Attachment 5 – CAPA Photos
PEACEDALE ELEMENTARY SCHOOL

	Photo 21 Cracked mortar at a CMU stairwell wall.
	Photo 22 Close-up of Photo 21. Cracked mortar at a CMU stairwell wall.

Attachment 5 – CAPA Photos
PEACEDALE ELEMENTARY SCHOOL

	Photo 23 Cracked and missing mortar at a CMU wall corner.
	Photo 24 Close-up of Photo 23. Cracked and missing mortar at a CMU wall corner.

Attachment 5 – CAPA Photos
PEACEDALE ELEMENTARY SCHOOL

	Photo 25 A gap at the corner of a CMU wall.
	Photo 26 A gap at the corner of a CMU wall.

Attachment 5 – CAPA Photos
PEACEDALE ELEMENTARY SCHOOL

	Photo 27 A crack through the CMU blocks at a classroom entrance at the addition.
	Photo 28 Cracks in the joint between the round window unit and the CMU walls.

Attachment 5 – CAPA Photos
PEACEDALE ELEMENTARY SCHOOL

	Photo 29 Cracks in the joint between the round window unit and the CMU walls.
	Photo 30 Cracks in the joint between the round window unit and the CMU walls.

Attachment 5 – CAPA Photos
PEACEDALE ELEMENTARY SCHOOL

	Photo 31 Cracked vinyl flooring tiles in a hallway.
	Photo 32 Cracked vinyl flooring tiles in a hallway.

Attachment 5 – CAPA Photos
PEACEDALE ELEMENTARY SCHOOL

	Photo 33 Cracks in the concrete slab in the mechanical room.
	Photo 34 Cracks in the concrete slab in the mechanical room.

Exhibit 13

IAQ Certification

Rhode Island School as a Tool Protocol
SCHOOL/DISTRICT Agreement

SCHOOL/DISTRICT: **SOUTH KINGSTOWN PUBLIC SCHOOLS**

By this agreement, the SCHOOL/DISTRICT commits to implementing the School as a Tool / RI Sustainable Schools Protocol, pursuant to the RIDE School Construction Program.

The SCHOOL/DISTRICT has extensive infrastructure ideal for the School as a Tool protocol. The school itself can become a hands-on teaching tool to enable instruction about the benefits of high-performance design as well as to help prepare an environmentally literate student body. According to the RI Environmental Literacy Plan (2011), an environmentally literate student is one who has "the opportunity to become aware, inquire, investigate, and develop responsible citizenship action plans or behavior regarding local, national, or global environmental issues." In preparing environmentally literate students, RI schools and communities also "have the opportunity to concurrently improve students' proficiency" in core academic areas.

The SCHOOL/DISTRICT will develop the School as a Tool program by integrating sustainability through curriculum, campus, and community as outlined in the five (5) components below.

I. Establish a Green Team

The SCHOOL/DISTRICT will assemble a motivated and empowered group of stakeholders including, but not limited to, principals, teachers, facility managers, students, nurses, and/or parents. The Green Team will:

- adopt an environmental vision statement specific to the SCHOOL/DISTRICT.
- plan and develop an action plan to be shared with all stakeholders.
- meet on a regular basis to implement, and monitor the action plan.
- coordinate and direct School as a Tool related initiatives and activities.

Resources for establishing a green team:

- *Green Schools Initiative: http://greenschools.net/*
- *Healthy Schools Campaign: http://www.greencleanschools.org/*
- *RIC Green Initiatives: http://www.ric.edu/green/*
- *URI Green Team: http://www.uri.edu/sustainability/greenteams.php*
- *The Green Team (Massachusetts): http://www.thegreenteam.org/*
- *Eco-Schools: http://www.eco-schools.org/*

II. Conduct a School Environment Survey

Students and teachers will engage in data collection to acquire information about the SCHOOL/DISTRICT that will inform their forthcoming decisions.

- The survey might collect data on: greenhouse gas emissions; water quality and conservation; waste production and disposal; recycling; transportation methods; pest management; air quality; cleaning products and chemical management; physical fitness and outdoor time; food and nutrition; environmental education activities; and more.

Resources for conducting a school environment survey:

- *RI Green Ribbon Schools Online Application: http://www.ride.ri.gov/finance/funding/construction/schoolconstruction.aspx*
- *Green Flag Schools' The School Environment Survey: http://www.greenflagschools.org/Survey.pdf*
- *US EPA Healthy School Environment Resources: http://cfpub.epa.gov/schools/index.cfm*
- *Energy Education & Workforce Development: http://www1.eere.energy.gov/education/lessonplans/default.aspx*

III. Integrate Environmental Literacy into the Existing Curriculum

Using the school as a hands-on laboratory and integrating environmental education activities into science, math, civics and government, engineering and technology, language arts, art, and elective courses provides abundant opportunity for real world problem solving and instruction on the benefits of the SCHOOL/DISTRICT's sustainable building. The following section describes five (5) key elements in the School as a Tool program, each followed by examples of how the SCHOOL/DISTRICT may integrate them into the curriculum.

- Integrate environmental and sustainability concepts throughout the curriculum. Examples include:
  - creating environmental education units and lesson plans aligned to state and national standards (i.e. Common Core State Standards, Grade Level Expectations/Grade Span Expectations, etc.).
  - using sustainability and the environment as a context for learning science, technology, engineering and mathematics thinking skills and content knowledge.
  - establishing opportunities for interdisciplinary learning about the key relationships between environmental, energy and human systems.
  - allowing students to undertake study of environmental and sustainability themes such as energy, water, forest, pollution, and waste.
  - providing real-world contexts and relevant issues by using the facility as a teaching tool for indoor environmental quality, energy efficiency, renewable energy, and more.
  - involving the entire school in initiatives such as saving water, recycling, and saving energy.
  - using sustainability and the environment as a context for learning green technologies and career pathways.
  - offering environmental science courses.
- Integrate environmental literacy into student exhibitions, portfolios, and course assessments. Examples include:
  - incorporating environmental and sustainability concepts into classroom based and school wide assessments.
  - allowing students' civic and community engagement projects to focus on environmental and sustainability topics.
  - creating an environmental or sustainability literacy graduation requirement.
- Provide and/or promote professional development opportunities in environmental and sustainability education for all teachers.
- Promote outdoor education and time spent in nature. Examples include:
  - using the school yard, parks, and/or field trips to engage students in meaningful outdoor learning experiences at every grade level.
  - using outdoor settings to teach an array of subjects in contexts, engage the broader community, and develop civic skills.
- Increase alignment to North American Association for Environmental Education's (NAAEE) Guidelines for Learning.

Resources for integrating environmental literacy into the existing curriculum:

- *RI Environmental Literacy Plan: http://rieea.org/images/stories/RI/documents/ri_elp_plan_2011.pdf (NEEDS TO BE UPDATED)*
- *NAAEE's Guidelines for Learning: http://eelinked.naaee.net/n/guidelines/topics/Excellence-in-EE-Guidelines-for-Learning-K-12*
- *Green Ribbon Schools: http://www2.ed.gov/programs/green-ribbon-schools/index.html*
- *Green Strides Resources: http://www2.ed.gov/about/inits/ed/green-strides/resources.html*
- *PLT Green Schools! Program: http://www.plt.org/about-project-learning-tree-greenschools-program*
- *Green Education Foundation: http://www.greeneducationfoundation.org/*

IV. Inform and Involve the Community

The SCHOOL/DISTRICT will facilitate communication about the School as a Tool program within and outside of the whole school community. Such activities can include:

- partnering with external organizations to implement the School as a Tool program.
- operating an information kiosk in the community where information pertaining to the School as a Tool program is regularly updated.
- developing a website/webpage to update the community on the School as a Tool program.
- organizing a semi-annual or annual event to showcase the ways in which students are involved in the School as a Tool program.
- conducting educational workshops for school personnel, parents, students, and/or community members.

Resources for informing and involving the community:

- *RI Environmental Education Association: http://rieea.org/*
- *Sustainable Schools Network: http://www.apeiron.org/new/education/rissn.php*
- *Earth Day Network: http://edu.earthday.org/*

V. Monitor and Evaluate Progress

By gathering and analyzing information and data initiated through the School as a Tool program, the SCHOOL/DISTRICT will be able to measure progress, inform future decisions, and even promote the program when applying for recognition or funding. Such activities can include:

- conducting an annual school survey of teachers, students, parents, and other project partners.
- facilitating an annual meeting or seminar to obtain feedback from project partners.

Resources for monitoring and evaluating progress:

- *Educational Survey Templates: http://www.surveymonkey.com/mp/education-survey-templates/*
- *School Survey Templates: http://www.websurveymaster.com/1-School-Survey-templates-*

VI. Apply to the Green Ribbon Schools Program

The SCHOOL/DISTRICT will apply for a Green Ribbon Schools Award, a national program that recognizes schools that save energy, reduce costs, feature environmentally sustainable learning spaces, protect health, foster wellness, and offer environmental education to boost academic achievement and community engagement.

Resources for applying to the Green Ribbon Schools Program:

- *Online Application: http://www.ride.ri.gov/finance/funding/construction/schoolconstruction.aspx*
- *US Department of Education Green Ribbon Schools: http://www2.ed.gov/programs/green-ribbon-schools/index.html*

Timeline

By 06/30/2025, the SCHOOL/DISTRICT will submit an environmental vision statement, action plan, roster, and meeting schedule.

By 06/30/2025, the SCHOOL/DISTRICT will submit the results from the school environment survey.

By 06/30/2025, the SCHOOL/DISTRICT will submit a preliminary proposal for how it will integrate environmental literacy into the curriculum; inform and involve the community; and monitor and evaluate progress.

By 06/30/2025, the SCHOOL/DISTRICT will submit a final program description for how it will integrate environmental literacy into the curriculum; inform and involve the community; and monitor and evaluate progress.

By 06/30/2025, the SCHOOL/DISTRICT will implement the approved program.

By 06/30/2025, the SCHOOL/DISTRICT will apply to the Green Ribbons School program.

In addition, the SCHOOL/DISTRICT will welcome the opportunity to be active participants in sustainable schools opportunities in the future. These activities might include participation in sustainable schools meetings or hosting RIDE-sponsored events such as sustainable schools meetings.

Signature of SCHOOL/DISTRICT authorized representative

7/14/23
Date

Paula Whitford
Print name of SCHOOL/DISTRICT authorized representative

Chair of School Committee
Title of SCHOOL/DISTRICT authorized representative

SOUTH KINGSTOWN
SCHOOL/DISTRICT

Exhibit 14

South Kingstown Fire Marshal Reports

NARRATIVE FOR ASSISTANT FIRE MARSHAL DENNIS BERNIER

Ref: 22503-87-IS

Entered: 08/25/2022 @ 1346 Entry ID: DENBER
Modified: 08/30/2022 @ 0854 Modified ID: DENBER

UNION FIRE DISTRICT OF SOUTH KINGSTOWN
131 Asa Pond Road
South Kingstown, RI 02879
Ph: (401) 789-8354 FAX: (401) 789-8750

08/25/2022

MARK PRINCE
SOUTH KINGSTOWN HIGH SCHOOL
215 COLUMBIA ST, SOUTH KINGSTOWN, RI 02879

Re: SOUTH KINGSTOWN HIGH SCHOOL 215 COLUMBIA ST, SOUTH KINGSTOWN, RI

Dear: MARK PRINCE,

Enclosed is a list of deficiencies found during our 08/03/2022 inspection of the property located at SOUTH KINGSTOWN HIGH SCHOOL, 215 COLUMBIA ST, SOUTH KINGSTOWN, RI.

Under the authority granted by section 23-28.2-20.1 of the Rhode Island State Fire Safety Code, you are hereby notified that the deficiencies cited shall be corrected as soon as possible but not later than 30 days from the receipt of this notice.

If you feel that there will be practical difficulties in correcting the deficiencies or if for any reason you wish to have a hearing on the deficiencies, you may apply in writing to the State Fire Safety Code Board of Appeal and Review for a variation or to have your concerns addressed. Applications for variations are done on a separate form available from this office. Requests for variation or hearing before the Fire Safety Code Board of Appeal and Review must be submitted within 30 days of the receipt of this notice. Failure to apply within the 30 day period will cause this notice to become a compliance order and will subject you to prosecution under the Rhode Island State Fire Safety Code should you fail to correct all of the deficiencies noted in the enclosed report.

Please contact this office should you need additional assistance on this matter.

Sincerely,

Dennis Bernier, Assistant Fire Marshal
Union Fire District

Enclosures

UNION FIRE DISTRICT OF SOUTH KINGSTOWN
131 Asa Pond Road
South Kingstown, RI 02879
Ph: (401) 789-8354 FAX: (401) 789-8750

DATE:	08/25/2022
BUILDING OWNER:	MARK PRINCE SOUTH KINGSTOWN HIGH SCHOOL 215 COLUMBIA ST, SOUTH KINGSTOWN, RI
OCCUPANT:	SOUTH KINGSTOWN HIGH SCHOOL 215 COLUMBIA ST, SOUTH KINGSTOWN, RI
LOCATION:	SOUTH KINGSTOWN HIGH SCHOOL 215 COLUMBIA ST, SOUTH KINGSTOWN, RI
FILE:	22503-87-IS
INSPECTED BY:	Dennis Bernier, Assistant Fire Marshal Union Fire District
DATE OF INSPECTION:	08/03/2022
BASIS FOR INSPECTION:	CODE COMPLIANCE

Any violation, deficiency or requirement which may have been overlooked in the course of this inspection is also subject to correction under the provisions of any applicable code.

NARRATIVE FOR ASSISTANT FIRE MARSHAL DENNIS BERNIER

Ref: 22503-87-IS

Entered: 08/25/2022 @ 1346 Entry ID: DENBER
Modified: 08/30/2022 @ 0854 Modified ID: DENBER

BUILDING DESCRIPTION:

BUILDING INSPECTED UNDER THE RHODE ISLAND UNIFORM FIRE CODE (RIUFC) AND THE RHODE ISLAND LIFE SAFETY CODE (RILSC) 2018 EDITION CHAPTER 15 EXISTING EDUCATIONAL.

This is a three (3) story structure built in the 1950's, with numerous renovations / additions, with most recent addition in 1994. This addition added 3 stories of classrooms, academic offices, and a cafeteria. The structure is Type II construction. The 1st floor front entrance, (west) portion of the building is at grade and the 2nd floor rear entrance (south) portion, is at grade.

The 1st floor consists of a boiler room, several storage rooms, front office, and numerous classrooms. The 2nd floor has numerous classrooms, an auditorium with fixed seating for 775. There is a 107'6" x 71'6" gymnasium, a 49'6" x 89'6" auxiliary gymnasium and a male and female locker room adjacent to the gymnasium. The gymnasium has occupancy for 900 people, and the auxiliary gymnasium has occupancy for 360 people, due to exit discharge from each of these areas. Located across from the auxiliary gym is a wood working shop with a wood storage room located in the center of the space. This aera has two side Exits discharging to grade and two roll up garage doors one east facing and one north facing both discharging to grade. The 3rd floor is only above the 1994 addition. It contains classrooms.

The 1st floor has a means of egress via 6 stairways, and 4 exits leading directly to the outside. The boiler room and maintenance area are separated by solid core doors with closer. The 2nd floor rear entrance has 2 sets of outwards facing double door from the entrance lobby area. There are 2 sets of double doors from the cafeteria leading directly to the outside. The gymnasium has 2 sets of double doors leading directly to the outside. There is also 2 exits through the auxiliary gymnasium, and the main entrance double doors leading the corridor. The 2nd floor also has access to 6 stairways. The 3rd floor has access to stairwells leading to either the 2nd floor or first floor exits. The hallways are separated with self-closing and self-latching fire doors with magnetic hold open devices.

The structure has a fire sprinkler system and standpipe system protecting the stage area in the theater sprinkler tested on 6/28/2022. There is a domestically connected sprinkler system protecting the boiler room and 1 room on the first floor that lacks windows tested on 6/28/2022. There is a municipally connected fire alarm system Box# 2513, fire alarm tested on 5/21/2022. There is a hood and duct extinguishing system in the kitchen and fire extinguishers. The hood last inspected 7/2022, cleaned 7/21/2022 (Annual), and extinguishers in June 2022. There are emergency lighting and exit signs throughout.

DEFICIENCIES:

Item # 1: Both left and Right stage exits are blocked and being used for storage.

RIFC 14.4 Means of Egress Reliability.
14.4.1* Means of egress shall be continuously maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency. [101:7.1.10.1]

Item # 2:
Paint Storage room to the right side of the stage unable to access due to excessive storage and clutter.

RIFC: 40.3.2 Housekeeping. The requirements of 40.3.2.1 through 40.3.2.3 shall be applied retroactively. [654:8.2]
40.3.2.1* General.
40.3.2.1.1 Equipment shall be maintained and operated in a manner that minimizes the escape of dust. [654:8.2.1.1]
40.3.2.1.2 Regular cleaning frequencies shall be established for walls, floors, and horizontal surfaces, such as equipment, ducts, pipes, hoods, ledges, beams, and above suspended ceilings and other concealed surfaces, to minimize dust accumulations within operating areas of the facility. [654:8.2.1.2]

Item # 3:
Electrical switching and circuit breaker panel room located stage left being used for storage.

RIEC: 110.26 Spaces About Electrical Equipment. Access and working space shall be provided and maintained about all electrical equipment to permit ready and safe operation and maintenance of such equipment.
A Working Space. Working space for equipment operating at 600 volts, nominal, or less to ground and likely to require examination, adjustment, servicing, or maintenance while energized shall comply with the dimensions of 110.26(A)(1), (A)(2), and (A)(3) or as required or permitted elsewhere in this Code.
1 Depth of Working Space. The depth of the working space in the direction of live parts shall not be less than that specified in Table 110.26(A)(1) unless the requirements of 110.26(A)(1)(a), (A)(1)(b), or (A)(1)(c) are met. Distances shall be measured from the exposed live parts or from the enclosure or opening if the live parts are enclosed.
(a) Dead-Front Assemblies. Working space shall not be required in the back or sides of assemblies, such as dead-front switchboards or motor control centers, where all connections and all renewable or adjustable parts, such as fuses or switches, are accessible from locations other than the back or sides. Where rear access is required to work on nonelectrical parts on the back of enclosed equipment, a minimum horizontal working space of 762 mm (30 in.) shall be provided.
(b) Low Voltage. By special permission, smaller working spaces shall be permitted where all exposed

live parts operate at not greater than 30 volts rms, 42 volts peak, or 60 volts dc.

(c) Existing Buildings. In existing buildings where electrical equipment is being replaced, Condition 2 working clearance shall be permitted between dead-front switchboards, panelboards, or motor control centers located across the aisle from each other where conditions of maintenance and supervision ensure that written procedures have been adopted to prohibit equipment on both sides of the aisle from being open at the same time and qualified persons who are authorized will service the installation.
2 Width of Working Space. The width of the working space in front of the electrical equipment shall be the width of the equipment or 762 mm (30 in.), whichever is greater. In all cases, the workspace shall permit at least a 90-degree opening of equipment doors or hinged panels.

3 Height of Working Space. The workspace shall be clear and extend from the grade, floor, or platform to a height of 2.0 m (6 1/2 ft) or the height of the equipment, whichever is greater. Within the height requirements of this section, other equipment that is associated with the electrical installation and is located above or below the electrical equipment shall be permitted to extend not more than 150 mm (6 in.) beyond the front of the electrical equipment.
Exception No. 1: In existing dwelling units, service equipment or panelboards that do not exceed 200 amperes shall be permitted in spaces where the height of the working space is less than 2.0 m (6 1/2 ft).

Exception No. 2: Meters that are installed in meter sockets shall be permitted to extend beyond the other equipment. The meter socket shall be required to follow the rules of this section.
B Clear Spaces. Working space required by this section shall not be used for storage. When normally enclosed live parts are exposed for inspection or servicing, the working space, if in a passageway or general open space, shall be suitably guarded.

Item # 4:
FDC outside of building Auditorium east side covered with brush and overgrowth.

RIFC 13.1.3 Obstructions shall not be placed or kept near fire hydrants, fire department inlet connections, or fire protection system control valves in a manner that would prevent such equipment or fire hydrants from being immediately visible and accessible.
13.1.4 A minimum 36 in. (91 mm) of clear space shall be maintained to permit access to and operation of fire protection equipment, fire department inlet connections, or fire protection system control valves. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment.

Item # 5:
Emergency Exit discharging to the garden area is block by overgrowth. This is blocking a clear means of egress.

RIFC 14.4 Means of Egress Reliability.

14.4.1* Means of egress shall be continuously maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency. [101:7.1.10.1]

Item # 6:
Doors listed below are not closing and latching.

Room's 117, 330,325,220, Storage door next to 226, Second floor stair well old building, Library right wing door, and Music room Double doors.

14.5.4 Self-Closing Devices.

14.5.4.1* A door leaf normally required to be kept closed shall not be secured in the open position at any time and shall be self-closing or automatic closing in accordance with 14.5.4.2, unless otherwise permitted by 14.5.4.3. [101:7.2.1.8.1]

Item # 7:
Fire door missing next to room 229.

RIFC 4.5.8 Maintenance, Inspection, and Testing.

4.5.8.1 Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or any other feature is required for compliance with the provisions of this Code, such device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or other feature shall thereafter be continuously maintained. Maintenance shall be provided in accordance with applicable NFPA requirements or requirements developed as part of a performance-based design, or as directed by the AHJ. [101 :4.6.12.1]

Item # 8:
Fire alarm device located in the rear hall located between wood shop and gym leading to the basement is missing.

RIFC 4.5.8 Maintenance, Inspection, and Testing.

4.5.8.1 Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or any other feature is required for compliance with the provisions of this Code, such device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or other feature shall thereafter be continuously maintained. Maintenance shall be provided in accordance with applicable NFPA requirements or requirements developed as part of a performance-based design, or as directed by the AHJ. [101 :4.6.12.1]

Item # 9:
Emergency Exit sign located in the first-floor main entrance not working.

RIFC 4.5.8 Maintenance, Inspection, and Testing.

4.5.8.1 Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or any other feature is required for compliance with the provisions of this Code, such device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or other feature shall thereafter be continuously maintained. Maintenance shall be provided in accordance with applicable NFPA requirements or requirements developed as part of a performance-based design, or as directed by the AHJ. [101 :4.6.12.1]

Item # 10:
Snow Blower is being stored in the boiler room.

RIFC:10.18.7 Fueled Equipment.

Fueled equipment, including but not limited to motorcycles, mopeds, lawn-care equipment, and portable cooking equipment, shall not be stored, operated, or repaired within a building except under one of the following conditions:

(1) The building or room has been constructed for such use in accordance with the building code.

(2) The use is allowed by other provisions of this *Code*.

Entered: 08/25/2022 @ 1346 Entry ID: DENBER
Modified: 08/30/2022 @ 0854 Modified ID: DENBER

Item # 11:
Hallway door leading up ramp to Gym Left wing not closing.

RIFC:14.5.4 Self-Closing Devices.

14.5.4.1* A door leaf normally required to be kept closed shall not be secured in the open position at any time and shall be self-closing or automatic closing in accordance with 14.5.4.2, unless otherwise permitted by 14.5.4.3. [101:7.2.1.8.1]

NARRATIVE FOR ASSISTANT FIRE MARSHAL DENNIS BERNIER

Ref: 22503-78-IS

Entered: 08/05/2022 @ 1000 Entry ID: DENBER
Modified: 08/05/2022 @ 1042 Modified ID: DENBER

UNION FIRE DISTRICT OF SOUTH KINGSTOWN
131 Asa Pond Road
South Kingstown, RI 02879

Ph: (401) 789-8354 FAX: (401) 789-8750

08/05/2022

MARK PRINCE
BROAD ROCK MIDDLE SCHOOL
351 BROAD ROCK RD, SOUTH KINGSTOWN, RI 02879

Re: BROAD ROCK MIDDLE SCHOOL 351 BROAD ROCK RD, SOUTH KINGSTOWN, RI

Dear: MARK PRINCE,

Enclosed is a list of deficiencies found during our 08/01/2022 inspection of the property located at BROAD ROCK MIDDLE SCHOOL, 351 BROAD ROCK RD, SOUTH KINGSTOWN, RI.

Under the authority granted by section 23-28.2-20.1 of the Rhode Island State Fire Safety Code, you are hereby notified that the deficiencies cited shall be corrected as soon as possible but not later than 30 days from the receipt of this notice.

If you feel that there will be practical difficulties in correcting the deficiencies or if for any reason you wish to have a hearing on the deficiencies, you may apply in writing to the State Fire Safety Code Board of Appeal and Review for a variation or to have your concerns addressed. Applications for variations are done on a separate form available from this office. Requests for variation or hearing before the Fire Safety Code Board of Appeal and Review must be submitted within 30 days of the receipt of this notice. Failure to apply within the 30 day period will cause this notice to become a compliance order and will subject you to prosecution under the Rhode Island State Fire Safety Code should you fail to correct all of the deficiencies noted in the enclosed report.

Please contact this office should you need additional assistance on this matter.

Sincerely,

Dennis Bernier, Assistant Fire Marshal
Union Fire District

Enclosures

NARRATIVE FOR ASSISTANT FIRE MARSHAL DENNIS BERNIER

Ref: 22503-78-IS

Entered: 08/05/2022 @ 1000 Entry ID: DENBER
Modified: 08/05/2022 @ 1042 Modified ID: DENBER

UNION FIRE DISTRICT OF SOUTH KINGSTOWN
131 Asa Pond Road
South Kingstown, RI 02879
Ph: (401) 789-8354 FAX: (401) 789-8750

DATE:	08/05/2022
BUILDING OWNER:	MARK PRINCE BROAD ROCK MIDDLE SCHOOL 351 BROAD ROCK RD, SOUTH KINGSTOWN, RI
OCCUPANT:	BROAD ROCK MIDDLE SCHOOL 351 BROAD ROCK RD, SOUTH KINGSTOWN, RI
LOCATION:	BROAD ROCK MIDDLE SCHOOL 351 BROAD ROCK RD, SOUTH KINGSTOWN, RI
FILE:	22503-78-IS
INSPECTED BY:	Dennis Bernier, Assistant Fire Marshal Union Fire District
DATE OF INSPECTION:	08/01/2022
BASIS FOR INSPECTION:	CODE COMPLIANCE

Any violation, deficiency or requirement which may have been overlooked in the course of this inspection is also subject to correction under the provisions of any applicable code.

NARRATIVE FOR ASSISTANT FIRE MARSHAL DENNIS BERNIER

Ref: 22503-78-IS

Entered: 08/05/2022 @ 1000 Entry ID: DENBER
Modified: 08/05/2022 @ 1042 Modified ID: DENBER

BUILDING DESCRIPTION:

BUILDING INSPECTED UNDER THE RHODE ISLAND UNIFORM FIRE CODE (RIUFC) AND THE RHODE ISLAND LIFE SAFETY CODE (RILSC) 2018 EDITION CHAPTER 15 EXISTING EDUCATIONAL.

This is a 2-story structure, Type II masonry construction, with a 1st floor of 51,928 sq. ft. and a 2nd floor of 25,853 sq. ft. occupied as a Middle School. The 1st floor is at grade.

The 1st floor consists of an office area, Nurses office & Clinic, Gymnasium, (with an occupancy of 1080 @ 7 s/f and 504 @ 15 s/f), Kitchen, Cafeteria / Auditorium combination, (with an occupancy of 376 @ 7 s/f and 175 @ 15 s/f), Locker Rooms, Band & Music Rooms, Mechanical and Boiler Rooms with gas fired boilers and 17 Classrooms. The 2nd floor consists Offices, Library / Media Center and 18 Classrooms.

There are 4, double leaf, primary means of egress from corridors on the 1st floor of the structure. The Gymnasium has 2, double leaf egress doors directly to the exterior and two more into a protected corridor. The music/band room and stage area have an egress directly to the outside as does the cafeteria. The 2nd floor has 3 protected stair towers leading directly to 1st floor means of egress.

There is a municipally connected fire alarm system tested on 7/14/2022. Fire extinguishers inspected & tagged on 7/2022, the hood and duct suppression system were inspected in 7/2022. Hood cleaning was performed 8/16/2022. There is an exterior generator which provides power for emergency lighting & exit signage.

No Deficiencies were found during the inspection that was done on August 1,2022

NARRATIVE FOR ASSISTANT FIRE MARSHAL DENNIS BERNIER

Ref: 22503-77-IS

Entered: 08/05/2022 @ 0900 Entry ID: DENBER
Modified: 08/05/2022 @ 0953 Modified ID: DENBER

UNION FIRE DISTRICT OF SOUTH KINGSTOWN
131 Asa Pond Road
South Kingstown, RI 02879
Ph: (401) 789-8354 FAX: (401) 789-8750

08/05/2022

MARK PRINCE
CURTIS CORNER MIDDLE SCHOOL
301 CURTIS CORNER RD, SOUTH KINGSTOWN, RI 02879

Re: CURTIS CORNER MIDDLE SCHOOL 301 CURTIS CORNER RD, SOUTH KINGSTOWN, RI

Dear: MARK PRINCE,

Enclosed is a list of deficiencies found during our 07/29/2022 inspection of the property located at CURTIS CORNER MIDDLE SCHOOL, 301 CURTIS CORNER RD, SOUTH KINGSTOWN, RI.

Under the authority granted by section 23-28.2-20.1 of the Rhode Island State Fire Safety Code, you are hereby notified that the deficiencies cited shall be corrected as soon as possible but not later than 30 days from the receipt of this notice.

If you feel that there will be practical difficulties in correcting the deficiencies or if for any reason you wish to have a hearing on the deficiencies, you may apply in writing to the State Fire Safety Code Board of Appeal and Review for a variation or to have your concerns addressed. Applications for variations are done on a separate form available from this office. Requests for variation or hearing before the Fire Safety Code Board of Appeal and Review must be submitted within 30 days of the receipt of this notice. Failure to apply within the 30 day period will cause this notice to become a compliance order and will subject you to prosecution under the Rhode Island State Fire Safety Code should you fail to correct all of the deficiencies noted in the enclosed report.

Please contact this office should you need additional assistance on this matter.

Sincerely,

Dennis Bernier, Assistant Fire Marshal
Union Fire District

Enclosures

UNION FIRE DISTRICT OF SOUTH KINGSTOWN
131 Asa Pond Road
South Kingstown, RI 02879
Ph: (401) 789-8354 FAX: (401) 789-8750

DATE:	08/05/2022
BUILDING OWNER:	MARK PRINCE CURTIS CORNER MIDDLE SCHOOL 301 CURTIS CORNER RD, SOUTH KINGSTOWN, RI
OCCUPANT:	CURTIS CORNER MIDDLE SCHOOL 301 CURTIS CORNER RD, SOUTH KINGSTOWN, RI
LOCATION:	CURTIS CORNER MIDDLE SCHOOL 301 CURTIS CORNER RD, SOUTH KINGSTOWN, RI
FILE:	22503-77-IS
INSPECTED BY:	Dennis Bernier, Assistant Fire Marshal Union Fire District
DATE OF INSPECTION:	07/29/2022
BASIS FOR INSPECTION:	CODE COMPLIANCE

Any violation, deficiency or requirement which may have been overlooked in the course of this inspection is also subject to correction under the provisions of any applicable code.

