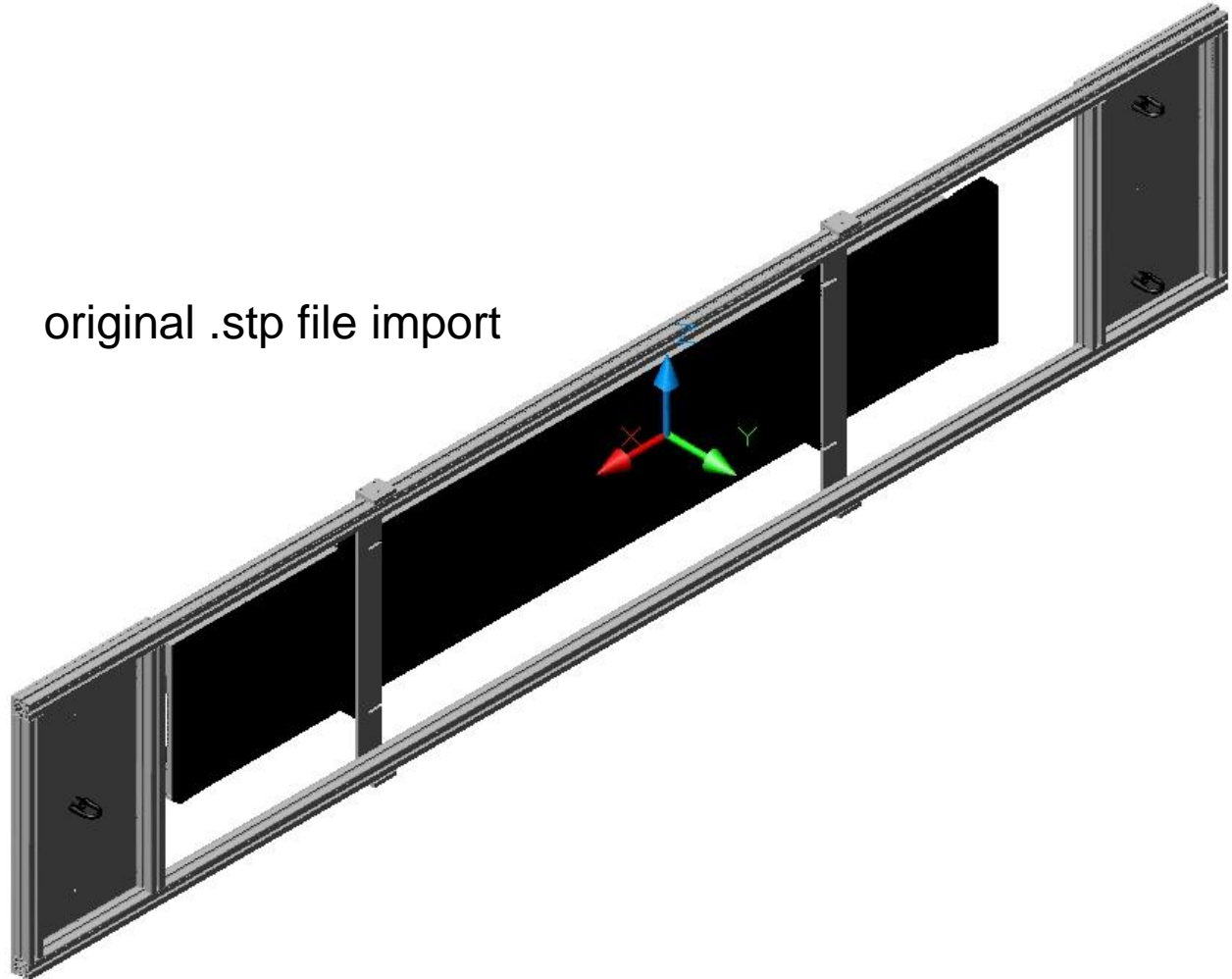
