Residential Development Guidelines for
TRADITIONAL NEIGHBORHOODS

Division of Planning and Development
Lowell, Massachusetts
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INTRODUCTION

PURPOSE

Most of Lowell’s traditional residential neighborhoods were developed for the large numbers of immigrants working in the mills during the latter half of the 19th century. During that time, entire streets were often developed simultaneously resulting in patterns of similar houses on grids of streets. It is not unusual to find residential blocks lined with variations of the same house, all within walking distance of a small neighborhood commercial district. Though built for another time, the traditional neighborhoods continue to be one of Lowell’s greatest assets.

Preserving the character of the traditional neighborhoods is a primary goal of the Master Plan, and as a subset of that goal, the plan recommends limiting infill developments to “projects that are sensitive to the context of the existing neighborhood,” and requests the preparation of “examples of attractive, cost-effective designs for infill housing that complement the existing character in established neighborhoods.” Now that Lowell is mostly built out, all new construction, even on a large site, is essentially infill development.

The Residential Development Guidelines for Traditional Neighborhoods provides guidance and examples of how to meet the demand for affordable and modern housing in Lowell’s traditional neighborhoods.

This publication is the first of three booklets being produced by the Division of Planning and Development (DPD) as companion documents to the Lowell Master Plan (2003) and Zoning Code (2004). Additional Development Guidelines for Urban and Suburban neighborhoods are due to follow as well as a second edition of this publication with examples for the NB and TMU commercial districts.

TRADITIONAL NEIGHBORHOOD CHARACTER

Development in traditional residential neighborhoods presents a particular challenge because of the need to be sensitive to the existing neighborhood. Working within the City’s zoning bylaws and other requirements, the Development Guidelines are meant to illustrate how desirable contemporary homes can be built while preserving the character of the existing traditional neighborhoods. As such, this publication will serve as a useful tool in the review of projects by the Inspectional Services Department and the Planning Board.

Lowell’s traditional neighborhoods were built primarily to house Lowell’s substantial workforce in the latter part of the 19th century and early part of the 20th century. Neighborhood construction at that time was characterized by streets laid out in grid patterns, with consistently styled and sized homes sharing similar spacing and setbacks. Though they vary in architectural style, houses have traditional elements such as gabled roofs with dormers, front porches, and multiple stories. Over the years, homes have taken on individual character through personalized yards and landscaping.

Much of the character of these neighborhoods comes not from individual historic houses, but from how the houses, streets and landscape look together. One inappropriate infill project on a street can drastically change the character of a block either by disrupting the continuity of size and shape, by introducing a deeper or shallower front yard setback, or inserting a garage door into a line of front doors and porches or placing a parking lot where a front yard should be.

Electronic copies of the 2003 Master Plan and the most recent Zoning Ordinance may be found at www.lowellma.gov.

Hard copies of the Master Plan are available from the Division of Planning and Development for $40.

The diagrams and examples presented in this publication are for illustrative purposes only. In the event of disagreement between the Zoning Ordinance and the Development Guidelines, the Zoning Ordinance has the controlling legal authority.
In May of 2003, the Lowell Planning Board and Lowell City Council both unanimously approved the City’s new Comprehensive Master Plan. The plan addresses a shared vision for Lowell and establishes a framework for development that addresses the visions, goals and action steps with widespread support within the community. The Lowell Zoning Ordinance, developed in 2003 and updated with a new map and districts in 2004, codified many of the goals of the Master Plan.

Developers of land within the city should take the time to get to know the Master Plan and the visions and goals that the city and its residents developed through the planning process. Consistent with the goals of the Master Plan, the City of Lowell seeks to ensure that projects in the City of Lowell respect the character of the neighborhood, provide a positive impact on neighborhood quality-of-life, and add to the overall well-being of the city.

The five zoning districts within the traditional neighborhoods attempt to maximize the development potential for infill projects while maintaining the existing neighborhood character. The Traditional Single Family (TSF) district encompasses areas where single-family homes are the norm, and allows for construction of additional single-family homes. The Traditional Two Family (TTF) district encompasses areas where two-family homes are the norm, and allows for construction of additional two-family homes on appropriate side- lots. The Traditional Multi-Family (TMF) district allows up to six units on a lot. This district was designed to continue to allow multifamily infill construction in Lowell’s residential neighborhoods while ensuring that such infill development reflects the character of the existing neighborhood and provides adequate open space and parking.

While not covered in the first edition of this book, there are two commercial zoning districts in the traditional neighborhoods. The Neighborhood Business (NB) commercial district is designed to provide for a walkable neighborhood business district with storefronts up to the street, and parking behind the buildings. Often, offices or residences are located above these stores. The Traditional Mixed-Use (TMU) district typically allows for development compatible with either the TMF or the NB districts.
The challenge of developing infill projects in the Traditional districts is to respect the traditional character of the neighborhood while producing modern and affordable housing. This section deals with the general design issues faced in Traditional neighborhoods.

- Infill projects should appear similar in size of the surrounding properties.
- The architecture of new construction and additions should incorporate elements of its neighbors while not trying to replicate the housing of a hundred year ago. A building can use modern materials and popular colors while still having the basic bulk, size, and design elements of its neighbors.
- Setbacks are important to maintain a continuity of the street.
- Landscaping and open space maintain a level of livability in the neighborhoods.
- Parking should be sufficient and discreet.
- Odd-shaped lots will present challenges, but the spirit of the zoning requirements should be respected.
BUILDING SIZE

In order to preserve the existing character of Lowell’s traditional neighborhoods, infill buildings should not be or appear to be significantly larger than their neighbors. This creates a challenge for the builder to maximize living spaces while meeting the height and setback (p.10-11) requirements in the zoning code (section 5.1).

