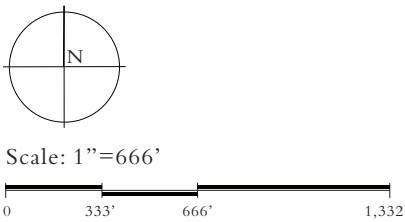




The Durham Illustrative Master Plan reflects the cumulative efforts of over one hundred individuals. Looking forward 50 years, this plan is a road map and a critical resource for directing growth and creating new vitality in the heart of Durham. The Plan has taken shape under the leadership of the Town and the involvement of a large number of stakeholders contributing their hopes and dreams for the future of Durham. The next step, executing the plan, is even more critical and will require the efforts of the entire community. Business owners, home owners, historic preservationists, environmentalists, elected officials, and anyone interested in the future of Durham must take an active role in making this plan, and all of the complex interrelated action items, a reality.

The Durham Illustrative Master Plan illustrates physical solutions to the Town's existing challenges, while more policy and management based recommendations appear in Section D, Implementation.

The Durham Illustrative Master Planning effort focused on the downtown, as well as Church Hill, the Newmarket Road Gateway, and Coe's Corner. The following pages show the Illustrative Master Plan at a larger scale, with narrative that describes the plan recommendations.





Discussion

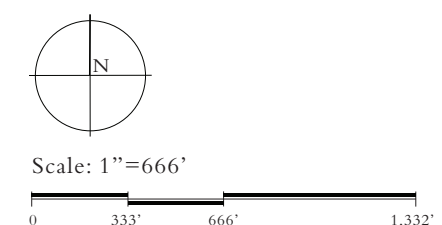
- Downtown Durham needs more office and residential space, as well as space for small businesses to locate.
- Durham needs to increase its tax base.
- More coordination and synergy should occur between UNH and downtown Durham.
- Downtown is not walkable, more like a racetrack.
- Need a new location for the library.

Priority Design Recommendations

- Address transportation issues, including one-way streets and intersection of Main Street and Newmarket.
- Adopt form-based codes to encourage more vitality in the downtown.
- Develop policies and strategies to address student housing conflicts town-wide.

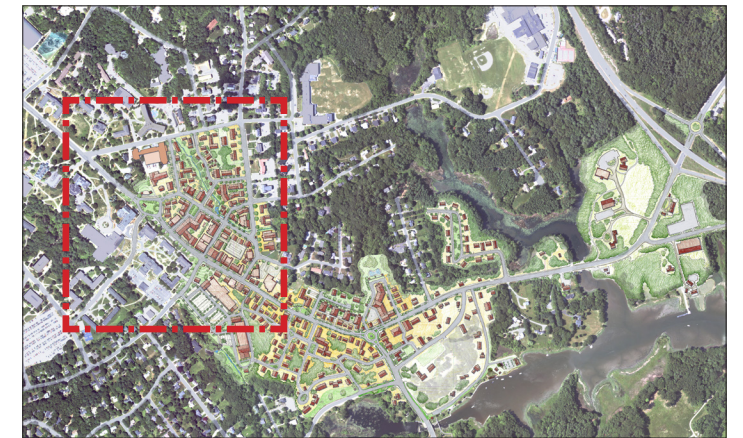
KEY ELEMENTS OF THE ILLUSTRATIVE MASTER PLAN

- | | | | |
|---|---|---|--|
| <p>A. New green to bridge Town and University. Modified roundabout to control traffic.</p> <p>B.. Create new street and Town Square to divide block between Jenkins Court and Quad Way.</p> | <p>C. Move Marbury/Main intersection to the west to create safer crossing, sidewalks, street trees, and on-street parking. Turn streets back to two-lane traffic.</p> <p>D. New roundabout for better traffic flow, safer pedestrian crossing, and distinct identity.</p> | <p>E. Continue improvements to Old Town Landing, potentially including a restaurant.</p> <p>F. Continue road improvements with bike lanes, better sidewalks, paths and groupings of street trees.</p> | <p>G. Potential location for cluster of Civic uses - Fire Station and Recreation most appropriate.</p> <p>H. Live/work townhouse buildings and apartments.</p> <p>I. New roundabout to unplug traffic coming from Route 4.</p> |
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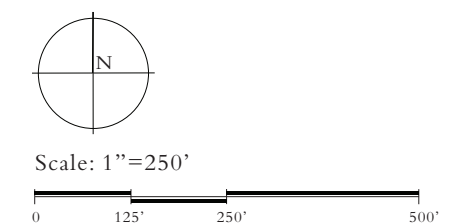
The above SketchUp models show how varying heights would look and feel along Main Street.



Key Plan

This plan shows a number of improvements to the downtown generated from public input provided during the charrette. Additional streets are added to relieve pressure on the primary intersections, new buildings are incorporated to provide needed space for retail, residential and civic uses, and multiple public gathering spaces are incorporated for use by either students or the citizens of Durham.

This plan shows a clear framework for how Durham can grow in a way that honors and builds on the past and creates a stronger identity for the community going forward.



