LOWELL PLANNING BOARD

SUBDIVISION
of
LAND
REGULATIONS

As Amended to January 30, 2009
Lowell, Massachusetts (Middlesex County)


Asterisk (*) indicates most recent filing of Subdivision Amendments.

<table>
<thead>
<tr>
<th>Filing Date</th>
<th>Paper</th>
<th>Lowell</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/28/59</td>
<td>1</td>
<td>Statement of Planning Board re Subdivision Control</td>
</tr>
<tr>
<td>12/28/59</td>
<td>2</td>
<td>Vote of City re Planning Board</td>
</tr>
<tr>
<td>12/28/59</td>
<td>3</td>
<td>Rules &amp; Regulations</td>
</tr>
<tr>
<td>12/28/59</td>
<td>4</td>
<td>Signatures of those authorized by R. &amp; R. to sign plans not requiring approval, i.e.: the Planning Director and the City Engineer</td>
</tr>
<tr>
<td>07/09/62</td>
<td>5</td>
<td>Additional Authority to Sign: John F. Tavares - K.K. Raitanen</td>
</tr>
<tr>
<td>07/11/62</td>
<td>6</td>
<td>Additional Authority to Sign: William B.S. Leong</td>
</tr>
<tr>
<td>03/19/63</td>
<td>7</td>
<td>Authority to Sign &quot;Approval Not Required&quot; George McDonough</td>
</tr>
<tr>
<td>07/02/65</td>
<td>8</td>
<td>Authority to Sign &quot;Approval Not Required&quot; Frank Grady, C.E.</td>
</tr>
<tr>
<td>09/22/67</td>
<td>9</td>
<td>Authority to Sign &quot;Approval Not Required&quot; James E. Minnoch</td>
</tr>
<tr>
<td>02/09/68</td>
<td>10</td>
<td>Authority to Sign Plans (additional) &amp; Other Certificates - Donald J. Samowski</td>
</tr>
<tr>
<td>03/06/70</td>
<td>11</td>
<td>Authority to Sign Anything - Donald J. Samowski, George M. McDonough, Frank W. Grady, Kenneth G. Briggs</td>
</tr>
<tr>
<td>10/01/70</td>
<td>12</td>
<td>Amended Rules &amp; Regulations</td>
</tr>
<tr>
<td>03/16/73</td>
<td>13</td>
<td>Authority to Sign Anything - Donald J. Samowski, George M. McDonough, Frank W. Grady and Robert M. Leary</td>
</tr>
<tr>
<td>08/16/77</td>
<td>14</td>
<td>Authority to Sign Anything - John F. Tavares</td>
</tr>
<tr>
<td>03/14/79</td>
<td>15</td>
<td>Amendment to Rules &amp; Regulations</td>
</tr>
<tr>
<td>12/19/83</td>
<td>16</td>
<td>* AMENDMENT TO RULES &amp; REGULATIONS</td>
</tr>
<tr>
<td>06/04/85</td>
<td>17</td>
<td>Authorized to sign anything - Donald J. Samowski, Ass't. Pl. Dir., Frank W. Grady, Acting City Eng'r., Charles W. Moran, Ass't. City Eng'r., John F. Tavares, Prog. Dev. Dir.</td>
</tr>
</tbody>
</table>

Compiled by Landlaw, Inc.
736 Main Street, Suite 248
P.O. Box 9038, Waltham, MA 02254-9038
(617) 891-9512 (800) 637-6330
Subdivision of Land Regulations: Amendment

At the Planning Board meeting held February 19, 2009 all attending members unanimously voted (4-0) in favor to adopt the amendment establishing Appendix A: “Subdivision Rules and Regulations for the Hamilton Canal District.” By voting to adopt the Planning Board affirms the proposed amendment will ensure development that is consistent with the vision for the Hamilton Canal District project as established in the Master Plan for the district, dated September 2008, and the objectives of the Hamilton Canal District project as proposed in the zoning amendment establishing Section 10.3 of the Zoning Ordinance.

AND

The Rules and Regulations Governing the Subdivision of Land in Lowell, Massachusetts originally adopted on December 2, 1959 with amendments through December 12, 1983 is hereby amended to include Appendix A: Subdivision Rules and Regulations for the Hamilton Canal District”, dated January 30, 2009.

Signed on Behalf of the Planning Board
Aaron Clausen
Associate Planner/Planning Board Administrator


A True Copy
Attest:

Richard Johnson, City Clerk
Lowell, Massachusetts
CONTENTS

PURPOSE .................................................................................................................. 1.

DEFINITION ............................................................................................................. 1.

SECTION I. AUTHORITY ......................................................................................... 2.

SECTION II. DEFINITIONS ...................................................................................... 2.

SECTION III. PROCEDURE FOR THE SUBMISSION AND APPROVAL OF PLANS .......... 3.
A. PRELIMINARY PLAN .......................................................................................... 3.
1. GENERAL ........................................................................................................ 3.
2. CONTENTS ...................................................................................................... 3.
3. APPROVAL ...................................................................................................... 4.
4. APPROVAL OF PROPOSED FACILITIES ..................................................... 5.
5. COST ESTIMATES FOR REQUIRED WORK .................................................. 6.
B. DEFINITIVE PLAN .............................................................................................. 6.
1. GENERAL ........................................................................................................ 6.
2. NOTICE TO CITY CLERK ............................................................................. 8.
3. REQUIREMENTS AND FORM OF DEFINITIVE PLAN .................................. 8.
4. CONTENT OF DEFINITIVE PLAN .................................................................. 9.
5. REVIEW BY BOARD OF HEALTH .................................................................. 11.
6. PUBLIC HEARING .......................................................................................... 11.
7. LOT SIZE AND FRONTAGE .......................................................................... 12.
8. PERFORMANCE GUARANTEE ...................................................................... 12.
9. CONDITIONAL APPROVAL OF DEFINITIVE PLAN ..................................... 12.
10. FINAL APPROVAL OF DEFINITIVE PLAN .................................................. 13.
11. EVIDENCE OF SATISFACTORY PERFORMANCE ......................................... 14.

SECTION IV. DESIGN STANDARDS ....................................................................... 14.
A. STREETS ........................................................................................................... 14.
1. LOCATION AND ALIGNMENT ...................................................................... 14.
2. GRADES ......................................................................................................... 15.
3. CUL-DE-SACS ............................................................................................... 15.
B. EASEMENTS .................................................................................................... 16.
C. OPEN SPACES ................................................................................................. 16.
D. PROTECTION OF NATURAL FEATURES ...................................................... 16.

SECTION V. SPECIFICATIONS FOR REQUIRED IMPROVEMENTS FOR AN APPROVED SUBDIVISION .............................................................. 16.
REGULATIONS

GOVERNING THE SUBDIVISION OF LAND

LOWELL, MASSACHUSETTS

(Adopted under the Subdivision Control Law
sections 81-K to 81GG inclusive, Chapter 41, G. L.)

PURPOSE

The subdivision control law has been enacted for the purpose of protecting the safety, convenience and welfare of the inhabitants of Lowell by regulating the laying out and construction of ways in subdivisions, and by designating standards for sanitary conditions in subdivisions and, in certain cases, in parks and open areas. The powers of the Planning Board, hereinafter also referred to as the Board, and of the Board of Appeals, under the subdivision control law shall be exercised with due regard for providing adequate access to all of the lots in a subdivision by ways that will be safe and convenient for travel; for lessening congestion in such ways and in the adjacent public ways; for reducing danger to life and limb in the operation of motor vehicles; for securing safety in the case of fire, flood, panic and other emergencies; for insuring compliance with the applicable zoning ordinances or by-laws; for securing adequate provision for water, sewerage, drainage and other requirements where necessary in a subdivision; and for coordinating the ways in a subdivision with each other and with other existing public ways in Lowell and with the ways in neighboring subdivisions.

DEFINITION OF "SUBDIVISION"

"Subdivision" shall mean the division of a tract of land into two or more lots and shall include resubdivision, and, when appropriate to the context, shall relate to the process of subdivision and to the land or territory subdivided; provided, however, that the division of a tract of land into two or more lots shall not be deemed to constitute a subdivision within the meaning of the subdivision control law if, at the time when it is made, every lot within the tract so divided has frontage on (a) a public way or a way which the clerk of the city of Lowell certifies is maintained and used as a public way, or (b) a way shown on a plan theretofore approved and endorsed in accordance with the subdivision control law, or (c) a way in existence when the subdivision control law became effective on December 2, 1959 in the city of Lowell in which the land lies, having, in the opinion of the Planning Board, sufficient width, suitable grades and adequate construction to provide for the needs of vehicular traffic in relation to the proposed use of the land abutting thereon or served thereby, and for the installation of municipal services to serve such land and the buildings erected or to be erected thereon.
Such frontage shall be of at least such distance as is required by zoning or other ordi-
nance of the city of Lowell for the erection of a building on such lot. Conveyances or
other instruments adding to, taking away from, or changing the size and shape of lots
in such a manner as not to leave any lot so affected without the frontage above set forth,
or the division of a tract of land on which two or more buildings were standing when the
subdivision control law went into effect (Dec. 2, 1959) in the city of Lowell into separ-
ate lots on each of which one of such buildings remains standing, shall not constitute a
subdivision.

SECTION I. AUTHORITY

Under the authority vested in the Planning Board of the City of Lowell by Ordin-
ance of the City Council, May 26, 1959 and section 81-Q of Chapter 41 of Mass.
General Laws, (Ter. Ed.) said Board hereby adopts these regulations governing the
subdivision of land in the City of Lowell. These regulations shall be effective on and
after the second day of December 1959, as amended.

SECTION II. DEFINITIONS

collector - This class of street serves the internal vehicular movements within an
area of the city, such as a subdivision, and connects that area with the arterial
street system. Collector streets are not intended to handle through vehicular
travel and therefore generally are not continuous for any great length.

cul-de-sac - A short, minor street having only one vehicular access to another street
and terminated by a vehicular turn-around.

dead-end-street - A street, other than a cul-de-sac with only one outlet and no turn-
around.

easement - The right or privilege of a person, municipality or authority to make a
specific limited use of another person's land.

local - Local streets are those streets whose function is to provide access to imme-
diately adjacent land. They make up a large percentage of the total street
mileage of the city, but carry a small portion of the total traffic volumes of
the city.

lot - An area of land in one ownership which meets the minimum frontage and square
footage requirements of the zoning ordinance of the city of Lowell.

public way - A vehicular way constructed to the specifications within these regu-
lations and accepted as a public way by the city of Lowell, or a way that has
been accepted by the city as public previous to the passage of these regu-
lations.
regulations - Refers to "Regulations governing the subdivision of land in Lowell, Massachusetts."

resubdivision - The changing of all or any part of a previously platted subdivision, addition, lot or tract.

In the event of any controversy over definitions, those definitions listed in Chapter 41, Section 81L of the Massachusetts General Laws (Ter. Ed.) shall apply.

SECTION III. PROCEDURE FOR SUBMISSION AND APPROVAL OF PLANS

A. THE PRELIMINARY PLAN

No person shall make a subdivision within the meaning of the Subdivision Control Law of any land within the City of Lowell, or proceed with the improvement or sale of lots in a subdivision, or the construction of ways, or the installation of municipal services therein, unless and until a preliminary plan and the definitive plan of such subdivision have been submitted and approved by the Planning Board as hereinafter provided.

1. GENERAL

a. Prior to the filing of a preliminary plan, the subdivider shall have a pre-application conference with the Division of Planning and Development (DPD) concerning the ultimate land use of the proposed development, the suitability of the location of the proposed subdivision, the most advantageous subdivision plan, the arrangement of streets, alleys and lots, and the layout of utility lines and availability of service from trunk mains. Conditional approval of the general land use of the proposed subdivision must be obtained from the Planning Board prior to preparation of the Preliminary Plan.

b. A Preliminary Plan of the subdivision shall be submitted after complying with a. above by the subdivider to the Planning Board. Such submission shall be made at the Division of Planning and Development (DPD). The applicant shall file by delivery or registered mail, a notice with the City Clerk and the Lowell City Council stating the date of application for such approval of a preliminary plan. A copy of the preliminary plan shall also be sent with a notice that such plan has been filed to the New England Telephone Co., 33 Winter Street, Haverhill, Massachusetts, Massachusetts Electric Company, Attention Engineering Division, Westborough, Massachusetts.

c. FLOOD PRONE AREAS (REVISED 5/8/91)

Applicant for subdivisions shall review the below described flood maps to determine if the development location is flood prone and if found to be shall clearly label in the title block that the subdivision is located in a flood prone area.