- Large buildings should be turned to go deep into a lot as opposed to across it. Multifamily developments in the TMF district can be broken into multiple structures as well, with a traditional front building facing the street. The TTF district does not allow more than one residential structure per lot.

- Two and half story structures can utilize the area under the roof as a walk-up attic or loft area. Gabled windows allow light into the half story.

- Height is measured from the average level of the finished lot. Adding significant levels of fill in order to change the height of the lot is discouraged.

How to Calculate Height & Story Requirements

Stories

When Floor Area with at least 5’ headroom is less than 80% of floor below, attic is 1/2 story.

When Floor Area with at least 5’ headroom is greater than 80% of floor below OR wall/roof intersection is greater than 3’, then attic is a full story.

A cellar, basement or parking area will count as a story if a) more than half of the clear height is above the average elevation of the finished lot grade, OR, b), more than five feet of the front elevation is above the grade at the front of the structure. Front facing garages will trigger a story requirement.

Height

Building Height (ft) is measured between the mean roof level and the mean ground level.
Infill in Traditional neighborhoods require a balance between existing styles and contemporary designs. New construction should be sensitive to the existing architectural style of the neighborhood though it does not need to be a reproduction of its historical neighborhoods. Successful infill can be achieved by paying attention to building typology and details as outlined in the following guidelines:

- **Windows** should be appropriately sized to the building and panes should be appropriate to the surrounding neighborhood. The common six-over-six windows are appropriate for Federal and Greek Revival neighborhoods but two-over-two are more appropriate for Victorian neighborhoods. One-over-one windows are appropriate for contemporary construction. When appropriate, windows should have molding, caps, sills, and mantels.

- **Shutters** are also often unnecessary, and don’t look appropriate on new construction buildings. For new construction mimicking older architectural styles, shutters may be appropriate, but should be sized as if “working.” Likewise, many ornamental details distract more from the streetscape than add to it. Simplicity is a virtue for infill development.

- **Bays**, particularly at corners, break up a flat facade, and add style to a building. A projecting bay at a corner can significantly improve the look of a building that places its side wall by the street.

- **Entry doors** should be emphasized, particularly street-facing ones. Moldings, crowns, sills, and lights should be sufficient and appropriately sized for the surrounding buildings. Storm/screen doors should not detract from the appearance of the home. Simple designs are best.

- **Porches** are an important addition to the house front, providing an intermediate space between the front yard and front door and an outdoor living space. Additionally, they help blend new structures in with existing structures on a street.
BUILDING MATERIALS & COLOR

Building material and color are important parts of the overall appearance of new buildings in Traditional neighborhoods.

- Because of its affordability and low maintenance, vinyl is the typical choice for siding. Many suppliers now offer detailing and trim that better replicate the style of traditional architecture. Great care must be taken in application to preserve and enhance the existing features. Trim boards should be 4’-6” for most homes with vinyl siding and care should be taken to match colors to the neighborhood.

- Materials other than vinyl that should be considered are wood clapboarding and shingles or fiber-cement board. It is usually best to avoid imitation brick and stone, grained vinyl, vertical treatment or clapboards that are too wide.

- Whether repairing or new construction, builders now have new materials available to them that can match the appearance of wood, but have a longer life and no maintenance. Many types of plastic and polymer exterior trims offer the opportunity to apply intricate and historic features to a house without the normal maintenance created by water damage and periodic painting. Composite plastic decking can provide decks and porches that prevent the repair and replacement associated with wood decking.

- Choose colors that blend with the environment and surrounding neighborhood character. It is usually best to use muted tones on the walls and confine accent colors to trim and doors. Color choices can vary with particular building periods.

### Traditional Period Colors

<table>
<thead>
<tr>
<th></th>
<th>Base Color</th>
<th>Trim</th>
<th>Doors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greek Revival</td>
<td>White, Pale Yellow, Pale Gray, Buff, Green-Gray, Blue-Gray</td>
<td>Olive Green, White, Black, Buff, Gray-Blue, Green-Black</td>
<td>Dark Green, Black, Medium Blue</td>
</tr>
</tbody>
</table>

source: Lowell: The Building Book (1977)
In order to preserve the traditional nature of the neighborhoods, the Zoning Code has front, side, and rear setback requirements. These setbacks maintain the rhythm of the street, spacing the buildings appropriately and keeping a sense of visual continuity. Within the setbacks is a certain amount of flexibility.

- New buildings should align with the historic front yard line of a street, providing a sense of visual continuity. Therefore, front setbacks are set to match the historic street line. If buildings on a street are set further forward than the setbacks listed in the zoning code, the Zoning Ordinance (section 5.2.6) allows for the front setback of new construction to match that of the buildings adjacent. Porches may match porches on either side, as well as projections as defined in the code.

- Parking spaces should not be located within the front setback area nor extend beyond the front plane of the primary building, unless the building has a small driveway beside the building that allows for parking of one car further forward than the building facade. (such as the TSF example on page 20) Section 5.3.1 on the Zoning Ordinance limits front yard pavement to 50% of the area between the building and the street.

- Garages must not extend any closer to the street than the main front of the house, and garage entrances must be set further back than the front plane of the primary building. Where possible, garage doors should be located on the side or rear of the building.