KEY ELEMENTS OF THE ILLUSTRATIVE MASTER PLAN

- A. New green to bridge Town and University. Modified roundabout to control traffic.
- B.. Possible outdoor amphitheater/new performing arts center.
- C. Two-way street through University to relieve traffic on Main.
- D. Change Main and Pettee Brook to two-way traffic. Pettee Brook developed as a second 'Main Street.'
- E. Create new street and town square to divide block between Jenkins Court and Quad Way.
- F. Potential location for Library/Civic/Mixed-use building.
- G. Potential site for hotel/residential with parking lined by retail on ground floor.
- H. Share University parking with downtown, especially employees and hotel guests.
- I. New Road from Pettee Brook to Madbury and Garrison.
- J. Public trail system along Pettee Brook fronted by new cottage and courtyard housing.
- K. New civic complex for police, town hall and potential housing and structured parking.
- L. New street and/or pedestrian access between Pettee Brook and Marbury as a continuation of Jenkins Ct.
- M. New parking structure lined with retail.
- N. Bump-out to keep speeds down along Madbury coming from Main.
- O. Move Mill/Main intersection to the west to line up with Jenkins Ct. and create a larger Memorial Park.
- P. Move Madbury/Main intersection to the west to create safer crossing.
- Q. Layout parking for potential transition to blocks.

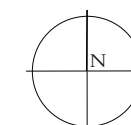


Discussion

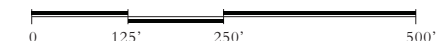
- Need civic green for Town residents to gather.
- Mix of uses - civic, office, retail, housing.
- Mix of housing - senior, townhouse, apartment, live/work.

Priority Design Recommendations

- Change one-way system on Pettee Brook Road and Main Street to two-way system.
- Improve intersections at Quad/Main and Madbury/Main through modified roundabouts (greens) and ninety degree intersections.
- Consider form-based code to guarantee mix of uses, character of buildings, green spaces and interconnected network.
- Develop Park Once & Walk strategy using combination of more street parking, new structured parking and remote lots managed through a private/public partnership.
- Create a network of cranky small streets to slow traffic speeds and encourage walking as well as creating a series of interesting vistas.



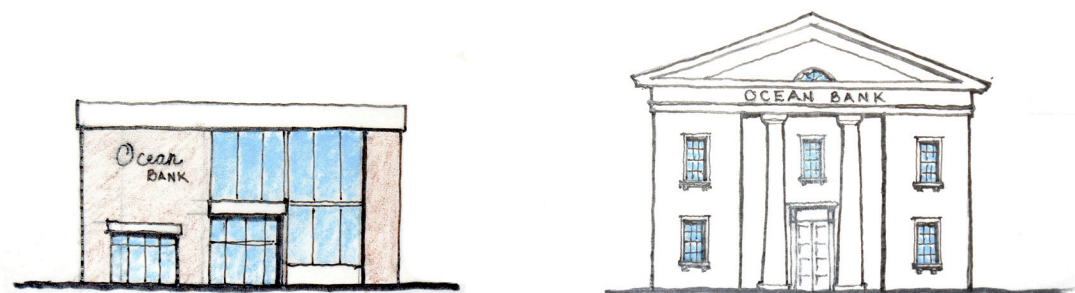
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Key Plan

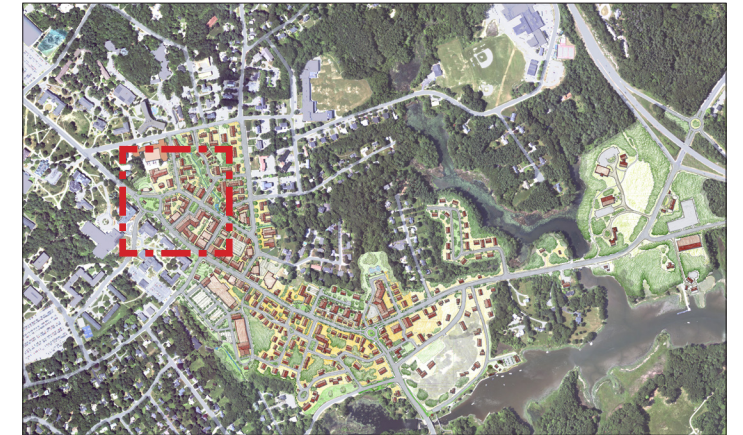
This rendering shows the western gateway to Durham's downtown. To the left is a new green that works as a modified roundabout, with one-way traffic slowed down to make pedestrian crossing safe. This green can serve as a distinctive feature of Durham, making both a clear separation from the University, but also common ground. The new buildings shown in this view would be encouraged by a form-based code, allowing slightly more density in exchange for guarantees of quality and mixed use. The white building on the right side with the pediment is the Ocean Bank building with a new facade added to the existing building. Beyond that is a four story hotel/residential building with retail and a restaurant on the ground floor.



Above is a before and after elevation showing how the current facade of Ocean Bank could be improved to better reflect the activity occurring inside the bank and the spirit of the community.

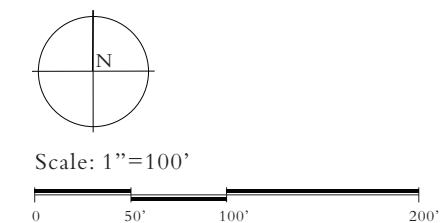
KEY ELEMENTS OF THE ILLUSTRATIVE MASTER PLAN

- A. New street between Pettee Brook and Main Street to create a more fine-grained network of streets.
- B. Mixed-use building frames new town square, and provides needed space for retail and offices.
- C. Town Square provides an intimate gathering place for residents of Durham.
- D. New hotel with lined parking frames the green.
- E. Terminated vista created by new street is cited with civic building, such as a Library. Ground floor could be used for retail, such as a cafe, to generate income.
- F. Pettee Brook is rehabilitated and improved with trails and landscaping, providing a civic amenity.
- G. New road provides additional connection between Pettee Brook and Madbury Road.
- H. Site of potential new parking garage.



