DESIGNING FOR FLOOD RISK

URBAN DESIGN PRINCIPLES

FEMA and Building Code standards for flood-resistant construction require new or substantially improved buildings in flood zones to be elevated or flood proofed above projected flood levels. However, elevating buildings more than a few feet above the sidewalk can have negative effects on streetscape, building access, ground floor activity, architectural quality, and neighborhood character. The Department of City Planning has worked with representatives of the local design community to develop a set of urban design principles to guide the design of flood resilient buildings.

VISUAL CONNECTIVITY

Having the windows and front door of a building face the public street can create a sense of security and comfort for pedestrians. These architectural elements also provide visual interest, which in turn promotes a walkable neighborhood. Elevating the first floor of a building can limit this visual connectivity. In residential neighborhoods, porches, stoops, and generous access elements can be designed in order to help to mitigate this disconnection. On commercial streets, this visual connectivity is important to the viability of local retail. A common best practice is to dry-flood proof the commercial space so that it can be closer to sidewalk level and therefore maximize visual and physical connectivity.



FACADE ARTICULATION

Buildings often contribute to the character of a place by offering human-scale architectural elements, particularly on the first floor. Elevated buildings with crawl space, parking or storage can create blank walls at grade. Setting a building back from the property line slightly and using landscaping and/or other creative design solutions can help to buffer these voids in an active streetscape. If ground-level parking is the only feasible option, then garage doors and curb cuts should be designed to minimize their impact on the pedestrian realm.



INVITING ACCESS

Elevated buildings pose challenges for accessibility. Ramps can be difficult to accommodate, particularly on smaller lots. Even smaller buildings that are not required to meet ADA standards have the challenge of integrating longer runs of stairs into a building or landscape design. Introducing a 90-degree turn or landing, and paying careful attention to overall stair design can make a long run of stairs easier to climb and appear more inviting for people walking by.



NEIGHBORHOOD CHARACTER

Some neighborhoods exhibit a relative uniformity of building form. Elevating buildings will necessarily produce variations in building height and, in some cases, placement on the lot. Designers should respect a neighborhood's character by taking cues from existing context in building massing, fenestration, rooflines, and other architectural elements.



Adapting to higher standards of flood safety is both a challenge and an opportunity for architects to achieve higher standards of design. The opportunity exists now to innovate and produce architecture that contributes to the public realm and has a positive long-term effect on those neighborhoods recovering from Hurricane Sandy.