- The Zoning Code allows for porches and projecting bay windows to extend closer to the street than the front of the house, allowing for additional square footage and the amenity of a front porch. In traditional neighborhoods, porches will also help a new structure blend in with existing homes. Projections may extend 3 ft. closer to the lot line than the front setback in most districts, while porches may extend six feet closer, which is an adequate amount of space for a porch to be usable. (see diagram on following page)

- Most districts in Traditional Neighborhoods have minimum rear yard setbacks. Certain structures such as unroofed decks, single story accessory buildings, and detached garages, are allowed within the rear yard setback. Garages must not be closer than 10 feet to the primary structure nor closer than 5 feet to any property line.

- Side setbacks are determined by two measurements. The first is a minimum setback from the property line that no part of the building may sit within. The second is a total sum of the setbacks on both sides which is greater than just doubling the side setback. For example, TSF has a ten foot minimum setback, with setbacks on both sides equaling 25 feet (10 and 15ft, 12 and 13ft, etc.) Projections of three feet or less are allowed in side setbacks as long as they are no closer than ten feet to the property line (Zoning Ordinance 5.1.7). Decks are not allowed in side setbacks.

- Corner lots must meet minimum front setbacks on both sides, while they must meet the maximum front setback on one side. If possible, they should meet the maximum setback on both sides as well. (see page 16)
**How to Calculate Setbacks**

**Lot Layout**

**Front Setbacks**

![Diagram of front setbacks]

**Lot Dimensional Requirements**

<table>
<thead>
<tr>
<th>Lot Size</th>
<th>Sq Ft</th>
<th>Frontage</th>
<th>Max Coverage</th>
<th>Setbacks</th>
<th>Usable Open Space</th>
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<tr>
<td></td>
<td>Min</td>
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<td>Front Min/Max</td>
<td>Projection</td>
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<td></td>
<td></td>
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<td>15/20</td>
<td>12</td>
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<tr>
<td><strong>TTF (1 unit)</strong></td>
<td></td>
<td></td>
<td></td>
<td>15/20</td>
<td>12</td>
</tr>
<tr>
<td><strong>TTF (2 unit)</strong></td>
<td></td>
<td></td>
<td></td>
<td>15/20</td>
<td>12</td>
</tr>
<tr>
<td><strong>TMF (1 unit)</strong></td>
<td></td>
<td></td>
<td></td>
<td>15/20</td>
<td>12</td>
</tr>
<tr>
<td><strong>TMF (2 unit)</strong></td>
<td></td>
<td></td>
<td></td>
<td>15/20</td>
<td>12</td>
</tr>
<tr>
<td><strong>TMD (3+ units)</strong></td>
<td>8000 + 4000/each additional dwelling unit</td>
<td>65</td>
<td>35%</td>
<td>15/20</td>
<td>12</td>
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</tbody>
</table>

*source: Zoning Ordinance 5.1*
LANDSCAPE & OPEN SPACE

Landscape and open space are as important to defining a streetscape as the buildings on the lots. Towards that end, developers should pay attention to the context of the street, landscaping options, existing site trees, and meeting the requirements of the zoning code.

- Residential Lots must have a certain amount of open space, classified either as usable or landscaped. Usable open space typically comes in the form of rear or side yards. Additionally, usable open space must be five feet from the lot line and each side of the space must be at least fifteen contiguous feet. Paved parking areas do not qualify as usable open space. At least fifty per cent of the area between the front of structure and the lot line must be landscaped open space, of which no part may be paved parking and only 25 per cent may be walkways or other hard surface.

- Every effort should be made to keep any established trees on a lot, especially trees at the front of a lot which contribute to the streetscape. In general, lots with existing trees are more highly valued than those without. Front yards should have grass or other appropriate vegetation.

- Stone, white picket, or iron fences provide privacy and security in an attractive manner. If chainlink is used, it should be sturdy and painted black or green instead of raw aluminum in color. Plantings can soften the effect of chainlink as well. Builders should also consider yards without fences or using shrubbery instead. Additionally, shrubbery and hedges provide an alternative to fencing for privacy and noise-reduction.

- Large expanses of asphalt or concrete are inappropriate for residential areas. Instead, pavers, bricks, or other types of surfaces should be considered for driveways and parking areas. If large expanses of hard surface are necessary, porous and pervious paving surfaces will mitigate storm-water run-off.

- Overall, at least 25% of a lot in the Traditional zoning districts must count as yard.
What Qualifies as Open Space

Usable open space must be at least 15 continuous feet wide and deep and be at least five feet from lot line in any direction.

Fifty percent of the front yard must be landscaped open space.

Paved parking does not qualify as usable open space.

source: Zoning Ordinance 5.3

Allowable Structures and Setbacks in a Rear Yard

Deck up to 200 sq ft within rearyard setback

Above-Ground Pool up to 500 sq ft

Max Height 16’

Shed up to 120 sq ft

source: Zoning Ordinance 5.1.6
PARKING

Parking presents one of the greatest development challenges in Traditional neighborhoods. The Zoning Code requires two off-street parking spaces per dwelling unit in the Traditional districts; however, parking in front of the house and front-facing garage-doors disrupt the character of the neighborhood. There are a number of design solutions that allow for adequate parking without dominating the front of the house with parking.

- Developers should review the opportunity to build units without attached garages. There are many attractive designs that will match the character of a neighborhood without garage parking. There are also many examples of detached garages on small lots as well.

- Zoning does not allow for parking spaces in front of the house or paving more than 50% of the front yard area (Zoning Ordinance 5.3.1). Curb cut restrictions ensure that front yards are not overpaved and reduces the elimination of on-street parking spaces. Also, any curbs cuts beyond the first one trigger additional on-site parking space requirements.

