

# PUBLIC WORKS

## DEPARTMENT OF PUBLIC WORKS

The Arlington Department of Public Works (DPW) is comprised of eight divisions: Administration, Engineering, Highway, Water/Sewer, Properties, Cemetery, Natural Resources, and Motor Equipment Repair. With a staff of 120 full-time personnel, including 31 school custodians and 10 building maintenance staff. 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 (budget preparation and administration), invoice payment, invoice billings, grant management, and water/sewer reading - 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 street-light maintenance on public ways and parking lots.

### Solid Waste Collection

Waste Management provides contracted 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 wastes are 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 fifty public trash barrels. The bulky item collection program collects large items like couches, tables, and sinks.

The Town also provides contracted dumpster trash collection (usually weekly) at schools, the municipal buildings, non-profit organizations, apartment complexes, and condominium complexes.

### Recycling

Waste Management also collects recyclable items curbside on a bi-weekly schedule. The Department issues an annual guide with all the information needed for residents and businesses to make our recycling efforts successful.

In 2009 the Town implemented "single-stream" recycling. Under single stream, residents no longer need to separate recyclables. All of the materials mentioned above can be co-mingled in a single container and placed curbside for collection. Our solid waste hauler transports our recyclables to a plant in Everett that completes the separation into the different materials for reuse. Many homeowners are discovering the convenience of placing all of their recyclables, unsorted in a single "trash" barrel labeled with recycling stickers.

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 as part of America Recycles Week in November. 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. Additionally, a company is available to shred documents. The Board of Health also collects medical waste such as syringes and prescription drugs at these events. At each event the DPW also collects TV's and CRT's.

### Yard Waste Collection

Waste Management also collects yard waste curbside on a bi-weekly schedule from mid-April to mid-October, and weekly from mid-October to early-December. Leaves and grass clippings can be placed curbside in barrels with a Yard Waste identification sticker or in compostable 30-gallon paper bags. Branches up to 1" in diameter can be placed curbside if cut into 3 foot lengths and tied into 30 pound maximum bundles.

Additional recycling information can be found online at [www.arlingtonma.gov/recycle](http://www.arlingtonma.gov/recycle).

Recycling, Solid Waste, and Hazardous Waste Statistics (in tons unless specified)		
Materials	2009	2010
Solid Waste	15,359	15,166
Paper/chipboard	2,936.01	n/a
Commingled (glass/plastic/metal)	1,228.71	4,300.59*
Abitibi (paper recycling)	127.40	159.35
Got Books (book recycling)	18.47	23.00
TOTAL (Tons)	19,670	19,625
<b>RECYCLING RATE</b>	<b>28.1</b>	<b>29.6</b>
Yard Waste	3,216	2,421
TV/CRT's	2,174 (units)	2,432 (units)
Appliances	677 (units)	407 (units)
Florescent bulbs (mercury based)	20,656 (linear feet)	9,539 (linear feet)
CFL's	1,162 (units)	676 (units)

\*paper & commingled

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## *Household Hazardous Waste Collection*

2010 marked the thirteenth 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 2010 the Town properly disposed of 727 "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, reviews and provides regulation on proposed private way projects and improvements.

## *Accomplishments*

- Designed, awarded, and provided construction oversight for 4,575 linear feet of water main replacement at the following locations:
  - » Lancaster Road - Mass. Ave. to Smith St.
  - » Hibbert Street - Woodbury St. to Boundary Rd.
  - » Dundee Road - Massachusetts Ave. to Arnold St.
  - » Williams Street - Arnold St. to Smith St.
  - » Nicod Street - Wollaston Ave. to End
  - » Arnold Street
  - » Woodbury Street
- Completed Sanitary Sewer Improvement Projects at the following locations:
  - » Nicod Street - Wollaston Ave. to End
- Completed Stormwater Drainage Improvements at the following locations:
  - » Oak Knoll
  - » Washington Street
- Resurfaced and/or reconstructed 11,355 linear feet of roadway at the following locations:
  - » Washington Street - Mountain Ave. to Summer St.
  - » Wollaston Avenue - Park Ave. to West St.
  - » Hillside Avenue - Wollaston Ave. to Appleton St.
  - » Brattle Street - Massachusetts Ave. to

