



V. CORRIDOR IMPLEMENTATION

The Salt Lake City Street and Intersection Typologies will be implemented on a corridor-by-corridor basis as individual streets are redesigned and rebuilt throughout the City; there is currently no implementation schedule or budget. This section identifies several topics to be addressed at a corridor level. These should not be considered comprehensive, however; City staff responsible for implementing the typologies will need to be flexible and adaptable throughout the design process in response to a range of needs.

PAVEMENT QUALITY

Salt Lake City acknowledges, with these typologies, that some of its streets are too wide or otherwise inhospitable for people walking, bicycling, using transit, using mobility devices, or enjoying public spaces. Reduced roadway width may be one outcome of implementing these typologies. The City will need to be prepared to address some technical challenges associated with reducing the roadway width for vehicles.

For example, if the City decides to remove lanes of traffic on a roadway by shifting the curbs closer to the center of the street, the existing vehicle traffic volumes will be more concentrated on a smaller section of the roadway. The underlying pavement depth may not have been originally designed to handle higher vehicle volumes. However, through the implementation process, the pavement depth could potentially be increased to support a heavier or more frequent vehicle load. Salt Lake City's Engineering and Streets staff should be involved to make sure that corridor redesigns consider appropriate and high-quality pavement engineering. Salt Lake City could also reduce the vehicle demand on the roadway by changing land uses and street design.

IMPACTS TO UNDERGROUND UTILITIES

Similarly, reduced roadway widths may affect utility lines that are located underground. Full implementation of many proposed typologies are likely to require relocation of both private and public utilities. If curbs shift toward the center of the street, designers should ensure that utilities are still easily connected, that water drains off the roadway and other street elements appropriately, and that pipes and manholes are located underneath travel lanes or center turn lanes (and not bike lanes, sidewalks, driveway approaches, or trees) whenever possible.

If the curb lines move inward, designers should ensure that utility pipes and their access points are still located underneath travel lanes or center turn lanes. These should not be located underneath drive approaches, sidewalks, underneath trees, or in bike lanes, in order to avoid disruption of private property access and bike lane activity, and to protect long-term community investments like mature street trees. Designers should also be aware of State and City codes that require separation between certain underground utilities in the name of public health (for instance, between water and sewer lines, to avoid potential contamination of water sources). Shifting underground utilities is

an expensive task, and may cause other underground utilities to be moved to maintain the required amount of distance. This could impact private utility companies as well. The current status of individual utility franchise agreements may help clarify who would/may be responsible for relocating each facility when typologies are implemented. Additional funds may be required to relocate infrastructure to fully implement the desired vision as laid out in this Guide.

Street reconstructions are often generational investments that may coincide with the need for utility replacement or relocation, as well. Timing the implementation of typologies to coincide with street reconstruction and utility projects will improve the quality of the built environment and reduce the costs and impacts of improvements. Additional funds may still be required, however, in order to relocate utilities and fully implement the desired vision as laid out in this Guide. At this time, Salt Lake City does not have funds to implement the designs identified in this Guide.





SNOW STORAGE AND STORMWATER DRAINAGE

Given Salt Lake City's large rights-of-way and climate, it is important that the design, funding, operations, and maintenance processes solve drainage, snow clearing, and snow storage issues. Wide, impervious roadways create excessive runoff that, during storm events, may exceed the capacity of existing utilities. Narrower roadways, more pervious area, and "softer" streetscape features will ensure that existing utilities are not overloaded and that stormwater is appropriately handled before it enters a pipe. City stakeholders support green infrastructure to benefit water quality and mitigate the impacts of climate change and flooding, create a sense of place, mitigate urban heat island effect, and promote active transportation. Further, the Department of Public Utilities encourages and sometimes requires green infrastructure to be installed or reviewed as an alternative to traditional stormwater treatments.

Appropriate snow storage and drainage solutions will result in bike lanes, travel lanes, and sidewalks that are free of snow, ice, and water.

