



Jorge Alvarez H.S. – Adelaide Avenue Providence, Rhode Island

Prepared for:

Providence Public Schools Department



Prepared by:



EA Engineering,
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11 October 2023

Former Gorham Manufacturing – RIDEM Online Data Repository

■ Gorham/Textron Site

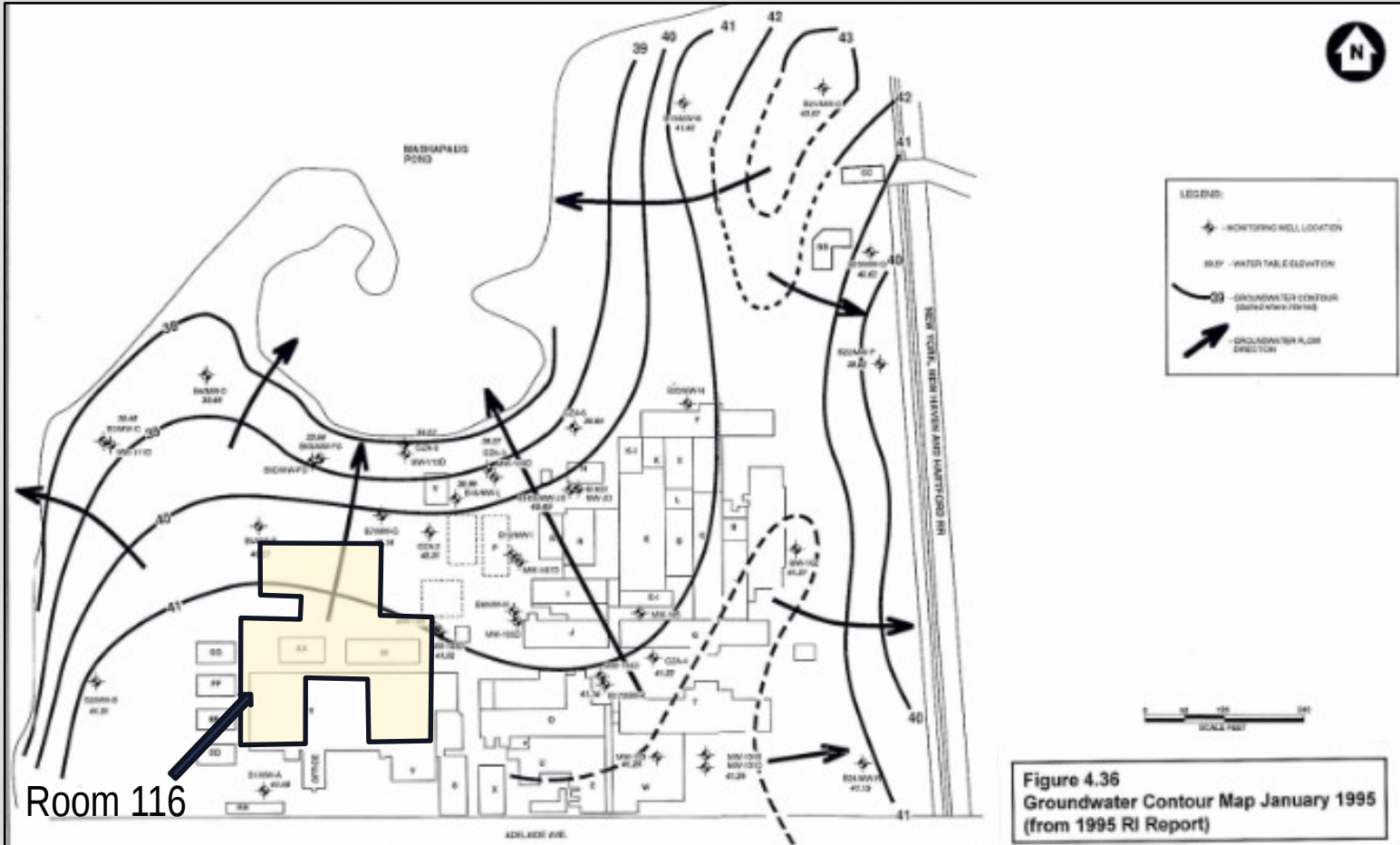
◆ 4 Properties comprise the Former Gorham Manufacturing Site