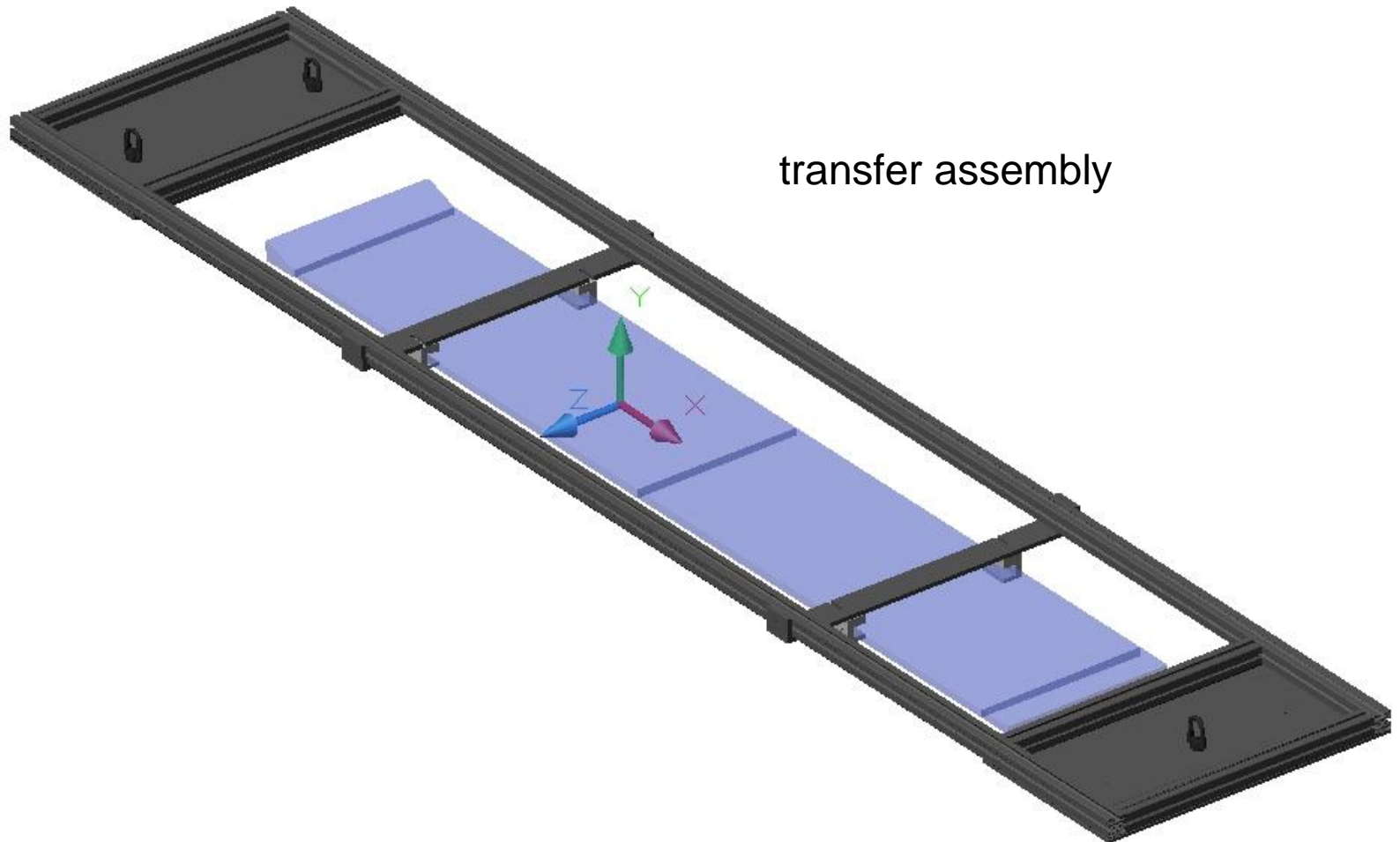