City stakeholders raised several concerns regarding existing streets with separated bike lanes. In the past, when snowplows cleared the travel lanes (and sometimes the adjacent parking lanes), the cleared snow landed in the bike lane, or on the sidewalk, or in a transit stop. While Salt Lake City has addressed this issue by purchasing snow removal equipment specifically for the bike lanes, future implementation of raised and separated bike lanes outside of the roadway will require an even more detailed approach for an even better user experience.

FIRE AND EMERGENCY RESPONDER ACCESS

Salt Lake City's Fire Department follows the International Fire Code (IFC) guidelines as they apply to the design of buildings and the public right-of-way. The goals and designs of the typologies are, at times and in certain circumstances, at odds with the IFC and the guidelines found specifically in the IFC (specifically in Appendix D to the Code).

Currently, the code states that an aerial apparatus (ladder truck) should be located at least 15' and no more than 30' away from a building taller than 30'. Likewise, a 26' unencumbered area (exclusive of high back curbs, parking, trees) must be preserved for an apparatus and its hoses to be passed by another vehicle. Because the strict application of this guideline, in many cases, prevented the quality of urban form and street design desired by the City and its residents, the Fire Department, Building Services Division, Planning Division, and Engineering Division revised this guideline to allow for no closer than 10' and no farther away than 50'. Where buildings are shorter than 30' and aerial apparatuses are not required, the preferred width can be as narrow as 20' (26' within 20' of a hydrant), and no minimum or maximum setbacks are required. These guidelines are shown in the illustration to the right.

These guidelines were negotiated between the Fire Department, the Planning Division, and other City groups to allow for more flexibility in streetscape design while still addressing safety and emergency response concerns and have been officially adopted. Individual corridor designs should still be coordinated with the Fire Department at a street-by-street level as typology implementation takes place throughout the City.



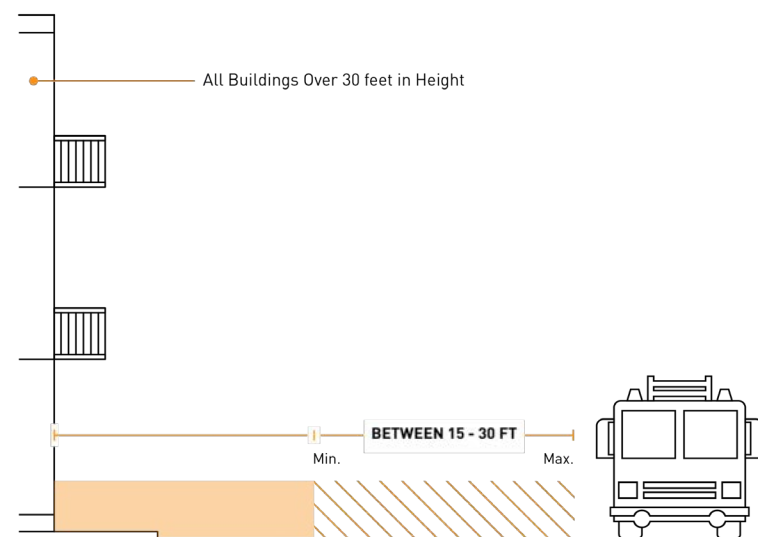
AERIAL FIRE ACCESS PROXIMITY REQUIREMENTS

PROPOSED CODE



AERIAL FIRE ACCESS PROXIMITY REQUIREMENTS

CURRENT CODE



CRITICAL DIMENSIONS

TAC members and other project collaborators provided guidance on important spatial requirements, or “critical dimensions”, that would allow the typology designs to be visionary basing them in current standards and best practices, and allowing for changes and flexibility in the future when said standards may also change. These include preferred measurements for bus stops, shelters, and pull-out bays; transit stations and light rail lines; sidewalks and bike lanes; sanitation vehicles; fire trucks; streetlight spacing; curb and gutter heights and widths; lane widths; park strip and planting zone widths; and other needs. These details should be considered as supplemental to Salt Lake City’s design standards developed by the Engineering Division and Department of Public Utilities.