

- site plans for the Board of Selectmen
- comprehensive permits for the Board of Appeals
- new special permits for the Planning Board
- new subdivisions for the Planning Board

The Department inspected the on-going construction of new subdivision roads to ensure compliance with plans and specifications and also prepared road bond calculations for these developments.

Ongoing Duties

- Prepare amendments to the Traffic Rules and Orders
- Prepare maps and graphics for other Town Departments
- Prepare various Town Meeting Articles
- Maintain and update the Town atlas and other maps
- Maintain and repair the Town's four traffic signals
- Maintain, repair and collect the money from the parking meters at the South Acton Commuter Parking Lot
- Collect groundwater samples at the landfill
- Issue and inspect street curb cut permits
- Review building permits
- Review sewage disposal permits
- Review "Approval Not Required" plans
- Manage the rental of commuter parking spaces at Martin and Stow Streets (Jones Field)

Resident Services

In conjunction with the Planning Department, the Engineering Department attempts to answer questions concerning flood plains, zoning, traffic signs, and impacts of new development, property lines and a myriad of other topics. This Department maintains files of deeds and property line plans and makes copies for a nominal fee. This service is generally provided on a walk in basis, however making an appointment will assure the correct person will be available to answer your questions.

Staff:

Town Engineer/Director of Public Works, Corey S. York, P.L.S., E.I.T.

Assistant Town Engineer, Paul Campbell, P.E.

Civil Engineer/Surveyor 1, QinRui Pang, E.I.T.

Secretary (shared with Planning Dept.), Kim L. Gorman

Corey York is an 18 year veteran of the Department. Paul Campbell has been with the Town for about two years and QinRui Pang was hired last February.

GREEN ADVISORY BOARD

The Green Advisory Board (GAB) was set up in 2009 to investigate energy efficiency improvements and the use of renewable energy sources by the Acton town government. The board's priority is to identify, explore, and prioritize energy initiatives for the Town and schools. Since its inception, the committee has supported the successful application for designation as a Green Community via the Massachusetts Green Community Act. This designation carries with it grant funding from the state which is used for energy upgrades in town and school buildings. Additionally, the GAB has worked on setting up a green energy procurement plan which was successfully passed in Town Meeting in 2012. The last major category that the board has worked on is contracting with an Energy Services Company (ESCO) to bring a solar energy array to town. This is in process, with over 6,000 photovoltaic panels, which can produce 1.5 MW of electricity, expected to be installed on the retired town landfill by the summer of 2013.

During 2012, the Green Advisory Board has continued to work on reducing Acton's reliance on fossil fuels. This has included energy efficiency efforts in both the municipal buildings and the school buildings as part of our Green Communities designation from the state. The Green Community grant monies for energy efficiency upgrades are in exchange for our commitment to reach a 20% reduction by 2014 in fossil fuel use compared with our baseline usage in 2009. So far, we have achieved a 19% reduction in energy usage and are in our third year of the program. This energy reduction has been achieved in lighting and heating town and school buildings, operation of municipal and school vehicles, and bulb replacements in street and traffic lights. In addition, solar photovoltaic arrays on school buildings and on the Department of Public Works building generated over 400,000 kWh of electricity in FY 2012.

School Buildings: There has been a 15% drop in electricity consumption in the schools over the last two years, yielding a cost savings of \$200,000 in FY2012 alone. This drop in electricity consumption is largely the result of a successful behavioral change initiative. Natural gas consumption has also declined in the schools (28% drop over three years) due to both energy conservation measures and the mild 2011-2012 winter.

Municipal Buildings: On the town side, our greatest success has been the conversion of street and traffic lights to metal halide bulbs. This has resulted in nearly 40% electricity savings since the baseline year in 2009. We have carried on a steady drumbeat of energy conservation measures, and are starting to see results. The unusually mild, open winter of 2011-2012 skewed the results; if the winter of 2012-2013 is more normal, we expect the results will be enlightening. We have found that retro-fit and rebate

programs offered by utilities can be a good starting point for energy savings. However, some of the studies and proposals for major HVAC upgrades are geared totally towards energy savings and do not necessarily reflect the best situation regarding the long term maintenance and operation of the systems. There seems to be a lack of third party oversight to protect the interests of the facility owner. We have achieved good results by using the utility studies as shopping lists and then have hired our own engineers to design systems, and then put the projects out to bid ourselves under MGL Chap. 149.

The GAB is also thinking about long-term carbon reduction goals beyond five years. Some ideas include:

- Promote residential energy efficiency through outreach, through following up on the town-wide thermal imaging initiative offered through Sagewell, and through using resources available via Acton's membership in ICLEI.
- Work to extend the availability of natural gas infrastructure within Acton.
- Many large municipal vehicles and heavy public works equipment have expected life spans of 10 to 20 years. These are exempt from the Green Communities inventory, but long term fuel costs will be factored in to future purchases as one selection criteria.

