

# PUBLIC WORKS

## DEPARTMENT OF PUBLIC WORKS

The Department of Public Works (DPW) is comprised of eight divisions: Administration, Engineering, Highway, Water/Sewer, Properties, Cemeteries, Natural Resources, and Motor Equipment Repair. With a staffing strength of 130 full-time personnel, it is the goal of the department to provide citizens, boards, commissions, and other Town departments with superior Public Works services and support.

### Administration

The Administration Division provides the following services: financial (including budget preparation and administration, invoice payment, invoicing, grant management, and water/sewer reading and billing), personnel and payroll management, customer service, contract administration, oversight of contracted solid waste and hazardous waste collection services, supervision of contracted custodial services, and oversight of contracted streetlight maintenance on public ways and parking lots.

### Curbside Solid Waste Collection

Waste Management provides curbside and dumpster collection of solid waste and bulky items from residential and business locations. Through this contract, the DPW collects solid waste at over 19,000 residences and 150 commercial accounts. Solid waste is also collected from the following municipal locations: Town Hall and eight other municipal buildings, community safety, three fire stations, two libraries, nine public schools, over twenty municipal parks, and approximately sixty public trash barrels. The bulky item collection program collects large items like couches, tables, and sinks.

### Recycling

Waste Management also collects recyclable items curbside on a biweekly schedule. Items need to be sorted as: paper and chipboard (cereal boxes etc.), commingled glass, plastic, and metal containers; and corrugated cardboard. The department issues an annual guide with all the information needed for residents and businesses to make our recycling efforts successful.

In 2008 the department continued its efforts to increase the recycling rate by adding two new cardboard dumpsters at the DPW facility at 51 Grove Street. These dumpsters are available 24/7 and have been a key element in reducing the overall tonnage of solid waste for which the Town has to pay for disposal. Another indicator of our successful recycling efforts is that out of the 192 towns that have Abitibi paper recycling bins Arlington is ranked 13th in tonnage collected.

Twice a year the department holds a recycling event in conjunction with the Recycling Committee at the DPW facility on Grove Street. The first year of this program was 2003 when the department gave out recycling bins that November as part of America Recycles Week. Since that time the event has grown into a twice-yearly event at which the department collects clothing, shoes and sneakers, used toys, books, DVD's and CD's, bicycles, and scrap metal. In addition we have a company available to shred documents. The Board of Health is at the event and collects medical waste such as syringes and prescription drugs. At each event the DPW also collects TVs and CRTs and distributes recycling bins.

<b>Recycling, Solid Waste, and Hazardous Waste Statistics (in tons unless specified)</b>		
<b>Materials</b>	<b>2007</b>	<b>2008</b>
Solid Waste	16,562	15,995.93
Paper/chipboard/cardboard	3,345	3,291.53
Commingled (glass/plastic/metal)	1,176	1,258.86
Yard Waste	2,390	3,606.00
Abitibi (paper recycling)	38	139.38
Got Books (book recycling)	19	18.01
<b>Total (Tons)</b>	<b>23,530</b>	<b>24,309.71</b>
<b>Recycling Rate</b>	<b>29.6</b>	<b>34.20</b>
TV/CRT's	2,023 (units)	2,747 (units)
Appliances	1,850 (units)	741 (units)
Florescent bulbs (mercury based)	8,415 (linear feet)	19,150 (linear feet)
CFL's	590 (units)	1,008 (units)
Other Mercury containing Items	95 (pounds)	95 (pounds)

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## Household Hazardous Waste Collection

2008 marked the eleventh year of Arlington's membership in the regional household hazardous waste collection facility at 60 Hartwell Avenue in Lexington. Eight monthly collection days were held from April through November. The program continues to collect large quantities of hazardous materials including pesticides, chemicals, used motor oil, antifreeze, and household cleaning products. In 2008 the Town properly disposed of 546 carloads of hazardous materials.

## Engineering Division

The Engineering Division continues to provide a wide variety of support services to other DPW divisions, various Town departments, commissions, contractors, public utilities, and to the general public. The Engineering Division works closely with the Highway, Water, and Sewer Division upgrading and improving the infrastructure of the Town by providing surveys, engineering design, construction plans, field layouts, and field inspection services. The Engineering Division also provides technical design and specification for municipal infrastructure improvements; oversees contracted maintenance of the Town's traffic signals; reviews and makes recommendations on the impacts of planned private construction projects; and reviews and provides regulation on proposed private way projects and improvements.

