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct. WITNESS my hand and official seal.

Signature V. WRIGHT (Seal)

V. WRIGHT
Commission # 1990319
Notary Public - California
Los Angeles County
My Comm. Expires Dec 8, 2016

I, Jeannie Lee, Assistant Secretary of American Contractors Indemnity Company, United States Surety Company and U.S. Specialty Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney, executed by said Companies, which is still in full force and effect; furthermore, the resolutions of the Boards of Directors, set out in the Power of Attorney are in full force and effect.

In Witness Whereof, I have hereunto set my hand and affixed the seals of said Companies at Los Angeles, California this 5th day of October, 2015.

Corporate Seals

Bond No. Bid
Agency No. 7929

Jeannie Lee, Assistant Secretary

ATTACHMENT 6 – REFERENCES

The following are the names, addresses and telephone numbers for three public agencies for which BIDDER has performed similar work within the past 3 years.

1.	Agency/Company:	Los Angeles Community College District
	Address:	1301 Avenida Cesar Chavez, Monterey Park CA 91754
	Contact Person:	John Oda
	Title of Person/Title:	Director of Facility Management
	Type of Work/Amount:	Upgraded campus lighting to LED $219,000.00
	Fax:	
	Person's Email Address:	odajm2@email.laccd.edu
2.	Agency/Company:	Department of Defense
	Address:	74 C Street Building 75, Herlong CA 96113
	Contact Person/Title:	Doug Vittitow - Facility Engineer
	Type of Work/Amount:	Installation of LED Task Lighting $315,000.00
	Phone / Cell:	530 827 4758
	Fax:	530 827 4631
	Person's Email Address:	douglas.r.vittitow@mail.mil
3.	Agency/Company:	Barstow Community College District
	Address:	2700 Barstow Rd, Barstow CA 92311
	Contact Person/Title:	Richard Hernandez - Director of Operations
	Type of Work/Amount:	Retrofit campus lighting to LED
	Phone / Cell:	760 252 2411
	Fax:	760 252 6747
	Person's Email Address:	rhernandez@barstow.edu

*The references listed above will be current contacts responsible for purchasing or the end user of the work proposed.

The following are names, addresses, and telephone numbers of all brokers and sureties from whom BIDDER intends to procure insurance and bonds:

James Faustina-JAZ Bonding-18039 Chatsworth St, Granada Hills CA 91394-8183839175

Steve Tovmasyan-Allstate-1751 Colorado Blvd, Los Angeles CA 90041-3237763355

FAILURE TO SUBMIT THIS FORM SHALL BE CAUSE FOR BID REJECTION

ATTACHMENT 7 – AVTA DISCLOSURE STATEMENT

The following information must be disclosed:

1. List the names of all persons having a financial interest in the Bid.

   Karo Gyonjyan & Frank Mirjahangir

2. If any person identified pursuant to No. 1 above is a corporation or partnership, list the names of all individuals owning more than ten percent of the shares in the corporation or owning any partnership interest in the partnership.

   Karo Gyonjyan (President) 80%
   Frank Mirjahangir (Vice President) 20%

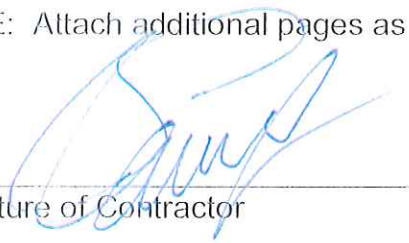
3. If any person identified pursuant to No. 1 above is a nonprofit organization or a trust, list the names of any persons serving as a director of the nonprofit organization or as a trustee or beneficiary or trustor of the trust.

   None

4. Has the Contractor had more than $250.00 worth of business transacted with any members of AVTA staff, boards, commissions, committees, and Council within the past twelve months? If yes, please indicate the person(s) with whom you have conducted business.

   None

NOTE: Attach additional pages as necessary.



11/02/2015

Signature of Contractor Date

Karo Gyonjyan

Print or Type Name of Contractor

FAILURE TO SUBMIT THIS FORM SHALL BE CAUSE FOR BID REJECTION

ATTACHMENT 8 - EXCEPTIONS TO REQUIREMENTS / SPECIFICATIONS

IFB NO.: 2016-22

IFB TITLE: ELECTRIC BUS CHARGING AT LANCASTER CITY PARK

Please list all deviations from Requirements and/or Specifications contained herein and state in the space provided below. Please note item number and description for which you are listing the deviations. Unless an exception is noted below, the AVTA shall assume that all minimum requirements have been met or exceeded.

ITEM NO. DESCRIPTION

PROPOSER'S NAME: Eco Energy Solutions, Inc. High Volt Electric

FAILURE TO SUBMIT THIS FORM SHALL BE CAUSE FOR PROPOSAL REJECTION

ATTACHMENT 9 - SUBCONTRACTOR DISCLOSURE FORM

Part A – PRIME CONTRACTOR'S INFORMATION (Refer to instructions on Page 2 of this form. Bidder shall ensure all information provided is complete and accurate.)

(A1) Prime Contractor's Business Name:	(A1) CA Contractor's License No.	(A2) Solicitation No.	(A3) Date
Eco Energy Solutions Inc dba High Volt Electric	963370	2016-22	10/20/2015

(A1) Prime Contractor's business Address:	(A1) City	(A1) State	(A1) Zip Code
9410 De Soto Ave, Unit H	Chatsworth	CA	91311

(A1) Prime Contact Person:	(A1) Business Phone	(A1) Fax Numoer	(A1) Email Address
Karo Gyonjyan	818 993 3732	8189933739	karo@highvoltelectric.com

Part B – CONTRACTOR / SUB-CONTRACTOR INFORMATION AND DOCUMENTATION (Refer to Instruction on Page 2 of this form. Bidder shall verify CA contractor's license.)

(1) List Name(s) and addresses of all Contractor / Subcontractor / Supplier(s) that will participate in this Agreement	(2) Area Code & Phone No.	(3) Tier	(4) Description of Work, Service, or Materials Supplied	(5) CA Contractor's License Number
Commercial Paving & Coating	323-258-1331	1	Asphalt Paving	475564
King Iron Works, Inc	818-847-1499	1	Iron Work	958424

Part C – DISADVANTAGE BUSINESS ENTERPRISE (DBE) / MINORITY / WOMEN / SMALL BUSINESS CONTRACTOR / SUBCONTRACTOR / SUPPLIER(S) INFORMATION AND DOCUMENTATION: (Refer to Instruction on Page 2 of this form. Bidder shall verify CA contractor's license.)

(1) List Name(s) and addresses of all Disadvantage Business Enterprise (DBE) / Minority / Women / Small Business Contractor / Subcontractor / Supplier(s) That will participate in this Agreement	(2) Area Code & Phone No.	(3) Tier	(4) Description of Work, Service, or Materials Supplied	(5) CA Contractor's License Number
Elevating Sales Corp.	714-404-2023	1	Supplier	1001585

FAILURE TO SUBMIT THIS FORM SHALL BE CAUSE FOR BID REJECTION

INSTRUCTIONS FOR COMPLETING FORM (Please Type or Print Legibly)

PART A – PRIME CONTRACTOR INFORMATION

(A1) Prime Contractor's Business Name. Address. City. State. Zip Code. CA Contractor's License. Contact Person. Business Phone. Fax No.. and Email Address.

(A2) Solicitation number. that is the same number as the Invitation For Bid (IFB) document.

(A3) Date this form is completed.

PART B – CONTRACTOR / SUB-CONTRACTOR DBE INFORMATION AND DOCUMENTS

Column 1 Enter the names and complete address of all Contractor/Subcontractor/Supplier(s) that will be used during this Agreement.

Column 2 Enter the area code and phone number of the corresponding Contractor / Subcontractor / Supplier(s) listed in Column 1.

Column 3 Indicate Tier number for each Contractor/Subcontractor/Supplier(s) in Column 1: 0 = Prime or Joint Contractor. 1 = Primary subcontractor. 2 = Subcontractor/Supplier of level 1 Primary Subcontractor.

Column 4 Enter a description that briefly captures the work to be performed or supplies to be provided by each corresponding Contractor/Subcontractor/Supplier(s) firm listed in Column 1.

Column 5 Enter the California Contractor's License number for the firm listed in Column 1.

PART B – SUB-CONTRACTOR INFORMATION AND DOCUMENTS

Column 1 Enter the names and complete address of all Disadvantage Business Enterprise (DBE) / Minority / Women / Small Business Contractor / Subcontractor / Supplier(s) that will be used during this Agreement

Column 2 Enter the area code and phone number of the corresponding firm listed in Column 1.

Column 3 Indicate Tier number for each DBE/M/W/SB listed in Column 1: 0 = Prime/Joint Contractor. 1 = Primary subcontractor. 2 = Subcontractor/Supplier.

Column 4 Enter a description that briefly captures the work to be performed or supplies to be provided by each corresponding firm listed in Column 1.

Column 5 Enter the California Contractor's License number for the firm listed in Column 1.

ADDITIONAL INFORMATION:

- List all names and locations of the places of business of each subcontractor, supplier, and vendor who will perform work or labor or render service in excess of ½ of 1 percent. or $10.000 (whichever is greater) of the prime Contractor's total bid.

Arrow Engineering - Quick Site Review Summaries
Field Review Reports
Project Name : WAVE at LCP

Date	Time	Workers	Status	Anticipated Effort
2/4/2016				
2/9/2016				
2/11/2016				
2/12/2016				
2/15/2016				
2/16/2016				
2/17/2016				
2/18/2016	7:35 AM	4	Contractor has been working on the Edison transformer area. We tested the fill material near the WAVA equipment yesterday and it passed the 95% compaction requirement.	Daniel said they will be working on the remaining SCE trench.
2/19/2016	7:45 AM	5	Contractor finished slurrying the trench near the WAVE equipment and Edison transformer area. Contract performed some trenching south of the Edison transformer area within the street for the Edison conduit.	The contractor was continuing to work on the SCE trench near the parking lot driveway
2/22/2016	7:35 AM	3	SCE trenching appears almost complete except near the driveway	The contactor is placing the SCE conduit in the trench
2/23/2016	7:50 AM	5	Conduit has been placed in the street except for the intersection and alley areas. The alley area is now being jack hammered	The contractor is finishing a conduit connection near the street cross gutter, installing fill near the transformer and switch gear area. I expect they will perform removals at the alley today.
2/24/2016	7:50 AM	5	They had pulled up the concrete and asphalt at the alley and were working on the SCE trench in that area.	They were working on excavation of the SCE trench in the alley and compacting fill into the transformer area.
2/25/2016	7:35 AM	4	The 2" Sealtite is still sitting in the shipping container. The trench work looked completed near the alley area. It appeared that the contractor was completed with the SCE conduit installation in the trench.	Tidwell was at the site today and was expected to be there half day to make the Edison connections of the conduit in to the SCE structures. The contractor was working inside and around the transformer area and dragging out what appeared to be a fish tape for the SCE conduit.
2/26/2016	7:45 AM	0	Slurry has been added to the trenchs near the transformer and in the alley area of the SCE conduit. The 2" Sealtite has not been installed.	The site is locked up and it appears that no work will be done today.
2/29/2016	7:45 AM	7	same as 2/26/2016. Karo and Daniel were both there today. They had questions regarding grounding of the owner supplied connectors and concerns with connecting the two forms of conduit at the	They are cutting concrete near the alley driveway, placing the pvc conduit and preparing to install the 2" SealTite conduit.
3/1/2016	7:35 AM	3	Changes have been made for the connection to the inductor pan. Rebar dowels have been placed into the existing concrete	Daniel indicated that they will be focusing on the EFL conduit placement and the connection with the pan.
3/2/2016	7:40 AM	3 + Karo	The SealTite conduit and PVC conduit in now installed sufficiently to slurry the trench.	Contractor was beginning the slurry installation for the sealtite trench and getting ready for a concrete pour tomorrow. Contractor asked about a backer rod substitution, and compaction testing tomorrow.
3/3/2016	7:30 AM	Many	Contractor had placed dowels and prepared for pouring concrete within the bus area	The contractor poured concrete from 3 trucks to complete trenches and equipment pads.
3/4/2016	7:40 AM	3	Concrete has been poured for the WAVE equipment pad, trenches, inductor pad, and SCE equipment pad.	The contractor was sweeping and cleaning up the concrete area in preparation for reopening a portion of the work area for bus traffic on Monday. One of the workers said he would be sealing and bolting the inductor unit to prevent moisture damage.

3/7/2016	7:35 AM	0	The fence had been moved over to allow for bus traffic. The site had been cleaned up in the concrete area.	It appeared that no work would be performed today since it was raining.
3/8/2016	7:25 AM	3 HV + 3 Sub	Nothing new accomplished	They were finishing the minor grading around the transformer and getting ready to remove the additional asphalt and concrete at the alley/driveway. Brian the concrete and asphalt contractor expected to get everything ready for new concrete and asphalt Wednesday or Thursday.

SOUTHERN CALIFORNIA EDISON®
An EDISON INTERNATIONAL® Company

Elaine Tan
Claims Representative 2
Elaine.Tan@sce.com

June 14, 2016

201602421
Antelope Valley Transit Authority

RECEIVED
JUN 16 2016
AVTA
Executive Director

CERTIFIED MAIL

Antelope Valley Transit Authority
Attn: Board of Directors
42210 6th St. W
Lancaster, CA 93534

Reference:	Date of Occurrence:	February 17, 2016
	Location:	Drivers Way at City Park Dr Lancaster, CA
	Our File No:	201602421

Gentlemen:

Enclosed is our Claim Against a Governmental Agency.

Attached is our Invoice in the amount of **$2,179.16** for our damaged property/facilities relating to the above referenced claim. We have also enclosed the supporting documents detailing the charges.

The costs reflected in our invoice are calculated in accordance with the California Public Utilities Code Section 7952 which states:

"Any person who injures or destroys, through want of proper care, any necessary or useful facility or equipment of any telegraph, telephone, electrical, or gas corporation, is liable to the corporation for all damages sustained thereby. The measure of damages to the facility or equipment injured or destroyed shall be the cost to repair or replace the property injured or destroyed including direct and allocated costs for labor, materials, supervision, supplies, tools, taxes, transportation, administrative and general expense and other indirect or overhead expenses, less credit, if any, for salvage, as determined by such telegraph, telephone, electrical or gas corporations in conformity with a system of accounts established by the commission. The specifying of the measure of damages for the facility or equipment shall not preclude the recovery of such other damages occasioned thereby as may be authorized by law…."

SOUTHERN CALIFORNIA EDISON®
An EDISON INTERNATIONAL® Company

Elaine Tan
Claims Representative 2
Elaine.Tan@sce.com

Please be aware the Southern California Edison Company (Edison) has established a work order system which tracks all costs associated with specific jobs. Work orders are established for each claim in order to accumulate all costs associated with repairing/replacing the damaged facilities specifically, for each claim. These costs are categorized as follows:

1. LABOR: Represents Edison timesheet labor recorded specifically to the work order(s) for activities required to install, replace, maintain or repair Edison facilities requested or caused by the customer/third party.

2. MATERIAL: Represents materials provided specific to construction activities charged to the work order(s). Materials were either requisitioned from Edison warehouse or purchased and delivered directly to the work site. Materials are inspected and approved by Edison employees.

3. CONTRACT: Represents contractor services provided in relation to construction activities requested or caused by the customer/third party which were directly charged to the work order. Contractor services are inspected and approved by Edison employees.

4. OTHER EXPENSES: Represents reasonable cost related to employee expense, mileage, and short-term equipment rent, as well as meals and lodging related to the work order(s) and covered under the IBEW Union contract while performing construction activities.

5. ALLOCATED COST:

A. Department Allocations – Allocation of Transmission/Distribution department support costs including analytical, engineering and planning for construction activities which are not practical to charge directly to the work order.

B. Service Allocations – Represents the allocation of costs for Edison's internal service providers such as Automotive and Transportation, Procurement and Supply Chain management and includes costs for vehicle maintenance and leases, material warehouse management, and Information Technology device services/support which are not practical to charge directly to the work order.

C. Administrative & General (A&G): Represents the corporate administrative and financial costs (i.e. accounting, office supplies, insurance, utilities, operation and maintenance of the utility system) that support construction activities, but are not practical to charge directly to the work order. Financial Accounting calculates a corporate third party rate annually.

D. Pensions & Benefits (P&B) – Represents the portion of employee retirement pension and medical/dental benefits that are associated with being employed by Edison. This cost is allocated on the normal time labor of crew members performing the work.

P.O. Box 900 2244 Walnut Grove Ave. Rosemead, California 91770 (626)302-6949 Fax (626) 569-2573

SOUTHERN CALIFORNIA EDISON®
An EDISON INTERNATIONAL® Company

Elaine Tan
Claims Representative 2
Elaine.Tan@sce.com

E. Payroll Tax – The Payroll Tax overhead is used to allocate taxes paid by the company for corporate payroll: Federal Insurance Contributions Act (FICA), Federal Unemployment Tax Act, State Unemployment Insurance Tax, and State Employment Training Tax. This cost is allocated on the total labor of crew members performing the work.