- **Stop & Shop Parcel (future Tesla) – Parcel A**
 - ☞ Semiannual groundwater sampling, groundwater pump and treat, and an active sub-slab depressurization system (SSDS) to address the volatile organic compounds in groundwater. This work is performed by the responsible party, Textron, Inc.
- **Public High School Parcel (J. Alvarez) – Parcel B**
 - ☞ Monthly and quarterly air sampling performed for Providence Public School Department. The school has an active SSDS installed during construction of the school.
- **“YMCA Parcel” (J. Alvarez athletic field) – Parcel C**
 - ☞ Semi-annual groundwater sampling by the responsible party, Textron, Inc.
- **Park and Mashapaug Cove Parcel - Parcel C1**
 - ☞ Semiannual groundwater sampling performed for Textron, Inc.
- **All four (4) properties have an engineered control cap that prevents direct exposure to underlying residual soil contamination.**

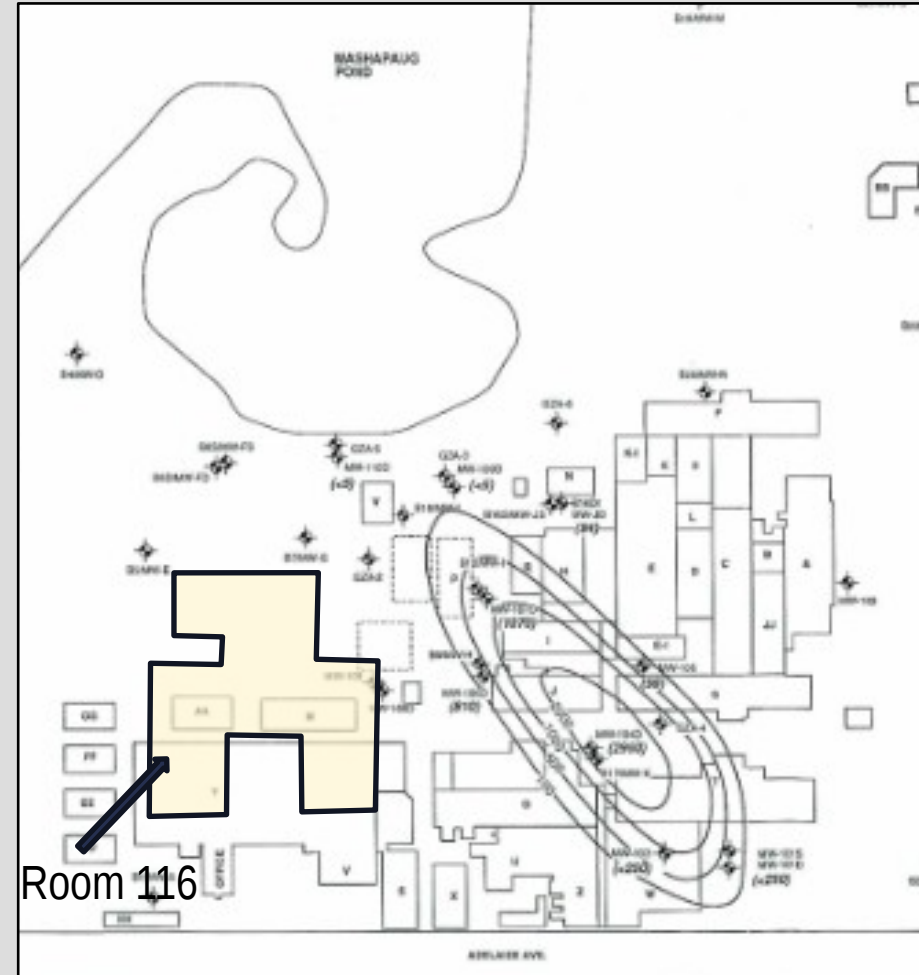


<https://dem.ri.gov/environmental-protection-bureau/land-revitalization-and-sustainable-materials-management/site-remediation-gorham>

Groundwater Flow and TCE Plume (1995)