NARRATIVE FOR ASSISTANT FIRE MARSHAL DENNIS BERNIER

Ref: 22503-77-IS

Entered: 08/05/2022 @ 0900 Entry ID: DENBER
Modified: 08/05/2022 @ 0953 Modified ID: DENBER

BUILDING DESCRIPTION:

BUILDING INSPECTED UNDER THE RHODE ISLAND UNIFORM FIRE CODE (RIUFC) AND THE RHODE ISLAND LIFE SAFETY CODE (RILSC) 2018 EDITION CHAPTER 15 EXISTING EDUCATIONAL.

This is a one-story Educational Facility on a slab to grade type III construction. It is approximately 113,000 square feet.

This middle school has sixty-one (61) classrooms, a cafeteria/auditorium, library, gymnasium, and ten (10) offices. The capacity of the gymnasium is 699. The cafeteria capacity is 545 that changes to 255 for dinning.

There are Ten double door exits and one single door exit though out the school that exit to grade and can handle approximately 3700 people

The school has a municipally connected fire alarm system tested on 07/2/2023 (Box# 2517). Portable fire extinguishers that were tested on 6/2022. There is a hood and duct system cleaned on 6/21/2022. The hood suppression system was inspected on 7/2022. The emergency lights in wings one, two and three are powered by a generator that is tested weekly. The Emergency lights that are in the 500 wing and east hallway leading to the 200 numbered classrooms are hard wired with a battery and are not on the backup generator.

NARRATIVE FOR ASSISTANT FIRE MARSHAL DENNIS BERNIER

Ref: 22503-77-IS

Entered: 08/05/2022 @ 0900 Entry ID: DENBER
Modified: 08/05/2022 @ 0953 Modified ID: DENBER

DEFICIENCIES:

Item # 1: Classroom doors that are not closing and latching are Rooms 418,420,207,505.

RIFC 4.5.8 Maintenance, Inspection, and Testing.

4.5.8.1 Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or any other feature is required for compliance with the provisions of this Code, such device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or other feature shall thereafter be continuously maintained. Maintenance shall be provided in accordance with applicable NFPA requirements or requirements developed as part of a performance-based design, or as directed by the AHJ. [101 :4.6.12.1]

Item # 2: Emergency Exit Signs located throughout the 500 wing are not working.

RIFC 4.5.8 Maintenance, Inspection, and Testing.

4.5.8.1 Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or any other feature is required for compliance with the provisions of this Code, such device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or other feature shall thereafter be continuously maintained. Maintenance shall be provided in accordance with applicable NFPA requirements or requirements developed as part of a performance-based design, or as directed by the AHJ. [101 :4.6.12.1]

NARRATIVE FOR ASSISTANT FIRE MARSHAL DENNIS BERNIER

Ref: 22503-85-IS

Entered: 08/22/2022 @ 1331 Entry ID: DENBER
Modified: 08/22/2022 @ 1420 Modified ID: DENBER

UNION FIRE DISTRICT OF SOUTH KINGSTOWN
131 Asa Pond Road
South Kingstown, RI 02879

Ph: (401) 789-8354 FAX: (401) 789-8750

08/22/2022

MARK PRINCE
MATUNUCK ELEMENTARY SCHOOL
380 MATUNUCK BEACH RD, SOUTH KINGSTOWN, RI 02879

Re: MATUNUCK ELEMENTARY SCHOOL 380 MATUNUCK BEACH RD, SOUTH KINGSTOWN, RI

Dear: MARK PRINCE,

Enclosed is a list of deficiencies found during our 08/19/2022 inspection of the property located at MATUNUCK ELEMENTARY SCHOOL, 380 MATUNUCK BEACH RD, SOUTH KINGSTOWN, RI.

Under the authority granted by section 23-28.2-20.1 of the Rhode Island State Fire Safety Code, you are hereby notified that the deficiencies cited shall be corrected as soon as possible but not later than 30 days from the receipt of this notice.

If you feel that there will be practical difficulties in correcting the deficiencies or if for any reason you wish to have a hearing on the deficiencies, you may apply in writing to the State Fire Safety Code Board of Appeal and Review for a variation or to have your concerns addressed. Applications for variations are done on a separate form available from this office. Requests for variation or hearing before the Fire Safety Code Board of Appeal and Review must be submitted within 30 days of the receipt of this notice. Failure to apply within the 30 day period will cause this notice to become a compliance order and will subject you to prosecution under the Rhode Island State Fire Safety Code should you fail to correct all of the deficiencies noted in the enclosed report.

Please contact this office should you need additional assistance on this matter.

Sincerely,

Dennis Bernier, Assistant Fire Marshal
Union Fire District

Enclosures

UNION FIRE DISTRICT OF SOUTH KINGSTOWN
131 Asa Pond Road
South Kingstown, RI 02879
Ph: (401) 789-8354 FAX: (401) 789-8750

DATE:	08/22/2022
BUILDING OWNER:	MARK PRINCE MATUNUCK ELEMENTARY SCHOOL 380 MATUNUCK BEACH RD, SOUTH KINGSTOWN, RI
OCCUPANT:	MATUNUCK ELEMENTARY SCHOOL 380 MATUNUCK BEACH RD, SOUTH KINGSTOWN, RI
LOCATION:	MATUNUCK ELEMENTARY SCHOOL 380 MATUNUCK BEACH RD, SOUTH KINGSTOWN, RI
FILE:	22503-85-IS
INSPECTED BY:	Dennis Bernier, Assistant Fire Marshal Union Fire District
DATE OF INSPECTION:	08/19/2022
BASIS FOR INSPECTION:	CODE COMPLIANCE

Any violation, deficiency or requirement which may have been overlooked in the course of this inspection is also subject to correction under the provisions of any applicable code.

BUILDING DESCRIPTION:

BUILDING INSPECTED UNDER THE RHODE ISLAND UNIFORM FIRE CODE (RIUFC) AND THE RHODE ISLAND LIFE SAFETY CODE (RILSC) 2018 EDITION CHAPTER 15 EXISTING EDUCATIONAL.

This is a one-story building built in 1980 with no basement type III construction. It is approximately 41,560 square feet and is heated with gas fired boilers.

This elementary school has 23 regular classrooms, a cafeteria, a library, gymnasium, and offices. All but one classroom exits directly to the outside at grade. There are six double door's exiting to grade throughout the school.

This school has a municipally connected fire alarm system box # 3512 tested 07/14/2022 with the next test due on 10/2022, exit signs, emergency lighting. The signs and lighting are operated on a battery system because there is no generator at this school. Portable fire extinguishers last tested on 7/2022.

This school also has a Kitchen Suppression system inspected and cleaned on 8/16/2022.The Anusal System was tested and inspected July 2022.

DEFICIENCIES:

Item # 1:
Automatic Door Closers are missing from the below listed rooms 1,2,3,4,5,6,7,8,110, and room 109.

RIFC: 14.5.4 Self-Closing Devices.

14.5.4.1* A door leaf normally required to be kept closed shall not be secured in the open position at any time and shall be self-closing or automatic closing in accordance with 14.5.4.2, unless otherwise permitted by 14.5.4.3. [101:7.2.1.8.1]

Item # 2: Emergency egress lighting located in the Men's restroom Not working (Teachers break room)

RIFC 4.5.8 Maintenance, Inspection, and Testing.

4.5.8.1 Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or any other feature is required for compliance with the provisions of this Code, such device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or other feature shall thereafter be continuously maintained. Maintenance shall be provided in accordance with applicable NFPA requirements or requirements developed as part of a performance-based design, or as directed by the AHJ. [101 :4.6.12.1]

Item # 3: Fire Alarm Circuit Breaker does not have a lock on it.

RIFC 4.5.8 Maintenance, Inspection, and Testing.

4.5.8.1 Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or any other feature is required for compliance with the provisions of this Code, such device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or other feature shall thereafter be continuously maintained. Maintenance shall be provided in accordance with applicable NFPA requirements or requirements developed as part of a performance-based design, or as directed by the AHJ. [101 :4.6.12.1]

NARRATIVE FOR ASSISTANT FIRE MARSHAL DENNIS BERNIER

Ref: 22503-76-IS

Entered: 08/03/2022 @ 1525 Entry ID: DENBER
Modified: 08/04/2022 @ 1001 Modified ID: DENBER

UNION FIRE DISTRICT OF SOUTH KINGSTOWN
131 Asa Pond Road
South Kingstown, RI 02879
Ph: (401) 789-8354 FAX: (401) 789-8750

08/03/2022

MARK PRINCE
PEACE DALE ELEMENTARY SCHOOL
109 KERSEY RD, SOUTH KINGSTOWN, RI 02879

Re: PEACE DALE ELEMENTARY SCHOOL 109 KERSEY RD, SOUTH KINGSTOWN, RI

Dear: MARK PRINCE,

Enclosed is a list of deficiencies found during our 08/01/2022 inspection of the property located at PEACE DALE ELEMENTARY SCHOOL, 109 KERSEY RD, SOUTH KINGSTOWN, RI.

Under the authority granted by section 23-28.2-20.1 of the Rhode Island State Fire Safety Code, you are hereby notified that the deficiencies cited shall be corrected as soon as possible but not later than 30 days from the receipt of this notice.

If you feel that there will be practical difficulties in correcting the deficiencies or if for any reason you wish to have a hearing on the deficiencies, you may apply in writing to the State Fire Safety Code Board of Appeal and Review for a variation or to have your concerns addressed. Applications for variations are done on a separate form available from this office. Requests for variation or hearing before the Fire Safety Code Board of Appeal and Review must be submitted within 30 days of the receipt of this notice. Failure to apply within the 30 day period will cause this notice to become a compliance order and will subject you to prosecution under the Rhode Island State Fire Safety Code should you fail to correct all of the deficiencies noted in the enclosed report.

Please contact this office should you need additional assistance on this matter.

Sincerely,

Type text here

Dennis Bernier, Assistant Fire Marshal
Union Fire District

Enclosures

UNION FIRE DISTRICT OF SOUTH KINGSTOWN
131 Asa Pond Road
South Kingstown, RI 02879
Ph: (401) 789-8354 FAX: (401) 789-8750

DATE:	08/03/2022
BUILDING OWNER:	MARK PRINCE PEACE DALE ELEMENTARY SCHOOL 109 KERSEY RD, SOUTH KINGSTOWN, RI
OCCUPANT:	PEACE DALE ELEMENTARY SCHOOL 109 KERSEY RD, SOUTH KINGSTOWN, RI
LOCATION:	PEACE DALE ELEMENTARY SCHOOL 109 KERSEY RD, SOUTH KINGSTOWN, RI
FILE:	22503-76-IS
INSPECTED BY:	Dennis Bernier, Assistant Fire Marshal Union Fire District
DATE OF INSPECTION:	08/01/2022
BASIS FOR INSPECTION:	CODE COMPLIANCE

Any violation, deficiency or requirement which may have been overlooked in the course of this inspection is also subject to correction under the provisions of any applicable code.

NARRATIVE FOR ASSISTANT FIRE MARSHAL DENNIS BERNIER

Ref: 22503-76-IS

Entered: 08/03/2022 @ 1525 Entry ID: DENBER
Modified: 08/04/2022 @ 1001 Modified ID: DENBER

BUILDING DESCRIPTION:

BUILDING INSPECTED UNDER THE RHODE ISLAND UNIFORM FIRE CODE (RIUFC) AND THE RHODE ISLAND LIFE SAFETY CODE (RILSC) 2018 EDITION CHAPTER 15 EXISTING EDUCATIONAL.

This is a two-story building, Type III Ordinary construction approximately 85,500 sq. ft. The building is occupied as mixed use, elementary school - day care and originally built in 1924 with additions and renovations in 1993.

The 1st floor consists of 17 classrooms, a library, cafeteria/auditorium with stage, (occupancy of 482 @ 7s/f and 225 @ 15 s/f) gymnasium, (occupancy of 1040 @ 7 s/f and 485 @ 15 s/f), kitchen, storage rooms and offices. The finished basement has 11 classrooms, music and band rooms, storage rooms, boiler, and mechanical rooms. The boiler room contains 2 gas fired boilers of 1,632 m/btu each and a gas fired water heater of 300 m/btu.

There are six double leaf egress doors from the 1st floor and three double leaf egress doors from the basement level. The main entrance on Side A and a 2nd means of egress on Side A are both at grade from the 1st floor. The other means of egresses (4) are accessed via stairs up from the basement and down from the 1st floor to grade.

The municipally connected fire alarm (Box # 2516) was tested on 7/14/2022 and due for re-test on 10/2022, the fire extinguishers were inspected 6/2021, the hood and duct suppression system were inspected 7/2022, the hood/duct cleaning certification is dated 6/2022. Carbon monoxide detection was installed in 2017 for the Day Care occupancy in the cafeteria. The sprinkler system which protects the basement and front portion of the school was tested on 6/28/2022. There is a generator to provide power for emergency lighting and exit signage which tests automatically weekly.

DEFICIENCIES:

Item # 1: The Following door will not close properly close or latch.

The north staircase double exit doors are hard to open.

RIFC 4.5.8 Maintenance, Inspection, and Testing.

4.5.8.1 Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or any other feature is required for compliance with the provisions of this Code, such device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or other feature shall thereafter be continuously maintained. Maintenance shall be provided in accordance with applicable NFPA requirements or requirements developed as part of a performance-based design, or as directed by the AHJ. [101 :4.6.12.1]

Item # 2: Fire door located at the bottom staircase next to the mechanical room is missing the auto closer.

RIFC 4.5.8 Maintenance, Inspection, and Testing.

4.5.8.1 Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or any other feature is required for compliance with the provisions of this Code, such device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or other feature shall thereafter be continuously maintained. Maintenance shall be provided in accordance with applicable NFPA requirements or requirements developed as part of a performance-based design, or as directed by the AHJ. [101 :4.6.12.1]

Item # 3: Basement level Storage closets have items pilled to ceiling blocking proper sprinkler operation.

RIFC 4.5.8 Maintenance, Inspection, and Testing.

4.5.8.1 Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or any other feature is required for compliance with the provisions of this Code, such device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or other feature shall thereafter be continuously maintained. Maintenance shall be provided in accordance with applicable NFPA requirements or requirements developed as part of a performance-based design, or as directed by the AHJ. [101 :4.6.12.1]

Item # 4: Electrical room located in the mechanical aera is being used for storage.

110.26 Spaces About Electrical Equipment. Access and working space shall be provided and maintained about all electrical equipment to permit ready and safe operation and maintenance of such equipment.

A Working Space. Working space for equipment operating at 600 volts, nominal, or less to ground and likely to require examination, adjustment, servicing, or maintenance while energized shall comply with the dimensions of 110.26(A)(1), (A)(2), and (A)(3) or as required or permitted elsewhere in this Code.

1 Depth of Working Space. The depth of the working space in the direction of live parts shall not be less than that specified in Table 110.26(A)(1) unless the requirements of 110.26(A)(1)(a), (A)(1)(b), or (A)(1)(c) are met. Distances shall be measured from the exposed live parts or from the enclosure or opening if the live parts are enclosed.

(a) Dead-Front Assemblies. Working space shall not be required in the back or sides of assemblies, such as dead-front switchboards or motor control centers, where all connections and all renewable or adjustable parts, such as fuses or switches, are accessible from locations other than the back or sides. Where rear access is required to work on nonelectrical parts on the back of enclosed equipment, a minimum horizontal working space of 762 mm (30 in.) shall be provided.

(b) Low Voltage. By special permission, smaller working spaces shall be permitted where all exposed live parts operate at not greater than 30 volts rms, 42 volts peak, or 60 volts dc.

(c) Existing Buildings. In existing buildings where electrical equipment is being replaced, Condition 2 working clearance shall be permitted between dead-front switchboards, panelboards, or motor control centers located across the aisle from each other where conditions of maintenance and supervision ensure that written procedures have been adopted to prohibit equipment on both sides of the aisle from being open at the same time and qualified persons who are authorized will service the installation.

2 Width of Working Space. The width of the working space in front of the electrical equipment shall be the width of the equipment or 762 mm (30 in.), whichever is greater. In all cases, the work space shall permit at least a 90 degree opening of equipment doors or hinged panels.

3 Height of Working Space. The work space shall be clear and extend from the grade, floor, or platform to a height of 2.0 m (6 1/2 ft) or the height of the equipment, whichever is greater. Within the height requirements of this section, other equipment that is associated with the electrical installation and is located above or below the electrical equipment shall be permitted to extend not more than 150 mm (6 in.) beyond the front of the electrical equipment.

Exception No. 1: In existing dwelling units, service equipment or panelboards that do not exceed 200 amperes shall be permitted in spaces where the height of the working space is less than 2.0 m (6 1/2 ft).

Exception No. 2: Meters that are installed in meter sockets shall be permitted to extend beyond the other equipment. The meter socket shall be required to follow the rules of this section.

B Clear Spaces. Working space required by this section shall not be used for storage. When normally enclosed live parts are exposed for inspection or servicing, the working space, if in a passageway or general open space, shall be suitably guarded.

NARRATIVE FOR ASSISTANT FIRE MARSHAL DENNIS BERNIER

Ref: 22503-86-IS

Entered: 08/22/2022 @ 1435 Entry ID: DENBER
Modified: 08/22/2022 @ 1458 Modified ID: DENBER

UNION FIRE DISTRICT OF SOUTH KINGSTOWN
131 Asa Pond Road
South Kingstown, RI 02879

Ph: (401) 789-8354 FAX: (401) 789-8750

08/22/2022

MARK PRINCE
WAKEFIELD ELEMENTARY SCHOOL
101 HIGH ST, SOUTH KINGSTOWN, RI 02879

Re: WAKEFIELD ELEMENTARY SCHOOL 101 HIGH ST, SOUTH KINGSTOWN, RI

Dear: MARK PRINCE,

Enclosed is a list of deficiencies found during our 08/22/2022 inspection of the property located at WAKEFIELD ELEMENTARY SCHOOL, 101 HIGH ST, SOUTH KINGSTOWN, RI.

Under the authority granted by section 23-28.2-20.1 of the Rhode Island State Fire Safety Code, you are hereby notified that the deficiencies cited shall be corrected as soon as possible but not later than 30 days from the receipt of this notice.

If you feel that there will be practical difficulties in correcting the deficiencies or if for any reason you wish to have a hearing on the deficiencies, you may apply in writing to the State Fire Safety Code Board of Appeal and Review for a variation or to have your concerns addressed. Applications for variations are done on a separate form available from this office. Requests for variation or hearing before the Fire Safety Code Board of Appeal and Review must be submitted within 30 days of the receipt of this notice. Failure to apply within the 30 day period will cause this notice to become a compliance order and will subject you to prosecution under the Rhode Island State Fire Safety Code should you fail to correct all of the deficiencies noted in the enclosed report.

Please contact this office should you need additional assistance on this matter.

Sincerely,

Dennis Bernier, Assistant Fire Marshal
Union Fire District

Enclosures

UNION FIRE DISTRICT OF SOUTH KINGSTOWN
131 Asa Pond Road
South Kingstown, RI 02879
Ph: (401) 789-8354 FAX: (401) 789-8750

DATE:	08/22/2022
BUILDING OWNER:	MARK PRINCE WAKEFIELD ELEMENTARY SCHOOL 101 HIGH ST, SOUTH KINGSTOWN, RI
OCCUPANT:	WAKEFIELD ELEMENTARY SCHOOL 101 HIGH ST, SOUTH KINGSTOWN, RI
LOCATION:	WAKEFIELD ELEMENTARY SCHOOL 101 HIGH ST, SOUTH KINGSTOWN, RI
FILE:	22503-86-IS
INSPECTED BY:	Dennis Bernier, Assistant Fire Marshal Union Fire District
DATE OF INSPECTION:	08/22/2022
BASIS FOR INSPECTION:	CODE COMPLIANCE

Any violation, deficiency or requirement which may have been overlooked in the course of this inspection is also subject to correction under the provisions of any applicable code.

NARRATIVE FOR ASSISTANT FIRE MARSHAL DENNIS BERNIER

Ref: 22503-86-IS

Entered: 08/22/2022 @ 1435 Entry ID: DENBER
Modified: 08/22/2022 @ 1458 Modified ID: DENBER

BUILDING DESCRIPTION:

BUILDING INSPECTED UNDER THE RHODE ISLAND UNIFORM FIRE CODE (RIUFC) AND THE RHODE ISLAND LIFE SAFETY CODE (RILSC) 2018 EDITION CHAPTER 15 EXISTING EDUCATIONAL.

This is a one-story building slab on grade, Type III construction. It is approximately 32,405 sq. ft.

This school has 18 classrooms, offices, conference rooms, kitchen, and a boiler room with a 2400 m/btu gas fired boiler. There is a cafeteria / auditorium / gymnasium combination, (occupancy of 530 @ 7 s/f and 247 @ 15 s/f). The building is occupied as an elementary school with approximately 290 students.

There are 6 double door exits and 2 single door exits throughout the school that exit to grade. The exits can accommodate approximately 1600 people. All classrooms have single leaf egress doors directly to the exterior at grade.

The school has a municipally connected fire alarm system (Box # 1514), tested 7/14/2022, the portable fire extinguishers were inspected in 7/2022. Hood and duct cleaning certificate dated 8/16/2022.There are exit signs and emergency lighting with an emergency battery unit to supply emergency lighting in the corridor on side D. (southwesterly)

DEFICIENCIES:

Item # 1: Items stored around the electrical panel on the stage.

RIEC: 110.26 Spaces About Electrical Equipment. Access and working space shall be provided and maintained about all electrical equipment to permit ready and safe operation and maintenance of such equipment.

A Working Space. Working space for equipment operating at 600 volts, nominal, or less to ground and likely to require examination, adjustment, servicing, or maintenance while energized shall comply with the dimensions of 110.26(A)(1), (A)(2), and (A)(3) or as required or permitted elsewhere in this Code.

1 Depth of Working Space. The depth of the working space in the direction of live parts shall not be less than that specified in Table 110.26(A)(1) unless the requirements of 110.26(A)(1)(a), (A)(1)(b), or (A)(1)(c) are met. Distances shall be measured from the exposed live parts or from the enclosure or opening if the live parts are enclosed.

(a) Dead-Front Assemblies. Working space shall not be required in the back or sides of assemblies, such as dead-front switchboards or motor control centers, where all connections and all renewable or adjustable parts, such as fuses or switches, are accessible from locations other than the back or sides. Where rear access is required to work on nonelectrical parts on the back of enclosed equipment, a minimum horizontal working space of 762 mm (30 in.) shall be provided.

(b) Low Voltage. By special permission, smaller working spaces shall be permitted where all exposed live parts operate at not greater than 30 volts rms, 42 volts peak, or 60 volts dc.

(c) Existing Buildings. In existing buildings where electrical equipment is being replaced, Condition 2 working clearance shall be permitted between dead-front switchboards, panelboards, or motor control centers located across the aisle from each other where conditions of maintenance and supervision ensure that written procedures have been adopted to prohibit equipment on both sides of the aisle from being open at the same time and qualified persons who are authorized will service the installation.

2 Width of Working Space. The width of the working space in front of the electrical equipment shall be the width of the equipment or 762 mm (30 in.), whichever is greater. In all cases, the workspace shall permit at least a 90 degree opening of equipment doors or hinged panels.

3 Height of Working Space. The workspace shall be clear and extend from the grade, floor, or platform to a height of 2.0 m (6 1/2 ft) or the height of the equipment, whichever is greater. Within the height requirements of this section, other equipment that is associated with the electrical installation and is located above or below the electrical equipment shall be permitted to extend not more than 150 mm (6 in.) beyond the front of the electrical equipment.

Exception No. 1: In existing dwelling units, service equipment or panelboards that do not exceed 200 amperes shall be permitted in spaces where the height of the working space is less than 2.0 m (6 1/2 ft).

Exception No. 2: Meters that are installed in meter sockets shall be permitted to extend beyond the other equipment. The meter socket shall be required to follow the rules of this section.

B Clear Spaces. Working space required by this section shall not be used for storage. When normally enclosed live parts are exposed for inspection or servicing, the working space, if in a passageway or general open space, shall be suitably guarded.

Item # 2: Storage located around the electrical panel located in the boiler.

RIEC: 110.26 Spaces About Electrical Equipment. Access and working space shall be provided and maintained about all electrical equipment to permit ready and safe operation and maintenance of such equipment.

A Working Space. Working space for equipment operating at 600 volts, nominal, or less to ground and likely to require examination, adjustment, servicing, or maintenance while energized shall comply with the dimensions of 110.26(A)(1), (A)(2), and (A)(3) or as required or permitted elsewhere in this Code.

1 Depth of Working Space. The depth of the working space in the direction of live parts shall not be less than that specified in Table 110.26(A)(1) unless the requirements of 110.26(A)(1)(a), (A)(1)(b), or (A)(1)(c) are met. Distances shall be measured from the exposed live parts or from the enclosure or opening if the live parts are enclosed.

(a) Dead-Front Assemblies. Working space shall not be required in the back or sides of assemblies, such as dead-front switchboards or motor control centers, where all connections and all renewable or adjustable parts, such as fuses or switches, are accessible from locations other than the back or sides. Where rear access is required to work on nonelectrical parts on the back of enclosed equipment, a minimum horizontal working space of 762 mm (30 in.) shall be provided.

(b) Low Voltage. By special permission, smaller working spaces shall be permitted where all exposed live parts operate at not greater than 30 volts rms, 42 volts peak, or 60 volts dc.

(c) Existing Buildings. In existing buildings where electrical equipment is being replaced, Condition 2 working clearance shall be permitted between dead-front switchboards, panelboards, or motor control centers located across the aisle from each other where conditions of maintenance and supervision ensure that written procedures have been adopted to prohibit equipment on both sides of the aisle from being open at the same time and qualified persons who are authorized will service the installation.

2 Width of Working Space. The width of the working space in front of the electrical equipment shall be the width of the equipment or 762 mm (30 in.), whichever is greater. In all cases, the workspace shall permit at least a 90-degree opening of equipment doors or hinged panels.

3 Height of Working Space. The workspace shall be clear and extend from the grade, floor, or platform to a height of 2.0 m (6 1/2 ft) or the height of the equipment, whichever is greater. Within the height requirements of this section, other equipment that is associated with the electrical installation and is located above or below the electrical equipment shall be permitted to extend not more than 150 mm (6 in.) beyond the front of the electrical equipment.

Exception No. 1: In existing dwelling units, service equipment or panelboards that do not exceed 200 amperes shall be permitted in spaces where the height of the working space is less than 2.0 m (6 1/2 ft).

Exception No. 2: Meters that are installed in meter sockets shall be permitted to extend beyond the other equipment. The meter socket shall be required to follow the rules of this section.

B Clear Spaces. Working space required by this section shall not be used for storage. When normally enclosed live parts are exposed for inspection or servicing, the working space, if in a passageway or general open space, shall be suitably guarded.

Item # 3: Stage Exit Door 1 blocked by storage.

RIFC 14.4 Means of Egress Reliability.

14.4.1* Means of egress shall be continuously maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency. [101:7.1.10.1]+

Item # 4: Fire alarm device missing from the system. Located in the rear hallway behind the stage.

RIFC 4.5.8 Maintenance, Inspection, and Testing.

4.5.8.1 Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or any other feature is required for compliance with the provisions of this Code, such device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or other feature shall thereafter be continuously maintained. Maintenance shall be provided in accordance with applicable NFPA requirements or requirements developed as part of a performance-based design, or as directed by the AHJ. [101 :4.6.12.1]

Item # 5: Fire Exit located in the Boiler Room leading to the outside is blocked by storage.

RIFC 14.4 Means of Egress Reliability.

14.4.1* Means of egress shall be continuously maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency. [101:7.1.10.1]

Exhibit 15

South Kingstown Radon Reports

Indoor Air Quality Report
Long Term Radon Air Sampling Results

Broad Rock Middle School
351 Broad Rock Road, Wakefield, RI
ECM Project #220119

Prepared for:

South Kingstown School Department
Attn: Ms. Anna Barone
135 Asa Pond Road
Wakefield, RI 02879

Prepared by:

ECM Environmental Consulting & Management

181 Amaral Street
Riverside, RI 02915

January 2023

181 Amaral Street
Riverside, RI 02915

O: 401.438.1360
F: 401.438.1316

www.ecmne.com

ECM Environmental
Consulting & Management

January 26, 2023

South Kingstown School Department
Attn: Ms. Anna Barone
135 Asa Pond Road
Wakefield, RI 02879

Re: Broad Rock Middle School – Long Term Radon Testing Results

Ms. Barone:

Enclosed are the results of the long term radon testing performed within the Broad Rock Middle School facility located at 351 Broad Rock Road in Wakefield, RI. The testing was performed by licensed radon inspector Jason Sweet on February 16, 2022 through October 24, 2022. The testing was performed as a followup to testing completed in January 2022 where the results were found to be 5.5 pCi/L in Room 1110. The testing was performed in accordance with the ANSI/AARST protocol for conducting radon and radon decay product measurements with the RIDOH requirements to retest any area found to have short term radon results of between 4.0 and 10.0 pCi/L. No deficiencies in the sample were found upon collection, and no signs of tampering were reported by the laboratory.

Broad Rock Middle School, 351 Broad Rock Road, Wakefield, RI – 1/10/22-1/12/22

Device Number	Area Tested	Result pCi/L
4754522	First Floor Room 1110	5.5

Broad Rock Middle School, 351 Broad Rock Road, Wakefield, RI – 2/16/22-10/24/22

Device Number	Area Tested	Result pCi/L
6106214	First Floor Room 1110	2.5

The radon levels within First Floor Room 1110 were found to be below the Rhode Island Department of Health (RIDOH) and Environmental Protection Agency (EPA) permissible exposure limit (PEL) of 4.0 pCi/L PEL. The heating system was in normal operation for this time of year. The RIDOH requires retesting 10% of the building every three years with the next suggested testing to be performed in **January 2025**. This report must be emailed by a school official to the RI Department of Health at **DOH.Radon@health.ri.gov** to show that follow-up testing has been performed and has in fact passed.

181 Amaral Street
Riverside, RI 02915

O: 401.438.1360
F: 401.438.1316

www.ecmne.com

Please see the attached documents for the actual analytical results. A hard copy of this report can be provided for your records via mail upon request. If you have any further questions feel free to contact us at 401-438-1360.

