

TRANSIT-ORIENTED DEVELOPMENT FOR A MORE CLIMATE RESILIENT CONNECTICUT

Project Description

Connecticut's transit-oriented development (TOD) efforts have been ongoing for a decade, but face implementation challenges. This research analyzed the current obstacles to TOD implementation in Connecticut while also evaluating the vulnerability of the Metro-North mainline and its associated TOD to sea level rise. We took a mixed-methods approach, reviewing the towns' existing TOD plans, interviewing 13 stakeholders, analyzing the street network in station areas and analyzing parcel and rail line vulnerability with CIRCA's mapping of the 1% annual exceedance probability flood with the addition of 20" of sea-level rise by 2050.

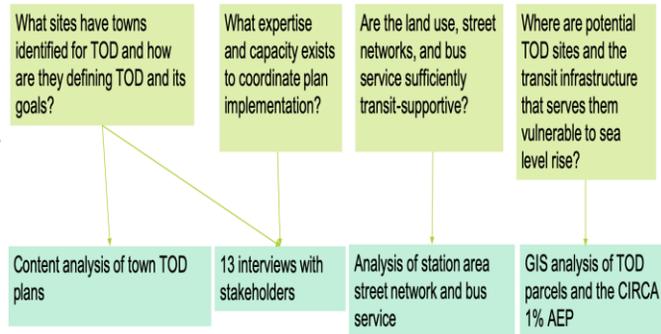


Figure: Methodology of the Project

Project Findings

The state's significant involvement in both bus and rail funding offers opportunities for proactive transit-land use planning, but to date, both state and local transit has been reactive to land use changes. We find a lack of standardized data or concrete performance metrics hampers state TOD efforts, resulting in projects that are not sufficiently transit supportive. The DOT lacks staff trained in land use planning and has to date seen the bus network as separate from TOD efforts. Most town TOD plans were completed before tools existed to quantify sea level rise and have not reached a conclusion on how to treat parcels that are projected to be a flood risk in 30 years. This question will become increasingly pressing as ~3 miles of Metro-North track and 18% of parcels within 1/2 mile of the stations are within the 1% exceedance zone.

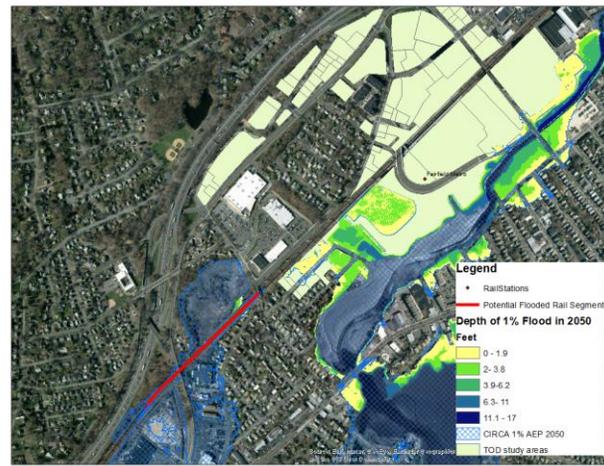


Figure: Map of 1% AEP in 2050 overlaid on the parcels studied around Fairfield Metro station. The red line highlights parts of the rail line also affected by the 1% AEP.

Research Gaps and Recommendations

Research Gaps

- What are best practices for utilizing parcels that will be in flood danger in 30 years?
- How much housing can the current TOD plans reasonably provide, and how does that compare to transit capacity along the corridor? What share of riders could live walking distance to a station?

Recommendations

- Build in more scope for local governments to contribute financially to transit and support quarterly meetings between cities and transit providers
- Utilize specific measures for "transit-supportive areas," including intersection density of 100+ and a link-node ratio of 1.4 or more
- Target transit funding to key corridors, supported by incentives for densification
- Improve standardized, state-wide data collection and provision
- Support hiring of transportation staff with holistic expertise in land use and resiliency, including by developing a pipeline of trained planners in the state.