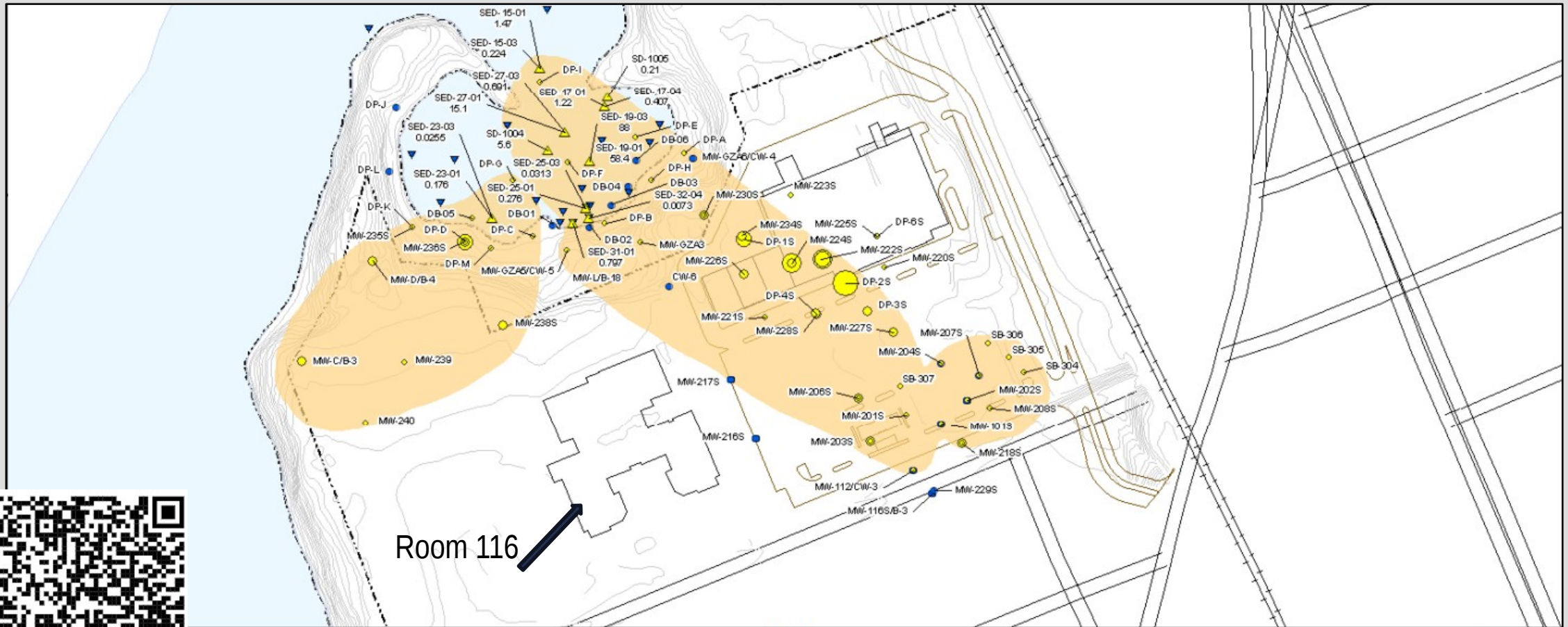


Groundwater Flow Direction (1995 Remedial Investigation)



Deep Aquifer TCE Plume (1995)

Former Gorham Manufacturing - Historic Groundwater Data (2006 – 2010)



Notes:
Data used for groundwater are all available data from 3/19/86 to 12/2/09.
Data used for sediment are all available data. Some locations have multiple depths of sediment.
Concentrations for sediments are in units of mg/kg.

- ▲ TCE Detected in Sediment
- ▼ TCE Not Detected in Sediment
- TCE Not Detected in Groundwater
- Approximate Plume Boundary

