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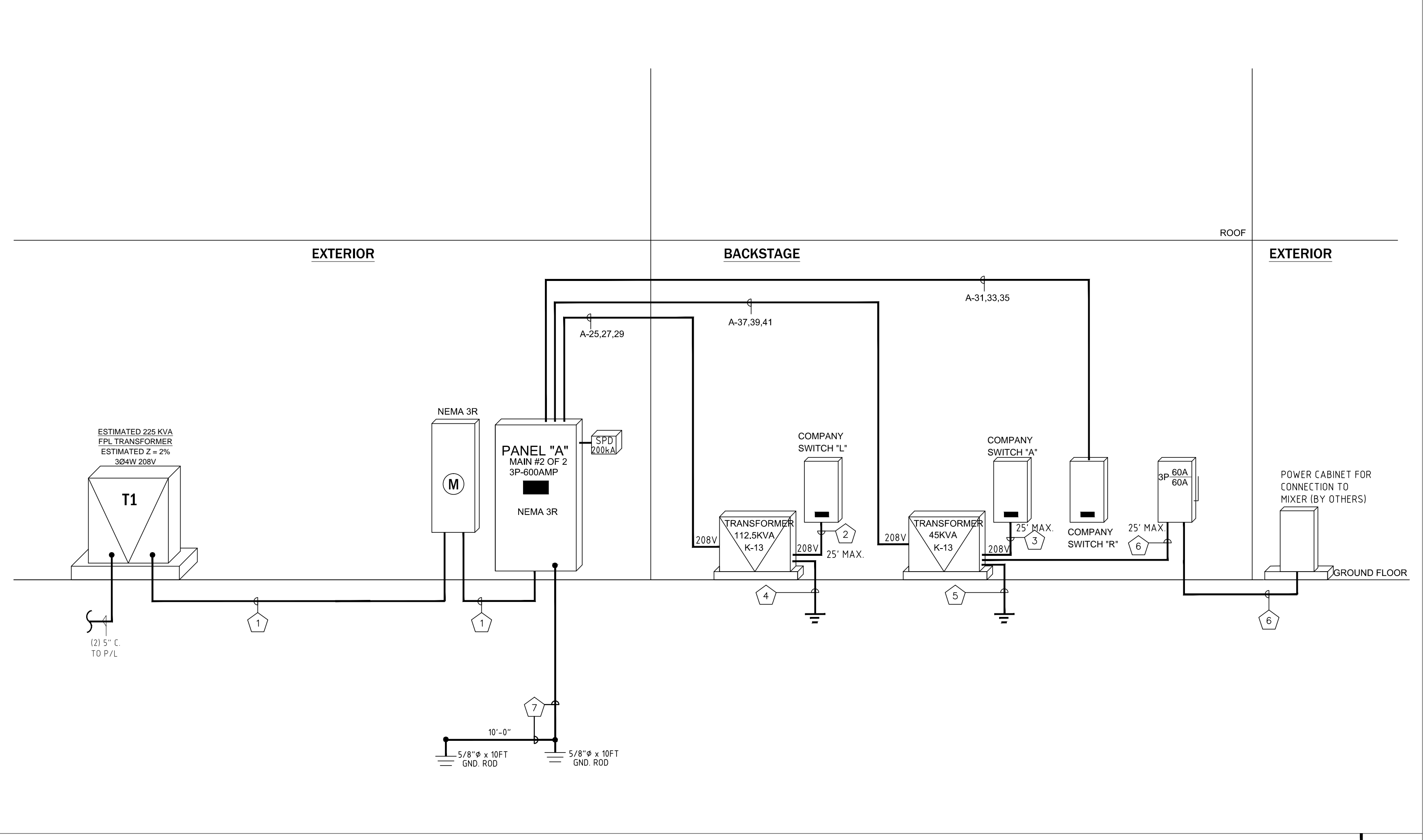
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ELECTRICAL SERVICE & PANEL NOTES