- Garages should occupy no more than half of the first floor facade. A typical single garage door is 9 feet wide. Therefore, a unit with a front-facing single-car garage door should be at minimum 18 feet wide to allow for enough variation on the front of the house for other architectural elements.

- Townhouse garages can be located behind the building rather than in the front, leaving the front for doors and windows, providing for a more contextual look. Grouped buildings with parking entries on the interior can allow for a more traditional look on the front of the structure.

- Parking spaces should not be located within the front setback area nor extend beyond the front plane of the primary building, unless the building has a small driveway beside the building that allows for parking of one car further forward than the building facade (example page 19). No more than the width of the driveway should be paved within the front setback area.

- Simple paneled front doors and garage doors are often most appropriate. If windows around the doorway are desired, adding sidelights to a front door and transom windows above a garage door will have a more desirable effect.

- Front-facing garage doors should be painted the same color as the main color of the building to deemphasize their presence. Recessing garage doors three to six feet behind the main front wall plane casts them in shadow. This technique refocuses the eye on the other portions of the facade, and diminishes the garage door itself.

- In many cases, townhouse garages can be located behind the building rather than in the front, leaving the front for doors and windows providing for a more contextual look. Grouped buildings with parking entries on the interior can allow for a more traditional look on the front of the structure.

- Pavers and pourous surfaces provide a desirable alternative to asphalt.
Incorporating garages in the design of the house increases usable lot space, while surface parking or detached garages allow for additional living area.

### Parking Requirements

<table>
<thead>
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<th># of Spaces *</th>
<th>Dimensions Min.</th>
<th>Max.</th>
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<tbody>
<tr>
<td></td>
<td>Pull-in Space</td>
<td>Parallel Space</td>
</tr>
<tr>
<td>TSF</td>
<td>8x18 ft</td>
<td>8x22 ft</td>
</tr>
<tr>
<td>TTF</td>
<td>8x18 ft</td>
<td>8x22 ft</td>
</tr>
<tr>
<td>TMF (1-3 units)</td>
<td>8x18 ft</td>
<td>8x22 ft</td>
</tr>
<tr>
<td>TMF (4-6 units)</td>
<td>9x18 ft</td>
<td>9x22 ft</td>
</tr>
</tbody>
</table>

* For each curb cut above one, two additional off-street spaces are required
** 10 ft if adjacent to parallel parking space
+ The Planning Board, during special permit review, may require additional on-site visitor’s parking

source: Zoning Ordinance 6.1.10

Garage entrances either set-back or entered from side minimize their visual prominence.
ODD-SHAPED & CORNER LOTS

Some oddly-shaped lots already exist in the city, while others are created through the Approval Not Required (ANR) process. In these cases, laying out the lot can be difficult. While the nature of odd lots is that there is no formulaic solutions, there are some issues to keep in mind.

- In addition to frontage and lot size requirements, there is a minimum lot width requirement as illustrated below.

- Before creating an oddly-shaped lot through the Approval Not Required (ANR) process, a potential developer should meet with DPD staff to discuss the viability of lot design.

- Oddly-shaped lots sometimes force a situation where meeting the setback and other zoning requirements might produce a result which is in opposition to the spirit of the Zoning Ordinance. In such cases a variance may be the best course of action. DPD staff can advise whether this is a prudent move.

- Corner lots must meet minimum front setbacks on both sides, while they must meet the maximum front setback on one side. Though if possible, meeting the maximum setback on both sides is preferable.

- Lots with significant slope present a particular challenge.

**Minimum Lot Width**

**Corner Lot Setbacks**

A corner-lot in the Highlands

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source: Zoning Ordinance 5.1.10

source: Zoning Ordinance 5.2.8
The Zoning Ordinance states that the Traditional Neighborhood Residential Districts are designed to “preserve, promote, and enhance the pedestrian-scale character of Lowell’s historic residential neighborhoods.” The TSF district allows single-family homes on lots of 7000 square feet and greater and was designed to allow single-family infill construction in Lowell’s residential neighborhoods that reflects the character of the existing neighborhood while providing adequate open space and parking. While each lot and project is unique, the drawings that follow are designed to reflect the types of projects that may be appropriate in this district.

Requirements in the zoning code

- Minimum of 7000 sf lot, with minimum of 55 feet frontage. At least 6300 square feet may not be used for surface drainage, must not be wetlands, or have a slope in excess of 8%

- Minimum of 300 sf of usable open space (at least 15 feet on each side, and at least 5 feet from lot lines). See illustration on page 13.

- Minimum side setback of 10 feet with a total of 25 feet between both setbacks (10 and 15ft, 12 and 13ft, etc). See illustration on page 11.

- Front of building must include a front door between 15 and 20 feet from front property line. Minimum garage setback at 24 feet.

- Projecting front bay window can be as close as 12 feet to the front property line, and covered front porches may be as close as 9 feet to the front property line.

- Minimum of two off-street parking spaces at least 8x18 feet (8x22 if parallel with 10ft drive lane), but an additional two parking spaces are required for each additional curb-cut beyond the first one. Garage spaces must be at least 11x21 feet.

- Minimum driveway width of 8 feet (or 10 feet adjoining parallel spaces). Driveway setback at least 3 feet from building and from property line (unless shared between two lots, if appropriate easements are created). Maximum curbcut of 15 feet.

- More than 50% of the front-yard must be landscaped open space and not used for parking.

- Maximum of 2.5 stories and 32 feet.
The zoning ordinance states that the Traditional Neighborhood Residential Districts are designed to “preserve, promote, and enhance the pedestrian-scale character of Lowell’s historic residential neighborhoods.” The TTF district allows up to two units on a lot in a single structure. This district was designed to continue to allow two-family infill construction in Lowell’s residential neighborhoods, but to ensure that such infill development reflects the character of the existing neighborhood, and also has adequate open space and parking. While each lot and each project is unique, the drawings that follow are designed to reflect the types of projects that may be appropriate in this district.

