Option 2: Ramp

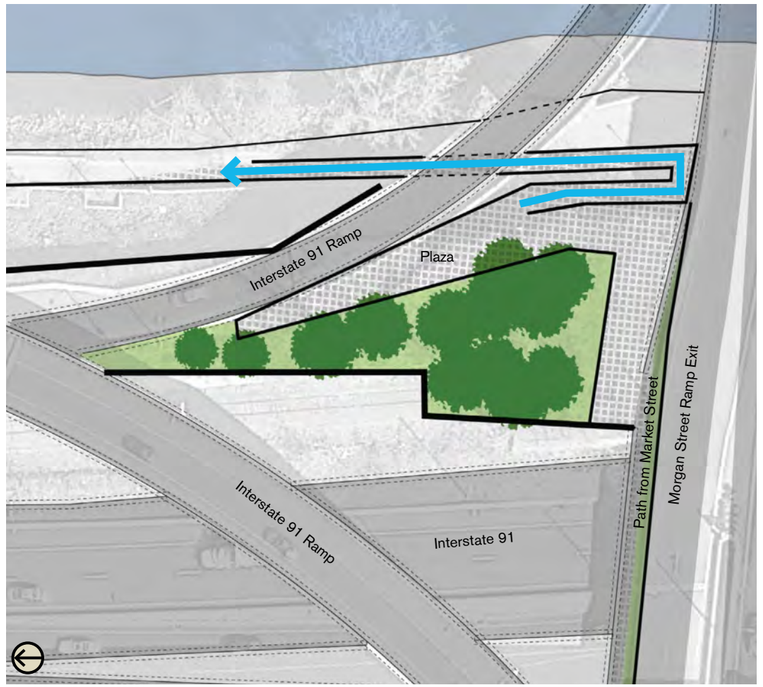
Converting part of the excess capacity from the Market Street exit ramp on I-84 creates a pedestrian/bikeway that brings the user up to the rail cap from the Market Street intersection. An overlook plaza on top of the rail cap is created that provides views to the river.

A series of switchbacks bring people down to the waterfront trail. While this option could serve both bikes and pedestrians, it is more suitable for pedestrian access because it enables dramatic views, as well as having a tight turning radius because of the switchback. Further study of the slope necessary for the switchbacks would have to be conducted.

Market Street exit from I-84 looking west.

View of the river trail from the railroad cap.

The proposed access point would be located on the rail cap where it intersects the overpass in the background.



Option 2: Ramp

Option 3: Suspended Bridge

Option 3 offers an access point that builds off of existing pedestrian access to the bridge and over the river. The right-of-way on S. Morgan Street needs to be widened to accommodate a larger sidewalk, and additional capacity exists in this configuration for bike and pedestrian access alongside the highway entry ramp.

The current pedestrian access from the exit ramp that runs on top of the train tunnel would have to be shifted slightly to the west to allow for appropriate clearance for bicycles (see the bottom left photo). The new bridge to the river would connect to this pedestrian path, running alongside the floodwall to the river path below.

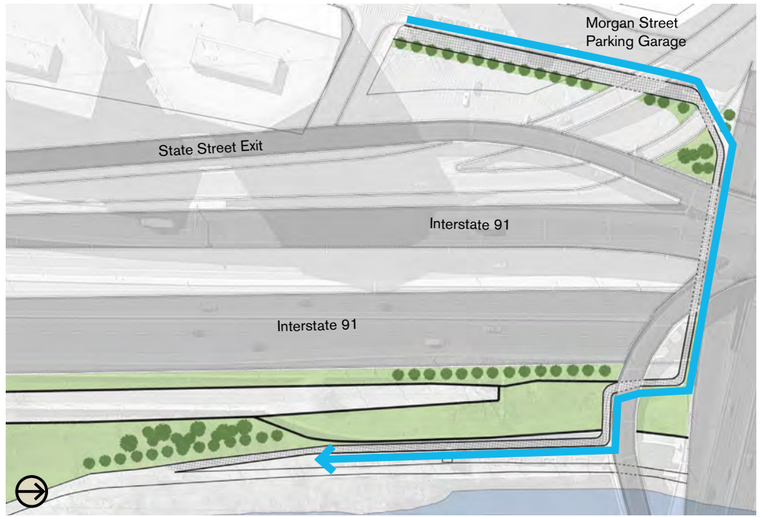
Currently, access to the river for bicycles is even more limited than pedestrian access. An elevator is necessary to bring bikes to the river at Mortensen Plaza. The other access point is at the boat house on the northern access point for the river trail.