All subdivision proposals and other proposed new developments shall be reviewed to determine whether such proposals will be reasonably safe from flooding. (Reference: City of Lowell Insurance Study and Flood Insurance Rate Map (firm) dated May 15, 1991 (as revised) prepared by Federal Emergency Management Agency (F.E.M.A.). If such proposal is in a flood area, any such proposal shall be reviewed to assure that 1.) all such proposals are consistent with the need to minimize flood damage within the Flood Prone Area, 2.) all public utilities and facilities such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage, and 3.) adequate drainage is provided to reduce exposure to flood hazards.

In all new subdivision proposals and other proposed developments (including proposals for manufactured home parks and manufactured home subdivisions) greater than 50 lots or 5 acres whichever is the lesser, the applicant shall include within such proposals base flood elevation data.
CONTENTS - The preliminary plan shall be drawn at a scale that is readable, and six prints shall be filed at the Office of the Division of Planning and Development (DPD) at least two weeks before a Planning Board Meeting.

The preliminary plan shall include the following:

a. The words Preliminary Plan clearly visible.

b. Subdivision name, north arrow, date and scale.

c. Name and address of the recorded owner and the Registered Civil Engineer and Surveyor.

d. Location and names of adjacent subdivisions and names of owners of adjacent lots or tracts as disclosed by the records of the Board of Assessors.

e. Locations, names and dimensions of adjacent streets and other public and private ways as disclosed by records of the Department of Public Works, Division of Engineering.

f. Size and location of existing storm drains, storm and sanitary sewers, water mains and their appurtenances, as disclosed by records of the Department of Public Works, Division of Engineering, and the location of existing buildings within and immediately adjacent to the subdivision.

g. Locations, proposed names and dimensions of all proposed streets and of other ways or areas for public use, and of easements within the area concerned.

h. Proposed lot lines with approximate areas and dimensions.

i. Plan of the proposed drainage and drainage calculations, which will be reviewed by the Lowell Engineering Department.

j. Profiles of proposed streets on a horizontal scale of 50 feet to an inch and a vertical scale of 5 feet to an inch, showing existing and proposed grades along the center lines and extending at least one hundred (100) feet in each direction on abutting streets.

k. Topography of the land in a general manner, unless waived by the Board.

I. Proposed plan for a street lighting system on proposed streets.

3. APPROVAL

a. The preliminary plan will be reviewed by the Planning Board and the Division of Planning and Development (DPD) to determine whether it is in compliance with the design standards of these regulations.
Within fourteen (14) days after submission, the Planning Director shall return the preliminary plan to the Board, noting thereon, any recommendations and changes which should be made.

b. These recommendations and changes shall be conveyed in turn by the Planning Board to the subdivider within sixty (60) days after the date of the initial submission with a statement of approval or disapproval of the plan.

c. The preliminary plan shall not be deemed to have been submitted to the Board, until all information listed under item A2 above has been fully completed in accordance with these regulations and delivered to the Planning Board.

4. APPROVAL OF PROPOSED FACILITIES

a. The applicant, before submission of his final application and definitive plan, shall obtain written approval of the sizes, locations and other pertinent lay-out provisions for proposed facilities shown on the definitive plan, or for any deviations from the design and work requirements herein authorized and written verifications of the sizes and locations of existing and proposed facilities shown on said plan, from the City Engineer, City of Lowell Engineering Division of the Department of Public Works (hereinafter called the Engineering Division) for all of the facilities listed below.

(1) Existing and proposed drainage easements or rights-of-way.
(2) Storm drainage facilities.
(3) Grades of gravity utilities.
(4) Street design.
(5) Proposed and existing easements for water and sewer facilities.
(6) Any proposed project sewage disposal works or water system(s).

The approval and verifications required above shall be indicated by the signature on the original copy of the definitive plan by the signatures of the City Engineer and the Commissioner of the Department of Public Works.

b. Written statements describing specifications for work, special construction requirements, and any granted approval of deviations from requirements listed herein will be furnished to the applicant by the Commissioner of the Department of Public Works in a form suitable for attachment to and incorporated with the application form hereinafter prescribed.
Standard specifications of the Engineering Division must be met. Where written specifications are not available or are to be modified, the detailed requirements for work on the ground shall be set forth in the statements.

c. The Engineering Division requires, in connection with the performance of particular work on the ground, written notification by the subdivider when specified items of work are to be started or completed. The Engineering Division may further require that the subdivider employ at his own expense a Registered Professional Civil Engineer or Registered Land Surveyor to set grades for all appropriate work, or to issue to the Department of Public Works a certificate signed by the subdivider and the Engineer, indicating that particular items of work were completed in accordance with the approved definitive plan of these regulations, and the specifications of the Department of Public Works. Such requirements for notice and inspection shall be set forth, either directly or by reference, in the written statement of the Department of Public Works called for in sub-paragraph (b) above.

COST ESTIMATES FOR REQUIRED WORK

Where the applicant elects to file a performance bond rather than to request conditional approval as hereinafter provided, he shall prepare estimates of the cost of performing the various items of required work and submit same to the Engineering Division for approval. These estimates, as approved, will then be submitted to the Board by the City Engineer for use in determining the necessary penal sum of the performance bond.

THE DEFINITIVE PLAN

1. GENERAL

a. Application for the required approval of the definitive plan shall be made upon Form A in the appendix of this document and shall be signed by the owners of all the land within the proposed subdivision.

b. The applicant shall attach to his application form and incorporate therein by reference, the written statements from the Commissioner of the Department of Public Works described above, and shall agree to perform all work on the ground required by these rules and regulations, as modified and supplemented by provisions contained in said statements.

c. Before endorsement of its approval of a plan, the Planning Board
shall require that the construction of ways and the installation of municipal services be secured by one, or in part by one and in part by the other, of the methods described in the following clauses (1) and (2), which method may be selected and from time to time varied by the applicant.

(1) By a proper guarantee agreement or a deposit of money or negotiable securities, sufficient in the opinion of the Board to secure performance of the construction of ways and the installation of municipal services required for lots in the subdivision shown on the plan. In addition, the Board may require that the time be specified within which such construction and installation shall be completed.

(2) By a covenant, (See Form B in appendix) executed and duly recorded by the owner of record, running with the land, whereby such ways and services shall be provided to serve any lot before such lot may be built upon or conveyed other than by mortgage deed; provided, that a mortgagee who acquires title to the mortgaged premises by foreclosure or otherwise and any succeeding owner of such premises or part, thereof may sell any such lot, subject to that portion of the covenant which provided that no lot shall be built upon until such ways and services have been provided to serve such lot; and provided, further that nothing herein shall be deemed to prohibit a conveyance by a single deed, subject to such covenant, of either the entire parcel of land shown on the subdivision plan or all lots not previously released by the Planning Board. A deed of any part of the subdivision in violation hereof shall be voidable by the grantee prior to the release of the covenant but not later than three years from the date of such deed.

d. The applicant shall agree that all sanitary sewers, surface drains and water mains together with their appurtenances, installed in the subdivision and connected with the public sewer and/or water system shall, upon satisfactory completion (as evidenced by a certificate of performance) and final connection with the public system, be deemed to become a part of said system and the property of the City.

e. The application shall be accompanied by the following:

(1) A receipt shall be submitted prior to the public hearing verifying that advertising costs have been paid by the applicant.

(2) A petition to have all new streets within the subdivision accepted as public ways shall be submitted to the Planning Board, accompanied by a deed transferring title to the City of Lowell and a transparent linen plan of each street adequately fixing its location and area. This petition will be submitted to the City Council by the Planning Board after all work has been completed satisfactorily.
(3) A transparent master copy of all streets comprising the definitive plan, prepared as hereinafter prescribed, and five contact prints thereof, dark line on white background. The original drawing will be returned to the subdivider after action by the Board.

(4) The approval and verification of the size, location and other layout provisions of the facilities shown on the definitive plan, by signature on said plan, by the Commissioner of the Department of Public Works.

(5) Where a bond is to be filed, cost estimates of required work approved by the Commissioner of the Department of Public Works.

(6) A sketch plan showing a possible or prospective street layout for any adjacent unsubdivided land owned or controlled by the owner or subdivider of the subdivision, where such plan has not already been submitted with the preliminary plan.

f. The definitive plan shall not be deemed to have been submitted to the Board until the application and all required accompanying forms, statements and estimates, together with the plan, have been delivered to the Board at a regular or special meeting thereof, and all are fully completed in accordance with these regulations.

NOTICE TO CITY CLERK, CITY COUNCIL AND CITY MANAGER

The applicant shall give written notice to the City Clerk, City Council and City Manager, City Hall, Lowell, Massachusetts by delivery or by registered mail, postage prepaid, that he has submitted the definitive plan to the Board in accordance with all the requirements of these regulations, accompanied by a copy of the completed application form.

REQUIREMENTS AND FORM OF DEFINITIVE PLAN

a. The definitive plan shall bear the seal of a Registered Engineer or Registered Land Surveyor and be prepared on tracing cloth drawn in black waterproof ink. It shall be on sheets of the same size. The size of sheets shall be nine and one-half (9½) inches by fourteen (14) inches, or sixteen (16) inches by twenty-one (21) inches, the recording size of the Registry of Deeds. If necessary, the plan may be on several sheets. If several sheets are used, continuity and ease of reading shall be provided. Each sheet should be numbered consecutively and labelled in the lower right hand corner as follows:

(1) Name of owner or subdivider
(2) Name of Engineer or Land Surveyor
(3) Page _____ of _____ pages
b. The horizontal scale shall be fifty (50) feet to an inch. If the Board indicates, another scale may be used.

c. All surveying shall conform to the requirements of the Land Court, Class A, as set forth in the most recent manual of said Court.

d. In addition, the following information should be included:

(1.) Distance, and angles or bearings of all lot and right-of-way lines.

(2.) Length, radius, tangent length and "T" angle of all curves.

(3.) If a curve is not tangent, show the angle between a tangent, chord or radius and adjacent line or lines.

(4.) Proposed rights-of-way are to be shown with closures and all distances, and angles or bearings.

Traverse sheets for all lots and rights-of-way are to be submitted with a copy of the plan to the City Engineer’s office.

e. All elevations shall be referred to the City of Lowell base, and the plans shall show or describe the bench marks used.

f. A fee of $25 or $5 per lot, whichever is greater, to a maximum of $50, shall be paid into the general treasury of the City of Lowell at all times that a developer requests a Certificate of Performance (see Section III, 9-C) from the Planning Board, for all of the lots or any groups of lots in the subdivision.

4. CONTENT OF DEFINITIVE PLAN

The definitive plan shall show the following in addition to all items required under Section III A. The Preliminary Plan:

a. Subdivision name, magnetic north arrow, date and scale.

b. The name and address of the owner, the subdivider and the Registered Civil Engineer and Surveyor.

c. The zoning district or districts in which the subdivision lies.
d. Names of all abutting owners.

e. Location and names of existing and proposed streets, easements and proposed easements and ways. (The name of proposed streets shall be shown in pencil until approved by the Lowell City Council)

f. Sufficient data to determine readily upon the ground, the location, or angle of every street line, whether straight or curved.

g. Location of existing and proposed permanent monuments within the subdivision.

h. Boundary lines, areas and dimensions of all lots within the subdivision, designated numerically and in sequence.

i. Major site features such as existing stonewall fences, buildings, large trees or wooded areas, rock ridges and outcroppings, swamps, and water bodies.

j. Boundary lines, areas and dimensions of all lots or other divisions of land within the subdivision, with all lots designated numerically and in sequence.

k. Location and width of existing and proposed roadways including temporary turn-around and back around areas and sidewalks, within and adjacent to the subdivision.

l. Proposed layout of sewage disposal systems, water systems, storm or surface water systems.

m. Space to record the action of the Board and the signatures of the members, Attestment of the City Clerk, and approval of the Department of Public Works.

n. Existing and proposed topography at a suitable contour interval. (This requirement can be waived by the Board if deemed not necessary.)

o. Profiles of proposed streets, on a horizontal scale of fifty (50) feet to an inch and a vertical scale of five (5) feet to an inch.
The existing surface elevations and proposed finish grade on the center line and on each side line of each proposed street, and the sill elevation of all existing structures within the area to be subdivided. Existing center line grades in fine solid lines, side lines in fine dash lines and proposed finished center line grades in heavy solid line. Proposed grade elevations at fifty (50) foot stations and proposed rates of gradient shall be shown by figures. (Note: The Lowell Engineering Department requires that all existing accepted grades be met).

p. Items (e) through (p) may be shown on one or more separate construction and/or profile plans, which shall be referred to by title on the plan which contains the signatures of the members of the Board. All such plans taken together shall be deemed to constitute the definitive plan of the subdivision.

