

Palmer, Massachusetts MAP 2: Developable Land And Partial Constraints

- Zoning Boundary
- 100 Year Flood Plain
- Wetlands
- 100 - 200 Foot River Protection Act Buffer
- Slope 15% Grade or Greater
- Aquifer Protection Overlay District
- DEP Zone II or IWPA
- Interstate
- Highway
- Roads
- Railroad
- Open Water
- Stream
- Transmission Line

Methods

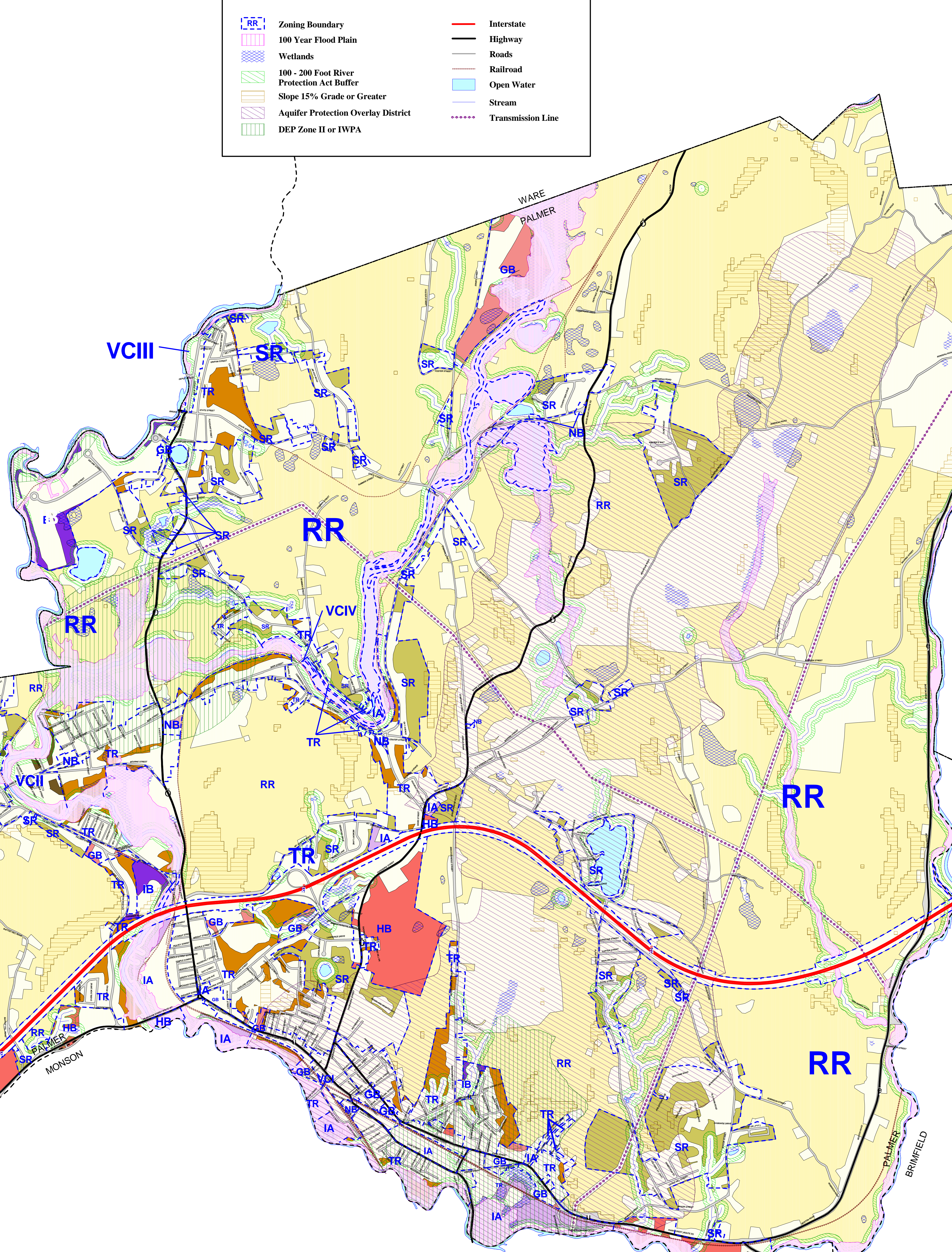
This buildout analysis is used to determine developable land area for both commercial and industrial zoning districts. Digital and hard copy data is collected. Digital zoning data is updated. Other existing digital data is gathered from a variety of sources including MassGIS, the community, Massachusetts Highway Department, and federal sources. Zoning, open space, land use, hydrography, environmentally sensitive areas, wetlands, Rivers Protection Act buffers, flood zones, slope, soil, orthophotography, rail lines, road networks, and political boundaries are utilized to different degrees. Additional layers are created that included miscellaneous features that were determined to be undevelopable, an update of the most recent MacConnell Land Use, and a layer of recent subdivisions since the last MacConnell update.