### *Engineering Accomplishments*

- Completed Water Main replacement projects at the following locations:
  - Spring Street – Highland Avenue to Wall Street
  - Arlmont Street – Highland Avenue to Spring Street
  - Wall Street – Arlmont Street to Spring Street
  - High Haith – Arlmont Street to Spring Street
  - Bartlett Street – Wildwood Avenue to Massachusetts Avenue
- Resurfaced the following roadways:
  - Highland Avenue – Massachusetts Avenue to Gray Street
  - Lake Street – Massachusetts Avenue to Town Line
  - Medford Street – Orchard Terrace to Town Line
  - Broadway – Winter Street to Town Line
  - Park Avenue – Route 2 to Park Circle
  - Forest Street Patching – Winchester line to Park Avenue Extension
- Reconstructed sidewalks along the Robbins Parks and lower section of Highland Avenue.
- Constructed new sidewalks along either side of the Thompson School athletic fields.
- Completed construction of sewer improvements within the Year #1 designated area of

- the Town's 12-year Improvements Program.
- Area bounded by Spy Pond to the west, Cambridge Town Line to the east, Massachusetts Avenue to the north, and Route 2 to the south.
- Began design of sewer improvements for the Year #2 designated area. (Symmes Hospital and Mountain Road Area).
- Reviewed and commented on six Board of Survey Plan submittals. Review of proposed new Private Ways included:
  - Colonial Circle (off of Lowell Street); five new lots proposed
  - Cutter Hill Place (between Cutter Hill and Ridge Street); five new lots proposed
  - Dothan Street extension; one new lot proposed
  - Elder Terrace; one new lot proposed
  - Florence Terrace; one new lot proposed
  - Washington Street (side street at 50 Washington); 2 new lots proposed
- Reviewed twenty-eight projects for compliance with the Town's Storm-water Mitigation Bylaw.
- Provided Construction estimates for residents of several Private Way neighborhoods looking to make improvements under the Town's Betterment Program.
- Assumed the role of ombudsman for abutter inquiries regarding the Mass. Highway Department reconstruction of Summer Street; and received and negotiated resolution on 154 requests, questions, and complaints.
- Performed a comprehensive review of the FEMA remapping of 100-year and 500-year flooding zones (with consultant assistance); and conducted a public hearing and public notice campaign on how these regulatory changes will effect Arlington property owners.
- Drafted preliminary Subdivision Regulations. The Town is pursuing special state legislation to expand the regulatory authority to enforce these regulations via the Board of Survey review process.
- Developed a GIS-ready database inventory of all locations needing the installation of handicapped accessible sidewalk ramps and projected a capital cost for the construction of these ramps.
- Participated in the Metro-Northwest Consortium in the development of cooperative, regional procurement of municipal roadway and sidewalk construction projects; and successfully completed our 2008 projects under the resulting regional bids.
- Drafted and received Mass. DEP regulatory

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approval on a comprehensive update of the Arlington Reservoir Emergency Action Plan.

- Drafted mandatory construction standards for contractors and other utilities doing excavations in Arlington public ways.

## Highway Division

The Highway Division of the Public Works Department maintains 102 miles of roads, 175 miles of sidewalks, 175 miles of curbing, eight parking lots, along with numerous guardrails, stairs, walls, and fences. The division also performs street sweeping services and maintains traffic lines, signs, and drainage systems (culverts, pipes manholes, catch basins and drain channels).

### Street Sweeping

The Town is swept three times annually.

- Spring sweeping of all paved streets completed.
- Summer sweeping of all paved streets completed.
- Fall sweeping cut short by early snowfalls (Rtes. 1-24 done, Rtes. 25-32 not completed due to early snows).
- Sweeping on main streets done weekly (twenty-eight times).

### Snow and Ice Control

There were sixteen snow and ice events from 12/5/06 through 4/5/07.

- Private contractors used for nine events.
- Fifty-nine inches total snow fall for season.
- 550 tons sand/salt mix used.
- 8,339 tons road salt used.
- Eighteen plow damage complaints received and repaired.

### Highway Division Performance Measurements

- Painted 228,360 ln/ft of centerline, fog line, and crosswalks.
- Painted 23,050 ln/ft parking bay lines.
- Installed 4,368 ln/ft of 12 inch thermo plastic crosswalk.
- Milled 4,008 li/ft old thermo plastic down to pavement.
- Repaired or replaced fifty-one catch basins.
- Cleaned over 1,200 catch basins.
- Pothole patching: over 1.3 million lbs. hot asphalt mix placed and compacted.
- Removed and installed 1,694 ln/ft concrete sidewalk.
- Removed and installed 1,122 ln/ft asphalt sidewalk.
- Installed 150 ln/ft granite curbing.

- Responded to twenty-three TAC requests including Safe Routes to School program at the Peirce, Bishop, and Thompson Schools.

