



# LV PS Option 1

L. Bagby 6.30.04

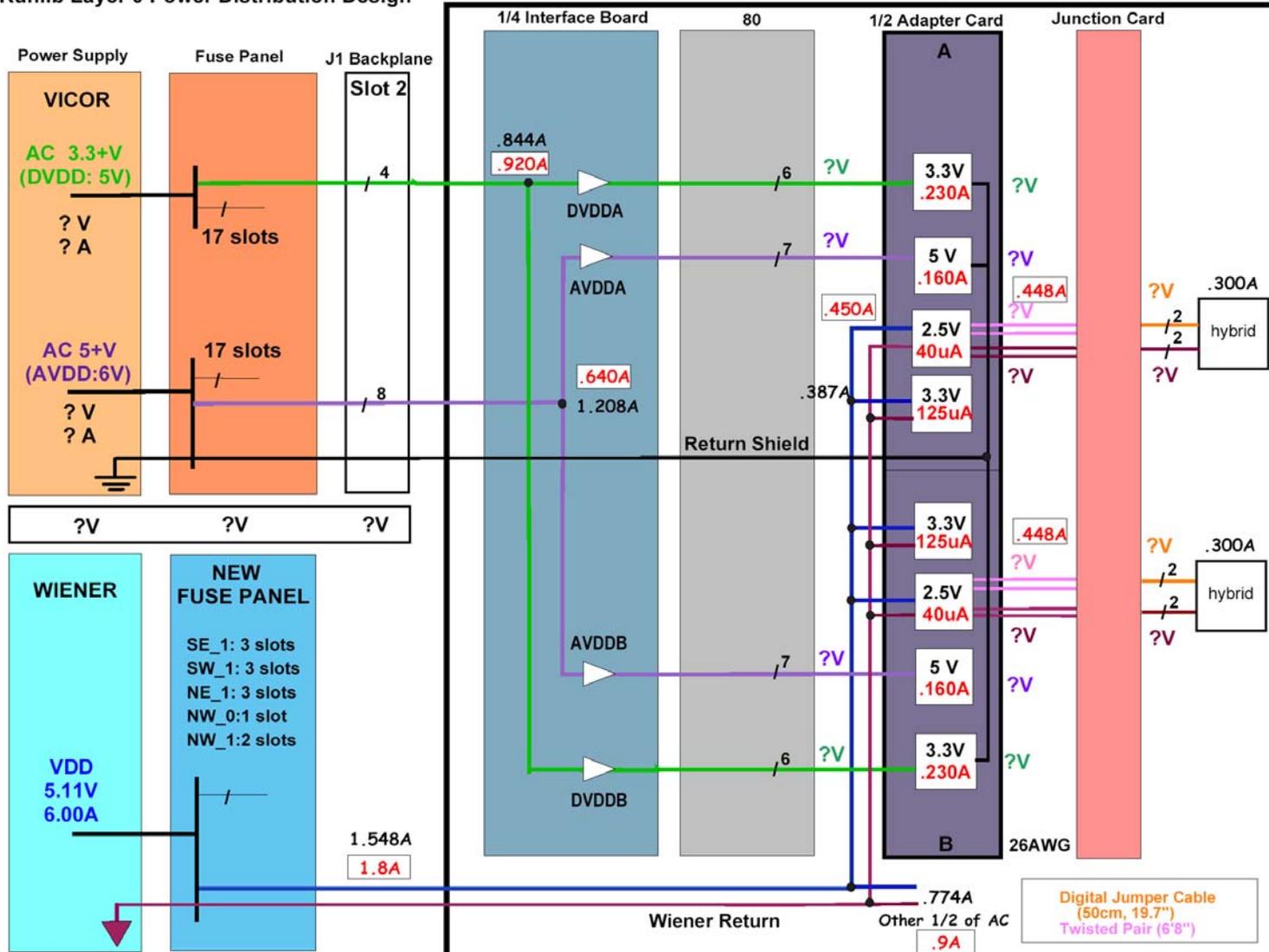
- Original thought
  - ◆ 1 supply for each quadrant
    - ▲ 6 2-7V, 30A (use 4 of these, 2 spares, 1 from test stand)
    - ▲ 4 2-7, 115A (can use these for test stand)
    - ▲ 2 5-10V, 80A
    - ▲ 2 12-30V, 11.5A
  - ◆ Installed in M209 (Remember "GET THEM OUT OF THE HALL")
  - ◆ Sense at Cathedral fuse panel for each quad.
    - ▲ 3 adapter cards / 12 hybrids
  - ◆ Voltage drop (607mV per AC), with 1/0 cable up to Cathedral.
    - ▲ Requires we order one more set of cable.
    - ▲ Investigate twisting pairs by vendor, Cableco.
    - ▲ Route verified Thursday—looks good.