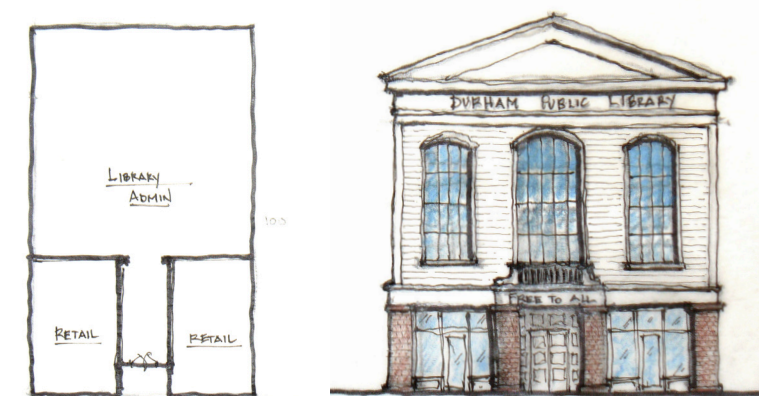
Key Plan

To the left is a closer view of the intersection of Main Street and Pettee Brook Road. A new town square fronted by civic, retail, and residential buildings can be seen. Several new roads are also shown in this view, creating important new connections that can relieve pressure off the intersections of Main and Madbury and Pettee Brook roads. Infill buildings provide additional space for small businesses and offices, as well as larger spaces for hotels, parking garages, and civic buildings.





Key Plan

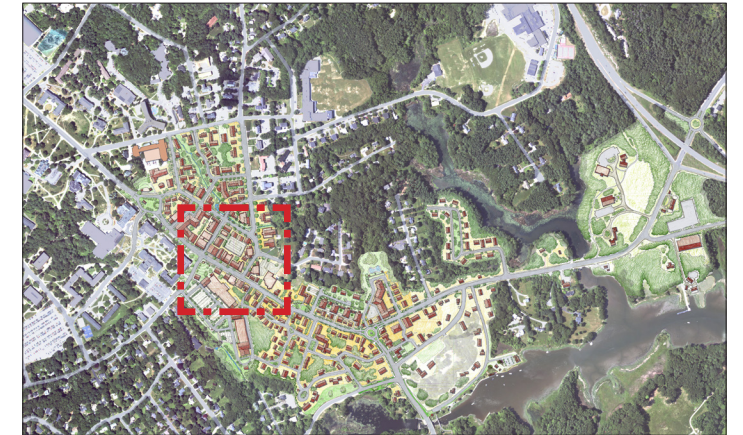
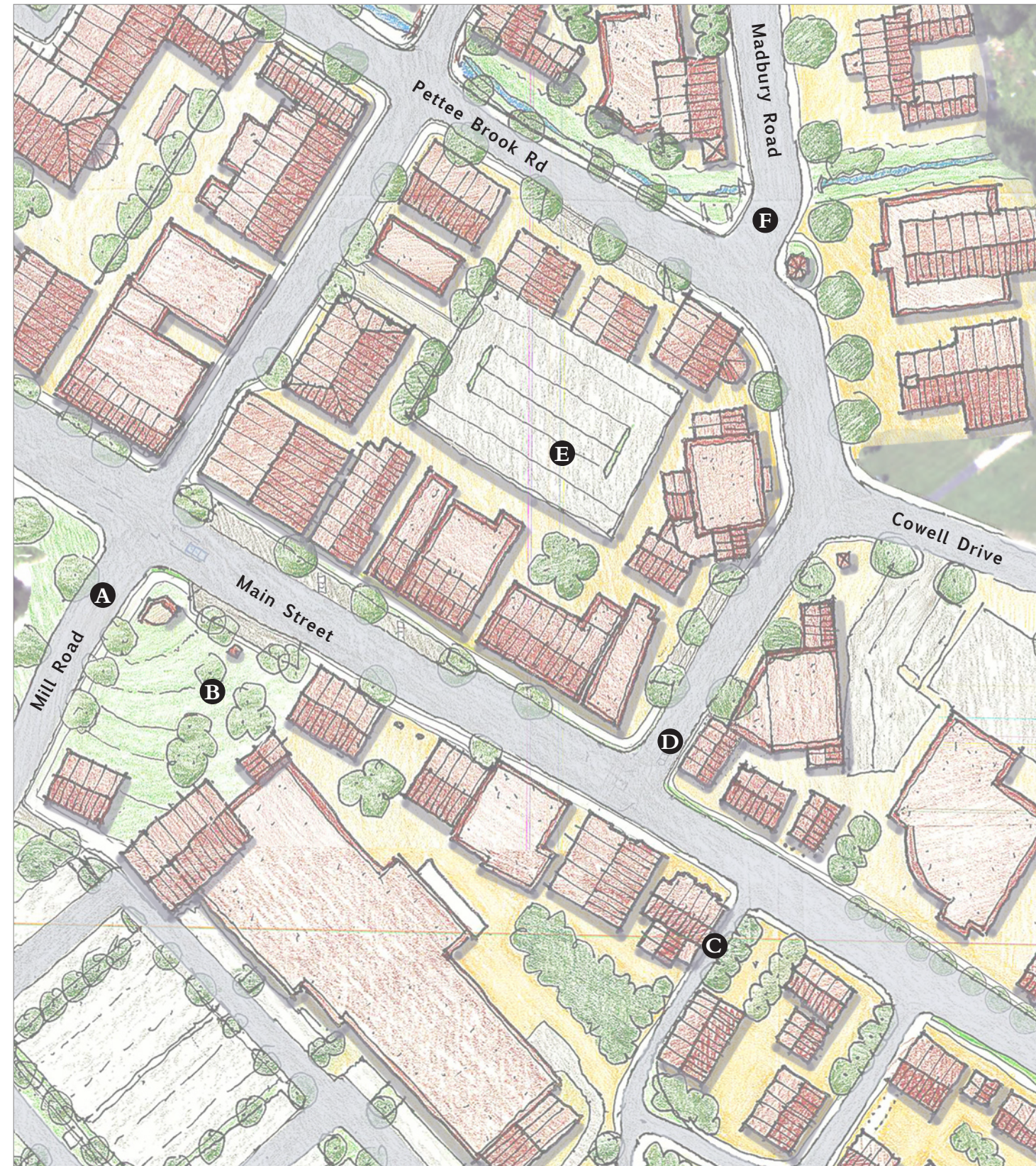


Schematic floor plan and elevation for new Durham Public Library, showing retail on the ground floor.