A widened sidewalk could comfortably bring pedestrians and bike to the bridge entry.

Looking up to the proposed entry point of the suspended bridge in the background at the overpass.

The existing path to the proposed bridge would need to be widened to accommodate pedestrians and bicyclists.

View from the proposed entry adjacent to the floodwall and rail cap.

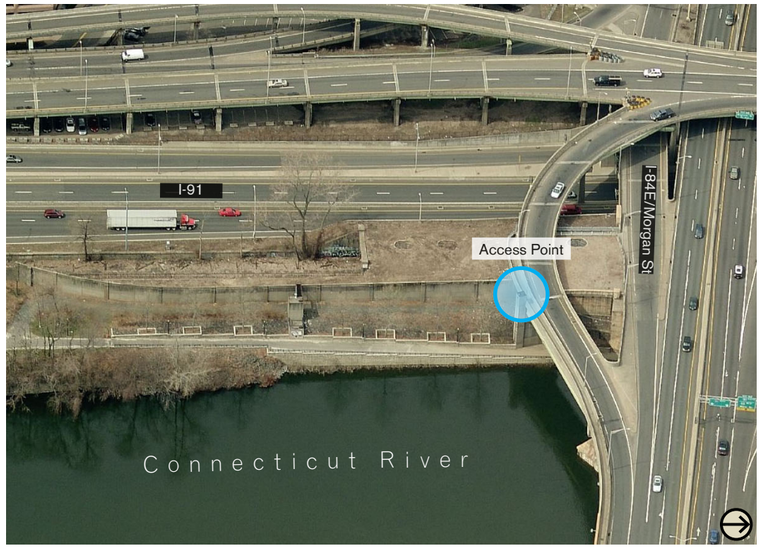


Option 3: Suspended Bridge

A new ramp running from the pedestrian pathway adjacent to I-84 just past the S. Morgan Street ramp onto I-84 could run parallel to the floodwall down to the riverfront. This path would accommodate both bicyclists and pedestrians.

A prefabricated bridge structure could offer the flexibility to create an access point in the short and long term since the structure can be put in place prior to any improvements to the highway and floodwall infrastructures. While improvements are made, the structure can be stored and then recommissioned after the construction is completed.

The reconfiguration of the floodwall, as well as other ConnDOT activities, may make both Options 2 and 3 financially viable if additional funding is available.



Access to the suspended bridge could happen at the existing pedestrian path over the Bulkeley Bridge

The Town Green

Development and open spaces can enhance the lifestyle that urban dwellers desire.

Wexford Park (a.k.a., Heaven park) is in a prime location, but its current configuration does not allow for the type of desirable uses that will ultimately bring value to the district.

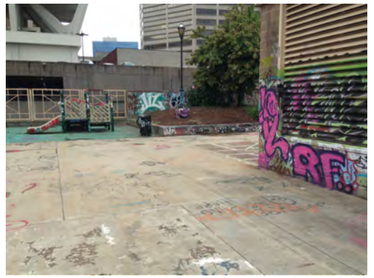
Visual and circulatory access issues limit the use of the park. Walls, high curbs, and fences inhibit pedestrian flow from the sidewalk. Visually the space is broken up by a central space and two flanking spaces. The large ventilation building prevents visual access and consumes large areas of the park.

The park suffers from disrepair and neglect, and is generally not a hospitable environment. This is exacerbated by the fact that in the central space is primarily hardscape. However, recent investments in a skate park on the highway cap suggest that the space is used by some residents for recreation.

Access to the central open space is hindered by high walls at the sidewalk's edge.

The central open space is entirely hardscape, limiting the functionality of the park.

The flanking public space is empty and provides little visual connection to the central open space.



