



MIT Kavli Institute for Astrophysics and Space Research Community Reopening Plan

Rev D
July 9, 2021

| Revision History | | | | |
|------------------|-----------|-----------|-------------------------------|---|
| Rev. | Date | Edited by | Reviewed by | Comments |
| 1 | 5/19/2020 | Simcoe | Bautz, Surrette, Defandorf | Initial internal review |
| 2 | 5/21/2020 | Evans | Simcoe | Revisions to aerosol model, bathroom plans. Pre-release DRAFT approved for comment |
| A | 6/1/2020 | Simcoe | Evans | Initial release. Updates to elevators, stairwells |
| B | 6/25/2020 | Simcoe | | Updates to as-implemented for bathrooms |
| C | 5/27/2021 | Simcoe | Bautz, Surrette, Defandorf | Lifting restrictions as population is vaccinated |
| D | 7/9/2021 | Simcoe | | MKI restrictions on indoor meetings relaxed to MIT Institute standards |

Background:

In the 13 months since MKI's Rev B Research Restart Plan was released, we have had no instances of COVID-19 transmission in the workplace. In that interval, the large majority of our community members have been fully vaccinated. MIT has now collected statistics on rates of vaccination among individuals authorized to access the campus using the COVIDPass system. A large majority of COVIDPass users are also fully vaccinated; returning students will have a vaccination requirement and employees may in the future be subject to the same (with certain medical or religious exemptions). Analysis of MIT vaccination and testing rates has motivated MIT central administration to begin relaxing certain restrictions on campus access and usage.

This memo documents revisions of the MKI Research Restart plan, which we are now calling a community reopening plan. At this time, we are following MIT's institute access and building use policies, without any MKI-specific layered restrictions.

Revised Guidelines:

1. All MKI members are now eligible to access campus through the COVIDPass system. COVID testing and attestation will still be required, even for vaccinated individuals, but the COVIDPass app workflow has been simplified.
2. Masks ARE required in all indoor spaces occupied by two or more people.
3. Masks are NOT required outdoors, or when working in a single-occupancy room with the door closed.
4. Co-working in a shared office or lab is now permitted if all occupants are masked. This includes one-on-one indoor visits between students or postdocs and their mentors. Bear in mind that for contact tracing purposes, the CDC definition of close contacts is still used: (a) individuals are unvaccinated, (b) less than 6 feet apart for (c) more than 15 minutes, regardless of masking. Close contacts of individuals who receive a positive test for COVID will still be required to isolate / quarantine.
5. Graduate students may work at their assigned desks. Masks are required if another student is co-working in the same suite or airspace. MKI will designate the 6th floor visitors office and 37-582H as unassigned graduate student touchdown offices during the summer months, for additional flexibility to work without masks. These rooms should be vacated when not in use and will be available on a first-come, first-served basis.
6. Supervisors should not ask individual reports about their vaccination status. Individuals are not required to answer questions from any MKI personnel about their personal vaccination status. However all COVIDPass users accessing campus must report their vaccination status to the COVIDPass system for the purpose of collecting aggregated campus vaccination statistics.
7. Indoor group meetings are now permitted in offices and public spaces, when all participants are masked. Restrictions on attendance are lifted.
8. Occupancy restrictions are lifted on all bathrooms. Light timers will remain set to turn off after 5 minutes, so that incoming customers can determine if the room was recently occupied. Bathrooms will remain on an enhanced cleaning regimen, but all other custodial surface cleaning rounds (e.g. office doors) have been phased out

9. Occupancy limits on elevators are lifted, and all stairwells are bidirectional
10. MIT Parking will return to the prior pay system starting July 1, 2021
11. MKI community members should follow MIT guidelines for indoor eating: only in small groups of 4 or less, with 6-foot spacing between individuals and 8-foot spacing between groups, for no more than 20 minutes. All are encouraged to eat outdoors when possible. MKI will not yet be hosting indoor meetings where food is served.
12. Non-MIT visitors are only allowed on campus with an escort from COVIDPass users who are authorized under testing and daily attestation.

Underlying Analysis

The figure shown below (produced by Prof. Peko Hosoi) is one of several tools being used by MIT to guide reopening decisions. The horizontal axis indicates the fraction of campus that has been vaccinated, estimated at >90% by June 7 (solid vertical line). The vaccination rate in the general Massachusetts population must also be considered, it is slightly above 50% (dotted vertical line).

The vertical axis shows the value of basic reproduction number R_0 that can be managed within a given regimen of vaccination and testing (meaning that caseloads exponentially decay, rather than grow). At present the most contagious strains being considered have $R_0 \sim 5.5$, with large uncertainty. This model assumes no masks and no social distancing.

The present plan calls for continued testing through the summer and into the fall, as insurance against more contagious COVID variants.