### Special Projects in 2008

- Disassembled mail room equipment and relocated it at Town Hall.
- Removed, designed, and re-built the stairway from North Union Street to ball field.
- Installed bike racks at various locations around Town.
- Framed and poured three concrete playground pads at the new Bishop playground.
- Moved Selectman's office into the conference room for re-model job.
- Removed and re-set brick walk from the Town hall parking lot to the senior center.
- Removed and re-set brick walk from the Senior Center parking lot to the Town gardens.
- Removed and re-set 200 in/ft brick walk in the Town garden.

## Water/Sewer Division

The Water and Sewer Division continues to maintain 135 miles of water mains, 127 miles of sewer mains, and numerous hydrants, valves, and service connections/shut offs. Additionally, the department reads usage meters and prepares bi-annual bills on 12,300 accounts.

### Water/Sewer Performance Measurements

- Replaced 102 water services.
- Repaired fifty-five water main breaks.
- Worked with the fire department to perform annual fire hydrant inspections.
- Replaced twelve hydrants.
- Repaired fifteen hydrants.
- Replaced seventeen gate valves.
- Responded to 115 sewer complaints.
- Repaired forty-five sewer system breaks.
- Attended 402 meter repair/replace meter appointments, replacing 443 meters.
- Started phase #1 of the three-year Town flushing program.
- Worked with highway department on annual basin cleaning project.
- Read approximately 12,300 meters and produced water and sewer bills.
- Operated and maintained the Towns nine lift stations.
- Performed 195 mark outs for Keyspan, Nstar, and Verizon excavations.
- Performed ninety-eight water shut offs for maintenance/repairs.
- Responded to sixty-two calls for street and property leaks.

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- Responded to twenty no water calls.
- Responded to seventeen dirty water calls.
- Provided emergency response crew 24/7 successfully.
- Responded to sixteen low pressure calls.

## Motor Equipment Repair Division

The Motor Equipment Repair Division continues to maintain 105 over-the-road vehicles including three front end loaders, five backhoes, two farm tractors, nine heavy-duty dump trucks, nine small dump trucks, twenty-two pickup trucks, six utility body trucks, ten snow fighters, nine school buses, three street sweepers, two sewer flushing trucks, one rubbish packer, one compressor truck, one generator truck, two welding trucks, six sedans, three vans, one heavy-duty crane, one rack body, one small, multi-use tractor, one flat bed, and one wrecker-tow truck.

Community Safety continues to maintain forty-six road vehicles: Twenty-six cruisers, two motorcycles, twelve fire trucks, five fire cars, and one van.

The average age of our construction vehicles is 9.3 years, and we have three vehicles that are over 20 years old. The efficiency and productivity of our work demands that we stay with an annual replacement program for our oldest vehicles.

## Properties Division

The Properties Division provides the Town with quality custodial services, maintenance, and improvements to its public buildings and facilities. The Division is responsible for the maintenance of forty individual public buildings:

### Performance Measurements

- Fox Library Replaced the Natural Gas heating boiler (\$17,300 and window replacements (\$4,700).
- DPW Building C - Replaced the Fire Alarm System (\$4,800), repaired the materials lift (\$14,300) replace one of three vehicle lifts (\$14,600).
- DPW Buildings A & B - Replaced 2 Natural Gas heating boilers (\$17,900).
- Reached compliance on all seven recommended building repairs as identified in a MIIA Insurance Audit.
- Stratton School - Converted heating plant to natural gas and removed the underground fuel tank.
- Robbins Library (Building Ext.) - waterproofing project.
- Robbins House - gutter replacement and chimney project.
- Ottoson Middle School - courtyard water-

List of Public Buildings (40) serviced by Building Maintenance	
<p><b>Arlington Schools</b>                      Arlington High School                      Athletic Field Snack Shack                      Ottoson Middle School                      Stratton Elementary School                      Peirce Elementary School                      Dallin Elementary School                      Brackett Elementary School                      Bishop Elementary School                      Hardy Elementary School                      Thompson Elementary School</p> <p><b>Non-Public Schools</b>                      Gibbs (Private Use)                      Crosby (Dearborn Academy)                      Parmenter (Private Use)</p> <p><b>Public Safety</b>                      Community Safety Building                      Central Fire Station                      (Headquarters)                      Park Circle Fire Station                      Highland Fire Station</p> <p><b>Recreation</b>                      Bath House                      Recreation Ice Rink                      Spy Pond Fieldhouse</p> <p><b>Libraries</b>                      Robbins Library                      Fox Library</p>	<p><b>Central Services</b>                      Town Hall                      Town Hall Annex</p> <p><b>Public Works</b>                      DPW (Grove Street Complex)                      Assembly Hall                      Director/Engineering/Inspection                      Snow Fighting Garage                      Maintenance Garage                      Large Salt Shed                      Small Salt Shed                      Dog Pound                      Cemetery Chapel                      Cemetery Garage                      Reservoir Pump house</p> <p><b>Miscellaneous</b>                      Robbins House                      Robbins Cottage                      Jarvis House (Legal Dept.)</p> <p>Jefferson Cutter House                      Mount Gilboa                      23 Maple Street                      (Old High School)                      27 Maple Street (House)</p>

proofing project.