6. CREDITS AND ADJUSTMENTS:

A. Joint Pole – Represents other utilities' ownership of pole paid to Edison if applicable.

B. Salvage - Represents the value of the material removed and credited to the job if applicable.

In accordance with the information provided, we are anticipating receipt of your full payment in the amount of **$2,179.16**, within 30 days of the date of this letter. Should payment not be received, we will have no alternative but to forward this matter to our Legal Department for further handling.

A return envelope has been provided for your convenience. If you have any questions, please telephone me. Thank you for your cooperation.

Sincerely,

Elaine Tan

P.O. Box 900 2244 Walnut Grove Ave. Rosemead, California 91770 (626)302-6949 Fax (626) 569-2573

SOUTHERN CALIFORNIA EDISON®
An EDISON INTERNATIONAL® Company

Elaine Tan
Claims Representative 2
Elaine.Tan@sce.com

Our File No. 201602421

CLAIM AGAINST A GOVERNMENTAL AGENCY

The Southern California Edison Company, a corporation, is hereby presenting its claim for damage/loss to Antelope Valley Transit Authority

1.	**Date of occurrence/discovery**	February 17, 2016
2.	**Location of occurrence**	Drivers Way at City Park Dr., Lancaster, CA
3.	**Cause of damage/loss**	High Volt Electric working for and at the direction of the City of Lancaster and Antelope Valley Transit Authority, struck and damaged Edison underground electrical facilities.
4.	**Amount or estimate of damage/loss**	**$2,179.16**
5.	**Name and address (if known) of public employee or agency causing damage**	**N/A**

All correspondence in regard to this claim should be addressed to: Southern California Edison Company (Claims Department), P.O. Box 900, Rosemead, California 91770, Attention: Elaine Tan

VERIFICATION AND CERTIFICATION

State of California, County of Los Angeles (ss.) Elaine Tan, being by me duly sworn, deposes and says: that he/she is a Claims Representative 2 for Southern California Edison Company, a corporation, claimant; that he/she has read the foregoing claim and knows the contents thereof; and that the same is true and correct of his/her own knowledge, except as to the matters which are therein stated upon his/her information or belief, and as to those matters that he/she believes to be true.

Claimant's Signature

SOUTHERN CALIFORNIA EDISON®
An EDISON INTERNATIONAL® Company

Elaine Tan
Claims Representative 2
Elaine.Tan@sce.com

CLAIM BILLING STATEMENT

	Invoice #:	7500661470
	Invoice Date:	6/13/2016
	Service Order #:	000901776707
	Sales Order #:	0000138884
	Sales Order Date:	6/13/2016
DESCRIPTION		**AMOUNT**
Labor Normal Time	$	1312.84
Department Allocations	$	256.43
Administrative and General	$	202.91
Pensions and Benefits	$	311.14
Payroll Tax	$	95.84
Cost to repair and or replace facilities damaged on February 17,2016Located on Drivers Way, Lancaster.		
	Total Amount:	**$2,179.16**

PH-1 - Exhibit R, SCE Letter (2)

FYI

>>> Lyle Block <lblock@avta.com> 6/20/2016 4:37 PM >>>
As requested.

If you have any comments, concerns or questions, please let me know.

Thank you.

Lyle A. Block, CPPB
Disadvantaged Business Enterprise (DBE) Liaison &
Procurement and Contracts Officer

Antelope Valley Transit Authority
42210 6th Street West
Lancaster, CA 93534
Ph: 661.729.2288
Fax: 661.726.2615
www.avta.com
email to: lblock@avta.com
Please consider the environment before printing this message.

From: Len Engel
Sent: Monday, June 20, 2016 4:33 PM
To: Lyle Block <lblock@avta.com>
Cc: Mark Perry <mperry@avta.com>
Subject: FW: May 17, 2016 (14-6366-07)

Len Engel, Executive Director
Antelope Valley Transit Authority
42210 6th Street West, Lancaster, CA 93534
661.729.2206 | Cell: 661.400.7465 | fax: 661.726.2615
lengel@avta.com | AVTA.com

From: Brian Glidden [mailto:bglidden@aesi-consulting.com]
Sent: Monday, June 20, 2016 4:00 PM
To: Len Engel <lengel@avta.com>
Cc: Jim Schroeter <JSchroeter@aesi-consulting.com>

 22/2018

Subject: Re: May 17, 2016 (14-6366-07)

Hi Len,

I did see an SCE truck in the vicinity of the project shortly after the trenching operation. I talked to Daniel and they said he hit the wiring for a street light and they were taking care of it. We need to take the claim out of the money due to High Volt. I thought they were being billed directly. Please forward the SCE documentation. Sorry about the surprise.

Thanks,

Brian

>>> Len Engel <lengel@avta.com> 6/20/2016 2:39 PM >>>
We have a claim from SCE on May 17th

High Volt damaged SCE equipment, do know anything about this. At LCP

Len Engel, Executive Director

Antelope Valley Transit Authority
42210 6th Street West, Lancaster, CA 93534
661.729.2206 | Cell: 661.400.7465 | fax: 661.726.2615
lengel@avta.com | AVTA.com

Jim Schroeter - Lancaster electric bus charging at LCP_ SCE charge to AVTA for repairs to damage caused by High Volt (14-6366-07)

From: Jim Schroeter
To: Mark Perry
Date: 6/23/2016 1:34 PM
Subject: Lancaster electric bus charging at LCP_ SCE charge to AVTA for repairs to damage caused by High Volt (14-6366-07)
CC: Brian Glidden

Mark,

I presume you are aware of the charges to AVTA for the damages to the SC Edison street light facilities at the Lancaster City Park?

This is a reminder that we keep in mind to hold back the amount of damages from payment to High Volt

have not received written claim from High Volt.

Sincerely,

Jim Schroeter, P.E., L.S.
Arrow Engineering (AESI)
WBE/Small Business Enterprise
42140 10th Street West
Lancaster, CA 93534
661-940-0043
661-949-9775 Fax
jschroeter@aesi-consulting.com

Labor Commissioner, State of California Department of Industrial Relations Division of Labor Standards Enforcement Bureau of Field Enforcement- Public Works 6150 Van Nuys Blvd., Suite 100 Van Nuys, CA 91401 TEL: (818) 908-6694 FAX: (818) 908-6699	Edmund G. Brown Jr., Governor
DATE March 13, 2017	In Reply Refer to Case No: 40-52009-313

CIVIL WAGE AND PENALTY ASSESSMENT

Awarding Body ANTELOPE VALLEY TRANSIT AUTHORITY	Work Performed in County of LOS ANGELES COUNTY
PROJECT NAME AVTA ELECTRIC BUS CHARGING @ LANCASTER CITY PARK	Project No IFB No 2016-22
Prime Contractor ECO ENERGY SOLUTIONS INC DBA HIGH VOLT ELECTRIC	
Subcontractor ECO ENERGY SOLUTIONS INC DBA HIGH VOLT ELECTRIC	

After an investigation concerning either the payment of wages to workers employed in the execution of the contract for the above-named public works project or compliance with the apprenticeship standards found in Labor Code section 1777.5, or both, the Division of Labor Standards Enforcement (the "Division") has determined that violations of the California Labor Code have been committed by the contractor and/or subcontractor identified above. In accordance with Labor Code section 1741, the Division hereby issues this Civil Wage and Penalty Assessment.

The nature of the violations of the Labor Code and the basis for the assessment are as follows:
Wage Violations: Failure of affected prime contractor to pay prevailing wages including overtime; misclassified one worker who most of the time operating excavators and bobcats to Laborer and failure to pay all of the training fund on this project in violation of Labor Code section 1775 & 1813 respectively.
1775 Penalty has been mitigated based on the facts by the Senior Deputy at the rate of $60.00 per violation.
Apprenticeship Violations: The affected prime contractor failure to submit contract award information to all applicable Apprentices Committees and a timely manner in violation of pursuant to Labor Code section 1777.5 respectively.
1777.7 penalty has been mitigated based on the facts by the Senior Deputy at the rate of $60.00 per violation.

The attached Audit Summary further details the basis for this Assessment and itemizes the calculation of wages and penalties due under Labor Code sections 1775 and 1813.

The Division has determined that the total amount of wages due is: $4,657.36

The Division has determined that the total amount of penalties assessed under Labor Code sections 1775 and 1813 is: $5,685.00

The Division has determined that the amount of penalties assessed under Labor Code section 1777.7 is: $3,360.00

The Division has determined that the amount of penalties assessed under Labor Code section 1776 against ECO ENERGY SOLUTIONS INC DBA HIGH VOLT ELECTRI is: $0.00

Please refer to page 5 for specific withholding obligations pertaining to these amounts.

STATE LABOR COMMISSIONER

By _____
Yoon-mi Jo
Deputy Labor Commissioner II

PW 33 (Revised 7/2013)

Notice of Right to Obtain Review - Formal Hearing

In accordance with Labor Code Section 1742, an affected contractor or subcontractor may obtain review of this Civil Wage and Penalty Assessment by transmitting a written request to the office of the Labor Commissioner that appears below within 60 days after service of the assessment.
To obtain a hearing, a written Request for Review must be transmitted to the following address:

Labor Commissioner - State of California
Civil Wage and Penalty Assessment Review Office
PO Box 32889
Long Beach, CA 90832

A Request for Review either shall clearly identify the Civil Wage and Penalty Assessment from which review is sought, including the date of the assessment, or it shall include a copy of the assessment as an attachment, and shall also set forth the basis upon which the assessment is being contested. In accordance with Labor Code section 1742, the contractor or subcontractor shall be provided an opportunity to review evidence to be utilized by the Labor Commissioner at the hearing within 20 days of the Labor Commissioner's receipt of the written Request for Review.

Failure by a contractor or subcontractor to submit a timely Request for Review will result in a final order which shall be binding on the contractor and subcontractor, and which shall also be binding, with respect to the amount due, on a bonding company issuing a bond that secures the payment of wages and a surety on a bond. Labor Code section 1743.

In accordance with Labor Code section 1742(d), a certified copy of a final order may be filed by the Labor Commissioner in the office of the clerk of the superior court in any county in which the affected contractor or subcontractor has property or has or had a place of business. The clerk, immediately upon the filing, shall enter judgment for the State against the person assessed in the amount shown on the certified order.

(continued on next page)

Opportunity for Settlement Meeting

In accordance with Labor Code section 1742.1(c), the Labor Commissioner shall, upon receipt of a request from the affected contractor or subcontractor within 30 days following the service of this Civil Wage and Penalty Assessment, afford the contractor or subcontractor the opportunity to meet with the Labor Commissioner or his or her designee to attempt to settle a dispute regarding the assessment. The settlement meeting may be held in person or by telephone and shall take place before the expiration of the 60-day period for seeking a hearing as set forth above under the heading Notice of Right to Obtain Review. No evidence of anything said or any admission made for the purpose of, in the course of, or pursuant to, the settlement meeting is admissible or subject to discovery in any administrative or civil proceeding. This opportunity to timely request an informal settlement meeting is in addition to the right to obtain a formal hearing, and a settlement meeting may be requested even if a written Request for Review has already been made.

Requesting a settlement meeting, however, does not extend the 60-day period during which a formal hearing may be requested.

A written request to meet with the Labor Commissioner or his or her designee to attempt to settle a dispute regarding this assessment must be transmitted to Yoon-mi Jo at the following address:

State of California - Department of Industrial Relations
Division of Labor Standards Enforcement - Public Works Unit
6150 Van Nuys Blvd., Suite 100
Van Nuys, CA 91401

Payment of Civil Wage and Penalty Assessment

Payment of the assessed wages and/or penalties must be made by check or money order payable to the Division of Labor Standards Enforcement and mailed to the following address along with a copy of this Civil Wage and Penalty Assessment:

State of California - Department of Industrial Relations
Division of Labor Standards Enforcement - Cashiering Unit
2031 Howe Avenue, Suite 100
Sacramento, CA 95825-0196

(continued on next page)

Liquidated Damages

In accordance with Labor Code section 1742.1(a), after 60 days following the service of this Civil Wage and Penalty Assessment, the affected contractor, subcontractor, and surety on a bond or bonds issued to secure the payment of wages covered by the assessment shall be liable for liquidated damages in an amount equal to the wages, or portion that still remain unpaid. If the assessment subsequently is overturned or modified after administrative or judicial review, liquidated damages shall be payable only on the wages found to be due and unpaid. If the contractor or subcontractor demonstrates to the satisfaction of the Director of the Department of Industrial Relations that he or she had substantial grounds for believing the assessment or notice to be an error, the Director shall waive payment of the liquidated damages.

Notwithstanding the above, in accordance with Labor Code 1742.1(b), there shall be no liability for liquidated damages if the full amount of the assessment or notice, including penalties, has been deposited with the Department of Industrial Relations, within 60 days following service of the Assessment or Notice, for the Department to hold in escrow pending administrative and judicial review. The Department shall release such funds, plus any interest earned, at the conclusion of all administrative and judicial review to the persons and entities who are found to be entitled to such funds.

Deposits must be made by check or money order payable to the Department of Industrial Relations with a letter and a copy of the Civil Wage and Penalty Assessment and mailed to:

Department of Industrial Relations
Attention Cashiering Unit
P.O. Box 420603
San Francisco, CA 94142

The Amount of Liquidated Damages Available Under this Assessment is: **$4,657.36**

(continued on next page)

Statutory Withholding Obligations

1. Awarding Body Withholding Obligations

In accordance with Labor Code section 1727(a), before making payments to the contractor of money due under a contract for public work, the awarding body shall withhold and retain therefrom all amounts required to satisfy this Civil Wage and Penalty Assessment. The amount required to satisfy this Civil Wage and Penalty Assessment shall not be disbursed by the awarding body until receipt of a final order that is no longer subject to judicial review.

The amount which must be withheld and retained by the awarding body pursuant to this Civil Wage and Penalty Assessment is:

Wages Due:	$4,657.36
Penalties Due Under Labor Code sections 1775 and 1813:	$5,685.00
Penalties Due Under Labor Code section 1777.7:	$3,360.00
Penalties Due Under Labor Code sections 1776:	$0.00
Total Withholding Amount:	**$13,702.36**

2. Prime Contractor Withholding Obligations:

In accordance with Labor Code section 1727(b), if the awarding body has not retained sufficient money under the contract to satisfy this Civil Wage and Penalty Assessment based on a subcontractor's violations, the contractor shall, upon the request of the Labor Commissioner, withhold sufficient money due the subcontractor under the contract to satisfy the assessment and transfer the money to the awarding body. This amount shall not be disbursed by the awarding body until receipt of a final order that is no longer subject to judicial review.

☐ **If this box is checked,** the Labor Commissioner hereby requests that the prime contractor withhold the following amount from money due the subcontractor and transfer the money to the awarding body to satisfy this assessment:

Wages Due:	$4,657.36
Penalties Due Under Labor Code sections 1775 and 1813:	$5,685.00
Penalties Due Under Labor Code section 1777.7:	$3,360.00
Penalties Due Under Labor Code sections 1776:	$0.00
Total Withholding Amount:	**$13,702.36**

Distribution:

Awarding Body
Surety(s) on Bond
Prime Contractor
Subcontractor

Labor Commissioner, State of California Department of Industrial Relations Division of Labor Standards Enforcement Bureau of Field Enforcement- Public Works 6150 Van Nuys Blvd., Suite 100 Van Nuys, CA 91401 TEL: (818) 908-6694 FAX: (818) 908-6699	Edmund G. Brown Jr., Governor
DATE April 7, 2017	In Reply Refer to Case No: 40-52010-313

CIVIL WAGE AND PENALTY ASSESSMENT

Awarding Body ANTELOPE VALLEY TRANSIT AUTHORITY	Work Performed in County of LOS ANGELES COUNTY
PROJECT NAME AVTA ELECTRIC BUS CHARGING @PALMDALE TRANSPORT. CTR	Project No 2016-28
Prime Contractor ECO ENERGY SOLUTIONS INC DBA HIGH VOLT ELECTRIC	
Subcontractor N/A	

After an investigation concerning either the payment of wages to workers employed in the execution of the contract for the above-named public works project or compliance with the apprenticeship standards found in Labor Code section 1777.5, or both, the Division of Labor Standards Enforcement (the "Division") has determined that violations of the California Labor Code have been committed by the contractor and/or subcontractor identified above. In accordance with Labor Code section 1741, the Division hereby issues this Civil Wage and Penalty Assessment.

The nature of the violations of the Labor Code and the basis for the assessment are as follows:
Wage Violations: Failure of affected Prime Contractor to pay prevailing wages; misclassified one (1) worker who performed operating excavators and bobcats to Laborer Group 4 and failure to pay all of training fund on this project in violation of Labor Code section 1775 respectively.
1775 Penalty has been mitigated based on the facts by the Senior Deputy at the rate of $60.00 per violation.
Apprenticeship Violations: The affected prime contractor failure to submit contract award information to all applicable apprentices committees a timely manner in violation of pursuant to Labor Code section 1777.5 respectively.
1777.7 penalty has been mitigated based on the facts by the Senior Deputy at the rate of $60.00 per violation.

The attached Audit Summary further details the basis for this Assessment and itemizes the calculation of wages and penalties due under Labor Code sections 1775 and 1813.