This rendering shows a new Town Square located south of Pettee Brook Road. The Square would be surrounded by new 3-5 story buildings with retail on the ground floor with hotel, residential or office above. Parking would be on street and additional structured parking within the block. In the center of the view is a potential Library or other Civic Building located on the existing Town-owned Pettee Brook parking lot. The ground floor of the civic building could be used for retail or office. To the right is a new road going across the Pettee Brook to a new Civic complex with structured parking, shown in the distance.

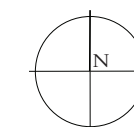
KEY ELEMENTS OF THE ILLUSTRATIVE MASTER PLAN

- A. Intersection of Mill Road is realigned and extended across Main Street to Pettee Brook Road.
- B. New green for use by the public and students. Liner buildings, which can be used for cafes or restaurants, are added to frame and activate the space.
- C. New one-way lane is added to provide needed access to Mill Plaza and a new road connection that loops back to Smith Park Lane.
- D. Intersection of Main Street and Madbury Road is realigned to meet at a ninety degree angle. New buildings are added to frame the intersection.
- E. Potential location for future structured parking garage, which would enable greater vitality in the downtown.
- F. Madbury Road is realigned to meet Pettee Brook at a ninety degree angle, which will significantly slow traffic along Madbury and improve pedestrian safety. A civic monument is added to further distinguish this location.

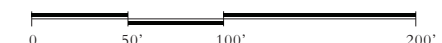


Key Plan

To the left is a closer view centered on the intersection of Main Street and Madbury Road, which has been realigned to meet at a ninety degree angle. The land created in front of the post office is developed with new buildings that frame the intersection and provide additional space for retail and offices. The intersection of Mill Road with Main Street has been moved to the west to improve pedestrian safety, also creating a more usable civic gathering space. Complete blocks are created by filling in gaps along both Main Street and Madbury Road.



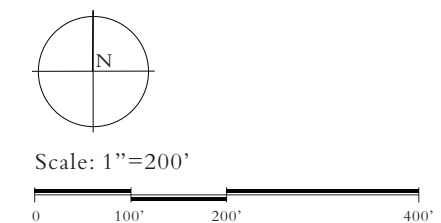
Scale: 1"=100'





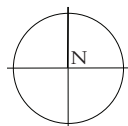
Key Plan

The Church Hill neighborhood and the intersection of Newmarket and Main is shown to the left. This area has significant historical significance. An effort has been made to build on what remains of this local heritage by expanding the historic street fabric with appropriately scaled infill. A roundabout has also been proposed to address traffic congestion at the intersection of Newmarket and Main, a redesign which will also improve walkability and pedestrian safety. Additional street connections will also help to alleviate pressure on this intersection.

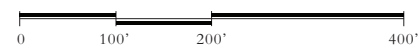


KEY ELEMENTS OF THE ILLUSTRATIVE MASTER PLAN

- A. New network of small roads through Church Hill area connect to Mill Plaza and Newmarket Road, encouraging infill development.
- B. Main Street through Church Hill should be recalibrated for wider sidewalks (bring sidewalk into lots where possible), on-street parking and/or bike lanes.
- C. New Church Square connected by new network of roads and improved access to senior affordable housing.
- D. Use form-based code to determine type, shape and character of new housing defining Main Street and protecting Park Court.
- E. New road network with infill housing.
- F. New roundabout for better traffic flow, safer pedestrian crossing, and distinct identity.
- G. Encourage mixed use infill close to street and add facade addition to the Holiday Inn
- H. New convention center overlooking public park, with possible hockey pond.
- I. Infill to match historic architecture in form, location, and material.



Scale: 1"=200'



Discussion

- Need to preserve historic integrity of this area.
- Sea of asphalt along gasoline alley needs to be addresses.
- Intersection of Newmarket and Main Street is not pedestrian friendly, nor is it optimal for traffic flow.
- Park Court is being negatively impacted by student housing.

Priority Design Recommendations

- Move forward with design development for roundabout at intersection of Newmarket and Main.
- Adopt form-based codes to promote infill development that fills in gaps along the street and fits seamlessly into historic fabric.
- Create incentives for private land owners to build new street connections, or use public/private partnerships to accomplish this goal.



View of Oyster Creek, from enhanced natural trail system, like that is proposed behind Mill Plaza.

