

REVISIONS	DATE	DESCRIPTION

DEVELOPER:  
**CALIFORNIA LIBERTY INVESTMENTS**  
 537 CERES AVE  
 LOS ANGELES, CA 90013

PROJECT:  
**FOOTHILL RANCHO PLAZA**  
 9606 FOOTHILL BLVD  
 RANCHO CUCAMONGA, CA

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 LICENSED ELECTRICAL ENGINEER  
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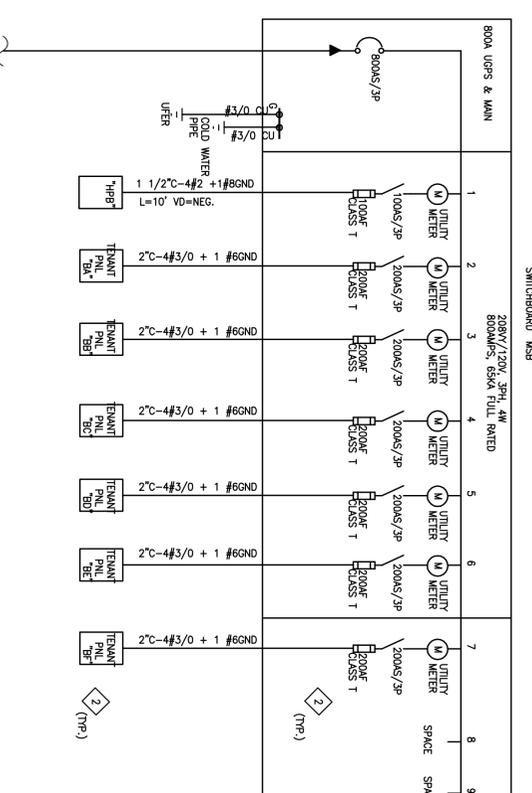
PROJECT NO.: GH-090504  
 LOAD DWG FILE:  
 DRAWN BY: M.M.  
 CHECKED BY: C.B.  
 SCALE: NOTED  
 DATE: 09-08-09  
 SHEET TITLE:  
**SINGLE LINE DIAG & LOAD SCH.**  
 SHEET  
**E0.1**