Sincerely,
Environmental Consulting & Management

Jason Sweet
ECM Project Manager/RI Radon Inspector #RI00200

181 Amaral Street
Riverside, RI 02915

O: 401.438.1360
F: 401.438.1316

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Radon in Air

NELAC NY 11769
NRPP 103216 AL
NRSB ARL0017
Rhode Island Certification # RAS 005 RMB 008

EPA Method #402-R-92-004
Alpha Track
NRPP Device Code 8205
NRSB Device Code 12001

Laboratory Report for:

ECM-D. Simas
181 Amaral Street
Riverside RI 02915

Property Tested: Project # 220119

Broad Rock Middle School
351 Broad Rock Road
Wakefield RI 02879

Log Number	Device Number	Test Exposure Duration:		Area Tested	Result pCi/L
8249786	6106214	02/16/2022	10/24/2022	First Floor Room 1110	2.5

Comment: ECM-D. Simas was emailed a copy of this report.

Test Performed By: Placed: Jason Sweet R100200 Retrieved: Jason Sweet R100200

Distributed by: ECM-D. Simas

Date Received: 10/28/2022 Date Logged: 10/28/2022 Date Analyzed: 11/21/2022 Date Reported: 11/30/2022

This notice is provided to you by an organization or individual licensed and/or certified by the state of Rhode Island Department of Health to perform radon or radon progeny measurements or radon mitigation services as indicated by the RIDOH License #. Any questions, comments, or complaints regarding the person performing these measurements or mitigation services may be directed to Rhode Island Department of Health, Healthy Homes & Environment Team, Radon Program, 3 Capitol Hill Room 206, Providence, RI 02908-5097, doh.radon@health.ri.gov or (401) 222-7796.

Report Reviewed By: _____ Report Approved By: _____

Shawn Price, Director of Laboratory Operations, AccuStar Labs

Disclaimer:

The counting uncertainty of this radon measurement is ~+/- 15 %. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques, and operation of the dwelling. Interference with test conditions may influence the test results.

This report may only be transferred to a third party in its entirety. Laboratory personnel were not involved in the placement or retrieval of the samples. Analytical results relate to the samples as received by the laboratory. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.

Indoor Air Quality Report
Radon Air Sampling Results

West Kingston Elementary School
3119 Ministerial Road, Wakefield, RI
ECM Project #210706

Prepared for:

South Kingstown School Department
Attn: Ms. Anna Barone
135 Asa Pond Road
Wakefield, RI 02879

Prepared by:

ECM Environmental Consulting & Management

181 Amaral Street
Riverside, RI 02915

December 2021

181 Amaral Street
Riverside, RI 02915

O: 401.438.1360
F: 401.438.1316

www.ecmne.com

ECM Environmental
Consulting & Management

December 29, 2021

South Kingstown School Department
Attn: Ms. Anna Barone
135 Asa Pond Road
Wakefield, RI 02879

Re: West Kingston Elementary School – Short Term Radon Testing Results

Ms. Barone:

Enclosed are the results of the short term radon testing performed within the West Kingston Elementary School facility located at 3119 Ministerial Road in Wakefield, RI. The testing was performed by licensed radon inspector Jason Sweet on November 29th, 2021 through December 1st, 2021.

West Kingston Elementary School, 3119 Ministerial Road, Wakefield, RI – 11/29-12/1/2021

Device Number	Area Tested	Result pCi/L
4671980	**Ground Floor Room 109**	**2.4**
46711982	**Ground Floor Room 109 QA**	**2.5**
4671991	**Ground Floor Room 119**	**0.8**
4671977	**Ground Floor Room 127**	**1.0**
4671981	**Ground Floor Room Library**	**0.7**
4724801	**Field Blank**	**<0.4**

The radon levels within the West Kingston Elementary School facility were all found to be well below the Rhode Island Department of Health (RIDOH) and Environmental Protection Agency (EPA) permissible exposure limit (PEL) of 4.0 pCi/L PEL. The heating system was in normal operation for this time of year. The RIDOH requires retesting 10% of the building every three years with the next suggested testing to be performed in **December 2024**. This report and a floor plan drawing must be emailed by a school official to the RI Department of Health at **DOH.Radon@health.ri.gov**.

Please see the attached documents for the actual analytical results. A hard copy of this report can be provided for your records via mail upon request. If you have any further questions feel free to contact us at 401-438-1360.

Sincerely,
Environmental Consulting & Management

Jason Sweet
ECM Project Manager/RI Radon Inspector #RI00200

181 Amaral Street
Riverside, RI 02915

O: 401.438.1360
F: 401.438.1316

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Radon in Air

NELAC NY 11769
NRPP 103216 AL
NRSB ARL0017
Rhode Island Certification # RAS 005 RMB 008

EPA Method #402-R-92-004
Liquid Scintillation
NRPP Device Code 8088
NRSB Device Code 12193

Laboratory Report for:

EMC Inc
181 Amaral Street
Riverside RI 02915

Property Tested: Project # 210706

West Kingston Elementary School
3119 Ministerial Road
Wakefield RI 02892

Log Number	Device Number	Test Exposure Duration:				Area Tested	Result pCi/L
3049328	4671980	11/29/2021	10:28 am	12/01/2021	10:28 am	Ground Floor Room 109	2.4
3049329	4671982	11/29/2021	10:28 am	12/01/2021	10:28 am	Ground Floor Room 109 QA	2.5
3049330	4671991	11/29/2021	10:32 am	12/01/2021	10:32 am	Ground Floor Room 119	0.8
3049331	4671977	11/29/2021	10:34 am	12/01/2021	10:35 am	Ground Floor Room 127	1.0
3049332	4671981	11/29/2021	10:38 am	12/01/2021	10:38 am	Ground Floor Library	0.7
3049333	4724801	11/29/2021	10:40 am	12/01/2021	10:40 am	Field Blank	< 0.4

Comment: ECM-D. Simas was emailed a copy of this report. A copy of this report was emailed to jsweet@ecmne.com.

Test Performed By: Jason Sweet R100200

Distributed by: ECM-D. Simas

Date Received: 12/02/2021 Date Logged: 12/02/2021 Date Analyzed: 12/03/2021 Date Reported: 12/03/2021

This notice is provided to you by an organization or individual licensed and/or certified by the state of Rhode Island Department of Health to perform radon or radon progeny measurements or radon mitigation services as indicated by the RMC #. Any questions, comments, or complaints regarding the person performing these measurements or mitigation services may be directed to Erin Ferreira, Rhode Island Department of Health, Healthy Homes & Environment Team, 3 Capitol Hill Room 206, Providence, RI 02908-5097, (401) 222-7777.

Report Reviewed By: _____ Report Approved By: _____

Shawn Price, Director of Laboratory Operations, AccuStar Labs

Disclaimer:

The uncertainty of this radon measurement is ~+/- 10 %. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

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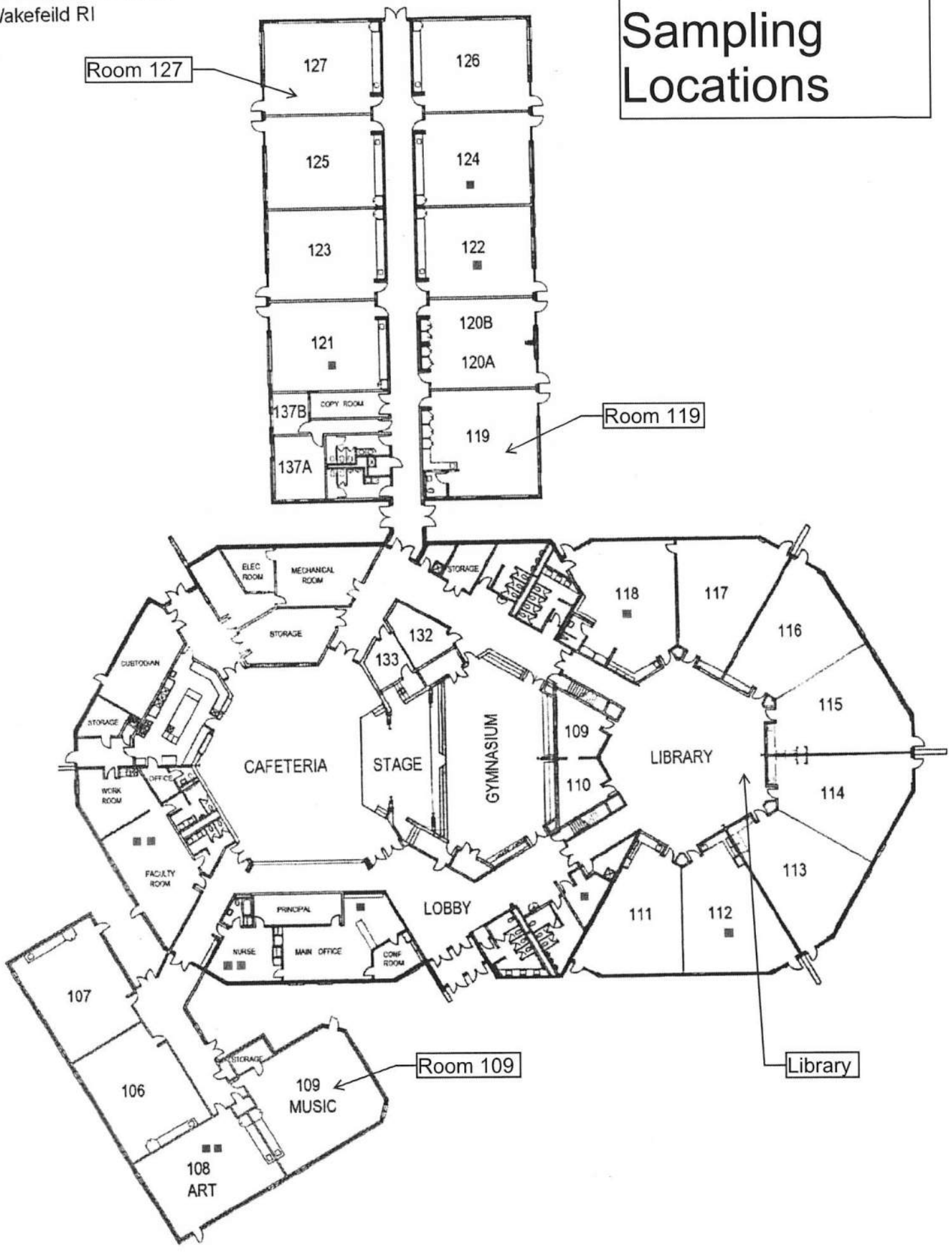
West Kingston Elementary School
3119 Ministerial Road
Wakefeild RI

2021 Radon Sampling Locations



Indoor Air Quality Report
Radon Air Sampling Results

Peace Dale School
109 Kersey Road, South Kingstown, RI
ECM Project #210706

Prepared for:

South Kingstown School Department
Attn: Ms. Anna Barone
135 Asa Pond Road
Wakefield, RI 02879

Prepared by:

ECM Environmental Consulting & Management

181 Amaral Street
Riverside, RI 02915

December 2021

181 Amaral Street
Riverside, RI 02915

O: 401.438.1360
F: 401.438.1316

www.ecmne.com

ECM Environmental Consulting & Management

December 29, 2021

South Kingstown School Department
Attn: Ms. Anna Barone
135 Asa Pond Road
Wakefield, RI 02879

Re: Peace Dale School – Short Term Radon Testing Results

Ms. Barone:

Enclosed are the results of the short term radon testing performed within the Peace Dale School facility located at 109 Kersey Road in South Kingstown, RI. The testing was performed by licensed radon inspector Jason Sweet on November 29th, 2021 through December 1st, 2021.

Peace Dale School, 109 Kersey Road, South Kingstown, RI – 11/29-12/1/2021

Device Number	Area Tested	Result pCi/L
4724851	First Floor Room 13	2.0
4724873	First Floor Room 13 QA	2.0
4724863	First Floor Room 43	0.7
4694768	Ground Floor Room 19	1.0
4694759	Ground Floor Room 23	1.0
4694728	Ground Floor Room 33	0.6
4724823	Field Blank	<0.4

The radon levels within the Peace Dale School facility were all found to be well below the Rhode Island Department of Health (RIDOH) and Environmental Protection Agency (EPA) permissible exposure limit (PEL) of 4.0 pCi/L PEL. The heating system was in normal operation for this time of year. The RIDOH requires retesting 10% of the building every three years with the next suggested testing to be performed in **December 2024**. This report and a floor plan drawing must be emailed by a school official to the RI Department of Health at **DOH.Radon@health.ri.gov**.

Please see the attached documents for the actual analytical results. A hard copy of this report can be provided for your records via mail upon request. If you have any further questions feel free to contact us at 401-438-1360.

Sincerely,
Environmental Consulting & Management

Jason Sweet
ECM Project Manager/RI Radon Inspector #RI00200

181 Amaral Street
Riverside, RI 02915

O: 401.438.1360
F: 401.438.1316

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NRPP 103216 AL
NRSB ARL0017
Rhode Island Certification # RAS 005 RMB 008

EPA Method #402-R-92-004
Liquid Scintillation
NRPP Device Code 8088
NRSB Device Code 12193

Laboratory Report for:

ECM Inc
181 Amaral Street
Riverside RI 02915

Property Tested: Project # 210706

Peace Dale School
109 Kersey Road
South Kingstown RI 02879

Log Number	Device Number	Test Exposure Duration:				Area Tested	Result pCi/L
3049316	4724851	11/29/2021	9:58 am	12/01/2021	9:58 am	First Floor Room 13	2.0
3049317	4724873	11/29/2021	9:58 am	12/01/2021	9:58 am	First Floor Room 13 QA	2.0
3049318	4724863	11/29/2021	10:01 am	12/01/2021	10:01 am	First Floor Room 43	0.7
3049319	4694768	11/29/2021	10:03 am	12/01/2021	10:03 am	Ground Floor Room 19	1.0
3049320	4694759	11/29/2021	10:05 am	12/01/2021	10:06 am	Ground Floor Room 23	1.0
3049321	4694728	11/29/2021	10:07 am	12/01/2021	10:08 am	Ground Floor Room 33	0.6
3049322	4724823	11/29/2021	10:07 am	12/01/2021	10:08 am	Field Blank	< 0.4

Comment: AMENDED REPORT on 12/03/2021 to add the date the tests ended. A copy of this report was emailed to jsweet@ecmne.com.

Test Performed By: Jason Sweet R100200

Distributed by: ECM-D. Simas

Date Received: 12/02/2021 Date Logged: 12/02/2021 Date Analyzed: 12/03/2021 Date Reported: 12/03/2021

This notice is provided to you by an organization or individual licensed and/or certified by the state of Rhode Island Department of Health to perform radon or radon progeny measurements or radon mitigation services as indicated by the RMC #. Any questions, comments, or complaints regarding the person performing these measurements or mitigation services may be directed to Erin Ferreira, Rhode Island Department of Health, Healthy Homes & Environment Team, 3 Capitol Hill Room 206, Providence, RI 02908-5097, (401) 222-7777.

Report Reviewed By: _____ Report Approved By: _____

Shawn Price, Director of Laboratory Operations, AccuStar Labs

Disclaimer:

The uncertainty of this radon measurement is ~+/- 10 %. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

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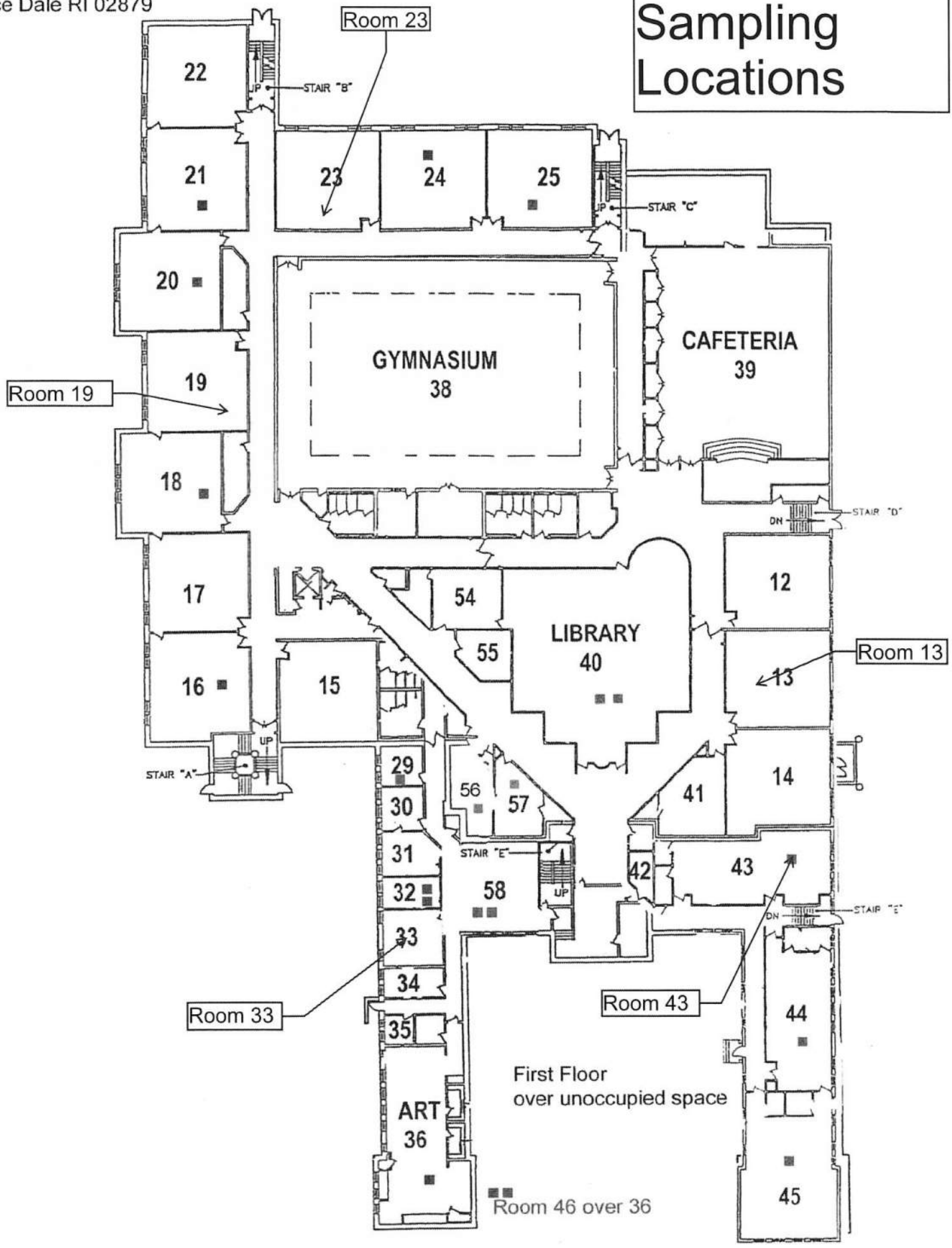
Peace Dale School
109 Kersey Road
Peace Dale RI 02879

2021 Radon Sampling Locations



Indoor Air Quality Report
Radon Air Sampling Results

Wakefield Elementary School
101 High Street, Wakefield, RI
ECM Project #210706

Prepared for:

South Kingstown School Department
Attn: Ms. Anna Barone
135 Asa Pond Road
Wakefield, RI 02879

Prepared by:

ECM Environmental Consulting & Management

181 Amaral Street
Riverside, RI 02915

December 2021

181 Amaral Street
Riverside, RI 02915

O: 401.438.1360
F: 401.438.1316

www.ecmne.com

ECM Environmental
Consulting & Management

December 29, 2021

South Kingstown School Department
Attn: Ms. Anna Barone
135 Asa Pond Road
Wakefield, RI 02879

Re: Wakefield Elementary School – Short Term Radon Testing Results

Ms. Barone:

Enclosed are the results of the short term radon testing performed within the Wakefield Elementary School facility located at 101 High Street in Wakefield, RI. The testing was performed by licensed radon inspector Jason Sweet on November 29th, 2021 through December 1st, 2021.

Wakefield Elementary School, 101 High Street, Wakefield, RI – 11/29-12/1/2021

Device Number	Area Tested	Result pCi/L
4724852	**Ground Floor Room 1**	**2.3**
4694738	**Ground Floor Room 10**	**1.2**
4694743	**Ground Floor Room 15**	**1.4**
4694769	**Ground Floor Room 15 QA**	**1.6**
4724824	**Field Blank**	**<0.4**

The radon levels within the Wakefield Elementary School facility were all found to be well below the Rhode Island Department of Health (RIDOH) and Environmental Protection Agency (EPA) permissible exposure limit (PEL) of 4.0 pCi/L PEL. The heating system was in normal operation for this time of year. The RIDOH requires retesting 10% of the building every three years with the next suggested testing to be performed in **December 2024**. This report and a floor plan drawing must be emailed by a school official to the RI Department of Health at **DOH.Radon@health.ri.gov**.

Please see the attached documents for the actual analytical results. A hard copy of this report can be provided for your records via mail upon request. If you have any further questions feel free to contact us at 401-438-1360.

Sincerely,
Environmental Consulting & Management

Jason Sweet
ECM Project Manager/RI Radon Inspector #RI00200

181 Amaral Street
Riverside, RI 02915

O: 401.438.1360
F: 401.438.1316

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Radon in Air

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NRPP 103216 AL
NRSB ARL0017
Rhode Island Certification # RAS 005 RMB 008

EPA Method #402-R-92-004
Liquid Scintillation
NRPP Device Code 8088
NRSB Device Code 12193

Laboratory Report for:

EMC Inc
181 Amaral Street
Riverside RI 02915

Property Tested: Project # 210706

Wakefield Elementary School
101 High Street
Wakefield RI 02872

Log Number	Device Number	Test Exposure Duration:				Area Tested	Result pCi/L
3049323	4724852	11/29/2021	9:36 am	12/01/2021	9:45 am	Ground Floor Room 1	2.3
3049324	4694738	11/29/2021	9:39 am	12/01/2021	9:40 am	Ground Floor Room 10	1.2
3049325	4694743	11/29/2021	9:41 am	12/01/2021	9:42 am	Ground Floor Room 15	1.4
3049326	4694769	11/29/2021	9:41 am	12/01/2021	9:42 am	Ground Floor Room 15 QA	1.6
3049327	4724824	11/29/2021	9:41 am	12/01/2021	9:42 am	Field Blank	< 0.4

Comment: AMENDED REPORT on 12/03/2021 to add the date the tests ended. A copy of this report was emailed to jsweet@ecmne.com.

Test Performed By: Jason Sweet R100200

Distributed by: ECM-D. Simas

Date Received: 12/02/2021 Date Logged: 12/02/2021 Date Analyzed: 12/03/2021 Date Reported: 12/03/2021

This notice is provided to you by an organization or individual licensed and/or certified by the state of Rhode Island Department of Health to perform radon or radon progeny measurements or radon mitigation services as indicated by the RMC #. Any questions, comments, or complaints regarding the person performing these measurements or mitigation services may be directed to Erin Ferreira, Rhode Island Department of Health, Healthy Homes & Environment Team, 3 Capitol Hill Room 206, Providence, RI 02908-5097, (401) 222-7777.

Report Reviewed By: _____ Report Approved By: _____

Shawn Price, Director of Laboratory Operations, AccuStar Labs

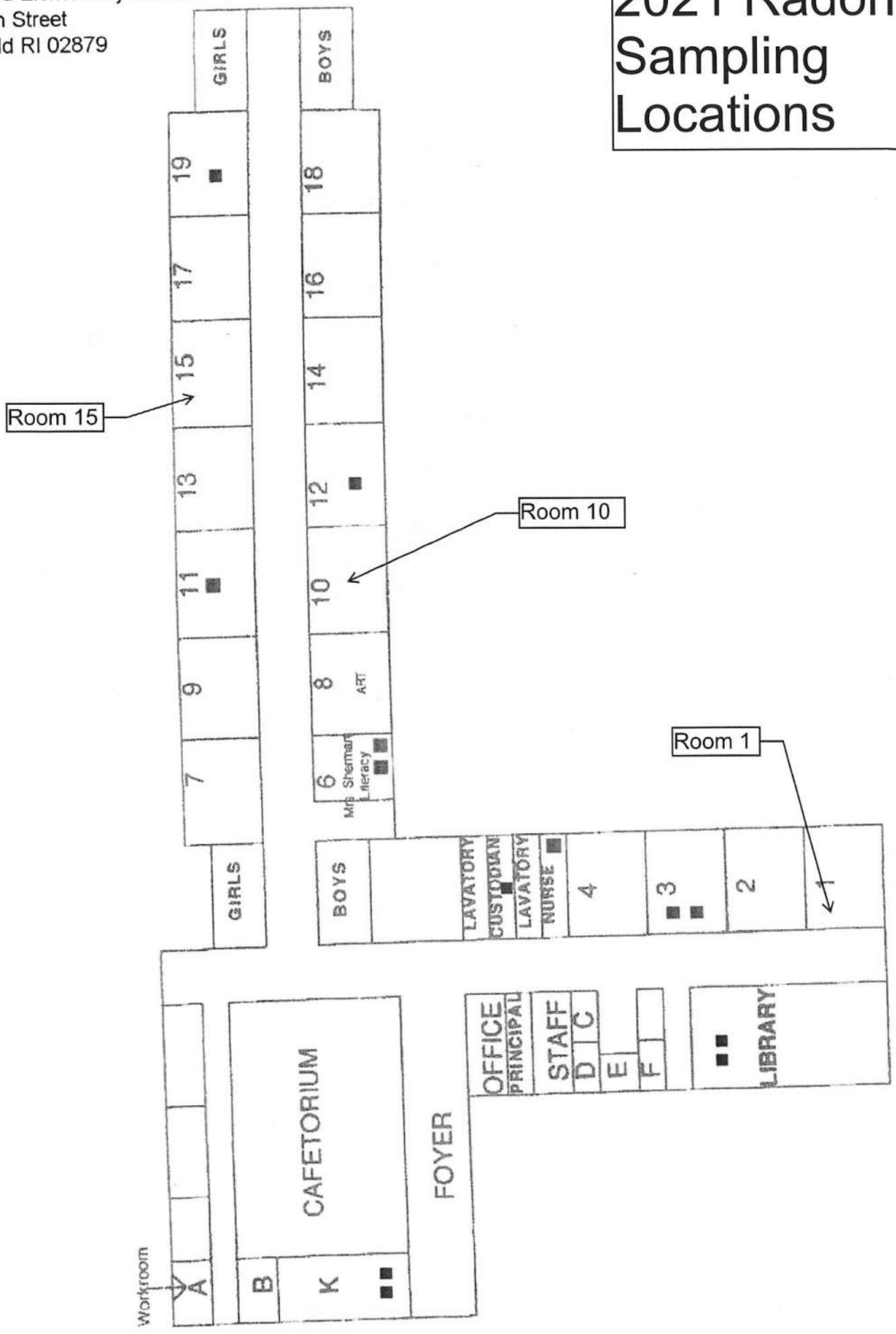
Disclaimer:

The uncertainty of this radon measurement is ~+/- 10 %. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

This report may only be transferred to a third party in its entirety. Analytical results relate to the samples AS RECEIVED BY THE LABORATORY. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.

Wakefeild Elementary School
101 High Street
Wakefeild RI 02879

2021 Radon Sampling Locations



Indoor Air Quality Report
Radon Air Sampling Results

Matunuck Elementary School
280 Matunuck Beach Road, Wakefield, RI
ECM Project #210706

Prepared for:

South Kingstown School Department
Attn: Ms. Anna Barone
135 Asa Pond Road
Wakefield, RI 02879

Prepared by:

ECM Environmental Consulting & Management

181 Amaral Street
Riverside, RI 02915

December 2021

181 Amaral Street
Riverside, RI 02915

O: 401.438.1360
F: 401.438.1316

www.ecmne.com

ECM Environmental Consulting & Management

December 29, 2021

South Kingstown School Department
Attn: Ms. Anna Barone
135 Asa Pond Road
Wakefield, RI 02879

Re: Matunuck Elementary School – Short Term Radon Testing Results

Ms. Barone:

Enclosed are the results of the short term radon testing performed within the Matunuck Elementary School facility located at 280 Matunuck Beach Road in Wakefield, RI. The testing was performed by licensed radon inspector Jason Sweet on November 29th, 2021 through December 1st, 2021.

Matunuck Elementary School, 280 Matunuck Beach Road, Wakefield, RI – 11/29-12/1/2021

Device Number	Area Tested	Result pCi/L
4724854	**Ground Floor Room 17**	**<0.4**
4724872	**Ground Floor Room 12**	**<0.4**
4694745	**Ground Floor Room 4**	**1.6**
4694733	**Ground Floor Room 4 QA**	**1.6**
4724871	**Ground Floor Room 19**	**0.7**
4724876	**Field Blank**	**<0.4**

The radon levels within the Matunuck Elementary School facility were all found to be well below the Rhode Island Department of Health (RIDOH) and Environmental Protection Agency (EPA) permissible exposure limit (PEL) of 4.0 pCi/L PEL. The heating system was in normal operation for this time of year. The RIDOH requires retesting 10% of the building every three years with the next suggested testing to be performed in **December 2024**. This report and a floor plan drawing must be emailed by a school official to the RI Department of Health at **DOH.Radon@health.ri.gov**.

Please see the attached documents for the actual analytical results. A hard copy of this report can be provided for your records via mail upon request. If you have any further questions feel free to contact us at 401-438-1360.

Sincerely,
Environmental Consulting & Management

Jason Sweet
ECM Project Manager/RI Radon Inspector #RI00200

181 Amaral Street
Riverside, RI 02915

O: 401.438.1360
F: 401.438.1316

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Radon in Air

NELAC NY 11769
NRPP 103216 AL
NRSB ARL0017
Rhode Island Certification # RAS 005 RMB 008

EPA Method #402-R-92-004
Liquid Scintillation
NRPP Device Code 8088
NRSB Device Code 12193

Laboratory Report for:

EMC Inc
181 Amaral Street
Riverside RI 02915

Property Tested: Project # 210706

Matunuck Elementary School
280 Matunuck Beach Road
South Kingstown RI 02879

Log Number	Device Number	Test Exposure Duration:				Area Tested	Result pCi/L
3049334	4724854	11/29/2021	9:00 am	12/01/2021	9:13 am	Ground Floor Room 17	< 0.4
3049335	4724872	11/29/2021	9:02 am	12/01/2021	9:11 am	Ground Floor Room 12	< 0.4
3049336	4694745	11/29/2021	9:05 am	12/01/2021	9:09 am	Ground Floor Room 4	1.6
3049337	4694733	11/29/2021	9:05 am	12/01/2021	9:09 am	Ground Floor Room 4 QA	1.6
3049338	4724871	11/29/2021	9:08 am	12/01/2021	9:16 am	Ground Floor Room 19	0.7
3049339	4724876	11/29/2021	9:09 am	12/01/2021	9:09 am	Field Blank	< 0.4

Comment: AMENDED REPORT on 12/03/2021 to add the date the tests ended. A copy of this report was emailed to jsweet@ecmne.com.