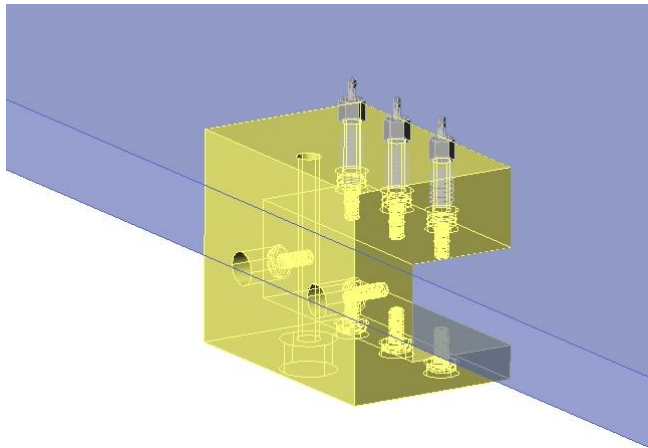
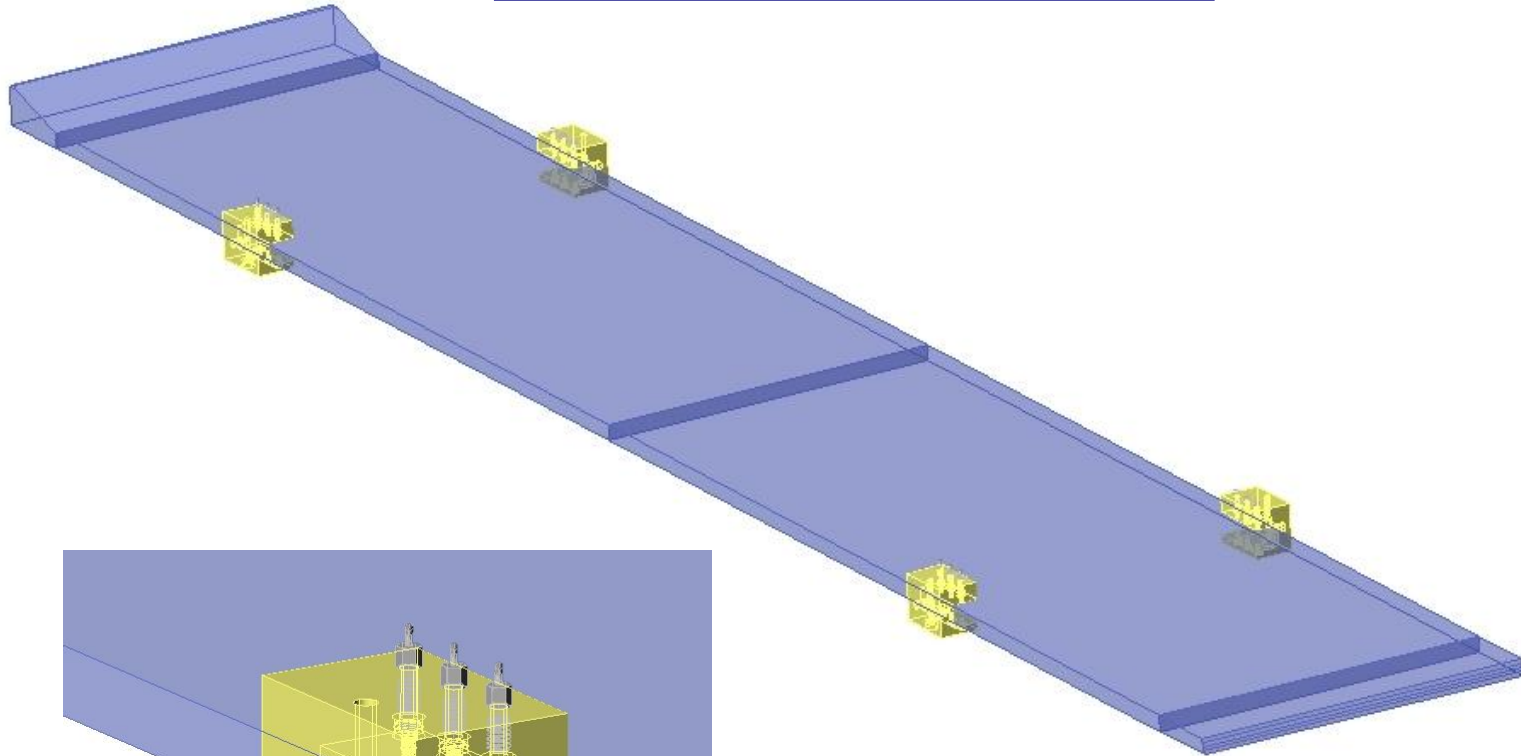
# Comments and graphics on Jim Fast's recent quartz/QBB integration.