- Dudley St.
- » Valentine Road - Appleton St. to Virginia Rd.
- » Dow Avenue - Appleton St. to Virginia Rd.
- » Laurel Street - Brattle St. to End
- » Mill Lane - Lowell St. to Frazer Rd.
- » Paul Revere Road - Appleton St. to Park Ave.
- » Prospect Avenue - Park Ave. to Hillside Ave.
- » Blossom Street - Park Ave. Ext. to Newland Rd.
- » Newland Road - Blossom St. to Summer St.
- Completed Sidewalk and Curb Repair and/or Installation at the following locations:
  - » Washington Street
  - » Westminster Avenue
  - » Mill Lane
  - » Hillside Avenue
  - » Park Circle
- Surveyed and re-configured the intersections of Overlook Road/Washington Street and Ronald Road/Washington Street.
- Installed approximately 70 new ADA Compliant curb cuts and wheel chair ramps at roadway intersections at various locations in Town.
- Provided oversight and construction support for the reconstruction of the Mill Brook culverts at Mill Lane and Brattle Street.
- Reviewed sixteen projects for compliance with the Town's Storm-Water Mitigation Bylaw.
- Issued approximately 425 Street Opening and Trench Permits for various utility-related work on Public Ways.
- Assisted the Massachusetts Water Resources Authority (MWRA) with their Section 28 Pipeline Project in Arlington Center.
- Reviewed the 2010-Revised Federal Emergency Management Agency (FEMA) Flood Maps and successfully procured a Letter of Map Revision (LOMR) for the Spy Pond Area.
- Provided construction support and oversight for various projects in town, including the new CVS on Massachusetts Avenue and a retail block in the Heights.
- Completed investigation within the limits of the Year #5 designated area of the Town's Multi-Year Sewer Improvements Program.
- Provided oversight of new private way construction (Park Hill Circle at 50 Washington Street); 3 new lots proposed.
- Provided continued oversight of new private

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- way construction (Lillian Way).
- Provided oversight for the implementation of the Automatic Water Meter Reading System.
- Provided design oversight for proposed improvements to Forest Street. Project has received Federal Recovery Act funds totaling approximately \$1.6 million.
- Participated in the Metro-Northwest Consortium in the development of cooperative, regional procurement of municipal roadway and sidewalk construction projects; and successfully completed our 2010 projects under the resulting regional bids.

## 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 twice annually (spring fall), with an optional summer sweep evaluated annually.

- Spring sweeping of all paved streets completed.
- Summer sweeping was not conducted in 2010 as street cleanliness was adequate. The manpower for this task was diverted to bolster the sidewalk repair efforts. Summer sweep is evaluated annually to determine its need over other priorities.
- Fall sweeping was cut short by early snow-falls, 16 routes of 35 completed.
- Sweeping on main streets done weekly (twenty-eight times).

## Snow and Ice Control

- There were twenty snow and ice events.
- Private contractors used for five events.
- 40.5 inches total snow fall for season.
- 5,819 tons road salt used.

## Performance Measurements

- Painted 233,479 I.f. (linear feet) of centerline, fog line, bike lane, and crosswalks.
- Painted 3,780 I.f. parking space lines.
- Installed 3,904 I.f. of 12 inch thermo plastic crosswalk.
- Painted 59,406 I.f. crosswalk bars, stop bars, and parking bays
- Painted 87 miscellaneous traffic markings
- Repaired or replaced 65 catch basins.

- Cleaned over 1,071 catch basins.
- Removed and installed 2,530 I.f. concrete sidewalk.
- Removed and installed 1,719 I.f. asphalt sidewalk.



*Bike path reconstruction after 2010 spring floods*

## Special Projects

- Provided setup, tear down for Patriots Day Parade, Town Day, Feast of the East, and three Elections.
- Re-claimed bike path from Drake Road to Frazer Road following heavy spring flooding.
- Re-claimed lower Venner Road following heavy spring flooding.
- Staffed water distribution event for MWRA "Boil Water Order."
- Rebuilt wall at reservoir bathhouse.
- Moved public works administrative office from Town Hall to Grove Street.
- Installed solar powered trash and recycling compactors (Big Belly).
- Designed and built stage at Town Hall for Town Day.