The Division has determined that the total amount of wages due is: $11,700.30

The Division has determined that the total amount of penalties assessed under Labor Code sections 1775 and 1813 is: $4,500.00

The Division has determined that the amount of penalties assessed under Labor Code section 1777.7 is: $3,720.00

The Division has determined that the amount of penalties assessed under Labor Code section 1776 against ECO ENERGY SOLUTIONS INC DBA HIGH VOLT ELECTRI(is: $0.00

Please refer to page 5 for specific withholding obligations pertaining to these amounts.

STATE LABOR COMMISSIONER

By _____
Yoon-mi Jo
Deputy Labor Commissioner II

PW 33 (Revised - 7/2013)

Notice of Right to Obtain Review - Formal Hearing

In accordance with Labor Code Section 1742, an affected contractor or subcontractor may obtain review of this Civil Wage and Penalty Assessment by transmitting a written request to the office of the Labor Commissioner that appears below within 60 days after service of the assessment.
To obtain a hearing, a written Request for Review must be transmitted to the following address:

Labor Commissioner - State of California
Civil Wage and Penalty Assessment Review Office
PO Box 32889
Long Beach, CA 90832

A Request for Review either shall clearly identify the Civil Wage and Penalty Assessment from which review is sought, including the date of the assessment, or it shall include a copy of the assessment as an attachment, and shall also set forth the basis upon which the assessment is being contested. In accordance with Labor Code section 1742, the contractor or subcontractor shall be provided an opportunity to review evidence to be utilized by the Labor Commissioner at the hearing within 20 days of the Labor Commissioner's receipt of the written Request for Review.

Failure by a contractor or subcontractor to submit a timely Request for Review will result in a final order which shall be binding on the contractor and subcontractor, and which shall also be binding, with respect to the amount due, on a bonding company issuing a bond that secures the payment of wages and a surety on a bond. Labor Code section 1743.

In accordance with Labor Code section 1742(d), a certified copy of a final order may be filed by the Labor Commissioner in the office of the clerk of the superior court in any county in which the affected contractor or subcontractor has property or has or had a place of business. The clerk, immediately upon the filing, shall enter judgment for the State against the person assessed in the amount shown on the certified order.

(continued on next page)

Opportunity for Settlement Meeting

In accordance with Labor Code section 1742.1(c), the Labor Commissioner shall, upon receipt of a request from the affected contractor or subcontractor within 30 days following the service of this Civil Wage and Penalty Assessment, afford the contractor or subcontractor the opportunity to meet with the Labor Commissioner or his or her designee to attempt to settle a dispute regarding the assessment. The settlement meeting may be held in person or by telephone and shall take place before the expiration of the 60-day period for seeking a hearing as set forth above under the heading Notice of Right to Obtain Review. No evidence of anything said or any admission made for the purpose of, in the course of, or pursuant to, the settlement meeting is admissible or subject to discovery in any administrative or civil proceeding. This opportunity to timely request an informal settlement meeting is in addition to the right to obtain a formal hearing, and a settlement meeting may be requested even if a written Request for Review has already been made.

Requesting a settlement meeting, however, does not extend the 60-day period during which a formal hearing may be requested.

A written request to meet with the Labor Commissioner or his or her designee to attempt to settle a dispute regarding this assessment must be transmitted to Yoon-mi Jo at the following address:

State of California - Department of Industrial Relations
Division of Labor Standards Enforcement - Public Works Unit
6150 Van Nuys Blvd., Suite 100
Van Nuys, CA 91401

Payment of Civil Wage and Penalty Assessment

Payment of the assessed wages and/or penalties must be made by check or money order payable to the Division of Labor Standards Enforcement and mailed to the following address along with a copy of this Civil Wage and Penalty Assessment:

State of California - Department of Industrial Relations
Division of Labor Standards Enforcement - Cashiering Unit
2031 Howe Avenue, Suite 100
Sacramento, CA 95825-0196

(continued on next page)

Liquidated Damages

In accordance with Labor Code section 1742.1(a), after 60 days following the service of this Civil Wage and Penalty Assessment, the affected contractor, subcontractor, and surety on a bond or bonds issued to secure the payment of wages covered by the assessment shall be liable for liquidated damages in an amount equal to the wages, or portion that still remain unpaid. If the assessment subsequently is overturned or modified after administrative or judicial review, liquidated damages shall be payable only on the wages found to be due and unpaid. If the contractor or subcontractor demonstrates to the satisfaction of the Director of the Department of Industrial Relations that he or she had substantial grounds for believing the assessment or notice to be an error, the Director shall waive payment of the liquidated damages.

Notwithstanding the above, in accordance with Labor Code 1742.1(b), there shall be no liability for liquidated damages if the full amount of the assessment or notice, including penalties, has been deposited with the Department of Industrial Relations, within 60 days following service of the Assessment or Notice, for the Department to hold in escrow pending administrative and judicial review. The Department shall release such funds, plus any interest earned, at the conclusion of all administrative and judicial review to the persons and entities who are found to be entitled to such funds.

Deposits must be made by check or money order payable to the Department of Industrial Relations with a letter and a copy of the Civil Wage and Penalty Assessment and mailed to:

Department of Industrial Relations
Attention Cashiering Unit
P.O. Box 420603
San Francisco, CA 94142

The Amount of Liquidated Damages Available Under this Assessment is: **$11,700.30**

(continued on next page)

Statutory Withholding Obligations

1. Awarding Body Withholding Obligations

In accordance with Labor Code section 1727(a), before making payments to the contractor of money due under a contract for public work, the awarding body shall withhold and retain therefrom all amounts required to satisfy this Civil Wage and Penalty Assessment. The amount required to satisfy this Civil Wage and Penalty Assessment shall not be disbursed by the awarding body until receipt of a final order that is no longer subject to judicial review.

The amount which must be withheld and retained by the awarding body pursuant to this Civil Wage and Penalty Assessment is:

Wages Due:	$11,700.30
Penalties Due Under Labor Code sections 1775 and 1813:	$4,500.00
Penalties Due Under Labor Code section 1777.7:	$3,720.00
Penalties Due Under Labor Code sections 1776:	$0.00
Total Withholding Amount:	**$19,920.30**

2. Prime Contractor Withholding Obligations:

In accordance with Labor Code section 1727(b), if the awarding body has not retained sufficient money under the contract to satisfy this Civil Wage and Penalty Assessment based on a subcontractor's violations, the contractor shall, upon the request of the Labor Commissioner, withhold sufficient money due the subcontractor under the contract to satisfy the assessment and transfer the money to the awarding body. This amount shall not be disbursed by the awarding body until receipt of a final order that is no longer subject to judicial review.

☐ **If this box is checked,** the Labor Commissioner hereby requests that the prime contractor withhold the following amount from money due the subcontractor and transfer the money to the awarding body to satisfy this assessment:

Wages Due:	$11,700.30
Penalties Due Under Labor Code sections 1775 and 1813:	$4,500.00
Penalties Due Under Labor Code section 1777.7:	$3,720.00
Penalties Due Under Labor Code sections 1776:	$0.00
Total Withholding Amount:	**$19,920.30**

Distribution:

Awarding Body
Surety(s) on Bond
Prime Contractor
Subcontractor

Antelope Valley Transit Authority

Regular Meeting of the Board of Directors

Tuesday, March 27, 2018

10:00 a.m.

Antelope Valley Transit Authority Community Room
42210 6th Street West, Lancaster, California
www.avta.com

UNOFFICIAL MINUTES

CALL TO ORDER

Chairman Crist called the meeting order at 10:03 a.m.

PLEDGE OF ALLEGIANCE

Director Hofbauer led the Pledge of Allegiance.

ROLL CALL:

Present
Chairman Marvin Crist, Vice Chair Dianne Knippel, Director Steve Hofbauer, Director Angela Underwood–Jacobs, Director Michelle Flanagan

Absent
Director Austin Bishop

APPROVAL OF AGENDA

Motion: Approve the agenda as comprised.
Moved by Director Hofbauer, seconded by Vice Chair Knippel

Vote:	Motion carried (5-0-0-1)
Yeas:	Chairman Crist, Vice Chair Knippel, Directors Hofbauer, Underwood-Jacobs, Flanagan
Nays:	None
Abstain:	None
Absent:	Director Bishop

PUBLIC BUSINESS – AGENDIZED AND NON-AGENDIZED ITEMS:

No public business items were presented.

SPECIAL REPORTS, PRESENTATIONS, AND REQUESTS FOR DIRECTION (SRP):

SRP 1 PRESENTATION OF TRANSDEV OPERATOR AND EMPLOYEE OF THE MONTH FOR FEBRUARY 2018

Mr. Fuentes presented a plaque to the Operator of the Month Deborah Williams and announced that the Employee of the Month was Ashley Robinson; however, Ms. Robinson was unable to attend the meeting.

SRP 2 LEGISLATIVE REPORT FOR MARCH 2018

Grants Administrator Judy Fry provided an update regarding the Fiscal Year 2018 appropriations bill, Transportation Investment Generating Economic Recovery (TIGER) discretionary grant, pending federal grants, and Assembly Bill (AB) 2304 – Transit Pass Program, AB 2418 – Emerging Technologies California Smart Cities Challenge Grant Program, AB1969 – Transportation funds: transit operators: fare revenues, and AB3124 – Length Limitations: Buses: bicycle transportation devices. The Board discussed the possible reasons the AVTA did not receive TIGER grant funds and AVTA's advocate in Washington, DC.

SRP 3 VANPOOL REPORT – DRAFT UNSOLICITED PROPOSAL FROM REV GROUP

Jim Moore, Planning Consultant with Moore and Associates, presented the proposal from the REV Group. The Board discussed the purchasing options and the REV Group's experience with converting gasoline-powered vehicles to an electric vehicle. Staff will continue researching the proposal.

CONSENT CALENDAR (CC):

CC 1 BOARD OF DIRECTORS MEETING MINUTES OF FEBRUARY 27, 2018

Approve the Board of Directors Regular Meeting Minutes of February 27, 2018.

CC 2 FINANCIAL REPORTS FOR JANUARY AND FEBRUARY 2018

Receive and file the financial reports for January and February 2018.

CC 3 RESOLUTION NO. 2018-004, AUTHORIZING THE EXECUTIVE DIRECTOR/CEO TO EXECUTE THE 2017/2018 (FY18) CERTIFICATIONS AND ASSURANCES FOR THE CAP AND TRADE LOW CARBON TRANSIT OPERATIONS PROGRAM (LCTOP) PROJECT (CONSTRUCTION OF SOUTHEAST VALLEY TRANSIT CONNECTION CENTER)

Adopt Resolution No. 2018-004, a Resolution authorizing the Executive Director/CEO to execute the certifications and assurances, and any other required document as required for the Cap and Trade LCTOP (the "Authorization") grant.

Motion: Approve the Consent Calendar.
Moved by Director Hofbauer, seconded by Vice Chair Knippel

Vote: Motion Carried (5-0-0-1)
Yeas: Chairman Crist, Vice Chair Knippel, Directors Hofbauer, Underwood-Jacobs, Flanagan
Nays: None
Abstain: None
Absent: Director Bishop

NEW BUSINESS (NB):

NB 1 SPRING 2018 SERVICE CHANGES

Mr. Moore presented the staff report. The Board directed staff to include a direct route between Antelope Valley College's Lancaster and Palmdale campuses in the Fall 2018 service changes. Vice Chair Knippel added that the college might have operational funds available to support the route.

Motion: (1) Approve staff's proposed Spring 2018 local service schedule and service delivery plan, (2) Direct staff to work with Transdev's local management team to implement approved schedule and plan; and (3) Direct staff to continue to monitor local service performance and report back to the Board on a periodic basis.
Moved by Director Hofbauer, seconded by Vice Chair Knippel

Vote: Motion carried (5-0-0-1)
Yeas: Chairman Crist, Vice Chair Knippel, Directors Hofbauer, Underwood-Jacobs, Flanagan
Nays: None
Abstain: None
Absent: Director Bishop

NB 2 AWARD TASK ORDER NO. 4, TO DUKE ENGINEERING AND ASSOCIATES, INC., UNDER MASTER CONTRACT #2017-41, FOR FINAL DESIGN AND BID SPECIFICATIONS FOR EBUS CHARGING STATIONS AT 40TH ST E AND PALMDALE BOULEVARD

The Board waived the presentation of the staff report.

Motion: Authorize the Executive Director/CEO to execute Task Order 4 for an amount of $119,915, to Duke Engineering and Associates, Inc., Lancaster, CA, under Master Contract #2017-41, for final design and bid specifications for WAVE charging stations at 40th St East and Palmdale Boulevard.

Moved by Vice Chair Knippel, seconded by Director Flanagan

Vote: Motion carried (5-0-0-1)
Yeas: Chairman Crist, Vice Chair Knippel, Directors Hofbauer, Underwood-Jacobs, Flanagan
Nays: None
Abstain: None
Absent: Director Bishop

CLOSED SESSION (CS):

PRESENTATION BY LEGAL COUNSEL OF ITEM(S) TO BE DISCUSSED IN CLOSED SESSION:

CS 1 Conference with Legal Counsel – Pursuant to Government Code Section 54956.9(a)
Pending Litigation: Clark v. AVTA, LASC Case No. MC026036
Pending Litigation: Sabina M. Andrade v. AVTA
Pending Litigation: Marsh v. AVTA USDC case No. 2:16-cv-0937-PSG
Pending Litigation: International Brotherhood of Teamsters Local 848 v. AVTA PERB Case No. LA-CE-1173-M

CS 2 Conference with Legal Counsel – Pursuant to Government Code Section 54956.9(d)(2)
Significant exposure to litigation (one potential case)

CS 3 Conference with Legal Counsel – Pursuant to Government Code Section 54956.9(d)(4)
Consideration of whether to initiate litigation (one potential case)

CS 4 Conference with Legal Counsel – Pursuant to Government Code Section 54956.9(D)(4)
Consideration of initiation of litigation (one potential case)

CS 5 Public Employee Performance Evaluation – Pursuant to Government Code Sections 54954.5 (e) and 54957(b))
Title: Executive Director/CEO

RECESS TO CLOSED SESSION

The Board recessed to Closed Session at 10:32 a.m.

RECONVENE TO PUBLIC SESSION

The Board reconvened to Public Session at 11:10 a.m.

REPORT BY LEGAL COUNSEL OF ACTION TAKEN IN CLOSED SESSION

Allison Burns, General Counsel, stated the Board discussed CS 1 and CS 5 and gave direction to staff and legal counsel. There was no reportable action.

REPORTS AND ANNOUNCEMENTS (RA):

RA 1 Report by the Executive Director/CEO Len Engel

- Stated Los Angeles County's Green Leadership Selection Committee will be on site this morning to view the depot-charging project for the 2018 Green Leadership Award.
- Attending a Regional Ridership meeting on March 28, 2018 in Long Beach, CA to discuss declining ridership in the region.
- Attending a meeting with Metro Magazine staff on March 28, 2018.
- Mr. Hickling, Director of Fleets and Facilities Mark Perry, and he will be attending the CALACT 2018 Spring Conference & EXPO in Newport Beach, CA April 3-6, 2018.
- Participating with other agencies in a vehicle to grid integration project. The meeting will be held in San Jose on April 14, 2018.

MISCELLANEOUS BUSINESS – NON-AGENDA BOARD OF DIRECTORS ITEMS:

Director Hofbauer provided a report on his trip to Washington, DC.

Chairman Crist thanked staff for meeting with veterans at Crazy Otto's Restaurant this morning to discuss AVTA's Veterans Ride Free Program. He directed staff to research AVTA subsidizing the $2 TAP card fee that is connected to the veterans' free ride pass.

ADJOURNMENT:

Chairman Crist adjourned the meeting at 11:16 a.m. to the Regular Meeting of the Board of Directors on April 24, 2018 at 10:00 a.m. in the Antelope Valley Transit Authority Community Room, 42210 6th Street West, Lancaster, CA.

PASSED, APPROVED, and ADOPTED this 24th day of APRIL, 2018

_____
Marvin Crist, Chairman

ATTEST:

_____
Karen S. Darr, Clerk of the Board

Audio recordings of the Board of Directors Meetings are maintained in accordance with state law and AVTA's Records Retention Policy. Please contact the Clerk of the Board at (661) 729-2206 to arrange to review a recording.

DATE: **April 24, 2018**

TO: **BOARD OF DIRECTORS**

SUBJECT: **Financial Reports for February and March 2018**

RECOMMENDATION

That the Board of Directors receive and file the following Financial Reports for February and March 2018:

Fiscal Year-to-Date Budget versus Actual report dated February 28, 2018 (Attachment A); Interim, unaudited Financial Statements for the eight months ended February 28, 2018 (Attachment B); Treasurer's Report for the month ended February 28, 2018 (Attachment C); Payroll History Report for the three months ended March 31, 2018 (Attachment D); Cash Disbursements Reports for the month ended March 31, 2018 (Attachments E).

FISCAL IMPACT

Payroll: The February payroll of $319,683 is higher than the trailing 6 month average for payroll expense by $86,598 or 27.09%. There were 3 payrolls during the month and a vacation payout of $14,346 to a retiring employee.

Cash Disbursements: $1,768,675.

Interim, Financial Statements (accrual basis): Change in Net Position: $5,307,823, which includes YTD depreciation expense of $2,741,759.

