

## TEXTRON TAKES “BIG PICTURE” LOOK AT GORHAM SITE WITH NEW “CONCEPTUAL MODEL”

Textron recognizes that extensive investigative techniques are necessary before a comprehensive cleanup can be completed at a site as complex as the former Gorham Company site. Principal sources of contamination were identified years ago, but since then, issues have arisen that indicate smaller sources of groundwater chemicals exist that must also be cleaned up.

Historical photographs and documents on where materials were used, stored, or disposed of at the site formed the basis for early Textron site investigations. As each new environmental issue arose, further site investigations were conducted, and cleanup decisions were made or are being developed.

Recognizing that it is important to step back and look at the overall 37-acre site, Textron is now preparing a Site Conceptual Model (SCM) to obtain more information on groundwater conditions beneath the entire site, including groundwater moving into Mashapaug Cove. Information gathered for the SCM will help Textron determine how best to proceed with its ongoing comprehensive cleanup.

“We decided to conduct additional groundwater investigation and modeling because recent investigations uncovered sources of chemicals and issues that weren’t

detected earlier,” said Textron Site Remediation Project Manager Gregory L. Simpson. “That information will now be factored into the model to make sure we are looking at the entire site in a more holistic way,” he continued.

In recent months, Textron has installed 12 new groundwater-monitoring wells, including several near and inside the retail buildings. “The results from sampling these wells are being used to refine earlier site-wide groundwater modeling and better describe the presence and extent of contaminants. Results will also be used to identify the best methodology to treat groundwater chemicals and prevent them from entering Mashapaug Cove,” Simpson said.

According to Simpson, “Our cleanup efforts to date have already reduced the area of affected groundwater at the south end of the site by 40 percent. The question we now need to answer is how groundwater is moving beneath the entire site. In turn, this will allow us to prepare a comprehensive work plan for remediating remaining site-wide groundwater.”

Once complete, the SCM will be submitted to RIDEM and posted on the project web site. ♦

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## GORHAM MANUFACTURING COMPANY SITE

TEXTRON

# UPDATE

JUNE 2008

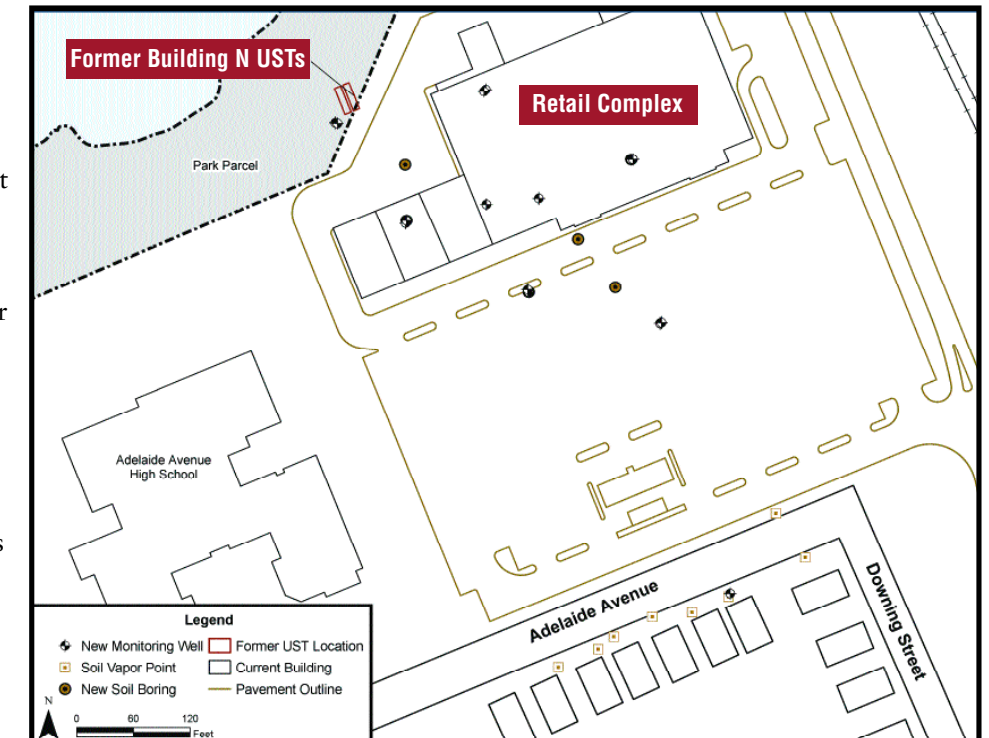
A Newsletter to Inform the Public About Textron’s Activities

### Textron continues to make progress on site cleanup commitments

Textron is making good on its commitment to take a more comprehensive approach to cleaning up the former Gorham Manufacturing Company site. The company has aggressively addressed indoor air concerns at the retail complex on the site (see story, page 2) and is investigating the potential for vapor migration toward the homes on Adelaide Avenue. Textron recently located two underground water storage tanks near the former Building N, emptied the water and then filled the tanks with concrete to eliminate any possibility that they would cause future concerns (see story, page 3). To ensure a comprehensive look across the site, the company is also preparing a detailed picture of soil and groundwater conditions across the site (see story, page 4). This “site conceptual model” will provide a better understanding of groundwater flow and site conditions and will also help indicate how best to treat the site groundwater.