Requirements in the Zoning Ordinance

- For a two family home, a minimum of 65 feet frontage; at least 7200 sf must not be a wetland, a surface drainage system, or slopes over 8%. Minimum of 500 sf of usable open space (at least 15 feet on each side, and at least 5 feet from lot lines).

- A single family home may be placed on a lot with 6000 sf and 55 feet of frontage.

- One primary dwelling structure allowed on a lot.

- Minimum of 300 sf of usable open space (at least 15 feet on each side, and at least 5 feet from lot lines). See illustration on page 15.

- Minimum side setback of 10 feet with sum of 25 feet in total of both side setbacks. No projecting deck in the side yard setback area. See illustration on page 11.

- Front of building must include a front door between 15 and 20 feet from front property line. Minimum garage setback at 24 feet.

- Projecting front bay window can be as close as 12 feet to the front property line, and covered front porches may be as close as 9 feet to the front property line.

- Minimum of four off-street parking spaces at least 8x18 feet (8x22 if parallel with 10ft drive lane). but an additional two parking spaces are required for each additional curb-cut beyond the first one. Garage spaces must be at least 11x21 feet.

- Minimum driveway width of 8 feet (or 10 feet adjoining parallel spaces). Driveway setback at least 3 feet from building and from property line (unless shared between two lots, if appropriate easements are created). Maximum curb-cut of 15 feet.

- More than 50% of the front-yard must be landscaped open space and not used for parking.

- Maximum of 2.5 stories (32 feet).
The zoning ordinance states that the Traditional Neighborhood Residential Districts are designed to “preserve, promote, and enhance the pedestrian-scale character of Lowell’s historic residential neighborhoods.” The TMF district allows up to six units on a lot, either by right, or by a special permit granted by the Planning Board. This district was designed to continue to allow multifamily infill construction in Lowell’s residential neighborhoods, but to ensure that such infill development reflects the character of the existing neighborhood, and also has adequate open space and parking. In many cases, the uses allowed in this district require special permits, and the special permit granting authority may set stricter standards than the underlying zoning, as a condition of approval. While each lot and each project is unique, the drawings that follow are designed to reflect the types of projects that may be appropriate in this district.

**Requirements in the zoning code**

- Minimum side setback of 5 feet with a sum of 20 feet in total of both side setbacks for single-family developments, 10 feet with a sum of 25 feet for all other developments.

- Front of building with front door between 15 and 20 feet from front property line. Projecting front bay window can be as close as 12 feet to the front property line, and covered front porches may be as close as 9 feet from to front property line.

- Driveway setback at least 3 feet from building and from property line. Garage set back 24 feet from street. Minimum of two off-street parking spaces per unit. Surface parking spaces must be 8x18 feet while garages require 11x21 feet. Minimum driveway width of 8 feet. Maximum curbcut of 25 feet.

- Maximum of 3 stories and 35 feet (except for single-family home: 2.5 stories, 32 feet)

- **One dwelling unit:** Minimum of 4500 sf lot, with minimum of 50 feet frontage, and at least 4050 sf must not be a wetland, a surface drainage system, or slopes over 8%. Minimum of 250 sf of usable open space (at least 15 feet on each side, and at least 5 feet from lot lines). See illustration on page 15.

- **Two dwelling units:** Minimum of 8000 sf lot, with minimum of 65 feet frontage, and at least 7200 sf must not be a wetland, a surface drainage system, or slopes over 8%. Minimum of 500 sf of usable open space (at least 15 feet on each side, and at least 5 feet from lot lines). See illustration on page 15.

- **Three dwelling units:** Minimum of 12,000 sf lot, with minimum of 65 feet frontage, and at least 10800 sf must not be a wetland, a surface drainage system, or slopes over 8%. Minimum of 750 sf of usable open space (at least 15 feet on each side, and at least 5 feet from lot lines). See illustration on page 15.

- **Four dwelling units:** Minimum of 16,000 sf lot, with minimum of 65 feet frontage, and at least 14400 sf must not be a wetland, a surface drainage system, or slopes over 8%. Minimum of 1000 sf of usable open space (at least 15 feet on each side, and at least 5 feet from lot lines). See illustration on page 15. *Site plan review required.*

- **Five dwelling units:** Minimum of 20,000 sf lot, with minimum of 65 feet frontage, and at least 18000 sf must not be a wetland, a surface drainage system, or slopes over 8%. Minimum of 1250 sf of usable open space (at least 15 feet on each side, and at least 5 feet from lot lines). See illustration on page 15. *Site plan review required.*

- **Six dwelling units:** Minimum of 24,000 sf lot, with minimum of 65 feet frontage, and at least 21600 sf must not be a wetland, a surface drainage system, or slopes over 8%. Minimum of 1500 sf of usable open space (at least 15 feet on each side, and at least 5 feet from lot lines). See illustration on page 15. *Site plan review required.*

- More than six units are not allowed.
THE PERMITTING PROCESS
CONSERVATION COMMISSION

The Conservation Commission administers the Massachusetts Wetlands Protection Act and the Lowell Wetlands Protection Ordinance.

What Requires a Conservation Commission Hearing

Any construction or alteration of land—including temporary or permanent structures, additions, driveways, filling, dredging, cutting, cleaning, or grading—within 100 feet of any wetland or waterway (including canals) or within the 100-year flood plain will require a permit from the Conservation Commission.