BACKGROUND

To comply with the provisions required by Sections 37202, 37208 and 6505.5 of the Government Code, the Chief Financial Officer prepares the Budget versus Actual report, Interim Financial Statements, Treasurer's Report, Payroll History Report, and the Cash Disbursements Report, and submits them to the Executive Director/CEO and Treasurer who certifies the availability of funds for all the reports presented herein. These reports are hereby submitted to the Board of Directors for ratification.

AVTA's gross payroll for employees for the month of March 2018, exclusive of benefits, payroll taxes and service charges, is shown below.

Payroll Period	Amount	Journal #
03/03/18	$102,542.18	PYPKT01073
03/03/18	$5,100.07	PYPKT01074
03/17/18	$100,685.18	PYPKT01081
03/17/18	$5,003.82	PYPKT01082
03/22/18	$5,920.80	PYPKT01087
03/22/18	$5,004.56	PYPKT01089
03/31/18	$95,426.87	PYPKT01095
Gross Pay, March 2018	**$319,683.48**	

The Register of Demands authorized the issuance of warrants in the following amount:

Register Date	Amount
03/01/18–03/31/18	$1,768,675

Large items include:

Transdev, Inc. (February, 2018)	1,187,916
Pinnacle Petroleum (fuel – February/March 2018)	203,062
IntelliRide (Dial-A-Ride services for February, 2018)	119,831
Tyler Technologies – Annual software maintenance & A/R migration	21,646
Moore & Associates – Planning & Operational Support Services	18,965
Duke Engineering – WAVE projects PTC and SSOMP	36,680
California Choice (group health insurance – April 2018)	33,523
Total of large item selection	$1,621,623

These items comprise 91.7% of total expenditures for the month.

Operating Cash

Major cash components as of February 28, 2018:

Cash per general ledger	$21,415,287
Less restricted funds	(21,262,404)
Projected net cash inflows/(outflows) for the following month	5,513,837
Projected cash available for operations in the following month	$5,666,721

The projected cash available will cover 3 months of operating expenses based on the Authority's average monthly operating cash requirements of $1.8 million.

BUDGET TO ACTUAL SUMMARY NARRATIVE

Attachment A – Budget to Actual Report shows the unaudited interim results for the one month ended February, 2018.

Operating income/(loss) (net of depreciation) was favorable to budget ($557K).

Revenues were unfavorable to budget by ($1,138).
Timing differences: Fare revenue less than budget; timing differences for FTA expected to catch up in April-May.

Expenses were favorable to budget by $1,695K.
Fuel, and general and administrative expenses were less than budget. Timing differences: IT maintenance & software. Measure M budgeted but not accrued on books.

I, Len Engel, Executive Director and CEO of AVTA, declare that the attached reports are accurate and correct.

Prepared by:

_____
James Mannie
Finance Manager

Submitted by:

_____
Len Engel
Executive Director/CEO

Attachments:
A – Budget versus Actual Report as of YTD February 28, 2018
B – Interim Financial Statements for the eight months ended February 28, 2018
C – Treasurer's Report and Cash Flow Projection for the month of February 28, 2018
D – Payroll History Report for the three months ended March, 2018
E – Cash Disbursements Report for the month ended March 31, 2018

ATTACHMENT CC 2.A.1

ANTELOPE VALLEY TRANSIT AUTHORITY

BUDGET VS. ACTUALS - OPERATING INCOME STATEMENT

For the 8 months ended February 28, 2018

DESCRIPTION	YEAR-TO-DATE BUDGET	ACTUAL	VARIANCE
REVENUE			
FARE REVENUE	3,666,667	3,330,697	(335,970)
MTA FUNDS	7,240,201	7,255,291	15,090
FTA FUNDS	4,383,334	3,737,289	(646,045)
JURISDICTIONAL CONTRIBUTIONS	2,475,965	2,217,482	(258,483)
OTHER REVENUE	126,466	214,337	87,871
TOTAL REVENUE	**17,892,633**	**16,755,097**	**(1,137,536)**
EXPENSES			
CONTRACT SERVICES	10,816,387	10,524,847	291,540
FUEL & ELECTRICITY FOR OPERATIONS	1,545,304	1,478,541	66,763
OTHER OPERATING EXPENSES	240,479	189,680	50,799
WAGES	1,747,984	1,747,110	874
BENEFITS	655,941	550,970	104,971
LEGAL	83,072	73,150	9,921
CONSULTING	72,688	160,447	(87,759)
ADVOCACY	178,021	167,028	10,993
TRAVEL	57,586	54,268	3,318
IT MAINTENANCE & LICENSES	191,128	136,960	54,167
UTILITIES	119,269	138,459	(19,190)
GENERAL & ADMINISTRATION EXPENSES	1,855,521	646,937	1,208,584
TOTAL EXPENSES	**17,563,379**	**15,868,397**	**1,694,981**
OPERATING INCOME/(LOSS)	**329,255**	**886,700**	**557,445**

ATTACHMENT CC 2 A.2

ANTELOPE VALLEY TRANSIT AUTHORITY

EXPENDITURES BY DEPARTMENT

For the 8 months ended February 28, 2018

DESCRIPTION	YEAR-TO-DATE BUDGET	ACTUAL	VARIANCE
TOTAL REVENUE	**17,892,633**	**16,755,097**	**(1,137,536)**
EXPENDITURES BY DEPARTMENT			
EXECUTIVE SERVICES	1,412,591	1,383,796	28,795
OPERATIONS & MAINTENANCE	13,533,423	13,121,935	411,487
FINANCE	883,377	886,407	(3,030)
CUSTOMER SERVICE	591,598	476,258	115,340
ALLOCATIONS	1,142,390	0	1,142,390
TOTAL EXPENSES	**17,563,379**	**15,868,397**	**1,694,981**
OPERATING INCOME/(LOSS)	**329,255**	**886,700**	**557,445**

ANTELOPE VALLEY TRANSIT AUTHORITY

VARIANCES BY DEPARTMENT

For the 8 months ended February 28, 2018

DEPARTMENT	T / P	COMMENTS ($000's)
REVENUE	P	Fare Revenue ($336)
	T	Operating Contributions ($258)
	T	Advertising Revenue $24
	T	MTA Revenues $15
	T	5307 Funds (PM & Operating Support) ($646)
EXECUTIVE SERVICES	T	Wages & Benefits $26
	T	Legal $10
	T	Marketing $42
	T	Website Maintenance$17
	T	Memberships $6
	T	Consulting ($88)
	T	Professional Development $20
OPERATIONS & MAINTENANCE	T	Wages & Benefits ($25)
	T	Contract Services (Transdev/IntelliRide) $292
	T	Fossil Fuel for Fleet Operations $67
	T	I.T. Categories (incl Software Licensing) $54
	T	Utilities ($19)
	T	Grantable PM & Operating Support$51
FINANCE	T	Wages & Benefits ($22)
	P	Liability, Fire & Other Insurance $4
	T	Audit $13
CUSTOMER SERVICE	T	Wages & Benefits $104
	T	Sponsorships ($10)
ALLOCATIONS (NET OF DEPRECIATION)	T	Contingency (Restricted) & GASB Adjustments $1142

P = Permanent difference
T = Timing difference

Antelope Valley Transit Authority

STATEMENT OF NET POSITION

	As of February 28, 2018	As of February 28, 2017
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	$ 21,415,287	$ 22,008,140
Due from other governments	7,282,300	4,628,553
Other receivables	86,437	328,664
Inventory	282,354	262,483
Prepaid items	166,353	113,491
Total Current Assets	29,232,731	27,341,331
NONCURRENT ASSETS		
Capital assets, net of depreciation	53,415,783	48,539,225
Total Assets	82,648,514	75,880,556
DEFERRED OUTFLOWS OF RESOURCES		
Pension plan contributions	888,674	626,044
LIABILITIES AND NET POSITION		
CURRENT LIABILITIES		
Accounts payable	1,854,901	4,210,321
Accrued payroll and related	0	(2,875)
Compensated absences	362,906	404,747
Deferred Revenue - Prop 1B	2,124,669	2,489,080
Other Liabilities	54,131	374,586
Total Current Liabilities	4,396,607	7,475,859
NONCURRENT LIABILITIES		
Net pension plan liability	880,874	629,016
Total Liabilities	5,277,481	8,104,875
Deferred inflows of resources		
Net pension plan assumption differences	142,398	296,364
Unearned Revenue	214,165	217,952
Total deferred inflows of resources	356,563	514,316
NET POSITION		
Invested in Capital Assets	53,415,783	48,539,225
Restricted for Capital Acquisition	6,396,866	5,399,156
Unrestricted	18,090,494	13,949,029
Total Net Assets	$ 77,903,143	$ 67,887,410

Antelope Valley Transit Authority

STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
GOVERNMENT AUDITING STANDARDS PRESENTATION
(INCLUDING DEPRECIATION EXPENSE)

	For the 8 Months ending February 28, 2018	For the 8 Months ending February 28, 2017
OPERATING REVENUES		
Charges for services:		
Passenger fares	$ 3,330,697	$ 3,439,296
Total operating revenues	3,330,697	3,439,296
OPERATING EXPENSES		
Purchased transportation services:		
Outside transit contract	10,524,847	10,295,659
Fuel	1,386,111	1,251,356
Other operating costs	607,711	610,208
General and administrative	3,349,728	3,421,088
Total operating expenses, net of depreciation	15,868,397	15,578,311
Operating gain/(loss), net of depreciation	(12,537,700)	(12,139,016)
Depreciation	2,741,759	2,660,406
Total operating expenses	18,610,156	18,238,716
Operating gain/(loss)	(15,279,459)	(14,799,420)
NONOPERATING REVENUES/(EXPENSES)		
Interest Income	53,176	20,082
Local grants - MTA	7,255,291	5,727,593
Proposition 1B	-	-
Federal non-capital grants	3,737,289	3,741,189
Member agency contributions	2,217,482	2,209,718
Grantable expenses	(183,484)	(3,493,980)
Gain/(Loss) on sale of capital assets	-	(144,066)
Other	161,160	232,779
Total nonoperating revenues and expenses	13,240,914	8,293,315
Gain/(Loss) before capital contributions	(2,038,544)	(6,506,106)
CAPITAL CONTRIBUTIONS		
Capital grants	7,024,644	438,308
Member agency contributions	321,725	321,727
Total capital contributions	7,346,368	760,035
CHANGE IN NET POSITION	5,307,823	(5,746,072)
NET POSITON, BEGINNING OF PERIOD	72,595,321	73,633,482
NET POSITION, END OF PERIOD	$ 77,903,143	$ 67,887,410

Antelope Valley Transit Authority

STATEMENT OF CASH FLOWS

	For the 8 Months ending February 28, 2018	For the 8 Months ending February 28, 2017
CASH FLOWS FROM OPERATING ACTIVITIES		
Cash received from customers	3,330,697	3,439,296
Non-operating miscellaneous revenue received	161,160	232,779
Cash payments to suppliers for goods and services	(13,763,796)	(10,177,367)
Cash payments to employees for services	(2,280,978)	(1,760,508)
Net cash used in operating activities	(12,552,918)	(8,265,800)
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:		
Operating grants received	5,392,200	10,852,169
Contributions received from member agencies	2,316,197	2,253,978
Net cash provided by non-capital financing activities	7,708,397	13,106,147
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
Acquisition of capital assets	(414,454)	-
Proceeds received from sale of capital assets	-	144,066
Capital grants received	6,755,616	438,308
Capital expenses	(183,484)	(3,493,980)
Capital contributions received from member agencies	321,725	321,727
Net cash used in capital and related financing activities	6,479,404	(2,589,879)
CASH FLOWS PROVIDED BY INVESTING ACTIVITIES:		
Interest received	53,176	20,082
Net cash provided by investing activities:	53,176	20,082
Net increase/(decrease) in cash and cash equivalents	1,688,059	2,270,550
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	19,727,227	19,737,590
CASH AND CASH EQUIVALENTS, END OF YEAR	21,415,287	22,008,140

Antelope Valley Transit Authority

STATEMENT OF CASH FLOWS	For the 8 Months ending February 28, 2018	For the 8 Months ending February 28, 2017
Reconciliation of operating income (loss)		
to net cash used in operating activities (Indirect Method):		
Operating Loss	(15,279,459)	(14,799,420)
Adjustments to Net Cash used in Operating Activities		
Depreciation	2,741,759	2,660,406
Miscellaneous income	161,160	232,779
(Increase) decrease in other receivables	(1,699)	112,534
(Increase) decrease in inventory	-	-
(Increase) decrease in prepaid items	35,077	30,044
(Increase) decrease in deferred outflows of resources	-	-
Increase (decrease) in accounts payable	(294,430)	2,231,872
Increase (decrease) in due to Federal Transit Administration	-	-
Increase (decrease) in accrued payroll	1,354	(28,924)
Increase (decrease) in compensated absences payable	-	-
Increase (decrease) in other liabilities	288,576	1,200
Increase (decrease) in deferred revenue/(Prop 1B)	-	-
Increase (decrease) in net pension liability	-	-
Increase (decrease) in deferred inflows of resources	(205,254)	1,293,711
Net Cash used in operating activities	(12,552,918)	(8,265,800)

Notes

1 This set of basic financial statements is prepared on an interim basis and is unaudited.

2 Please see the Cash Flow Projection Report for additional highlights on cash & equivalents, payroll and expenditures.

ATTACHMENT CC 2.C

ANTELOPE VALLEY TRANSIT AUTHORITY
Treasurer's Report and Cash Flow Projection
For the Month Ended February 28, 2018

Investment Type	Description	Begining Balance	Deposits	Disbursements	Interest	Ending Balance
Cash and Investments Under the Direction of the Treasurer						
Local Agency Investment Fund (LAIF) - Capital Reserve		6,400,813.78				$6,400,814
Interest (earned quarterly)						
Propostition 1B Restricted Fund*		2,330,228		195,061	88	2,135,254
Interest earned for the month						
Union Bank - LCTOP		214,413			8	214,421
Interest earned for the month						
* Deferred revenue, recorded as liability until associated expense incurred.						
TOTAL CAPITAL RESERVE AND RESTRICTED FUNDS		**8,945,455**	**-**	**195,061**	**96**	**$8,750,489**
Wells Fargo - Operating Reservs - CDs		997,863		-		997,863
Wells Fargo - Staging		225		10		215
Wells Fargo - Money Market Fund		1,812,166		-	1,670	1,813,836
TOTAL OPERATING RESERVE		**2,810,255**	**-**	**10**	**1,670**	**$2,811,914**
General, Payroll & Payable Accounts		10,008,891				
Operating Accounts Analysis						
	FTA		-			
	Cash Fares		340,860			
	Vendor Pass Sales Revenue		354,720			
	MTA Revenue		807,822			
	Jurisdictional Contributions		459,146			
	Other Revenue		-			
	Non-Transportation Revenue		-			
	Cash Disbursement (A/P) for The Month			1,876,269		
	Employee Payroll			213,976		
	Employee Deductions			35,419		
	Employer Payroll Taxes			(32,211)		
	CalPERS - AVTA paid			24,599		
	CalPERS - GASB 68			-		
	Bank Fees			1,253		
	Net Operating Funds	**10,008,891**	**1,962,548**	**2,119,305**	**-**	**9,852,134**
	Petty Cash Balance	**750**				**750**
TAL CASH AND INVESTMENTS		**21,765,350**	**1,962,548**	**2,314,377**	**1,766**	**$ 21,415,287**

I hereby certify that the investment portfolio of AVTA complies with its investment policy and the California Government Code Sections pertaining to the investment of local agency funds, Union Bank and Wells Fargo Bank. Pending any future actions by the AVTA Board or any and unforeseen occurences, AVTA has cash flow adequate to meet its expenditure requirements for the next three months.