5. REVIEW BY BOARD OF HEALTH

At the time of filing of the definitive plan, the subdivider shall also file with the Board of Health, one (1) contact print of the definitive plan, dark line on white background. The Board of Health shall, within thirty (30) days after filing of the plan report to the Planning Board in writing their approval or disapproval of said plan. If the Board of Health disapproves said plan, it shall make specific findings as to which, if any, of the lots shown on such plan cannot be used for building sites without injury to the public health, and include such specific findings and the reasons therefor in such report, and, where possible, shall make recommendations for the adjustment thereof. Every lot (so located that it cannot be served by a connection to the City of Lowell sewer system) shall be provided with a cesspool or septic tank and drainfield satisfactory to the Board of Health.

6. PUBLIC HEARING

a. Before approval of the definitive plan is endorsed, a public hearing shall be held by the Planning Board. Notice of such hearing shall be given by the Planning Board at the expense of the applicant at least fourteen (14) days prior thereto by advertisement in a newspaper of general circulation in the City of Lowell. A copy of said notice shall be mailed to the applicant, the City Council and to all owners of land abutting upon the subdivision as appearing in the records of the Lowell Board of Assessors.

b. The Board shall arrange for the publication and transmission of the notices of the hearing shall be kept in the official records of the Planning Board.
LOT SIZE AND FRONTAGE

All lots shall be of such size and dimensions and have frontage to meet or exceed the minimum requirements of the Zoning Ordinance of Lowell. Only one residential building may occupy each lot, unless approval is given by the Board.

PERFORMANCE GUARANTEE

Before approval of the definitive plan on a subdivision the applicant shall, except as hereinafter provided, file with the Board a Guarantee Agreement satisfactory to the Board and conditioned on the completion of all required work on the ground in the time and manner prescribed and further conditioned that the applicant (or any of his grantees) not be released from the agreement until the work required by these rules and regulations is complete to the satisfaction of the Planning Board and the City of Lowell Engineering Division. Said Guarantee Agreement shall be sufficient in penal sum in the opinion of the Board to cover the cost of such work and so drawn as to insure its satisfactory completion. It shall be executed by the subdivider as principal, and by a Surety Company authorized to do business in the Commonwealth and satisfactory to the Board as surety, or secured by the deposit with the City Treasurer of cash or negotiable securities in an amount equal to the penal sum of the bond.

CONDITIONAL APPROVAL OF DEFINITIVE PLAN

a. Instead of requiring a Guarantee Agreement, the Board may, at the election of the applicant, approve the definitive plan on condition that no lot in the subdivision shall be sold until the work on the ground necessary to adequately serve such lot, in accordance with these regulations, has been satisfactorily completed.

b. If conditional approval is requested by the applicant, he shall execute and deliver to the Board, before final approval, a conditional approval contract. (Form B in the appendix), to perform the required work. Such contract shall be recorded at the Middlesex North Registry of Deeds, and shall be binding upon the land within the subdivision. The document recording will be noted on the plan for reference.

c. Upon the completion, to the satisfaction of the Board, of the work on the ground necessary to adequately serve all lots within the subdivision, or, if so requested by the subdivider, any particular lot or groups of lots, the Board will issue and deliver to the subdivider a Certificate of Performance, (Form D), and thereafter the conditions applicable to the lots described herein shall terminate. The Board will file a duplicate copy of the certificate with the Engineering Division.
d. Work on the ground to a particular lot will normally be considered by the Board as work necessary to adequately serve such lot, regardless of the degree to which the lot is dependent on said work for its access or utility service. In any case, the Board will not issue a certificate of performance for the entire subdivision, or for the final lot or groups of lots therein where progressive improvements are made, until all items of required work on the ground are completed, regardless of location.

e. Where the applicant requests conditional approval, but wishes to postpone the completion of specified items of work on the ground until after lots have been sold, the Board may, in its discretion, exempt from the conditional approval contract the items of work to be so deferred, provided a Guarantee Agreement is filed in accordance with the procedure set forth in Section III, paragraph B-8, sufficient in penal sum, in the opinion of the Board, to cover the cost of the deferred improvements.

10. FINAL APPROVAL OF DEFINITIVE PLAN

a. After the public hearing, the definitive plan will be submitted by the Board to determine its conformity with the approved preliminary plan, if any, and its compliance with the design standards and other requirements of these rules and regulations. Within forty-five (45) days after the submission of such plan, the Board will take final action by approving, modifying, and approving, or disapproving such plan. Approval, if granted, shall be subject to the performance of the work on the ground required by these regulations, and unless a Guarantee Agreement has been filed, shall be further subject to a conditional approval contract, as herein provided. Approval of the plan shall not be deemed to be the layout or acceptance by the city of any street or way shown thereon.

b. Where the Board of Health has notified the Planning Board that it is in doubt whether any of the land in the subdivision can be used as building sites without injury to the public health, the Planning Board shall approve the definitive plan only on condition that the lots or land as to which such doubt exists shall not be built upon without prior consent of such Board of Health. Such conditions shall be endorsed on the plan by the Planning Board, specifying the lots or land, to which it applies.

c. After the public hearing, the Board will file a certificate of its action with the City Clerk and send notice of its action by registered mail, postage prepaid, to the owner who submitted the plan for approval at the address stated on his application.
d. Approval of the plan, if granted, shall, unless appeal has been taken to superior court, be attested on the original tracing of the definitive plan by the signatures of the majority of the members of the Board, but not until the statutory twenty-day appeal period has elapsed, following the filing of the certificate of action of the Board with the City Clerk and said Clerk has notified the Board that no appeal has been filed. In the event of disapproval of a definitive plan, the Planning Board will state in detail wherein the plan does not conform to regulations or recommendations, and the Board will revoke its disapproval and approve the plan as amended so as to thus conform.

e. Within fifteen (15) days after the final approval of the definitive plan, the applicant shall cause to be recorded at the Middlesex North Registry of Deeds, and in case of registered land, with the recorder of the Land Court, the definitive plan and the conditional approval contract, if any, and shall send proof to the Planning Board of such recording. Within seven (7) days after notification of recording, the Planning Board shall file three (3) copies of the definitive plan with the Commissioner of Public Works and one each to the Division of Lands and Buildings, the Engineering Division and Water Division.

11. EVIDENCE OF SATISFACTORY PERFORMANCE

a. Before the Board shall release a Guarantee Agreement or Deposit, or, in the case of conditional approval, issue a Certificate of Performance, the applicant shall apply for approval showing the work has been completed satisfactorily for the facilities shown on the Definitive Plan, as indicated by the City Engineer's inspection report.

b. In no event shall the City of Lowell Building Inspector issue an occupancy permit for any structures built in the approved subdivision until all the requirements of these regulations have been met.

SECTION IV. DESIGN STANDARDS

STREETS

1. LOCATION AND ALIGNMENT

a. All streets in a subdivision shall be designed to conform to the appropriate design standard illustrated below.

b. The proposed streets shall conform to the use categories outlined in the Major Street Plan as adopted in whole or in part by the Board.
c. Provision satisfactory to the Board shall be made for the proper extension of streets or for access to adjoining property which is not yet subdivided.

d. Street jogs at intersections with centerline offsets of less than one hundred and twenty-five (125) feet shall be avoided.

e. The minimum centerline radius of curved streets shall be one hundred and twenty-five (125) feet. Greater radii may be required for principal streets.

f. Streets shall be laid out to intersect as nearly as possible at right angles. No two streets shall intersect at an angle less than sixty (60) degrees.

g. Property lines at street intersections shall be rounded or cut back to provide for a property line radius of not less than thirty (30) feet. Greater radii shall be required by the Board where deemed necessary for present and future vehicular travel.

2. GRADES

a. The center line grade of streets shall not be less than one percent (1%). Grades shall not be more than six percent (6%) except where, in the opinion of the Board, a greater grade is required due to unusual topographic conditions in which case grades up to twelve percent (12%) may be permitted.

b. All summits of vertical curves shall be so graded as to provide five hundred (500) feet of clear sight distances to drivers.

c. Where the grade of any street at the approach to an intersection exceeds six percent (6%), a levelling area shall be provided having not greater than three percent grades for a distance of twenty-five (25) feet measured from the nearest right-of-way line of the intersecting street.

3. CUL-DE-SACS

a. Cul-de-sacs, permanently designed as such, shall not exceed six hundred (600) feet in length unless, in the opinion of the Board, a greater length is necessitated due to topography.

b. Cul-de-sacs shall be provided at the closed end of the street with a turn-around having outside street line diameters as shown on the accompanying illustration.
c. The subdivider shall provide "Dead End" signs suitable to the Traffic Division of the Police Department.

d. Guard rails shall be provided where the Board deems them necessary.

B. EASEMENTS

1. Easements for utilities across lots or centered on rear or side lot lines shall be provided where necessary and at least ten (10) feet wide.

2. Where a subdivision is traversed by a water course, drainage way, channel or stream, the Board may require that there be provided a storm water easement or drainage right-of-way of adequate width to conform substantially to the lines of such water course, drainage way, channel or stream, and to provide for construction or other necessary purposes.

3. Flood plains and other wetlands are subject to regulations of the State Department of Public Health and the State Department of Public Works.

C. OPEN SPACES

Before approval of a plan, the Board may also in appropriate cases require the plan to show suitably located parks, playground or recreation areas. These areas shall not be of unreasonable size in relation to the land being subdivided and to the prospective uses of such land. The Board may by appropriate endorsement on the plan require that no building be erected upon such recreational areas for a period of not more than three years without its approval. This land shall be made available for purchase by the City of Lowell. Failure by the City to purchase within three years shall free the owners from restrictions.

D. PROTECTION OF NATURAL FEATURES

Due regard shall be shown for all natural features, such as large trees, water courses, scenic points, historic spots and similar community assets, which, if preserved, will add attractiveness and value to the subdivision and to the surrounding neighborhood.

SECTION V. SPECIFICATIONS FOR REQUIRED IMPROVEMENTS FOR AN APPROVED SUBDIVISION

A. STREETS, ROADWAYS AND SIDEWALKS

1. CLEARING AND GRUBBING

   a. The entire area of each right-of-way shall be cleared of all stumps, brush, roots, boulders, like material and all trees not intended for preservation.
b. All top soil shall be removed for the full length and width of the paved roadway, regardless of whether or not finished grade is above existing grade.

c. All other material shall be removed for the full length and width of the roadway, to a depth of at least fifteen (15) inches below the finished grade as shown on the profile plan; provided, however, that if the soil is soft and spongy or contains undesirable material, such as clay, sand pockets, tree stumps or any other material detrimental to the subgrade, a deeper excavation below the subgrade shall be made as required by the Planning Board. (This determination will be made by test pits or borings at the expense of the developer.)

2. CONSTRUCTION

   a. All roadways shall be brought to a finished grade as shown on the profiles of the definitive plan, and to the appropriate width as specified by the "Street Cross Sections" diagram. Crown shall be a minimum of \( \frac{3}{4} \)" per foot.

   b. Street construction specifications shall be as follows:

   1. After the road has been carefully graded to an elevation 15 inches below the finished grade, eight inches of base gravel shall be spread and rolled with a roller of sufficient weight to achieve 95 percent compaction of gravel. Gravels shall consist of hard, durable stone and coarse sand practically free from loam and clay, uniformly graded, and containing no stone having a dimension greater than four inches.

   2. A top course four inches thick shall be applied and rolled as specified above. Gravel shall be as described above except that the maximum size of any stone shall be 2-2\( \frac{1}{2} \) inches.

   3. The twelve inch processed gravel base shall be brought to true grade and compressed to fine grade with roller of size specified below. The above specified thicknesses of gravel refers to thickness after thorough compaction.

