

FOR CONTRACT No.: 07-4T4204
PROJECT ID 0700021016

INFORMATION HANDOUT

Battery backup system connection diagrams and foundation details

Street lighting multiple circuit notes

ROUTE: 07-LA-01-PM-32.6

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER	12-20-07	DATE
Theresa A. Gabriel		
PLANS APPROVAL DATE		
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.		

REGISTERED PROFESSIONAL ENGINEER	No. E15129
Theresa A. Gabriel	Exp 6-30-10
ELECT	STATE OF CALIFORNIA

LEGEND: (THIS SHEET ONLY)

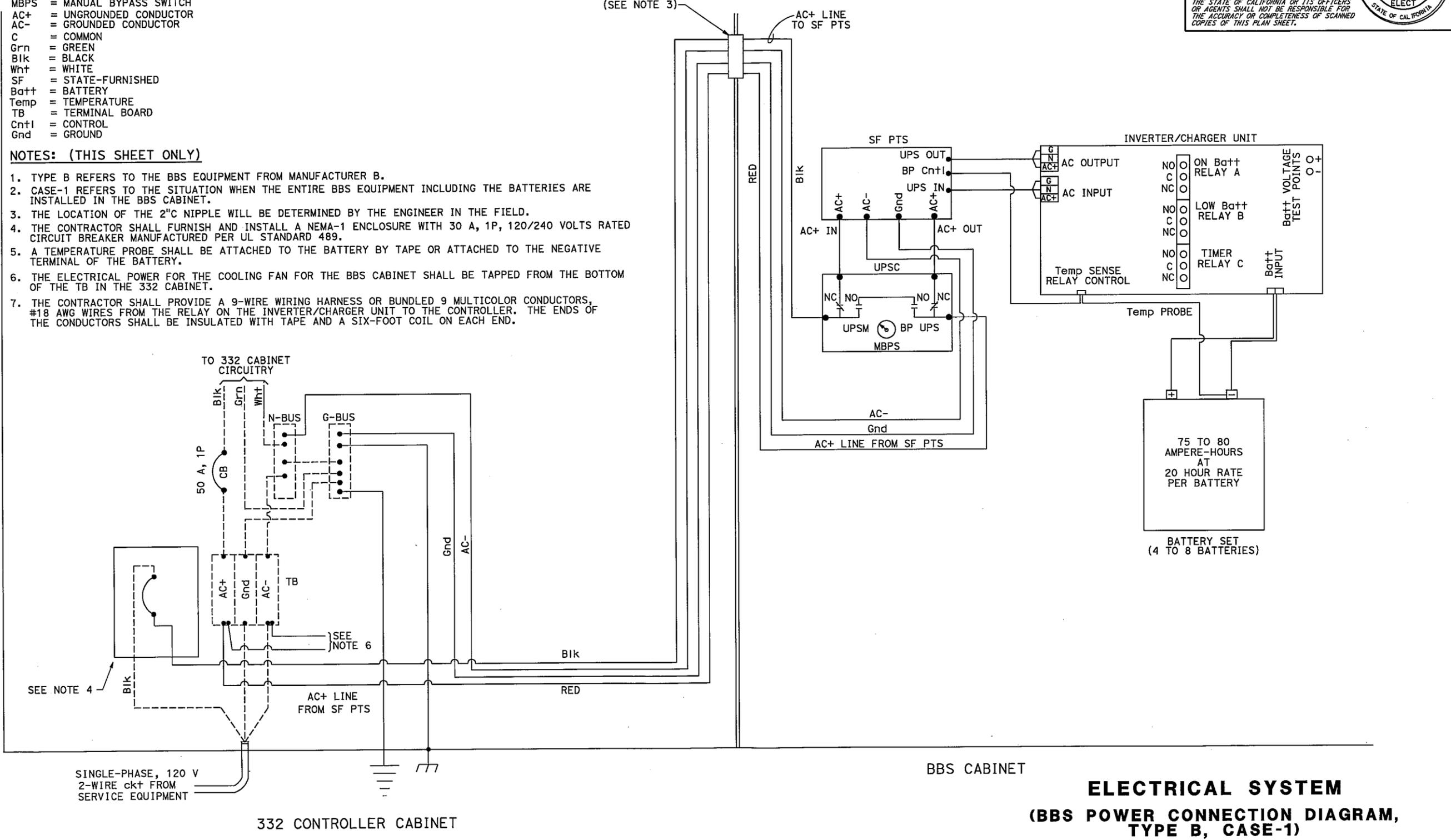
- PTS = POWER TRANSFER SWITCH
- UPS = UNINTERRUPTIBLE POWER SUPPLY
- UPSC = UNINTERRUPTIBLE POWER SUPPLY CONTROLLER
- UPSM = UPS MODE
- BP = BYPASS
- MBPS = MANUAL BYPASS SWITCH
- AC+ = UNGROUNDED CONDUCTOR
- AC- = GROUNDED CONDUCTOR
- C = COMMON
- Grn = GREEN
- Blk = BLACK
- Wht = WHITE
- SF = STATE-FURNISHED
- Batt = BATTERY
- Temp = TEMPERATURE
- TB = TERMINAL BOARD
- Cntl = CONTROL
- Gnd = GROUND