Prepared by:

James Mannie
Finance Manager

Submitted by:

Len Engel
Executive Director/CEO

ANTELOPE VALLEY TRANSIT AUTHORITY

Treasurer's Report and Cash Flow Projection

For the Month Ended February 28, 2018

Descriptions	$ Subtotal	$ Total
BALANCE FROM THE REPORT		$ 21,415,287
Less Restricted Funds		
Proposition 1B/LCTOP (Deferred Revenue)		(2,349,676)
Operating Reserve (Wells Fargo)		(2,811,914)
Capital Reserve (LAIF)		(6,400,814)
Reserve for BYD Bus Deliveries		(4,000,000)
Restricted for Operations		(5,700,000)
RESTRICTED CASH		**(21,262,404)**
UNRESTRICTED CASH		$ 152,884
NET RECEIVABLE AND PAYABLE FOR THE MONTH ENDED JANUARY 31, 2018		
Add Accounts receivable:		
FTA funds	$ 5,039,409	
MTA Revenue	1,933,244	
Jurisdiction Contributions	108,951	
Vendor Pass Sales/Transporter	287,133	
Other	0	**7,368,737**
Less Payables & Payroll:		
Accounts Payable & Accrued Invoices	(1,731,581)	
Payroll & Related	(123,320)	**(1,854,901)**
NET INFLOW/(OUT FLOW) OF CASH --- A/R, A/P		**5,513,837**
PROJECTED CASH AVAILABLE IN THE NEXT 30 DAYS:		$ 5,666,721
OPERATING CASH REQUIRED MONTHLY - AVERAGE		$ 1,800,000
Operating Cash Coverage per Monthly Average:		**3.1**

ANTELOPE VALLEY TRANSIT AUTHORITY
PAYROLL HISTORY REPORT
JANUARY - MARCH 2018

	January Total	February Total	March Total
Number of Pay Periods:	2	2	3
EARNINGS			
Regular Pay	$ 126,241.75	$ 186,254.97	$ 266,872.82
Overtime Pay	767.25	2,859.28	1,828.98
Vacation Pay	10,882.86	4,703.72	4,275.22
Double Time Pay	2,699.96	-	714.93
Sick Pay	5,092.41	6,005.96	8,202.90
Final Pay	-	-	-
Bereavement Pay	394.08	1,246.05	268.02
Holiday Pay	54,831.29	242.41	11,378.91
Bonus Pay	-	9,095.60	-
Floating Holiday Pay	2,004.20	-	973.68
Retroactive Pay	415.60	415.93	1,798.36
TOTAL, ALL PAY CATEGORIES	**$ 203,329.40**	**$ 210,823.92**	**$ 296,313.82**
Vacation Cash Out	21,830.57	2,882.40	20,266.91
Floater Cash Out	-	270.08	666.09
Deferred Income 457	909.68	909.68	1,514.16
Stipend --- Cell phone reimbursements	655.00	667.50	922.50
TOTAL PAYROLL	**$ 226,724.65**	**$ 215,553.58**	**$ 319,683.48**
Inc(Dec)-Curr month over prev month		**$ (11,171.07)**	**$ 104,129.90**
% Inc(Dec)-Curr month over prev month		**(4.9%)**	**48.3%**

Antelope Valley Transit Authority

Cash Disbursements Report CC 2.E

By Vendor Name

Payment Dates 03/01/2018 - 03/31/2018

Payment Number	Payment Date	Description (Item)	Account Number	Amount
Vendor: V0944 - AGILITY RECOVERY SOLUTIONS INC.				
23322	03/07/2018	Agility Recovery Services	100-2FF-5-G1-9401012	230.00
			Vendor V0944 - AGILITY RECOVERY SOLUTIONS INC. Total:	**230.00**
Vendor: V0753 - American Heritage Life Ins.				
23399	03/22/2018	Employee Paid Extended Benefits	100-000-2-B1-4011019	504.32
			Vendor V0753 - American Heritage Life Ins. Total:	**504.32**
Vendor: V1192 - Antelope Valley College				
23323	03/07/2018	CPOS Blanket Reimbursement-Jan 2018	100-3FS-5-G1-9501037	50.00
23323	03/07/2018	CPOS Blanket Reimbursement-Feb 2018	100-3FS-5-G1-9501037	50.00
			Vendor V1192 - Antelope Valley College Total:	**100.00**
Vendor: V0135 - Aramark Uniform Services				
23324	03/07/2018	uniform service	100-2FF-5-G1-9401038	217.44
23324	03/07/2018	uniform service	100-2FF-5-G1-9401038	225.03
23354	03/14/2018	uniform services	100-2FF-5-G1-9401038	235.75
23386	03/21/2018	uniform services	100-2FF-5-G1-9401038	228.96
			Vendor V0135 - Aramark Uniform Services Total:	**907.18**
Vendor: V0244 - AT&T Mobility				
23400	03/22/2018	Fleet wi-fi-2/7/18-3/6/18	100-2FF-5-G1-9201011	197.95
23400	03/22/2018	Mobility charges, 2/7/18-3/6/18	100-2FF-5-G1-9401025	235.28
			Vendor V0244 - AT&T Mobility Total:	**433.23**
Vendor: V0248 - Atkinson, Andelson, Loya, RUUD				
23401	03/22/2018	General advice	100-1EX-5-G1-9501005	605.00
			Vendor V0248 - Atkinson, Andelson, Loya, RUUD Total:	**605.00**
Vendor: V0013 - AV Press				
23325	03/07/2018	Classified Legal Advertisement	100-3FS-5-G1-9501002	859.28
			Vendor V0013 - AV Press Total:	**859.28**
Vendor: V0960 - Avail Technologies, Inc.				
23387	03/21/2018	Remix Integration	600-1XX-5-J1-9909060	11,408.00
			Vendor V0960 - Avail Technologies, Inc. Total:	**11,408.00**
Vendor: V0174 - Axes Fire Protection				
23355	03/14/2018	annual fire extinguisher inspection	100-2FF-5-G1-9401005	525.60
			Vendor V0174 - Axes Fire Protection Total:	**525.60**
Vendor: V0370 - Bank Supplies				
23402	03/22/2018	Countroom supplies	100-3FS-5-G1-9501009	43.60
			Vendor V0370 - Bank Supplies Total:	**43.60**
Vendor: V0884 - Block, Lyle				
23356	03/14/2018	Repair right fender on truck-transponder failure	100-2FF-5-G1-9501008	710.00
			Vendor V0884 - Block, Lyle Total:	**710.00**
Vendor: V0149 - Brinks Incorporated				
23357	03/14/2018	Suppl bill-February 2018	100-3FS-5-G1-9501024	5.74
23357	03/14/2018	Transportation Service-March 2018	100-3FS-5-G1-9501024	608.26
			Vendor V0149 - Brinks Incorporated Total:	**614.00**
Vendor: V1139 - California Choice				
23326	03/07/2018	Group Health Insurance (EE)- April 2018	100-000-2-B1-4011013	5,655.95
23326	03/07/2018	Group Health Insurance (ER)- April 2018	100-1ZZ-5-G1-9701612	27,866.96
			Vendor V1139 - California Choice Total:	**33,522.91**
Vendor: V0723 - Canon Solutions America				
23327	03/07/2018	Customer Service Canpon C5051 Copier 12 Month Agrt	100-2FF-5-G1-9401009	181.40
			Vendor V0723 - Canon Solutions America Total:	**181.40**
Vendor: V0832 - Carlos Lopez Arucha				
23408	03/28/2018	Reimb-NTI Title VI Training, El Monte, CA	100-1EX-5-G1-9501019	90.00
			Vendor V0832 - Carlos Lopez Arucha Total:	**90.00**

Antelope Valley Transit Authority

Cash Disbursements Report CC 2.E

By Vendor Name

Payment Dates 03/01/2018 - 03/31/2018

Payment Number	Payment Date	Description (Item)	Account Number	Amount
Vendor: V0416 - Carquest of Lancaster #7305				
23358	03/14/2018	Transmission Jack OTC 5078	600-1XX-5-J1-9902008	2,682.75
			Vendor V0416 - Carquest of Lancaster #7305 Total:	**2,682.75**
Vendor: V0646 - DSL Extreme				
23359	03/14/2018	Internet service-4/01/2018-5/01/18	100-2FF-5-G1-9401025	52.83
			Vendor V0646 - DSL Extreme Total:	**52.83**
Vendor: V1225 - Duke Engineering				
23328	03/07/2018	Steve Owen Park WAVE Project	600-1XX-5-J1-9909085	12,840.00
23328	03/07/2018	construction documents and support for WAVE at PTC	600-1XX-5-J1-9909085	23,840.00
			Vendor V1225 - Duke Engineering Total:	**36,680.00**
Vendor: V1123 - Eastside Checks Cashed				
23329	03/07/2018	CPOS Blanket Reimbursement-Feb 2018	100-3FS-5-G1-9501037	50.00
			Vendor V1123 - Eastside Checks Cashed Total:	**50.00**
Vendor: V1089 - ECS Imaging Inc.				
23388	03/21/2018	Contract 2015-16 - Annual Maintenance Fee	100-2FF-5-G1-9401012	13,070.00
			Vendor V1089 - ECS Imaging Inc. Total:	**13,070.00**
Vendor: V0489 - Eugene Greene				
23389	03/21/2018	Backflow testing	100-2FF-5-G1-9401005	250.00
			Vendor V0489 - Eugene Greene Total:	**250.00**
Vendor: V0046 - Federal Express				
23360	03/14/2018	Shipping charges	100-3FS-5-G1-9501010	56.82
23403	03/22/2018	Shipping charges	100-3FS-5-G1-9501010	57.00
23403	03/22/2018	Shipping charges	100-3FS-5-G1-9501010	21.89
23409	03/28/2018	shipping charges	100-3FS-5-G1-9501010	189.99
23409	03/28/2018	Shipping charges	100-3FS-5-G1-9501010	18.96
			Vendor V0046 - Federal Express Total:	**344.66**
Vendor: V0176 - First Place Awards				
23404	03/22/2018	Signs	100-3FS-5-G1-9501009	41.61
			Vendor V0176 - First Place Awards Total:	**41.61**
Vendor: V0194 - Frontier Communications				
23405	03/22/2018	Telephone, 3/13/18-4/12/18	100-2FF-5-G1-9401025	459.78
			Vendor V0194 - Frontier Communications Total:	**459.78**
Vendor: V0049 - GFI Genfare				
23330	03/07/2018	Second Genfare Vault for Count Room	600-1XX-5-J1-9909068	3,500.00
			Vendor V0049 - GFI Genfare Total:	**3,500.00**
Vendor: V0125 - Grainger				
23331	03/07/2018	shop parts	100-2FF-5-G1-9401038	105.47
23331	03/07/2018	shop parts	100-2FF-5-G1-9401038	68.66
23331	03/07/2018	shop parts	100-2FF-5-G1-9401038	55.51
23361	03/14/2018	SS Fire ball valve etc	100-2FF-5-G1-9401038	77.04
			Vendor V0125 - Grainger Total:	**306.68**
Vendor: V1231 - Hanka Advisor LLC				
23332	03/07/2018	Advocacy Consulting Services	100-1EX-5-G1-9501015	5,000.00
			Vendor V1231 - Hanka Advisor LLC Total:	**5,000.00**
Vendor: V0624 - Home Depot Credit Services				
23333	03/07/2018	Shop and grounds keeper supplies	100-2FF-5-G1-9401038	89.17
23333	03/07/2018	Shower repairs	100-2FF-5-G1-9401038	58.05
23333	03/07/2018	Sink repair	100-2FF-5-G1-9401038	8.98
23333	03/07/2018	Water heater install, etc	600-1XX-5-J1-9902008	112.51
23333	03/07/2018	Water heater install and maint-CS	600-1XX-5-J1-9902008	351.42
23333	03/07/2018	Countroom cabinets	600-1XX-5-J1-9909068	792.21
23410	03/28/2018	metal surge protector, etc	100-2FF-5-G1-9401038	117.34
23410	03/28/2018	Break room repair	100-2FF-5-G1-9401038	124.98
23410	03/28/2018	Bus stop maint trucks	100-2FF-5-G1-9401038	51.36
23410	03/28/2018	Courtyard projects, etc	600-1XX-5-J1-9909069	320.18
			Vendor V0624 - Home Depot Credit Services Total:	**2,026.20**

Antelope Valley Transit Authority

Cash Disbursements Report CC 2.E

By Vendor Name

Payment Dates 03/01/2018 - 03/31/2018

Payment Number	Payment Date	Description (Item)	Account Number	Amount
Vendor: V0474 - Insight- Public Sector				
23334	03/07/2018	Dell C3765dnf Magenta Toner Cartridge	100-2FF-5-G1-9401009	215.59
23334	03/07/2018	Dell E525w Yellow Toner Cartridge	100-2FF-5-G1-9401009	148.22
23334	03/07/2018	Dell C3765dnf Black Toner Cartridge	100-2FF-5-G1-9401009	121.26
23334	03/07/2018	Dell C3765dnf Waste Toner Collector	100-2FF-5-G1-9401009	27.79
23334	03/07/2018	Dell C3765dnf Cyan Toner Cartridge	100-2FF-5-G1-9401009	431.19
23334	03/07/2018	Dell E525w Black Toner Cartridge	100-2FF-5-G1-9401009	148.22
23334	03/07/2018	Dell C3765dnf Black Toner Cartridge	100-2FF-5-G1-9401009	242.52
23334	03/07/2018	Dell C3765dnf Waste Toner Collector	100-2FF-5-G1-9401009	24.43
23334	03/07/2018	Dell E525w Cyan Toner Cartridge	100-2FF-5-G1-9401009	148.22
23334	03/07/2018	Dell E525w Magenta Toner Cartridge	100-2FF-5-G1-9401009	74.11
23334	03/07/2018	Dell C3765dnf Yellow Toner Cartridge	100-2FF-5-G1-9401009	215.63
23362	03/14/2018	APC Back-UPS BE600M1 Workstation Battery Back-up	600-1XX-5-J1-9902008	283.24
23334	03/07/2018	Logitech Wireless Desktop MK320 Keyboard/Mouse Set	600-1XX-5-J1-9902008	56.06
			Vendor V0474 - Insight- Public Sector Total:	**2,136.48**
Vendor: V0861 - Intelesys Communications Services Inc.				
23390	03/21/2018	Purchase of 3 spare phone sets.	600-1XX-5-J1-9909072	1,227.17
			Vendor V0861 - Intelesys Communications Services Inc. Total:	**1,227.17**
Vendor: V1057 - IntelliRide				
23363	03/14/2018	February 2018 DAR Fare Coupons	100-000-4-D1-6001400	2,618.50
23363	03/14/2018	Dial-a-ride Service, Feb 2018	100-000-4-D1-6001400	(9,304.50)
23363	03/14/2018	Dial-a-ride Service, Feb 2018	100-2FF-5-G1-9001014	112,725.48
23363	03/14/2018	Feb 2018 ETP Service	100-2FF-5-G1-9401031	13,791.78
			Vendor V1057 - IntelliRide Total:	**119,831.26**
Vendor: V0057 - Interior Plant Designs				
23364	03/14/2018	Plant services-March 2018	100-2FF-5-G1-9401005	220.00
			Vendor V0057 - Interior Plant Designs Total:	**220.00**
Vendor: V0157 - Iron Mountain Records Mgmt Inc				
23335	03/07/2018	Offsite shred service	100-2FF-5-G1-9401005	82.74
			Vendor V0157 - Iron Mountain Records Mgmt Inc Total:	**82.74**
Vendor: V0846 - Judy Vaccaro-Fry				
23365	03/14/2018	Reimb-Legislative visit/Washington DC	100-1EX-5-G1-9501015	180.00
			Vendor V0846 - Judy Vaccaro-Fry Total:	**180.00**
Vendor: V0806 - Kelly Alcuran				
23391	03/21/2018	Preparation of Budget for FY 18 (Mid year) and FY	100-1EX-5-G1-9501013	1,050.00
			Vendor V0806 - Kelly Alcuran Total:	**1,050.00**
Vendor: V1156 - Kelly Miller				
23366	03/14/2018	Reimb-APTA marketing Workshop	100-1EX-5-G1-9501019	135.00
			Vendor V1156 - Kelly Miller Total:	**135.00**
Vendor: V1080 - Kennard Design Group				
23392	03/21/2018	Countroom Expansion TO6	600-1XX-5-J1-9909058	5,444.50
			Vendor V1080 - Kennard Design Group Total:	**5,444.50**
Vendor: V0288 - LA County Sheriff Dept				
23367	03/14/2018	LASD Transit Deputy (K. Maselli)-Jan 2018	100-5CS-5-G1-9501034	6,349.79
			Vendor V0288 - LA County Sheriff Dept Total:	**6,349.79**
Vendor: V1007 - Lancaster West Rotary				
23411	03/28/2018	Gold sponsorship-LWR 20th Annual Golf Classic	100-5CS-5-G1-9501039	2,500.00
			Vendor V1007 - Lancaster West Rotary Total:	**2,500.00**
Vendor: V0889 - Len Engel				
23336	03/07/2018	Reimb-ARB Meeting Diamond Bar CA	100-1EX-5-G1-9501019	282.23
23368	03/14/2018	Reimb-Legislative visit/Washington DC	100-1EX-5-G1-9501015	2,113.74
23368	03/14/2018	Reimb-CTA Commitee Meeting	100-1EX-5-G1-9501019	411.06
23412	03/28/2018	Reimb-PERB Hearing Sta Monica CA	100-1EX-5-G1-9501019	194.09
			Vendor V0889 - Len Engel Total:	**3,001.12**