Test Performed By: Jason Sweet R100200

Distributed by: ECM-D. Simas

Date Received: 12/02/2021 Date Logged: 12/02/2021 Date Analyzed: 12/03/2021 Date Reported: 12/03/2021

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Report Reviewed By: _____ Report Approved By: _____

Shawn Price, Director of Laboratory Operations, AccuStar Labs

Disclaimer:

The uncertainty of this radon measurement is ~+/- 10 %. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

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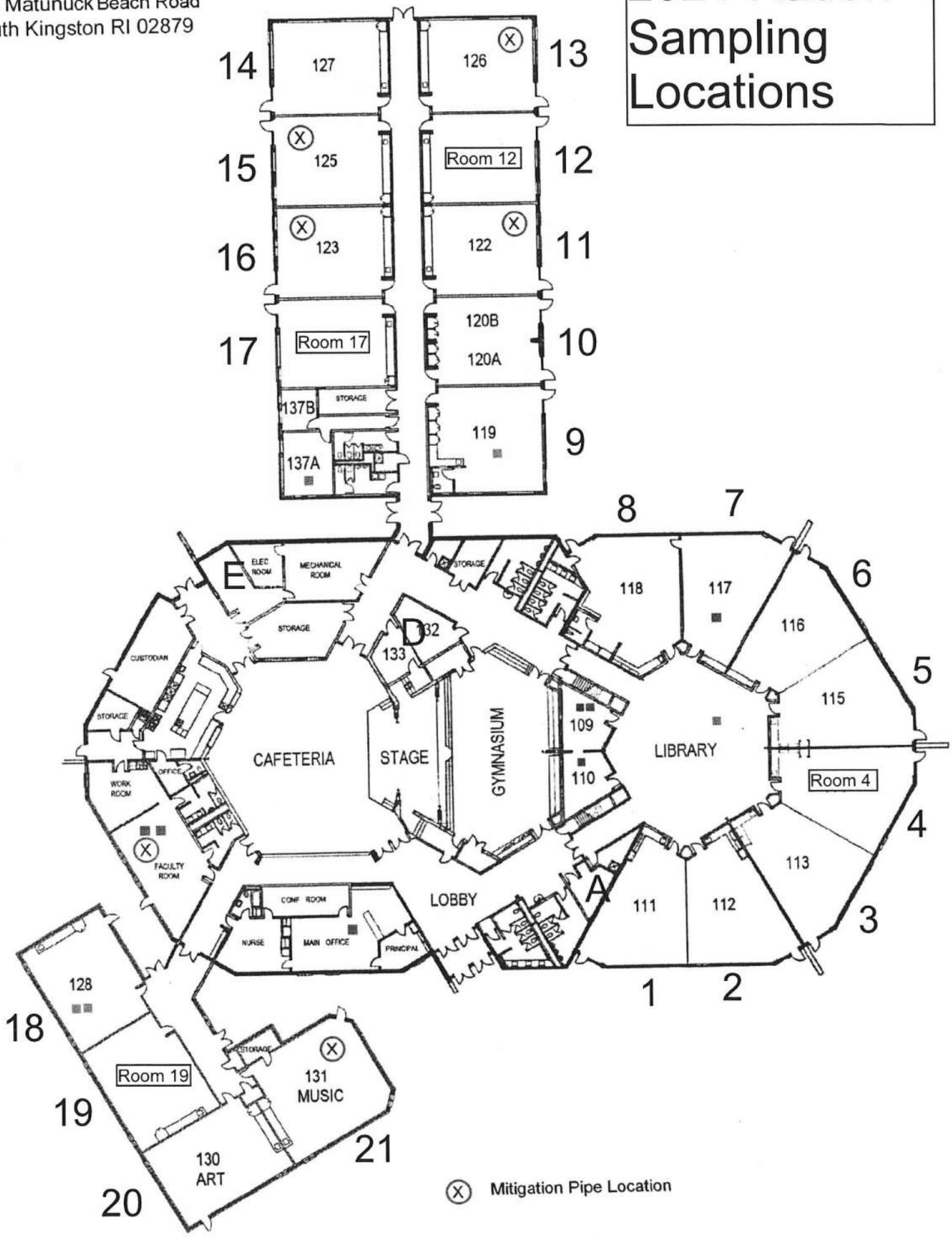
Matunuck Elementary School
280 Matunuck Beach Road
South Kingston RI 02879

2021 Radon Sampling Locations



⊗ Mitigation Pipe Location

Indoor Air Quality Report
Radon Air Sampling Results

South Kingstown Schools Administration Building
307 Curtis Corner Road, Wakefield, RI
ECM Project #210706B

Prepared for:

South Kingstown School Department
Attn: Ms. Anna Barone
135 Asa Pond Road
Wakefield, RI 02879

Prepared by:

181 Amaral Street
Riverside, RI 02915

January 2022

181 Amaral Street
Riverside, RI 02915

O: 401.438.1360
F: 401.438.1316

www.ecmne.com

Bu [illegible] sk maint. Director
1/31/22

ECM Environmental
Consulting & Management

January 17, 2021

South Kingstown School Department
Attn: Ms. Anna Barone
135 Asa Pond Road
Wakefield, RI 02879

Re: South Kingstown School Administration Building – Short Term Radon Testing Results

Ms. Barone:

Enclosed are the results of the short term radon testing performed within the South Kingstown Administration Building facility located at 307 Curtis Corner Road in Wakefield, RI. The testing was performed by licensed radon inspector Jason Sweet on January 10, 2022 through January 12, 2022. Readings for temperature and relative humidity were collected during both the setup and pick up of the samples and found to be within the laboratory requirements for analysis in all locations. The building occupants appeared to be adhering to the required closed building conditions during testing. The testing was performed in accordance with the ANSI/AARST protocol for conducting radon and radon decay product measurements with the RIDOH requirements to retest 10% of the building every three years. QA/QC samples (field blanks and duplicates) were also submitted in accordance with AARST guidelines. No deficiencies in the sample were found upon collection, and no signs of tampering were reported by the laboratory.

South Kingstown School Admin Building, 307 Curtis Corner Road, Wakefield, RI – 1/10/22-1/12/22

Device Number	Area Tested	Result pCi/L
4754541	**Ground Floor Room 121**	**1.7**
4754522	**Ground Floor Room 115**	**2.1**
4754512	**Ground Floor 107**	**2.5**
4754531	**Ground Floor Room 107 QA**	**2.8**
4731058	**Field Blank**	**<0.4**

The radon levels within the South Kingstown Administration Building facility were all found to be well below the Rhode Island Department of Health (RIDOH) and Environmental Protection Agency (EPA) permissible exposure limit (PEL) of 4.0 pCi/L PEL. The heating system was in normal operation for this time of year. The RIDOH requires retesting 10% of the building every three years with the next suggested testing to be performed in **January 2025**. This report and a floor plan drawing must be emailed by a school official to the RI Department of Health at **DOH.Radon@health.ri.gov**.

181 Amaral Street
Riverside, RI 02915

O: 401.438.1360
F: 401.438.1316

www.ecmne.com

Please see the attached documents for the actual analytical results. A hard copy of this report can be provided for your records via mail upon request. If you have any further questions feel free to contact us at 401-438-1360.

Sincerely,
Environmental Consulting & Management

Jason Sweet
ECM Project Manager/RI Radon Inspector #RI00200

181 Amaral Street
Riverside, RI 02915

O: 401.438.1360
F: 401.438.1316

www.ecmne.com

AccuStar
Professional Radon Laboratory Services Since 1984

Radon in Air

NELAC NY 11769
NRPP 103216 AL
NRSB ARL0017
Rhode Island Certification # RAS 005 RMB 008

EPA Method #402-R-92-004
Liquid Scintillation
NRPP Device Code 8088
NRSB Device Code 12193

Laboratory Report for:

ECM Inc
181 Amaral Street
Riverside RI 02915

Property Tested: Project # 210706B

Administration Building
307 Curtis Corner
Wakefield RI 02679

Log Number	Device Number	Test Exposure Duration:				Area Tested	Result pCi/L
3069832	4754541	01/10/2022	9:09 am	01/12/2022	9:55 am	Ground Floor Room 121	1.7
3069833	4754522	01/10/2022	9:11 am	01/12/2022	9:57 am	Ground Floor Room 115	2.1
3069834	4754512	01/10/2022	9:13 am	01/12/2022	9:54 am	Ground Floor Room 107	2.5
3069835	4754531	01/10/2022	9:13 am	01/12/2022	9:54 am	Ground Floor Room 107	2.8
3069836	4731058	01/10/2022	9:15 am	01/12/2022	9:15 am	Field Blank	< 0.4

Comment: ECM-D. Simas was emailed a copy of this report. A copy of this report was emailed to jsweet@ecmne.com.

Test Performed By: Jason Sweet Certification Number: RI00200

Distributed by: ECM-D. Simas

Date Received: 01/13/2022 Date Logged: 01/13/2022 Date Analyzed: 01/14/2022 Date Reported: 01/14/2022

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Report Reviewed By: _____ Report Approved By: _____

Shawn Price, Director of Laboratory Operations, AccuStar Labs

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Indoor Air Quality Report
Radon Air Sampling Results

South Kingstown Schools Maintenance Building
135 Asa Pond Road, Wakefield, RI
ECM Project #210706B

Prepared for:

South Kingstown School Department
Attn: Ms. Anna Barone
135 Asa Pond Road
Wakefield, RI 02879

Prepared by:

181 Amaral Street
Riverside, RI 02915

January 2022

181 Amaral Street
Riverside, RI 02915

O: 401.438.1360
F: 401.438.1316

www.ecmne.com

Bm [illegible] SK Maint. Director
1/31/22

ECM Environmental
Consulting & Management

January 17, 2021

South Kingstown School Department
Attn: Ms. Anna Barone
135 Asa Pond Road
Wakefield, RI 02879

Re: South Kingstown School Maintenance Building – Short Term Radon Testing Results

Ms. Barone:

Enclosed are the results of the short term radon testing performed within the South Kingstown Maintenance Building facility located at 135 Asa Pond Road in Wakefield, RI. The testing was performed by licensed radon inspector Jason Sweet on January 10, 2022 through January 12, 2022. Readings for temperature and relative humidity were collected during both the setup and pick up of the samples and found to be within the laboratory requirements for analysis in all locations. The building occupants appeared to be adhering to the required closed building conditions during testing. The testing was performed in accordance with the ANSI/AARST protocol for conducting radon and radon decay product measurements with the RIDOH requirements to retest 10% of the building every three years. QA/QC samples (field blanks and duplicates) were also submitted in accordance with AARST guidelines. No deficiencies in the sample were found upon collection, and no signs of tampering were reported by the laboratory.

South Kingstown School Maintenance Building, 135 Asa Pond Road, Wakefield, RI – 1/10/22-1/12/22

Device Number	Area Tested	Result pCi/L
4754541	**Ground Floor Director's Office**	**0.7**
4754522	**Ground Floor Director's Office QA**	**0.8**
4731058	**Field Blank**	**<0.4**

The radon levels within the South Kingstown Schools Maintenance facility were all found to be well below the Rhode Island Department of Health (RIDOH) and Environmental Protection Agency (EPA) permissible exposure limit (PEL) of 4.0 pCi/L PEL. The heating system was in normal operation for this time of year. The RIDOH requires retesting 10% of the building every three years with the next suggested testing to be performed in **January 2025**. This report and a floor plan drawing must be emailed by a school official to the RI Department of Health at **DOH.Radon@health.ri.gov**.

181 Amaral Street
Riverside, RI 02915

O: 401.438.1360
F: 401.438.1316

www.ecmne.com

Please see the attached documents for the actual analytical results. A hard copy of this report can be provided for your records via mail upon request. If you have any further questions feel free to contact us at 401-438-1360.

Sincerely,
Environmental Consulting & Management

Jason Sweet
ECM Project Manager/RI Radon Inspector #RI00200

181 Amaral Street
Riverside, RI 02915

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F: 401.438.1316

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NELAC NY 11769
NRPP 103216 AL
NRSB ARL0017
Rhode Island Certification # RAS 005 RMB 008

EPA Method #402-R-92-004
Liquid Scintillation
NRPP Device Code 8088
NRSB Device Code 12193

Laboratory Report for:

ECM Inc
181 Amaral Street
Riverside RI 02915

Property Tested: Project # 210706B

School Department Maintenance Building
135 Asa Pond Road
Wakefield RI 02879

Log Number	Device Number	Test Exposure Duration:		Area Tested	Result pCi/L
3069805	4754551	01/10/2022 9:50 am	01/12/2022 9:56 am	Ground Floor Director's Office	0.7
3069806	4754571	01/10/2022 9:50 am	01/12/2022 9:56 am	Ground Floor Director's Office Duplicate	0.8
3069807	4731078	01/10/2022 9:51 am	01/12/2022 9:51 am	Field Blank	< 0.4

Comment: ECM-D. Simas was emailed a copy of this report. A copy of this report was emailed to jsweet@ecmne.com.

Test Performed By: Jason Sweet Certification Number: RI00200

Distributed by: ECM-D. Simas

Date Received: 01/13/2022 Date Logged: 01/13/2022 Date Analyzed: 01/14/2022 Date Reported: 01/14/2022

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Report Reviewed By: _____ Report Approved By: _____

Shawn Price, Director of Laboratory Operations, AccuStar Labs

Disclaimer:

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Indoor Air Quality Report
Radon Air Sampling Results

Curtis Corner Middle School
301 Curtis Corner Road, Wakefield, RI
ECM Project #210706B

Prepared for:

South Kingstown School Department
Attn: Ms. Anna Barone
135 Asa Pond Road
Wakefield, RI 02879

Prepared by:

181 Amaral Street
Riverside, RI 02915

January 2022

181 Amaral Street
Riverside, RI 02915

O: 401.438.1360
F: 401.438.1316

www.ecmne.com

Bm Mly SK Maint. Director
1/31/22

ECM Environmental
Consulting & Management

January 17, 2021

South Kingstown School Department
Attn: Ms. Anna Barone
135 Asa Pond Road
Wakefield, RI 02879

Re: Curtis Corner Middle School – Short Term Radon Testing Results

Ms. Barone:

Enclosed are the results of the short term radon testing performed within the Curtis Corner Middle School facility located at 301 Curtis Corner Road in Wakefield, RI. The testing was performed by licensed radon inspector Jason Sweet on January 10, 2022 through January 12, 2022. Readings for temperature and relative humidity were collected during both the setup and pick up of the samples and found to be within the laboratory requirements for analysis in all locations. The building occupants appeared to be adhering to the required closed building conditions during testing. The testing was performed in accordance with the ANSI/AARST protocol for conducting radon and radon decay product measurements with the RIDOH requirements to retest 10% of the building every three years. QA/QC samples (field blanks and duplicates) were also submitted in accordance with AARST guidelines. No deficiencies in the sample were found upon collection, and no signs of tampering were reported by the laboratory.

Curtis Corner Middle School, 301 Curtis Corner Road, Wakefield, RI – 1/10/22-1/12/22

Device Number	Area Tested	Result pCi/L
4754541	Ground Floor Room 410	0.9
4754522	Ground Floor Room 414	0.9
4754541	Ground Floor Room 501	1.9
4754522	Ground Floor Room 514	0.6
4754541	Ground Floor Room 205	0.4
4754522	Ground Floor Room 110	0.5
4754541	Ground Floor Room 110 QA	0.6
4754522	Ground Floor Rom 301	0.4
4731058	Field Blank	<0.4

181 Amaral Street
Riverside, RI 02915

O: 401.438.1360
F: 401.438.1316

www.ecmne.com

The radon levels within the Curtis Corner Middle School facility were all found to be well below the Rhode Island Department of Health (RIDOH) and Environmental Protection Agency (EPA) permissible exposure limit (PEL) of 4.0 pCi/L PEL. The heating system was in normal operation for this time of year. The RIDOH requires retesting 10% of the building every three years with the next suggested testing to be performed in **January 2025**. This report and a floor plan drawing must be emailed by a school official to the RI Department of Health at **DOH.Radon@health.ri.gov**.

Please see the attached documents for the actual analytical results. A hard copy of this report can be provided for your records via mail upon request. If you have any further questions feel free to contact us at 401-438-1360.

Sincerely,
Environmental Consulting & Management

Jason Sweet
ECM Project Manager/RI Radon Inspector #RI00200

181 Amaral Street
Riverside, RI 02915

O: 401.438.1360
F: 401.438.1316

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Radon in Air

NELAC NY 11769
NRPP 103216 AL
NRSB ARL0017
Rhode Island Certification # RAS 005 RMB 008

EPA Method #402-R-92-004
Liquid Scintillation
NRPP Device Code 8088
NRSB Device Code 12193

Laboratory Report for:

ECM Inc
181 Amaral Street
Riverside RI 02915

Property Tested: Project # 210706B

Curtis Corner Middle School
301 Curtis Corner Road
Wakefield RI 02879

Log Number	Device Number	Test Exposure Duration:				Area Tested	Result pCi/L
3069796	4754521	01/10/2022	9:23 am	01/12/2022	9:42 am	Ground Floor Room 410	0.9
3069797	4754550	01/10/2022	9:25 am	01/12/2022	9:43 am	Ground Floor Room 414	0.9
3069798	4754540	01/10/2022	9:28 am	01/12/2022	9:44 am	Ground Floor Room 501	1.9
3069799	4754502	01/10/2022	9:30 am	01/12/2022	9:46 am	Ground Floor Room 514	0.6
3069800	4754492	01/10/2022	9:32 am	01/12/2022	9:47 am	Ground Floor Room 205	0.4
3069801	4754575	01/10/2022	9:34 am	01/12/2022	9:49 am	Ground Floor Room 110	0.5
3069802	4754576	01/10/2022	9:34 am	01/12/2022	9:49 am	Ground Floor Room 110 Duplicate	0.6
3069803	4754578	01/10/2022	9:38 am	01/12/2022	9:50 am	Ground Floor Room 301	0.4
3069804	4731068	01/10/2022	9:39 am	01/12/2022	9:39 am	Field Blank	< 0.4

Comment: ECM-D. Simas was emailed a copy of this report. A copy of this report was emailed to jsweet@ecmne.com.

Test Performed By: Jason Sweet Certification Number: RI00200

Distributed by: ECM-D. Simas

Date Received: 01/13/2022 Date Logged: 01/13/2022 Date Analyzed: 01/14/2022 Date Reported: 01/14/2022

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Report Reviewed By: _____ Report Approved By: _____

Shawn Price, Director of Laboratory Operations, AccuStar Labs

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Indoor Air Quality Report
Radon Air Sampling Results

South Kingstown High School
215 Columbia Street, Wakefield, RI
ECM Project #210706B

Prepared for:

South Kingstown School Department
Attn: Ms. Anna Barone
135 Asa Pond Road
Wakefield, RI 02879

Prepared by:

ECM Environmental Consulting & Management

181 Amaral Street
Riverside, RI 02915

January 2022

181 Amaral Street
Riverside, RI 02915

O: 401.438.1360
F: 401.438.1316

www.ecmne.com

By [illegible] SK Maint Director
1/31/22

Environmental
Consulting & Management

January 17, 2022

South Kingstown School Department
Attn: Ms. Anna Barone
135 Asa Pond Road
Wakefield, RI 02879

Re: South Kingstown High School – Short Term Radon Testing Results

Ms. Barone:

Enclosed are the results of the short term radon testing performed within the South Kingstown High School facility located at 215 Columbia Street in Wakefield, RI. The testing was performed by licensed radon inspector Jason Sweet on January 10, 2022 through January 12, 2022. Readings for temperature and relative humidity were collected during both the setup and pick up of the samples and found to be within the laboratory requirements for analysis in all locations. The building occupants appeared to be adhering to the required closed building conditions during testing. The testing was performed in accordance with the ANSI/AARST protocol for conducting radon and radon decay product measurements with the RIDOH requirements to retest 10% of the building every three years. QA/QC samples (field blanks and duplicates) were also submitted in accordance with AARST guidelines. No deficiencies in the sample were found upon collection, and no signs of tampering were reported by the laboratory.

South Kingstown High School, 215 Columbia Street, Wakefield, RI – 1/10/22-1/12/22

Device Number	Area Tested	Result pCi/L
4754572	**First Floor Main Office**	**1.0**
4754560	**First Floor Main Office QA**	**0.8**
4754488	**First Floor Conference Room**	**0.9**
4754577	**First Floor Room 102**	**1.6**
4754561	**First Floor Room 110**	**2.5**
4754573	**First Floor Room 114**	**0.7**
4754574	**First Floor Custodian Office**	**1.3**
4730989	**Field Blank**	**<0.4**

The radon levels within the South Kingstown High School facility were all found to be well below the Rhode Island Department of Health (RIDOH) and Environmental Protection Agency (EPA) permissible exposure limit (PEL) of 4.0 pCi/L PEL. The heating system was in normal operation for this time of year. The RIDOH requires retesting 10% of the building every three years with the next suggested testing to be performed in **January 2025**. This report and a floor plan drawing must be emailed by a school official to the RI Department of Health at **DOH.Radon@health.ri.gov**.

181 Amaral Street
Riverside, RI 02915

O: 401.438.1360
F: 401.438.1316

www.ecmne.com

Please see the attached documents for the actual analytical results. A hard copy of this report can be provided for your records via mail upon request. If you have any further questions feel free to contact us at 401-438-1360.

Sincerely,
Environmental Consulting & Management

Jason Sweet
ECM Project Manager/RI Radon Inspector #RI00200

181 Amaral Street
Riverside, RI 02915

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AccuStar

Professional Radon Laboratory Services Since 1984

Radon in Air

NELAC NY 11769
NRPP 103216 AL
NRSB ARL0017
Rhode Island Certification # RAS 005 RMB 008

EPA Method #402-R-92-004
Liquid Scintillation
NRPP Device Code 8088
NRSB Device Code 12193

Laboratory Report for:

ECM Inc
191 Amaral Street
Riverside RI 02915

Property Tested: Project # 210706B

South Kingstown High School
215 Columbia Street
Wakefield RI 02879

Log Number	Device Number	Test Exposure Duration:				Area Tested	Result pCi/L
3069820	4754572	01/10/2022	10:20 am	01/12/2022	10:22 am	First Floor Main Office	1.0
3069821	4754560	01/10/2022	10:20 am	01/12/2022	10:22 am	First Floor Main Office Duplicate	0.8
3069822	4754488	01/10/2022	10:22 am	01/12/2022	10:23 am	First Floor Conference Room	0.9
3069823	4754577	01/10/2022	10:24 am	01/12/2022	10:25 am	First Floor Room 102	1.6
3069824	4754561	01/10/2022	10:26 am	01/12/2022	10:27 am	First Floor Room 110	2.5
3069825	4754573	01/10/2022	10:30 am	01/12/2022	10:30 am	First Floor Room 114	0.7
3069826	4754574	01/10/2022	10:35 am	01/12/2022	10:35 am	First Floor Custodian Office	1.3
3069827	4730989	01/10/2022	10:40 am	01/12/2022	10:40 am	Field Blank	< 0.4

Comment: ECM-D. Simas was emailed a copy of this report. A copy of this report was emailed to jsweet@ecmne.com.

Test Performed By: Placed: Jason Sweet RI 00200 Retrieved: Jason Sweet RI 00200

Distributed by: ECM-D. Simas

Date Received: 01/13/2022 Date Logged: 01/13/2022 Date Analyzed: 01/14/2022 Date Reported: 01/14/2022

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Report Reviewed By: _____ Report Approved By: _____

Shawn Price, Director of Laboratory Operations, AccuStar Labs

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Exhibit 16

South Kingstown AHERA Reports

Vortex Inc.

Environmental Management, Consulting & Training Services
P.O. Box 6060
Warwick, RI 02887-6060

ASBESTOS AHERA MEMO

4 / 1 / 23

____ Sign and date the attached reports as labeled.

____ Insert the attached **6 Month Surveillance Report** into your (school / Office) Management Planner Booklet.

X *Replace* the existing 3 Year Reinspection Chart with the attached and "revised" Chart that includes the completed 6 Month Surveillance column (right side of chart) for the applicable month (8/22/23). Insert into your (school / Office) Management Planner Booklet. HARD COPY WILL HAVE 2 COLOR ORIGINALS

____ Insert the attached **3 Year Re-Inspection Report** into your (school / Office) Management Planner Booklet.

____ Make a copy of training certificate for each school building and Main Officer AHERA Report Booklets.

1-738-7710 (w) 401-738-7869 (f) 401-640-9331 [c] jcvortex@gmail.com

AHERA - ASBESTOS RE-INSPECTION OF ACM & PACM

S. KINGSTOWN HIGH SCHOOL

SOUTH KINGSTON SCHOOL DEPARTMENT

REINSPECTION DATE: FEBRUARY 2021

ORIGINAL BLDG - 1956

ADDITION - 1996

		INSPECTION FINDINGS FOR PACM										Initials of Surveillance Inspector				
		Type and Quantity of PACM			Response Action							JC	JC	JC	JC	
Location of ACBM	Floor	TSI FITTINGS & LAGGING	MISC	PLASTER WALL MATERIAL	ACM	FRIABLE	DAMAGED	PHYSICAL ACCESS.	HAZARD ASSESS.	RESPONSE	Comments / Notes	6 MONTH SURVEILLANCES				
HOMOGENEOUS AREA		TSI		SURFACE								8/21	2/22	8/22	2/23	8/23
TUNNELS	B	400+ L.F.			A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
CORRIDOR @ LIBRARY	2	X			A	N	N	5	2	M8	ABOVE SUSPENDED CEILINGS	N/C	N/C	N/C	N/C	
AUDITORIUM LOBBY	2	X			A	N	N	5	2	M8	ABOVE SUSPENDED CEILINGS	N/C	N/C	N/C	N/C	
MUSIC CORRIDOR	2	X			A	N	N	5	2	M8	ABOVE SUSPENDED CEILINGS	N/C	N/C	N/C	N/C	
TANK ROOM & ADJOINING JANITOR OFFICE	B		NON ACM		N						12" WALL TILES AND GLUE DOBBS DO NOT CONTAIN ASBESTOS [4/7/15]	N/C	N/C	N/C	N/C	
ORIGINAL BUILDING CLASSROOMS, OFFICES & BATHROOMS	ALL			3,000+ S.F.	A	N	N	5	2	M8	ORIGINAL BUILDING - PLASTER WALLS & PLASTER CEILINGS ABOVE SUSPENDED CEILINGS ARE ASSUMED TO CONTAIN ASBESTOS.	N/C	N/C	N/C	N/C	
STORAGE ROOM @ BOILER ROOM		80 L.F.			A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
P.E. STORAGE [UPPER LEVEL]				1800 S.F.	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
ORIGINAL BLDG. - THROUGHOUT BLDG - ABOVE CEILINGS		300+ FITTINGS			A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
ORIGINAL BLDG. - THROUGHOUT WINDOW CAULK & GLAZE			3,000 L.F.		A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
ORIGINAL BLDG. - THROUGHOUT - DOOR CORE			200+		A	N	N	5	2	M8		N/C	N/C	N/C	N/C	

Code: N = NO; Y = YES; T = THERMAL; S = SURFACING; M = MISCELLANEOUS
NC = NO CHANGE; R = REPAIRED; D = DAMAGED

7/31/14 - STAIRWAY FLOOR TILE/MASTIC AT LANDINGS AND STAIR TREADS ABATED @ #316, ELEVATOR, BOYS LAV AND #331, STAIRWAY MASTIC @ 332A WAS NOT ABATED.