- ALL ELECTRICAL SERVICE EQUIPMENT SHALL HAVE MIN A.I.C. RATING OF 22,000 AMPS. ALL EQUIPMENT LOCATED ON EXTERIOR OF BUILDING SHALL BE NEMA-3R RATED.
- ALL ELECTRICAL EQUIPMENT AND WIRE SHALL BE RATED @ 75°C CONTINUOUS DUTY.
- PRIOR TO CONSTRUCTION, THE ELECTRICAL CONTRACTOR SHALL:
 - VERIFY ALL EXISTING CONDITIONS IN FIELD
 - COORDINATE THE ELECTRICAL SERVICE WITH FP&L REPRESENTATIVE
 - NOTIFY THE ENGINEER OF ANY CHANGES REQUIRED TO COMPLETE NEW CONSTRUCTION.
- ALL ELECTRICAL EQUIPMENT SHALL BE FIELD MARKED TO WARN OF POTENTIAL ELECTRICAL ARC FLASH HAZARDS. THE MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE BEFORE ANY EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMENT.
- EACH DISCONNECT SHALL BE LEGIBLY MARKED TO INDICATE THE UNIT IT IS FEEDING. THE MARKING SHALL BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED.

ALUMINUM NOTES(OWNER/CONTRACTOR BID OPTION)

- ALL EQUIPMENT USED WITH ALUMINUM CONDUCTORS MUST BE LISTED FOR THE PURPOSE.
- ALL ALUMINUM CONDUCTORS SHALL BE TERMINATED WITH HARDWARE AND COMPRESSION LUGS APPROVED FOR THE PURPOSE.
- ALL COMPRESSION LUGS SHALL BE CHECKED 3, 6, & 11 MONTHS AFTER C.D. AND EVERY THREE YEARS THEREAFTER. BUILDING OWNER SHALL HAVE A MAINTENANCE CONTRACT WITH ELECTRICAL CONTRACTOR OF CHOICE. CONTRACTOR SHALL DOCUMENT ALL MEASUREMENTS AND VERIFICATION IN TABULAR FORM. PROVIDE CORRECTIVE RECOMMENDATIONS, ACTIONS TAKEN, AND TESTING EQUIPMENT UTILIZED.
- THE ELECTRICAL CONTRACTOR MUST TORQUE ALL ALUMINUM TERMINATIONS IN ACCORDANCE WITH EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.
- PRIOR TO TERMINATING ALUMINUM CONDUCTORS, THE CONTRACTOR MUST CLEAN WIRE THOROUGHLY WITH WIRE BRUSH AND APPLY AN ANTI-OXIDANT COMPOUND.
- ALL BRANCH CIRCUITS FROM PANELS MUST BE COPPER.
- ALL GROUNDING SHALL BE COPPER.
- UL LISTED LUGS SHALL BE RATED FOR 90°C WHERE ALUMINUM WIRE IS USED.
- THE ELECTRICAL CONTRACTOR SHALL PERFORM MEGGER TEST ON ALL ALUMINUM FEEDERS AND PROVIDE RESULTS TO ENGINEER.
- PIN CONNECTORS ARE NOT ACCEPTABLE FOR USE.
- ALL ALUMINUM FEEDERS SHALL BE ALUMA FLEX COMPACT STRANDED THWN-2.