Antelope Valley Transit Authority

Cash Disbursements Report CC 2.E

By Vendor Name

Payment Dates 03/01/2018 - 03/31/2018

Payment Number	Payment Date	Description (Item)	Account Number	Amount
Vendor: V1107 - LPM Consulting Inc.				
23337	03/07/2018	Consulting-Feb 2018	100-3FS-5-G1-9501027	2,964.00
			Vendor V1107 - LPM Consulting Inc. Total:	**2,964.00**
Vendor: V0720 - Mail America 2- Palmdale				
23369	03/14/2018	LIFE coupons-January 2018	100-3FS-5-G1-9501037	224.00
			Vendor V0720 - Mail America 2- Palmdale Total:	**224.00**
Vendor: V0529 - Mail America- Lancaster				
23413	03/28/2018	CPOS Reimbursement-Oct-Dec 2017	100-3FS-5-G1-9501037	150.00
23413	03/28/2018	CPOS Reimbursement-Jan-March 2018	100-3FS-5-G1-9501037	150.00
			Vendor V0529 - Mail America- Lancaster Total:	**300.00**
Vendor: V1212 - Master's Refreshment Services				
23370	03/14/2018	Coffee Supplies - Master's Refreshments	100-3FS-5-G1-9501009	295.70
			Vendor V1212 - Master's Refreshment Services Total:	**295.70**
Vendor: V0783 - Mobile Relay Associates				
23338	03/07/2018	Commuter radio repeater service-March 2018	100-2FF-5-G1-9401038	1,224.30
			Vendor V0783 - Mobile Relay Associates Total:	**1,224.30**
Vendor: V0626 - Moore & Associates				
23371	03/14/2018	2017-37 Planning & Operational Support Services	100-1EX-5-G1-9501013	18,965.21
			Vendor V0626 - Moore & Associates Total:	**18,965.21**
Vendor: V0714 - Norman Hickling				
23372	03/14/2018	Reimb-APTA CEO's Seminar/Florida	100-1EX-5-G1-9501019	240.00
23372	03/14/2018	Reimb-Legislative Visit/Washington DC	100-1EX-5-G1-9501015	183.84
			Vendor V0714 - Norman Hickling Total:	**423.84**
Vendor: V0987 - OPSEC Specialized Protection				
23373	03/14/2018	Opsec Security-Feb 2018	100-5CS-5-G1-9501034	3,955.00
			Vendor V0987 - OPSEC Specialized Protection Total:	**3,955.00**
Vendor: V1238 - Passantino Andersen Communications LLC				
23393	03/21/2018	Consulting services-Feb 2018	100-1EX-5-G1-9501013	3,995.00
			Vendor V1238 - Passantino Andersen Communications LLC Total:	**3,995.00**
Vendor: V1086 - Periscope Intermediate Corporation				
23374	03/14/2018	NIGP Code Licensing	100-2FF-5-G1-9401012	705.00
			Vendor V1086 - Periscope Intermediate Corporation Total:	**705.00**
Vendor: V0078 - Pinnacle Petroleum Inc				
23339	03/07/2018	Fuel, Feb 2018	100-2FF-5-G1-9201003	20,535.63
23339	03/07/2018	Fuel, Feb 2018	100-2FF-5-G1-9201003	20,293.60
23339	03/07/2018	Fuel, Feb 2018	100-2FF-5-G1-9201003	20,501.72
23339	03/07/2018	Fuel, Feb 2018	100-2FF-5-G1-9201003	20,689.67
23339	03/07/2018	Fuel, Feb 2018	100-2FF-5-G1-9201003	20,741.58
23375	03/14/2018	Fuel, March 2018	100-2FF-5-G1-9201003	20,291.54
23394	03/21/2018	Fuel, March 2018	100-2FF-5-G1-9201003	10,640.82
23394	03/21/2018	Fuel, March 2018	100-2FF-5-G1-9201003	8,994.63
23394	03/21/2018	Fuel, March 2018	100-2FF-5-G1-9201003	20,244.31
23394	03/21/2018	Fuel, March 2018	100-2FF-5-G1-9201003	19,978.19
23394	03/21/2018	Fuel, March 2018	100-2FF-5-G1-9201003	20,149.91
			Vendor V0078 - Pinnacle Petroleum Inc Total:	**203,061.60**
Vendor: V1258 - Prints4Life				
23395	03/21/2018	Shirts for LA County Airshow	100-5CS-5-G1-9501029	427.05
			Vendor V1258 - Prints4Life Total:	**427.05**
Vendor: V1252 - Resource Building Materials				
23376	03/14/2018	Landscaping rock	100-2FF-5-G1-9401038	816.65
			Vendor V1252 - Resource Building Materials Total:	**816.65**

Antelope Valley Transit Authority

Cash Disbursements Report CC 2.E

By Vendor Name

Payment Dates 03/01/2018 - 03/31/2018

Payment Number	Payment Date	Description (Item)	Account Number	Amount
Vendor: V0701 - Signal Campus				
23377	03/14/2018	Antelope College Campus Kiosk (13)mo. - SW/F Bs.Ed	100-1EX-5-G1-9501003	315.00
23377	03/14/2018	Antelope College Campus Kiosk (13)mo. - Library	100-1EX-5-G1-9501003	336.00
23414	03/28/2018	Antelope College Campus Kiosk (13)mo. - Library	100-1EX-5-G1-9501003	336.00
			Vendor V0701 - Signal Campus Total:	**987.00**
Vendor: V0348 - SignWarehouse, Inc.				
23396	03/21/2018	VJ-1204 MAINTENANCE KIT	100-1EX-5-G1-9501018	199.94
23396	03/21/2018	PJ/VJ ECO ULTRA INK YELLOW	100-1EX-5-G1-9501018	134.00
23396	03/21/2018	ORACAL 651 24X50 WHITE	100-1EX-5-G1-9501018	99.99
23396	03/21/2018	PJ/VJ ECO ULTRA INK MAGENTA	100-1EX-5-G1-9501018	67.00
			Vendor V0348 - SignWarehouse, Inc. Total:	**500.93**
Vendor: V0403 - Southern California Edison				
23415	03/28/2018	Electricity usage, 1/19/18-2/16/18	100-2FF-5-G1-9401021	6,265.85
23378	03/14/2018	2 PMC's 5576540 & 5576546 EV Load-Jan 2018	100-2FF-5-G1-9201012	5,653.35
23378	03/14/2018	Electricity-Lancaster City park	100-2FF-5-G1-9201010	152.66
			Vendor V0403 - Southern California Edison Total:	**12,071.86**
Vendor: V0910 - Southern California Edison				
23379	03/14/2018	2017-40 Change Order 10 - ITCC Tax Increase	100-000-2-B1-4051003	427.79
			Vendor V0910 - Southern California Edison Total:	**427.79**
Vendor: V0493 - Standard Insurance Company				
23340	03/07/2018	Dental Insurance Premium (EE)- March 2018	100-000-2-B1-4011014	1,018.19
23340	03/07/2018	Dental Insurance Premium (ER)- March 2018	100-1ZZ-5-G1-9701614	3,413.61
23340	03/07/2018	Vision Insurance Premium (EE)- March 2018	100-000-2-B1-4011016	140.93
23340	03/07/2018	Vision Insurance Premium (ER)-March 2018	100-1ZZ-5-G1-9701616	516.67
			Vendor V0493 - Standard Insurance Company Total:	**5,089.40**
Vendor: V0477 - Standard Insurance Company				
23416	03/28/2018	HADV Premium	100-1ZZ-5-G1-9701811	39.00
23416	03/28/2018	Life	100-1ZZ-5-G1-9701811	376.88
23416	03/28/2018	Short Term Disability	100-1ZZ-5-G1-9701812	1,321.66
23416	03/28/2018	Long Term Disability	100-1ZZ-5-G1-9701813	819.77
23416	03/28/2018	AD&D	100-1ZZ-5-G1-9701814	75.38
			Vendor V0477 - Standard Insurance Company Total:	**2,632.69**
Vendor: V1170 - Stradling Yocca Carlson & Rauth, A Professional Corporation				
23380	03/14/2018	Special projects	100-1EX-5-G1-9501005	1,811.50
23380	03/14/2018	Battery Elec Vehicle Alliance	100-1EX-5-G1-9501005	380.00
23380	03/14/2018	General Service-January 2018	100-1EX-5-G1-9501005	4,000.00
			Vendor V1170 - Stradling Yocca Carlson & Rauth, A Professional Corporation Total:	**6,191.50**
Vendor: V0103 - TCW Systems, Inc.				
23341	03/07/2018	Local radio repeater service	100-2FF-5-G1-9401038	500.00
			Vendor V0103 - TCW Systems, Inc. Total:	**500.00**
Vendor: V1070 - The "G" Crew				
23342	03/07/2018	Labor Compliance for New Roof on Count Room	600-1XX-5-J1-9909068	2,170.00
23342	03/07/2018	2015-18 TO 18 Labor Complaince Install 7 Cameras	600-1XX-5-J1-9909068	2,170.00
			Vendor V1070 - The "G" Crew Total:	**4,340.00**
Vendor: V0505 - The Customer Service Experts				
23343	03/07/2018	CPOS Blanket Reimbursement-Feb 2018	100-3FS-5-G1-9501037	50.00
			Vendor V0505 - The Customer Service Experts Total:	**50.00**
Vendor: V0405 - The Gas Company				
23344	03/07/2018	Utilities-Gas, 1/18/18-2/16/18	100-2FF-5-G1-9401022	4,701.83
			Vendor V0405 - The Gas Company Total:	**4,701.83**
Vendor: V0904 - Time Warner/Spectrum Business				
23381	03/14/2018	Internet-03/13/18-4/12/18	100-2FF-5-G1-9401025	1,365.00
23381	03/14/2018	Cable Service 03/11/18-4/10/18	100-2FF-5-G1-9401025	250.66
			Vendor V0904 - Time Warner/Spectrum Business Total:	**1,615.66**

Antelope Valley Transit Authority

Cash Disbursements Report CC 2.E

By Vendor Name

Payment Dates 03/01/2018 - 03/31/2018

Payment Number	Payment Date	Description (Item)	Account Number	Amount
Vendor: V0252 - Transdev, Inc.				
23417	03/28/2018	Local and Commuter Maint and Service, Feb 2018	100-2FF-5-G1-9001013	1,129,726.72
23417	03/28/2018	Metrolink Assistance-Feb 2018	100-2FF-5-G1-9001013	864.41
23417	03/28/2018	Commuter Recovery-Feb 2018	100-2FF-5-G1-9001013	6,148.34
23417	03/28/2018	BYD Elect buses, Routes 1,97-Bus#4371&4370-FEB 18	100-2FF-5-G1-9001016	31,529.57
23417	03/28/2018	JARC Commuter Hours-785-786-787-Feb 2018	100-2FF-5-G1-9001015	18,190.45
23417	03/28/2018	Travel training-Feb 2018	100-5CS-5-G1-9401035	331.91
23417	03/28/2018	Commuter Recovery STANDBY-Feb 2018	100-2FF-5-G1-9001013	1,124.36
			Vendor V0252 - Transdev, Inc. Total:	**1,187,915.76**
Vendor: V0451 - Tyler Technologies				
23382	03/14/2018	Dell Rack Mount	600-1XX-5-J1-9910003	6,875.00
23382	03/14/2018	Tyler Annual maintenace-July 2018-March 2019	100-000-1-A1-0401004	9,282.66
23382	03/14/2018	Tyler Annual maintenace-April 1-June 30, 2018	100-2FF-5-G1-9401012	3,094.22
23397	03/21/2018	A/R Implementation	100-2FF-5-G1-9401012	1,800.00
23397	03/21/2018	AR Migration from Tyler v.8 to Tyler v.X	100-2FF-5-G1-9401012	562.50
23418	03/28/2018	A/R Migration consulting fees	100-1EX-5-G1-9501013	31.25
			Vendor V0451 - Tyler Technologies Total:	**21,645.63**
Vendor: V0189 - United Parcel Service				
23345	03/07/2018	Shipping charges	100-3FS-5-G1-9501010	41.11
23419	03/28/2018	Shipping charges	100-3FS-5-G1-9501010	127.72
			Vendor V0189 - United Parcel Service Total:	**168.83**
Vendor: V1267 - United States Bankruptcy Court				
23346	03/07/2018	LA13-38529-NB	100-000-2-B1-4011034	670.61
23406	03/22/2018	LA13-38529-NB	100-000-2-B1-4011034	670.61
			Vendor V1267 - United States Bankruptcy Court Total:	**1,341.22**
Vendor: V0353 - UNUM Life Insurance Co of Amer				
23407	03/22/2018	Long Term Care (EE)	100-000-2-B1-4011024	123.90
23407	03/22/2018	Long Term Care (ER)	100-1ZZ-5-G1-9702618	465.30
			Vendor V0353 - UNUM Life Insurance Co of Amer Total:	**589.20**
Vendor: V0302 - US Bank				
23347	03/07/2018	Registration-CTA Conf-May 2018	100-1EX-5-G1-9501019	525.00
23347	03/07/2018	BUS 2018 Housing-Tampa, FL	100-1EX-5-G1-9501019	1,310.40
23347	03/07/2018	Registration-CALACT Spring Conf	100-1EX-5-G1-9501019	890.00
23347	03/07/2018	Lunch for all hands meeting	100-1EX-5-G1-9501019	134.64
23347	03/07/2018	Airfare-CA Transit Association-May 2018-J Fry/NH	100-1EX-5-G1-9501019	295.94
23347	03/07/2018	Palmdale Chamber-luncheon	100-1EX-5-G1-9501019	25.00
23347	03/07/2018	Lancaster Chamber of Comm luncheon	100-1EX-5-G1-9501019	25.00
23347	03/07/2018	AV Hispanic luncheon	100-1EX-5-G1-9501019	20.00
23347	03/07/2018	Credits-APTA Legislative Conference-2018	100-1EX-5-G1-9501019	(1,506.84)
23347	03/07/2018	Lodging-ECS 1st Qtr user group meeting	100-1EX-5-G1-9501019	317.46
23347	03/07/2018	AVBOT luncheon ticket	100-1EX-5-G1-9501019	60.00
23347	03/07/2018	N Hickling-hotel.lodging-Miami FL	100-1EX-5-G1-9501019	1,254.56
23347	03/07/2018	HR Webinar	100-1EX-5-G1-9501035	179.00
23347	03/07/2018	Hard drive recovery-HR Data recovery	100-2FF-5-G1-9401012	650.00
23347	03/07/2018	laminate ID pouches for CS use	100-3FS-5-G1-9501009	94.84
23347	03/07/2018	Uber trip-meeting	100-1EX-5-G1-9501019	72.75
23347	03/07/2018	Inflight wi-fi	100-1EX-5-G1-9501019	8.00
23347	03/07/2018	Lodging-marriot LA	100-1EX-5-G1-9501019	225.68
23347	03/07/2018	Parking-marriott LA	100-1EX-5-G1-9501019	55.00
23347	03/07/2018	Bearing, oil seal, Brake pads, etc	100-2FF-5-G1-9401038	549.54
23347	03/07/2018	Seal kit	100-2FF-5-G1-9401038	125.71
			Vendor V0302 - US Bank Total:	**5,311.68**
Vendor: V0969 - Walsma Oil Company				
23349	03/07/2018	DIESEL EXHAUST FLUID	100-2FF-5-G1-9201003	2,428.27
			Vendor V0969 - Walsma Oil Company Total:	**2,428.27**

Antelope Valley Transit Authority

Cash Disbursements Report CC 2.E

By Vendor Name

Payment Dates 03/01/2018 - 03/31/2018

Payment Number	Payment Date	Description (Item)	Account Number	Amount
Vendor: V0550 - Waste Management				
23350	03/07/2018	Utilities, Waste- Feb 2018	100-2FF-5-G1-9401023	1,066.60
			Vendor V0550 - Waste Management Total:	**1,066.60**
Vendor: V0457 - Waxie Enterprises Inc.				
23351	03/07/2018	bus stop canopy wash	100-2FF-5-G1-9401038	46.65
23351	03/07/2018	large can liners	100-2FF-5-G1-9401038	1,028.74
23351	03/07/2018	premium tissue	100-2FF-5-G1-9401038	746.35
23351	03/07/2018	roll towels	100-2FF-5-G1-9401038	568.74
23351	03/07/2018	large vinyl gloves	100-2FF-5-G1-9401038	100.19
23351	03/07/2018	multi-surface cleaner	100-2FF-5-G1-9401038	21.53
23351	03/07/2018	mop handles	100-2FF-5-G1-9401038	24.48
23351	03/07/2018	bowl cleaner	100-2FF-5-G1-9401038	43.67
23351	03/07/2018	borax soap	100-2FF-5-G1-9401038	94.17
23351	03/07/2018	roll kitchen towels	100-2FF-5-G1-9401038	59.06
23351	03/07/2018	hand soap	100-2FF-5-G1-9401038	69.07
23351	03/07/2018	x-large vinyl gloves	100-2FF-5-G1-9401038	72.20
23351	03/07/2018	small can liners	100-2FF-5-G1-9401038	81.75
			Vendor V0457 - Waxie Enterprises Inc. Total:	**2,956.60**
Vendor: V1154 - Weideman Group Inc.				
23383	03/14/2018	CA Advocacy Consulting Services-March 2018	100-1EX-5-G1-9501015	10,000.00
			Vendor V1154 - Weideman Group Inc. Total:	**10,000.00**
Vendor: V0112 - Western Exterminators				
23384	03/14/2018	Exterminator Service, Feb 2018	100-2FF-5-G1-9401005	102.00
			Vendor V0112 - Western Exterminators Total:	**102.00**
Vendor: V0124 - Witts				
23353	03/07/2018	Office Supplies	100-3FS-5-G1-9501009	312.90
23385	03/14/2018	Office Supplies	100-3FS-5-G1-9501009	123.54
23398	03/21/2018	2 high office chairs for Count room use	100-3FS-5-G1-9501009	579.03
23420	03/28/2018	Office Supplies	100-3FS-5-G1-9501009	285.82
23420	03/28/2018	Office Supplies	100-3FS-5-G1-9501009	24.46
			Vendor V0124 - Witts Total:	**1,325.75**
			Grand Total:	**1,768,674.64**

DATE: **April 24, 2018**

TO: **BOARD OF DIRECTORS**

SUBJECT: **FY18 Third Quarter Los Angeles County Sheriff's Department Report (January 1 - March 31, 2018)**

RECOMMENDATION

That the Board of Directors receive and file the FY18 Third Quarter Los Angeles County Sheriff's Department Report for the period covering January 1 - March 31, 2018.

