

Meeting minutes 04/19/2021 – 42 minutes

2021 Meeting 11

1. Safety moment – Carbon monoxide detectors New technology – NASA had a small test flight of a small helicopter on the martian surface
2. AC calculation
 - Feeder motor is the same as feeder breaker motor (low side breaker motor)
 - Safety switch is rated amps (go to next size up)
 - Service rating is rated kVA (go to next size up)
 - B & V will let us know how to size the battery charger appropriately (75% or 125%?)
3. Grounding
 - Settled on a grounding grid of 12 ft squares
 - Put more ground rods that would be placed not on intersections, but on edges of grid
4. Trench & conduit fill
 - For PVC conduit, multiple 4” runs should be done where needed
 - Fiber optic cable will get its own 1” pipe
 - On the conduit plan, just mark each pipe as a single line
 - Lighting will be mounted on other steel structures (of our choice) and will be indicated by just running conduit to its location
 - Since our drawings are a bit unconventional, might be a good idea to have cable key to the right
5. Economic analysis for substation
 - Discussed getting a rough estimate for what a substation like this would cost to use in final report (used alongside economic analysis from last semester)
6. Bus plan
 - Don't need to show the conduit since it is underground; trench should be shown
 - Final rendering should turn all lines black for all documents
 - B & V will look into what transformer MVA rating should be
7. Action Items
 - Meeting on friday to go over some presentation/final documents and get some feedback