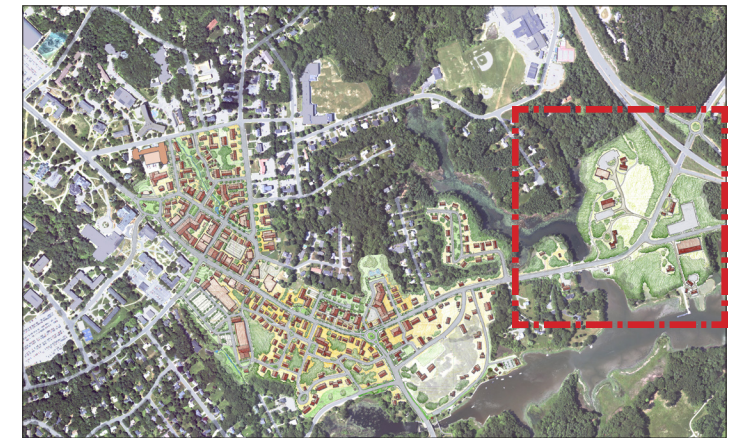


Key Plan

This rendering shows the view looking north on Newmarket Road to the intersection of Main Street and Dover Road. This intersection is closer to the original historic center of Durham and contains some significant historic buildings, though many buildings have been torn down, streets widened, and new incompatible buildings constructed. A form-based code could be used to indicate what new buildings should look like and where they should be placed in relation to the street, in an effort to repair the historic fabric and create a walkable center. In the rendering, the building on the right takes the form of two houses, compatible to what was originally on the site, though this could be a drug store or other type of retail use. The intersection shows a roundabout with a statue (of an illustrious Durham figure) improving the traffic flow and making for a safer pedestrian crossings. New buildings facing onto the roundabout should be constructed close to the street to form an intimate space worth sitting and enjoying refreshments, as shown at the far left.



To the left is Church Hill with an early roundabout worn in the unpaved road. In the center is an example of how a roundabout can create a strong focal point of civic pride. On the right is an historic photo of what is now the Historical Society.

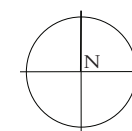


Key Plan

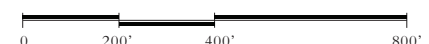


Existing conditions aerial.

The Coe's Corner area currently serves a number of community functions, with the high school located nearby on Route 4, the hockey rink on Old Piscataqua Road, and Jackson Landing. This area has been considered as a potential location for civic uses. During the charrette, many people expressed concern about locating civic uses such as the Library and Town Hall at Coe's Corner, and hoped these uses would remain in the downtown.



Scale: 1"=400'



KEY ELEMENTS OF THE ILLUSTRATIVE MASTER PLAN

- A. Encourage redevelopment of duplexes into a combination of single family and courtyard housing with a common green and public access to the river.
- B. Through the use of form-based codes, encourage new buildings and additions to be built closer to the road with improved sidewalks and street trees.
- C. Redesign and activate Old Town Landing. Add restaurant to attract people to this area.
- D. Continue road improvements with bike lanes, better sidewalks, paths, and groupings of street trees.
- E. Continue improvements to Jackson Landing and connections including transit. Consider seasonal cafe at landing.
- F. Encourage architecturally appropriate (barn or house-like) building as welcoming feature to town. Could be a classic roadhouse /family restaurant and/or welcome center.
- G. Potential location for cluster of civic uses - Fire Station and recreation most appropriate.
- H. Connection of trail/emergency access/potential road to high school.
- I. New roundabout to unplug traffic coming from Route 4.

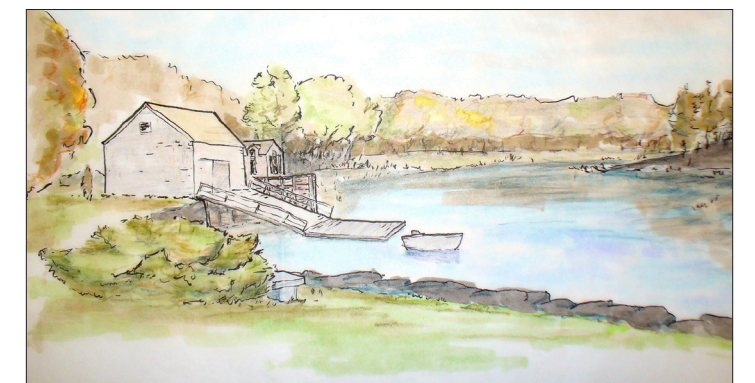


Discussion

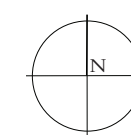
- Land available to use for civic uses.
- Already some activity in this area, with high school and skating rink.
- Significant interest in keeping civic uses such as town hall, library, and police station in the downtown.

Priority Design Recommendations

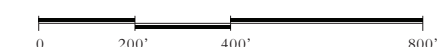
- Improve roadways for use by cyclists and pedestrians.
- Use form-based codes to control look and feel of development along this important gateway to Durham.
- Continue to explore the possibility of locating select civic uses at Coe's Corner.



View of potential restaurant at Old Town Landing.



Scale: 1"=400'





LEGEND

- Critical new street connections
- Possible new intersection configurations
- ↔ Recommended traffic flow

Discussion

- A two-way traffic system slows down traffic, improves circulation, and decreases carbon emissions.
- A Park Once& Walk strategy will help promote walkability by making it legal and convenient to walk to multiple destinations in the downtown.

Priority Recommendations

- Begin work to test out two-way traffic pattern.
- Look into funding sources, including CDBG grants, Tax Increment Financing (TIFs), Business Improvement Districts (BIDs), and other mechanisms to pay for needed infrastructure improvements.
- Use form-based codes to control look and feel of development within the downtown
- Identify routes for Sharrows and begin marking streets. Sharrow routes should also be accompanied by “Bike Route” and/or “Share the Road” signs, as well as wayfinding signs showing distance to key destinations.

Durham is investigating ways to improve the function and vitality of the downtown. With this goal in mind, it is recommended that the town make improving pedestrian safety and comfort the number one priority. This is accomplished by slowing traffic speeds and creating a more attractive and interesting place.