FISCAL IMPACT

No fiscal impact at this time.

DISCUSSION

Deputy Maselli and his K-9 partner, Ieka, worked a total of 444 hours during the third quarter of FY18.

At the beginning of each shift, Deputy Maselli contacted bus operators to ascertain if there were any concerns or problems to report, as well as anything that might have been reported from the previous day. On average, Deputy Maselli made contact with an estimated 25-30 buses/bus operators per day, and approximately 37,800 passengers over the entire period.

Deputy Maselli monitored various locations that had reported problems. These locations included: Sgt. Steven Owen Memorial Park (SSOMP), the Lancaster Senior Center, 6th Street East & Palmdale Boulevard, Palmdale Transportation Center (PTC), and the Lancaster Metrolink Station.

Deputy Maselli along with his K-9 partner Ieka, conducted high visibility K-9 terrorism and explosives deterrence sweeps at the AVTA office, AVTA transfer centers, on AVTA buses and at random bus stop locations throughout the Antelope Valley.
On January 08, Deputy Maselli responded to a call regarding a one-on-one traffic collision involving an AVTA bus. The female subject was arrested and cited for driving unlicensed and unsafe speed at 10th St. West and Avenue L-8.
The following is a list of misdemeanors, infractions and arrest warrants included on citations issued from January 1 through March 31. All citations were issued at transit centers or at bus stops in the AVTA service area.

Citations	Jan 18	Feb 18	Mar 18
Suspended or Unlicensed Driver	14	8	9
Expired Registration	13	5	9
Registration Not in Vehicle	1	-	2
No Proof of Insurance	15	9	12
Drinking in Public (Bus Stops)	4	8	8
Failure to Have Both License Plates on Vehicle	9	8	7
Failure to Obey Posted Signs at Transit Centers	12	1	1
Impounded Vehicle	8	4	4
Outstanding Warrant Arrest	4	3	4
No Required Interlock Ignition Device	2	1	-
Defective Front Windshield	3	-	2
Allowing Unlicensed Driver to Operate Vehicle	1	-	-
Not Wearing Seat Belt	-	-	1

During the month of January Deputy Maselli issued twenty-one (21) citations, made nineteen (19) arrests, impounded/stored eight (8) vehicles, and had five (5) warrants. All citations were transit related and issued at transfer centers and bus stop locations. He donated 20 hours to AVTA. He warned and advised approximately 12+ persons regarding disobeying posted signs, smoking in prohibited areas, and traffic related incidents at SSOMP, PTC, and at AVTA bus stops.

During the month of February Deputy Maselli issued eighteen (18) citations, made sixteen (16) arrests, impounded/stored four (4) vehicles, and had four (4) warrants. All citations were transit related and issued at transfer centers and bus stop locations. He donated 12 hours to AVTA. He warned and advised approximately 17+ persons regarding disobeying posted signs, smoking in prohibited areas, and traffic related violations at SSOMP, PTC, and AVTA bus stops.

During the month of March Deputy Maselli issued twenty-seven (27) citations, made fifteen (15) arrests, impounded/stored four (4) vehicles, and had five (5) warrants.

All citations were transit related and issued at transfer centers and bus stop locations. He donated 30 hours to AVTA. He warned and advised approximately 14+ persons regarding disobeying posted signs, smoking in prohibited areas, and traffic related incidents at SSOMP, PTC, and at AVTA bus stops.

Prepared by:

_____
Kelly Miller
Community Outreach Specialist

Submitted by:

_____
Len Engel
Executive Director/CEO

DATE: **April 24, 2018**

TO: **BOARD OF DIRECTORS**

SUBJECT: **Resolution No. 2018-006, Authorizing the Executive Director/CEO to Execute Agreements Necessary for the Server Room Upgrade Project with Funds from the California State of Good Repair Program**

RECOMMENDATION

That the Board of Directors adopt Resolution No. 2018-006, a Resolution of the Board of Directors of the Antelope Transit Authority authorizing the Executive Director/CEO to execute agreements necessary for the Server Room Upgrade Project with funds from the California State of Good Repair Program.

FISCAL IMPACT

Adopting Resolution No. 2018-006 would authorize the Executive Director/CEO to enter contractual agreements and authorize any other required documents, on behalf of AVTA and the Board of Directors, to upgrade AVTA's antiquated server room.

BACKGROUND

AVTA receives annual apportionments from the California Department of Transportation. The AVTA Board is required to adopt Resolution No. 2018-006 in order to approve the Server Room Upgrade project, and receive the FY18 allocation of $183,220.

Prepared by:

_____
Judy Fry
Grants Administrator

Submitted by:

_____
Len Engel
Executive Director/CEO

Attachment: A – Resolution No. 2018-006

RESOLUTION #2018-006

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE ANTELOPE VALLEY TRANSIT AUTHORITY AUTHORIZING THE EXECUTIVE DIRECTOR/CEO TO EXECUTE AGREEMENTS NECESSARY FOR THE SERVER ROOM UPGRADE PROJECT WITH FUNDS FROM THE CALIFORNIA STATE OF GOOD REPAIR PROGRAM

WHEREAS, the **ANTELOPE VALLEY TRANSIT AUTHORITY** is an eligible project sponsor and may receive State Transit Assistance funding from the State of Good Repair Account (SGR) now or sometime in the future for transit projects; and

WHEREAS, the statutes related to state-funded transit projects require a local or regional implementing agency to abide by various regulations; and

WHEREAS, Senate Bill 1 (2018) named the Department of Transportation (Department) as the administrative agency for the SGR; and

WHEREAS, the Department has developed guidelines for the purpose of administering and distributing SGR funds to eligible project sponsors (local agencies); and

WHEREAS, the **ANTELOPE VALLEY TRANSIT AUTHORITY** wishes to delegate authorization to execute these documents and any amendments thereto to the Executive Director/Chief Executive Officer.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Antelope Valley Transit Authority that the fund recipient agrees to comply with all conditions and requirements set forth in the Certification and Assurances document and applicable statutes, regulations and guidelines for all SGR funded transit projects.

NOW THEREFORE, BE IT FURTHER RESOLVED that the Executive Director/Chief Executive Officer be authorized to execute agreements necessary for the Server Room Upgrade Project with funds from the California State of Good Repair Program.

PASSED, APPROVED AND ADOPTED this 24th day of April 2018.

AYES: _____ NAYS: _____

ABSTAIN: _____ ABSENT: _____

_____
Marvin Crist, Chairman

ATTEST:

_____
Karen S. Darr, Clerk of the Board

APPROVED AS TO FORM:

_____
Allison E. Burns, General Counsel

DATE: **April 24, 2018**

TO: **BOARD OF DIRECTORS**

SUBJECT: **Resolution No. 2018-008, Authorizing the Executive Director/CEO to Execute the Necessary Agreement to Procure One (1) Battery Electric Commuter Bus with Funds from the Fiscal Year 2017/2018 (FY18) Cap and Trade Low Carbon Transit Operations Program (LCTOP)**

RECOMMENDATION

That the Board of Directors adopt Resolution No. 2018-008, a Resolution of the Board of Directors of the Antelope Valley Transit Authority authorizing the Executive Director/CEO to execute the necessary agreement to procure one (1) battery electric commuter bus with funds from the 2017/2018 (FY18) Cap and Trade Low Carbon Transit Operations Program (LCTOP) Program.

FISCAL IMPACT

Adopting Resolution No. 2018-008 authorizes the Executive Director/CEO to execute the necessary agreement to procure one (1) battery electric commuter bus.

BACKGROUND

AVTA is projected to receive a FY18 apportionment from the Cap and Trade LCTOP in the amount of $169,222. AVTA initially proposed funds be used toward the Southeast Transit Connection Center, however based on a revised (Disadvantaged Community) DAC Map, a newly identified DAC falls within the eastside Lancaster service area, the originally proposed project does not qualify for use of LCTOP funds. The LCTOP guidance states "*For agencies whose service area includes a Disadvantaged Community (DAC), at least 50% of the total monies received shall be expended on projects that provide a direct, meaningful and assured benefit to DAC(s)*". The Southeast Transit Center does not share a route that travels through the DAC area, therefore we have applied the funds toward the unfunded portion of the bus procurement project. Funds will be used toward the cost of one commuter bus, which travels through, and provides a direct, meaningful and assured benefit to several DAC's in the Los Angeles basin.

Prepared by: Submitted by:

_____ _____

Judy Fry
Grants Administrator

Len Engel
Executive Director/CEO

Attachment: A – Resolution No. 2018-008

BOARD OF DIRECTORS

ANTELOPE VALLEY TRANSIT AUTHORITY

RESOLUTION #2018-008

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE ANTELOPE VALLEY TRANSIT AUTHORITY AUTHORIZING THE EXECUTIVE DIRECTOR/CEO TO EXECUTE THE NECESSARY AGREEMENT TO PROCURE ONE (1) BATTERY ELECTRIC COMMUTER BUS WITH FUNDS FROM THE FISCAL YEAR 2017/2018 (FY18) CAP AND TRADE LOW CARBON TRANSIT OPERATIONS PROGRAM (LCTOP)

WHEREAS, the statutes related to state-funded transit projects require a local or regional implementing agency to abide by various regulations; and

WHEREAS, Senate Bill 862 (2014) named the Department of Transportation (Department) as the administrative agency for the LCTOP; and

WHEREAS, the Department has developed guidelines for the purpose of administering and distributing LCTOP funds to eligible project sponsors (local agencies); and

WHEREAS, the Antelope Valley Transit Authority wishes to implement the LCTOP project(s) listed below,

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Antelope Valley Transit Authority that the fund recipient agrees to comply with all conditions and requirements set forth in the applicable statutes, regulations and guidelines for all LCTOP funded transit projects.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Antelope Valley Transit Authority that it hereby authorizes the submittal of the following project nomination(s) and allocation request(s) to the Department in FY 2017/2018 LCTOP funds:

List project(s), including the following information:

Project Name: Procure One (1) Commuter Bus

Amount of LCTOP funds requested: $169,222

Short description of project: Procure One (1) Commuter Bus

PASSED, APPROVED AND ADOPTED this 24th day of April 2018.

AYES: _____ NAYS: _____

ABSTAIN: _____ ABSENT: _____

_____
Marvin Crist, Board Chairman

ATTEST: APPROVED AS TO FORM:

_____ _____
Karen S. Darr, Clerk of the Board Allison E. Burns, General Counsel

DATE: **April 24, 2018**

TO: **BOARD OF DIRECTORS**

SUBJECT: **Election of Board Officers for Fiscal Year 2018/2019 (FY19)**

RECOMMENDATION

That the Board of Directors nominate and elect a Chair and Vice Chair for FY19.

FISCAL IMPACT

There is no fiscal impact.

BACKGROUND

Board officer elections are conducted annually. The election process specifically allows the Board to nominate and elect any Board member for Chair and Vice Chair, provided that members from the same jurisdiction do not occupy both offices at the same time. The term of each office is one (1) year commencing on July 1, provided that no member serve in either position for more than four (4) consecutive, one (1) year terms without a minimum one (1) year break in service.

Chairman Crist and Vice Chair Knippel have served in their positions for three years. If the Board nominates and elects Chairman Crist and Vice Chair Knippel for FY19, it would be the final year they can occupy their office before taking the required one year break in service.

Prepared by:

_____
Karen Darr
Clerk of the Board

Submitted by:

_____
Len Engel
Executive Director/CEO

DATE: **Board Meeting April 24, 2018**

TO: **BOARD OF DIRECTORS**

SUBJECT: **FY 2019 Preliminary Business Plan Assumptions**

RECOMMENDATION

That the Board of Directors approve the Preliminary FY 2019 Business Plan Assumptions and provide direction to staff regarding fiscal priorities for the Final FY 2019 Business Plan.

FISCAL IMPACT

The fiscal impact of the FY 2019 Business Plan will be determined as the proposed budget is developed, with a final presentation at the May 2018 Board Meeting.

BACKGROUND

AVTA has experienced recent staff changes and therefore made a decision to outsource the preparation of the FY 2019 operating budget to consultant K.J. Alcuran. K.J. Alcuran is a former AVTA Finance Department employee with considerable institutional knowledge that could be used to prepare the FY 2019 Business Plan in a short amount of time. The capital budget was prepared by Judy Vaccaro-Fry.

The operating budget process began with a thorough review of each active account in the AVTA ledger to be certain all expenditures and revenue lines were addressed.

The operating budget is a cash budget and does not include depreciation costs. It should be noted that AVTA is likely to incur higher than normal non-cash depreciation expense in FY 2019 as the agency transitions to an all-electric fleet. Capital project funding has been detailed to guide AVTA to realizing the Board's goal of an all-electric fleet.

Attachment A describes the initiatives and assumptions proposed for the draft Operating Assumptions and Attachment B Capital Assumptions.

Prepared by:

_____
K.J. Alcuran, Consultant
Judy Vaccaro-Fry, Grants Administrator

Submitted by:

_____
Len Engel
Executive Director/CEO

Attachment:

Attachment A

Fiscal Year 2019 (FY 2019) Business Plan Assumptions

Operating Budget Assumptions

OPERATING REVENUE

- Fare Revenue: Total revenue projections for local and commuter routes are settled at $5 million. Total fare revenue projections have reduced $500,000 from the FY 2018 original operating budget. Upon staff review of the last 12 months of actual revenue receipts it is shown that revenue is lower than in prior years and $5 million conservatively aligns with current revenue trends.
- Tax Revenue: According to the most recent Transit Fund Allocations draft from the Los Angeles County Metropolitan Transportation Commission (LACMTA), the agency will receive a total of $12,181,898 in operating funds including all funds from measure M. Overall, tax revenue for AVTA is increasing.

  Below is a comparison of year-to-year funding marks. Note the most current funding marks from LACMTA are still in draft form and likely will not be final until June 2018.

Funding Source	FY18 FINAL MTA Funding	FY19 DRAFT MTA Funding	Increase/decrease from FY18 to FY19
Prop A 95% of 40%	$ 4,097,338	$ 4,944,229	**$ 846,891**
Foothill Mtg	$ 5,816	$ 28,596	**$ 22,780**
Trans Svc Exp	$ 377,002	$ 387,379	**$ 10,377**
BSIP Overcrowd relief	$ 47,849	$ 49,116	**$ 1,267**
Prop C5% bus security	$ 201,215	$ 187,576	**$ (13,639)**
Prop C MOSIP	$ 1,177,961	$ 1,196,310	**$ 18,349**
Measure R	$ 2,382,333	$ 2,482,564	**$ 100,231**
Prop A DAR	$ 399,700	$ 399,700	**$ -**
Measure M	$ 2,268,938	$ 2,506,428	**$ 237,490**
			$ -
TOTAL	**$ 10,958,152**	**$ 12,181,898**	**$ 1,223,746**

- Jurisdictional Operating Contributions: FY 2019 contributions from all three contributing parties is currently maintained at FY 2018 levels.
- Federal Operating Subsidy: FTA 5307 funds will offset direct operating costs and preventative maintenance at $2 million and $4.3 million, respectively.
- Other Operating Revenues: Advertising revenue will be budgeted at $144,800 which reflects $62,000 over the base contract amount. The rebate program from SCE has been paid in full and is complete. No further revenue

will be realized from this program. Interest/investment income is conservatively budgeted at $40,000.

OPERATING EXPENDITURES

- Transdev contract: Transdev's operations contract will increase steadily another three percent over prior year costs according to the contract. The first half of the FY 2019 fiscal year will see costs of $80.56 per revenue hour and $82.99 per revenue hour beginning January 1, 2019. Additionally, total revenue hours are expected to rise with the addition of service specific to AVC. Transdev's operations contract for local and commuter service is the largest single expenditure line for the agency.
- IntelliRide contract: IntelliRide will continue operating the DAR program. Per contract, costs for DAR service will increase 1.5 percent, effective January 1, 2019. Rides are capped at 33,000 per year and the agency will budget for all rides possible.
- Bus propulsion: As AVTA is a pioneer in the implementation of an all-electric fleet, the subject of fuel costs and electricity costs becomes increasingly complex in FY 2019. Until more data is collected and the transition is complete, it is recommended the agency budget at a rate of $.77 per mile to cover the costs of fuel and/or electricity. All-inclusive miles expected are approximately 3.75 million over the year. Additional funds are budgeted here for DEF lubricants and unleaded fuel as well. A thorough analysis will be conducted at mid-year.
- Personnel: AVTA employs 36 full-time positions and six part-time positions. Currently two full-time positions (Innovation Coordinator and Director of Finance) are unfilled; however, funds for these positions are included in the budget for FY 2019. No COLA is assumed and performance evaluations are based on merit to the maximum of each positions salary range. The FY 2019 merit pool is a maximum of 5% in accordance with the Board-approved Compensation Plan.
    - Management is recommending three new staff positions:
        - Operations Analyst: As we transition to an all-electric fleet it is going to be vital AVTA monitor fixed-route and Dial-A-Ride contract operations on a more detailed basis. The position will be valuable in future planning efforts as we anticipate receipt of the Caltrans Sustainable Cities grant for Regional Transit Planning.
        - Grants Coordinator: AVTA's Grants Administrator has done an exceptional job, but she needs help. Judy Fry is active regionally on the Metro Bus Operator's Subcommittee (BOS), and develops and administers our numerous grant programs. This new position would be concentrated more on finding grant opportunities and developing grant applications.
        - Project Coordinator: position will be the project lead over the number of facility construction projects that are anticipated for

the next year to 18 months. The position that would lead the WAVE charger installations, transit centers at the Palmdale health clinic and Lancaster Metrolink station, etc.