The park is tagged with graffiti, poorly landscaped, uninviting to pedestrians, and in general, is neglected.

A new town green could tie together the downtown core with Downtown North becoming a center for active and passive recreation. It will be an urban amenity that supports the growing downtown community and allows for wide diversity of program and activities. To create a this new signature space there must be alterations to the current configuration:

❶ Acoustical Berms and Planting
To reduce noise and particulate pollution from the highway, berms planted with trees are created. These elements form a visual and acoustical barrier that shape the space inside the green. From the highway the landforms and plantings create a new green gateway on I-84.

❷ Unified Paving
Unified paving throughout the park ties together the disparate spaces to the north, west, and east where new forested plazas offer seating and shelter from the summer sun.

❸ Great Lawn
Removing walls, tall curbs and fences allows for visual and pedestrian circulation. Regrading the central space turns it into a lawn for leisure and relaxation.

A new plaza space to the south unifies the reconfigured ventilation system buildings, which act as armatures for active recreation and spectacles like skateboarding and climbing. To the north the great lawn provides space for people to watch the events or to relax on the lawn.

The other remnant buildings of the tunnel ventilation system serve as architectural follies clad in energy-efficient displays offering information and digital content.

The Plaza at Harvard University, Cambridge, MA

Rose Kennedy Greenway, Boston, MA

1. Acoustical Berms and Planting

2. Unified Paving

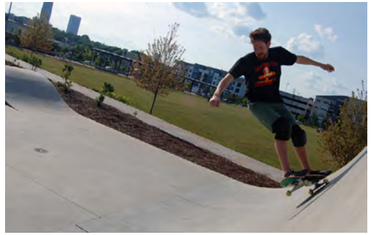
3. Great Lawn

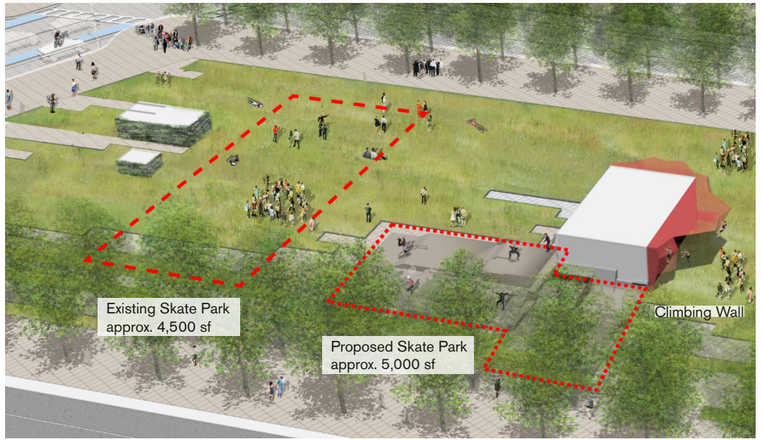
A proposed Town Green would provide recreational and passive open space for all of Hartford's residents.

Skate Park
While additions to the skate park are currently underway, there are other opportunities for amenities for the whole community. The proposed configurations will allow for a skate park that is larger than the one currently under construction.

It is likely that within the time frame for design and construction of the Town Green the current skate park will be in need of repair. It is possible that some of the elements currently being use for the park can be reused at the time of the new park.

Given the proximity of this site to several of the proposed development parcels, as well as it relationship to the current assets of the Downtown, it is critical to the future of the district.





Landscape Guidelines

Landscape Infrastructure

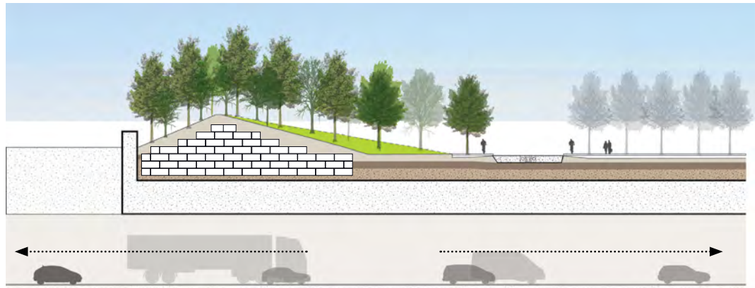
An efficient way of constructing an acoustical berm on top of the I- 84 overpass is with use of a geo-foam block material. Light weight engineered geo-foam allows for construction flexibility and lowers overall construction costs.

