

## **Step-by-Step Guide How To Prepare An Existing Land Use Map**

A hands on description of how to prepare an existing land use map is provided below. Basically the same procedure can be followed if you are using a computer and GIS. However, the main difference is that with GIS, you begin the map making process with a composite tax map with linked parcel assessment records.

**REMEMBER BEFORE YOU START YOUR SURVEY WORK:** Let the public know through a press release or a local newspaper article that your town or city will be conducting a windshield survey of land use within your community.

1. Materials. Obtain paper prints (heavy paper) of your community's base map, preferably without topography. The base map print can be a blue line or black line copy with plenty of extra space for notations. The following information should be shown on this map:
  - Roads, streets, highways, railways (with names);
  - Lakes, major wetlands (with names);
  - Rivers, streams, creeks (with names),
  - Utility rights-of-way (such as power lines);
  - Names of points of high elevation (mountains, hills);
  - Names of villages, crossroads, settlements within the community;
  - Name of municipality, north arrow, scale, preparation date; and
  - Tax parcel and lot information.

The base map should be folded carefully so that portions of the map can be referred to easily, and the exposed portion is of manageable size. A large handheld clipboard makes a convenient writing surface. The individual who is to record information should have an eraser, an engineer's scale, a list of land use classifications, and a small pencil sharpener (example land use classifications and associated color codes are shown on following pages).

2. Tax Maps. The community's composite tax map, if completed or series of individual tax maps provide a valuable source of information for use in the field survey. The land use survey team may find it easier to use paper prints of tax map sheets as work maps, since property ownership lines often help delineate use areas. (If overlay sheets are developed during the preparation of the future land use plan, property ownerships can be shown when this information is available).
3. Survey Travel Routes. Those conducting the windshield survey should select their routes carefully to save time and fuel, to make sure that all sites in each part of the community are covered, and to guarantee that the entire community is surveyed. This step is particularly important if more than one survey team is used to collect land use information. A base map or aerial photographs can be used to help lay out routes.

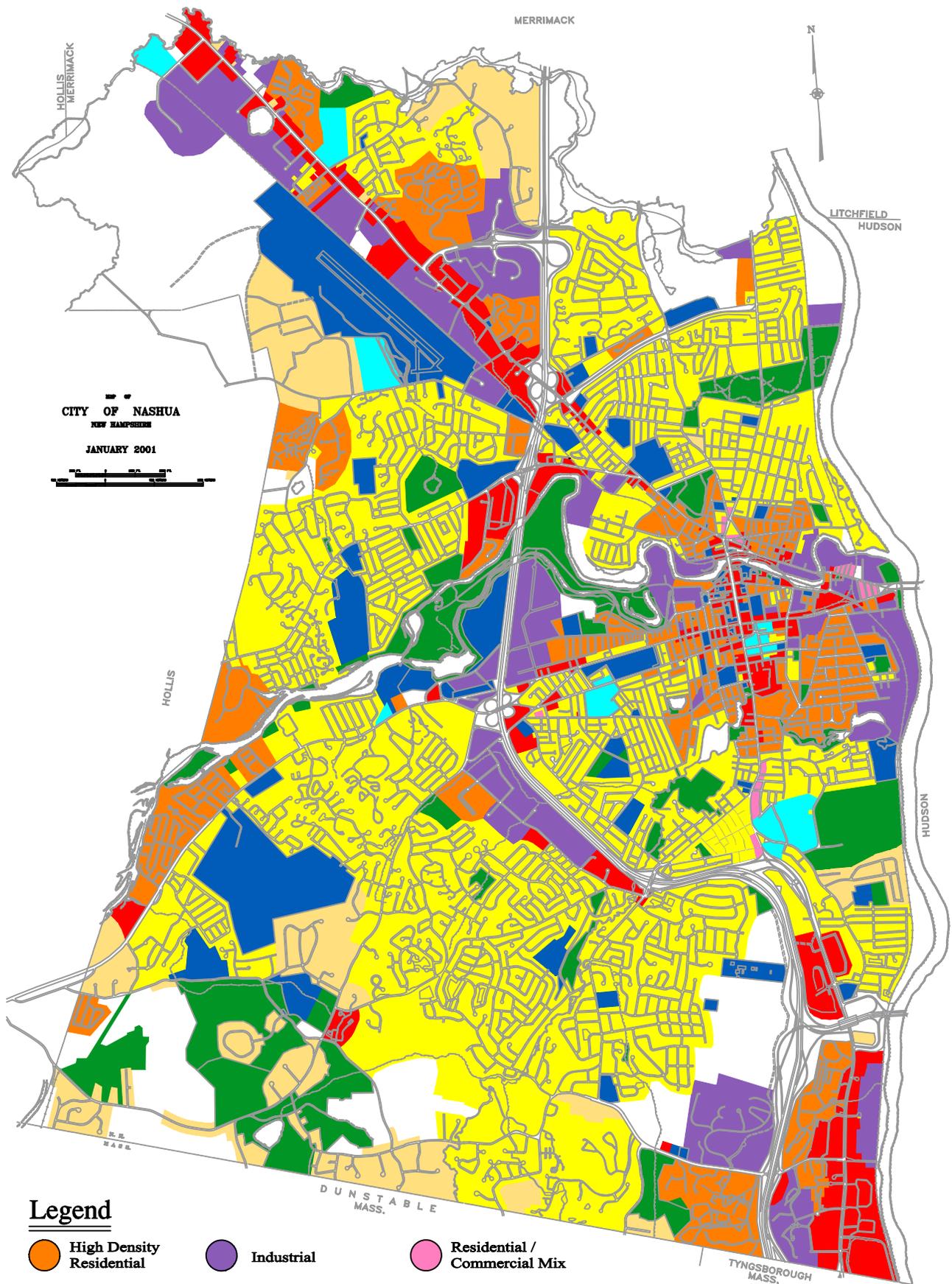
4. Land Use Classifications. Land use classifications are usually indicated by the use of symbols and/or in a color code. A simplified system like the following one should be adequate for most small communities; suggested symbols and colors are shown on the following list of uses. The planning board or master plan advisory committee should decide on the system to be used before starting the survey.