Mechanical transfer assembly with T-slot, eye-bolts, and horseshoe clamps.

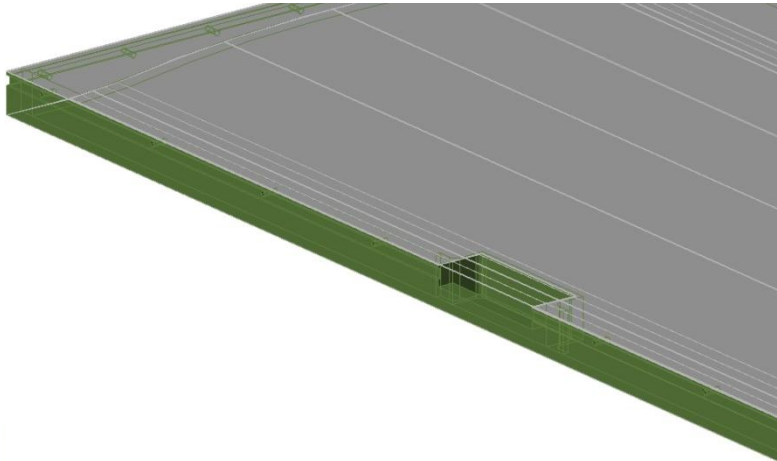
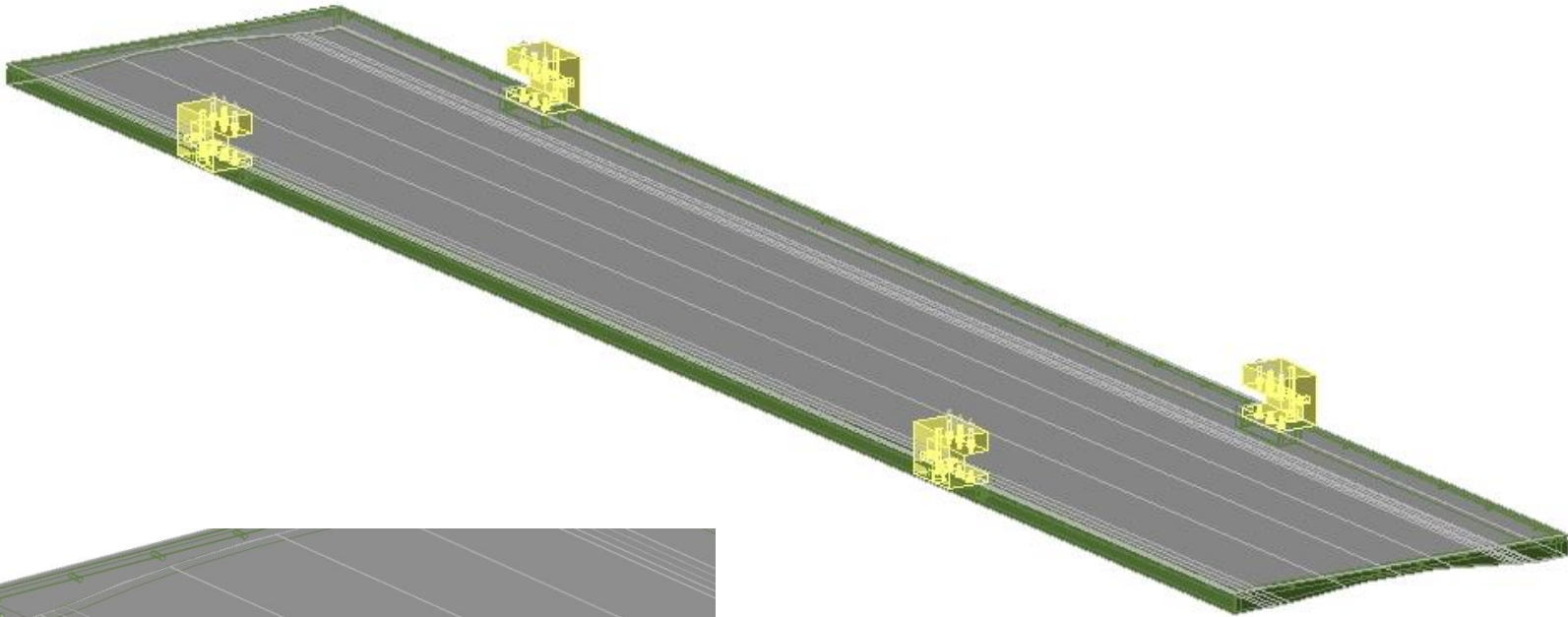


Quartz and horseshoe clamps.



clamp detail

Honeycomb lower panel and horseshoe clamps.



closeout detail

## Summary & comments:

- ✓ The horseshoe clamps maintain the “ bed of nails” concept wrt to isolating the quartz from significant material contact.
- ✓ These clamps also prevent the use of suction cups.
- ✓ The notches in the closeouts of the honeycomb panels are likely to be expensive and result in either excess mass or structural compromise.
- ✓ I agree with the concept that the QBB is assembled around the quartz.