The construction of the acoustical berm would also include layer of structural soil allowing for planting of new vegetation for visual and noise separation from the highway below.

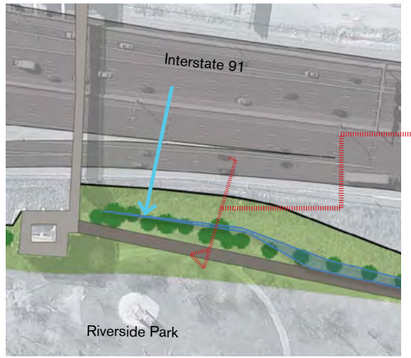
Blue Infrastructure

The proposed pedestrian and bicycle pathway along the Riverside Park that connects to the existing pedestrian overpass structure, presents the opportunity for integrating storm water management.

The new landform system would take runoff from I-91 and allow it to be filtered through series of infiltration zones such a small wetlands located along the pedestrian and bicycle path.



Acoustical Berm (see page 101).



Option 1: Landform - Partial Plan (see page 93).

Detail of open landform.

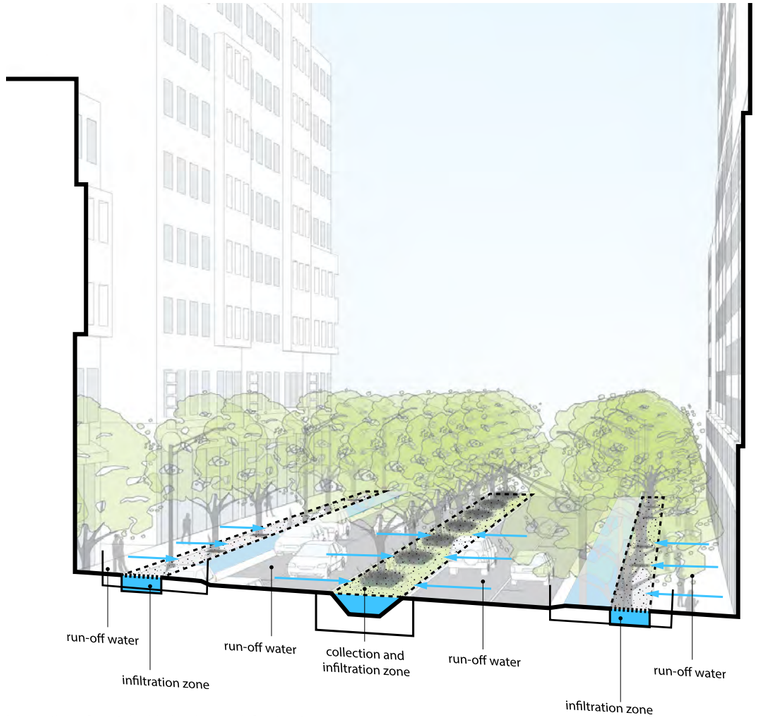
Landscape Guidelines

Living Streets

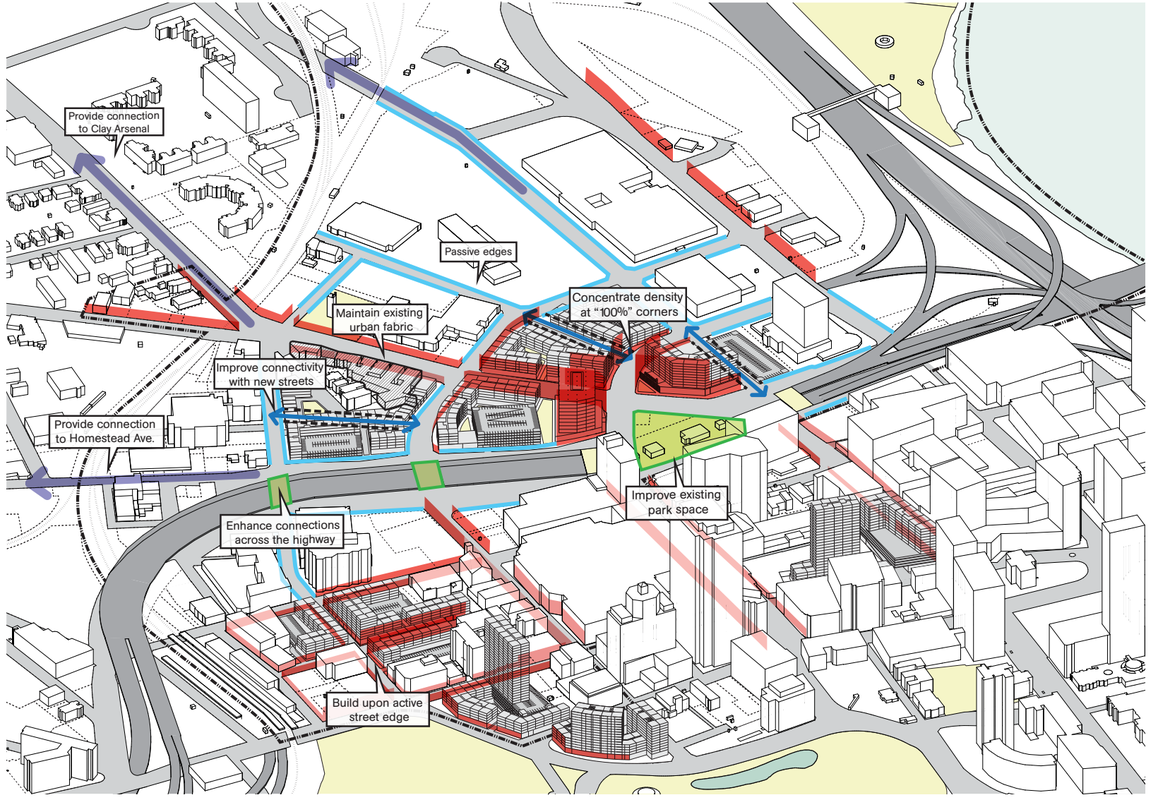
- A sustainable approach to the design of city streets integrates runoff and storm water management
- The hydrological system of the proposed Main Street incorporates two water management strategies

  1. Runoff Collector Buffers run along the sidewalks and planting areas on both sides of the street. They collect the runoff water from sidewalks and use the water for tree and planting irrigation, as well as directing water towards other infiltration areas.

  2. A Runoff Collector and Infiltration Zone spans the middle area of the boulevard. This allows for collecting and infiltrating stormwater runoff from the street, and irrigating the whole spine of the boulevard.



Integration of sustainable landscape infrastructure



Design Guidelines and Zoning

Design Guidelines and Zoning

The Design Guidelines and Zoning chapter provides design recommendations that should be incorporated into future RFPs and codified into the zoning regulations. These recommendations are reflected in the Downtown North/ Downtown West plan.

Tools for Implementing the Plan

The proposed vision for new buildings in Downtown North and Downtown West is predicated on a balance of building types, including townhouses, five-story apartment buildings, and high-rises of various heights. The plan acknowledges the scale of existing neighborhoods and buildings, and the need to create diversity on the parcels north of I-84 where new development needs to mend the break in the urban fabric between downtown and the neighborhoods of Clay Arsenal and Upper Albany to the north.

To ensure that the plan is realized, the City should use two related tools that can be applied to direct the form of future development.

❶ Design Guidelines for Development RFPs

The first are development guidelines for RFPs. Through the use of graphic diagrams and language, these guidelines frame the "dos and don'ts" of building on the parcels, if acquired through a public disposition process. These requirements would be included as part of the official "Request for Proposals," thus binding the winning development team to a final project that met guidelines. The design recommendations (outlined later in the chapter) that are both measurable and qualitative are applicable to the guidelines and will also be incorporated into a city-wide form-based zoning code.

❷ Form-based Zoning

The second tool to encourage new development consistent with the vision is new zoning. The process to enact new zoning takes time because it requires public comment and support from the City Council; as a result, the City will need to use development guidelines to shape development for near-term developer RFPs on City-owned parcels.