The developed land data is from the aggregated land use categories in the MacConnell Land Use layer provided by MassGIS. The aggregated developed land categories are spectator and water-based recreation, residential, commercial, industrial, transportation, and waste disposal.

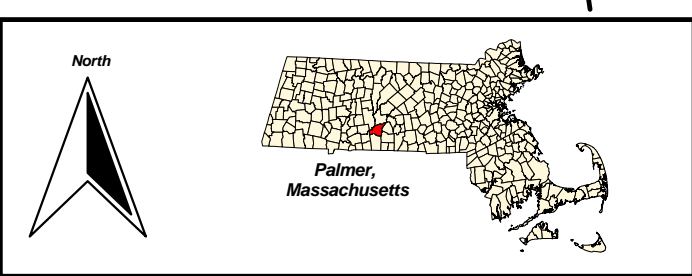
The GIS analysis consisted of subtracting layers from zoning. The remaining developable land area represented on MAP 2 is aggregated by zoning category.

To determine the number of future buildable residential lots by zoning category a formula was developed to determine the land requirements of a typical lot in each category. The land requirements factor in required frontage multiplied by half the road right-of-way to determine road area. This figure varies from zone to zone. Additionally 10% is subtracted from each zone to cover miscellaneous variables such as odd lot shapes. Commercial and industrial buildable lots were determined using an "effective" floor area ratio technique.

The analysis determines developable square feet of commercial and industrial areas. For each commercial and industrial zoning district, the major alternative land uses were examined in relation to the height limitations, maximum allowable percent lot coverage and parking requirements. An effective floor area ratio (FAR) for all use categories (e.g., offices, warehousing) in a particular district is developed for analysis purposes. An effective FAR for a district is estimated by averaging the FARs for the various potential land use types. Note that where FARs are not detailed for zoning districts in the by-laws an estimated FAR is derived for similar zoning districts by multiplying the percent lot coverage by the number of 10-foot all stories that could be constructed. Effective limitations on total square footages caused by the required amount of parking with each use is also factored in.



Town of Palmer											
Zoning District	Developable Land Area (Acres)	Developable Land Area (Sq. Ft.)	Lot Area (Acres)	Lot Area (Sq. Ft.)	Estimated Building Footprint Area (Sq. Ft.)	Estimated Building Footprint Area (Acres)	Estimated Building Footprint Area (Sq. Ft.)	Estimated Building Footprint Area (Acres)	Estimated Building Footprint Area (Sq. Ft.)	Estimated Building Footprint Area (Acres)	Estimated Building Footprint Area (Sq. Ft.)
RR - Rural Residence	1,100,000	37,714,336	1,100,000	37,714,336	1,100,000	37,714,336	1,100,000	37,714,336	1,100,000	37,714,336	1,100,000
SR - Suburban Residence	1,200,000	41,472,000	1,200,000	41,472,000	1,200,000	41,472,000	1,200,000	41,472,000	1,200,000	41,472,000	1,200,000
TR - Town Residence	1,300,000	43,740,000	1,300,000	43,740,000	1,300,000	43,740,000	1,300,000	43,740,000	1,300,000	43,740,000	1,300,000
GB - General Business	1,400,000	46,008,000	1,400,000	46,008,000	1,400,000	46,008,000	1,400,000	46,008,000	1,400,000	46,008,000	1,400,000
HB - Highway Business	1,500,000	48,276,000	1,500,000	48,276,000	1,500,000	48,276,000	1,500,000	48,276,000	1,500,000	48,276,000	1,500,000
NB - Neighborhood Business	1,600,000	50,544,000	1,600,000	50,544,000	1,600,000	50,544,000	1,600,000	50,544,000	1,600,000	50,544,000	1,600,000
IA - General Industry A	1,700,000	52,812,000	1,700,000	52,812,000	1,700,000	52,812,000	1,700,000	52,812,000	1,700,000	52,812,000	1,700,000
IB - General Industry B	1,800,000	55,080,000	1,800,000	55,080,000	1,800,000	55,080,000	1,800,000	55,080,000	1,800,000	55,080,000	1,800,000
Urban Office Area	1,900,000	57,348,000	1,900,000	57,348,000	1,900,000	57,348,000	1,900,000	57,348,000	1,900,000	57,348,000	1,900,000
Grand Total	14,000,000	458,400,000	14,000,000	458,400,000	14,000,000	458,400,000	14,000,000	458,400,000	14,000,000	458,400,000	14,000,000



Commonwealth of Massachusetts
Executive Office of Environmental Affairs
Argon Paul Celucci
Governor
Jane Swift
Lt. Governor
Bob Dandaneau
Secretary
Presented to the Community of
Palmer, Spring 2000

The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analysis.

Produced by the PIONEER VALLEY PLANNING COMMISSION
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MASS GIS
Massachusetts Geographic Information System
Massachusetts Executive Office of Environmental Affairs - 2000