   4. The wearing surface, (after compaction) shall consist of a 2\( \frac{1}{2} \) inch layer of Class I, Type I-1 plant mixed bituminous concrete, composed of materials, and prepared in conformity with the most recent "Standard Specifications for Highway and Bridges" of the Massachusetts Department of Public Works.
It shall be applied in two courses, 1 1/2 in. bottom course and 1 inch thickness top with detailed specifications aforesaid. Rolling shall be in accordance with the

3. DRAINAGE

a. The plan shall include a detailed design to accommodate surface water. Such design, in every detail, shall conform to the specifications and requirements of the Standard Catch Basins. Catch basins shall be installed on the roadway at intervals of not more than continuous grades at intervals of not more than 350 feet, at low points and sags in the roadway at street intersections. Minimum pipe sizes shall be 0.5 per cent and the minimum size in diameter.

b. Storm drains shall be of the type approved by the Public Works. Pipe joints shall be carefully made, tightly butted to the seat of bell and the space uniformly proportioned and caulked with loan. Joints shall be filled with concrete in all cases. All utility trenches shall be filled with bank. All drains shall be laid to uniform grade and slope that all pipe is supported with compacted earth and fill. Catch basins shall be constructed with a sump, and contain a manhole where the storm basin as a part of the storm drain. Concrete bottom shall be provided allowing the basin with sufficient pitch for self-cleaning. The slab shall have an eight inch thickness of construction of catch basins shall conform to the Engineering Division, using heavy duty city specifications. Non-normative shall be made by using a standard manhole specifications.

c. Under curb drainage may be required by the Public Works when ground water conditions necessitate the road. Where natural drainage courses and other structures, approved by the Public Works be installed to restore natural drainage.
Capacity of such structures shall be determined on the basis of 15 year storm intensity. Where cross drains carry the flow of natural water courses, masonry headwalls or rip rap shall be installed, as approved by the Public Works Commissioner, to prevent erosion.

d. In cases where underground drainage is required in connection with the erection of buildings or the use of any lot, such underground lines may be connected to the storm drains in the proposed streets under the following conditions:

(1) In cases where residences are constructed with no clean out, floor drain or other opening accessible from the house into the subsurface drainage line which connects to the storm drainage line in the new way, the drain from the house may be tied into the street drain at a "Y" connection or other type of connection. This should be in accordance with the requirements of the Public Works Commissioner.

(2) In cases where residences are constructed or planned with a clean out, floor drain or other opening into the subsurface drainage line which connects to the storm drainage line on the new way, the drain from each house must pass through a clean-out box, constructed to conform to the standard for manhole construction of the Public Works Commissioner. The drain from the clean-out box shall be at least four inches in diameter and may be tied into the street drain at a "Y" connection or other type of connection in accordance with the requirements of the Public Works Commissioner. More than one house may be served by one clean-out box. Such clean-out boxes shall be placed immediately outside the exterior lines of the new way.

(3) In both cases "1" and "2" above, all drainage lines from residences shall be constructed of vitreous clay pipe, laid with closed water tight joints and carefully installed on compacted bed. Minimum size for such drains shall be four inches in diameter and 6 inches in diameter if Y's are installed. The subdivider shall be required to submit to the Board, a final plan showing drainage lines and structures as actually constructed.

4. SIDEWALKS (SUBJECT TO MASS. ARCHITECTURAL BARRIERS BOARD REGULATIONS FOR WHEELCHAIR RAMPs AND CURB CUTS)

Sidewalks shall be constructed on at least one side of all streets and on both sides when, in the opinion of the Planning Board, such is necessary.
The profile, dimensions and location shall be shown by the subdivider. The grade shall be at least six inches above the adjacent roadway. Sidewalks shall meet either of the following requirements:

a. If cement concrete is used, it shall be four inches thick of 2,500 pound per square inch strength reinforced with a No. 4-four by six inch wire mesh float finished, and laid on a base of at least six inches of well compacted bank gravel. An expansion joint (3/4 inch open) shall be provided at least every 20 feet; dividing joints shall be scored in the walk every four feet. Base gravel material shall be in accordance with the specifications of the Lowell Department of Public Works (copies available) with no stone having a dimension in excess of 2-1/2 inches. The base shall be compacted to 95 percent of its original volume. Pitch shall be 1/8" per foot.

b. If bituminous concrete is used, the foundation shall be six inches of bank gravel as specified in "a" above (material and compaction). The wearing surface shall be laid in two courses: one inch bottom course and a one inch top course, thickness measured after compaction. The material and application shall conform to the specifications outlined in Section V, paragraph A, 2-b for roadway surfacing. All edges of walks shall be formed with woods screeds which are securely anchored and left in place. Pitch shall be 1/8" per foot.

5. CURBING

Curbing is required on both sides of all streets. Granite curbs shall be required where, in the opinion of the Planning Board, such granite curbs are necessary to prevent erosion and to control water run off. In other instances, bituminous concrete lip curbing may be provided instead of granite. Paving and base construction shall be extended the full 12 inches under bituminous concrete curbing. Straight ended granite curb inlet stones shall be used in all instances at catch basins. Granite curbing shall have cross sections approximately as described below:

- 6 inches minimum width at top
- 7 inches minimum at bottom
- 18 inches minimum depth

Curbing shall be set on at least six inches of compacted bank gravel and in accordance with the cross section shown on the accompanying illustration.

6. TOPSOIL AND ITS REMOVAL

a. On grass strip areas at least six inches of topsoil (depth after compaction) shall be applied. Seeding of lawn grass shall be done after adjacent building construction has been completed.
b. No loam shall be removed from the development until an eight inch thickness of compacted loam shall be provided throughout the entire area of all lots and on the planting strips along the roadway. Only such areas as roadways, driveways, and building sites and areas requiring filling may be stripped of topsoil. Only surplus loam after the above requirements have been met may be disposed of elsewhere.

B. UTILITIES

1. Water pipes and related equipment, such as hydrants and main shut-off valves, shall be sized and constructed to serve all lots on each street in the subdivision in conformity with specifications of the Public Works Commissioner; joints shall be left uncovered until inspected. Water service lines shall be extended from the main to each property line before the street is surfaced. Shut off valves to each lot shall be located in the grass area within the right-of-way. All utility trenches shall be filled with bank gravel, carefully compacted. The subdividers will be required to submit to the Board a final plan showing utilities as constructed.

2. The owner shall install (a) sewer line(s) as approved by and under the supervision of the Commissioner of the Department of Public Works and the City Engineer, in the subdivision to connect with an existing public sewer.

3. All utilities including electrical, telephone, Cable TV, etc shall be placed underground before the street is surfaced.

C. MONUMENTS

Granite monuments, a minimum of 48 inches in height shall be installed at lease on one side of the right-of-way, at all street intersections, at all points of change in direction or curvature of streets or at other points where in the opinion of the Board, permanent monuments are necessary. Such installations shall conform to the standard specifications of the Massachusetts Land Court and shall be set according to such specifications. No permanent monuments shall be installed until all construction which might destroy or disturb the monument is completed. Bounds shall be set flush with the surrounding grade. After installation a statement signed by a registered land surveyor shall be sent to the Planning Board saying said specifications have been met.
I. STREET SIGNS

The developer shall furnish and erect street signs to designate the name of each street in his development and said signs shall conform to the specifications of those used by the City of Lowell and shall be located as directed by the Commissioner of Public Works.

II. STREET TREES

Street trees, of a size and species approved by the Planning Board, and having a minimum height of eight feet, shall be planted on each side of every street in a subdivision wherever, in the opinion of the Planning Board, existing woodlands or suitable individual trees are not retained. Trees shall be located outside the exterior street lines and at such distance therefrom and at such spacing as the Board shall specify in accordance with the most recent general practice of the city in planting trees along public ways. (See appendix).

III. CONSTRUCTION STANDARDS

The construction of these facilities shall be made only during suitable weather and under conditions allowing for the fulfillment of good construction standards.

IV. CLEAN UP

Upon completion of all work on the ground, the subdivider shall remove from the streets and adjoining property, all temporary structures and all surplus material and rubbish which may have accumulated during construction, and shall leave the work in a neat and orderly condition.

V. MAINTENANCE

If released from restrictions with regard to sale of lots, or building on lots by the posting of a Guarantee Agreement, the subdivider shall maintain the roads for vehicular travel in a manner satisfactory to the Board. Further, the subdivider shall maintain the roads in a subdivision in a condition which meets all the above requirements to the satisfaction of the Board either until acceptance of such roads by vote of the City of Lowell or for a period of one year from the release of check, guarantee agreement, or all restrictions pertaining to the subdivision.

VI. NUMBER OF STRUCTURES

Not more than one building for dwelling purposes may be erected or placed or converted to use as such on any lot in the City of Lowell without first obtaining the consent of the Lowell Planning Board, and such consent may be conditioned upon the providing of adequate ways of furnishing access to each site for such building; in the same manner as otherwise required for lots within a subdivision. (Revised December 14, 1983).
SECTION VI. ADMINISTRATION

A. CHANGES AND ALTERATIONS

No changes or alterations shall be made in an approved Definitive Plan without resubmitting the changes for approval of the Planning Board (see sections 81-O and 81-W of the General Laws of Massachusetts). For the purposes of this paragraph, the Definitive Plan shall be defined to include all elements listed under Section III, Paragraph B-4, CONTENT OF THE DEFINITIVE PLAN of these regulations. Any alterations in grades, drainage plans or other utilities shall be deemed to constitute a change in the Definitive Plan.

B. VARIATION

Strict compliance with the requirements of these regulations may be waived when, in the judgement of the Board, such action is in the public interest and not inconsistent with the Massachusetts Subdivision Control Law.

C. REFERENCE

For matters not covered by these regulations, reference is made to Sections 81-K to 81-GG, inclusive, of Chapter 41 of the General Laws of the Commonwealth of Massachusetts.

SECTION VII. PLANS NOT REQUIRING APPROVAL

A. Any person who wishes a plan of land situated in Lowell to be recorded in the Registry of Deeds or to be filed with the Land Court, and who believes that his plan does not require approval under the Subdivision Control Law, may submit his plan to the Board for a determination.

B. Application shall be made through the Planning Director. The Planning Board shall designate persons who shall be authorized by vote of the Board to act for the Board and to approve such application if, in their opinion, the Plan submitted does not constitute a subdivision as herein stated. Application shall be made in a form approved by the Board (Form C), accompanied by three copies of the plan signed by a registered engineer or registered land surveyor. The applicant shall state in his application, the particular provisions of law under which he believes that his plan does not require approval, and shall submit evidence of such immunity satisfactory to the Board.

C. A plan shall not be deemed to have been submitted for approval until said plan, signed by a registered engineer or registered land surveyor, and Form C, together with all necessary evidence of immunity, have been delivered to the office of the Planning Division, and all are full completed in accordance with these regulations.
B. STREET AND LOT LAYOUT

The prime function of residential streets is to provide access to individual properties, to accommodate their prospective traffic and to allow the convenient entry of fire fighting, snow removal and other road maintenance equipment and emergency vehicles. Streets should also be logically related to the topography and be coordinated into a system whereby each street performs the function for which it is intended.

The function that a street is intended to serve will determine both its right-of-way width and its pavement width. A minor residential street that serves a relatively low density residential area may need less pavement width than if the same street served higher concentrations of residential development. This results from both the higher volumes of traffic on the street and from the resultant higher incidence of on street parking. Collector streets and major streets carry progressively higher amounts of traffic than minor residential streets. This fact must be reflected in the criteria used for determining the street cross-section. Other considerations affecting street right-of-way width are sidewalks, planting strips and utilities including street lights and fire hydrants.

The volume and speed of vehicular traffic on a street can be influenced by its particular design. An undifferentiated rectangular or grid street pattern usually does not include a collector or secondary street system and tends to make each local street as important as the next (See Figure 3). This encourages through traffic at higher speeds on each street and also creates many potential traffic conflict points at the four-way intersections. One of the most trouble-free designs for a residential street is that of a “loop” which provides convenient access to each lot without encouraging through traffic (See Figure 4).