AHERA - ASBESTOS RE-INSPECTION OF ACM & PACM

CURTIS CORNER MIDDLE SCHOOL

SOUTH KINGSTON SCHOOL SYSTEM

REINSPECTION DATE: FEBRUARY 2021

500 WING ADDITION ADDED IN 1996

		INSPECTION FINDINGS FOR ACM/PACM													Initials of Surveillance Inspector				
		Type and Quantity						Response Action							JC	JC	JC	JC	
		FLOOR COVERING (NF)																	
Location of ACBM	Floor	ACM 9" FLOOR TILE & MASTIC	ACM TILE & MASTIC UNDER CARPET	12" TILE	ACM TILE & MASTIC UNDER CARPET	ACM FITTINGS & LAGGING	Wall Material	ACM	FRIABLE	DAMAGED	PHYSICAL ACCESS.	HAZARD ASSESS.	RESPONSE	Comments / Notes	6 MONTH SURVEILLANCES				
HOMOGENEOUS AREA		MSIC	MSIC	MSIC	MSIC	TSI	MSIC								8/21	2/22	8/22	2/23	8/23
SIDE STAIRWAY @ MULTI-PURPOSE ROOM	1	25					BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
BOYS LOCKER	1					200	BL	Y		<10%	Y	Y	T2		N/C	N/C	N/C	N/C	
GIRLS LOCKER	1					200	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
LIBRARY	1					24	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
			X		X			A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
100	1	180					BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
STORAGE @ BOILER RM	1	150					BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
						15 FITT		A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
111	1						BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
100			X		X		BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
SMALL KITCHEN STORAGE	1					6 FITT	BL	Y		N	Y	X	T6		N/C	N/C	N/C	N/C	
		30						A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
FACULTY WOMEN BATH		X					BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
FACULTY MEN BATH		X					BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
111			X		X		BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
112			X		X		BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
CORRIDOR @ 111-112			X		X		BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	

		INSPECTION FINDINGS FOR ACM/PACM Type and Quantity						Response Action							Initials of Surveillance Inspector				
		FLOOR COVERING (NF)													JC	JC	JC	JC	
Location of ACBM	Floor	ACM 9" TILE & MASTIC	ACM TILE & MASTIC UNDER CARPET	12" FLOOR TILE	GYPSUM BD. & JOINT COMPOUND	ACM FITTINGS & LAGGING	Wall Material	ACM	FRIABLE	DAMAGED	PHYSICAL ACCESS.	HAZARD ASSESS.	RESPONSE	Comments / Notes	6 MONTH SURVEILLANCES				
HOMOGENEOUS AREA		S.F.		S.F.	S.F.	TSI									8/21	2/22	8/22	2/23	8/23
113			X		X		BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
LIBRARY OFFICE			X		X		BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
THROUGHOUT				X			BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
202	1	800		ABATED FLOOR TILE ON 2/17/14			BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
203	1	800					BL	Y	N	N	5	2	M8		N/C	N/C	N/C	N/C	
204	1	800		ABATED FLOOR TILE ON 2/17/14			BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
205	1	800					BL	Y	N	N	5	2	M8		N/C	N/C	N/C	N/C	
206	1	800		ABATED FLOOR TILE ON 2/17/14			BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
207	1	800					BL	Y	N	N	5	2	M8		N/C	N/C	N/C	N/C	
301-308	1	6400					BL	Y	N	N	5	2	M8		N/C	N/C	N/C	N/C	
300	1	800		X			BL	Y	N	N	5	2	M8		N/C	N/C	N/C	N/C	
	1	800					BL	Y	N	N	5	2	M8		N/C	N/C	N/C	N/C	
	1	800					BL	Y	N	N	5	2	M8		N/C	N/C	N/C	N/C	
	1	800					BL	Y	N	N	5	2	M8		N/C	N/C	N/C	N/C	
	1	800					BL	Y	N	N	5	2	M8		N/C	N/C	N/C	N/C	
	1	800					BL	Y	N	N	5	2	M8		N/C	N/C	N/C	N/C	
309	1	200		X			BL	Y	N	N	5	2	M8		N/C	N/C	N/C	N/C	
310	1	200					BL	Y	N	N	5	2	M8		N/C	N/C	N/C	N/C	
408	1						BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
CUSTODIAL CLOSET @ 202	1	150		ABATED FLOOR TILE ON 2/17/14				A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
THROUGHOUT	1				X		BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
THROUGHOUT	1			X			BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
BOILER ROOM	100+ ACM FITTINGS							A	N	N	5	2	M7		N/C	N/C	N/C	N/C	
	BREECHING @ INCINERATOR - 40 S.F.							A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
	CEILING PLASTER - 1000 S.F.							A	N	N	5	2	M5	NEEDS 5 S.F. OF REPAIR	N/C	N/C	N/C	N/C	
WATER TANK & GENERATOR ROOM	1	20 ACM FITTINGS						Y	N	N	5	2	T7		N/C	N/C	N/C	N/C	
	1	WATER TANK INSUL 300 S.F.						A	N	N	5	2	T7	MAY HAVE FIBERGLASS INSUL. COVERING ACM?	N/C	N/C	N/C	N/C	

	INSPECTION FINDINGS FOR ACM/PACM						Response Action							Initials of Surveillance Inspector				
	Type and Quantity													JC	JC	JC	JC	
	FLOOR COVERING (NF)																	
Location of ACBM	Floor			MISC.			ACM	FRIABLE	DAMAGED	PHYSICAL ACCESS.	HAZARD ASSESS.	RESPONSE	Comments / Notes	6 MONTH SURVEILLANCES				
HOMOGENEOUS AREA				MISC										8/21	2/22	8/22	2/23	8/23
ORIGINAL BLDG. THROUIGHOUT 2' X 2' CEIL TILES	1			25,000+ S.F.			A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
ORIGINAL BLDG. - THROUGHOUT ABOVE CEILINGS	1			100+ ACM FITTINGS			Y	N	N	5	2	M8		N/C	N/C	N/C	N/C	
ORIGINAL BLDG. - THROUGHOUT WINDOW CAULK & GLAZE	1			2,000 L.F.			A	N	N	5	2	M8	CAFÉ & FRONT ENTRANCE IS NEW	N/C	N/C	N/C	N/C	
ORIGINAL BLDG. - THROUGHOUT - DOOR CORE	1			100+			A	N	N	5	2	M8		N/C	N/C	N/C	N/C	

Code: N = NO; Y = YES; T = THERMAL; S = SURFACING; M = MISCELLANEOUS
NC = NO CHANGE; R = REPAIRED; D = DAMAGED

ORIGINAL BUILDING - PLASTER WALLS & PLASTER CEILINGS ABOVE SUSPENDED CEILINGS ARE ASSUMED TO CONTAIN ASBESTOS.

AHERA - ASBESTOS RE-INSPECTION OF ACM & PACM

HAZARD SCHOOL BUILDING

SOUTH KINGSTON SCHOOL DEPARTMENT

INSPECTION DATE: FEBRUARY 2021

ORIGINAL BLGS. BUILT IN 1911

COMPLETELY RENOVATED IN 1996

		INSPECTION FINDINGS												Initials of Surveillance Inspector				
		Type and Quantity					Response Action							JC	JC	JC	JC	
Location of ACBM	Floor	12" FLOOR TILE & MASTIC	PLASTER WALLS& CEILING	GYPSUM WALL BOARD	2' X 2' CEIL TILE	2' X 4' CEIL TILE	ACM	FRIABLE	DAMAGED	PHYSICAL ACCESS.	HAZARD ASSESS.	RESPONSE	Comments / Notes	6 MONTH SURVEILLANCES				
HOMOGENEOUS AREA		MISC	SURFACE	MISC										8/21	2/22	8/22	2/23	8/23
THROUGHOUT 2 LEVELS	1-2	25,000+ S.F.					A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
	1-2			5,000+ S.F.			A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
	1-2		15000+				A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
	B	3,000+ S.F.					A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
	B		2,000+ S.F.				A	Y	Y	2	5	S2	PLASTER WALL DAMAGE IN BOTH STAIRWAYS UP	N/C	N/C	N/C	N/C	
					1500 S.F.		A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
CORRIDORS TRHOUGHOUT	B-2				X		A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
CLASSROOMS THROUGHOUT	1-2					X	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
BOILER ROOM	B		900 S.F. CEILING				A	N	N	5	2	M8		N/C	N/C	N/C	N/C	

Code: N = NO; Y = YES; T = THERMAL; S = SURFACING; M = MISCELLANEOUS
N/C = NO CHANGE; R = REPAIRED; D = DAMAGED

AHERA - ASBESTOS RE-INSPECTION OF ACM & PACM

WAKEFIELD ELEMENTARY SCHOOL

SOUTH KINGSTON SCHOOL DEPARTMENT

REINSPECTION DATE: FEBRUARY 2021

ORIGINAL BLGS. BUILT IN 1964

ADDITION ADDED IN 1990

		INSPECTION FINDINGS										Initials of Surveillance Inspector				
		Type and Quantity			Response Action							JC	JC	JC	JC	
Location of ACBM	Floor	ACM FITTINGS	MISC	GYPSUM / JOINT COMPOUND WALL MATERIAL	ACM	FRIABLE	DAMAGED	PHYSICAL ACCESS.	HAZARD ASSESS.	RESPONSE	Comments / Notes	6 MONTH SURVEILLANCES				
HOMOGENEOUS AREA		TSI		SURFACE								8/21	2/22	8/22	2/23	8/23
ORIGINAL BUILDING CLASSROOMS, OFFICES & BATHROOMS	1			3,000+ S.F.	N	N	N	Y	Y	S8	ORIGINAL BUILDING - PLASTER WALLS & PLASTER CEILINGS ABOVE SUSPENDED CEILINGS ARE ASSUMED TO CONTAIN ASBESTOS.	N/C	N/C	N/C	N/C	
STAGE	1	20			Y	N	N	Y	Y	T7		N/C	N/C	N/C	N/C	
CUSTODIAL OFFICE	1	12			Y	N	N	Y	Y	T7		N/C	N/C	N/C	N/C	
ASSUMED ABOVE SUSPENDED CEILINGS	1	50+			Y	N	N	N	Y	T7		N/C	N/C	N/C	N/C	
PE OFFICE	1	8			Y	N	N	Y	Y	T7		N/C	N/C	N/C	N/C	
KITCHEN	1	1			Y	N	N	5	2	T8		N/C	N/C	N/C	N/C	
PE STORAGE / KILN	1	12			Y	N	N	Y	Y	T7		N/C	N/C	N/C	N/C	
ELECTRICAL ROOM	1	20			Y	N	N	Y	Y	T7		N/C	N/C	N/C	N/C	
READING ROOM	1	10			Y	N	N	Y	Y	T7		N/C	N/C	N/C	N/C	
ORIGINAL BLDG. THROUGHOUT WINDOW CAULK & GLAZE			2000+ L.F.		A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
ORIGINAL BLDG. - THROUGHOUT - DOOR CORE			60+		A	N	N	5	2	M8		N/C	N/C	N/C	N/C	

Code: N = NO; Y = YES; T = THERMAL; S = SURFACING; M = MISCELLANEOUS
NC = NO CHANGE; R = REPAIRED; D = DAMAGED

AHERA - ASBESTOS RE-INSPECTION OF ACM & PACM

PEACEDALE ELEMENTARY SCHOOL

SOUTH KINGSTON SCHOOL DEPARTMENT

REINSPECTION DATE: FEBRUARY 2021

SCHOOL WAS COMPLETELY REBUILT IN 1993

		INSPECTION FINDINGS Type and Quantity	Response Action						Initials of Surveillance Inspector				
									JC	JC	JC	JC	
Location of ACBM	Floor	PLASTER WALL MATERIAL	FRIABLE	DAMAGED	ACCESS	POTENT. DAMAGE	RESPONSE	Comments / Notes	6 MONTH SURVEILLANCES				
HOMOGENEOUS AREA		SURFACE							8/21	2/22	8/22	2/23	8/23
ORIGINAL BUILDING	B-1	PL	N	N	Y	X	S8	ORIGINAL BUILDING - PLASTER WALLS & PLASTER CEILINGS ABOVE SUSPENDED CEILINGS ARE ASSUMED TO CONTAIN ASBESTOS.	N/C	N/C	N/C	N/C	

Code: N = NO; Y = YES; T = THERMAL; S = SURFACING; M = MISCELLANEOUS
N/C = NO CHANGE; R = REPAIRED; D = DAMAGED

AHERA - ASBESTOS RE-INSPECTION OF ACM & PACM

MATUNUCK ELEMENTARY SCHOOL

SOUTH KINGSTON SCHOOL DEPARTMENT

REINSPECTION DATE: FEBRUARY 2021

		INSPECTION FINDINGS FOR ACM/PACM														Initials of Surveillance Inspector				
		Type and Quantity														JC	JC	JC	JC	
		FLOOR COVERING (NF)				CEILING TYPE (F)			Response Action											
Location of ACBM	Floor	12" FL. TILE ONLY	RUBBER	ceramic	PACM FITTINGS	PLASTER	2' X 2'	Wall Material	ACM	FRIABLE	DAMAGED	PHYSICAL ACCESS.	HAZARD ASSESS.	RESPONSE	Comments / Notes	6 MONTH SURVEILLANCES				
HOMOGENEOUS AREA		MISC.		MISC.	TSI		SURFACE	SURFACE								8/21	2/22	8/22	2/23	8/23
MAIN OFFICE	1	1675					1675	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
BOILER ROOM	1				40			BL	Y	N	N	5	2	T7	REPAIR 3 FITTINGS	N/C	N/C	N/C	N/C	
STORAGE @ ENTRY	1	450					450	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
MAIN HALL	1	1000					1000	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
HALLWAY	1	800					800	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
CAFETERIA	1	2600					2600	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
KITCHEN	1			550				BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
GYM	1		2400					BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
STAGE	1							BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
CUSTODIAN	1				2			BL	Y	N	N	5	2	T7		N/C	N/C	N/C	N/C	
MECHANICAL RM	1				30			BL	Y	N	N	5	2	T7		N/C	N/C	N/C	N/C	
CLOSET	1	180					180	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
WORKROOM	1						400	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
FACULTY ROOM	1	400					400	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
BR 1	1			120				BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
BR2	1			120				BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
CONFERENCE	1	400					400	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
NURSE	1	NON ACM					300	BL	A	N	N	5	2	M8	VAT ABATED IN 6/04, MASTIC NEG.	N/C	N/C	N/C	N/C	
BR	1			80			80	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
PRINC. OFFICE	1	400					400	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
BR I	1			240			240	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
BR2	1			240			240	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
HALLLWAY	1	400					400	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
OFFICE	1	120					120	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
STORAGE	1	400					400	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
SUPPLY ROOM	1	400					400	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
BR 1	1			120				BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
						120		BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	

	INSPECTION FINDINGS FOR ACM/PACM																Initials of Surveillance Inspector				
	Type and Quantity																JC	JC	JC	JC	
	FLOOR COVERING (NF)				CEILING TYPE (F)				Response Action								6 MONTH SURVEILLANCES				
Location of ACBM	Floor	12" FL. TILE ONLY	CARPET OVER TILE	ceramic	MISC	PLASTER	2' X 2'	Wall Material	ACM	FRIABLE	DAMAGED	PHYSICAL ACCESS.	HAZARD ASSESS.	RESPONSE	Comments / Notes	8/21	2/22	8/22	2/23	8/23
BR 2	1			120				BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
						120		BL	A	N	N	5	2	S8		N/C	N/C	N/C	N/C	
MEDIA CENTER	1							BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
SPEECH OFFICE	1	144					144	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
READING	1	200					200	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
STORAGE	1	400					400	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
HALLWAY	1	720					720	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
HALLWAY	1	1300					1300	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
CLASSROOM 109	1	400					400	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
110	1	400					400	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
101 LIBRARY & 111-118		NON ACM			TEKNUM			BL	N						VAT ABATED IN 6/02, MASTIC NEG.	N/C	N/C	N/C	N/C	
119	1	950					950	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
120A	1	400					400	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
120B	1	400					400	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
121	1	950					950	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
122	1	950					950	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
123	1	950					950	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
124	1	950					950	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
125	1	950					950	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
126	1	950					950	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
137A & 137B	1	950					950	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
128	1		950				950	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
129	1		950				950	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
130	1	950					950	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
131	1	950					950	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
THROUGHOUT BLDG - ABOVE CEILINGS					50 TSI FITTINGS				Y	N	N	5	2	T8		N/C	N/C	N/C	N/C	
THROUGHOUT WINDOW CAULK & GLAZE					2000+ L.F.				A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
THROUGHOUT - DOOR CORE					100+				Y	N	N	5	2	M8		N/C	N/C	N/C	N/C	

Code: N = NO; Y = YES; T = THERMAL; S = SURFACING; M = MISCELLANEOUS
NC = NO CHANGE; R = REPAIRED; D = DAMAGED

THE 12" FLOOR TILE MASTIC IN ORIGINAL BUILDING DOES NOT CONTAIN ASBESTOS

AHERA - ASBESTOS RE-INSPECTION OF ACM & PACM

WEST KINGSTON ES

SOUTH KINGSTON SCHOOL DEPARTMENT

REINSPECTION DATE: FEBRUARY 2021

		INSPECTION FINDINGS FOR ACM/PACM														Initials of Surveillance Inspector				
		Type and Quantity							Response Action							JC	JC	JC	JC	
		FLOOR COVERING (NF)			ACM FITTINGS	CEILING TYPE (F)		Wall Material	ACM	FRIABLE	DAMAGED	PHYSICAL ACCESS.	HAZARD ASSESS.	RESPONSE	Comments / Notes	6 MONTH SURVEILLANCES				
Location of ACBM	Floor	12" FL. TILE ONLY	CARPET OVER TILE	ceramic		PLASTER	2' X 2'													
HOMOGENEOUS AREA		MISC.	MISC.	MISC.	TSI	SURFACE	MISC.	MISC.								8/21	2/22	8/22	2/23	8/23
MAIN OFFICE	1	NEW					1675	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
MECH. RM /B.R.	1				30			BL	Y	N	N	5	2	T7	REPAIR 3 FITTINGS	N/C	N/C	N/C	N/C	
STORAGE	1	450					450	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
MAIN HALL	1	1000					1000	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
HALLWAY	1	800					800	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
CAFETERIA	1	2600						BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
KITCHEN	1							BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
GYM	1							BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
STAGE	1							BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
CUSTODIAN	1				3			BL	Y	N	N	5	2	T7		N/C	N/C	N/C	N/C	
ELECTRICAL	1							BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
CLOSET	1	180					180	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
WORKROOM	1		400				400	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
FACULTY ROOM	1		400				400	BL	A	N	N	5	2	M8	CARPET OVER TILE	N/C	N/C	N/C	N/C	
BR 1	1						140	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
BR2	1						140	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
CONFERENCE	1	400					400	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
NURSE	1						400	BL	A	N	N	5	2	M8	NEW VCT	N/C	N/C	N/C	N/C	
BR	1			80			80	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
PRINC. OFFICE	1						400	BL	A	N	N	5	2	M8	NEW VCT	N/C	N/C	N/C	N/C	
BR I	1						240	BL	A	N	N	5	2	M8	NEW VCT	N/C	N/C	N/C	N/C	
BR2	1						240	BL	A	N	N	5	2	M8	NEW VCT	N/C	N/C	N/C	N/C	
HALLLWAY	1	400					400	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
OFFICE	1	120					120	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
STORAGE	1	400					400	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
SUPPLY ROOM	1	400					400	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
BR 1	1			120		120		BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
BR 2	1			120		120		BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
MEDIA CENTER	1							BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	

		Type and Quantity							Response Action							Initials of Surveillance Inspector				
		FLOOR COVERING (NF)			MISC	CEILING TYPE (F)										JC	JC	JC	JC	
Location of ACBM	Floor	12" FL. TILE ONLY	concrete	ceramic		TECNUM CEIL	2' X 2'	Wall Material	ACM	FRIABLE	DAMAGED	PHYSICAL ACCESS.	HAZARD ASSESS.	RESPONSE	Comments / Notes	6 MONTH SURVEILLANCES				
HOMOGENEOUS AREA		MISC.	MISC.	MISC.		MISC	MISC	MISC								8/21	2/22	8/22	2/23	8/23
SPEECH OFFICE	1	144					144	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
READING	1	200					200	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
STORAGE	1	400					400	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
HALLWAY	1	720					720	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
HALLWAY	1	1300					1300	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
CLASS 106 - 109	1	3200					3200	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
110	1	400					400	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
101 LIBRARY, 111-118	1	NON ACM				X		BL	N						VAT ABATED IN 6/02, MASTIC NEG.	N/C	N/C	N/C	N/C	
CORRIDOR 119-127		1500					1500	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
119	1	200					900	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
STORAGE ACROSS @119	1	200					200	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
120A	1	400					400	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
120B	1	400					400	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
121	1	200					900	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
122	1	200					900	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
123	1	200					900	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
124	1	200					900	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
125	1	200					900	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
126	1	200					900	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
127	1	200					900	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
137A & 137B	1	400					950	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
129	1	950					950	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
130	1	950					950	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
131	1	950					950	BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
132-133	1						500	BL	A	N	N	5	2	M8	NEW VCT	N/C	N/C	N/C	N/C	
135	1							BL	A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
THROUGHOUT BLDG - ABOVE CEILINGS					50 TSI FITTINGS				A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
THROUGHOUT WINDOW CAULK & GLAZE					2000+ L.F.				A	N	N	5	2	M8		N/C	N/C	N/C	N/C	
THROUGHOUT - DOOR CORE					100+				Y	N	N	5	2	M8		N/C	N/C	N/C	N/C	

Code: N = NO; Y = YES; T = THERMAL; S = SURFACING; M = MISCELLANEOUS
N = NO CHANGE; R = REPAIRED; D = DAMAGED

THE 12" FLOOR TILE MASTIC IN ORIGINAL BUILDING DOES NOT CONTAIN ASBESTOS

Exhibit 17

South Kingstown High Performance Assurances & Compliance

Resolution of the South Kingstown School Committee

In Compliance with the

Requirements of RIDE/SBA High Performance Protocols

WHEREAS, the South Kingstown School Committee believes that schools should employ integrated design, construction, maintenance, and operational approaches and strategies that are consistent with the goals of High Performance Schools,

NOW, THEREFORE BE IT RESOLVED that the South Kingstown School Committee hereby votes to adopt and require the following components of integrated design, construction, maintenance, and operations approaches and strategies that minimize operating costs and achieve high performance goals.

- **Compliance with the Northeast Collaborative for High Performance Schools (NE-CHPS)**
  - *South Kingstown Public Schools creates and implements an integrated design approach that ensures that the high performance standards and the overall goals of Northeast-CHPS are met and that they are consistent with State policy.*
- **Implement the EPA's Tools for Schools Program**
  - *South Kingstown Public Schools implements the EPA's Tools for Schools program or an equivalent indoor environmental management program for its schools.*
- **Implement a Maintenance Plan**
  - *South Kingstown Public Schools implements a school maintenance plan that includes an inventory of all equipment in its schools and its preventive maintenance needs.*
- **Energy Star Compliance**
  - *South Kingstown Public Schools establishes a rule that all newly purchased equipment and appliances to be used in South Kingstown schools are to be ENERGY STAR compliant. Additionally, the purchase of low efficiency products, including incandescent task lights, halogen torchieres, and portable electrical resistance heaters is prohibited.*
- **No Idling Plan**
  - *South Kingstown Public Schools adopts a no idling plan that applies to all school buses operating in the School Department and all vehicles operating on the school grounds.*
- **No CFC- or HCFC-Based Refrigerants**
  - *The use of CFC- or HCFC-based refrigerants in building heating, ventilating, air conditioning, and refrigeration (HVAC&R) systems is prohibited.*

APPROVED:

Signature: _____ **Date:** 7/14/23

School Committee Chairperson

Exhibit 18

Necessity of School Construction Assurances

SOUTH KINGSTOWN SCHOOL DEPARTMENT

307 CURTIS CORNER ROAD, WAKEFIELD, RI 02879-2106

(401) 360-1300
FAX (401) 360-1330
TTY 1 800 745-5555

July 20, 2018

Joseph da Silva, Ph.D., NCARB, REFP
School Construction Coordinator
School Building Authority
Rhode Island Department of Education
255 Westminster Street
Providence, RI 02903

Dear Dr. da Silva:

The South Kingstown School Department is the local education authority (LEA) in the Town of South Kingstown and intends to seek a Necessity of School Construction Application approval in accordance with the RIDE School Construction Regulations.

The LEA agrees to fund the professionals necessary to complete the requirements in the Stage I and Stage II application including Architectural Feasibility Study, Schematic Design Documents and a Facility Master Plan. The LEA acknowledges that it received the Educational Facility Planner template provided by RIDE SBA and will use this template to procure necessary services (please see attached).

The LEA agrees to procure the services of an independent engineering Commissioning Agent Services for projects, pursuant to the School Construction Regulations. All building inspections will be completed by August 1st, pursuant to Rhode Island General Law 16-21-3. The LEA has submitted its Asset Protection Plan on ERIDE and authorizes RIDE SBA to include this submission to satisfy the Asset Protection requirement in Stage I application.

Maryanne Crawford will be the point of contact for the application process. She can be reached via email at mcrawford@sksd-ri.net or by phone (401) 360-1324.

Sincerely,

Roland Benjamin	Robert Zarnetske	Kristen Stringfellow
SKSC Chair	Town Manager	Superintendent

The South Kingstown School Department does not discriminate on the basis of age, sex, race, religion, national origin, color or disability in accordance with applicable laws and regulations.

INITIAL COMPLIANCE CERTIFICATION

This Initial Compliance Certification ("ICC") must be completed by all Applicants, as defined by RIDE School Construction Regulation (SCR) 200-RICR-20-05-4.3.A.1, who intend to submit a Necessity of School Construction application to the Rhode Island School Building Authority (the "Authority"), as defined by to R.I.G.L. 16-105.2*. The Authority will not consider a District, as defined by RIDE School Construction Regulation (SCR) 1.01, to be eligible for School Housing Aid or School Building Authority Capital Funding until after the District has properly submitted an ICC and received Council on Elementary and Secondary Education approval.*

1. The District hereby acknowledges and agrees that in order to qualify for any funding from the Authority, the District must comply with R.I.G.L. 16-7-35 through 16-7-45 and RIDE SCR 200-RICR-20-05-4 *et seq.* which require the Authority's collaboration and approval at each step of the Necessity of School Construction approval process and further acknowledges and agrees that any actions taken, costs incurred or agreements entered into for the repair, renovation or construction of school facilities without the explicit prior written approval of the Authority shall not be eligible for state aid.

2. The District hereby certifies that it will study and consider all available options for remedying the deficiencies identified through the Necessity process, including, to the extent applicable, regionalization or tuition agreements with adjacent school districts, district assignment policies within the school district, rental or acquisition and any necessary rehabilitation or usage modification of any existing building which could be made available for school use.

3. The District hereby acknowledges and agrees that, before the Council on Elementary and Secondary Education can grant final approval of a Project, the District must submit documentation of community sup- port, including City/Town Council and School Committee approvals, vote to authorize and appropriate the full amount of funding for the Proposed Project that is necessary to meet the total project budget, as agreed to by the Authority and as described in RIDE SCR RIDE SCR 200-RICR-20-05-4.

4. The District hereby acknowledges and agrees that, in connection with a Proposed Project or an Approved Project, it shall use any standard forms (certifications, statements, affidavits, and agreements) established or developed by the Authority.

5. The District hereby acknowledges and agrees that it will notify RIDE in writing six months prior to the sale, lease, demolition or other removal from service of any school facility in the district's jurisdiction, or portion thereof. Where a building that has received school construction payments from RIDE for a building that has not remained in service for 50 years, RIDE may recapture at its discretion a portion of the State aid.

6. The District shall undertake a Feasibility Study to investigate potential options and solutions, including cost estimates, to the School's deficiencies and issues, as identified through the Necessity of School Construction process, or as otherwise determined by the Authority. The District hereby acknowledges and agrees that, as part of a Feasibility Study where a new school option is among the options that may be studied, the District shall study potential sites for the Proposed Project and hereby acknowledges and agrees that it shall base its site selection for a Proposed or Approved Project on, among

other things, cost and environmental factors, including an awareness of soil conditions and their probable effect on foundation and site development costs, transportation effects, dislocation of site occupants, and relationship to other community facilities in accordance with the School Construction Regulations.

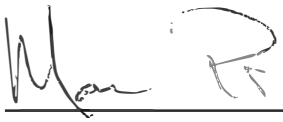
7. The District hereby acknowledges and agrees that any Approved Project for the construction of a new facility, or for the addition to or renovation of an existing school facility, shall have a useful life of fifty (50) years as a public school in the District as required by RIDE SCR 200-RICR-20-05-4.

8. The District hereby acknowledges and agrees that it shall procure the necessary professionals to conduct any necessary assessments, develop an educational program and specification, design and engineer Approved Projects, and manage construction. The necessary professional must monitor compliance with the regulations through the design and construction process to ensure that all building systems are in compliance with regulations and are consistent with all plans, construction documents, and cost estimates as required by RIDE SCR 200-RICR-20-05-4.

9. The District hereby certifies that it has specifically read the provisions of RIDE School Construction Regulations RIDE SCR 200-RICR-20-05-4 and certifies that it has met or will meet each of the requirements described therein and further acknowledges and agrees that the District's failure to comply with each requirement, as determined by the Authority, may be grounds for disapproval of the District's application.

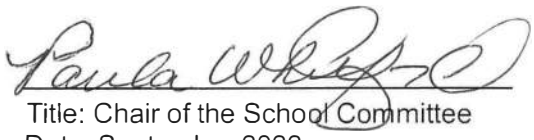
District Name: South Kingstown School District

By signing this Initial Compliance Certification, I hereby certify that I have read and understand the terms of this Initial Compliance Certification and further certify on behalf of the Applicant that each of the above statements is true, complete and accurate.



Title: Superintendent of Schools
Date: September 2022

By signing this Initial Compliance Certification, I hereby certify that I have read and understand the terms of this Initial Compliance Certification and further certify on behalf of the Applicant that each of the above statements is true, complete and accurate.



Title: Chair of the School Committee
Date: September 2022

Exhibit 19

NE CHPS Preliminary Scorecards

Collaborative for High Performance Schools (CHPS)

Project Scorecard: NE-CHPS Version 3.2

School Name: New South Kingstown High School

Expected Completion:	**December 2026**	**Current Phase:**	**Schematic Design**
School District:	**South Kingstown School District**	**Website:**	**https://www.skschools.net/**
School Address:	**215 Columbia Street**	**City:** **Wakefield**	**State: RI** **Zip: 02879**
School Contact:	**Lucas Murray**	**Phone:**	**401-360-1300**
Student Capacity:	**1,703**	**Notes:**	
Approximate Square Feet:	**234,900 SF**		

Verification

Is this the final CHPS Scorecard? No

Registered Principal Architect (Signature)	**Project Manager** (Signature)
Philip Conte, AIA, NCARB, President **6/3/2023**	**Philip Conte, AIA, NCARB, President** **6/3/2023**
Name, Title, Date	**Name, Title, Date**

Use this scorecard to track expected scores. Note that prerequisites have points associated with them even though they are required. This enables project teams to talk more meaningfully about the effort being put into each section of the Criteria. Prerequisite point columns are also highlighted for reference. Mark each credit as ready for review by using the appropriate column for each phase of the review.