Many wetlands are not readily obvious. Before starting any work in the city, the Conservation Commission should be consulted to determine whether the site is within the 100 foot buffer or flood plain.

How to Apply for a Conservation Commission Hearing

- Contact the Conservation Commission Administrator to file a “Request for Determination of Applicability” to determine whether a site falls within the 100 foot buffer.

- Obtain a Notice of Intent form, list of required materials, and schedule of fees from the Conservation Commission Administrator.

- Submit Notice of Intent and supporting materials. Within 21 days, the Conservation Commission will review Notice of Intents at a public hearing and issue an “Order of Conditions” outlining whether work can proceed and under what conditions.
INSPECTIONAL SERVICES

Inspectional Services is the City’s local authority for review, inspection, and compliance of the State Building Code and the City of Lowell Zoning Ordinance through the issuance of building permits, certificates of occupancy, sign permits, and gas/plumbing permits.

What Requires a Building Permit

Anyone seeking to construct, alter, repair, or demolish a structure must first obtain a building permit before the start of any work, and prominently post it at the job site.

Fences less than six feet in height, retaining walls holding less than four feet of unbalanced fill, accessory structures not more than one story and 120 sq ft floor area, and ordinary repairs (Mass Building Code 780 CMR 2) are exempt.

Permits are issued to licensed construction supervisors and homeowners.

How to Apply for a Building Permit

- Pick-up application, list of required supporting documents, and fee schedule from Inspectional Services
- Submit application with three sets of working drawings (1/4”=1’). Inspectional Services staff will review the application for compliance with building and zoning codes. If project requires approval by the Historic Board, Planning Board, or Zoning Board, no permits will be issued until such approval is granted. This process may also trigger review by the Engineer’s Department and Fire Department. Otherwise, law requires that action be taken within 30 days of filing. Typically, applications are reviewed within 5-10 working days.
- Obtain required plumbing/gas permits, certificate of occupancy, and sign permits as appropriate.
- Schedule required inspections as work on project progresses.

To obtain a curbcut, an application must be filled out with the Department of Public Works (DPW). Contact the City Engineer’s Office for more information (978) 970-3329.
PLANNING BOARD

The Planning Board is responsible for oversight and execution of the subdivision control laws, the Site Plan Review process, and issuance of certain Special Permits as mandated in the Zoning Code. Site plan approval may be granted upon determination that the plan meets the objectives of the Zoning Code. The Board may impose reasonable conditions at the expense of the applicant to promote those objectives.

Special Permits are granted by the Planning Board if they meet the stated criteria listed and can only be granted for uses listed as eligible for special permit in the Zoning Code Table of Uses (Article XII). All site plan review and special permit decisions require a public hearing, and notification will be required of all abutters within 300 feet.

What Requires Site Plan Review

- Construction, exterior alteration, expansion, or conversion of any nonresidential structure with 10,000 square feet or greater gross floor area.
- Construction, exterior alteration, expansion, or conversion of any multifamily residential structure with greater than three dwelling units.
- Construction or expansion of a parking lot with more than fourteen spaces or 4,000 square feet of impervious surface.
- Any commercial construction involving the installation or construction of self-service gasoline pumps or drive-through or drive-up customer service.
- Telecommunication towers as required by section 7.6.3 of the Zoning Ordinance.

How to Apply for Site Plan Review

- Schedule a preliminary meeting with the Planning Board Administrator to review plan and identify any potential problems. Follow up with attending a Planning Board meeting for an informal pre-application discussion before formal application.
- Obtain application, list of supporting materials, and schedule of fees from Division of Planning and Development in person or at www.lowellma.gov/depts/dpd/permitting.
- File application and supporting documentation at least 31 days prior to scheduled Planning Board meeting accompanied by 13 additional copies of all materials.
- After submission, city staff will prepare a legal notice for publication in the Lowell Sun, which will directly bill the applicant for the cost of these advertisements. Furthermore, the applicant will be given instructions on how to prepare certified letters for all abutters. These letters must be prepared, complete with stamps, and provided back to the DPD staff to be mailed. Letters must also be prepared for the planning boards of abutting towns and to the regional planning organization (Northern Middlesex Council Of Governments) and the State’s Department of Housing and Community Development.
- Attend the public hearing that will be held approximately 30 days after submission of the application, as you will be called upon to answer questions. The Planning Board will issue a decision within 90 days of Site Plan submission.
- The applicant must wait for a 21 day appeal period after the decision is filed before proceeding with construction. During this time, applicant should change plans to reflect any conditions set by the Planning Board.

Consult Section 11.4 of the Lowell Zoning Ordinance for a complete understanding of the regulatory structure that governs the site plan review process.

Any development involving the renovation of an existing building subject to the review and approval of the Lowell Historic Board, where all substantial work is confined within the footprint of the existing building is exempt from site plan review.
Criteria for Site Plan Approval

The Planning Board will carefully consider whether a Site Plan meets the goals of the Zoning Code before issuing Site Plan approval.

Neighbors will be the primary participants in the public hearing. The Division of Planning and Development (DPD) encourages applicants to meet first with DPD staff to discuss a project, then with interested neighbors to understand their concerns and address issues that can be solved before reaching the hearing. Developers can also meet with representatives of local neighborhood groups, that often also participate in the Planning Board’s hearing process. Staff at DPD can also assist in the development of a site plan, by addressing the problems that often are of concern within Lowell and its neighborhoods.