The dead-end or cul-de-sac street can also be used to advantage in residential subdivisions. (See Figure 5). Through traffic is completely eliminated because there is only one entrance into the street. This creates an added sense of privacy, safety and value to the lots fronting on this street. Two major drawbacks of cul-de-sac streets are that access to the interior lots can be impeded by a blockage at the open end and that traffic at the open end can become undesirably high if the street is too long and access to a large number of homes is provided. These streets should have paved turn-arounds at their closed ends that are wide enough to permit vehicles to negotiate the turn without the need for backing.

When residential development occurs along major streets and other highly travelled traffic arteries, special consideration must be given to its design. Lots should not front directly on or have direct access to such streets (See Figure 6). When this occurs, the efficiency of these streets is reduced and they are no longer able to adequately perform the function for which they were designed. This problem can usually be solved by either building a marginal access street (See Figure 7) or backing the lots up to the major street (See Figure 8). The marginal access street provides frontage for the individual lots and greatly reduces the number of points of access to the major street. When a landscaped buffer strip is provided between the marginal access street and the major street, the traffic noise will be reduced and a more private environment created. Unless care is taken in designing the marginal access street, it may cause more traffic conflict at its entrances and exits than it is intended to solve. By maintaining a minimum safe distance between these entrances and exits and other intersections most of this traffic conflict can be avoided.

In cases where lots can be backed onto a major street, the land use conflict can be reduced by requiring a landscaped buffer zone between the major street and the rear property line. In addition, a fence along the rear property line can provide for more privacy and a safer back yard.

Intersections are another important element of street design. When improperly designed, street intersections become potential traffic hazards. Streets should intersect at right angles (See Figure 10) and not at acute angles (See Figure 9). The centerlines of offset street intersections should be far enough apart so that traffic is deterred from cutting diagonally across them. Intersections should occur on straight sections of street instead of on curves, and should have gentle grades rather than steep slopes. Four-way intersections should be avoided except at the crossing of collector or major streets where traffic control devices are utilized.
The blocks which make up a subdivision are inherently related to the street patterns. Although the number of intersections should be kept to a minimum, it is necessary to limit block length in order to permit adequate vehicular and pedestrian circulation within the subdivision. In situations where excessive block lengths are unavoidable, such as under unusual topographic or drainage conditions, a right-of-way or easement for pedestrians should be provided across the block to break up its excessive length.

The lot layout and street arrangement in a subdivision are so closely interrelated that one cannot be planned without considering its effect on the other. Once the general lot size and dimension requirements have been determined, a street system can then be designed to allow for the development of a desirable lot layout. In order to create a desirable home site which can be developed economically, several factors must be considered and certain general principles adhered to when lots are being laid out.

Good trees and other desirable natural growth should be preserved and the amount of grading kept to a minimum. Generally, it is preferable for the lot elevation to be somewhat higher than that of the abutting street. The grade between the street and the house location on the lot should not be excessive but should be enough to provide good surface drainage to the street and subsequently to a storm drainage system. Each lot should provide a desirable building site which allows adequate space for side yards and a driveway. It should be deep enough to allow for proper building setback and provide some space for outdoor activities.

The size and shape of the individual lot is often influenced by the type and size of dwelling contemplated for the development. This is especially true when the subdivider is also the home builder. Rectangular lots are generally the most usable. However, topography, street layout and the shape of the original parcel often necessitate creation of lots which are not rectangular. When this occurs, odd shaped lots with excessive jogs and corners should be avoided (See Figure 11). Whenever possible, side lot lines should be perpendicular to straight streets or radial to curved streets (See Figure 12). Corner lots that are too small do not provide an adequate building site (See Figure 13). Generally, corner lots should be larger than interior lots to allow for required setback from each street and provide a more usable back yard (See Figure 14).

When developing an odd shaped parcel of land fronting on an existing road, creation of excessively deep lots should be avoided (See Figure 15). Use of a short cul-de-sac street can often facilitate development of the parcel into more desirable lots (See Figure 16).

A subdivision site which is traversed by a small drainage way or a small stream often requires special consideration. A small stream may necessitate a different treatment from that used for a small drainage way. The lots should be laid out so that the drainage way will not be near the center of a lot (See Figure 17). More desirable and usable lots (See Figure 18) can be created by letting the side lot line follow the center of the drainage way and by providing an adequate easement on each side of this line for drainage purposes. The lot width should be increased to allow for the easement and still provide a suitable building site. When a small stream traverses a subdivision site, desirable lots can be created by providing a drainage right-of-way or easement on each side of the stream and backing the lots up to it (See Figure 19). This treatment tends to preserve the stream bed in its natural state, provide continuous public or private open space and eliminate the need for costly and un desirable driveway culverts which would be required if lots were fronted on the stream (See Figure 19).

The development of a desirable street arrangement and lot layout is essential if the subdivision is to become an asset to the community. However, this alone is not enough. Adequate street improvements, utilities and drainage facilities must be installed and certain community facilities provided.
Thereinafter, the person submitting the plan shall file, by delivery or by registered mail, a notice with the City Clerk stating the date of submission for each determination and accompanied by a copy of said application.

D. If it is determined that the plan does not require approval as a subdivision, no public hearing will be required and within fourteen (14) days of submission, the plan shall be endorsed with the words: "Lowell Planning Board Approval under the Subdivision Control Law Not Required", and signed jointly by the City Engineer and the City Planning Director or his designated representative(s). In the case of a plan not requiring approval because certain parcels shown thereon are not to be used as the site of any principal building, the endorsement shall further state "provided that the parcel(s) or land designated as lot(s) are not to be used as the site of any principal building as defined in the Subdivision Control Law," or words of similar import. The plan will then be delivered to the applicant.

E. If it is determined that the plan does require Planning Board approval, the Planning Board shall within fourteen (14) days of submission, so notify the City Clerk and the applicant, and said applicant may then submit his plan for approval as provided herein by the Regulations.

SECTION VIII. VALIDITY

If for any reason any section, paragraph, clause or provision of these regulations shall be held invalid, it shall not affect the remaining provisions of this or any other Ordinance of the City of Lowell.
A. LOTTING PRACTICES

EFFECT OF NEARBY DEVELOPMENT ON THE SITE

One obvious effect of existing development that may adjoin the site of a proposed subdivision comes from the need to provide for the extension of roads from the adjoining area into the new one. In some cases, the new development will need to employ the streets in the older one as the means of access to it, and in others the older subdivision streets will provide a second means of access to the new subdivision.

Experience throughout the State has shown that there are some basic principles that should not be violated when new streets are laid out adjacent to existing ones. One of these principles is that no "reserve strips" be permitted at the end of a street so as to prohibit future access into land beyond it. The need for convenient traffic circulation throughout a community makes this protective device an obsolete method of providing "privacy" for a particular subdivision.

Another principle is that the main means of access to a large new subdivision (say more than ten lots) should be provided from a street designed to carry a fairly high traffic load and should not be provided through a local street designed only for light traffic.

If the community does not have a master plan that shows how these traffic routes are to be laid out and coordinated as the area is developed, common sense will often indicate where through traffic or collector-street traffic is best routed. The planning board which has a master plan for traffic circulation will be in a better position to make sure that both new and existing development is not devalued by heavy or high-speed traffic.

When the subdivision design requires that a proposed street be continued to the edge of a presently undeveloped area to make provision for its future extension, it is desirable to require a temporary turn-around at the end of the street to allow for convenient vehicular movement. Such excess right-of-way that may be required for the temporary turn-around can revert to the abutting lots when the street is extended.

Unless there is an existing or proposed street to be extended, it is generally undesirable to terminate a street at a property line (See Figure 1). The problem of providing street access to the corner of a property can be solved by the provision of a short stub or "eyebrow" around which usable lots can be created (See Figure 2).

When the new subdivision lies next to an area already provided with public services and utilities, the extension of these becomes an important factor in the layout. Water mains and hydrants can usually follow streets without serious problems, unless a significantly higher elevation is involved, which may call for some adjustment in water pressure. Gas mains are a similar utility, with pressure rarely a problem. Sanitary sewers, however, normally rely on gravity flow, and the grades of streets will very definitely affect the adequacy and cost of this service. In many cases, it is necessary to provide a sanitary sewer easement across lots to make the system workable. (It is good practice to have such easements follow lot lines where possible.) Pumping sewage should be avoided and in some areas will not be approved by health authorities. Storm water drainage is a comparable service; it requires careful analysis to relate its requirements to the street system, the slope of the individual lot, and the location of buildings.

![Figure 1 - Provision for future street extension](image1)

![Figure 2 - Use of stub street or "eyebrow." ](image2)
FIGURE 3 - A rectangular or grid street pattern.

FIGURE 4 - A loop street.

FIGURE 5 - A cul-de-sac street.

FIGURE 6 - The practice of fronting lots directly on a major street is undesirable.

FIGURE 7 - Use of a buffer strip and marginal access street is more desirable.

FIGURE 8 - Use of a buffer strip when backing lots on a major street is desirable.
FIGURE 9 - Undesirable off-set street intersection.

FIGURE 10 - More desirable street intersection.

FIGURE 11 - Undesirable lot layout.

FIGURE 12 - More desirable lot layout.

FIGURE 13 - Undesirable corner lot arrangement.

FIGURE 14 - More desirable corner lot arrangement.
C. CLUSTER DEVELOPMENT AND COMPARISON

Several practical advantages of a cluster design are listed as follows and several are illustrated by the accompanying diagrams:

- Fewer linear feet of street and utilities, thus lower initial cost, reduced maintenance cost
- Less costly burial of normal overhead utilities
- Fewer intersections for potential accident occurrence
- Best soils for development are more fully utilized
- Less storm runoff
- Less disturbance to natural features
- More usable open space, promotes walking, bicycling, outdoor activities
- Yard maintenance reduced
- Sense of neighborhood enhanced

Lot size in the first two cases is 50,000 square feet; in the third case, lot size is reduced to 30,000 square feet, with some 44 acres left open. Design by Myron X. Feld, planning engineer, from The American City.
EXPLANATION

1. Excess underground utilities at end of block required.
2. No underground utilities at end of block.
3. Rear overhead utility easement.
4. Street overhead utilities.
5. Increased corner lot width.
6. Corner lots too narrow.
7. Good use of butt lot.
8. Butt lots require extra utilities with bad view down rear lot line.
9. Good lotting at street intersection.
10. Required underground utilities.

GOOD AND POOR LOTTING PRACTICES

Closed bay on traffic street

Parking court used to preserve street trees and bring parking closer to buildings

PARKING AREAS FOR RENTAL HOUSING

 Courtesy National Association of Home Builders
Existing street patterns

When diagonal streets cannot be avoided

When existing streets form acute-angled intersections

When future street extensions are not required in corners of the property

GOOD AND POOR LOTTING PRACTICES
94 lots, 6,000 feet of streets and utilities. Lot size 30,000 square feet with approximately 44 acres of open space.

94 lots, 11,600 feet of streets and utilities. Lot size 50,000 square feet.

94 lots, 12,000 feet of streets and utilities. Lot size 50,000 square feet.

(Source: Christopher Tunnard and Boris Pushkarev, Man-Made America. Yale University Press, New Haven, 1963.)
METHODS OF SUBDIVIDING ALONG HEAVY TRAFFIC WAYS
Downhill conditions

Uphill conditions

Proper lotting

Poor lotting

"Y" terminal for a short cul-de-sac

Proper lotting for single family houses

LOTTING AROUND CUL-DE-SAC
SUGGESTED STREET TREES

ACER CAMPESTRE - Field Maple

ACER PLATANOIDES SUMMERSHADE - Summershae Maple

ACER PLATANOIDES COLUMNARE - Norway Maple

ACER RUBRUM - Red Maple

ACER SACCHARUM - Sugar Maple

CELTIS OCCIDENTALIS - Hackberry

GINKGO BILOBA - Ginkgo Maidenhair Tree

GLEDITSIA TRIACANTHUS INERMIS - Shademaster Honeylocust

PHELLODENDRON AMURENSE - Amur Corktree

PLATANUS ACERIFOLIA - London Planetree

SOPHORA JAPINOCA - Japanese Scholartree

QUERCUS RUBRA - No. Red Oak

QUERCUS COCCINEA - Scarlet Oak

QUERCUS PALUSTRIS - Pin Oak

TILIA AMERICANA - American Linden

TILIA CORDATA - Littleleaf Linden

TILIA TOMENTOSA - Silver Linden

ULMUS AMERICANA - American Elm

ZELKOVA SERRATA - Japanese Zelkova

CERCIDIPHLLUM JAPONICUM - Katsura Tree

MALUS BACCATA - Siberian Crab

SORBUS ALNIFOLIA - Korean Mountain Ash

FRAXINUS AMERICANA - American Ash

KOELREUTERIA PANICULATA - Goldenrain Tree
TRUNK WRAPPING
BURLAP, 6'' OC, 6'' WIDE

DOUBLE STRAND NO 12 GAUGE
TWISTED GALVANIZED
ANNHELD STEEL WIRE.
USE SUPPORTS AT 120° FROM
EACH OTHER.

