Los Positas College

3000 Campus Hill Dr.
Livermore, CA 94551

ABM
Building Value

ABM Electrical & Lighting Solutions
6940 Koll Center Prkwy. Suite 100
Pleasanton, CA 94566

CA License 967676

Revision:

JOB NO:

DATE:

SCALE: AS NOTED

SHEET TITTLE

Site Map

SHEET NUMBER

1

Los Positas College

3000 Campus Hill Dr.
Livermore, CA 94551

ABM
Building Value

ABM Electrical & Lighting Solutions
6940 Koll Center Prkwy. Suite 100
Pleasanton, CA 94566
CA License 967676

Revision:

JOB NO:

DATE:

SCALE: AS NOTED

SHEET TITTLE

Site Detail

SHEET NUMBER

2

EV PANEL

225A 3PH 4W 120/208

L.C.L	CK	LOAD	OUTLET LTG	OUTLET REC	OUTLET MISC	BRKR POLE	BRKR AMP	PHASE A	PHASE B	PHASE C	PHASE A	PHASE B	PHASE C	BRKR AMP	BRKR POLE	OUTLET MISC	OUTLET REC	OUTLET LTG	LOAD	CK	L.C.L
	1	EV1A			X	2	40	3840			3840			40	2	X			EV4A	2	
	3	EV1A			X	2	40		3840			3840		40	2	X			EV4A	4	
	5	EV1B			X	2	40			3840			3840	40	2	X			EV4B	6	
	7	EV1B			X	2	40	3840			3840			40	2	X			EV4B	8	
	9	EV2A			X	2	40		3840			3840		40	2	X			EV5A	10	
	11	EV2A			X	2	40			3840			3840	40	2	X			EV5A	12	
	13	EV2B			X	2	40	3840			3840			40	2	X			EV5B	14	
	15	EV2B			X	2	40		3840			3840		40	2	X			EV5B	16	
	17	EV3A			X	2	40			3840										18	
	19	EV3A			X	2	40	3840												20	
	21	EV3B			X	2	40		3840											22	
	23	EV3B			X	2	40			3840										24	
	25																			26	
	27																			28	
	29																			30	
	31																			32	
	33																			34	
	35																			36	
	37																			38	
	39																			40	
	41																			42	
								15360	15360	15360	11520	11520	7680								

PER PHASE & TOTAL LOAD	
A	26880
B	26880
C	23040
TOTAL OF PHASE LOADS	76800

TOTAL LOAD	76800 W
*	
L.C.L	0 W
L.C.L @125 %	0 W
OTHER LOAD	76800 W
TOTAL LOAD	76800 W
TOTAL AMPS	213 A

Los Positas College

3000 Campus Hill Dr.
Livermore, CA 94551

ABM Building Value

ABM Electrical & Lighting Solutions
6940 Koll Center Prkwy. Suite 100
Pleasanton, CA 94566

CA License 967676

Revision:

JOB NO:

DATE:

SCALE: AS NOTED

SHEET TITTLE

Panel Schedule
&
Single Line

SHEET NUMBER

3

Los Positas College

3000 Campus Hill Dr.
Livermore, CA 94551

ABM Building Value

ABM Electrical & Lighting Solutions
6940 Koll Center Prkwy. Suite 100
Pleasanton, CA 94566

CA License 967676

Revision:

JOB NO:

DATE:

SCALE: AS NOTED

SHEET TITTLE

Parking Detail

SHEET NUMBER

4

Installation Methods

Los Positas College

3000 Campus Hill Dr.
Livermore, CA 94551

ABM
Building Value

ABM Electrical & Lighting Solutions
6940 Koll Center Prkwy. Suite 100
Pleasanton, CA 94566
CA License 967676

Revision:

JOB NO:

DATE:

SCALE: AS NOTED

SHEET TITTLE

Install Methods
(Bollard Mount)

SHEET NUMBER

5

EV Infrastructure Basic Design

1. 208-240V distribution panel with individual 2-pole 40A circuit breaker for each charging stub.
2. Conduit and wire. Each EV charging stub requires a dedicated single-phase circuit capable of supporting a 30A maximum continuous load. Circuits terminate at NEMA 6-50 receptacles housed in the wall or bollard mounted charging fixture (see item 3, below).
3. eVgo-supplied wall or bollard mounting fixture. Each fixture is designed to hold two (2) electric vehicle chargers.
4. eVgo-supplied EV chargers. Chargers are not installed until there are eVgo subscribers onsite.
5. eVgo-supplied gateway. (1) per charging array. Gateway derives power from one of the (2) 208-240V circuits installed with the mounting fixture.
6. Parking spaces for future electric vehicles. Total spaces should be an even number. Some jurisdictions will require an ADA-compliant parking space, especially on new construction.

Charger Specifications

LITEON

General	
Type	Wall/Pole mount
Operation Indication	LED
EV Communication	J1772 signal and control
Connector	SAE J1772
Charging Cable Length	25 feet
Degree of Protection	Type 3R, IK8
Dimension (W x H x D)	267(W) x 380(H) x 120(D)
Weight	(TBD)
Operation Temperature	-30° ~50° C
Storage Temperature	-40° ~70° C
Humidity	95%, non-condensing
Acoustic Noise	45dB
Altitude	2000m
Codes and Standards	UL2594, UL2231-1, UL2231-2, UL1449, FCC Part 15 part B, UL1998*; NEC 625

Power & Metering	
Input Voltage	208~240V
Input Current (max.)	30A rms
Power Toggle Switch	Yes
Max. Output Power	7.2kW
Frequency	45~66 Hz
Metering Accuracy Distortion	±1% (Based on Lab measurement)
Energy Meter Interface	N.A.
Surge Withstand	6kV/3kA
Protection	Short Circuit, OCP,OVP, Ground Fault Detection (down-stream), CCID, Relay Welding Detection, Service Ground Monitor (up-stream)
HMI	
LED indicators	Power, Charging, Fault
User Authentication	N.A.
Remote Control Protocol	LiteOn EVSE Control Interface w/ fallback and OTA through UART
Cable Management	40% with eVgo Color Holster; Cord hook with every unit
Customable Label	Yes

* Delivered units will be OTA upgrade-able to UL1998 by 6/30/2014

©2014 NRG EV Services LLC

Bollard Mount

- Concrete pad should be at least 16" X 16" square or 16" round
  - Recommended pad height is 24" with 6" above grade, but follow local regulations in all cases.
- Use ¾" X 6¼" anchor bolts to bolt unit to pad.
- Mounting holes are 10" center-on-center
- Bring watertight flex conduit up through charger bollard and route into mounting fixture via 2½" X 3½" access port

Mounting Plate Detail

not to scale

Wall Mount

Mounting Detail

not to scale

Los Positas College

3000 Campus Hill Dr.
Livermore, CA 94551

ABM Building Value

ABM Electrical & Lighting Solutions
6940 Koll Center Prkwy. Suite 100
Pleasanton, CA 94566

CA License 967676

Revision:

JOB NO:

DATE:

SCALE: AS NOTED

SHEET TITTLE

DATA

SHEET NUMBER

6