Resilience Checklist for New Development and Substantial Improvements

A resilience checklist is a document for developers and property owners that require them to consider different climate impacts to their project/property as part of the site plan review or permitting process. The checklist may include things like flood depths and flood risks, urban heat island, wind, and other impacts. However, a checklist of this type does not typically require developer or property owners to change course or provide solutions and is primarily used as an education tool to inform them about climate change risks.

Examples of a Resilience Checklist

There are a few examples of resilience checklists being used for larger-scale commercial or multi-family developments. A completed checklist is often required during the building permit and/or design process of a new development or substantial improvement project.

- **Boston, MA Climate Resilience Checklist:** Under Article 80 of the zoning code, the Resilience checklist is required by large property developers over 50,000 sq. ft., Planned Development Areas, and Institutional Master Plan during the review process. It requires developers to consider climate impacts on projects, but does not require action to be taken. http://www.bostonplans.org/getattachment/5d668310-ffd1-4104-98fa-eef30424a9b3
- **Toronto, ON Green Standards:** Provides a series of sustainable design requirements for all new private and city-owned developments and includes a resilience checklist (the standard applies to new residential buildings with five or more units and all industrial, commercial, and institutional developments). All new planning applications must submit follow the standard's requirements as part of the city's approval process. The resilience checklist includes questions for evaluating climate data, thermal resilience, backup generation, on-site flood mitigation, and manager and tenant preparedness. http://wx.toronto.ca/inter/clerks/fit.nsf/0/3d0af0e4d40adc8b852582e500625cd3/$File/Toronto%2BGreen%2BStandards%2BVersion%2B3.0%2BChecklist%2BResilience%2BPlanning%2BNew%2BConstruction.pdf
- **Winthrop, MA Flood Resilience Checklist:** In 2020, MAPC worked with the Town of Winthrop to develop a Flood Resilience Checklist that could be used as an educational tool during the building permitting process. Their focus on flooding and residential property development reflects their local conditions. In addition to the checklist, they also provide a Guidance Document and Flood Mapping Tool that includes projected sea level rise and storm surge due to climate change. Flood Resilience | Winthrop MA

The benefits of a Resilience Checklist include providing localized climate change information, and a list of potential solutions to property developers. It can be a useful preliminary step towards integrating resilience into the development process, without requiring changes to the Zoning Code or Building Code.

Designing and Implementing a Resilience Checklist

Cities and Towns may be interested in adopting a resilience checklist as an initial step towards educating developers and property owners about climate risk and potential site-scale actions to reduce risk. Some key things to consider:

1. What types of climate risks or extreme weather exposure does your municipality face?
2. Do downscaled maps of these risks exist and readily available? (Ie. Coastal flood maps, urban flood maps, heat island maps etc...)
3. Are there site or building scale actions that can be taken to reduce risk and exposure?
4. What are the development trends you are seeing in your municipality? Are there any existing permitting triggers at which point climate change resilience can be integrated?

Many checklists provide both the checklist itself alongside additional guidance information on the climate impacts for the municipality. Some of this information may already be available if you have a robust climate vulnerability assessment or resilience plan, otherwise it may take additional work to compile this information. A good place to start includes:

- Resilient MA: MA Climate Change Clearinghouse (resilientma.org)
- Your Municipal Vulnerability Preparedness Plan: Municipal Vulnerability Preparedness (MVP) Program Planning Reports | Mass.gov
- Climate Smart Cities Tool for Metro Mayors Climate Smart Cities Boston Metro Mayors - Planning and GIS (tplgis.org)

Steps to Develop and Implement a Resilience Checklist

The time it takes to develop and implement such a checklist will vary by municipality depending on staff capacity, enthusiasm for the project, amount of stakeholder engagement needed, and other local decision-making processes. However, you should plan for it to take at least 9-months to a year to go through the entire process. Suggested steps include:

1. Gauge interest in a resilience checklist from key departments, including Planning and Inspectional Services
2. Launch project and Advisory Committee to help steer process and engage stakeholders
3. Draft Resilience Checklist based on local needs
4. Engage stakeholders and decision-makers in feedback and edits
5. Final Draft of Resilience Checklist

6. Work with Planning Department and Inspectional Services, and Municipal CEO to approve checklist
7. Integrate into existing permitting processes (whether e-permitting or hard copies)
8. Train users and reviewers on the checklist

Stakeholder and Decision-Maker Engagement

When developing a new policy or tool, it is best to engage impacted and interested stakeholders in the process. This may include:

- ❑ Developers who typically work within the municipality
- ❑ Property owners in high-risk areas
- ❑ Inspectional Services Department
- ❑ Planning Department
- ❑ Planning Board
- ❑ Zoning Board
- ❑ Municipal CEO (Mayor/Town Manager)
- ❑ Previous participants of the Municipal Vulnerability Preparedness Workshop (or similar meetings)
- ❑ Others?

For each of these groups you may consider what types of engagement are appropriate including, one-on-one interviews, focus groups, establishing an Advisory Committee, presentations to Board meetings etc... You will also want to work with decision-makers to understand who will need final approval of implementing such a project and any specific deadlines that may exist.

For more information on stakeholder engagement strategies: Community Engagement – MAPC