Legend

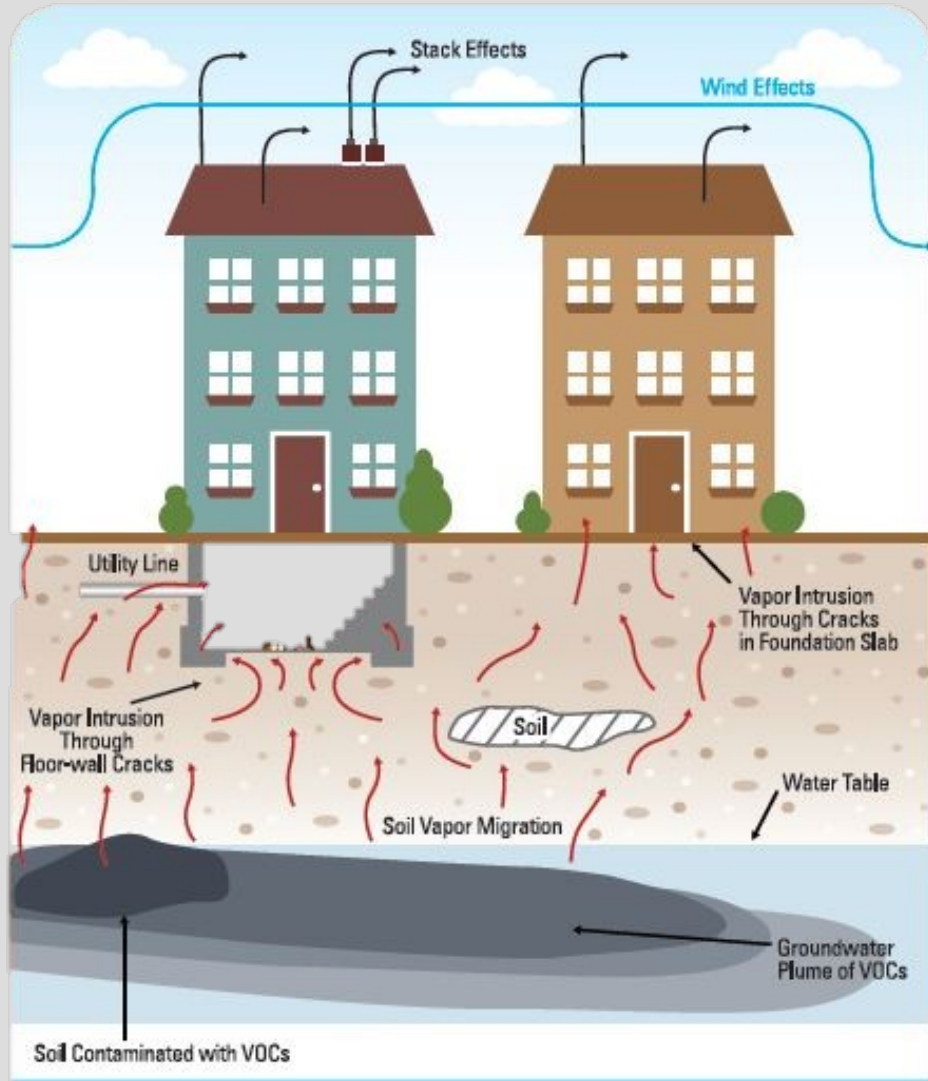
- TCE Concentration 0 - 0.2 mg/L
- TCE Concentration 0.2 - 1 mg/L
- TCE Concentration 1 - 5 mg/L
- TCE Concentration 5 - 10 mg/L
- TCE Concentration Above 10 mg/L
- Elevation Contour
- Pavement
- Railroad
- - - Park Parcel Boundary

Figure 7
Trichloroethene (TCE) Concentrations in Shallow Groundwater and Sediment Sampled From 2006 to 2010