**GENERAL SINGLE LINE DIAGRAM NOTES:**

1. THE SWITCHGEAR HAS BEEN SPECIFIED TO INSURE THAT SPECIFIC PERFORMANCE REQUIREMENTS WILL BE SATISFIED. THESE PRODUCTS HAVE BEEN CAREFULLY RESEARCHED AND EACH COMPONENT HAS UNIQUE QUALITIES WHICH WERE DETERMINED TO BE ESSENTIAL IN SATISFYING THE OWNERS, ARCHITECTS AND ENGINEERS DESIGN. SHIPPING THE REQUIREMENTS HAVE BEEN FURNISHED TO THE CONTRACTORS THROUGH THE ESTABLISHED CONSTRUCTION SCHEDULE.
2. THE SWITCHGEAR HAS BEEN SPECIFIED USING ALL EQUIPMENT AS MANUFACTURER'S ARE RSE, SIEMENS AND GENERAL ELECTRIC.
3. SUBSTITUTIONS OF THE SPECIFIED PRODUCTS ARE STRICTLY PROHIBITED, UNLESS APPROVED AS STATED HEREIN. SWITCHGEAR SHOP DRAWINGS, INFORMATION SHALL BE FORMALLY SUBMITTED TO THE ENGINEER BY APPOINTMENT ONLY, AT LEAST TEN (10) WORKING DAYS PRIOR TO BID TIME.
4. REGARDLESS OF THE APPROVAL OF ANY SUBSTITUTION, ALL BIDS SHALL BE BASED ON THE PRODUCTS EXACTLY AS SPECIFIED. PRICING FOR EACH APPROVED SUBSTITUTION SHALL BE INCLUDED IN THE BID SUBMITTAL AS A SEPARATE LINE ITEM ALTERNATIVE. THE FINAL ACCEPTANCE OF AN APPROVED SUBSTITUTION WILL NOT BE CONSIDERED PROOFING FOR THE ORIGINALY SPECIFIED ITEM IS INCLUDED IN THE BASE BID.
5. ONLY PRODUCTS LISTED AS EQUAL WITHIN THE CONTRACT DOCUMENTS TO AND SUBSTITUTIONS APPROVED AND ISSUES AS AN ADDENDUM PRIOR TO THE DATE OF THE CONTRACT SHALL BE ACCEPTED. ALL OTHERS WILL NOT BE REVIEWED, AND WILL BE REJECTED.
6. THE ELECTRICAL CONTRACTOR SHALL REVIEW THE SUBMITTAL FOR THE ELECTRICAL CONTRACTOR'S COMMENTS. THE CONTRACTOR SHALL VERIFY THE ELECTRICAL CONTRACTOR'S COMMENTS AND SIGN EACH COPY OF THE SUBMITTAL INDICATING THAT THEY HAVE REVIEWED AND ACCEPTED THE PRODUCTS, AS WELL AS THE LEAD TIME AND THE SUBMITTALS SHALL BE FORWARDED TO THE ARCHITECT. THE ARCHITECT THROUGH NORMAL CHANNELS. IF THE SUBMITTAL HAS NOT BEEN REVIEWED BY THE ELECTRICAL CONTRACTOR, IT WILL BE RETURNED REJECTED. CONTRACTOR REVIEW AND APPROVAL IS REQUIRED.
7. COMPLETE SYSTEM SHALL BE SERIES RATED FOR THE AVAILABLE AVAILABLE BUS BRACING DIMENSIONS. THE CONTRACTOR SHALL INVESTIGATE BY UL IN COMBINATION WITH THE END USE EQUIPMENT, AND THE EQUIPMENT IN WHICH THESE DEVICES ARE USED SHALL BE MARKED WITH THE SERIES CONNECTED RATING. ALL EQUIPMENT SHALL BE MARKED IN ACCORDANCE WITH NEC REQUIREMENTS.
8. ALL TERMINATIONS AND ENCLOSURES SHALL BE RATED FOR USE WITH 75 DEGREE C CONDUCTORS.
9. MAIN SWITCHBOARD OVERCURRENT DEVICE AND BUSSING SHALL BE RATED FOR 100 PERCENT CONTINUOUS OPERATION.
10. MAINTAIN ALL CLEARANCES AS INDICATED ON ACTUAL SHOP DRAWINGS.
11. CONTRACTOR SHALL SUBMIT SWITCHBOARD SHOP DRAWINGS TO THE SERIES RATED SWITCHBOARD COMPANIES WITH THE POWER COMPANY REGULATIONS.
12. MAIN HORIZONTAL BUSSING SHALL BE FULL CAPACITY IN ALL SWITCHBOARD SECTIONS.
13. HORIZONTAL AND VERTICAL BUSSING SHALL BE FULL LENGTH. BUSSING SHALL HAVE A MINIMUM INSTANT RATING EQUAL TO THE AVAILABLE LESS THAN 65,000 AMPS, SYMMETRICAL.
14. VERTICAL BUSS MAY BE TAPERED, TO NOT LESS THAN 1/3 THE AMPACITY OF THE MAIN HORIZONTAL BUSS, AND IN NO CASE SHALL THE RATING BE LESS THAN 65,000 AMPS. PROTECTIVE DEVICES MOUNTED ON THE RESPECTIVE SECTION, INCLUDING ANY INDICATED SPARES AND SPACES.
15. ALL FEEDERS SHOWN SHALL BE INSTALLED IN METAL RACEWAYS, UNLESS OTHERWISE NOTED.
16. ALL CONDUCTORS SHOWN ARE COPPER, TYPE THHN/THWN.

- SHORT CIRCUIT DUTY NOTES:**
- 1. THE MAXIMUM AVAILABLE FAULT CURRENT AT EXISTING SERVICE POINT IS 65,000 A MAX.
  - 2. SERIES RATED CIRCUIT BREAKER - PROVIDE MARKING IN ACCORDANCE WITH NEC SECTION 110-22. MARKING SHALL BE PERMANENTLY MARKED ON THE CIRCUIT BREAKER. THE MARKING SHALL BE REPRODUCED ON THE CIRCUIT BREAKER. SERIES RATED CIRCUIT BREAKER SHALL BE AS FOLLOWS OR EQUAL:
 