5 - 6'' HT. WATER SPRINKLER

5'' MULCH

5 PIECES REINFORCED
RUBBER HOSE

SECTIOIN

CENGTC TRUNK W/ RUBBER HOSE

CENTE TRUNK W/ RUBBER HOSE

CROWN OF TREE

GUY WIRE

PLAN

scale 1/4" = 1'-0"

TREE PLANTING DETAIL
City of Lowell Planning Board Filing Fees
Effective January 1, 2003

**Subdivisions:**

<table>
<thead>
<tr>
<th>Service Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Hearing Advertising</td>
<td>All advertising costs paid by applicant.</td>
</tr>
<tr>
<td>Preliminary Subdivision Application</td>
<td>$500.00</td>
</tr>
<tr>
<td>Definitive Subdivision Application after preliminary</td>
<td>$500.00 plus $100.00 per lot</td>
</tr>
<tr>
<td>Definitive Subdivision Plan if no preliminary</td>
<td>$1000.00 plus $100.00 per lot</td>
</tr>
<tr>
<td>Revised Definitive Plan Application</td>
<td>$500.00</td>
</tr>
<tr>
<td>Form “C” Application Subdivision Plans not requiring approval endorsed by Planning Director</td>
<td>$100.00 plus $100.00 per lot</td>
</tr>
<tr>
<td>Form “C” Application not requiring approval needing review at Planning Board Meeting</td>
<td>$100.00 plus $100.00 per lot</td>
</tr>
<tr>
<td>Inspection fees for bond reduction/release (payable to City Engineers Office) or for Certificate of Performance to release lots from conditional approval contracts</td>
<td>$1.00/linear foot of road or $200 per five lots, (whichever is greater, minimum $200.00).</td>
</tr>
</tbody>
</table>

**Site Plans:**

<table>
<thead>
<tr>
<th>Service Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Plan Application</td>
<td>$500.00</td>
</tr>
<tr>
<td>Site Plan Revision Application</td>
<td>$250.00</td>
</tr>
</tbody>
</table>

**Other Agenda Items:**

<table>
<thead>
<tr>
<th>Service Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discretionary fee for other requested agenda items.</td>
<td>$100.00</td>
</tr>
</tbody>
</table>
The following application is made to the City of Lowell Planning Board in accordance with the provisions of Massachusetts General Law Chapter 41, Sections 81K-81GG, “The Subdivision Control Law,” and the City of Lowell Subdivision Regulations.

1. Application Information

Address of Property Location: ________________________________

Owner: ________________________________________________

Address: ______________________________________________

Zip Code: __________ Telephone No. __________ FAX No. __________

Email: ________________________________________________

Second Owner (if applicable):

Address: ______________________________________________

Zip Code: __________ Telephone No. __________ FAX No. __________

Email: ________________________________________________

Owner’s Agent:

Title: ________________________________________________

Address: ______________________________________________

Signature: ______________________________________________

Telephone No: __________ FAX No. __________

Email: ________________________________________________

Tenant/Lessee/Purchaser (If Applicable):

Title: ________________________________________________

Address: ______________________________________________

Signature: ______________________________________________

Telephone No: __________ FAX No. __________

Email: ________________________________________________
2. Property Information

Zoning District: ________________________________

Number Of Proposed Lots:

Residential: _____ Commercial: _____ Industrial: _____ Institutional: _____

Non-Buildable: _____ Other (please describe): ________________________________

Land Area (Square Feet): ________________________________

Length of New Road (Linear Feet): ________________________________

3. Brief Summary of Proposed Work (Attach Additional Sheets if Needed)

______________________________________________________________

4. Preliminary Subdivision Plan Submission Requirements

(PROVIDE ONE (1) ORIGINAL AND FIVE (5) COPIES OF ALL PLANS, NARRATIVE, AND APPLICATION)

IF SUBMITTING DRAINAGE CALCULATIONS, PLEASE SUBMIT ONLY THREE (3) COPIES OF THE CALCULATIONS.

Incomplete applications will be automatically rejected and returned to the applicant.

Place a check mark next to each item to confirm that it is included in this package:

_____ A. Completed Application for Preliminary Concept Approval of a Subdivision (this form).

_____ B. Plan(s) at scale 1" = 50 (unless waived by the Planning Board) drawn by registered land surveyor including the following information (show on multiple sheets for ease of reading):

- The words “Preliminary Plan” clearly visible;
- Subdivision name, north arrow, date and scale.
- Name and address of the recorded owner and the Registered Civil Engineer & Surveyor.
- Location and names of adjacent subdivisions and names of owners of adjacent lots or tracts as disclosed by the records of the Board of Assessors.
- Locations, names and dimensions of adjacent streets and other public and private ways as disclosed by records of the Department of Public Works, Division of Engineering.
- Size and location of existing storm drains, storm and sanitary sewers, water mains and their appurtenances, as disclosed by records of the Department of Public Works, Division of Engineering, and the location of existing buildings with in an immediately adjacent to the subdivision.
- Locations, proposed names and dimensions of all proposed streets and of other ways or areas for public use, and of easements within the area concerned.
- Proposed lot lines with approximate areas and dimensions.
5. **Authorization (Must be Signed by the Owner of the Property)**

I am the record owner of the property for which this application is being filed and as such, I am familiar with the work proposed to be carried out on my property.

I hereby give permission for this application to be filed with the full understanding that certain restrictions may be placed on the property relative to the approval of the proposed work.

I further certify that under the penalties of perjury, I am authorized to sign this application.

Name (Please Print): ____________________________________________

Title: _________________________________________________________

Signature: _____________________________________________________

Date: _________________________________________________________

If representing a group, corporation, or other organization please attach a copy of the vote authorizing you to act on behalf of such organization for the purposes of this application.

---

An application will not be considered complete and will not be submitted to the Planning Board for its action until all required documentation/information has been submitted to the Planning Board Administrator and filed with the City Clerk by the correct deadline. Regular meetings of the Planning Board are generally held on the first and third Monday of the every month (only one meeting is held in July, August, and December). Completed applications are generally due by NOON on the 14 days prior to the regularly-scheduled Planning Board meeting when a public hearing will be held. For a complete schedule, please contact the Planning Board Administrator.

Submit all required materials to:

George Prosakis, Associate Planner/Planning Board Administrator
Division of Planning and Development, JFK Civic Center, 50 Arcand Drive, Lowell, MA 01852
(978) 446-7245, fax: (978) 446-7014, email: gproakis@ci.lowell.ma.us
1. Application Information

Address of Property Location:

Owner:

Address:

Zip Code:_________ Telephone No._________ FAX No.

Email:

Second Owner (if applicable):

Address:

Zip Code:_________ Telephone No._________ FAX No.

Email:

Owner’s Agent:

Title:

Address:

Signature:

Telephone No:_________ FAX No.:

Email:

Tenant/Lessee/Purchaser (If Applicable):

Title:

Address:

Signature:

Telephone No:_________ FAX No.:

Email:
2. **Property Information**

Zoning District: ____________________________________________________________

Number Of Proposed Lots:

Residential: _____ Commercial: _____ Industrial: _____ Institutional: _____

Non-Buildable: _____ Other (please describe): _______________________________

Land Area (Square Feet): _________________________________________________

Length of New Road (Linear Feet): _________________________________________

3. **Brief Summary of Proposed Work (Attach Additional Sheets if Needed)**

_____________________________________________________________________

_____________________________________________________________________

4. **Preliminary Plan**

Was a Preliminary Plan submitted to the Planning Board (circle one)? Yes No

If yes, date: __________________________

Was conceptual approval granted by the Planning Board (circle one)? Yes No

If yes, date: __________________________

4. **Definitive Subdivision Plan Submission Requirements**

(PROVIDE ONE (1) ORIGINAL AND FIFTEEN (15) COPIES OF ALL PLANS, NARRATIVE, AND APPLICATION
SIX (6) OF THE COPIES MAY BE HALF-SIZE, IF DESIRED)

PLEASE SUBMIT ONLY THREE (3) COPIES OF DRAINAGE CALCULATIONS
Incomplete applications will be automatically rejected and returned to the applicant.

**Place a check mark next to each item to confirm that it is included in this package:**

___ A. Completed Application for Approval of a Definitive Subdivision Plan (this form).

___ B. Plan(s) at scale 1" = 50 (unless waived by the Planning Board) drawn by registered land
surveyor including the following information (show on multiple sheets for ease of reading):

   1. Subdivision name, magnetic north arrow, date and scale.

   2. The name and address of the owner, the subdivider, the Registered Civil Engineer & Surveyor.

   3. The zoning district in districts in which the subdivision lies.

   4. Names of all abutting owners.

   5. Location and names if existing and proposed streets, easements and proposed easements and
ways. (The name of proposed streets must be approved by the Lowell City Council.)
6. Sufficient data to determine readily upon the ground, the location, or angle of every street line, whether straight or curved.

7. Location of existing and proposed permanent monuments within the subdivision.

8. Boundary lines, areas and dimensions of all lots within the subdivision, designated numerically and in sequence.

9. Major site features such as existing stonewall fences, buildings, large trees, or wooded areas, rock bridges and outcroppings, swamps, and water bodies.

10. Boundary lines, areas and dimensions of all lots or other divisions of land within the subdivision, with all lots designated numerically and in sequence.

11. Location and width of existing and proposed roadways including temporary turn-around and back around areas and sidewalks, within and adjacent to the subdivision.

12. Proposed layout of sewage disposal systems, water systems, storm or surface water systems.

13. Space to record the action of the Board and the signatures of the members, attestation of the City Clerk, and approval to the Department of Public Works.

14. Existing and proposed topography at a suitable contour interval. (This requirement may be waived by the Board if deemed not necessary.)

15. Profiles of proposed streets, on a horizontal scale of fifty (50) feet to an inch and a vertical scale of five (5) feet to an inch.

16. The existing surface elevations and proposed finish grade on the center line and on each side line of each proposed street, and the sill elevation of all existing structures within the area to be subdivided. Existing center line grades in fine solid lines, side lines in fine dash lines and proposed finished center line grades in heavy solid line. Proposed grade elevations at fifty (50) foot stations and proposed rates of gradient shall be shown by figures. (Note: the Lowell Engineering Department requires that all existing accepted grades be met.)

Items (5) through (16) may be shown on one or more separate construction and/or profile plans, which shall be referred to by title on the plan which contains the signatures of the members of the Board. All such plans taken together shall be deemed to constitute the definitive plan of the subdivision.

C. A narrative or impact study(ies) if requested by the Planning Board.

D. A certified list of abutters within a 300-foot radius of the site must accompany all site plan applications.

E. A petition to have all new streets within the subdivision accepted as public ways shall be submitted to the Planning Board, accompanied by a deed transferring title to the City of Lowell and a transparent linen plan of each street adequately fixing its location and area. This petition will be submitted to the City Council by the Planning Board after work has been completed satisfactorily.

F. Filing fees as established by the Lowell Planning Board and Lowell City Council.

G. All additional items required by the Subdivision of Land Regulations of the City of Lowell and/or requested by the Lowell Planning Board.
5. **Statement of Application (Form A)**

Note: Parentheses are used to indicate alternative provisions. The applicant should use this form as a guide only and submit this application statement on his own letterhead.

To the Planning Board of the City of Lowell:

1. The undersigned, being the owner(s) of all land included within the proposed subdivision shown on the accompanying plan, submit(s) such as the definitive plan of the proposed subdivision and make(s) application to the Board for final approval thereof.

2. The land within the proposed subdivision is subject to the following easements and restrictions:

3. There are appurtenant to the land within the proposed subdivision the following easements and restrictions over the land of others:

4. (A preliminary plan of the proposed subdivision, to which the accompanying plan conforms, was tentatively approved by the Board on __________, 19_______.) (A preliminary plan of the proposed subdivision was tentatively approved by the Board on __________, 19_______, with modifications, which modifications have been incorporated in the accompanying plan).