RISE
NO.1

PROPOSED ELECTRICAL RISER DIAGRAM

NOT TO SCALE

| MFG. SQUARE 'D' OR EQUAL | | TYPE | | I-LINE | | PANEL RATING | | AMPS | | | | | | | | | | |
|--------------------------|-----|------|-------------------------|--------|-----------|--------------|------|------|-----|------|------|-----|-----------|-------|-----------------------|-----|-----|-----|
| VOLTS 120/208V 3Ø4W | | "A" | | "A" | | 600 | | | | | | | | | | | | |
| A | B | C | LOAD | COND. | WIRE SIZE | GND | AMPS | CKT. | BUS | CKT. | AMPS | GND | WIRE SIZE | COND. | LOAD | A | B | C |
| 0.5 | 0.8 | | LIGHTING - GREEN ROOMS | 1/2" | #12 | #12 | 20 | 1 | | 2 | 20 | #12 | #12 | 1/2" | RECEPT - GREEN RM | 0.6 | | |
| | | | LIGHTING - STAGE | 1/2" | #12 | #12 | 20 | 3 | | 4 | 20 | #12 | #12 | 1/2" | RECEPT - GREEN RM | | 0.6 | |
| | | | LIGHTING - BACKSTAGE | 1/2" | #12 | #12 | 20 | 5 | | 6 | 20 | #12 | #12 | 1/2" | RECEPT - BACKSTAGE RM | | | 0.6 |
| 0.6 | 0.4 | | LIGHTING - EXTERIOR | 1/2" | #12 | #12 | 20 | 7 | | 8 | 20 | | | | SPARE | | | |
| | | | LIGHTING - RESTROOM LTS | 1" | #8 | #8 | 20 | 9 | | 10 | 20 | | | | SPARE | | | |
| | | | INSTAHOT | 3/4" | #10 | #10 | 25 | 11 | | 12 | 20 | | | | SPARE | | | |
| 1.8 | | | INSTAHOT | 3/4" | #10 | #10 | 25 | 13 | | 14 | 20 | | | | SPARE | | | |
| | | | SPACE | | | | | 15 | | 16 | | | | | SPACE | | | |
| | | | SPACE | | | | | 17 | | 18 | | | | | SPACE | | | |
| | | | SPACE | | | | | 19 | | 20 | | | | | SPACE | | | |
| | | | SPACE | | | | | 21 | | 22 | | | | | SPACE | | | |
| | | | SPACE | | | | | 23 | | 24 | | | | | SPACE | | | |
| 19.2 | | | TRANSFORMER | 2-1/2" | #3 | #6 | 200 | 26 | | 28 | 100 | | | | SPARE | | | |
| | | | COMPANY SWITCH (LTG) | | | | | 27 | | 28 | | | | | | | | |
| | | | SPACE | | | | | 29 | | 30 | | | | | | | | |
| 9.6 | | | COMPANY SWITCH | 1-1/4" | #3 | #8 | 100 | 31 | | 32 | 100 | | | | SPARE | | | |
| | | | SPACE | | | | | 33 | | 34 | | | | | | | | |
| | | | SPACE | | | | | 35 | | 36 | | | | | | | | |
| 9.6 | | | TRANSFORMER | 1-1/4" | #3 | #8 | 100 | 37 | | 38 | | | | | SPD | | | |
| | | | COMPANY SWITCH (AUDIO) | | | | | 39 | | 40 | | | | | | | | |
| | | | SPACE | | | | | 41 | | 42 | | | | | | | | |

REMARKS & KEY NOTES:

- 3P-60AMP M.C.B. ELECTRICAL CONTRACTOR SHALL PROVIDE AN ACCURATE PER FIELD CONDITIONS, TYPED UP PANEL SCHEDULE UPON COMPLETION OF THE PROJECT.
- VERIFY ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT PRIOR TO CONSTRUCTION. ALL EQUIPMENT'S ELECTRICAL REQUIREMENTS SHALL BE CONFIRMED WITH MFG SPECS. VERIFY VOLTAGE, AMPERAGE, AND BREAKER SIZES.
- PER MANUFACTURER RECOMMENDATIONS

*SEE RISER DIAGRAM FOR INFO

MOUNT SURFACE MIN. A.I.C. 22,000 AMPS

FEEDER SIZE KEY NOTES

- 7 SETS OF 4#350MCM THWN CU IN 3" CONDUIT BASED ON 150 FEET DISTANCE - 2% MAX VOLTAGE DROP CONTRACTOR TO VERIFY DISTANCE IN FIELD AND UPGRADE FEEDER IF REQUIRED.
- 3#3/0 PH, 2#3/0 NU, 1#2 EG, THWN CU IN 2-1/2" CONDUIT
- 3#3 PH, 2#3 NU, 1#6 EG, THWN CU IN 1-1/2" CONDUIT
- 1# 1/0 CU GROUNDING CONDUCTOR IN 3/4" SCHEDULE 40 PVC CONDUIT TO NEAREST EFFECTIVELY GROUNDED BUILDING STRUCTURAL STEEL MEMBER.
- 1# 6 CU GROUNDING CONDUCTOR IN 3/4" SCHEDULE 40 PVC CONDUIT TO NEAREST EFFECTIVELY GROUNDED BUILDING STRUCTURAL STEEL MEMBER.
- 4#4 B, 1# 6 GND THWN CU IN 2" CONDUIT BASED ON 120 FEET DISTANCE - 2% MAX VOLTAGE DROP CONTRACTOR TO VERIFY DISTANCE IN FIELD AND UPGRADE FEEDER IF REQUIRED.
- 1#2/0 CU GND.