# Overall Distribution

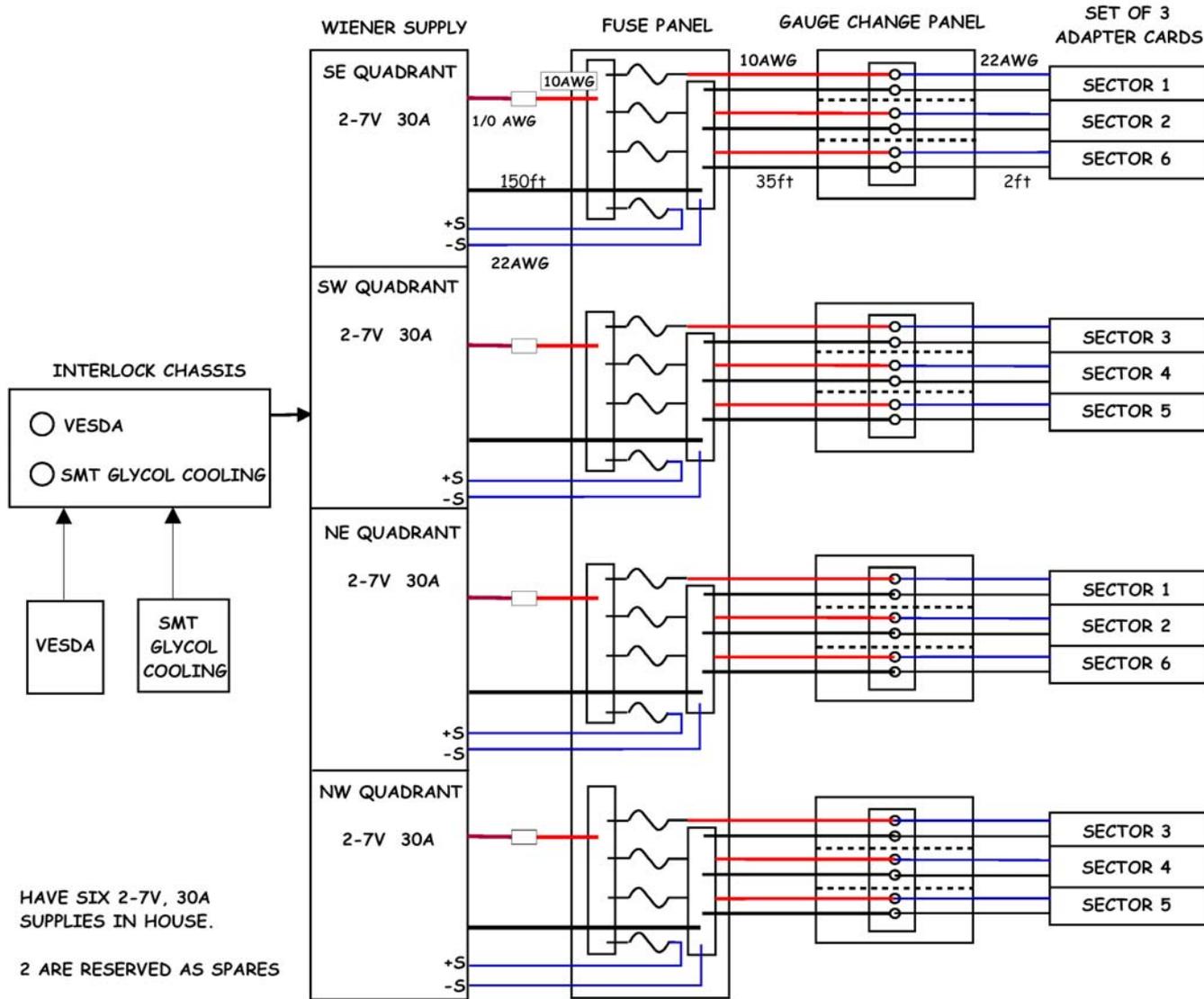
Runllb Layer 0 Power Distribution Design