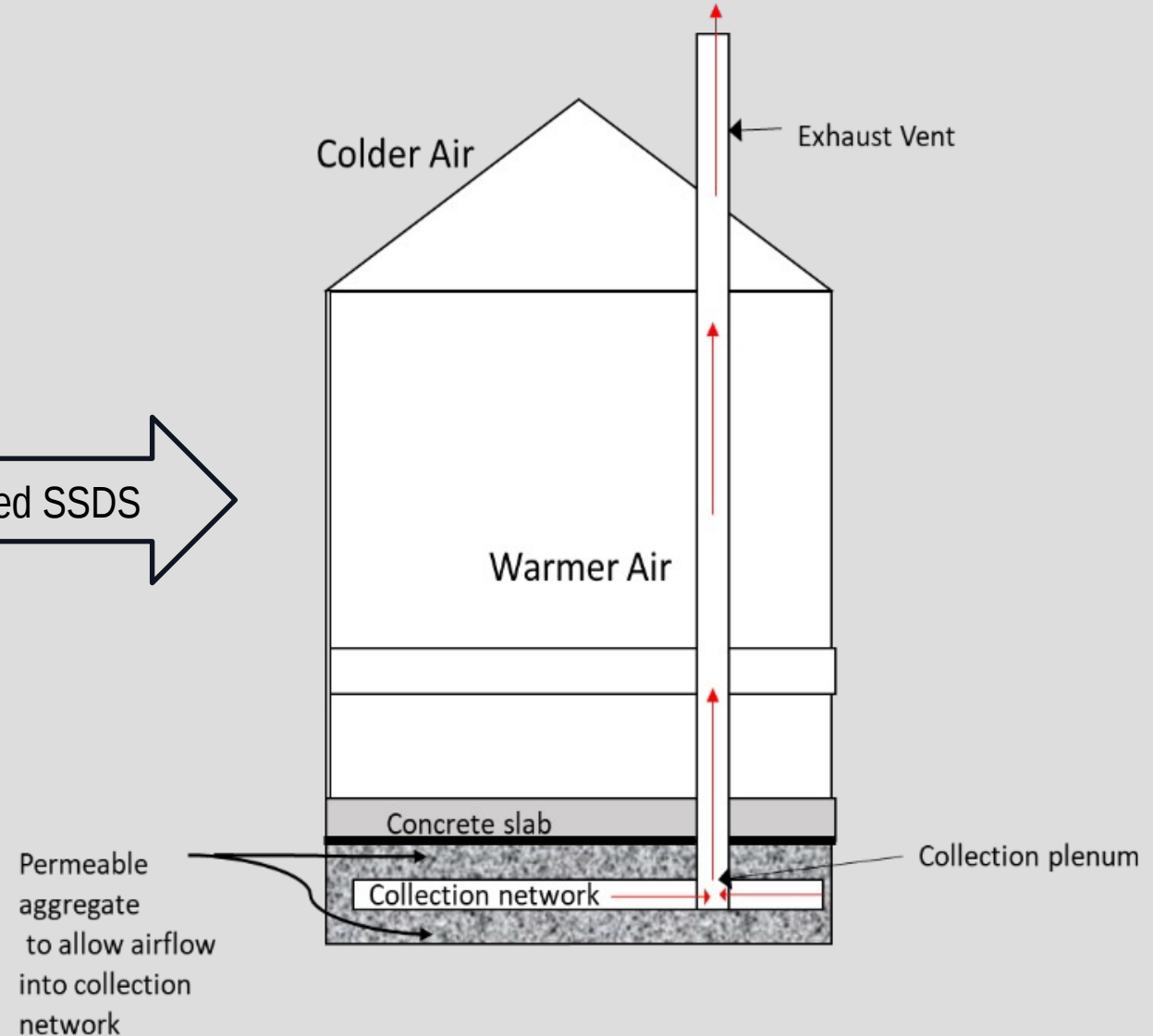
333 Adelaide Avenue
Providence, Rhode Island