5. The applicant(s) agree(s), if this application is approved, to perform and complete all work in the ground within the proposed subdivision required by the rules and regulations of the Planning Board as in force on the date of this application, and as modified and supplemented by the work specification and other requirements of the Division of Engineering, and set forth in statements attached hereto. (As no (public sewers) (public water mains) are considered by the Department of Public Works to be reasonably accessible, the applicant(s) propose(s) to install individual (sewage disposal) (water supply) facilities to serve (all) (the following) lots, and agree(s) to install such facilities in accordance with the requirements of the Board of Health, as set forth in the statement of said Board attached hereto).

6. (The applicant(s) further agree(s) to complete all required work on the ground within two years from the date of final approval of the definitive plan by the Board, unless such time is extended by the Board). (The applicant(s) request(s) the Board to allow time additional to two years from the date of final approval of the definitive plan by the Board, namely, until __________, 19______, for the completion of the following particular items of work will be completed within the time specified:

The applicant(s) further agree(s) to complete all other items of required work on the ground within two years from the date of final approval of the definitive plan by the Board, unless such time is extended by the Board).

7. The applicant(s) further agree(s), if this application is approved, not to sell, or to offer to sell any of the lots within the subdivision until said plan is so recorded.

8. (The applicant(s) request(s) that the Board approve the definitive plan on condition that no lot in the subdivision shall be sold until the work on the ground necessary to adequately serve such lot has been
completed to the satisfaction of the Board (except for the following particular items of work which the applicant(s) request(s) to be exempted from such condition:

9. (The applicant(s) further agree(s) that, whether or not this application is approved, (he) (they) will pay the cost if publication, arranged by the Board, of the required notice of public hearing in a newspaper of general circulation in the City.)

10. The applicant(s) further agree(s) that all sanitary sewers and water mains, together with their appurtenances, installed in the subdivision and connected with the public sewer and/or water system shall, upon satisfactory completion (as evidenced by a certificate of performance) and final connection with the public system, be deemed to become a part of said system and the property of the City.

11. This application is accompanied by an original drawing of the proposed definite plan, (signed by the required Commissioner of the Department of Public Works) (accompanied by statements of approval and verification by the required city agencies), a designer's certificate, approved cost estimates for all work to be covered by bond, and a sketch plan of adjacent land. (Omit any items not submitted).

Dated ____________________________

Name of Applicant

Address of Applicant

Phone Number

Signature of Applicant

Legal Title of Applicant
6. **Authorization (Must be Signed by the Owner of the Property)**

I am the record owner of the property for which this application is being filed and as such, I am familiar with the work proposed to be carried out on my property.

I hereby give permission for this application to be filed with the full understanding that certain restrictions may be placed on the property relative to the approval of the proposed work.

I further certify that under the penalties of perjury, I am authorized to sign this application.

Name (Please Print): _______________________________________

Title: _______________________________________

Signature: _______________________________________

Date: _______________________________________

If representing a group, corporation, or other organization please attach a copy of the vote authorizing you to act on behalf of such organization for the purposes of this application.

---

*An application will not be considered complete and will not be submitted to the Planning Board for its action until all required documentation/information has been submitted to the Planning Board Administrator and filed with the City Clerk by the correct deadline. Regular meetings of the Planning Board are generally held on the first and third Monday of the every month (only one meeting is held in July, August, and December). Completed site plan applications are generally due by NOON on the Friday that is 31 days prior to the regularly-scheduled Planning Board meeting when a public hearing will be held. For a complete schedule, please contact the Planning Board Administrator.*

*Submit all required materials to:*

George Proakis, Associate Planner/Planning Board Administrator
Division of Planning and Development, JFK Civic Center, 50 Arcand Drive, Lowell, MA 01852
(978) 446-7245, fax: (978) 446-7014, email: gproakis@ci.lowell.ma.us
City of Lowell Planning Board
Special Permit Addendum to Application

Please check all that apply:

The applicant is requesting a special permit from the Planning Board under:

___ Section 3.3.1 (lots over town lines)
___ Section 5.1.10 (lot width)
___ Section 5.3.3 (reduced open space)
___ Section 6.6 (refuse containers)
___ Section 6.7.3 (driveway grade)

Please note that the Zoning Board of Appeals is the Special Permit Granting Authority for all other Special permits, except the Planned Residential Development special permit. For ZBA special permits, please use the ZBA Application Form instead of this form. For a PRD, use the PRD application form instead of this form.

Please check any that apply:

___ The applicant is also applying for plan review from the Planning Board
___ The applicant is also applying for ANR approval on this site
___ The applicant is also applying for subdivision approval on this site

Special Permit Submission Requirements

Please submit the full submittal requirements for the associated application, along with 13 copies of:

* This application form
* A narrative addressing how the project meets the standards listed on below

Standards for Granting Special Permits

General criteria for granting special permits include consideration of the following:

1. Social, economic or community needs which are served by the proposal
2. Traffic flow and safety, including parking and loading
3. Adequacy of utilities and other public services
4. Neighborhood character and social structures
5. Impacts on the natural environment; and
6. Potential fiscal impact, including impact on city services, tax base, and employment.

Additional specific criteria include:

* For Section 5.3.3 (reduced open space): As stated in the section the Board must determine “that adequate recreational opportunities exist in the neighborhood”. The burden is on the applicant to prove that such opportunities exist and that the users of the project will have easy and adequate access to such opportunities.
* For Section 6.6 (refuse containers): The applicant must still comply with section 10-74 of the Code of Ordinances.
* For Section 6.7.3 (driveway grade): The Planning Board may grant a special permit only “after a determination that said driveway will provide safe and reasonable access for fire, police and emergency vehicles.” The burden is on the applicant to provide proof that the fire, police and emergency services responders in the City of Lowell will have safe and reasonable access.
City of Lowell Planning Board

Application for Endorsement of a Plan Thought not to Require Approval

(FORM C)

OFFICIAL USE:

<table>
<thead>
<tr>
<th>Date of Receipt:</th>
<th>Received By:</th>
<th>Date of Approval:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete</td>
<td>Not Complete</td>
<td>Date:</td>
</tr>
</tbody>
</table>

The following application is made to the City of Lowell Planning Board in accordance with the provisions of Massachusetts General Law Chapter 41, Sections 81K-81GG, "The Subdivision Control Law," and the City of Lowell Subdivision Regulations.

1. Application Information

Address of Property Location: _____________________________
Owner: ____________________________________________
Address: __________________________________________
Zip Code: ________ Telephone No. __________ FAX No. __________
Email: ____________________________________________
Second Owner (if applicable):
Address: __________________________________________
Zip Code: ________ Telephone No. __________ FAX No. __________
Email: ____________________________________________

Owner's Agent:
Title: ____________________________________________
Address: __________________________________________
Signature: _________________________________________
Telephone No: __________ FAX No.: __________
Email: ____________________________________________

Tenant/Lessee/Purchaser (If Applicable):
Title: ____________________________________________
Address: __________________________________________
Signature: _________________________________________
Telephone No: __________ FAX No.: __________
Email: ____________________________________________
2. **Property Information**

Property Deed Recorded at the Middlesex North Registry of Deeds: Book _____ Page _____

Zoning District: ____________________________________________________________

Minimum Frontage Required by Zoning: ________________________________________

Number of Building Lots Shown on Plan: ______________________________________

Number of Non-Buildable Parcels Shown on Plan: ________________________________

3. **Case for Endorsement**

Please note that all ANR plans proposing to create new building lots must adhere to the following requirements. If one or more of these requirements is not met, the plan will be denied endorsement.

1. Each lot shown must meet or exceed the minimum frontage required by the Lowell Zoning Code on one of the three types of ways specified in MGL Chapter 41, Section 81-L.
2. Vital access to each lot, as contemplated by MGL Chapter 41, Section 81M, must exist.
3. Frontage on unbuilt or “paper” streets does not meet these standards unless the way is shown on plan approved under the Subdivision Control Law and a valid performance guarantee is held by the Lowell Planning Board to assure completion of all public works serving the proposed lot(s).
4. An ANR cannot create a valid building lot by dividing it from another parcel rendered nonconforming by such division (Patek v. Coppola, 6 LCR 312 (1998)).

This Plan is thought not to require approval because (please check the condition or conditions which pertain to this application):

1. It is not a division of land.
2. Although it is a division of land into two or more parcels, only one of said parcels can be defined as a “lot”, i.e. having definite boundaries, and used, or available for use, as the site of one or more buildings.
3. Every lot shown has the minimum frontage by the Lowell Zoning Ordinance on a public way, namely _______________________________ (street). Please attach copy of the Vote of the Lowell City Council accepting the street. This can be obtained from the City Clerk’s office.
4. Every lot shown has the minimum frontage required by the Lowell Zoning Ordinances on a way shown on a Plan hereto approved in accordance with the Subdivision Control Law, namely _______________________________ (street).
5. *(If item is checked, certification by signature of a Registered Engineer or Land Surveyor is required)*. Every lot shown has the minimum frontage required by the Lowell Zoning Ordinances on a way in existence on January 1, 1960, namely _______________________________, Page _______________________, and the following conditions now exist for the full frontage of the land being subdivided.

A. The street right-of-way is at least 40’ wide

B. The street, if dead ending in the applicant’s property, has been provided with a turnaround of 45’ minimum radius.

C. Proposed lots, if at street intersections, have been provided with a property line radius of not less than 20 feet.
D. The Plan has been approved and signed by the Board of Health and Commissioner of Public Works.

E. The street has a 28'' wide bituminous pavement in a 12'' gravel base, each meeting Planning Board specifications.

F. Longitudinal street grades are not less than 1.0% nor more than 10.0%.

G. The applicant may request the Planning Board, through its authorized representative, to waive any of the proceeding conditions as can be shown to be unreasonable. Such request should be set forth in detail on separate sheets to be attached to this application.

6. It is made for the purpose of adding to, taking away from, or changing the size and shape of lots in such a manner as not to leave any lot so affected without the minimum frontage required by the Lowell Zoning Ordinance.

7. It is a division of a tract of land, on which two or more buildings were standing on January 1, 1960, into two separate lots, on each of which one of such building remains standing. If more than two, _______ (number).

8. The lots shown, and the rights-of-way and easements appurtenant thereto, had been sold before January 1, 1960, and were held in ownership separate from that of the remainder of a subdivision which was recorded in the Registry of Deeds before January 1, 1960, N.M.R.D., Book ___________, Page ___________.

9. This subdivision was registered by the Land Court before February ___, 1952, Plan No. ___________, Document No. ___________, Certificate No. ___________.

10. Other reasons (provide a detailed explanation on additional sheets attached to this application):

(See Massachusetts General Laws, Chapter 41, Section 81-L)

4. Approval Not Required Plan Submission Requirements

Place a check mark next to each item to confirm that it is included in this package:

___ A. Completed Application for the Endorsement of a Plan Thought not to Require Approval by the Planning Board (this form).

___ B. Original on mylar (meeting all requirements of the Registry of Deeds) and three copies of the stamped plan with locations provided for endorsement by the Planning Board and City Engineer.

___ C. A copy of the current deed to the property shown on the plan.

___ D. If argument #3 above is checked, a copy of the Vote of the Lowell City Council accepting the street or way.

___ E. A narrative or other supporting material which may be requested by the Planning Board.

___ F. Filing fees as established by the Lowell Planning Board and Lowell City Council.
RELATIONSHIP OF SUBDIVISIONS OF LOTS WITH EXISTING BUILDINGS TO
THE LOWELL ZONING CODE

PLEASE BE AWARE OF THE FOLLOWING PROVISIONS OF THE LOWELL ZONING
CODE AS IT MAY AFFECT THE TITLE OF THE RESULTING SUBDIVIDED LOTS.

SECTION 5.1 LOT FRONTAGE
No building or structure shall be built nor shall any existing building or structure be enlarged which does not
conform to the regulations as to the regulations . . . as set forth in the Table of Dimensional Requirements, except
hereinafter provided.