<b>USE GROUP</b>	<b>INCLUDES</b>	<b>ABBREVIATION</b>	<b>COLOR</b> (with RGB values)	
Residential	Low-density, single-family dwellings	R-LD	Yellow (255, 255, 140)	
Residential	Medium-density, two-family dwellings	R-MD	Orange (255, 127, 0)	
Residential (>3 units)	High-density, multi-family dwellings	R-HD	Brown (137, 122, 68)	
Residential	Mobile homes	RM	Tan (168, 112, 0)	
Agricultural	Land in active agricultural use	A	Olive (152, 230, 0)	
Industrial	Manufacturing, both light and heavy	Ind.	Purple (197, 0, 255)	
Commercial	Retail shops, stores, businesses	C	Red (230, 0, 0)	
Public	Town offices, facilities	Pub.	Blue (0, 197, 255)	
Institutional	Schools, hospitals, churches, cemeteries	Inst.	Dark Blue (0, 92, 230)	
Utilities	Water, sewer, electrical substations	Infas.	Gray (130, 130, 130)	
Recreation	Beaches, playing fields, courts, trails, public parks	Rec.	Green (38, 115, 0)	
Forest	Wooded land areas	F	Light Green (56, 168, 0)	
Open land	Inactive land, not forested or developed	O	White (255, 255, 255)	
Surface water	Lakes, ponds, rivers, streams	W	Light Blue (190,232,255)	

5. The Windshield Survey. Information is recorded on the paper work map prints using a soft lead pencil.
  - a. In recording land uses, lines should be drawn on the map to show the approximate extent of each use. Locate structures as accurately as possible on the work map, and label sites as to their use (letter code, color). Include the directly related, surrounding yard/land area in the same use class. For example, a single family residence in a rural area should be recorded as a residential use of land approximately one acre in size.
  - b. Accuracy is important, since preparation of the future land use plan may involve proposals to extend existing uses to adjacent land area.
  - c. A USGS topographic map can be very helpful in orientation, as well as a highway map which can be obtained from NH DOT.
6. Road Classifications. While conducting the windshield survey, it is wise to note any new roads which may have been constructed and add them to the base map; names should be corrected as necessary.
7. Recording the Data. When the survey team returns to the office, it should transfer the rough information obtained from the field to a clean paper print. This does not result in the final existing land use map, but a master work map on which all of the information is accurately recorded for review and checking. Remember to save all of your field notes as you may need to refer back to this information as you develop your map.
8. Aerial Photographs. Compare the field data with aerial photographs of the community if available. This helps confirm the location of uses identified in the field, and allows an inspection of backland and inaccessible areas. More exact boundaries of fields and forested lands can be delineated. Examples of uses which can be confirmed in this manner – with-out training in photo interpretation – include the location of agricultural uses, extensive gravel pit operations, and lumbering activities. Some aerial photography may be available from your regional planning commission.
9. Review and Consultation. When all of the information recorded on the master work map has been checked, other town officials such as building inspector, road agent, etc. should be given an opportunity to review the map to confirm its completeness and accuracy based on their knowledge of the community.
10. Final Map Preparation. Transfer the existing land use information from the master work map to a mylar base map. This is usually done in ink on the mylar surface. Symbols or distinctive shading may be used, allowing the mylar original to be reproduced through photographic copying processes. Paper prints or duplicate mylar sheets can be colored, using markers or pencils, to make the existing land use map more readable and easily understandable. If you have GIS capabilities this can be developed on the computer.

11. Keeping the Existing Land Use Map Up-To-Date. The existing land use map can be maintained in up-to-date condition in several ways. If a building permit system exists in the community, all new structures and improvements will be on record in the building inspector's office; this information can be easily transferred to the existing land use work map or a card system for periodic updating of the map. Other commonly used methods involve an annual or biennial windshield survey and updating from new aerial photographs. Regional planning commissions may also be asked to assist in updating the information.