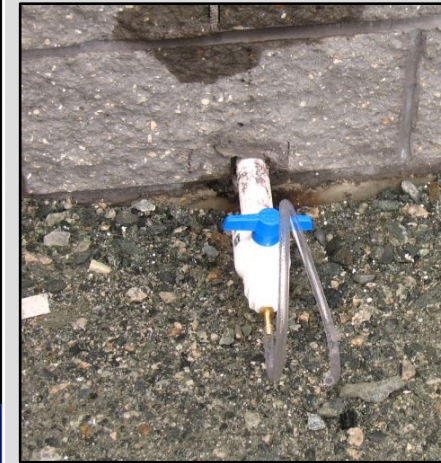
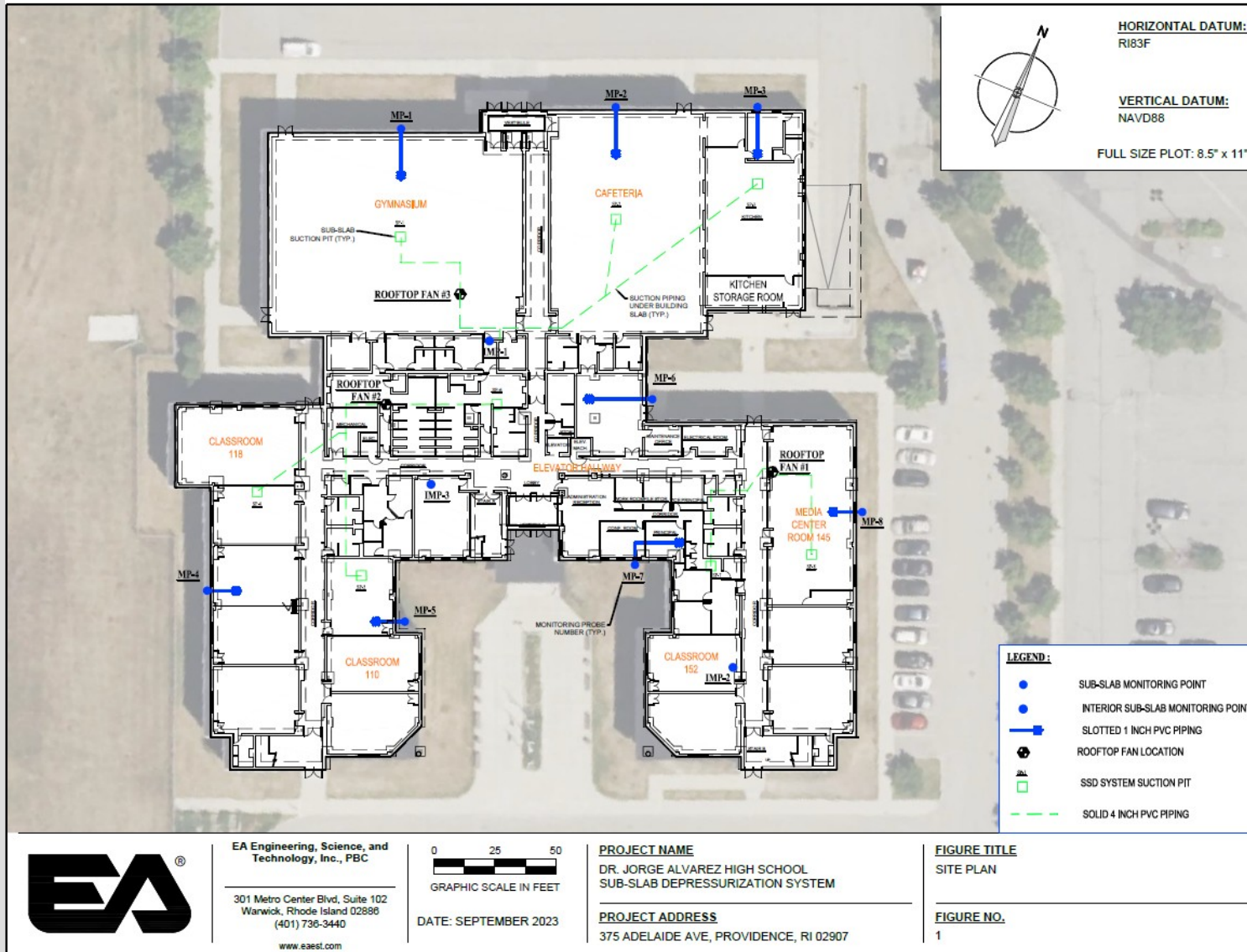
Former Gorham Manufacturing – Mitigating Vapor Intrusion



Engineered SSDS



Former Gorham Manufacturing – Monitoring Locations and Features



Former Gorham Manufacturing – Timeline and PPSD Monitoring Schedule



- Site Investigations – 1995 – 2005
- Order of Approval from RIDEM – 2006
- Federal Agency for Toxic Subst. & Disease Registry – Health Consultation – December 2006
- Sub-Slab Depressurization System (SSDS) On-Line – 16 March 2007
- First Air Sampling Event – March 2007
- Monthly and Quarterly Monitoring 2007 - 2023

Annual Sampling and Laboratory Analysis Program	Winter	Spring	Summer	Fall
Indoor Air Sampling (Rooms 110, 118, 145, 152, Cafeteria, Gym, Entrance Hallway, Kitchen)	Yes	Yes	Yes	Yes
Rooftop Fan Sampling (Fans 1-3)			Yes	
Interior Monitoring Points Sampling (IMP 1)	Yes	Yes	Yes	Yes
Interior Monitoring Sampling (IMP2)	Yes		Yes	
Interior Monitoring Point Sampling (IMP-3)		Yes		Yes
Exterior Monitoring Points Sampling (MP1,3,4,6)	Yes		Yes	
Exterior Monitoring Points Sampling (MP 2,5,7,8)		Yes		Yes
Monthly Inspection Monitoring (PID, methane and vacuum meas.)	Monthly (January through December)			



Former Gorham Manufacturing – Proposed Mitigation and Monitoring

Proposed Mitigation Plan – Room 116 Exceedance

- Upgrade existing rooftop SSDS exhaust fans
- Perform video survey of SSDS vacuum lines
- Contingency monthly classroom sampling (Room 116)
 - ◆ TCE not detected on 15 September
 - ◆ Rooms 115, 116, and 117 sampling 9 October
 - ◆ Additional in-wall sample collected 9 October (source tracing)
- 25 October quarterly school-wide sampling event
- If negative pressure beneath building does not improve, install additional SSDS point at MP-4 (below Room 116).



End of Presentation