*Public Works, Public Safety, and Public Health staff and volunteers at the free water distribution event during MWRA Boil Water Order*

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## Water/Sewer Division

The Water and Sewer Division continues to maintain 135 miles of water mains, 127 miles of sewer mains, 9 Sewer Lift Stations, and numerous hydrants, valves, and service connections/shut offs. Additionally, the Division reads usage meters and prepares bi-annual bills on 12,865 accounts.

### Performance Measurements

- Installed 11,597 new endpoints for automatic meter reading system (ARM).
- Provided emergency response crew 24/7.
- Replaced 108 water services.
- Worked with the fire department to perform annual fire hydrant inspections.
- Repaired or replaced 47 hydrants.
- Replaced 23 sewer service lines.
- Responded to 50 sewer back-up calls.
- Repaired or replaced 14 water-gate valves.
- Responded to 1,092 customer calls.
- Completed 445 meter appointments.
- Installed 31 temporary service lines.
- Processed 139 final water readings.
- Repaired 23 sewer system breaks.
- Replaced 610 meters.
- Worked with highway department on annual basin cleaning project.
- Read approximately 25,731 meters and produced water and sewer bills.
- Operated and maintained the Town's nine lift stations.
- Performed 412 mark outs for National-Grid, Nstar, and Verizon excavations.
- Performed 26 water shut offs for maintenance/repairs.
- Responded to 74 calls for street and property leaks.
- Conducted testing on 804 water quality samples.
- Cleaned out 65 sewer blockages.
- Cleaned and repaired 28 drains.
- Created 28 new billing accounts.

## Motor Equipment Repair Division

The Motor Equipment Repair Division continues to maintain 105 over-the-road vehicles including three front end loaders, five backhoes, one mini-excavator, two 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, and one flat bed.

The average age of our construction vehicles is 10.4 years, and we have five 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.

### Vehicles Purchased

Utility Truck – Operations	\$28,102
40,000 GVW 4x4 Dump w/plow – Highway	\$137,415
Dump Truck – Tree	\$28,683
Pickup 4x4 w/plow – Parks	\$30,740
Dump Truck w/sander and plow - Properties	\$45,659

## Properties Division

The Properties Division provides the Town of Arlington 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 listed in the table below.

List of Public Buildings (40) serviced by Arlington Properties Division	
<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 (HQ) 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.) Jefferson Cutter House Mount Gilboa 27 Maple Street (Senior Center) 23 Maple Street (House)</p>



Repair operations on water main break in Arlington Heights

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## *Performance Measurements*

- Town Hall - Waterproofed Clock tower and second floor exterior (north face).
- Town Hall - Waterproofed exterior of east facing side of building.
- Town Hall - Replaced roofing membrane over main auditorium.
- Facilitated temporary "Fire House" trailer at Grove Street complex.
- DPW - Completed build-out design and construction of Ouellette Building offices.
- DPW - Ouellette Building weatherproofing project.
- Maintained municipal parking lot meters.
- Assisted with energy saving lighting retrofits.
- Completed FEMA damage inspections and reports (February/March storms).
- Installed electric service for five water collectors.
- Rewired master fire boxes.
- Assisted in removal of street fire boxes.
- Community Safety - Miscellaneous waterproofing and roof repairs.
- Robbins Library - Completed additional gutter "heat tape" project.
- Robbins Library - Added lighting to main reading room.
- Robbins Library - Replaced rooftop chiller.
- Robbins House - Completed front porch renovation project.
- Robbins House - Completed roof insulation project.
- Robbins House - Completed rear porch renovation project.
- Robbins House - Replaced roofing and gutters on lower roofs.
- All Schools - Participated in the school National Security Program.
- AHS - Updated fire sprinkler system.
- AHS - Replaced stage floor.
- AHS - Painted front of building.
- AHS - Replaced flagpole.
- AHS - Replaced "B" building boiler.
- AHS - Replaced steam traps throughout building.
- AHS - Replaced Lowe Auditorium carpet.
- Ottoson - Refinished gym floor.
- Ottoson - Completed lower roof repair.
- Dallin - Refinished gym floor.
- Brackett - Refinished gym floor.
- Brackett - Replaced energy management system.
- Stratton - Replaced electrical service.
- Peirce - Replaced energy management system.
- Crosby - Replaced roofing.