Key: P - Prerequisite; **PS -** CHPS Plan Sheet Required; **CD -** Construction Documents Required; **A -** Attachment Required

Criteria	Title	Prerequisite	Points Possible	Points Targeted	Points Claimed	Responsible Team Member	Design Review Requirements	Ready for Design Review	Construction Review Requirements	Ready for Construction	Performance Review Requirements	Ready for Performance Review	Documentation
	Total		**250**										
Integration and Innovation													
II 1.0	Integrated Design	P	4	4				CD					
II 1.1	Enhanced Integrated Design		2	2				A					
II 2.1	District Level Commitment	RIA	1	1				A					
II 3.1	School Master Plan	RIA	1	1				A					
II 4.1	High Performance Transition Plan	RIA	1	1				A		A			
II 5.0	Educational Display	P	1	1				CD		A			
II 5.1	Demonstration Area		1	1				CD		A			
II 6.1	Educational Integration	RIA	2	2				A		A			
II 7.1	Climate Change Action / Carbon Footprint Reporting		3	3				A		A			
II 8.0	Crime Prevention through Environmental Design	P	3	3				A		A			
II 9.1	Innovation		4	4			VARIES		VARIES		VARIES		
II 10.1	Biophilic Design		2	0				A		A			
	Subtotal			23									
Operations & Metrics													
OM 1.0	Facility Staff and Occupant Training	P	4	4				CD		A			
OM 2.1	Post Occupancy Transition		2	2				A		A			
OM 3.0	Performance Benchmarking	P	3	3				A		A	A		
OM 4.1	High Performance Operations		4	4				A		A	A		

OM 5.0	Systems Maintenance Plan	P	1	1									A				
OM 6.0	Indoor Environmental Management Plan	P	2	2									A				
OM 7.1	Green Cleaning		2	2									A		A		
OM 8.0	Integrated Pest Management	P	1	1			PS						A				
OM 9.0	Anti-Idling Measures	P	1	1				CD					A				
OM 10.1	Green Power		2	2					A								
OM 11.0	ENERGY STAR Equipment and Appliances	P	2	2					A								
OM 12.1	Computerized Maintenance Management System	RIA	1	1			PS						A				
	Subtotal			25													
Indoor Environmental Quality																	
EQ 1.0	HVAC Design - ASHRAE 62.1	P	8	8			PS										
EQ 1.1	Enhanced Filtration		2	2				CD					A				
EQ 1.2	Dedicated Outdoor Air System		3	3				CD					A				
EQ 2.0	Polluntant and Chemical Source Control	P	2	2				CD	A				A				
EQ 3.0	Outdoor Moisture Management	P	1	1				CD					A				
EQ 4.1	Ducted Returns		2	2				CD									
EQ 5.1	Construction Indoor Air Quality Management		5	1				CD					A				
EQ 5.2	Construction Moisture Management		1	1				CD					A				
EQ 6.1	Post Construction Indoor Air Quality		1	1				CD					A				
EQ 7.0	Low Emitting Materials	P	2	2			PS	CD			PS		A				
EQ 7.1	Additional Low Emitting Materials		5	5			PS	CD			PS		A				
EQ 8.1	Low Radon	RIA	1	1				CD					A				
EQ 9.1	Thermal Comfort - ASHRAE 55		4	4			PS	CD									
EQ 10.1	Individual Controllability		1	1				CD					A				
EQ 10.2	Controllability of Systems		1	1				CD					A				
EQ 11.0	Daylighting: Glare Protection	P	4	4				CD	A				A				
EQ 11.1	Daylight Availability		5	5			PS	CD	A				A				
EQ 12.0	Views	P	3	3			PS	CD									
EQ 13.1	Electric Lighting Performance		3	3				CD	A								
EQ 13.2	Superior Electric Lighting Performance		5	5				CD					A				
EQ 14.0	Acoustical Performance	P	7	7			PS	CD	A				A		A		
EQ 15.1	Low-EMF Wiring		1	1				CD					A				
EQ 15.2	Low-EMF Best Practices		2	2				CD	A				A				
EQ 16.1	High Intensity Fluorescent Fixtures		1	1				CD					A				
	Subtotal			66													
Energy																	
EE 1.0	Energy Performance	P	6	6				CD	A								
EE 1.1	Superior Energy Performance		40	15				CD	A								
EE 2.1	Zero Net Energy Capable		3	0				CD									
EE 3.0	Commissioning	P	4	4				CD	A				A				
EE 3.1	Additional Commissioning Qualifications		1	1				CD	A				A				
EE 3.2	Building Envelope Commissioning		1	1				CD	A				A				
EE 3.3	Enhanced Commissioning		1	1				CD	A				A		A		
EE 4.0	Enviornmentally Preferable Refrigerants	P	1	1				CD									
EE 5.1	Energy Management System		2	2				CD									
EE 5.2	Advanced Energy Management System and Submetering		2	2				CD									
EE 6.1	Natural Ventilation and Energy Conservation Interlocks		2	2			PS	CD					A				
EE 7.0	Local Energy Efficiency Incentive and Assistance	P	2	2					A				A				
EE 8.1	Variable Air Volume Systems		1	1				CD									
EE 9.1	Renewable Energy Performance Monitoring		1	1				CD					A				
EE 10.1	Electric Vehicle Charging		1	1				CD					A				
	Subtotal			40													

Water																	
WE 1.0	Minimum Reduction in Indoor Potable Water Use	P	5	5			PS	CD				A					
WE 2.1	Reduce Potable Water Use for Sewage Conveyance		4	4			PS	CD				A					
WE 3.0	Irrigation and Exterior Water Budget - Use Reduction	P	4	4				CD				A					
WE 4.1	Reduce Potable Water Use for Non-Recreational Landscaping		2	2				CD	A			A					
WE 5.1	Recuce Potable Water Use for Recreational Landscaping		1	1				CD				A					
WE 6.0	Irrigation Systems Commissioning	P	1	1					A			A					
WE 7.1	Rainwater Collection and Storage		2	2			PS	CD									
WE 8.1	Water Management System		2	2				CD				A					
	Subtotal			21													
Sites																	
SS 1.0	Site Selection	P	2	2					A								
SS 2.1	Enviornmentally Sensitive Land		3	0			PS	CD	A								
SS 3.1	Minimize Site Distrubance		1	1			PS	CD									
SS 4.1	Construction Site Runoff Control and Sedimentation		1	1				CD				A					
SS 5.1	Poste Construction Stormwater Management		1	1			PS	CD				A					
SS 6.1	Central location		2	2			PS		A								
SS 7.1	Located Near Public Transportation		1	0					A								
SS 8.1	Joint-Use of Facilities		1	1				CD	A								
SS 9.1	Human-Powered Transportation		2	0			PS	CD				A					
SS 10.1	Reduce Heat Islands - Landscaping and Sites		1	0				CD									
SS 11.1	Reduce Heat Islands - Cool Roofs and Green Walls		1	0				CD				A					
SS 12.1	Avoid Light Pollution and Unnecessary Lighting		2	2				CD				A					
SS 13.1	School Gardens		1	0				CD	A			A					
SS 14.1	Use Locally Native Plants for Landscape		1	1			PS	CD									
SS 15.0	Site and Building Best Practices	P	2	2			PS	CD	A								
	Subtotal			13													
Materials and Waste Management																	
MW 1.0	Storage and Collection of Recyclables	P	2	2				CD				A					
MW 2.0	Minimum Construction Site Waste Management	P	2	2				CD				A					
MW 2.1	Construction Site Waste Management		2	2				CD				A					
MW 3.1	Single Attribute - Recycled Content		2	2				CD			PS	A					
MW 4.1	Single Attribute - Rapidly Renewable Materials		1	1				CD			PS	A					
MW 5.1	Single Attribute - Certified Wood		1	1				CD			PS	A					
MW 6.1	Single Attribute - Materials Reuse		1	0				CD			PS	A					
MW 7.1	Multi-Attribute Materials Selection		2	2			PS	CD			PS	A					
MW 8.1	Building Reuse - Exterior		2	0				CD			PS	A					
MW 9.1	Building Reuse - Interior		1	0				CD			PS	A					
MW 10.1	Health Product Related Information Reporting		1	1				CD			PS	A					
MW 11.1	Locally Produced Materials		2	0				CD			PS	A					
	Subtotal			13													
	Total		**250**	201													

Collaborative for High Performance Schools (CHPS)

Project Scorecard: NE-CHPS Version 3.2

School Name: Hazard Building Improvements

Expected Completion:	**April 2025**	**Current Phase:**	**Schematic Design**
School District:	**South Kingstown School District**	**Website:**	https://www.skschools.net/
School Address:	**153 School St**	**City:**	**South Kingstown** **State: RI** **Zip: 02879**
School Contact:	**Lucas Murray**	**Phone:**	**401-360-1300**
Student Capacity:	**N/A**	**Notes:**	
Approximate Square Feet:	**26,503 SF**		

Verification

Is this the final CHPS Scorecard? No

Registered Principal Architect (Signature)	**Project Manager** (Signature)
Philip Conte, AIA, NCARB, President **6/3/2023**	**Philip Conte, AIA, NCARB, President** **6/3/2023**
Name, Title, Date	**Name, Title, Date**

Use this scorecard to track expected scores. Note that prerequisites have points associated with them even though they are required. This enables project teams to talk more meaningfully about the effort being put into each section of the Criteria. Prerequisite point columns are also highlighted for reference. Mark each credit as ready for review by using the appropriate column for each phase of the review.

Key: P - Prerequisite; **PS -** CHPS Plan Sheet Required; **CD -** Construction Documents Required; **A -** Attachment Required

Criteria	Title	Prerequisite	Points Possible	Points Targeted	Points Claimed	Responsible Team Member	Design Review Requirements		Ready for Design Review	Construction Review Requirements		Ready for Construction	Performance Review Requirements	Ready for Performance Review	Documentation
	Total		**250**												
Integration and Innovation															
II 1.0	Integrated Design	P	4	4				CD			A				
II 1.1	Enhanced Integrated Design		2	0					A						
II 2.1	District Level Commitment	RIA	1	1					A						
II 3.1	School Master Plan	RIA	1	1					A						
II 4.1	High Performance Transition Plan	RIA	1	1					A		A				
II 5.0	Educational Display	P	1	N/A				CD			A				
II 5.1	Demonstration Area		1	0				CD			A				
II 6.1	Educational Integration	RIA	2	N/A					A		A				
II 7.1	Climate Change Action / Carbon Footprint Reporting		3	0					A		A				
II 8.0	Crime Prevention through Environmental Design	P	3	N/A					A		A				
II 9.1	Innovation		4	0			VARIES			VARIES			VARIES		
II 10.1	Biophilic Design		2	0					A		A				
	Subtotal			7											
Operations & Metrics															
OM 1.0	Facility Staff and Occupant Training	P	4	N/A				CD			A				
OM 2.1	Post Occupancy Transition		2	0					A		A				
OM 3.0	Performance Benchmarking	P	3	N/A					A		A		A		
OM 4.1	High Performance Operations		4	0					A		A		A		

OM 5.0	Systems Maintenance Plan	P	1	N/A									A				
OM 6.0	Indoor Environmental Management Plan	P	2	2									A				
OM 7.1	Green Cleaning		2	2									A		A		
OM 8.0	Integrated Pest Management	P	1	1			PS						A				
OM 9.0	Anti-Idling Measures	P	1	1				CD					A				
OM 10.1	Green Power		2	0					A								
OM 11.0	ENERGY STAR Equipment and Appliances	P	2	N/A					A								
OM 12.1	Computerized Maintenance Management System	RIA	1	N/A			PS						A				
	Subtotal			6													
Indoor Environmental Quality																	
EQ 1.0	HVAC Design - ASHRAE 62.1	P	8	N/A			PS										
EQ 1.1	Enhanced Filtration		2	0				CD					A				
EQ 1.2	Dedicated Outdoor Air System		3	0				CD					A				
EQ 2.0	Polluntant and Chemical Source Control	P	2	2				CD	A				A				
EQ 3.0	Outdoor Moisture Management	P	1	1				CD					A				
EQ 4.1	Ducted Returns		2	0				CD									
EQ 5.1	Construction Indoor Air Quality Management		5	1				CD					A				
EQ 5.2	Construction Moisture Management		1	1				CD					A				
EQ 6.1	Post Construction Indoor Air Quality		1	1				CD					A				
EQ 7.0	Low Emitting Materials	P	2	2			PS	CD			PS		A				
EQ 7.1	Additional Low Emitting Materials		5	5			PS	CD			PS		A				
EQ 8.1	Low Radon	RIA	1	1				CD					A				
EQ 9.1	Thermal Comfort - ASHRAE 55		4	0			PS	CD									
EQ 10.1	Individual Controllability		1	0				CD					A				
EQ 10.2	Controllability of Systems		1	0				CD					A				
EQ 11.0	Daylighting: Glare Protection	P	4	4				CD	A				A				
EQ 11.1	Daylight Availability		5	0			PS	CD	A				A				
EQ 12.0	Views	P	3	3			PS	CD									
EQ 13.1	Electric Lighting Performance		3	0				CD	A								
EQ 13.2	Superior Electric Lighting Performance		5	0				CD					A				
EQ 14.0	Acoustical Performance	P	7	7			PS	CD	A				A		A		
EQ 15.1	Low-EMF Wiring		1	0				CD					A				
EQ 15.2	Low-EMF Best Practices		2	0				CD	A				A				
EQ 16.1	High Intensity Fluorescent Fixtures		1	0				CD					A				
	Subtotal			28													
Energy																	
EE 1.0	Energy Performance	P	6	N/A				CD	A								
EE 1.1	Superior Energy Performance		40	0				CD	A								
EE 2.1	Zero Net Energy Capable		3	0				CD									
EE 3.0	Commissioning	P	4	N/A				CD	A				A				
EE 3.1	Additional Commissioning Qualifications		1	0				CD	A				A				
EE 3.2	Building Envelope Commissioning		1	0				CD	A				A				
EE 3.3	Enhanced Commissioning		1	0				CD	A				A		A		
EE 4.0	Enviornmentally Preferable Refrigerants	P	1	N/A				CD									
EE 5.1	Energy Management System		2	0				CD									
EE 5.2	Advanced Energy Management System and Submetering		2	0				CD									
EE 6.1	Natural Ventilation and Energy Conservation Interlocks		2	0			PS	CD					A				
EE 7.0	Local Energy Efficiency Incentive and Assistance	P	2	2					A				A				
EE 8.1	Variable Air Volume Systems		1	0				CD									
EE 9.1	Renewable Energy Performance Monitoring		1	0				CD					A				
EE 10.1	Electric Vehicle Charging		1	0				CD					A				
	Subtotal			2													

Water																	
WE 1.0	Minimum Reduction in Indoor Potable Water Use	P	5	N/A			PS	CD				A					
WE 2.1	Reduce Potable Water Use for Sewage Conveyance		4	0			PS	CD				A					
WE 3.0	Irrigation and Exterior Water Budget - Use Reduction	P	4	N/A				CD				A					
WE 4.1	Reduce Potable Water Use for Non-Recreational Landscaping		2	0				CD	A			A					
WE 5.1	Recuce Potable Water Use for Recreational Landscaping		1	0				CD				A					
WE 6.0	Irrigation Systems Commissioning	P	1	N/A					A			A					
WE 7.1	Rainwater Collection and Storage		2	0			PS	CD									
WE 8.1	Water Management System		2	0				CD				A					
	Subtotal			0													
Sites																	
SS 1.0	Site Selection	P	2	N/A					A								
SS 2.1	Enviornmentally Sensitive Land		3	0			PS	CD	A								
SS 3.1	Minimize Site Distrubance		1	0			PS	CD									
SS 4.1	Construction Site Runoff Control and Sedimentation		1	0				CD				A					
SS 5.1	Poste Construction Stormwater Management		1	0			PS	CD				A					
SS 6.1	Central location		2	0			PS		A								
SS 7.1	Located Near Public Transportation		1	0					A								
SS 8.1	Joint-Use of Facilities		1	0				CD	A								
SS 9.1	Human-Powered Transportation		2	0			PS	CD				A					
SS 10.1	Reduce Heat Islands - Landscaping and Sites		1	0				CD									
SS 11.1	Reduce Heat Islands - Cool Roofs and Green Walls		1	0				CD				A					
SS 12.1	Avoid Light Pollution and Unnecessary Lighting		2	0				CD				A					
SS 13.1	School Gardens		1	0				CD	A			A					
SS 14.1	Use Locally Native Plants for Landscape		1	0			PS	CD									
SS 15.0	Site and Building Best Practices	P	2	2			PS	CD	A								
	Subtotal			2													
Materials and Waste Management																	
MW 1.0	Storage and Collection of Recyclables	P	2	2				CD				A					
MW 2.0	Minimum Construction Site Waste Management	P	2	2				CD				A					
MW 2.1	Construction Site Waste Management		2	2				CD				A					
MW 3.1	Single Attribute - Recycled Content		2	0				CD			PS	A					
MW 4.1	Single Attribute - Rapidly Renewable Materials		1	0				CD			PS	A					
MW 5.1	Single Attribute - Certified Wood		1	0				CD			PS	A					
MW 6.1	Single Attribute - Materials Reuse		1	0				CD			PS	A					
MW 7.1	Multi-Attribute Materials Selection		2	0			PS	CD			PS	A					
MW 8.1	Building Reuse - Exterior		2	0				CD			PS	A					
MW 9.1	Building Reuse - Interior		1	0				CD			PS	A					
MW 10.1	Health Product Related Information Reporting		1	0				CD			PS	A					
MW 11.1	Locally Produced Materials		2	0				CD			PS	A					
	Subtotal			6													
	Total		**250**	51													

Collaborative for High Performance Schools (CHPS)

Project Scorecard: NE-CHPS Version 3.2

School Name: Broad Rock Middle School Improvements

Expected Completion:	**April 2025**	**Current Phase:**	**Schematic Design**
School District:	**South Kingstown School District**	**Website:**	**https://www.skschools.net/**
School Address:	**351 Broad Rock Road**	**City:**	**Wakefield** **State: RI** **Zip: 02879**
School Contact:	**Lucas Murray**	**Phone:**	**401-360-1300**
Student Capacity:	**672**	**Notes:**	
Approximate Square Feet:	**77,781 SF**		

Verification

Is this the final CHPS Scorecard? No

Registered Principal Architect (Signature)		**Project Manager** (Signature)	
Philip Conte, AIA, NCARB, President	**6/3/2023**	**Philip Conte, AIA, NCARB, President**	**6/3/2023**
Name, Title, Date		**Name, Title, Date**	

Use this scorecard to track expected scores. Note that prerequisites have points associated with them even though they are required. This enables project teams to talk more meaningfully about the effort being put into each section of the Criteria. Prerequisite point columns are also highlighted for reference. Mark each credit as ready for review by using the appropriate column for each phase of the review.

Key: P - Prerequisite; **PS -** CHPS Plan Sheet Required; **CD -** Construction Documents Required; **A -** Attachment Required

Criteria	Title	Prerequisite	Points Possible	Points Targeted	Points Claimed	Responsible Team Member	Design Review Requirements		Ready for Design Review	Construction Review Requirements		Ready for Construction	Performance Review Requirements	Ready for Performance Review	Documentation
	Total		**250**												
Integration and Innovation															
II 1.0	Integrated Design	P	4	4				CD			A				
II 1.1	Enhanced Integrated Design		2	0					A						
II 2.1	District Level Commitment	RIA	1	1					A						
II 3.1	School Master Plan	RIA	1	1					A						
II 4.1	High Performance Transition Plan	RIA	1	1					A		A				
II 5.0	Educational Display	P	1	N/A				CD			A				
II 5.1	Demonstration Area		1	0				CD			A				
II 6.1	Educational Integration	RIA	2	N/A					A		A				
II 7.1	Climate Change Action / Carbon Footprint Reporting		3	0					A		A				
II 8.0	Crime Prevention through Environmental Design	P	3	N/A					A		A				
II 9.1	Innovation		4	0			VARIES			VARIES			VARIES		
II 10.1	Biophilic Design		2	0					A		A				
	Subtotal			7											
Operations & Metrics															
OM 1.0	Facility Staff and Occupant Training	P	4	N/A				CD			A				
OM 2.1	Post Occupancy Transition		2	0					A		A				
OM 3.0	Performance Benchmarking	P	3	N/A					A		A		A		
OM 4.1	High Performance Operations		4	0					A		A		A		

OM 5.0	Systems Maintenance Plan	P	1	N/A									A				
OM 6.0	Indoor Environmental Management Plan	P	2	2									A				
OM 7.1	Green Cleaning		2	2									A		A		
OM 8.0	Integrated Pest Management	P	1	1			PS						A				
OM 9.0	Anti-Idling Measures	P	1	1				CD					A				
OM 10.1	Green Power		2	0					A								
OM 11.0	ENERGY STAR Equipment and Appliances	P	2	N/A					A								
OM 12.1	Computerized Maintenance Management System	RIA	1	1			PS						A				
	Subtotal			7													
Indoor Environmental Quality																	
EQ 1.0	HVAC Design - ASHRAE 62.1	P	8	N/A			PS										
EQ 1.1	Enhanced Filtration		2	0				CD					A				
EQ 1.2	Dedicated Outdoor Air System		3	0				CD					A				
EQ 2.0	Polluntant and Chemical Source Control	P	2	2				CD	A				A				
EQ 3.0	Outdoor Moisture Management	P	1	1				CD					A				
EQ 4.1	Ducted Returns		2	0				CD									
EQ 5.1	Construction Indoor Air Quality Management		5	1				CD					A				
EQ 5.2	Construction Moisture Management		1	1				CD					A				
EQ 6.1	Post Construction Indoor Air Quality		1	1				CD					A				
EQ 7.0	Low Emitting Materials	P	2	2			PS	CD			PS		A				
EQ 7.1	Additional Low Emitting Materials		5	5			PS	CD			PS		A				
EQ 8.1	Low Radon	RIA	1	1				CD					A				
EQ 9.1	Thermal Comfort - ASHRAE 55		4	0			PS	CD									
EQ 10.1	Individual Controllability		1	0				CD					A				
EQ 10.2	Controllability of Systems		1	0				CD					A				
EQ 11.0	Daylighting: Glare Protection	P	4	4				CD	A				A				
EQ 11.1	Daylight Availability		5	0			PS	CD	A				A				
EQ 12.0	Views	P	3	3			PS	CD									
EQ 13.1	Electric Lighting Performance		3	0				CD	A								
EQ 13.2	Superior Electric Lighting Performance		5	0				CD					A				
EQ 14.0	Acoustical Performance	P	7	7			PS	CD	A				A		A		
EQ 15.1	Low-EMF Wiring		1	0				CD					A				
EQ 15.2	Low-EMF Best Practices		2	0				CD	A				A				
EQ 16.1	High Intensity Fluorescent Fixtures		1	0				CD					A				
	Subtotal			28													
Energy																	
EE 1.0	Energy Performance	P	6	N/A				CD	A								
EE 1.1	Superior Energy Performance		40	0				CD	A								
EE 2.1	Zero Net Energy Capable		3	0				CD									
EE 3.0	Commissioning	P	4	N/A				CD	A				A				
EE 3.1	Additional Commissioning Qualifications		1	0				CD	A				A				
EE 3.2	Building Envelope Commissioning		1	0				CD	A				A				
EE 3.3	Enhanced Commissioning		1	0				CD	A				A		A		
EE 4.0	Enviornmentally Preferable Refrigerants	P	1	N/A				CD									
EE 5.1	Energy Management System		2	0				CD									
EE 5.2	Advanced Energy Management System and Submetering		2	0				CD									
EE 6.1	Natural Ventilation and Energy Conservation Interlocks		2	0			PS	CD					A				
EE 7.0	Local Energy Efficiency Incentive and Assistance	P	2	2					A				A				
EE 8.1	Variable Air Volume Systems		1	0				CD									
EE 9.1	Renewable Energy Performance Monitoring		1	0				CD					A				
EE 10.1	Electric Vehicle Charging		1	0				CD					A				
	Subtotal			2													

Water																	
WE 1.0	Minimum Reduction in Indoor Potable Water Use	P	5	N/A			PS	CD				A					
WE 2.1	Reduce Potable Water Use for Sewage Conveyance		4	0			PS	CD				A					
WE 3.0	Irrigation and Exterior Water Budget - Use Reduction	P	4	N/A				CD				A					
WE 4.1	Reduce Potable Water Use for Non-Recreational Landscaping		2	0				CD	A			A					
WE 5.1	Recuce Potable Water Use for Recreational Landscaping		1	0				CD				A					
WE 6.0	Irrigation Systems Commissioning	P	1	N/A					A			A					
WE 7.1	Rainwater Collection and Storage		2	0			PS	CD									
WE 8.1	Water Management System		2	0				CD				A					
	Subtotal			0													
Sites																	
SS 1.0	Site Selection	P	2	N/A					A								
SS 2.1	Enviornmentally Sensitive Land		3	0			PS	CD	A								
SS 3.1	Minimize Site Distrubance		1	0			PS	CD									
SS 4.1	Construction Site Runoff Control and Sedimentation		1	0				CD				A					
SS 5.1	Poste Construction Stormwater Management		1	0			PS	CD				A					
SS 6.1	Central location		2	0			PS		A								
SS 7.1	Located Near Public Transportation		1	0					A								
SS 8.1	Joint-Use of Facilities		1	0				CD	A								
SS 9.1	Human-Powered Transportation		2	0			PS	CD				A					
SS 10.1	Reduce Heat Islands - Landscaping and Sites		1	0				CD									
SS 11.1	Reduce Heat Islands - Cool Roofs and Green Walls		1	0				CD				A					
SS 12.1	Avoid Light Pollution and Unnecessary Lighting		2	0				CD				A					
SS 13.1	School Gardens		1	0				CD	A			A					
SS 14.1	Use Locally Native Plants for Landscape		1	0			PS	CD									
SS 15.0	Site and Building Best Practices	P	2	2			PS	CD	A								
	Subtotal			2													
Materials and Waste Management																	
MW 1.0	Storage and Collection of Recyclables	P	2	2				CD				A					
MW 2.0	Minimum Construction Site Waste Management	P	2	2				CD				A					
MW 2.1	Construction Site Waste Management		2	2				CD				A					
MW 3.1	Single Attribute - Recycled Content		2	0				CD			PS	A					
MW 4.1	Single Attribute - Rapidly Renewable Materials		1	0				CD			PS	A					
MW 5.1	Single Attribute - Certified Wood		1	0				CD			PS	A					
MW 6.1	Single Attribute - Materials Reuse		1	0				CD			PS	A					
MW 7.1	Multi-Attribute Materials Selection		2	0			PS	CD			PS	A					
MW 8.1	Building Reuse - Exterior		2	0				CD			PS	A					
MW 9.1	Building Reuse - Interior		1	0				CD			PS	A					
MW 10.1	Health Product Related Information Reporting		1	0				CD			PS	A					
MW 11.1	Locally Produced Materials		2	0				CD			PS	A					
	Subtotal			6													
	Total		**250**	52													

Collaborative for High Performance Schools (CHPS)

Project Scorecard: NE-CHPS Version 3.2

School Name: Matunuck Elementary School Improvements

Expected Completion:	April 2025	**Current Phase:**	Schematic Design
School District:	South Kingstown School District	**Website:**	https://www.skschools.net/
School Address:	380 Matunuck Beach Road	**City:**	Wakefield **State:** RI **Zip:** 02879
School Contact:	Lucas Murray	**Phone:**	401-360-1300
Student Capacity:	400	**Notes:**	
Approximate Square Feet:	44,332 SF		

Verification

Is this the final CHPS Scorecard? No

Registered Principal Architect (Signature)	**Project Manager** (Signature)
Philip Conte, AIA, NCARB, President 6/3/2023	**Philip Conte, AIA, NCARB, President** 6/3/2023
Name, Title, Date	**Name, Title, Date**

Use this scorecard to track expected scores. Note that prerequisites have points associated with them even though they are required. This enables project teams to talk more meaningfully about the effort being put into each section of the Criteria. Prerequisite point columns are also highlighted for reference. Mark each credit as ready for review by using the appropriate column for each phase of the review.

Key: P - Prerequisite; **PS -** CHPS Plan Sheet Required; **CD -** Construction Documents Required; **A -** Attachment Required

Criteria	Title	Prerequisite	Points Possible	Points Targeted	Points Claimed	Responsible Team Member	Design Review Requirements		Ready for Design Review	Construction Review Requirements		Ready for Construction	Performance Review Requirements	Ready for Performance Review	Documentation
	Total		**250**												
Integration and Innovation															
II 1.0	Integrated Design	P	4	4				CD			A				
II 1.1	Enhanced Integrated Design		2	0					A						
II 2.1	District Level Commitment	RIA	1	1					A						
II 3.1	School Master Plan	RIA	1	1					A						
II 4.1	High Performance Transition Plan	RIA	1	1					A		A				
II 5.0	Educational Display	P	1	N/A				CD			A				
II 5.1	Demonstration Area		1	0				CD			A				
II 6.1	Educational Integration	RIA	2	N/A					A		A				
II 7.1	Climate Change Action / Carbon Footprint Reporting		3	0					A		A				
II 8.0	Crime Prevention through Environmental Design	P	3	N/A					A		A				
II 9.1	Innovation		4	0			VARIES			VARIES			VARIES		
II 10.1	Biophilic Design		2	0					A		A				
	Subtotal			7											
Operations & Metrics															
OM 1.0	Facility Staff and Occupant Training	P	4	N/A				CD			A				
OM 2.1	Post Occupancy Transition		2	0					A		A				
OM 3.0	Performance Benchmarking	P	3	N/A					A		A		A		
OM 4.1	High Performance Operations		4	0					A		A		A		

OM 5.0	Systems Maintenance Plan	P	1	N/A									A				
OM 6.0	Indoor Environmental Management Plan	P	2	2									A				
OM 7.1	Green Cleaning		2	2									A		A		
OM 8.0	Integrated Pest Management	P	1	1			PS						A				
OM 9.0	Anti-Idling Measures	P	1	1				CD					A				
OM 10.1	Green Power		2	0					A								
OM 11.0	ENERGY STAR Equipment and Appliances	P	2	N/A					A								
OM 12.1	Computerized Maintenance Management System	RIA	1	N/A			PS						A				
	Subtotal			6													
Indoor Environmental Quality																	
EQ 1.0	HVAC Design - ASHRAE 62.1	P	8	N/A			PS										
EQ 1.1	Enhanced Filtration		2	0				CD					A				
EQ 1.2	Dedicated Outdoor Air System		3	0				CD					A				
EQ 2.0	Polluntant and Chemical Source Control	P	2	2				CD	A				A				
EQ 3.0	Outdoor Moisture Management	P	1	1				CD					A				
EQ 4.1	Ducted Returns		2	0				CD									
EQ 5.1	Construction Indoor Air Quality Management		5	1				CD					A				
EQ 5.2	Construction Moisture Management		1	1				CD					A				
EQ 6.1	Post Construction Indoor Air Quality		1	1				CD					A				
EQ 7.0	Low Emitting Materials	P	2	2			PS	CD			PS		A				
EQ 7.1	Additional Low Emitting Materials		5	5			PS	CD			PS		A				
EQ 8.1	Low Radon	RIA	1	1				CD					A				
EQ 9.1	Thermal Comfort - ASHRAE 55		4	0			PS	CD									
EQ 10.1	Individual Controllability		1	0				CD					A				
EQ 10.2	Controllability of Systems		1	0				CD					A				
EQ 11.0	Daylighting: Glare Protection	P	4	4				CD	A				A				
EQ 11.1	Daylight Availability		5	0			PS	CD	A				A				
EQ 12.0	Views	P	3	3			PS	CD									
EQ 13.1	Electric Lighting Performance		3	0				CD	A								
EQ 13.2	Superior Electric Lighting Performance		5	0				CD					A				
EQ 14.0	Acoustical Performance	P	7	7			PS	CD	A				A		A		
EQ 15.1	Low-EMF Wiring		1	0				CD					A				
EQ 15.2	Low-EMF Best Practices		2	0				CD	A				A				
EQ 16.1	High Intensity Fluorescent Fixtures		1	0				CD					A				
	Subtotal			28													
Energy																	
EE 1.0	Energy Performance	P	6	N/A				CD	A								
EE 1.1	Superior Energy Performance		40	0				CD	A								
EE 2.1	Zero Net Energy Capable		3	0				CD									
EE 3.0	Commissioning	P	4	N/A				CD	A				A				
EE 3.1	Additional Commissioning Qualifications		1	0				CD	A				A				
EE 3.2	Building Envelope Commissioning		1	0				CD	A				A				
EE 3.3	Enhanced Commissioning		1	0				CD	A				A		A		
EE 4.0	Enviornmentally Preferable Refrigerants	P	1	N/A				CD									
EE 5.1	Energy Management System		2	0				CD									
EE 5.2	Advanced Energy Management System and Submetering		2	0				CD									
EE 6.1	Natural Ventilation and Energy Conservation Interlocks		2	0			PS	CD					A				
EE 7.0	Local Energy Efficiency Incentive and Assistance	P	2	2					A				A				
EE 8.1	Variable Air Volume Systems		1	0				CD									
EE 9.1	Renewable Energy Performance Monitoring		1	0				CD					A				
EE 10.1	Electric Vehicle Charging		1	0				CD					A				
	Subtotal			2													

Water																	
WE 1.0	Minimum Reduction in Indoor Potable Water Use	P	5	N/A			PS	CD				A					
WE 2.1	Reduce Potable Water Use for Sewage Conveyance		4	0			PS	CD				A					
WE 3.0	Irrigation and Exterior Water Budget - Use Reduction	P	4	N/A				CD				A					
WE 4.1	Reduce Potable Water Use for Non-Recreational Landscaping		2	0				CD	A			A					
WE 5.1	Recuce Potable Water Use for Recreational Landscaping		1	0				CD				A					
WE 6.0	Irrigation Systems Commissioning	P	1	N/A					A			A					
WE 7.1	Rainwater Collection and Storage		2	0			PS	CD									
WE 8.1	Water Management System		2	0				CD				A					
	Subtotal			0													
Sites																	
SS 1.0	Site Selection	P	2	N/A					A								
SS 2.1	Enviornmentally Sensitive Land		3	0			PS	CD	A								
SS 3.1	Minimize Site Distrubance		1	0			PS	CD									
SS 4.1	Construction Site Runoff Control and Sedimentation		1	0				CD				A					
SS 5.1	Poste Construction Stormwater Management		1	0			PS	CD				A					
SS 6.1	Central location		2	0			PS		A								
SS 7.1	Located Near Public Transportation		1	0					A								
SS 8.1	Joint-Use of Facilities		1	0				CD	A								
SS 9.1	Human-Powered Transportation		2	0			PS	CD				A					
SS 10.1	Reduce Heat Islands - Landscaping and Sites		1	0				CD									
SS 11.1	Reduce Heat Islands - Cool Roofs and Green Walls		1	0				CD				A					
SS 12.1	Avoid Light Pollution and Unnecessary Lighting		2	0				CD				A					
SS 13.1	School Gardens		1	0				CD	A			A					
SS 14.1	Use Locally Native Plants for Landscape		1	0			PS	CD									
SS 15.0	Site and Building Best Practices	P	2	2			PS	CD	A								
	Subtotal			2													
Materials and Waste Management																	
MW 1.0	Storage and Collection of Recyclables	P	2	2				CD				A					
MW 2.0	Minimum Construction Site Waste Management	P	2	2				CD				A					
MW 2.1	Construction Site Waste Management		2	2				CD				A					
MW 3.1	Single Attribute - Recycled Content		2	0				CD			PS	A					
MW 4.1	Single Attribute - Rapidly Renewable Materials		1	0				CD			PS	A					
MW 5.1	Single Attribute - Certified Wood		1	0				CD			PS	A					
MW 6.1	Single Attribute - Materials Reuse		1	0				CD			PS	A					
MW 7.1	Multi-Attribute Materials Selection		2	0			PS	CD			PS	A					
MW 8.1	Building Reuse - Exterior		2	0				CD			PS	A					
MW 9.1	Building Reuse - Interior		1	0				CD			PS	A					
MW 10.1	Health Product Related Information Reporting		1	0				CD			PS	A					
MW 11.1	Locally Produced Materials		2	0				CD			PS	A					
	Subtotal			6													
	Total		**250**	51													

Collaborative for High Performance Schools (CHPS)

Project Scorecard: NE-CHPS Version 3.2

School Name: Peace Dale Elementary School Improvements

Expected Completion:	**April 2025**	**Current Phase:**	**Schematic Design**
School District:	**South Kingstown School District**	**Website:**	https://www.skschools.net/
School Address:	**109 Kersey Road**	**City:** **Peace Dale**	**State: RI** **Zip: 02879**
School Contact:	**Lucas Murray**	**Phone:**	**401-360-1300**
Student Capacity:	**560**	**Notes:**	
Approximate Square Feet:	**85,500 SF**		

Verification

Is this the final CHPS Scorecard? No

Registered Principal Architect (Signature)		**Project Manager** (Signature)	
Philip Conte, AIA, NCARB, President	**6/3/2023**	**Philip Conte, AIA, NCARB, President**	**6/3/2023**
Name, Title, Date		**Name, Title, Date**	

Use this scorecard to track expected scores. Note that prerequisites have points associated with them even though they are required. This enables project teams to talk more meaningfully about the effort being put into each section of the Criteria. Prerequisite point columns are also highlighted for reference. Mark each credit as ready for review by using the appropriate column for each phase of the review.

