

# RIDOT completes traffic signal change over to LED technology

Program saves the state more than \$500,000 annually

Just as residents try to save money on electricity by switching to energy-efficient light bulbs, the Rhode Island Department of Transportation (RIDOT) is realizing significant savings by changing out the bulbs in all of its traffic signals.

RIDOT recently completed converting 770 traffic signals to light-emitting diode (LED) lamps. The cost for the \$1 million project was

offset by more than \$600,000 in rebates by National Grid as part of the company's Energy Initiative Incentive Program. Additionally, RIDOT expects to realize a reduction of electricity costs of about \$530,000 due to the lower-wattage consumption of the LEDs as compared with standard incandescent bulbs.

"This was huge for the Department," RIDOT Director James R. Capaldi, P.E. said. "To be able to upgrade our traffic signals at essentially a break-even cost while saving energy and reducing maintenance costs is tremendous."

The electricity savings is based on the fact that each LED lamp only requires 14 watts of energy as compared with 116 watts per lamp for an incandescent bulb. At one intersection alone, the savings can be dramatic. Given a typical intersection with eight signal heads that runs 24 hours a day – with only one lamp out of three on each signal lit at any given time – the average yearly electricity cost with incandescent bulbs is about \$810. With LED lamps, the same intersection would see a yearly electricity bill of just \$99.

The savings continue in terms of maintenance. Since the new LEDs last from five to 10 years, as compared with about one year for the old incandescent bulbs, RIDOT will save money with fewer calls for lamp replacements. Fewer calls also mean less disruption for motorists from work crews set up in intersections.

Additionally, each lamp has multiple LEDs, so the light will remain functioning even if a few LEDs have burned out.

Since July 2000, RIDOT has

required that all new signal heads include LEDs for the red and green indications. In April 2002, RIDOT required all lights in new signals to use LED technology.

The Federal Highway Administration (FHWA) also contributed funding for this project, supporting 80 percent to 100 percent of the cost. About 620 of the signals were upgraded as part of normal activities for RIDOT's Highway and Bridge Maintenance division and the rest were refitted with LEDs as part of a low-bid construction project.



## NOTICE OF PUBLIC HEARING TOWN OF JAMESTOWN

The following is intended to amend Chapter 82 of the Jamestown Zoning Ordinance. A public hearing to solicit public input is scheduled on **Monday, January 8, 2007** at 7:00 p.m. in the large conference room of the Jamestown Philomenian Library, 26 North Road.

### AN ORDINANCE AMENDING CHAPTER 82 OF THE CODE OF ORDINANCES OF THE TOWN OF JAMESTOWN

THE TOWN OF JAMESTOWN HEREBY ORDAINS AS FOLLOWS:

**Section 1.** Section 82-314 of Chapter 82 of the Jamestown Code of Ordinances is hereby amended to read as follows:

Section 82-314 B1-5. Amend as follows:

**B. Development within sub-district B.**

1. The slab, not including pilings/footings, of a dwelling shall have a 12-inch separation between the bottom elevation of the structure and the seasonal high groundwater table. ~~Footings and foundation walls that extend below the seasonal high groundwater table shall be constructed to allow groundwater to pass.~~ All Foundation elements below the seasonal high-groundwater table shall be engineered to allow for free passage of water.

3. Where RIDEM approves the separation between a leach field and a potable well which is less than 100 feet, the ISDS design shall provide for microbiological treatment of the effluent which shall result in a final concentration of fecal coliform of less than or equal to 200 mpn/100ml.

4. All ISDS and any well serving a new dwellings shall be located on the same lot as the structure it/they serves.

5. Total impervious surface coverage shall not exceed 15 percent. Elevated structures with roofs allowing for groundwater infiltration that are less than 120 square feet in size are exempt when calculating this percentage the amount of impervious surface coverage in sub-district B or sub-district A.

Section 82-314 C.  
Amend as follows:

**C. Development within sub-district A**

Any development within sub-district A shall, after review by the Planning Commission, require a special use permit per article 6 from the zoning board of review, ~~after review and recommendation by the planning commission,~~ in accord with the development standards Special Use Permit Criteria contained in this section.