The City has launched a rezoning effort in Downtown neighborhoods. The code will ensure that the building stock and related street network are consistent-enough in height, scale, and character that general form-based rules can be applied. The areas within the study area of this plan will be prioritized in the rezoning effort.

The Limitations of Existing Zoning in Downtown Hartford

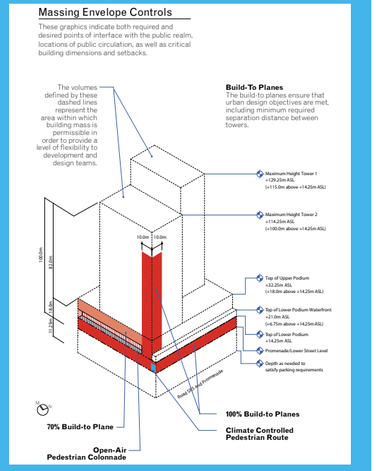
Hartford's existing zoning is based on the conventional Euclidean model, with districts defined by the dominate allowable use in each district. This framework was originally implemented to protect residential neighborhoods from the encroachment of non-compatible uses. In addition, dimensional requirements in each district are meant to protect property owners from abutting uses through required setbacks and maximum building heights. As a result, the existing code is not an effective tool

What are Form-based Codes?
Cities across the country are implementing policies to ensure that future development reflects the desired character and form of the community. One way to accomplish this is through form-based codes.

Form-based codes use physical form (rather than separation of uses) as the organizing principle for the code in order to generate desired built form and a high-quality public realm. They are regulations (not simply recommendations) adopted into city or county law.

They focus on the relationship between buildings and the public realm, the form and mass of buildings in relation to one another, and at times the scale and types of streets and blocks. The regulations are generally presented in both words, diagrams and other visuals.

Form-based codes can take on different levels or degrees of regulation. They may go as far as to determine architectural detail, the character and dimensions of the public realm, and signage standards.



The code illustrated above outlines the permissible building envelope. Within this envelope a level of architectural freedom is granted, but by adhering to these design controls a more sensitive and place appropriate scale of development can be regulated.

for achieving the objectives of the plan for Downtown North and Downtown West, as it is based on use rather than massing and scale.

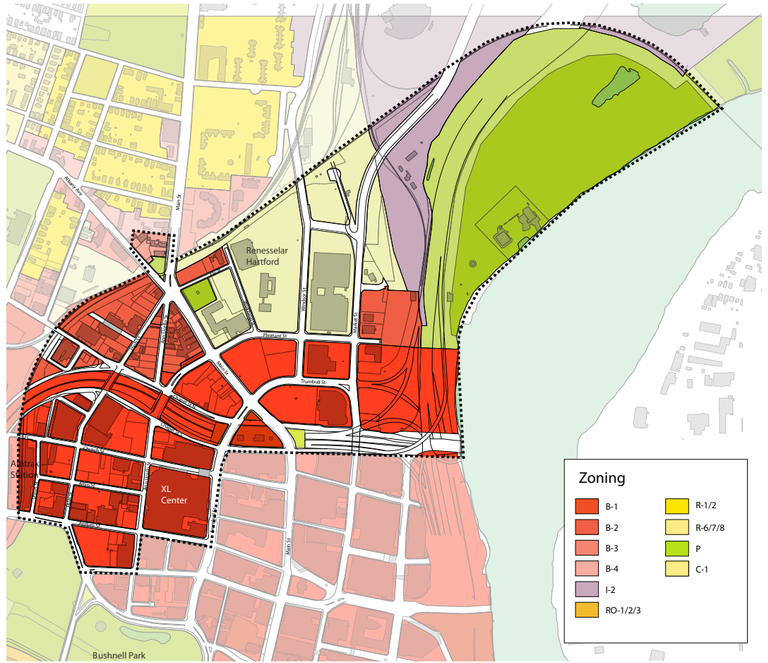
There are a total of twenty zoning categories for the City of Hartford. The categories currently in the study area are as follows:

- → B-1: Downtown Development District
- → B-2: Downtown Development
- → Perimeter District
- → C1: Commercial District
- → I-2: Industrial District
- → P: Public Property and Cemetery District

While the current zoning categories seem appropriate for their designated areas, some are incredibly complex, finite in their allowable uses, and highly detailed in their dimensional requirements in some areas and not prescriptive enough in others.