NOTES: (THIS SHEET ONLY)

1. TYPE B REFERS TO THE BBS EQUIPMENT FROM MANUFACTURER B.
2. CASE-1 REFERS TO THE SITUATION WHEN THE ENTIRE BBS EQUIPMENT INCLUDING THE BATTERIES ARE INSTALLED IN THE BBS CABINET.
3. THE LOCATION OF THE 2" C NIPPLE WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
4. THE CONTRACTOR SHALL FURNISH AND INSTALL A NEMA-1 ENCLOSURE WITH 30 A, 1P, 120/240 VOLTS RATED CIRCUIT BREAKER MANUFACTURED PER UL STANDARD 489.
5. A TEMPERATURE PROBE SHALL BE ATTACHED TO THE BATTERY BY TAPE OR ATTACHED TO THE NEGATIVE TERMINAL OF THE BATTERY.
6. THE ELECTRICAL POWER FOR THE COOLING FAN FOR THE BBS CABINET SHALL BE TAPPED FROM THE BOTTOM OF THE TB IN THE 332 CABINET.
7. THE CONTRACTOR SHALL PROVIDE A 9-WIRE WIRING HARNESS OR BUNDLED 9 MULTICOLOR CONDUCTORS, #18 AWG WIRES FROM THE RELAY ON THE INVERTER/CHARGER UNIT TO THE CONTROLLER. THE ENDS OF THE CONDUCTORS SHALL BE INSULATED WITH TAPE AND A SIX-FOOT COIL ON EACH END.

AC POWER TO BBS CABINET (SEE NOTE 3)

AC+ LINE TO SF PTS



BBS CABINET

332 CONTROLLER CABINET

**ELECTRICAL SYSTEM
(BBS POWER CONNECTION DIAGRAM, TYPE B, CASE-1)**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

FUNCTIONAL SUPERVISOR

CALCULATED-DESIGNED BY
CHECKED BY

REVISED BY
DATE REVISED

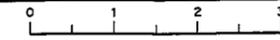
x

x

x

x

x



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1	32.6		

Kenny Nguyen
REGISTERED ELECTRICAL ENGINEER DATE _____

PLANS APPROVAL DATE _____

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STREET LIGHTING MULTIPLE CIRCUIT NOTES