Since December 2006, when Textron environmental staff began regularly attending RIDEM public meetings, the company has taken strides toward going beyond its RIDEM-approved 2001 agreement to clean the site to a commercial/industrial standard. A year ago, Textron Site Remediation Project Manager Greg Simpson publicly unveiled a three-phase plan to clean the entire area of the site designated as the “Park Parcel” to a level that would support recreational use and enable the City to proceed with plans for a park. Site investigation data on the proposal was presented at a public meeting last summer. Textron responded to comments from that public meeting, and the plan is awaiting review by the Rhode Island Department of Environmental Management (RIDEM).

While technical work continues, Textron is also making good on its pledge to keep the community informed and to listen and respond to questions and concerns. In the pages of this newsletter, we hope you’ll see evidence of Textron’s commitments and the actions it has taken to meet those commitments. ♦



Recent work by Textron addressed underground water storage tanks at the top left of this site map, the retail complex at the top center, and Adelaide Ave. homes across the street, at the bottom center of the site map. At this writing, Textron is awaiting homeowners’ permission to conduct indoor air testing at four homes.

### Comments? Questions? CONTACT TEXTRON

Because Textron values and encourages two-way communication with the community, please feel free to contact us with your comments and questions. Contact:

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Should you desire additional information on the Gorham site cleanup or redevelopment activities, you may contact:

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website

The RIDEM Website for the Gorham site cleanup may be found at:  
<http://www.dem.ri.gov/programs/benviron/waste/gorham.htm>.



## TEXTRON RESPONDS Will install vapor abatement system for retail building

After more than six months of careful soil and groundwater investigations, Textron is about to install a vapor abatement system inside the retail complex located on the former Gorham Manufacturing Company site.

Installation of the system, similar to one in operation at the high school, was recently given the go-ahead by RIDEM, pending additional tests of the soil beneath the retail building and subsequent state approval of a Textron work plan. The soil tests were conducted on May 8 and 9 and confirmed groundwater, not the soil, was the source of the vapors.

Low-level chemical vapors were first detected in the retail complex in September 2007 at levels below a health concern for workers and customers, according to a MACTEC Engineering company report filed with RIDEM. Groundwater, soil vapor, and soil testing showed that the vapors were coming from groundwater beneath the buildings.

Subsequent to the second series of tests, Textron told RIDEM that the company would identify and clean up the source of the groundwater, and as an interim measure, it would install the vapor abatement system to allow continued and future use of the retail buildings and to be protective of the health of store employees and customers.

Textron is currently coordinating details with RIDEM to install the system. ♦



Soil vapor testing at the retail complex involved the removal of a series of concrete cores from the slab floor of the former Stop & Shop building, as shown in the photo at left.



Steel rods, shown in the second photo, were driven into the soil through the space left by the cores, allowing a technician, shown in the bottom



photo, to conduct the actual soil vapor sampling. After the soil vapor samples were collected, these holes were sealed with a cement grout, pending the installation of the vapor abatement system.

## Building N underground storage tanks emptied of water, filled with concrete



In December and January, Textron laid to rest questions about underground storage tanks near the former Gorham Manufacturing Company Building N when its engineers used ground-penetrating radar and “trenching” (digging holes) to search the subsurface. Two 8700-gallon water tanks, believed to be part of the former building’s fire suppression system, were found buried in a 20-foot hillside extending under pavement behind the retail shops. Laboratory testing confirmed that the tanks contained water.

The tanks could not be removed because of concerns for utility and power lines buried nearby and a possible collapse of a driveway behind the retail building and above the tanks. So with RIDEM approval, Textron took an alternative approach.

In January, engineers pumped out and disposed of the water at a licensed off-site treatment facility and cleaned and filled the now-empty tanks with flowable, or liquid, concrete. In this way, the tanks won’t be crushed or collapsed by the weight of the ground or structures above them. No odors, soil contamination, or visual staining were found in soil around or beneath the tanks. Soil within a small, enclosed brick structure found next to the tanks was stained and was determined to contain petroleum residual. This small volume of soil was also removed for off-site recycling.

Textron installed a groundwater monitoring well upgradient of the tanks and is planning to install a second monitoring well immediately downgradient to make sure that no potential chemicals of concern from the tanks had earlier affected or will affect groundwater. Textron submitted a tank closure report to RIDEM on March 28, documenting the work.

“The area where the tanks are located,” according to Textron’s Greg Simpson, “is included in Phase I of our proposed Park Parcel cleanup and will be further graded and capped with clean soil. The tank locations will be clearly marked on site records, and this area will also be covered under a land use restriction, forbidding digging in the area.” ♦

Textron found two storage tanks, shown at top left, buried in a hillside behind the retail shops. Water in both tanks was pumped out, as shown in photos second and third from the top, and each tank’s interior was cleaned, as shown in the fourth picture. Finally, the empty tanks were filled with concrete and the site was graded to level, as shown in the picture on the bottom.

## GROUND-PENETRATING RADAR

Ground-penetrating radar (GPR) is a non-destructive technique that collects and records information about the subsurface. GPR involves the transmission of high frequency radar pulses from a surface antenna into the ground.

A graphic image of the subsurface can be obtained by detecting the reflected signals from subsurface structures. GPR is generally used for overall site clearance or for locating buried objects, tanks, pipes, and other underground features, and GPR is commonly used as part of Phase II environmental site assessments and other environmental studies. The instrument used by Northeast Geophysical Services (NGS) for the GPR survey at the former Building N was the SIR System-3 with 300-MHz and 500-MHz antennas manufactured by Geophysical Survey Systems, Inc. These antennae can penetrate up to 15 feet below the ground surface.