- Town Hall Annex - roof replacement.
- Town Hall - Gas Boiler Replacement.
- Gibbs - main building roof replacement.
- Arlington High School - installed emergency generator for town wide phone system, and installed emergency generator for Pierce Field bleacher lighting.
- Arlington High School - Replaced domestic hot water boiler in old building
- Arlington High School - Media Center, classroom expansion project.
- Community Safety - Built Incident command center.
- DPW Building C - Built truck wash station.

## Natural Resources Division

The Natural Resources Division consists of the Forestry and Parks and is responsible for the proper management, care, and maintenance of the Town 18,000 public trees.

### Forestry

The Tree Division removed 253 diseased, storm damaged, or root damaged trees. Planted 160 new trees. The division responded to 460 calls for pruning and trimming.

During the year the division maintains the Donald R. Marquis/Minuteman Trail that runs from the Cambridge line to the Lexington line. The division also is responsible for the execution of the holiday lights program. The division cleans and maintains traffic islands



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around Town. On Massachusetts Avenue the division takes care of the American flags and the banners. Staff of the division maintains the extensive grounds between Town Hall and the Robbins Memorial Library.

### Park Maintenance

The ever-increasing athletic programs are causing very serious maintenance problems for the division. From mid March through November all athletic fields are under extreme duress. It is nearly impossible to maintain grass and other surfaces under these conditions. Graffiti removal has become a strain on the division as well.

Graffiti Removal <small>(hours dedicated to removal)</small>	2007	2008
Town Areas	200	250
Bike Path	215	265

The division maintains twenty-eight parks, numerous playgrounds, athletic field infrastructure open spaces, and public lands including: the Reservoir forested trails and beach facility, North Union Spray Pool, the Town Hall Gardens, the Donald R. Marquis/Minuteman Trail, Broadway Plaza, the Robbins House, gardens and traffic islands around Town.

### Accomplishments

- Planted 160 trees (2" caliper or smaller)
- Removed 253 diseased, storm damaged or root damaged trees.
- Trimmed and/or pruned 460 trees.
- Maintained twenty-eight parks.
- Cut and rake twenty-six traffic islands.
- 75 – 100 trash barrels throughout town emptied daily.
- Sanded or chips added to playgrounds (twenty-five) as needed.
- Marked and dragged baseball diamonds (seventeen) for games.
- Wet markings of athletic fields (twenty) are done in the spring and fall. Must be gone over weekly.
- Playground equipment is maintained and repaired as needed.
- Special Town events such as Town Day including set-up, clean up/take-down, and disposal of public trash.
- Removed graffiti in all Town areas (250 hours) and bike path (265 hours).
- Completed infield improvements at Buck Field, Scannell, McClennen, Spy, Summer, and the Ottoson field.

- Performed winter snow/ice control on Town sidewalks and parking lots.



*Winter Entrance to Town Hall*

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## Cemetery Division

The Cemetery Division maintains the Mt. Pleasant Cemetery and the Old Burying Grounds. Starting in 2008, lawn mowing, raking and tree trimming are done by contracted services. Maintenance of gravestones, tombs, walls, fences, roadways, trees, and the Chapel continue to be provided by the remaining five staff members,

The Mount Pleasant Cemetery is expected to run out of spaces for new gravesites within the next five or ten years and planning for future interments is a major priority. The Cemetery Expansion Committee was formed by Town Meeting in 2006 and has been actively pursuing expansion land including a memorial park for the placing of cremains in Cooke's Hollow.

## Accomplishments

Successfully privatized mowing, raking, and trimming services at the Mt. Pleasant Cemetery grounds, realizing more than \$70,000 annually when including benefit and overhead costs with operational savings.

Revenues at Mount Pleasant Cemetery	2006	2007	2008
Sale of single graves	\$100,500	97,100	95,800
Perpetual Care	21,000	18,200	26,500
Openings/Foundations/ Sat./Holiday Charges	223,150	267,250	292,700
<b>Total Revenues</b>	<b>\$344,650</b>	<b>382,550</b>	<b>415,000</b>
New Graves	77	48	53
*Total Interments	226	212	202
Total Cremains	58	33	50

*\*Interment amount include cremains amount.*

## Recognitions

After twenty-five years of service, James Wright retired from his position as Working Foreman in the highway division. We wish him many long years of fulfilling retirement.

## In Conclusions

We extend our thanks to our dedicated Public Works workers who keep our roads repaired and plowed, water flowing, our sewers running, our trash picked up, and our parks attractive. Their efforts are an important part of the high quality of life that we enjoy in our community.



*Winter wonderland at Town Hall Gardens*