The existing zoning causes frequent requests for variances or overlays, thus slowing down the permitting process for future development. This can be a disincentive to development that might otherwise meet the objectives of the proposed plan. The recent trend of

Design Guidelines and Zoning



Existing Downtown Hartford zoning

establishing "form based" codes instead of traditional zoning simplifies the code, makes it easier to understand and promotes a faster permitting process for developers.

Recommendations for Design Guidelines and Zoning

Given the real estate market in Hartford for the foreseeable future, the proposed plan, and the guidelines and zoning, should define the heights, building envelope, required building setbacks, and active pedestrian edges of future buildings. In addition, the guidelines and zoning should indicate acceptable locations for loading docks and parking entrances. These preferences will be communicated by distinguishing between primary and secondary streets. This then sets up the framework for differences between pedestrian and vehicle-dominant activities.

This sections presents the following design recommendations to be incorporated into both design guidelines for RFPs and future form-based zoning for the City:

- Build-to plane
- Access and loading

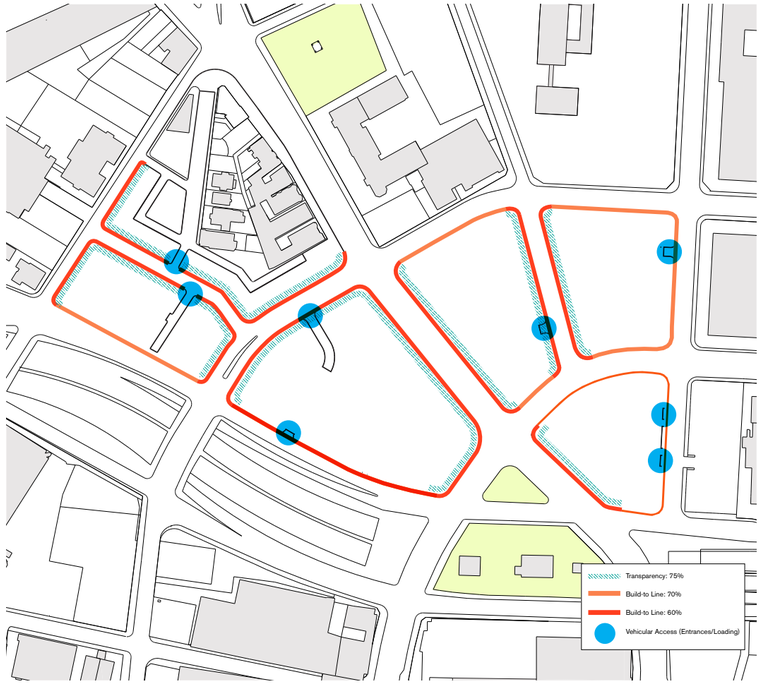
- Curb cuts
- Entrances
- Transparency
- Ground-floor treatment
- Building massing
- Building setbacks
- Parking

Build-to Plane

- The build-to plane shall be a minimum of three and a maximum of four stories.
- Build-to plane for townhomes shall be a maximum of 45 feet.
- The buildings shall have a required "step back" of a minimum of 15 feet from the prescribed build-to plane prior to a vertical transition.

Build-to Line

- A build-to line shall be applicable for 70% of the street frontage for primary streets and 60% of the street frontage for secondary streets.
- Remaining percentage shall be used as space for plazas or entrances, and vehicular access on designated streets.



Design guidelines for RFP showing future street network

Design Guidelines and Zoning

Access and Loading
- Vehicular access and loading for delivery trucks shall be relegated to side or rear entrances relative to the primary street.
- Entrances shall minimize disruption to the building and sidewalk interface.

Curb Cuts
- Curb cuts shall be minimal along primary street fronts.
- Curb cuts are primarily limited to access for parking or loading areas along the side or rear entries of buildings.

Entrances
- Vehicular entrances for parking and service shall be placed along side streets.
- Building entries and doors shall orient to the street.