Additional measures taken by the community include:

- Four school buildings have qualified for Energy Star plaques (applications submitted), and we will explore applying for an Energy Star plaque for Town Hall as well, as it rated 88% on the national scale
- Energy conservation successes in schools recognized with international Green Flag award, national award from National Energy Education Development Project and state EOEAA award for Excellence in Energy and Environmental Education
- School district applying for new federal Green Ribbon Schools award through US Department of Education
- Municipal commitment to fund Energy Conservation Analyst position, and school district commitment to fund Energy Advisor position
- "Acton 2020" Master Plan approved at Town Meeting in April, 2012 with strong emphasis on

energy conservation, greenhouse gas reduction, smart growth, and environmental sustainability

- Public transportation network newly active in Acton including municipal support of both Dial-a-Ride and Rail Shuttle Services
- Town of Acton membership in ICLEI – Local Governments for Sustainability (International Council for Local Environmental Initiatives)
- "Acton Energy Challenge" Thermal Imaging initiative conducted through Sagewell in 2012 with robust participation. Over 700 Acton residents expressed interest in having their homes be a part of the program.
- "Solarize Acton" initiative completed in the fall of 2012 with robust participation. Four hundred thirty-five household were interested but, unfortunately, nearly three-quarters of these were rejected because it was not feasible to install solar panels on their roofs. This was mainly because of shading from trees or roof orientation other than south-facing. At the end of the summer-long program, 36 households signed up for 180 kW of power. As a result, the Town of Acton achieved Tier 4, which brought the average cost for the Acton customers, through a group discount, to \$4.14 per installation of each kWh.
- Solar Garden (based on the Harvard, Mass model) planning underway by members of Green Acton (active citizens' advocacy group). A Solar Garden is similar to a Community Garden. With a Community Garden, people who don't have good land for gardening (or any land if they live in an apartment) can rent a plot in a Community Garden to enjoy growing and eating their own vegetables. The same concept is at work with a Solar Garden. People, whose roofs are too shaded or not sloping south, can buy shares in a solar photovoltaic array on a patch of land that is more suited to generating solar electricity.
- Designation of the Municipal Properties Director as staff support to the Green Advisory Board, and as direct supervisor of the Energy Conservation Analyst. The Director is in control of the design, maintenance, and operation of all Town facilities, and as such has an immediate and in-depth understanding of practical issues.

During 2012, Acton townspeople and the Green Advisory Board have had many irons in the fire and many successes in our efforts to increase renewable energy usage and decrease overall energy consumption. We look forward to continuing this work in 2013.

Members:

Selectmen Liaison: J. Sonner
David Keene, Chairman
Bruce Friedman, Vice Chairman
Eric Hudson
Dennis Loria
Mary Smith
Thomas Michelman, Associate

HIGHWAY DEPARTMENT

SNOW

Last winter our crews were called upon 21 times to fully treat the road surfaces and spot treated the roads nine times. The department plowed the roads six times and scraped roads of slush and packed snow. The first snow fall arrived on October 29, 2011 and the last snow was March 1, 2012. Total snowfall for our area was just over 24". After the October storm (Hurricane Sandy) the Highway Department worked extensively with Municipal Properties Department with the clean up/removal of trees. Between storms the Highway crew continues to remove snow from intersections and cul-de-sacs to improve visibility. Acton residents are reminded that sand and salt is available at the Highway Department. Additional information regarding the town's snow plowing policy is available on the town web site. The Highway Department is purchasing salt off of the Massachusetts State bid which should prove to be more cost effective than previous years.

ROADS

All roads, sidewalks and town parking lots were swept in the spring. Pavement markings on streets and in parking lots were also painted during the spring. As time allowed, lawn damage from plowing was repaired. Asphalt berms were installed in numerous areas around town to resolve severe erosion that was undermining the road edges. Wash outs from heavy rains were filled.

Under our Pavement Preservation Program all roads were evaluated. The Highway Department has used this program since 1980. Main St. from Route 111 to Hayward Rd, Knox Trail, Robbins St, High St. from Route 62 to Parker St., Central St. from Martin St to Main St., School St. from Piper Rd. to house #175, and Quarry Road by the upper parking lot were milled, leveled, all structures adjusted and fully resurfaced.

We continued to replace our street name signs from four inch letters to six inch letters and maintain the other traffic signs to conform to new Manual on Uniform Traffic Control Devices (MUTCD) standards. Message boards were put out and programmed when needed for emergency or information purposes.

Light towers were put out when needed.

DRAINAGE

The Highway crew performed their annual task of flushing and replacing drainage pipes, as needed. All sluice ways were cleaned. In addition, all drainage structures were cleaned and repaired as needed. The time to clean basins has been greatly reduced because sand is no longer used for snow and ice removal. Beaver dams were removed in culverts under the direction of the Natural Resources Department. A new concrete drainage culvert was installed for the Barker's Pond outlet on Parker St. A new catch basin at 111-113 School St. was installed to resolve a water issue.

SIDEWALKS

We overlaid the sidewalks on Sandy Dr, Candida Lane, Arlington St from Hayward Rd to Agawam Rd, and along Hayward Rd from Arlington St to Charter Rd. We reconstructed and installed a new cross walk and sidewalk in the location of Theater 3 on Central St.

The Highway crew reconstructed 600 feet of sidewalk on Route 111 in West Acton. New granite curbing was installed along with 300 feet of a pedestrian handrail. Three new driveway aprons were installed in conjunction with this project.

This year we started a seal coating program on some of our sidewalks that are not in need of paving yet. This should prolong the life of the hot top surface.

SPECIAL PROJECTS

We repaved the Center Fire Station rear parking lot and installed new door aprons to the front of the building.

MACHINERY

The Highway Department is responsible for the maintenance of all town owned vehicles and equipment (excluding the School Dept.) whether it is performed in-house or sent out for specialized repairs. There are 161 major vehicles/equipment and many small pieces of equipment. Vehicles and equipment that have been replaced were either traded in or auctioned off as surplus property. The Highway Department is also responsible for maintaining