Key: P - Prerequisite; **PS -** CHPS Plan Sheet Required; **CD -** Construction Documents Required; **A -** Attachment Required

Criteria	Title	Prerequisite	Points Possible	Points Targeted	Points Claimed	Responsible Team Member	Design Review Requirements		Ready for Design Review	Construction Review Requirements		Ready for Construction	Performance Review Requirements	Ready for Performance Review	Documentation
	Total		**250**												
Integration and Innovation															
II 1.0	Integrated Design	P	4	4				CD			A				
II 1.1	Enhanced Integrated Design		2	0					A						
II 2.1	District Level Commitment	RIA	1	1					A						
II 3.1	School Master Plan	RIA	1	1					A						
II 4.1	High Performance Transition Plan	RIA	1	1					A		A				
II 5.0	Educational Display	P	1	N/A				CD			A				
II 5.1	Demonstration Area		1	0				CD			A				
II 6.1	Educational Integration	RIA	2	N/A					A		A				
II 7.1	Climate Change Action / Carbon Footprint Reporting		3	0					A		A				
II 8.0	Crime Prevention through Environmental Design	P	3	N/A					A		A				
II 9.1	Innovation		4	0			VARIES			VARIES			VARIES		
II 10.1	Biophilic Design		2	0					A		A				
	Subtotal			7											
Operations & Metrics															
OM 1.0	Facility Staff and Occupant Training	P	4	N/A				CD			A				
OM 2.1	Post Occupancy Transition		2	0					A		A				
OM 3.0	Performance Benchmarking	P	3	N/A					A		A		A		
OM 4.1	High Performance Operations		4	0					A		A		A		

OM 5.0	Systems Maintenance Plan	P	1	N/A									A				
OM 6.0	Indoor Environmental Management Plan	P	2	2									A				
OM 7.1	Green Cleaning		2	2									A		A		
OM 8.0	Integrated Pest Management	P	1	1			PS						A				
OM 9.0	Anti-Idling Measures	P	1	1				CD					A				
OM 10.1	Green Power		2	0					A								
OM 11.0	ENERGY STAR Equipment and Appliances	P	2	N/A					A								
OM 12.1	Computerized Maintenance Management System	RIA	1	N/A			PS						A				
	Subtotal			6													
Indoor Environmental Quality																	
EQ 1.0	HVAC Design - ASHRAE 62.1	P	8	N/A			PS										
EQ 1.1	Enhanced Filtration		2	0				CD					A				
EQ 1.2	Dedicated Outdoor Air System		3	0				CD					A				
EQ 2.0	Polluntant and Chemical Source Control	P	2	2				CD	A				A				
EQ 3.0	Outdoor Moisture Management	P	1	1				CD					A				
EQ 4.1	Ducted Returns		2	0				CD									
EQ 5.1	Construction Indoor Air Quality Management		5	1				CD					A				
EQ 5.2	Construction Moisture Management		1	1				CD					A				
EQ 6.1	Post Construction Indoor Air Quality		1	1				CD					A				
EQ 7.0	Low Emitting Materials	P	2	2			PS	CD			PS		A				
EQ 7.1	Additional Low Emitting Materials		5	5			PS	CD			PS		A				
EQ 8.1	Low Radon	RIA	1	1				CD					A				
EQ 9.1	Thermal Comfort - ASHRAE 55		4	0			PS	CD									
EQ 10.1	Individual Controllability		1	0				CD					A				
EQ 10.2	Controllability of Systems		1	0				CD					A				
EQ 11.0	Daylighting: Glare Protection	P	4	4				CD	A				A				
EQ 11.1	Daylight Availability		5	0			PS	CD	A				A				
EQ 12.0	Views	P	3	3			PS	CD									
EQ 13.1	Electric Lighting Performance		3	0				CD	A								
EQ 13.2	Superior Electric Lighting Performance		5	0				CD					A				
EQ 14.0	Acoustical Performance	P	7	7			PS	CD	A				A		A		
EQ 15.1	Low-EMF Wiring		1	0				CD					A				
EQ 15.2	Low-EMF Best Practices		2	0				CD	A				A				
EQ 16.1	High Intensity Fluorescent Fixtures		1	0				CD					A				
	Subtotal			28													
Energy																	
EE 1.0	Energy Performance	P	6	N/A				CD	A								
EE 1.1	Superior Energy Performance		40	0				CD	A								
EE 2.1	Zero Net Energy Capable		3	0				CD									
EE 3.0	Commissioning	P	4	N/A				CD	A				A				
EE 3.1	Additional Commissioning Qualifications		1	0				CD	A				A				
EE 3.2	Building Envelope Commissioning		1	0				CD	A				A				
EE 3.3	Enhanced Commissioning		1	0				CD	A				A		A		
EE 4.0	Enviornmentally Preferable Refrigerants	P	1	N/A				CD									
EE 5.1	Energy Management System		2	0				CD									
EE 5.2	Advanced Energy Management System and Submetering		2	0				CD									
EE 6.1	Natural Ventilation and Energy Conservation Interlocks		2	0			PS	CD					A				
EE 7.0	Local Energy Efficiency Incentive and Assistance	P	2	2					A				A				
EE 8.1	Variable Air Volume Systems		1	0				CD									
EE 9.1	Renewable Energy Performance Monitoring		1	0				CD					A				
EE 10.1	Electric Vehicle Charging		1	0				CD					A				
	Subtotal			2													

Water																	
WE 1.0	Minimum Reduction in Indoor Potable Water Use	P	5	N/A			PS	CD				A					
WE 2.1	Reduce Potable Water Use for Sewage Conveyance		4	0			PS	CD				A					
WE 3.0	Irrigation and Exterior Water Budget - Use Reduction	P	4	N/A				CD				A					
WE 4.1	Reduce Potable Water Use for Non-Recreational Landscaping		2	0				CD	A			A					
WE 5.1	Recuce Potable Water Use for Recreational Landscaping		1	0				CD				A					
WE 6.0	Irrigation Systems Commissioning	P	1	N/A					A			A					
WE 7.1	Rainwater Collection and Storage		2	0			PS	CD									
WE 8.1	Water Management System		2	0				CD				A					
	Subtotal			0													
Sites																	
SS 1.0	Site Selection	P	2	N/A					A								
SS 2.1	Enviornmentally Sensitive Land		3	0			PS	CD	A								
SS 3.1	Minimize Site Distrubance		1	0			PS	CD									
SS 4.1	Construction Site Runoff Control and Sedimentation		1	0				CD				A					
SS 5.1	Poste Construction Stormwater Management		1	0			PS	CD				A					
SS 6.1	Central location		2	0			PS		A								
SS 7.1	Located Near Public Transportation		1	0					A								
SS 8.1	Joint-Use of Facilities		1	0				CD	A								
SS 9.1	Human-Powered Transportation		2	0			PS	CD				A					
SS 10.1	Reduce Heat Islands - Landscaping and Sites		1	0				CD									
SS 11.1	Reduce Heat Islands - Cool Roofs and Green Walls		1	0				CD				A					
SS 12.1	Avoid Light Pollution and Unnecessary Lighting		2	0				CD				A					
SS 13.1	School Gardens		1	0				CD	A			A					
SS 14.1	Use Locally Native Plants for Landscape		1	0			PS	CD									
SS 15.0	Site and Building Best Practices	P	2	2			PS	CD	A								
	Subtotal			2													
Materials and Waste Management																	
MW 1.0	Storage and Collection of Recyclables	P	2	2				CD				A					
MW 2.0	Minimum Construction Site Waste Management	P	2	2				CD				A					
MW 2.1	Construction Site Waste Management		2	2				CD				A					
MW 3.1	Single Attribute - Recycled Content		2	0				CD			PS	A					
MW 4.1	Single Attribute - Rapidly Renewable Materials		1	0				CD			PS	A					
MW 5.1	Single Attribute - Certified Wood		1	0				CD			PS	A					
MW 6.1	Single Attribute - Materials Reuse		1	0				CD			PS	A					
MW 7.1	Multi-Attribute Materials Selection		2	0			PS	CD			PS	A					
MW 8.1	Building Reuse - Exterior		2	0				CD			PS	A					
MW 9.1	Building Reuse - Interior		1	0				CD			PS	A					
MW 10.1	Health Product Related Information Reporting		1	0				CD			PS	A					
MW 11.1	Locally Produced Materials		2	0				CD			PS	A					
	Subtotal			6													
	Total		**250**	51													

Collaborative for High Performance Schools (CHPS)

Project Scorecard: NE-CHPS Version 3.2

School Name: West Kingston Elementary School Improvements

Expected Completion:	April 2025	**Current Phase:**	Schematic Design
School District:	South Kingstown School District	**Website:**	https://www.skschools.net/
School Address:	3119 Ministerial Road	**City:** West Kingston	**State:** RI **Zip:** 02892
School Contact:	Lucas Murray	**Phone:**	401-360-1300
Student Capacity:	376	**Notes:**	
Approximate Square Feet:	43,552 SF		

Verification

Is this the final CHPS Scorecard? No

Registered Principal Architect (Signature)		**Project Manager** (Signature)	
Philip Conte, AIA, NCARB, President	**6/3/2023**	**Philip Conte, AIA, NCARB, President**	**6/3/2023**
Name, Title, Date		**Name, Title, Date**	

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	Total		**250**												
Integration and Innovation															
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II 1.1	Enhanced Integrated Design		2	0					A						
II 2.1	District Level Commitment	RIA	1	1					A						
II 3.1	School Master Plan	RIA	1	1					A						
II 4.1	High Performance Transition Plan	RIA	1	1					A		A				
II 5.0	Educational Display	P	1	N/A				CD			A				
II 5.1	Demonstration Area		1	0				CD			A				
II 6.1	Educational Integration	RIA	2	N/A					A		A				
II 7.1	Climate Change Action / Carbon Footprint Reporting		3	0					A		A				
II 8.0	Crime Prevention through Environmental Design	P	3	N/A					A		A				
II 9.1	Innovation		4	0			VARIES			VARIES			VARIES		
II 10.1	Biophilic Design		2	0					A		A				
	Subtotal			7											
Operations & Metrics															
OM 1.0	Facility Staff and Occupant Training	P	4	N/A				CD			A				
OM 2.1	Post Occupancy Transition		2	0					A		A				
OM 3.0	Performance Benchmarking	P	3	N/A					A		A		A		
OM 4.1	High Performance Operations		4	0					A		A		A		

OM 5.0	Systems Maintenance Plan	P	1	N/A									A				
OM 6.0	Indoor Environmental Management Plan	P	2	2									A				
OM 7.1	Green Cleaning		2	2									A		A		
OM 8.0	Integrated Pest Management	P	1	1			PS						A				
OM 9.0	Anti-Idling Measures	P	1	1				CD					A				
OM 10.1	Green Power		2	0					A								
OM 11.0	ENERGY STAR Equipment and Appliances	P	2	N/A					A								
OM 12.1	Computerized Maintenance Management System	RIA	1	N/A			PS						A				
	Subtotal			6													
Indoor Environmental Quality																	
EQ 1.0	HVAC Design - ASHRAE 62.1	P	8	N/A			PS										
EQ 1.1	Enhanced Filtration		2	0				CD					A				
EQ 1.2	Dedicated Outdoor Air System		3	0				CD					A				
EQ 2.0	Polluntant and Chemical Source Control	P	2	2				CD	A				A				
EQ 3.0	Outdoor Moisture Management	P	1	1				CD					A				
EQ 4.1	Ducted Returns		2	0				CD									
EQ 5.1	Construction Indoor Air Quality Management		5	1				CD					A				
EQ 5.2	Construction Moisture Management		1	1				CD					A				
EQ 6.1	Post Construction Indoor Air Quality		1	1				CD					A				
EQ 7.0	Low Emitting Materials	P	2	2			PS	CD			PS		A				
EQ 7.1	Additional Low Emitting Materials		5	5			PS	CD			PS		A				
EQ 8.1	Low Radon	RIA	1	1				CD					A				
EQ 9.1	Thermal Comfort - ASHRAE 55		4	0			PS	CD									
EQ 10.1	Individual Controllability		1	0				CD					A				
EQ 10.2	Controllability of Systems		1	0				CD					A				
EQ 11.0	Daylighting: Glare Protection	P	4	4				CD	A				A				
EQ 11.1	Daylight Availability		5	0			PS	CD	A				A				
EQ 12.0	Views	P	3	3			PS	CD									
EQ 13.1	Electric Lighting Performance		3	0				CD	A								
EQ 13.2	Superior Electric Lighting Performance		5	0				CD					A				
EQ 14.0	Acoustical Performance	P	7	7			PS	CD	A				A		A		
EQ 15.1	Low-EMF Wiring		1	0				CD					A				
EQ 15.2	Low-EMF Best Practices		2	0				CD	A				A				
EQ 16.1	High Intensity Fluorescent Fixtures		1	0				CD					A				
	Subtotal			28													
Energy																	
EE 1.0	Energy Performance	P	6	N/A				CD	A								
EE 1.1	Superior Energy Performance		40	0				CD	A								
EE 2.1	Zero Net Energy Capable		3	0				CD									
EE 3.0	Commissioning	P	4	N/A				CD	A				A				
EE 3.1	Additional Commissioning Qualifications		1	0				CD	A				A				
EE 3.2	Building Envelope Commissioning		1	0				CD	A				A				
EE 3.3	Enhanced Commissioning		1	0				CD	A				A		A		
EE 4.0	Enviornmentally Preferable Refrigerants	P	1	N/A				CD									
EE 5.1	Energy Management System		2	0				CD									
EE 5.2	Advanced Energy Management System and Submetering		2	0				CD									
EE 6.1	Natural Ventilation and Energy Conservation Interlocks		2	0			PS	CD					A				
EE 7.0	Local Energy Efficiency Incentive and Assistance	P	2	2					A				A				
EE 8.1	Variable Air Volume Systems		1	0				CD									
EE 9.1	Renewable Energy Performance Monitoring		1	0				CD					A				
EE 10.1	Electric Vehicle Charging		1	0				CD					A				
	Subtotal			2													

Water																	
WE 1.0	Minimum Reduction in Indoor Potable Water Use	P	5	N/A			PS	CD				A					
WE 2.1	Reduce Potable Water Use for Sewage Conveyance		4	0			PS	CD				A					
WE 3.0	Irrigation and Exterior Water Budget - Use Reduction	P	4	N/A				CD				A					
WE 4.1	Reduce Potable Water Use for Non-Recreational Landscaping		2	0				CD	A			A					
WE 5.1	Recuce Potable Water Use for Recreational Landscaping		1	0				CD				A					
WE 6.0	Irrigation Systems Commissioning	P	1	N/A					A			A					
WE 7.1	Rainwater Collection and Storage		2	0			PS	CD									
WE 8.1	Water Management System		2	0				CD				A					
	Subtotal			0													
Sites																	
SS 1.0	Site Selection	P	2	N/A					A								
SS 2.1	Enviornmentally Sensitive Land		3	0			PS	CD	A								
SS 3.1	Minimize Site Distrubance		1	0			PS	CD									
SS 4.1	Construction Site Runoff Control and Sedimentation		1	0				CD				A					
SS 5.1	Poste Construction Stormwater Management		1	0			PS	CD				A					
SS 6.1	Central location		2	0			PS		A								
SS 7.1	Located Near Public Transportation		1	0					A								
SS 8.1	Joint-Use of Facilities		1	0				CD	A								
SS 9.1	Human-Powered Transportation		2	0			PS	CD				A					
SS 10.1	Reduce Heat Islands - Landscaping and Sites		1	0				CD									
SS 11.1	Reduce Heat Islands - Cool Roofs and Green Walls		1	0				CD				A					
SS 12.1	Avoid Light Pollution and Unnecessary Lighting		2	0				CD				A					
SS 13.1	School Gardens		1	0				CD	A			A					
SS 14.1	Use Locally Native Plants for Landscape		1	0			PS	CD									
SS 15.0	Site and Building Best Practices	P	2	2			PS	CD	A								
	Subtotal			2													
Materials and Waste Management																	
MW 1.0	Storage and Collection of Recyclables	P	2	2				CD				A					
MW 2.0	Minimum Construction Site Waste Management	P	2	2				CD				A					
MW 2.1	Construction Site Waste Management		2	2				CD				A					
MW 3.1	Single Attribute - Recycled Content		2	0				CD			PS	A					
MW 4.1	Single Attribute - Rapidly Renewable Materials		1	0				CD			PS	A					
MW 5.1	Single Attribute - Certified Wood		1	0				CD			PS	A					
MW 6.1	Single Attribute - Materials Reuse		1	0				CD			PS	A					
MW 7.1	Multi-Attribute Materials Selection		2	0			PS	CD			PS	A					
MW 8.1	Building Reuse - Exterior		2	0				CD			PS	A					
MW 9.1	Building Reuse - Interior		1	0				CD			PS	A					
MW 10.1	Health Product Related Information Reporting		1	0				CD			PS	A					
MW 11.1	Locally Produced Materials		2	0				CD			PS	A					
	Subtotal			6													
	Total		**250**	51													

Exhibit 20

Wetlands Reports

Natural Resource Services, Inc.

February 16, 2023

Philip Conte
Studio JAED
42 Weybosset St., Suite 403
Providence, RI 02903

RE: Freshwater Wetland Delineation
Broad Rock Middle School
351 Broad Rock Road
A.P. 4, Portion of Lot 1 & A.P. 49-2, Portion of Lot 55
South Kingstown, Rhode Island

Dear Mr. Conte:

Natural Resource Services, Inc. (NRS) has completed the freshwater wetland delineation within the project area of the above referenced property. This fieldwork was performed by me on January 30, 2023. The wetland delineation was established in accordance with the standards outlined in Section 3.21 of the Rules and Regulations Governing the Administration and Enforcement of the Freshwater Wetlands Act (250 RICR 150-15-3). These land-use regulations are administered by the RI Department of Environmental Management (DEM), Office of Water Resources (OWR). It is important to note that in accordance with Section 3.9.3 (D) of these regulations, all delineations performed by wetland consultants are not considered to be accurate for state regulatory purposes until the work is reviewed and verified by the DEM, OWR.

As part of our work, a hand-held GPS unit was used to locate the established wetland flagging. While this location work should not be construed as a professional survey, the data obtained is valuable for preliminary planning purposes. An aerial photograph is attached to this letter. The GPS data has been added as an overlay on the photo to provide a visual representation of the established wetland delineation.

The property is the location of the Broad Rock Middle School. The project area is located east and south of the existing field and tennis courts.

I have established two wetland flag series within and outside of the identified project area. This wetland flagging represents sections of the same swamp. The flag series identified as A1-A10 is in the northeast corner of the project area behind the existing tennis courts. A portion of this delineation follows the base of a stormwater management basin. The regulations do not consider any constructed stormwater control feature to be a regulated freshwater wetland.

The flag series identified as B1-B33 depicts the portion of the swamp within the middle section of the project area. Two small areas of open water were mapped within the interior of

this swamp. These open water areas may be regulated as vernal pools. A follow-up survey during amphibian breeding season would be required to accurately determine if one or both meets the regulatory threshold for classification as a vernal pool.

The regulations establish a 100-foot jurisdictional area (JA) measured from the delineated limit of any vegetated wetland. The JA is represented as a black dashed line on the enclosed graphic. Any land disturbing activities proposed within the JA requires a permit from the DEM's Freshwater Wetland Program.

The regulations assign buffer zones to all vegetated wetlands based on three (3) criteria: 1) the river region in which the property is located; 2) the size of the wetland; and 3) the vegetational composition and classification of the wetland. This property falls within River Region 2. The wetland is classified as a deciduous forested swamp and has a total area exceeding 10 acres. These 3 criteria result in the application of a 75-foot buffer zone.

However, the presence of the potential vernal pool imbedded within the deciduous swamp effects the buffer zone requirement. If confirmed as vernal pools, the buffer zone applied to the limits of the seasonally observed high water would be 100-feet. In certain locations, this 100-foot buffer zone extends beyond the 75-foot buffer zone applied to the forested swamp. The yellow dashed line on our graphic represents the combined buffer zone limits. Once the wetland delineation has been located by your surveyor, send the existing conditions plan to my office for review to confirm the accurate representation of the buffer zone.

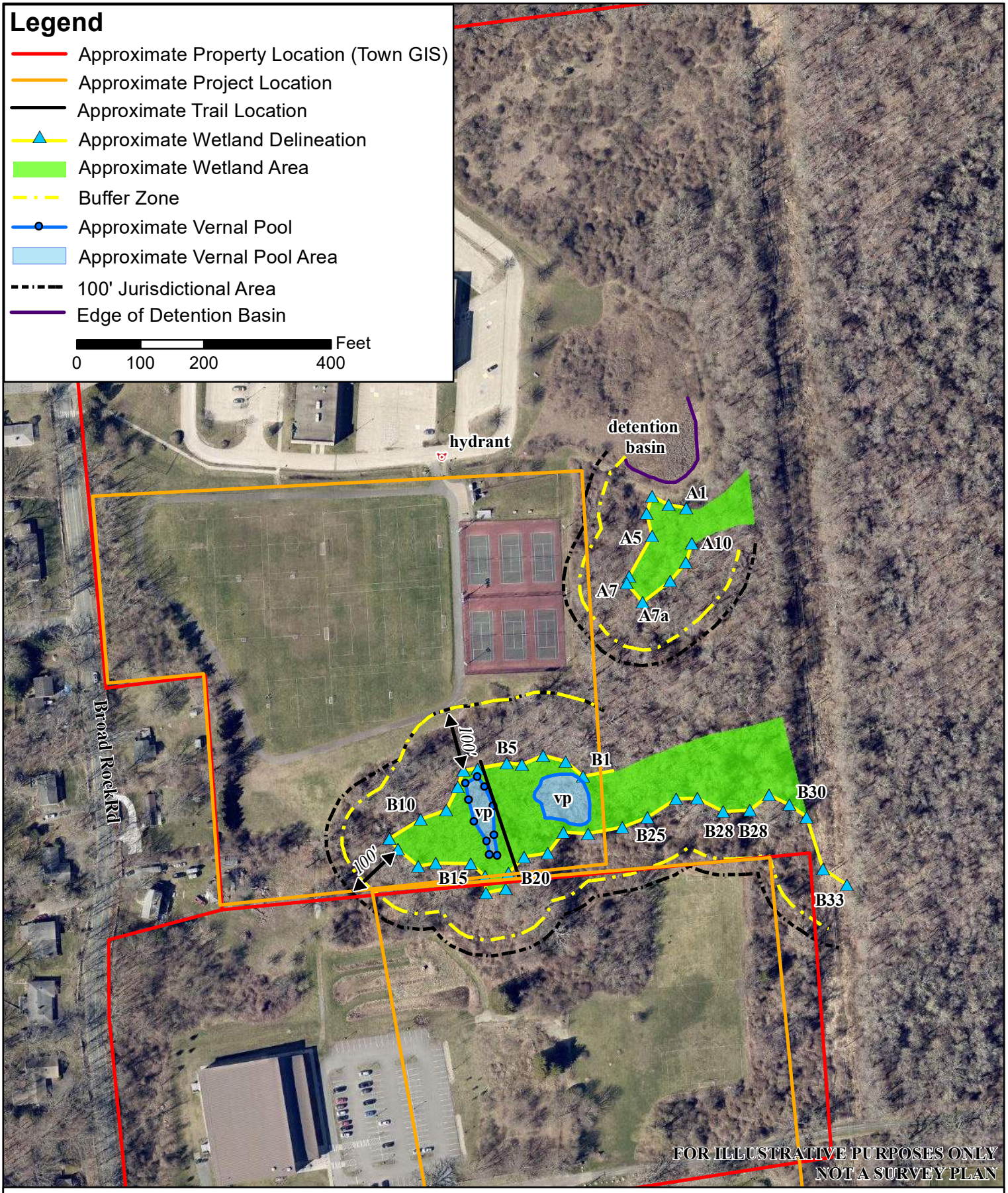
The wetland regulations also require a minimum construction setback from the buffer zone for any new structures. 20 feet is the setback standard for any primary structure.

Please do not hesitate to contact me if you have questions or require any additional information.