## **Natural Resources Division**

The Natural Resources Division consists of the Forestry and Parks sections and is responsible for the proper management, care, and maintenance of Arlington's more than 18,000 public trees, thirty parks, numerous playgrounds, athletic field infrastructure, open spaces, and public lands.

### *Forestry*

The Division removed 123 diseased, storm damaged, or root damaged trees including 21 trees that were uprooted in June during a localized disaster caused by a 'microburst' that tore through East Arlington. The Division also planted 130 new trees and responded to 59 calls for pruning and trimming.

During the year the Division maintained the Arlington section of Minuteman Trail, cleaned and maintained traffic islands around Town, and on Massachusetts Avenue maintained the American flags and the banners and executed the holiday lights program. The Division also maintained the extensive grounds between the Town Hall and the Robbins Memorial Library.



*Town Hall Gardens*

### *Parks*

The Division maintained thirty 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.

### *Performance Metrics*

- Planted 130 trees (2" caliper average size).
- Removed 123 diseased, storm damaged or root damaged trees.
- Trimmed and/or pruned 59 trees.
- Maintained thirty parks with riding mowers, push mowers, and weed-whackers.
- Cut and rake twenty-six traffic islands.
- Over 140 trash barrels emptied daily.

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- Sand or chips added to playgrounds (twenty-five) as needed.
- Marked and dragged baseball diamonds (twenty for games).
- Wet markings of athletic fields (twenty) in spring and fall. Must be repeated weekly.
- Playground equipment is maintained and repaired as needed.
- Special Town events such as Town Day including set-up, clean up/take-down, plus disposal of public trash.
- Removed graffiti in all Town areas and bike path.
- Performed winter snow/ice control on Town sidewalks and parking lots.
- Performed clearing of bus-stops and sidewalk ramps in commercial centers and around schools.

Mt. Pleasant Cemetery 2010 Revenues	Number	Revenues Invoiced
New Grave Site Sales	66	\$ 127,000
New Urn Grave Sales	7	\$ 2,500
Perpetual Care Sales	68	\$ 34,000
Grave Site Buy-backs	1	\$ (650)
Earth Burials	193	\$ 192,150
Cremain Burials	51	\$ 15,300
Non-Resident Burials	78	\$ 39,000
Overtime, Holiday Surcharges	43	\$ 31,100
Mock Burial	2	\$ 400
Foundation Charge	55	\$ 9,350
Disinterments	2	\$ 2,300
Chapel Use, Misc.	2	\$ 150
<b>Total Gross Revenues</b>		<b>\$ 452,600</b>

### Performance Measurements

- Provided 244 interments (193 full burials and 51 cremain burials).
- Conducted two disinterments.
- Performed cemetery fee services, raising \$452,600 in gross revenues.
- Sold 73 new grave sites.
- Completed the second and final phase of non-ornamental fence replacement.

### Recognitions

The following Public Works Employees retired in 2010 with over twenty-five years of service. David Palmacci (36 years), Pedro Ortiz (27 years). We wish them many happy years of well-earned retirement.

The Director, John Bean, retired in December and Town Engineer Michael Rademacher was appointed as his successor in early January 2011.

In conclusion we would like to extend heartfelt 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.



*Emergency repair site of Mill Brook Culvert by Ryder Street.*



*Path around Arlington Reservoir*

### 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 continues to be provided by the remaining five staff members.

Mount Pleasant Cemetery is expected to run out of spaces for new gravesites within the next five 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 in cooperation with the Conservation commission. A feasibility study has been completed and plans are forthcoming. The Cemetery is currently planning for green cremains burials. Chapel improvements for increased functionality are being explored. The concept of a columbarium is being explored as well. A columbarium is a structure for the interment of cremains.