New building construction or other site alteration shall be designed considering the qualities of the specific location, the proposed land use, the design of building form, grading, egress points, and other aspects of the development so as to:

- Minimize the volume of cut and fill, the number of removed mature trees 6” caliper or larger, the length of removed stone walls, the area of wetland vegetation displaced, the extent of stormwater flow increase from the site, soil erosion, and threat of air and water pollution
- Maximize pedestrian and vehicular safety
- Provide adequate access to each structure for fire and service equipment and adequate utilities
- Minimize obstruction of scenic views from publicly accessible locations and visual intrusion by controlling the visibility of parking, storage, or other outdoor service areas viewed from public ways or premises residentially used or zoned. Minimize glare from headlights and lighting intrusion
- Minimize unreasonable departure from the character, materials, and scale of buildings in the vicinity, as viewed from public ways and places
- Minimize contamination of groundwater from on-site waste-water disposal systems or operations on the premises involving the use, storage, handling or containment of hazardous substances
- Provide stormwater drainage consistent with the functional requirements of the Planning Board’s Subdivision Rules and Regulations
- Ensure compliance with the provisions of the Zoning Ordinance, including the parking, signage, landscaping and environmental performance standards

Common Issues in Project Review

There are some important items in the site plan approval process that are often overlooked by applicants. Applicants must familiarize themselves with the requirements of the zoning ordinance. In particular, they should pay close attention to the following issues which are often insufficiently addressed in plans:

- **Usable open space:** As identified in section 2.0 and described in section 5.3 of the Zoning Ordinance, projects require both usable open space and landscaped open space. (p. 9)
- **Landscaped open space in parking areas:** As identified in section 6.1.9, parking areas with more than ten off-street spaces must be landscaped
- **Front yard setbacks:** Some zoning districts have a series of front-yard setbacks designed to encourage a more attractive neighborhood building design and reduce the likelihood of creating inappropriate infill projects. Review the different requirements on front, garage, porch, and projection setbacks. (p. 6-7)
- **Building height and stories:** Many zoning districts limit buildings to 2.5 or 3 stories. Carefully review the definition of a story and half-story. (p. 11)
- **Refuse containers:** Under section 6.6, there are specific requirements for screening dumpsters.
- **Maximum curb cuts:** Section 6.1.10 outlines maximum curb cut and drive lane widths.
Special Permits

The City Council determined that these are projects where design can have the most significant impact on the surrounding neighborhood. While the city does not want to close off the opportunity for well-designed appropriate in-fill, these projects will receive the most significant scrutiny by the Planning Board to ensure that the projects are appropriate for their context, based on the goals of the Master Plan and Zoning Ordinance.

What Requires a Special Permit

- Lots crossing city limits
- Odd lot widths (Zoning Code 5.1.10)
- Modification of refuse container requirements (Zoning Code 6.6)
- Driveway lengths beyond allowed maximum (Zoning Code 6.7.2)
- Steep driveway grades (Zoning Code 6.7.3)
- Conversion of existing buildings for residential use (Zoning Code 8.1 and 8.1.3(10))
- 4-6 unit multifamily development (TMF, NB districts)
- 3-6 unit townhouse development (TMF, TMU districts)
- 7 or more townhouse developments (TMU)

How to Apply for a Special Permit

- Schedule a preliminary meeting with the Planning Board Administrator to review plan and identify any potential problems. Follow up with attending a Planning Board meeting for an informal pre-application discussion before formal application.
- Obtain application, list of supporting materials, and schedule of fees from Division of Planning and Development in person or at www.lowellma.gov/depts/dpd/permitting.
- File application and supporting documentation at least 31 days prior to scheduled Planning Board meeting a accompanied by 13 additional copies of all materials.
- After submission, city staff will prepare a legal notice for publication in the Lowell Sun, which will directly bill the applicant for the cost of these advertisements. Furthermore, the applicant will be given instructions on how to prepare certified letters for all abutters. These letters must be prepared, complete with stamps, and provided back to the DPD staff to be mailed. Letters must also be prepared for the planning boards of abutting towns and to the regional planning organization (Northern Middlesex Council Of Governments) and the State’s Department of Housing and Community Development.
- Attend the public hearing that will be held approximately 30 days after submission of the application, as you will be called upon to answer questions. The Planning Board will issue a decision within 90 days of Site Plan submission.
- The applicant must wait for a 21 day appeal period after the decision is filed before proceeding with construction. During this time, applicant should change plans to reflect any conditions set by the Planning Board.
Criteria for Uses Requiring Special Permit Approval

The Planning Board requires that applicants address the following issues in the Special Permit application:

Neighborhood Character:

- How does this project protect and enhance the character of the existing neighborhood? Successful projects should reflect the density, the urban design, the setbacks, height and landscaping elements of surrounding buildings.
- How does this project provide for social, economic or community needs?
- Is the project consistent with the character, materials and scale of buildings in the vicinity?
- Does the project minimize the visual intrusion from visible parking, storage and other outdoor service area viewed from public ways and abutting residences?

Environmental Issues:

- Does the project have any negative impacts on the natural environment?
- Does the project minimize the volume of cut and fill and the extent of stormwater flow and soil erosion from the site?
- Does the project minimize the contamination of groundwater?
- Does the project provide for stormwater drainage consistent with the local regulations?
- Does the project minimize obstruction of scenic views?
- Does the project minimize lighting glare on abutting properties?

Traffic, Access and Safety:

- How does the project address traffic flow and safety, including parking and loading? Does the project provide adequate parking for visitors to the residences? Will the project impact an area with significant on-street parking demand? Will the project require the loss of on-street public parking for driveway curbcuts?
- Does the project provide adequate access to each structure for fire and service equipment and adequate utilities?
- Does the project provide adequate and safe pedestrian and vehicle access through and around the project?

