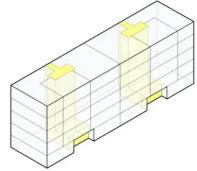
Situation

- We have a **housing shortage** not just in large cities, but in suburban and rural areas as well
- **Building code requirements** and **economics** have made small to medium-sized multifamily housing increasingly difficult to develop
- Most new multifamily are **double loaded corridors**, with single aspect dwellings on either side. Housing in these buildings is **expensive**, gets **little daylight** and **no cross ventilation**.
- Solution Legalizing taller compact single stair buildings with dwellings centered around a stairway and elevator core.
- **Impact** This building typology allows for better daylighting, better ventilation, more efficient floor plans, larger "family sized" units, and better energy efficiency.

Complication

- Though single-stair buildings up to 6 or more stories are a building block of cities around the world, they are restricted in the U.S. to just three stories
- Minnesota cities don't have the authority to modify the state building code to allow single-stair buildings above 3 stories.
- Legalizing this building type requires amending the Minnesota Building Code.
- The **Minnesota Building Code** is a modified version of the ICC's IBC model code, and is **updated on a three year cycle**
- The next update to the MN Building code will be in 2026. The the code revision process, lead by the MN Department of Labor & Industry (DLI) Construction Code Advisory Board (CCAB), is not yet actively under way
 - The DLI Commissioner has final decision authority over code updates, but typically does not deviate from the CCAB recommendation
 - The CCAB typically
 - Adopts nationally recognized model code



- Requires a compelling state-specific reason to deviate from the ICC model code, typically these are related to climate or durability
- In January 2024, the CCAB will form Technical Advisory Groups to consider code amendments
- The window of opportunity to act is now through 2025

Are single stair buildings safe?

• **Yes** - and they are ubiquitous outside North America in countries with as good or better life-safety statistics

- A 2009 U.S. Fire Administration report noted that countries that allow Point Access Blocks higher than 65' have lower fire death rates than the United States (including Switzerland, France, Italy, Germany, Singapore, and Austria).
- U.S. codes require much more robust fire-protection technology than E.U countries that allow PABs at much greater heights:
 - Nearly all U.S. codes require sprinklers for multifamily buildings over 2 stories, while almost no countries in the E.U. require sprinklers on residential buildings less than 92' even when planned as Point Access Blocks.
 - Beyond sprinklers, the U.S. has additional fire code requirements over most E.U. countries, including a fire-rated corridor to separate dwellings from the stairway.

Proposed Legislation

- Direct the DLI and the CCAB to draw up reforms to allow single-stair apartment buildings up to six stories tall
- These changes should
 - Allow single stair residential buildings up to 6 stories from grade plane under certain conditions
 - Allow multiple connected Point Access Blocks in a single building

National Context

- Minnesota can benefit from the experience, adopted code modifications and recent legislative action in other cities (Seattle and New York) and states (WA & CA)
- Seattle and New York City are currently the only U.S. jurisdictions that allow single-stair buildings up to six stories with conditions. Seattle has allowed them for over 50 years.
- In April 2023, <u>Washington state legislature passed a bill</u> (SB 5491) requiring its state Code Council to provide code change recommendations that would allow for single stair buildings up to 6 stories by 2026.
- In June 2023, the <u>Oregon state legislature passed a bill (HB 3395)</u> requiring the state code council to adopt codes to allow single stair apartment buildings, by 2035.

Seattle Building Code Example: Adds the following 2 conditions under 1006.3.3 Single exits.

enno

- 6. Occupied roofs with an occupant load of ten or less are permitted to have a single exit or access to a single exit.
- 7. Not more than 5 stories of Group R-2 occupancy are permitted to be served by a single exit under the following conditions:
 - 7.1. The building has not more than six stories above grade plane.
 - 7.2. The building does not contain a boarding house.
 - 7.3. There shall be no more than four *dwelling units* on any floor.
 - 7.4. The building shall be of not less than one hour fire-resistive construction and shall also be equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1. Residential-type sprinklers shall be used in all habitable spaces in each *dwelling unit*.
 - 7.5. There shall be no more than two single exit stairway conditions on the same property.
 - 7.6. An exterior stairway or interior exit stairway shall be provided. The interior exit stairway, including any related *exit passageway*, shall be pressurized in accordance with Section 909.20. Doors in the stairway shall swing into the interior exit stairway regardless of the occupant load served, provided that doors from the interior exit stairway to the building exterior are permitted to swing in the direction of exit travel.
 - 7.7. A corridor shall separate each dwelling unit entry/exit door from the door to an interior exit stairway, including any related exit passageway, on each floor. Dwelling unit doors shall not open directly into an interior exit stairway. Dwelling unit doors are permitted to open directly into an exterior stairway.
 - 7.8. There shall be no more than 20 feet (6096 mm) of travel to the exit stairway from the entry/exit door of any dwelling unit.