Transparency
- The required transparency shall be a minimum of 75% of the ground-floor streetwall condition.
- The percentage of transparency shall also reflect the practical programmatic needs of the individual buildings.

Ground Floor and Streetwall Experience
- Ground-floor height shall be set between 18-20 feet high.
- The ground floor shall enable a strong, transparent relationship between the street front and building interior.
- Blank walls on active primary streets shall be prohibited.
- Breaks in the streetwall shall be limited to 10% of the length of the building.

Building Setbacks
- Buildings shall have a zero lot line setback from the rear edge of the sidewalk with some exceptions.
- In the event the proposed ROW for the facing street is wider than the existing ROW, a developer setback from the existing property line shall be required to accommodate the proposed ROW.

Parking
- Parking decks and lots shall be screened from the street by architectural treatments, landscaping, or fencing.
- Parking lots shall be placed behind buildings when possible and screened from the street.
- Where feasible, parking structures shall be wrapped by ground-level use.
- Entry to parking structures and lots shall be limited to side and rear streets.

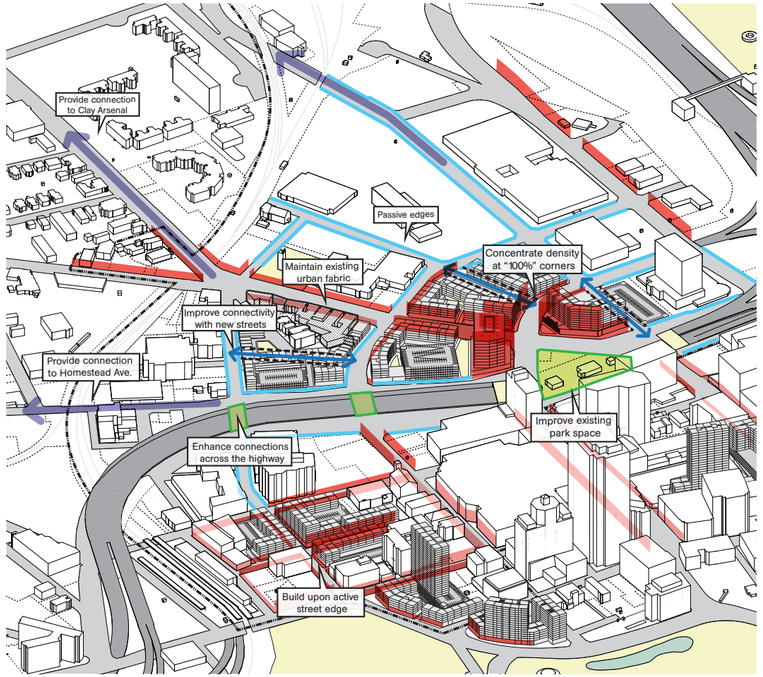
Design Principles for Development

Aside from the more measurable and objective elements of the design guidelines, such as ground-floor heights and build-to planes, there are qualitative and design driven aspects of development to be incorporated into the design guidelines for development and future zoning.
- Intersections or street corners that act as a central axis for transportation or pedestrian flow known as "100% corners" shall have a higher concentration of residential and commercial development to maintain an active urban environment.
- Higher density development shall step down in scale as it interfaces with primarily lower-density residential neighborhoods to respect the character and quality of those areas.
- Entrances to buildings shall denote a sense of arrival and significance, particularly on street corner entrances.

- Extended lengths of blanks walls on an active street shall be prohibited.
- The architectural transition from the ground level to the upper stories of each building shall establish a zone that clearly distinguishes the lower elevation facing the public realm from the private uses above.
- Balconies on residential buildings shall be encouraged to provide amenities and distinguish the use.

Material Recommendations

- Sustainable building materials and methods are encouraged for construction of new buildings and retrofits of existing buildings.
- LEED certified development may be used as a guide, and benchmark, toward sustainable building practice.
- Durable building materials are required; therefore, EIFS will not be permitted on facades that face the public realm. It will only be allowed on facades that face the interior of the block.
- Chain link fences will not be permitted on primary and secondary streets, or in areas that face the public realm.



Urban design principles