  - Management is recommending two reassignments of current staff positions:
    - Director of Fleet & Facilities to Director of Operations & Maintenance: In addition to the personnel currently reporting to Fleet & Facilities, the Transit Analyst, Operations Analyst, and the IT staff would report to O&M.
    - Director of Administration: This is a position that is being brought back. Grants Administrator would assume this position. Reporting to DOA would be Community Outreach, Graphics, HR, Purchasing, Records Management, and Customer Service.
- The FY 2019 personnel budget assumes the maximum possible rate increase for each employee.
  - Benefits: The current employee benefit structure will be maintained. However, costs for employee benefits are expected to increase. AVTA's health insurance agent is projecting a 10-13 percent rise in healthcare costs beginning during open enrollment in November. All other benefits are budgeted to increase 3-10 percent including workers compensation coverage.
  - Pension: The employer share of CalPERS remains steady at 8.4 percent for CalPERS Classic and 6.5 percent for CalPERS Public Employee Pension Reform Act (PEPRA). CalPERS calculates pension contributions based on payroll figures one year in arrears. The agency budgeted for twenty PEPRA employees. The employee contribution share of 7 percent for CalPERS Classic is paid by AVTA.
- Insurance: Insurance coverage costs are currently under negotiation. As with FY 2018, the assumed increase is 10% above prior year costs. Actual rates will likely be complete in June 2018 after the budget is finished and will be part of the mid-year review.
- Capital Project Local Match: The downtown Los Angeles parking facility regional partnership project will require approximately $180,000 in local match funds. Funds for local match on federal grant monies cannot be from other federal funds, and therefore will be covered under operating costs for FY 2019.

NB 2 - ATTACHMENT A

APPENDIX B: FY19 DETAILED CAPITAL SOURCES AND SPENDING

CAPITAL PROJECTS	FY19 GRANTABLE Budget Items	FY19 CAPITAL Budget Items	State Funds Annual Allocation	State Grant Award	State Incentive Credits	Federal Funds Annual Allocation	Federal Grant Award	Local Grant Award	Jurisdictional Capital Reserve	Local Allocations + Internal Reserve	Future Grant / Allocation
Vehicle Purchase + Related Projects											
Replacement Vehicles											
60' Articulated Local Transit Replacement (13)	$ 14,898,000	$ 14,898,000	$ 1,617,291	$ 4,988,600	$ 2,743,000	$ 3,725,859			$ 1,823,250		
45' Commuter Replacement Coach (30)	$ 26,160,000	$ 26,160,000	$ 54,831	$ 6,760,396	$ 5,796,000	$ 8,161,773			$ 3,054,600		$ 2,332,400
40' Transit Replacement Bus (30)	$ 25,037,550	$ 25,037,550		$ 2,429,076	$ 5,394,000	$ 9,304,207	$ 705,347	$ 2,433,167	$ 3,117,859		$ 1,653,894
Replacement Vehicles Total	**$ 66,095,550**	**$ 66,095,550**	**$ 1,672,122**	**$ 14,178,072**	**$ 13,933,000**	**$ 21,191,839**	**$ 705,347**	**$ 2,433,167**	**$ 7,995,709**	**$ -**	**$ 3,986,294**
Expansion Vehicles											
40' Transit Expansion Bus (5)	$ 4,172,925	$ 4,172,925		$ 2,143,573	$ 930,000				$ 486,439		$ 612,915
Vanpool Vehicles (10)	$ 400,000	$ 400,000		$ 400,000							
Expansion Vehicles Total	**$ 4,572,925**	**$ 4,572,925**	**$ -**	**$ 2,543,573**	**$ 930,000**	**$ -**	**$ -**	**$ -**	**$ 486,439**	**$ -**	**$ 612,915**
Supporting Vehicles/Infrastructure/Services											
Support Vehicles	$ 240,000										
Four (4) Driver Relief Vehicles		$ 120,000				$ 120,000					
Two (2) Stake Bed Trucks		$ 70,000				$ 70,000					
One (1) BSIP Truck		$ 50,000				$ 50,000					
Farebox Replacement Project - 1st 1/2 of project	$ 430,000	$ 430,000									$ 430,000
CalSTA Administration Fee (estimate)	$ 150,000			$ 150,000							
Major Bus Components	$ 50,000	$ 50,000				$ 50,000					
Secondary Chargers (14 + 5)	$ 2,142,915	$ 2,142,915				$ 563,925					$ 1,578,988
Supporting Vehicles/ Infrastructure/Services Total	**$ 3,012,915**	**$ 2,862,915**	**$ -**	**$ 150,000**	**$ -**	**$ 853,925**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 2,008,988**
Vehicle Purchase + Related Projects Total	**$ 73,681,390**	**$ 73,531,390**	**$ 1,672,122**	**$ 16,871,645**	**$ 14,863,000**	**$ 22,045,764**	**$ 705,347**	**$ 2,433,167**	**$ 8,482,148**	**$ -**	**$ 6,608,197**

APPENDIX B: FY19 DETAILED CAPITAL SOURCES AND SPENDING

CAPITAL PROJECTS	FY19 GRANTABLE Budget Items	FY19 CAPITAL Budget Items	State Funds Annual Allocation	State Grant Award	State Incentive Credits	Federal Funds Annual Allocation	Federal Grant Award	Local Funds Annual Allocation	Jurisdiction Capital Reserve	Local Allocations + Internal Reserves	Future Grant / Allocation
Infrastructure Upgrades + Facilities Equipment											
Regional Partnership Projects											
DTLA Commuter Parking Center Upgrade	$ 182,000	$ 182,000									$ 182,000
Southeast Valley Transit Center	$ 1,188,350	$ 1,188,350	$ 818,117			$ 370,233					
Northeast Valley Transit Center	$ 1,375,000	$ 1,375,000									$ 1,375,000
Steve Owen Memorial Park Infrastructure Upgrade	$ 546,000	$ 546,000		$ 546,000							
Palmdale Transportation Center Infrastructure Upgrade	$ 600,000	$ 600,000		$ 600,000							
FY19 Regional Partnership Projects	$ 500,000										

		$ 500,000				$ 500,000						
Regional Partnership Projects Total	**$ 4,391,350**	**$ 4,391,350**	**$ 818,117**	**$ 1,146,000**	**$ -**	**$ 870,233**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1,557,000**	
Facilities Equipment												
Equipment & Other	**$ 104,200**											
Fuel Level Cards PM		**$ 66,000**				$ 66,000						
Fuel Management Card System		**$ 2,200**				$ 2,200						
Fire Suppression Panels		**$ 11,000**				$ 11,000						
Cordless Bus Lifts		**$ 25,000**				$ 25,000						
Facilities Equipment Total	**$ 104,200**	**$ 104,200**	**$ -**	**$ -**	**$ -**	**$ 104,200**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	
Infrastructure Upgrades & Facilty Equipment Total	**$ 4,495,550**	**$ 4,495,550**	**$ 818,117**	**$ 1,146,000**	**$ -**	**$ 974,433**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1,557,000**	

APPENDIX B: FY19 DETAILED CAPITAL SOURCES AND SPENDING

CAPITAL PROJECTS	FY19 GRANTABLE Budget Items	FY19 CAPITAL Budget Items	State Funds Annual Allocation	State Grant Award	State Incentive Credits	Federal Funds Annual Allocation	Federal Grant Award	Local Funds Annual Allocation	Jurisdiction Capital Reserve	Local Allocations + Internal Reserves	Future Grant / Allocation
Other Projects											
Data & Communication											
Server Room Upgrade	**$ 183,220**										
		$ 183,220	$ 183,220								
Annual Workstation Replacement Plan	**$ 40,000**										
		$ 40,000				$ 40,000					
Veeder Root Communication Upgrade	**$ 3,500**										
						$ 3,500					
Avail Modem Upgrade	**$ 188,000**										
		$ 188,000				$ 188,000					
Brightside Lobby Displays (3)	**$ 3,600**										
						$ 3,600					
Modem Upgrade - HAM / ELMS	**$ 150,000**										
		$ 150,000				$ 150,000					
Transit Asset Management Software	**$ 100,000**										
		$ 100,000				$ 100,000					
Elerts Emergency Alert Program Software	**$ 25,000**										
		$ 25,000	$ 20,786			$ 4,214					
POS Card Readers - Customer Service	**$ 5,000**										
		$ 5,000				$ 5,000					
Data and Communications Total	**$ 698,320**	**$ 691,220**	**$ 204,006**	**$ -**	**$ -**	**$ 494,314**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Security - Bus and Facility											
Security Emergency Preparedness Management Plan	**$ 75,000**										
		$ 75,000	$ 75,000								
Facility Access Upgrade	**$ 231,000**										
Rekey Facility		**$ 6,000**				$ 6,000					
Facilty Cameras		**$ 185,000**	$ 185,000								
North Gate Upgrade		**$ 40,000**	$ 40,000								
Fare Enforcement	**$ 12,000**										
		$ 12,000								$ 12,000	
Fall Protection System	**$ 30,000**										
		$ 30,000				$ 30,000					
Security - Bus & Facility Total	**$ 348,000**	**$ 348,000**	**$ 300,000**	**$ -**	**$ -**	**$ 36,000**	**$ -**	**$ -**	**$ -**	**$ 12,000**	**$ -**
TOTAL Other Projects	**$ 1,046,320**	**$ 1,039,220**	**$ 504,006**	**$ -**	**$ -**	**$ 530,314**	**$ -**	**$ -**	**$ -**	**$ 12,000**	**$ -**
FY19 Capital Projects Total	**$ 79,223,260**	**$ 79,066,160**	**$ 2,994,245**	**$ 18,017,645**	**$ 14,863,000**	**$ 23,550,511**	**$ 705,347**	**$ 2,433,167**	**$ 8,482,148**	**$ 12,000**	**$ 8,165,197**

APPENDIX B: FY19 DETAILED CAPITAL SOURCES AND SPENDING

OPERATING PROJECTS	FY19 GRANTABLE Budget Items	FY19 CAPITAL Budget Items	State Funds Annual Allocation	State Grant Award	State Incentive Credits	Federal Funds Annual Allocation	Federal Grant Award	Local Funds Annual Allocation	Jurisdiction Capital Reserve	Local Allocations + Internal Reserves	Future Grant / Allocation
Planning & Operating Projects - Grantable											

JARC Voucher Program	**$ 156,000**						$ 156,000				
JARC Commuter Expansion Program	**$ 135,000**						$ 135,000				
Mobility Management - Sustainable Cities	**$ 150,000**										$ 150,000
Planning & Operating Projects Total	**$ 441,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 291,000**	**$ -**	**$ -**	**$ -**	**$ 150,000**
TOTAL Planning & Operating Projects	**$ 441,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 291,000**	**$ -**	**$ -**	**$ -**	**$ 150,000**
FY19 Operating Projects	**$ 441,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 291,000**	**$ -**	**$ -**	**$ -**	**$ 150,000**

APPENDIX B: FY18 DETAILED CAPITAL SOURCES AND SPENDING

GL No.	PROJECT	FY 17 GRANTABLE Budget Items	FY 17 CAPITAL Budget Items	Prior Grant Approval	Current Grant Cycle	Toll Credits	Local Funds	Prop 1B PTMISEA	Prop 1B Transit Security	Measure R Clean Fuels	AVAQMD AB2766	Discretionary Grant Awards	Jurisdiction Capital Reserve	Prop A 40% Disc	Cash Reserves	Unfunded	
Vehicle Purchase and Maintenance																	
Electric Bus Infrastructure Improvements																	
	Planning Projects TOTAL	$ 200,000	$ 25,000	$ 87,500	$ 20,000	$ 92,500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
FY17 Project Totals		**$ 34,533,109**	**$ 34,926,312**	$ 4,239,354	$ 421,723	$ 253,931	$ 30,337,901	$ 165,000	$ 331,397	$ -	$ -	$ 25,933,651	$ 3,907,854	$ -	$ -	$ -	$ 30,337,901 $ -

FY 18 Requests		Cost	Taxes	Total		
Fleet & Maintenance (From Mark)		?				
40' Buses		?				
45' Buses		?				
60' Buses		?				
Depot Charging assumed completed in '17		?				
WAVE Charging Hardware		?				
WAVE Construction		?				
Major Bus Components		150,000	~~15,000~~	~~165,000~~	only $150k in TIP for FY18. If we need more, can add later	
Support Vehicles						
Vans, 3 @ $30,000 + 10%	99,000					
Stake Bed Trucks 2 @ $32,000 + 10%	70,400	169,400	16,940	186,340		
Kubotas, 2 @ $20,000		40,000	4,000	44,000		
Cordless Bus Lifts, set for Artics, 6 @ $7,500/Pair		22,500	2,250	24,750	used 25k	
http://www.uniquetruck.com/p-16029-emerson-20-ton-wheel-jack-pair.aspx?affiliateID=10056&gclid=CN6CurimwtMCFcRgfgodj08DLQ						
Lincoln Scrubber Replacement		60,000	6,000	66,000		
http://www.caliberequipment.com/american-lincoln.html						
Re-key Building (Safety & Security)		3,500	350	3,850	was in future years - funding provided	
Replacement Fire Panels/Environmental Systems		10,000	1,000	11,000	was in future years - funding provided	
Replacement Swamp Coolers		20,000	2,000	22,000	was in future years - funding provided	
Fuel Level Card (in PM's)		2,000	200	2,200		
Fuel Management Card System		60,000	6,000	66,000		
TAMS Software (+ $25.000/Licensing per Year)		150,000	15,000	165,000	END of FY18 - grant available fall of CY2017	
Motorize North Gate		30,000	3,000	33,000		
				789,140		
Data & Communications (from Kevin)						
Kevin: Storage Area Network, 5 computers, Dell Storage		35,000	3,500	38,500		
				827,640		
Request For Out Years						
Fire Suppression 30 Offices $10,000/Office		300,000	30,000	330,000	specify what year this is needed	
New Bus Wash		125,000	12,500	137,500	specify what year this is needed	
Replace Rollup Shop Doors 16' wide? 10 @ $4,000 Installed + 10%		160,000	16,000	176,000	specify what year this is needed	
https://www.ebay.com/p/?iid=141236416038&lpid=82&&&ul_noapp=true&chn=ps				643,500		
Funding Provided for Future Requests						
Replacement Fire Panels/Environmental Systems		10,000	1,000	11,000	funding provided	
Re-key Building (Safety & Security)		3,500	350	3,850	funding provided	
Replacement Swamp Coolers		20,000	2,000	22,000	funding provided	
				36,850		

Landscaping @ $10,000 per year Add to Maintenance operations in out years

DATE: April 24, 2018

TO: BOARD OF DIRECTORS

SUBJECT: Lease Agreement Between the Antelope Valley Transit Authority and Antelope Valley Healthcare District – South Valley Transit Hub and Charging Station

RECOMMENDATION

That the Board of Directors authorize the Executive Director/CEO to negotiate and execute a lease agreement with the Antelope Valley Healthcare District for a 30-year term, to support the construction and operation of an AVTA transit center and enroute charging facility adjacent to the South Valley Health Center. The Center will facilitate the operation of battery-electric buses serving the area and improve access to health services for Antelope Valley residents.

FISCAL IMPACT

No significant financial impact to AVTA. Lease for the property will be one dollar ($1.00) annually, payable in advance on July 1st of each year during the lease term.

BACKGROUND

As part of our effort to implement a 100% zero-emission battery-electric bus fleet, so as to improve access and mobility services for our customers, AVTA staff identified possible eastside parcels to locate a transit center and enroute charging facility. After review of several locations, AVTA approached Antelope Valley Healthcare District about the possibility of a partnership for a transit center on AVHD property, adjacent to the South Valley Health Center in the city of Palmdale. On February 28, 2018 a presentation was made to the AVHD Board of Directors to ask for its support of such a lease agreement to build and operate the noted transit center. The Board of Directors unanimously agreed to the long-term lease request and partnership.

This project will provide increased connectivity for eastside residents by providing uninterrupted transit service to all four corners of the Antelope Valley, while having the ability to recharge buses enroute. The installation of enroute inductive chargers at each of AVTA's transit centers is absolutely necessary for AVTA's battery-electric buses to receive sufficient charge during a scheduled layover, providing uninterrupted service throughout the day.

This lease agreement will support the creation of the first transit center and recharging facilities on the eastside of the Antelope Valley, increasing AVTA options in providing enhanced reliability and efficient services.

Prepared by:

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Norman L. Hickling
Chief Operating Officer

Submitted by:

_____
Len Engel
Executive Director/CEO