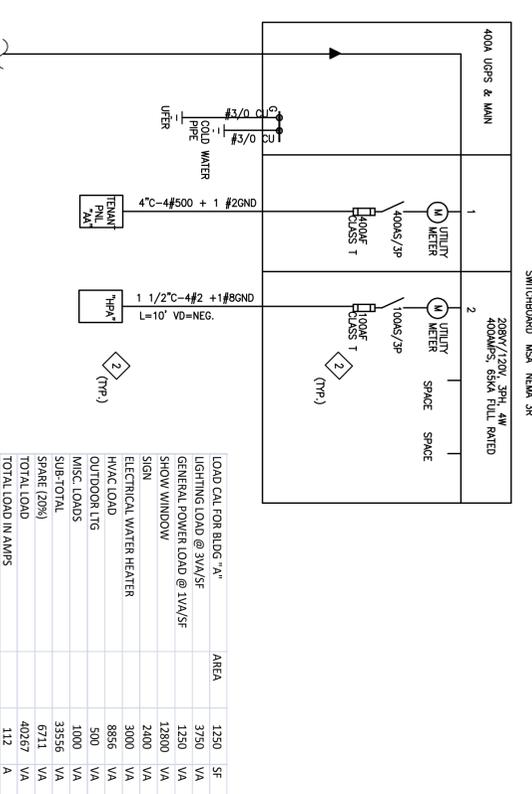
BRANCH AT USA	SERIES RATING
400AS T FUSE	100,000 A
400A MKA)	(15A - 100A)
200AS T FUSE	200,000 A
(200A MKA)	(15A - 100A)
  - 3. BRANCH BREAKER AT PANEL
  - 4. BRK TYPE "00" BY "SQUARE-D"
  - 5. BRK TYPE "00" BY "SQUARE-D"



LOAD CAL FOR BLDG "B"

AREA	4910 SF
LOADING LOAD @ 3VA/SF	14730 VA
GENERAL POWER LOAD @ 1VA/SF	4910 VA
SHOW WINDOW	19200 VA
SIGN	14400 VA
ELECTRICAL WATER HEATER	18000 VA
HVAC LOAD	33408 VA
OUTDOOR LIG	5000 VA
MISC. LOADS	3000 VA
SUB-TOTAL	112708 VA
SPARE (20%)	22542 VA
TOTAL LOAD	135250 VA
TOTAL LOAD IN AMPS	375 A

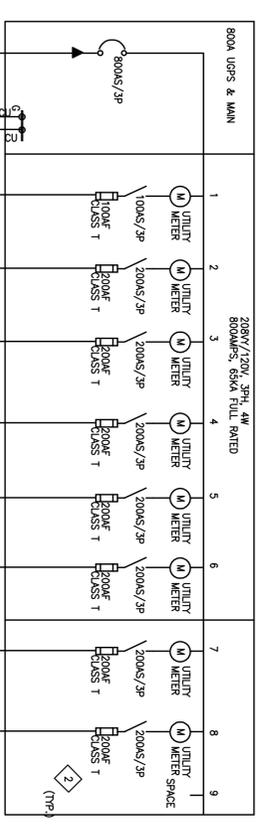
**SINGLE LINE DIAGRAM FOR BLDG "B"**  
 NTS.



LOAD CAL FOR BLDG "A"

AREA	1250 SF
LOADING LOAD @ 3VA/SF	3750 VA
GENERAL POWER LOAD @ 1VA/SF	1250 VA
SHOW WINDOW	12800 VA
SIGN	2400 VA
ELECTRICAL WATER HEATER	3000 VA
HVAC LOAD	8856 VA
OUTDOOR LIG	500 VA
MISC. LOADS	1000 VA
SUB-TOTAL	33556 VA
SPARE (20%)	6711 VA
TOTAL LOAD	40267 VA
TOTAL LOAD IN AMPS	112 A

**SINGLE LINE DIAGRAM FOR BLDG "A"**  
 NTS.



LOAD CAL FOR BLDG "C"

AREA	4890 SF
LOADING LOAD @ 3VA/SF	14670 VA
GENERAL POWER LOAD @ 1VA/SF	4890 VA
SHOW WINDOW	19200 VA
SIGN	14400 VA
ELECTRICAL WATER HEATER	18000 VA
HVAC LOAD	34724 VA
OUTDOOR LIG	5000 VA
MISC. LOADS	3000 VA
SUB-TOTAL	114284 VA
SPARE (20%)	22857 VA
TOTAL LOAD	137141 VA
TOTAL LOAD IN AMPS	381 A

**SINGLE LINE DIAGRAM FOR BLDG "C"**  
 NTS.