Pedestrian comfort can be greatly improved by converting one-way streets to two-way streets. Though one-way streets can simplify crossings for pedestrians who only need to look in one direction for oncoming traffic, one-way streets tend to have higher speeds, can increase “circling”, and can create confusion, especially for

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non-local residents. Two-way streets tend to be slower due to friction and may also eliminate the potential for multiple-threat crashes that exists on multi-lane, one-way streets.

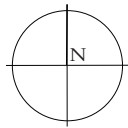
Based on the superior safety and performance of two-way streets, and the benefit to retail from having traffic flow in both directions, it is recommended that Durham convert Main Street, Pettee Brook Road, and Madbury Road between Main and Pettee Brook to two-way.

The intersections of these streets will have to be redesigned to accommodate the new traffic flow and to meet at ninety degree angles to improve visibility and safety.

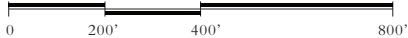
Additional streets shown in red dashed lines will help take pressure off the main intersections by creating additional options and dispersing traffic. These additional streets will also create opportunities for increasing vitality by opening up interior parcels.

Please note, this plan is not dependent on everything happening at once, and changes are intended to occur incrementally over time.

All of these recommendations are based on over 30 years of experience in transportation planning throughout the country.

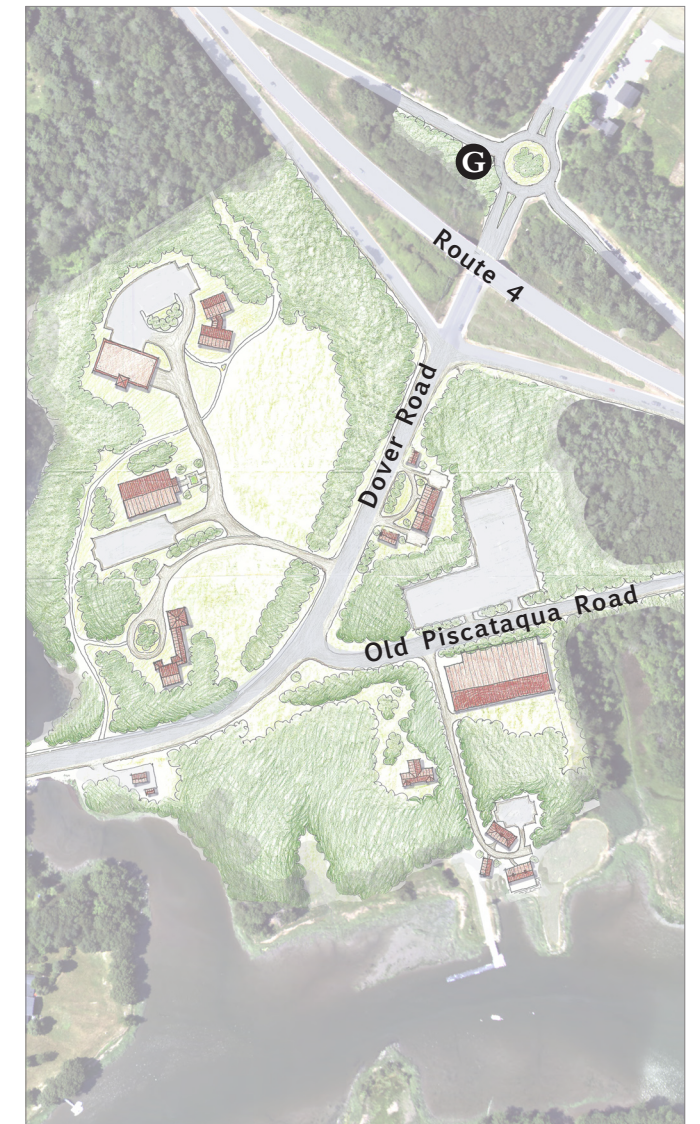


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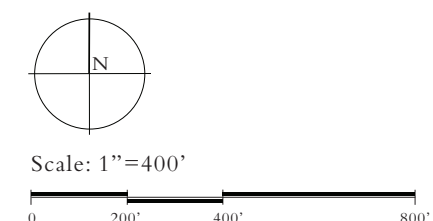