1. WARNING SAFETY CLEARANCE SHALL BE PERFORMED DAILY BY THE QUALIFIED CONTRACTOR RESPONSIBLE FOR CONSTRUCTION PROJECT. BEFORE DOING ANY WORK OR MAKING ANY CONNECTION ON ANY EXISTING CIRCUITS, THE CONTRACTOR MUST SEE SECTION 2100 OF LABSL SPECIAL PROVISION AND MULTIPLE CIRCUIT SAFETY CLEARANCE NOTE 1 ON THIS SHEET.
2. MULTIPLE CIRCUIT WIRE SHALL BE No. 6 AWG STRANDED COPPER CONDUCTOR, TYPE THWN/THHN INSULATION, UL APPROVED FOR 600 VOLT OPERATION UNLESS OTHERWISE SPECIFIED HEREON.
3. THREE WIRES (COLOR CODE: 1-RED, 1-BLACK, 1-WHITE) SHALL BE INSTALLED IN ALL MULTIPLE CIRCUIT CONDUIT UNLESS OTHERWISE SPECIFIED HEREON.
4. EVEN NUMBERED ELECTROLIERS SHALL BE CONNECTED TO RED AND WHITE WIRES AND ODD NUMBERED ELECTROLIERS SHALL BE CONNECTED TO BLACK AND WHITE WIRES.
5. ELECTROLIERS SHALL BE WIRED PER TYPICAL MULTIPLE CIRCUIT ELECTROLIER WIRING DETAIL, SHEET E-6, BUREAU OF STREET LIGHTING STANDARD DRAWING NUMBER L-301-1, UNLESS SPECIFIED OTHERWISE.
6. MULTIPLE CIRCUITS IN CONDUITS CONTAINING MORE THAN THREE CONDUCTORS SHALL BE APPROPRIATELY IDENTIFIED BY LABELING CONDUCTORS "A", "B", ETC, WITH APPROVED SELF-LAMINATING LETTER TAPE WRAPPED AT LEAST TWICE AROUND THE CONDUCTOR IN EACH PULL BOX. (SPECIAL SELF -LAMINATING WIRE MARKERS OR EQUIVALENT).
7. SEE CITY OF LOS ANGELES BSL WEBSITE, [HTTP://BSL/LACITY.ORG](http://BSL/LACITY.ORG) FOR LIST OF CITY APPROVED LED LUMINAIRES AND REQUIREMENTS.

MULTIPLE CIRCUIT SAFETY CLEARANCE NOTE 1:

LOW VOLTAGE CIRCUITS- A PERSON WHO HAS A CURRENT AND VALID STATE OF CALIFORNIA C-10 LICENSE OR IS A JOURNEY LEVEL ELECTRICIAN SHALL CREATE THEIR OWN ELECTRICAL SAFETY CLEARANCES AT THEIR OWN RISK AND ASSUME ALL LIABILITY TO LIFE, LIMB AND PROPERTY. THE CLEARANCE SHALL BE IN ACCORDANCE WITH THE CALIFORNIA CODE OF REGULATIONS- TITLE 8: INDUSTRIAL RELATIONS; DIVISION OF INDUSTRIAL SAFETY; ELECTRICAL SAFETY ORDERS SECTION 2320.6. NO OTHER INDIVIDUAL MAY CONDUCT THE STREETLIGHT CIRCUIT CLEARANCE. THE LOCKOUT, TAGOUT PROCEDURE SHALL INCLUDE INSTALLATION OF AN APPROVED "DO NOT CONNECT/DANGER" ACCIDENT PREVENTION TAG (APT) IN THE SERVICE PULLBOX WITH ALL THE REQUIRED INFORMATION ON THE TAG. THE STREET LIGHTING CIRCUIT SHALL BE RECONNECTED AT THE END OF EACH WORK DAY. ALL APT TAGS MUST BE REMOVED AND CIRCUIT RECONNECTED 30 MINUTES BEFORE DUSK. ANY VIOLATION OF THIS PROCEDURE WILL RESULT IN A NOTICE OF NON-COMPLIANCE.

EXTRA FUSES AND SPARES SHALL BE ON THE JOB SITE TO ENSURE AGAINST OUTAGES AFTER DUSK. ANY WORK REQUIRED BY CITY STAFF TO RE-ENERGIZE THE LOW VOLTAGE CIRCUIT AS A RESULT OF FAILURE TO ADHERE TO THE POLICY WILL BE CHARGED TO THE CONTRACTOR.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN

REVISOR: _____
DATE: _____
DESIGNED BY: _____
CHECKED BY: _____
FUNCTIONAL SUPERVISOR: _____

**SIGNAL AND LIGHTING
(CITY)
(STREET LIGHTING MULTIPLE CIRCUIT NOTES)**

LAST REVISION: 00-00-00 DATE PLOTTED => 16-NOV-2011 TIME PLOTTED => 12:49