1. Development Standards Criteria for the issuance of Special Use Permits.

The ~~Development Standards Special Use Permit criteria~~ contained in this section are implemented in recognition of:

- The natural characteristics of the land, including its suitability for use based on soil characteristics, geology, topography and susceptibility to surface and groundwater pollution;
- The values of unique or valuable natural resources and features;
- The availability and capacity of existing and planned public and/or private services and facilities;
- The goals and pattern of land use contained in the Jamestown Comprehensive Plan;
- The need to protect the island's vulnerable and limited water supplies by maintaining maximum groundwater recharge of rainfall and treated wastewater to replenish drinking water supplies and avoid salt water intrusion;
- The need to prevent further impacts and restore impaired areas where intense development and water use, in combination with limited land development suitability, have resulted in localized flooding, incidents of groundwater contamination, low well yields, and salt water intrusion.
- All efforts should be made to maintain original grade while minimizing cut and fill. All grading and filling should benefit the Stormwater management plan for the site and surrounding area.

All proposals for the granting of special use permits under this article 82-314 C shall, in addition to the requirements of article 6 hereof, meet the following criteria and, in addition, to the standards outlined in 83-314 B 1-6, which ever are greater:

2. Subsurface structures.

• The design of the subsurface structures shall minimize the problems and hazards created by the seasonal high ground water table and/or impervious layer and result in the least grading, filling, or other disturbance to the site and to any wetland buffer as possible. Any foundation elements below the seasonal high-groundwater table shall be engineered to allow for free passage of water.

4. Storm water management.

• The applicant shall demonstrate that runoff control measures have minimized site disturbance, maximized nonstructural controls, and have not adversely affected subsurface flow of groundwater.

• All proposals shall show, to the greatest extent possible that the proposed site improvements shall minimize fill and grading, and maintain, to the greatest extent possible, the existing overland flow of runoff from the site to surrounding areas.

• All storm water management measures will maintain the water quality function of wetland buffers and avoid any encroachment that might impair the wetland's pollutant removal capacity such as directing channelized flow to the wetland, reducing subsurface flow through the buffer, increasing sedimentation, reducing shade cover, or any alteration that would result in fluctuating water levels that negatively impact sensitive habitat.

**The Percent of Maximum Impervious Cover for Sub-District A Lots shall be as follows:**

Water Table Impervious Layer	0 - 10"	10.1 - 14	14.1 - 18"	Greater than 18"
0 - 20"	8%	9%	10%	11%
21 - 31"	9%	9%	10%	12%
32 - 42"	9%	10%	10%	13%
Greater than 42"	9%	10%	10%	see Sub-District B

Where the examination and/or testing of multiple areas of a lot yield different results as to the Water Table and/or Impervious Layer, the percent of maximum impervious cover for the lot shall be calculated on the most restrictive result. No lot in Sub-District A shall be allowed impervious cover in excess of 2,000 square feet, regardless of lot size. Freshwater wetlands shall be subtracted from total lot size prior to calculating maximum impervious cover above.

**5 D. Variances for prohibited development in sub-district A**

Applicants proposing uses prohibited pursuant to section A hereof shall, after development plan review by the planning commission, be required to obtain a use variance pursuant to article 6 hereof. In addition to the standards contained in article 6 hereof, all applicants shall demonstrate that the proposal meets, to the greatest extent possible, all of the development standards contained in subsections B and C hereof.

- a 1. Property boundary lines, with area and dimensions of the property to be developed;
- b 2. Vicinity plan showing adjacent or nearby properties, uses, ISDS's, wells, wetlands, streams or surface water reservoirs within a 200-foot radius;
- c 3. Topography map of the property
- d 4. Site specific soils map of the property
- e 5. Storm water management plan
- f 6. Wetlands map (wetlands on site shall be verified by DEM); and
- g 7. The planning commission or the zoning board may require additional information that they determine to be necessary to act on the application.

**Section 2.** This Ordinance amendment shall take effect upon passage.

Copies of the proposed amendment are available for review at the Jamestown Town Hall, **245 Conanicus Avenue** during normal business hours. The proposed Ordinance may be altered or amended prior to the close of the public hearing without further advertising, as a result of further study or because of the views expressed at the public hearing. Any alteration or amendment must be presented for comment in the course of the hearing.

This meeting location is accessible to the physically challenged. Hearing or speech impaired individuals requiring the services of an interpreter should call the Town Clerk at 401-423-7200 or facsimile 401-423-7230 not less than 3 business days prior to the meeting.