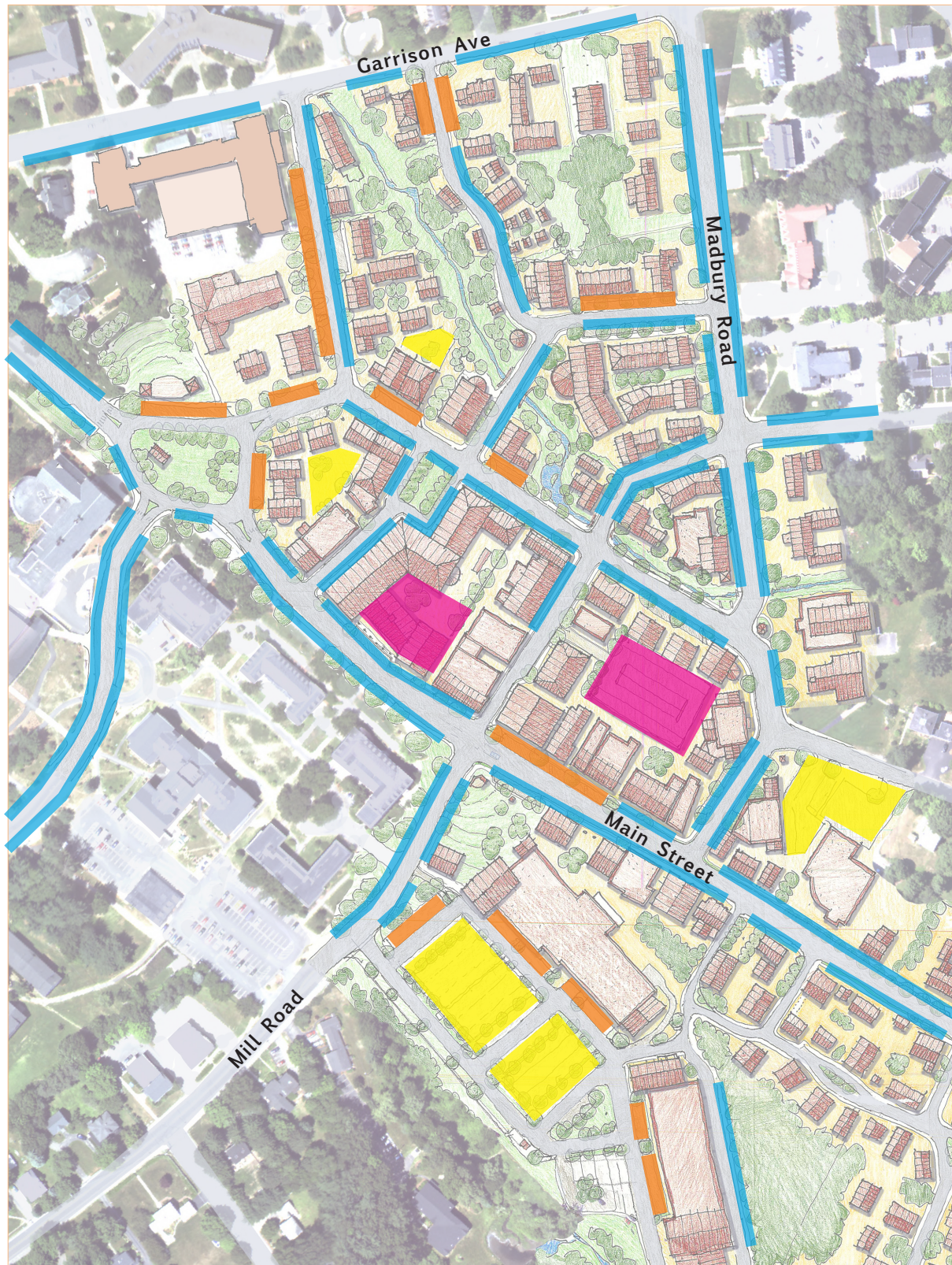
KEY TRANSPORTATION ELEMENTS OF THE PLAN

- A. A modified roundabout is used to control traffic and create a civic green that ties together UNH and the Town. The shape of this modified roundabout is determined by the desire to create a traditional New England common, where people can congregate.
- B. Create new street and Town Square to divide block between Jenkins Court and Quad Way. This additional street will improve connectivity, taking pressure off existing streets.
- C. Redesign Mill Road as a standard T intersection to improve pedestrian safety. Also move Mill/Main intersection to the west to line up with Jenkins Ct. and create a larger Memorial Park that can be framed by new mixed use buildings.
- D. Bump-out to keep speeds down along Madbury coming from Main.
- E. Move Marbury/Main intersection to the west to create safer crossing, sidewalks, street trees, and on-street parking. Turn streets back to two-way traffic.
- F. New roundabout for better traffic flow, safer pedestrian crossing, and distinct identity.
- G. New roundabout to unplug traffic coming from Route 4. Though a traffic light has been planned for this intersection, the Town should consider talking with the state to encourage the use of a roundabout, which will have better results at this intersection.



To the left is a sharrow, which is a stencil that indicates the travel lane is to be shared by vehicles and cyclists. The sharrow should be painted so that it encroaches into the travel lane, which has the effect of slowing traffic.





Durham has ample opportunity to generate additional activity in the downtown and still meet its parking needs. Under the proposed long-term build out scenario shown to the left, new development can occur, with an opportunity to see additional spaces through infrastructure improvements and private investment in parking facilities.

Walkability can be improved and parking needs met through better management of on-street and off-street parking. It is recommended that the Town establish a Park Once Management District in partnership with UNH, Mill Plaza, and other key stakeholders to developed a hierarchy of prices for parking. It is also critical that spaces currently designated for specific users or business patrons be open to all customers. Addressing this issue of parking space hoarding, if paired with a well thought out fee structure, will encourage more people to patronize downtown businesses.

The Town should also pursue funding for infrastructure improvements that would allow additional parallel and diagonal on-street parking on existing streets, and also funding for new streets to both increase on-street parking supply and overall connectivity. Community Development Block Grants (CDBG), Tax Increment Financing (TIFs), and Business Improvement Districts (BIDs) are potential sources of funding.

Private developers should be made aware of the Strategic Plan and be encouraged to work closely with the Town on any projects that can contribute to the realization of the community's long-term infrastructure goals.

All significant downtown parking lots should attempt to be designed as beautiful multi-purpose spaces, with trees, pavers, and other elements that could allow them to be used for community events.

NOTE: The diagram does not show parking for single-family or other detached units, which have parking needs met on their individual lots.

LEGEND

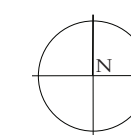
- On-street parallel parking
- Diagonal parking
- Shared surface lots
- Structured parking

Discussion

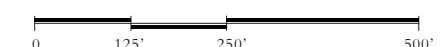
- Private lots and spaces conflict with the goal of walkability.
- A Park Once & Walk strategy will help promote walkability by making it convenient to walk to multiple destinations in the downtown.

