



Project Profile

Facility Evaluation & Alternate Use Feasibility

Owner: Cornerstone Properties

Location: Hillsboro, Oregon

Evergreen Engineering assisted Cornerstone Properties in evaluating the feasibility of converting the existing F-1 occupancy to H-5 within the Evergreen Technology (ETEC) building in Hillsboro, Oregon.



Evergreen Engineering provided the following services:

- Building Code Analysis
- Structural Code Analysis
- Fire Code Analysis
- Verification of Existing Air Handler

Summary:

The building was classified as Type II-N construction of unlimited area with F-1, B, A-3 and S-1 occupancies and 60 ft yards. The building was one story with a mechanical equipment level above the manufacturing area and an open mezzanine in the administrative office section. This level was clarified as a second floor when the building was permitted.

The analysis considered two key approaches for the conversion of the F-1 occupancy to H-5:

1. The Accessory Use approach, which would allow 10% of the floor area to be H5 with no conversions or upgrades, would provide 14,500 square feet of H5 occupancy.
2. A Mixed Use approach would divide the current single building into two separate buildings.

The first approach is compliant with current codes, but allows very little H5 area, and restricts the use for H5 semiconductor processes. The second approach requires approval from the City of Hillsboro, but provides the greatest H5 area and flexibility.

The second approach will require approval for Alternate Method and Material (AM&M) for some aspects of the upgrades needed to bring the building into compliance. These alternate strategies are necessary to mitigate the inherent limitations of an existing building built per 1996 code.

Evergreen also proposed to follow the new International Existing Building code for the seismic upgrade. This approach requires a more rigorous analysis but has significantly lower construction costs.

Evergreen Engineering Performance

Evergreen's code evaluation and feasibility study provided accurate information to the client, which resulted in its purchase of the building space. Our performance instilled confidence in the client resulting in the continued use of our services as a facilities engineering firm.