Attached are examples of an existing land use map from both a small town and a large city.



**Legend**

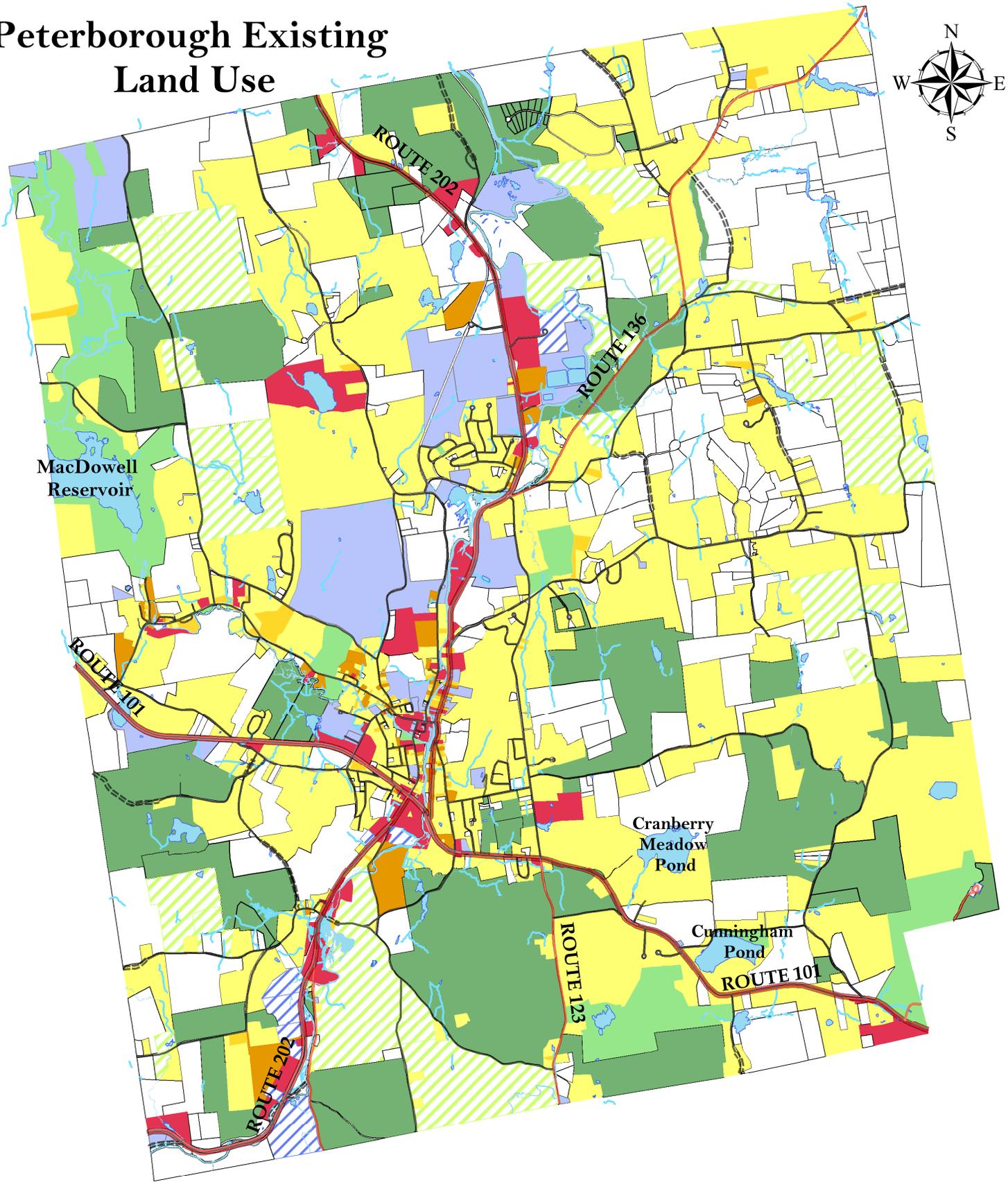
- High Density Residential
- Medium Density Residential
- Low Density Residential
- Industrial
- Commercial
- Government / Institutional
- Residential / Commercial Mix
- Higher Ed. Medical Arts
- Conservation & Recreation

Low Density Residential: average density less than 1.5 units per acre  
 Medium Density Residential: average density of 1.5 to 5 units per acre  
 High Density Residential: average density greater than 5 units per acre

Source: Nashua Regional Planning Commission, 1994  
 Nashua Planning Department Survey, 1999, 2001

**Map XII - 2**  
**Current Land Use**  
 Nashua Master Plan 2000

# Peterborough Existing Land Use



## Legend

- Single Family
- Duplex
- Multi-Family
- Commercial
- Industrial
- Agriculture
- Public/Semi-Public
- Protected Land
- Recreation
- Undeveloped or Unknown
- Surface Water
- Stream

1:55,000

Created by Office of Community Development, October 2003.  
Data Sources: Town Assessing Database and Peterborough GIS.