1/2 of 3 I/B Slots per Quadrant



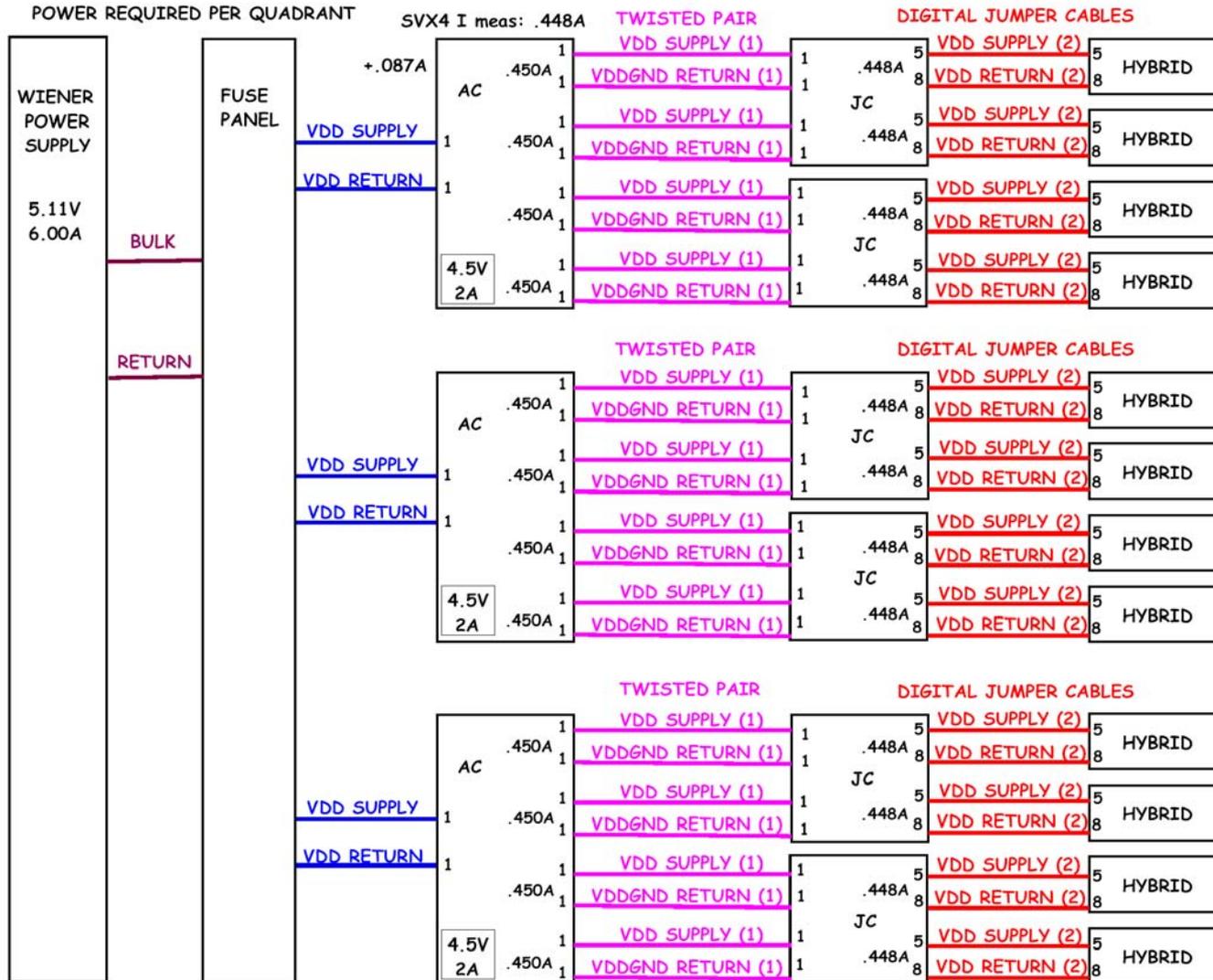


# IS System Components





# Cable Distribution







## Option 2

- If we want to sense current for each AC via the Wiener we'll need...
  - ◆ 12 supplies
    - ▲ 10 in house (6 2-7/30A, 4 2-7V/115A) + 2 more and spares
  - ◆ 8 possible sources per housing.
    - ▲ Suggest 6 per housing.
  - ◆ Lower max current, still use 1/0 cable
    - ▲ 2A instead of 6A (assumes 450mA/hybrid)=463mV drop
  - ◆ Since current is so low (2A), perhaps Wiener isn't the best choice at all!
    - ▲ Current readback resolution: 10mA



## Suggestion

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- Install Wiener as planned during Aug. shutdown.
- Gain operational experience to see if we really need to monitor current per AC.
- Since we'll have 4 hybrids installed, use enable line to troubleshoot questionable hybrids.
- Design fuse panel with a little extra space  
----just in case.