Calculation of Fault Current

Fault SCA Source = TA Primary Infinite
SCA Available = Infinite
Length Units = Feet
Motor Load = None
Motor SCA = None
Motor SCA Treatment = Motor SCA Not Included

System Voltage = 208
System Phase = 3 Phase
Transformers

| Name | PH | Size | Pri/V | Sec/V | %Z | SCA,3PH |
|------|------|------|-------|-------|--------|---------|
| TA | 3-PH | 225 | 208 | 2 | 31,228 | |

S/F S/V S

| Name | Cond | Cable Size | Qty | Feet | SCA,3PH |
|------|------|-------------|-----|------|---------|
| PVC | ABS | 3/4" CU 350 | 2 | 156 | 17,211 |

Source: EDR, Electrical Designer's Reference
Software Version: 8.2 (Build 2012). Based on the 2011 NEC.

AC Calculation for Wire Length

Voltage: 208
Load: 500 Amperes
Load Circuit: 3-PH, 4-W, Wye
Power Factor: 0.9
Insulation Temp: 75°C/167°F
Conductor: Copper
Conductors per Phase: 2
Conduit: PVC/ABS
Voltage Drop: 2 %
Conductor Gauge: 350

Results:

Cable Length: 185.56 Feet

Source: EDR, Electrical Designer's Reference
Software Version: 8.2 (Build 2012). Based on the 2011 NEC.
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| REVISIONS | NO. |
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DATE 06-30-16

SCALE AS NOTED

DRAWN RB/FR/JS

CHECKED DA/SR

REG No. 16028

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OWNERSHIP AND USE OF THESE DOCUMENTS & SPECIFICATIONS AS INSTRUMENTS OF SERVICE ARE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT WHETHER THE PROJECT THEY ARE MADE FOR IS EXECUTED OR NOT. THEY SHALL NOT BE USED BY THE OWNER OR OTHERS ON OTHER PROJECTS OR FOR ADDITIONS TO THIS PROJECT BY OTHERS, EXCEPT BY AGREEMENT IN WRITING AND WITH APPROPRIATE COMPENSATION TO THE ARCHITECT.

PROGRESS SET: 08/22/16

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PROGRESS OR CHECK SETS, BY THEIR NATURE, MAY BE INCOMPLETE AND ARE NOT TO BE USED FOR BIDDING OR CONSTRUCTION. CONTRACTOR RECOGNIZES HIS SOLE RESPONSIBILITY TO INCLUDE ALL CONTINGENCIES FOR DESIGN AND INSTALLATION TO MEET THE PROJECT REQUIREMENTS IN ANY PRICING EXERCISE.

PRIOR TO SUBMITTING THE BID, THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND INFORM THE ARCHITECT AND THE ENGINEER OF ANY DISCREPANCY BETWEEN THESE DOCUMENTS AND THE EXISTING CONDITIONS AND SHALL INCLUDE IN THE BID TO CORRECT THE SAME AS DIRECTED. THE ENGINEER AND THE ARCHITECT, ARE NOT RESPONSIBLE FOR ANY ADDITIONAL COSTS RESULTING FROM VERIFIABLE EXISTING CONDITIONS DISCOVERED AFTER CONTRACT HAS BEEN AWARDED. NO CHANGES SHALL BE MADE TO THESE PLANS WITHOUT PRIOR APPROVAL FROM THE ENGINEER OF RECORD. ALL CHANGES SHALL BE SUBMITTED FOR REVIEW PRIOR TO INSTALLATION. NOT FOR BID UNTIL PERMIT HAS BEEN ISSUED.

ELECTRICAL
RISER DIAGRAM

E3.1