Priority Recommendations

- Look into funding sources, including CDBG grants, Tax Increment Financing, Business Improvement Districts, and other mechanisms to pay for needed parking infrastructure improvements.
- Work with private developers to finance and build structured parking.
- Form a Park Once Management District to create a heirarchy of prices to better manage parking.



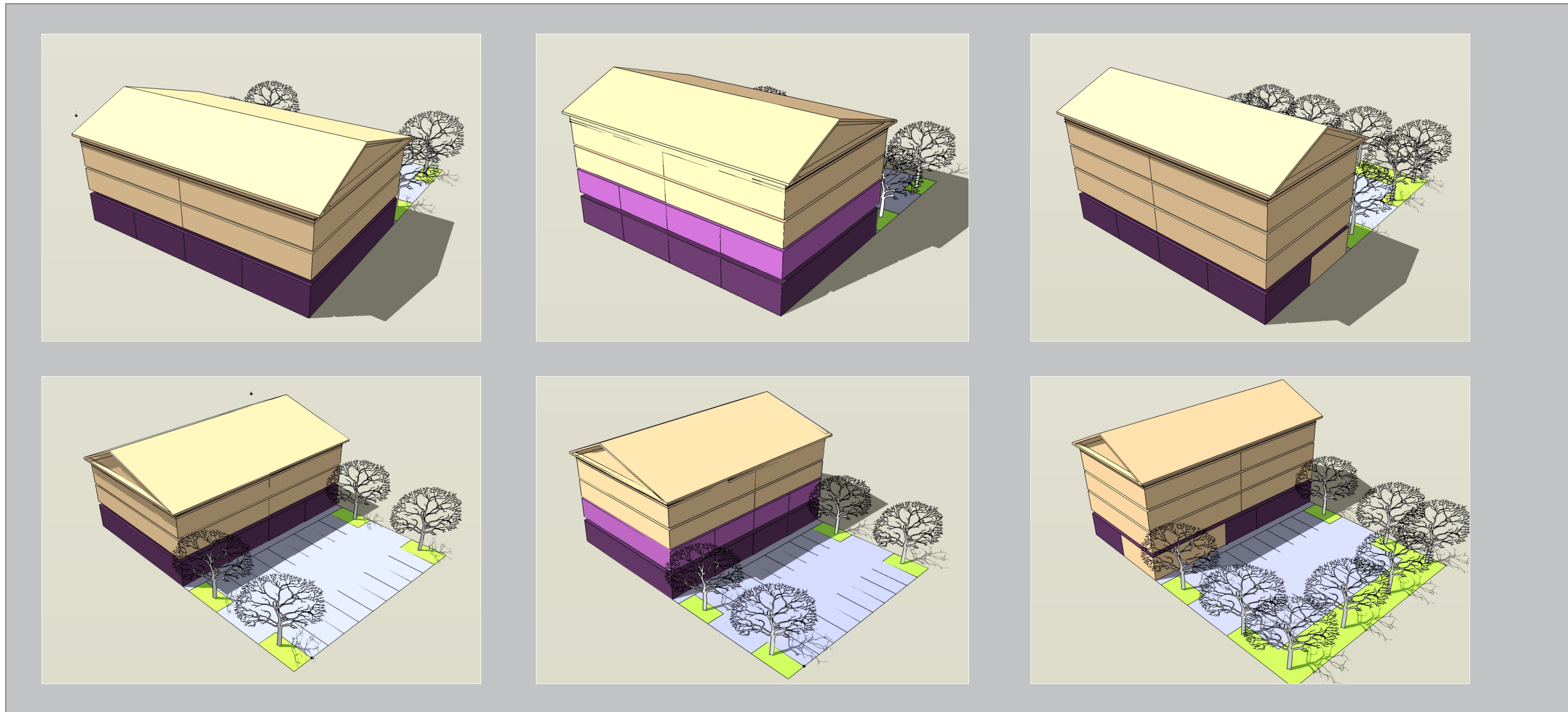
Scale: 1"=250'





These drawings show two types of cluster housing that can serve as models for denser housing in the downtown area. Both can provide a public face to the street that is appropriate to the context (house-like rather than apartment block) and create a site-specific shared community that can be managed easily. On the right is more of a cottage courtyard cluster with individual two story houses that could function as apartments with three to six bedrooms. This would be appropriate for a non-retail street located within a primarily residential neighborhood that has other multifamily units. Parking would be to the rear.

The bird's eye view on the right shows a larger cluster of buildings that could be live/work townhouses or apartment buildings that resemble large houses. The buildings that face the street should allow retail or office on the ground floor if located in a retail area; the parking should be located on the side (shielded) or to the rear.



These three pairs of drawings illustrate the unintended consequences of the present code and a suggestion for modification. In the downtown area, developers are allowed to build up to four stories, as long as the first floor is retail and the second floor is retail or office. Then the next two floors can be residential. This is illustrated in the center pair of buildings. If there is not retail or office on the second floor (difficult to make work financially) then the total number of stories can only be three, making for a building that takes up more of the site to maximize allowable units (shown in the left pair of buildings). Also, this makes it necessary for the developer to have six bedrooms per unit due to the limit of units per square feet of site. On the right shows the suggested modification to the code. There would be no requirement for second floor retail or office and the top three floors above the required retail can be residential. In addition, only half of the first floor area is required to be retail (still keeping retail along street frontage), which allows a handicap unit on ground floor and saves the cost of an elevator for the upper floors. Another change would be an increase in the number of units allowed per square feet of site, but a reduction of allowed bedrooms per unit to four. This will create a building that takes up less of the site, leaving more space for parking and/or green space.