SECTION 5.1.9 REDUCTION OF LOT AREA.
No lot shall be changed in size or shape so that the height, area, yard or off-street parking and loading requirements
herein (the Lowell Zoning Code) prescribed are no longer satisfied. This provision shall not apply where a portion
of a lot is acquired for public purpose. This provision shall not apply in regard to lot size, lot width and side yards in
the event of a sale of an individually owned semi-detached or attached dwelling unit.

It is the obligation if the applicant presenting any Approval Not Required Subdivision Plan that is subject to the
above Zoning Regulation, for which the Planning Board does not make any determination as to Zoning Code
compliance, to submit a copy of the plan to the Commissioner of Buildings at the Building Department office at
Lowell City Hall.

5. Authorization (Must be Signed by the Owner of the Property)

I am the record owner of the property for which this application is being filed and as such, I am
familiar with the details of this request as it impacts my property.

I hereby give permission for this application to be filed with the full understanding that certain
restrictions may be placed on the property relative to the approval of this request.

I further certify that under the penalties of perjury, I am authorized to sign this application.

Name (Please Print):

Title:

Signature:

Date:

If representing a group, corporation, or other organization please attach a copy of the vote
authorizing you to act on behalf of such organization for the purposes of this application.

An application will not be considered complete and will not be submitted to the Planning Board for its action until
all required documentation/information has been submitted to the Planning Board Administrator by the correct
deadline. Regular meetings of the Planning Board are generally held on the first and third Monday of every month
(with only one meeting in July, August, and December). If Planning Board review is deemed to be required,
completed applications must be submitted at least 14 days prior to a regularly-scheduled Planning Board meeting
when the request will be considered. Submit all required materials to:

George Proakis, Associate Planner/Planning Board Administrator
Division of Planning and Development, JFK Civic Center, 50 Arcand Drive, Lowell, MA 01852
(978) 446-7245, fax: (978) 446-7014, email: gproakis@ci.lowell.ma.us
City of Lowell Planning Board
Special Permit Application: Planned Residential Development

OFFICIAL USE:
Date of Receipt: ____________________  Received By: ____________________  Date of Approval: ____________________
Complete: ____________________  Not Complete: ____________________  Date: ____________________

The following application is made to the City of Lowell Planning Board in accordance with the provisions of The Code of Ordinances, City of Lowell, Mass., Appendix A thereof, Section 8.2, Planned Residential Development.

1. Application Information

Address of Property Location: ____________________________________________________________

Owner: ____________________________________________________________

Address: ____________________________________________________________

Zip Code: ______________ Telephone No. ______________ FAX No. ______________

Email: ____________________________________________________________

Second Owner (if applicable): _______________________________________________________

Address: ____________________________________________________________

Zip Code: ______________ Telephone No. ______________ FAX No. ______________

Email: ____________________________________________________________

Owner's Agent: ____________________________________________________________

Title: ____________________________________________________________

Address: ____________________________________________________________

Signature: ____________________________________________________________

Telephone No: ______________ FAX No.: ______________

Email: ____________________________________________________________

Tenant/Lessee/Purchaser (If Applicable): ____________________________________________________________

Title: ____________________________________________________________

Address: ____________________________________________________________

Signature: ____________________________________________________________

Telephone No: ______________ FAX No.: ______________

Email: ____________________________________________________________
2. **Property Information**
   
   Zoning District: ________________________________
   
   Land Area (Square Feet): _______________________
   
   Proposed Recreation Land (Square Feet): __________
   
   Proposed Conservation Land (Square Feet): __________
   
   Total Proposed Open Space (Square Feet): __________

3. **Brief Summary of Proposed Work (Attach Additional Sheets if Needed)**
   
   ________________________________________________
   
   ________________________________________________

4. **Concurrent Review**
   
   Public Hearing will be concurrent with preliminary subdivision plan review?  Yes  No
   
   Public Hearing will be concurrent with definitive subdivision plan review?  Yes  No
   
   Was conceptual approval of a preliminary subdivision plan for this property granted by the
   Planning Board (circle one)?  Yes  No  If yes, date: ________________________________

5. **Planned Residential Development Submission Requirements**
   
   IF SUBMITTING WITH THE PRELIMINARY PLAN, PROVIDE ONE (1) ORIGINAL AND TEN (10) COPIES OF ALL
   PLANS, NARRATIVE, AND APPLICATION (INSTEAD OF THE FIVE REQUIRED BY THE PRELIMINARY APPLICATION
   
   IF SUBMITTING WITH THE DEFINITIVE PLAN, PROVIDE ONE (1) ORIGINAL AND TWENTY (20) COPIES INSTEAD OF
   THE FIFTEEN REQUIRED BY THE DEFINITIVE APPLICATION (ALTHOUGH ELEVEN (11) MAY BE HALF-SIZED)
   
   PLEASE SUBMIT ONLY THREE (3) COPIES OF DRAINAGE CALCULATIONS

   Place a check mark next to each item to confirm that it is included in this package:

   ____ A. Completed Special Permit Application for a Planned Residential Development (this form).
   
   ____ B. A legal description and map of the area proposed for a planned development, showing existing
   land uses and zoning boundaries.
   
   ____ C. Proof of title to or agreement or option to purchase all property located within the proposed
   planned development area.
   
   ____ D. A site plan for a typical building lot for each proposed type of use (single family residence,
   two family residence, etc.) illustrating how the building(s), required parking, and landscaping
   will be placed on a typical lot.
   
   ____ E. Perspective sketches, elevations and/or renderings showing proposed streetscapes and building
   designs.
F. Plans indicating dedicated recreational and conservation open space areas and a proposal for how they will be administered including drafts of any covenants or deed restrictions that may be used to preserve the open space.

G. Locations of abutting and nearby conservation and other open space areas that may be enhanced or augmented by the open space proposed in the planned development.

H. Plans and other documentation as necessary to indicate any facilities to be owned or used in common by the residents of the planned development, including, but not limited, to recreation facilities, social halls, meeting rooms, community centers, recycling centers, and trash storage areas.

I. Evidence of the applicant's financial ability to complete the development as planned.

J. A written notarized statement by the legal applicant stating that the comprehensive plan submitted will be adhered to and will not be modified without prior approval of the Planning Board.

K. A narrative or impact study(ies) if requested by the Planning Board.

L. A list of owners of all abutting property within a 300-foot radius of the site, certified by the City of Lowell Assessors.

M. Filing fees as established by the Lowell Planning Board and Lowell City Council.

6. **Authorization (Must be Signed by the Owner of the Property)**

I am the record owner of the property for which this application is being filed and as such, I am familiar with the work proposed to be carried out on my property. I hereby give permission for this application to be filed with the full understanding that certain restrictions may be placed on the property relative to the approval of the proposed work. I further certify that under the penalties of perjury, I am authorized to sign this application.

Name (Please Print): ________________________________

Title: ________________________________

Signature: ________________________________

Date: ________________________________

If representing a group, corporation, or other organization please attach a copy of the vote authorizing you to act on behalf of such organization for the purposes of this application.

*An application will not be considered complete and will not be submitted to the Planning Board for its action until all required documentation/information has been submitted to the Planning Board Administrator and filed with the City Clerk by the correct deadline. Regular meetings of the Planning Board are generally held on the first and third Monday of the every month (only one meeting is held in July, August, and December). Completed site plan applications are generally due by NOON on the Friday that is 31 days prior to the regularly-scheduled Planning Board meeting when a public hearing will be held. For a complete schedule, please contact the Planning Board Administrator. Submit all required materials to:*

George Proakis, Associate Planner/Planning Board Administrator
Division of Planning and Development, JFK Civic Center, 50 Arand Drive, Lowell, MA 01852
(978) 446-7245, fax: (978) 446-7014, email: gproakis@ci.lowell.ma.us
City of Lowell Planning Board

Application for Release of Lots from Planning Board Covenants

OFFICIAL USE:
Date of Receipt: ________________________ Received By: ________________________ Date of Approval: ________________________
Complete ________________________ Not Complete ________________________ Date: ________________________

The following application is made to the City of Lowell Planning Board in accordance with the provisions of Massachusetts General Law Chapter 41, Sections 81K-81GG, “The Subdivision Control Law,” and the City of Lowell Subdivision Regulations.

1. Application Information

Address of Property Location: ________________________
Owner: ________________________
Address: ________________________
Zip Code: ________________________ Telephone No. ________________________ FAX No. ________________________
Email: ________________________

Second Owner (if applicable):
Address: ________________________
Zip Code: ________________________ Telephone No. ________________________ FAX No. ________________________
Email: ________________________

Owner’s Agent:
Title: ________________________
Address: ________________________
Signature: ________________________
Telephone No: ________________________ FAX No.: ________________________
Email: ________________________

Tenant/Lessee/Purchaser (If Applicable):
Title: ________________________
Address: ________________________
Signature: ________________________
Telephone No: ________________________ FAX No.: ________________________
Email: ________________________

Page 1 of 3
2. Property Information

Subdivision Name: ________________________________

Definitive Plan Recorded at the Middlesex North Registry of Deeds: Book _____ Page ______

Covenants Recorded at the Middlesex North Registry of Deeds: Book _____ Page ______

Number of Lots in Subdivision: __________ Number of Lots Already Released: __________

Lot Numbers for which release is requested: ____________________________________________

3. Performance Bond

In order to request release of lots, the applicant must supply a written estimate with costs for all work remaining to complete the subdivision as approved by the Planning Board. The Lowell City Engineers must agree to all contractor-supplied estimates for work remaining and costs. The agreed-upon estimates will form the basis for performance bonding and release of lots from covenants.

Is the Lowell Planning Board holding a Performance Bond for this project? (circle one) Yes No

If yes, what is the current account or letter of credit balance: ______________________________

If no, will a bond be established for this project? (circle one) Yes No

Amount of Bond Proposed: ________________________________

Name of Institution Where Bond is being or will be Held: ________________________________

Contact: ________________________________

Title: ________________________________

Address: ________________________________

Signature: ________________________________

Telephone No: ________________________________ FAX No.: ________________________________

Date Established: ____________________________ Expiration Date: ____________________________

4. Lot Release Submission Requirements

Place a check mark next to each item to confirm that it is included in this package:

_____ A. Completed Application for the Release of Lots from Planning Board Covenants (this form).

_____ B. Detailed cost estimate of all work remaining to complete subdivision as approved by the Planning Board. This estimate must be endorsed by the Lowell City Engineer.

_____ C. A narrative or other supporting material which may be requested by the Planning Board.

_____ D. Filing fees as established by the Lowell Planning Board and Lowell City Council.
5. Authorization (Must be Signed by the Owner of the Property)

I am the record owner of the property for which this application is being filed and as such, I am familiar with the details of this request as it impacts my property.

I hereby give permission for this application to be filed with the full understanding that certain restrictions may be placed on the property relative to the approval of this request.

I further certify that under the penalties of perjury, I am authorized to sign this application.

Name (Please Print): ________________________________
Title: ____________________________________________
Signature: _________________________________________
Date: _____________________________________________

If representing a group, corporation, or other organization please attach a copy of the vote authorizing you to act on behalf of such organization for the purposes of this application.

6. Lot Release Process

Lots may be released without a vote of the Planning Board, only if all of the following conditions are met:

a. The covenant from which the lots are to be released was signed on behalf of the Planning Board on or after October 6, 2003, and clearly states that the administrative release is allowed.

b. The developer provides a performance bond or cash security (a tri-party agreement will NOT be acceptable for an administrative release of lots) for the full amount required by the City Engineer after the Engineer completes an inspection.

c. The Planning Department agrees that the project has no outstanding issues, violations from the original plan or violations from the conditions that cannot be addressed with the funds from the bond or security.

d. The developer has not conveyed any lot in violation of the covenant.

All other cases will require the developer to secure a vote from the Planning Board before any lot can be released.

An application will not be considered complete and will not be submitted to the Planning Board for its action until all required documentation/information has been submitted to the Planning Board Administrator by the correct deadline. Regular meetings of the Planning Board are generally held on the first and third Mondays of the every month (no first Monday meetings are held in July or August). Completed applications must be submitted at least 14 days prior to a regularly-scheduled Planning Board meeting when the request will be considered. Submit all required materials to:

George Proakis, Associate Planner/Planning Board Administrator
Division of Planning and Development, JFK Civic Center, 50 Arcand Drive, Lowell, MA 01852
(978) 446-7245, fax: (978) 446-7014, email: gproakis@ci.lowell.ma.us