Additional Impacts:

- Are there any substantial impacts on public services and utilities?
- Does the project have any negative fiscal impact on the city, including impact on city services, schools, tax base, and employment?
- Does the project comply fully with the Zoning Ordinance, including parking, signage, landscaping, open space requirements, curb cut lengths and driveway widths?

Common Issues with Townhouses

While townhouses offer many advantages that are desired by consumers, they are most successful when they provide design elements that make for a better development project and also improve the surrounding neighborhood. The Planning Board requires a Special Permit for many townhouse projects in order to address the following issues.

Avoid townhouse designs with integral front garages, or front-yard parking. Only consider front parking designs where there are no alternatives for rear driveways, detached rear garages or other available options. When using front driveways to count parking spaces, driveways must be at least 24 feet in length. Driveways should have defined parking areas. Under no circumstances should a townhouse have an entire front lawn area paved for driveway space.

When garages must be in front, the building should have other front building elements that step further forward than the garages. The garage should not be along the furthest forward portion of the building. The 24 foot setback of the garage can be used together with an overall building setback that is shorter to provide a front-loaded design that reduces the effect of the garage and driveway.

Driveways should be at least eight feet wide to provide one-way vehicle access for two units. Driveways for multiple units greater than two should be 12 to 15 feet wide, allowing cars to pass. All driveways must meet the driveway setback regulations in the Zoning Code. Driveways should have a minimum of 20 feet between them, to allow for on-street parking.

Rows of multiple townhouses should be designed to minimize the effect of the development from the street. The Zoning Ordinance requires building fronts and front doors to face the major street.
The Lowell Historic Board (LHB) was created in 1983 to preserve the historical and architectural resources of the Downtown Lowell Historic District. The Historic board has design review, permitting, and enforcement authority within ten review districts citywide. In addition, the Historic Board provides technical assistance for preservation projects in other parts of the city.

**What Requires Historic Board Review**

The level of LHB review depends upon the particular review district that the proposed project is located within. The best method to determine whether a project falls within the jurisdiction of the LHB and the level of review is to consult with the staff. By state law, no City department, board, or commission can issue any permits or approvals within any district under the LHB's jurisdiction until the LHB has first issued its approval and/or granted an Historic Permit.

Work is divided into two types under statute and the LHB staff will determine which is applicable to the project:

- **Minor Development**: Items include, but are not limited to, cleaning, repainting in original colors, repairing or replacing architectural elements according to historically compatible plans, and signage. These are administrative items and do not require a public hearing.

- **Major Development**: Any other changes to a structure or site must be reviewed by the LHB at a public hearing.

The following districts under the jurisdiction of the LHB oversee all Minor and Major Development including, but not limited to, the erection, demolition, reconstruction or alteration of any exterior architectural feature (interior when it affects the exterior appearance) of any building, structure, or site (including landscape) found within:

- Downtown Lowell Historic District
- Acre Neighborhood District

The following neighborhood districts under the jurisdiction of the LHB oversee only Major Development including demolition and new construction only:

- Andover Street
- South Common
- Washington Square
- Belvidere Hill
- Tyler Park
- Wilder Street
- Rogers Fort Hill Park
- Wannalancit Street

**How to Apply for Historic Board Review**

- Consult with the Historic Board staff to determine whether property falls within a Historic District and highlight any potential issues that may arise.

- Pick-up application, list of required supporting documents, and fee schedule from the Historic Board Administrator.

- Submit application with supporting documents and fees.

- If a minor development, attend design review committee meeting to discuss proposal. If major development, attend public hearing to present proposal. Review will usually take 7 days for minor development and 30 days for major development.
ZONING BOARD OF APPEALS

The Zoning Board of Appeals (ZBA) is appointed with the authority to grant certain special permits and to grant variances for exceptions to the Zoning Ordinance. The Mission of the ZBA is to protect and preserve the general purpose and intent of the Zoning Code while granting exceptions for certain hardships and conditions.

The ZBA does not have authority to grant exemptions for uses expressly not allowed in the Zoning Code. Any use identified as not allowed in Article XII of the Zoning Ordinance cannot be granted by variance, but instead requires a change in the Zoning Ordinance which must be reviewed in a public hearing before the Planning Board then approved in a public hearing before the City Council.

What Requires a Variance or Special Permit

Any request for an exemption from the dimensional requirements, parking requirements, or other aspects of the Zoning Code requires a variance. Any use noted as Special Permit in Article XII of the Zoning Ordinance or any other item requiring a special permit not otherwise granted by another authority must seek a special permit from the ZBA.

How to Apply for a Variance or Special Permit

Contact the Inspectional Services Department for information on filing for a special permit or variance.

Criteria for Special Permit Approval

The ZBA requires that applicants address the following issues in the Special Permit application:

- Social, economic, or community needs which are served by the proposal
- Traffic flow and safety, including parking and loading
- Adequacy of utilities and other public services
- Neighborhood character and social structures
- Impacts on the natural environment
- Potential fiscal impact, including impact on city services, tax base, and employment
- Special permits for use must also address the criteria on page 24

Criteria for Granting of Variance

- Special hardship: “owing to circumstances relating to the soil conditions, shape or topography of such land, or structures, and especially affecting such land or structures but not affecting generally the zoning district.”
- Public good: “relief may be granted without substantial detriment to the public good.”
- Intent of zoning satisfied: “without nullifying or substantially derogating from the intent of zoning.”

NOTE: Financial hardship alone is not a valid criterion for a zoning variance.