Very truly yours,

Scott P. Rabideau, PWS
Principal

Enclosures



Site Sketch Depicting Approximate Wetland Delineation
Broad Rock Middle School
351 Broad Rock Rd
A.P. 4, Lot 1 & A.P. 49-2, Lot 55
South Kingstown, RI

Performed by
Scott P. Rabideau, PWS - 1/30/2023
Located using hand-held Trimble Geo7X

N
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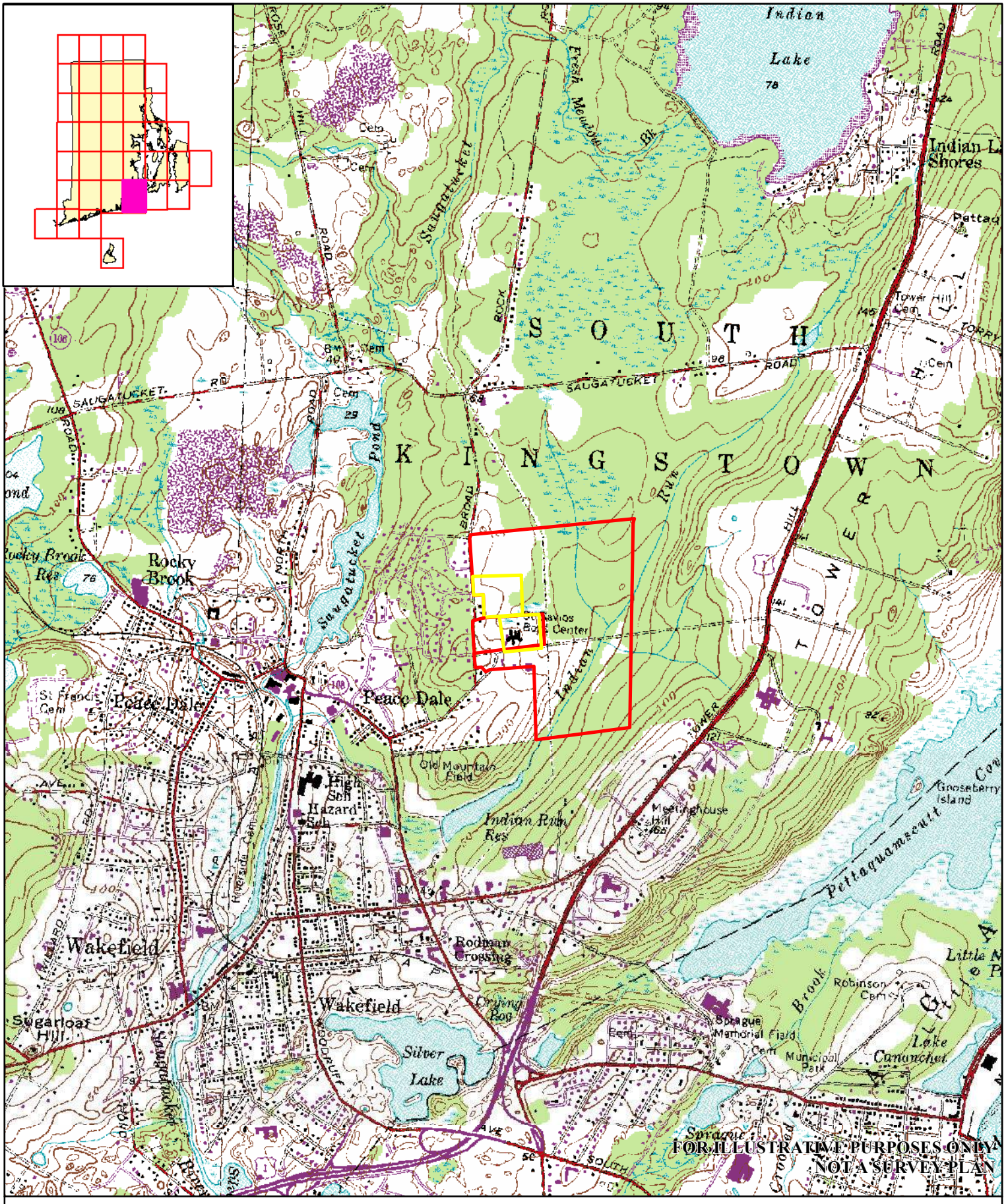
Spring 2022 aerial
RI DEM Mapping

Natural Resource Services, Inc.
PO Box 311
180 Tinkham Lane
Harrisville, RI 02830
p: (401) 568-7390

(c) RIGIS



USGS Topographic Map
351 Broad Rock Rd
A.P. 4, Lot 1 & A.P. 49-2, Lot 55

South Kingstown, RI
Narragansett Pier Quad Map

Approximate Site Location
Approximate Project Location

USGS Topographic Series
Contour Interval 10 Feet
National Geodetic Vertical Datum of 1929

Feet
0 1,000 2,000 4,000

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PO Box 311
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Harrisville, RI 02830
p: (401) 568-7390

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Natural Resource Services, Inc.

January 25, 2023

Philip Conte
Studio JAED
42 Weybosset St., Suite 403
Providence, RI 02903

RE: Freshwater Wetland Delineation
301 Curtis Corner Road
South Kingstown, Rhode Island

Dear Mr. Conte:

Natural Resource Services, Inc. (NRS) has completed the freshwater wetland delineation within the project area of the above referenced property. This fieldwork was performed by staff biologist Hannah Chace on January 18th, 2023. The wetland delineation was established in accordance with the standards outlined in Section 3.21 of the Rules and Regulations Governing the Administration and Enforcement of the Freshwater Wetlands Act (250 RICR 150-15-3). These land-use regulations are administered by the RI Department of Environmental Management (DEM), Office of Water Resources (OWR). It is important to note that in accordance with Section 3.9.3 (D) of these regulations, all delineations performed by wetland consultants are not considered to be accurate for state regulatory purposes until the work is reviewed and verified by the DEM, OWR.

As part of our work, a hand-held GPS unit was used to locate the established wetland flagging. While this location work should not be construed as a professional survey, the data obtained is valuable for preliminary planning purposes. An aerial photograph is attached to this letter. The GPS data has been added as an overlay on the photo to provide a visual representation of the established wetland delineation.

The subject property is located along the north side of Curtis Corner Road, specifically along the interior roadway along the western side as well as the sporting field north of the Curtis Corner Middle School.

Under the current regulations, the Department has a 200-foot jurisdictional area (JA) from all rivers and streams, and a 100-foot JA from all vegetated wetlands. The combined stream and vegetated wetland JA is depicted as a dashed black line on the enclosed graphic.

The rules regulate wetlands and assign buffer zones based on three (3) factors: 1) the river region in which the property is located; 2) the size of the wetland; 3) the vegetational composition and classification of the wetland. This property falls in River Region 2, and a small portion along the eastern side falls within a natural heritage area. NRS delineated a swamp that spanned the internal road and fell north of the sporting field. This deciduous swamp was delineated with flagging labeled A12 to A62 and B1 to B24. This swamp continues to the east off property and is greater than 10 acres in size. Thus, the

P.O. Box 311 Harrisville, RI 02830 401-568-7390 FAX 401-568-7490

swamp receives a 75-foot buffer zone. However, there are three locations where a river falls within 50 feet of the delineated wetland edge. When a wetland subtype, in this case a river, falls within 50 feet of the delineated wetland edge, the buffer zone is increased an additional 25 feet. Therefore, the buffer zone in these locations will be 100-feet. Additionally, there is a river identified as a tributary to Asa Pond (*Waterbody ID: RI0010045R-04*) interior of the swamp that receives a 100-foot buffer zone.

The river stems from a pond set behind an earthen berm. This pond was delineated with flagging from C40 to C49. The pond is greater than a quarter acre in size and thus receives a 50-foot perimeter wetland. This pond falls adjacent to a deciduous forested swamp. A portion of this swamp is delineated with flagging labeled C1 to C25. This swamp continues south of the property and bike path and appears to be over 10 acres in size. As such this portion of swamp receives a 75-foot buffer zone.

The wetland regulations recognize that developed areas which exist within the assigned buffer zone should be differentiated from areas which provide habitat value. The term buffer is used to identify an area of undeveloped vegetated land adjacent to a freshwater wetland that is to be retained in its natural undisturbed condition or an area of land that is to be created to resemble a naturally occurring vegetated area. Undeveloped vegetated land is an area of land that does not consist of buildings, impervious surfaces, bare gravel, lawn, or landscaped areas.

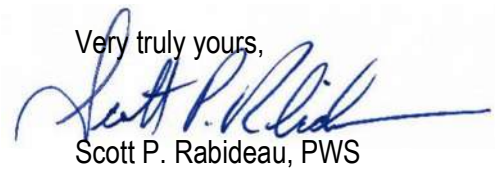
It should be noted that in the case of any new development, the wetlands will have setback standards in addition to the buffer standards outlined above. Any primary structure shall require an additional 20 feet of setback from the buffer, and 5 feet of setback for any secondary structures proposed. If any work is proposed within the jurisdictional area, buffer zone, construction setback, or wetlands, you will require a permit from the Department.

According to Section 3.7.1(D) of the regulations, these buffer zones may be subject to changes upon the Departments review. Due to the presence of a Natural Heritage area within the property, the DEM may consider some of the wetlands as “rare freshwater wetland” that could result in an enhanced buffer zone. The Department will need to be contacted to identify the potential rare species to determine if larger buffer zones are required. Although they may be expanded, the buffer zones may not exceed the 100 foot jurisdictional area of the DEM.

Based on the concept development plan which you provided to NRS, the creation of a new perimeter road and parking area outside the northern limit of the existing track is proposed. The layout depicted would alter swamp and buffer associated with flags A18 through A55. This would represent a significant alteration to freshwater wetlands and in my professional opinion would be difficult to permit.

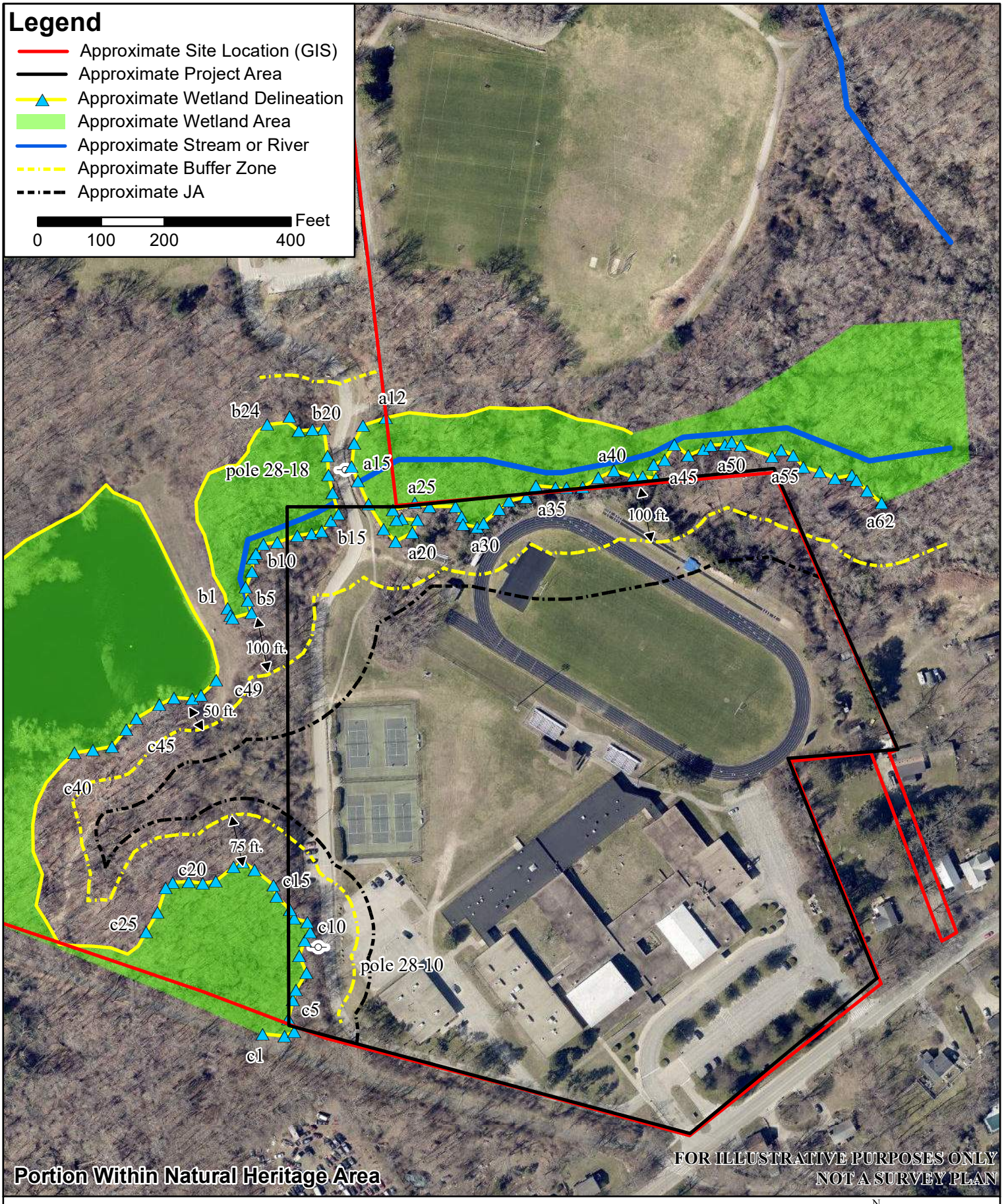
Please do not hesitate to contact me if you have any questions regarding the information presented in this letter of findings or require more guidance when a specific project is proposed.

Very truly yours,



Scott P. Rabideau, PWS
Principal

Enclosures



Site Sketch Depicting Approximate Wetland Delineation
301 Curtis Corner Rd
A.P. 39-3, Lot 20

South Kingstown, RI

Performed by
Hannah Chace - 1/18/23
Located using hand-held Trimble GeoXH

N
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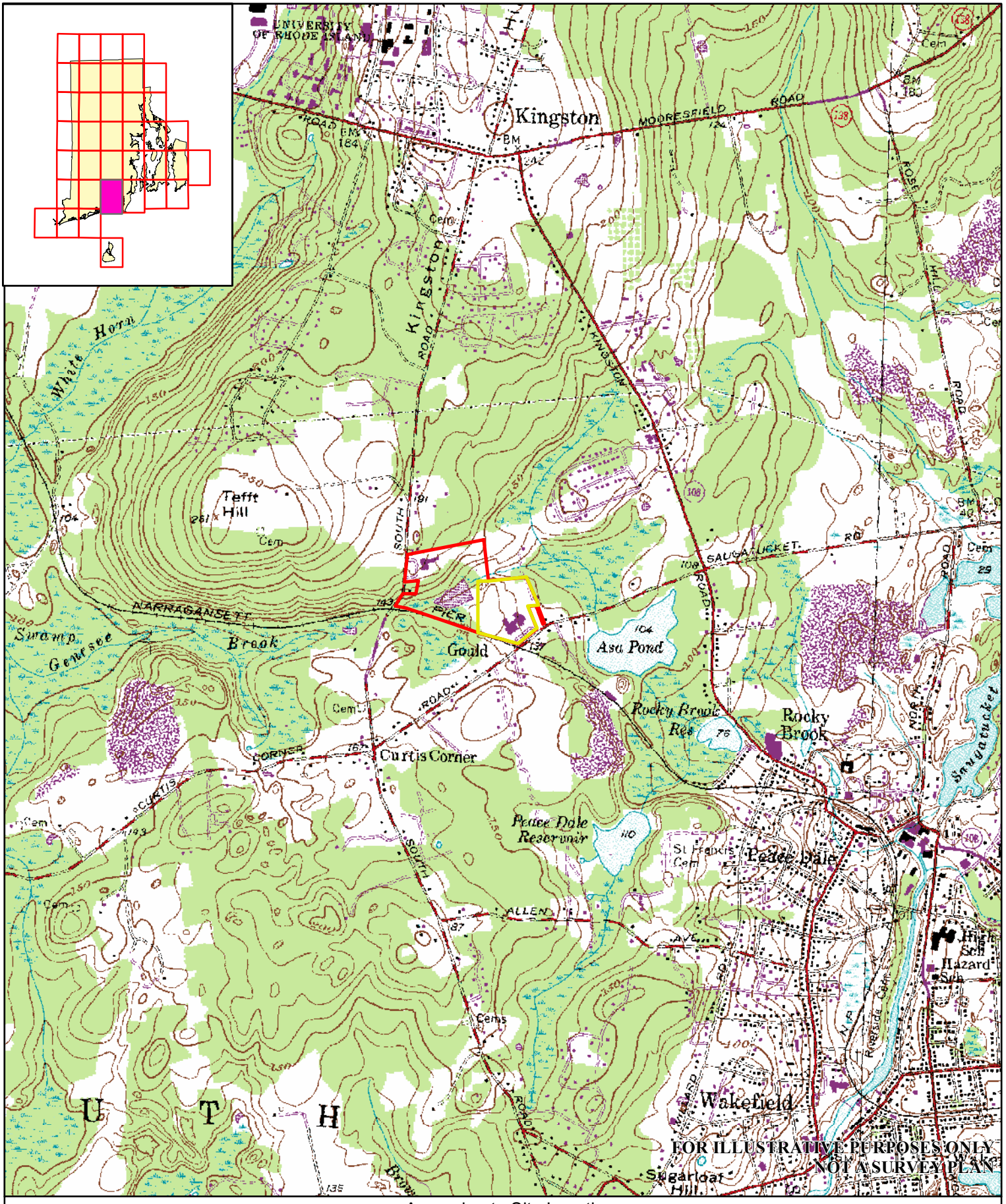
S

Spring 2022 aerial
RI DEM Mapping

RIGIS
Natural Resource Services, Inc.
PO Box 311
180 Tinkham Lane
Harrisville, RI 02830
p: (401) 568-7390

(c) RIGIS



USGS Topographic Map
301 Curtis Corner Rd
A.P. 39-3, Lot 20

South Kingstown, RI
Kingston Quad Map

Approximate Site Location
Approximate Project Area

USGS Topographic Series
Contour Interval 10 Feet
National Geodetic Vertical Datum of 1929

0 1,000 2,000 4,000 Feet

RIGIS
Natural Resource Services, Inc.
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180 Tinkham Lane
Harrisville, RI 02830
p: (401) 568-7390
(c) RIGIS

Exhibit 21

SKHS & Curtis Corner Geotechnical Reports

GEI Consultants

Consulting
Engineers and
Scientists

Preliminary Geotechnical Report

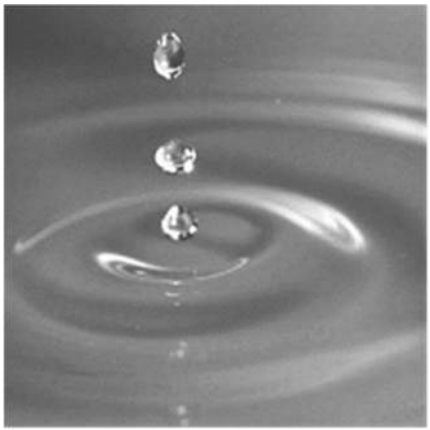
New South Kingstown High School

215 Columbia Street
Wakefield, Rhode Island

Submitted to:
Garofalo & Associates, Inc.
85 Corliss Street
Providence, RI 02940

Submitted by:
GEI Consultants, Inc.
455 Winding Brook Drive, Suite 201
Glastonbury, CT 06033
860-368-5300

July 14, 2023
Project No. 2302246



Thomas Rezzani, E.I.T.
Geotechnical Professional

Matthew Glunt, P.E.
Senior Geotechnical Engineer

Table of Contents

Figures

Appendices

1. Introduction

1.1 Project Summary

The project under consideration is located on the South Kingstown High School campus at 215 Columbia Street in Wakefield, Rhode Island. Though plans are in the schematic phase, we understand that new construction is to involve a 2 to 3-story school facility constructed over grass athletic fields south of the existing building. Other site features such as reconfigured parking lots and driveways, pedestrian plazas, stormwater management features will also be part of the project. We also understand athletic fields will be reconstructed on the existing building footprint after it is demolished.

This report was prepared to address preliminary foundation and site preparation recommendations for the proposed construction. Additional explorations and geotechnical study will be required in a later phase of design to confirm or revise the preliminary recommendations presented herein.

1.2 Scope of Services

Our scope of work included the following tasks:

- Reviewed conceptual layouts and architectural renderings provided by Garofalo Associates on May 8, 2023.
- Engaged a subcontractor to drill thirteen (13) test borings.
- Observed soil samples recovered from the test borings, took groundwater level measurements, and prepared test boring logs.
- Engaged a testing laboratory to perform laboratory analyses on soil samples from the test borings.
- Developed preliminary recommendation for earthworks, pavements, and foundation design and construction.
- Prepared this *Preliminary Geotechnical Report*.

1.3 Authorization

Our work was performed in general accordance with our proposal dated May 10, 2023, and the resulting Professional Services agreement executed May 21, 2023.

2. Site and Project Description

2.1 Site Description

The property slated for development is the high school campus located at 215 Columbia Street in Wakefield, Rhode Island. The north and west portions of the site are occupied by the 3-story high school with paved parking and drives around the periphery. Grass athletic fields are located to the south and southeast of the campus. A special services administration building lies on the southwest corner, which we understand will largely be left as-is. The campus is bordered by Columbia Street to the west, School Street to south, and residential property to the north and east.

The overall campus slopes upward about 12 feet and rather steeply from Columbia Street to a broad, gently-sloping plain on which the current building and playing fields lie. Total relief across the planned building pad is approximately 7 feet.

As part of this evaluation, we conducted a cursory review of published historical aerial photographs and maps. The existing campus has been expanded over multiple iterations since its first development. The playing fields to the south were largely agricultural fields prior to initial school construction. Outside of this, we are unaware of previous development on the property.

2.2 Proposed Construction

We understand that site plans are in the schematic stage and proposed grades are still being developed. To date, we have been provided by Garofalo with schematic site layouts and building renderings.

We understand that new construction is to include a two to three-story high school with conventional wings such as a gymnasium, stacked academic space, and auditorium. We understand at this time that below-grade space has not been programmed for the new facility. Therefore, we expect the new building will be slab-on-grade with masonry and steel framing. Parking areas will be configured on three sides of the building, with the special services (Hazard) building remaining largely as-is with reconfigured access and parking.

Though site grading plans have not been developed, we expect required cuts and fills to be generally 5 feet or less. Grade-separation retaining walls will likely be required adjacent to the north parking and drive areas. We expect stormwater will be managed by underground detention and/or infiltrating basins, installed on grassed or beneath paved areas on lower areas of the campus.

3. Exploration Procedures

3.1 Field Testing Procedures

The boring locations were laid out on the site from the provided conceptual plan using a handheld GPS. Approximate boring locations are shown on Figure 2.

Thirteen (13) soil test borings were performed at the site between June 5, 2023 and June 7, 2023 by New England Boring Contractors, under subcontract to GEI. The appropriate one-call utility locate service (DigSafe) was contacted prior to our arrival. The borings were advanced to depths of 4.3 feet to 27 feet each, terminating at planned maximum depth, utilizing hallow-stem and solid-stem augering techniques. Test boring logs are attached in Appendix A.

Standard Penetration Testing (SPT) and split-spoon sampling was performed continuously through the upper 8 feet of the borings and at 5-foot intervals thereafter using an automatic 140-pound hammer. Representative samples of the soils obtained by the sampler were classified by the on-site GEI representative. The samples were placed in appropriately identified sealed glass jars and transported to our office for storage and laboratory assignment. Borings were backfilled with drill cuttings supplemented with cold patch asphalt (as necessary) upon completion.

3.2 Laboratory Testing

Laboratory testing was conducted on representative soil samples to confirm field identification of the soils and establish engineering characteristics for design. Tests performed by GeoTesting Express, under subcontract to GEI, included the following:

- Four (4) grain-size analyses with standard sieve set (ASTM D422)
- Four (4) moisture content analyses (ASTM D2216)

Results of the laboratory testing program are attached in Appendix B.

4. Subsurface Conditions

4.1 Geologic Setting

Local mapping indicates this area of South Kingstown on a broad plain over the Saugatucket River is underlain by glacial outwash (glaciofluvial) sands and gravels.

Bedrock at the site is mapped as Scituate granite gneiss, a gray or pink, medium- to coarse-grained metamorphic rock (Nichols, 1956).

4.2 Subsurface Conditions

The generalized subsurface conditions at the site are described below, in order of increasing depth. The subsurface conditions between boring locations may differ. The nature and extent of variations between the sampling points will not become evident until construction.

Surface Materials – Topsoil thickness measured in borings was approximately 6 to 13 inches. Asphalt thickness in existing parking areas was between 3 and 5 inches, with no dedicated stone base observed.

Upper Silt – Fine-grained sandy silts were observed in borings B-11 and B-13 to a depth of about 4 feet below grade. Recovered samples were classified as brown silt with sand, containing about 85 percent non-plastic or low-plasticity silt fines. We expect this is indicative of silty plowzone soils being used to level the former agricultural fields. These thicker zones of silty and potentially organic soils, where they exist, will be difficult to discern until the upper topsoil layer is stripped.

Existing Fill – Historic fill was encountered to a depth of about 4.3 feet in boring B-6, conducted within the east side of the special services building parking area. Inert debris such as asphalt, processed stone, and brick fragments were recovered within this zone. Fill soils should be expected in other formerly developed areas on the campus, particularly for built-up areas on the west side.

Native Sand and Gravel – Native sands to gravelly sands were encountered below surface materials, generally continuing to termination at depths of 6 to 32 feet. Recovered samples were generally classified as gray or brown, fine- to coarse-grained sand with about 5 to 15 percent non-plastic fines and about 5 to 30 percent gravel. Sample classifications and observations of drilling advancement indicate that cobbles to small boulders up to about 8 inches in size are present in the soil and should be expected within most excavations. At

many locations, the soil profile transitions at depth to sand with lower gravel content on the order of 5 to 10 percent.

SPT N-values in these soils generally varied between 13 and 46 blows/foot, consistent with medium-dense to dense conditions.

Lower Silt – In boring B-12, a layer of fine-grained silt with about 5 percent sand was encountered at a depth of 25 feet, continuing to termination at 27 feet.

4.3 Groundwater Conditions

Wet samples, indicative of likely groundwater, were encountered in many of the borings at depths of 20 to 25 feet.

Groundwater levels are subject to seasonal and weather-related variations. Groundwater measurements made at different times and different locations may be significantly different than the measurements taken as part of this investigation.

5. Design Recommendations

5.1 General Suitability

The purpose of this preliminary investigation was to inform the project team of general subsurface conditions at the site and any risks identified that could have a significant impact on cost and schedule planning.

The site is relatively level and underlain predominantly by natural sands and gravels generally well-suited for development. Minor areas of historic fill were encountered along the west side of the development area that will likely require mitigations during construction, as further discussed below. Additional explorations and geotechnical study will be required in a later phase of design to confirm or revise the general geotechnical considerations provided below.

5.2 Foundation Design

From our review of the current site layout, assuming no lower-level space is constructed, building foundation subgrades will consist primarily of native sand and gravel. If and where existing fill is encountered at or below footing grade, this material should be removed and replaced with Structural Fill or, alternatively, crushed stone.

We recommend that all footing subgrades be evaluated by a GEI representative prior to concrete placement. The maximum allowable bearing pressure for design of footings are:

Table 1: Allowable Bearing Pressure

Bearing Stratum	Net Allowable Bearing Pressure
Native Sand and Gravel or Structural Fill	4,000 lb/ft^2

An ultimate friction coefficient of 0.50 should be used for cast-in-place concrete over soil subgrades prepared in accordance with this report. A factor of safety of 1.5 should be applied for the sliding case.

Minimum individual column footing and wall footing widths should be at least 36 and 18 inches, respectively. Exterior footings should bear at least 3’-4” below the adjacent exterior grade for frost protection, per Rhode Island Building Code. Interior footings should be founded at least 18 inches below the bottom of the floor slab. The tops of all footings should be at least 6 inches below the bottom of the overlying floor slab.

5.3 Floor Slab Design

We recommend that floor slabs bear on a minimum 6-inch layer of compacted crushed stone placed over a soil subgrade prepared in accordance with Section 6.1. Note the presence of historic fills in the building footprint that may require special attention, as described further in Section 6.1. Large cobbles or small boulders, where encountered, should be removed a minimum of 12 inches below the bottom of the floor slab.

Design of the slab-on-grade floors may assume a modulus of subgrade reaction of 200 pounds per cubic inch (pci). We recommend that contraction joints be incorporated between the slab-on-grade and the columns and perimeter walls of the proposed building to accommodate minor differential settlements.

To limit moisture infiltration into finished spaces, a 15-mil (min.) polyethylene vapor barrier should be placed beneath all moisture sensitive floor slabs. The vapor barrier should be sealed at the foundation walls, columns, and utility penetrations, and panels should be overlapped and joints sealed.

5.4 Settlement

Assuming the design and construction recommendations herein are followed, we estimate total settlement of the building will be less than 1 inch, and differential settlement between adjacent columns will be less than ½ inch. We expect nearly all expected settlements will occur during construction or soon after.

5.5 Seismic Design

The current edition of the Rhode Island Building Code document mirrors the 2018 International Building Code, with exception of the revisions and supplemental information provided by state building officials.

Based on the criteria of Building Code Section 1613.3.2 and the SPT N-values measured on site, we recommend the use of Site Class D for seismic design. The Site Class was used in conjunction with the seismic hazard (S_S, S_1) for this location to determine spectral design values, as follows:

Table 2: Seismic Design Values

Rhode Island Building Code	
S_S	0.161 g
S_1	0.058 g
S_{DS}	0.172 g
S_{D1}	0.093 g
PGA_M	0.130 g
Seismic Design Category (Risk Category I, II, or III)	B

We calculated the spectral response parameters for the Site using general procedures outlined in Building Code Section 1613.3. Peak ground acceleration (PGA_M) is adjusted for Site Class effects, per ASCE 7-10 Section 11.8.3.

The soils below the foundation level at this site are not considered susceptible to liquefaction.

5.6 Retaining Wall Design

Site plans are currently in the schematic design phase. Grade-separating retaining walls up to about 6 to 8 feet in height may be required for the Columbia Street entrance and north parking areas. Where required, the site soils are generally well suited to wall construction and most commercial systems rated for the heights expected should be suitable for use on this project.

Building foundation design criteria, including allowable bearing pressure and resistance to sliding, may be applied to retaining wall design. Well-draining granular soils should be used to backfill the areas directly behind the walls. Based on this investigation, most soils excavated in the course of this project should be suitable for wall backfill.

Retaining wall designs, including all necessary details, plans, and internal stability computations, shall be by a Rhode Island-licensed Professional Engineer engaged by the chosen wall manufacturer.

All earth retaining structures used on the project should be designed using the earth pressures shown in Table 3. Note that no factor of safety has not been applied to these values. Retaining walls free to rotate at the top should be designed for active earth pressures. In addition to the lateral loads exerted by the soil against the walls, allowance should be

included for lateral stresses imposed by any temporary or long-term surcharge loads, such as cars or trucks adjacent to the walls or adjacent footing loads.

Table 3: Wall Design Parameters

Material	Unit Weight (γ, pcf)	Friction Angle (Φ)	Cohesion (c)	At-Rest Earth Pressure Coeff (K_o)	Active Earth Pressure Coeff, (K_a)	Passive Earth Pressure Coeff, (K_p)
Native Sand and Gravel	120	34º	0	0.44	0.28	3.0
Structural Fill	125	32º	0	0.47	0.31	3.0

We recommend limiting the passive pressure coefficient to 3.0 as shown above, due to the relatively high movement required to fully engage passive resistance. The minimum factors of safety for sliding and overturning under static loads should be 1.5 and 2.0, respectively.

The recommended wall design parameters do not consider the development of hydrostatic pressure behind the walls. As such, backfill must be well-draining, and positive wall drainage must be provided for all earth retaining structures. These drainage systems can be constructed of open-graded washed stone isolated from the soil backfill with a geosynthetic filter fabric and drained by perforated pipe, or several wall drainage products made specifically for this application. Where backfill soils are not drained using an appropriately designed drainage system, the lateral soil pressure on proposed retaining walls must consider hydrostatic forces and submerged soil unit weight.

The earth pressures given in Table 3 assume placement and compaction of the backfill in accordance with recommendations elsewhere in this report. Compact backfill directly behind walls with light, hand-operated compactors. Heavy compactors and grading equipment should not be allowed to operate within 10 feet of the walls during backfilling to avoid developing excessive temporary or long-term lateral soil pressures.

5.7 Pavement Design

We expect traffic to this facility will consist predominantly of passenger vehicles and school buses. Assuming preparation of the subgrade in accordance with Section 6.1, we recommend the following pavement section:

Parking and Drive Areas
4.0 inches bituminous concrete
- 1.5 inches wearing course
- 2.5 inches binder course

8.0 inches of processed aggregate base *(RIDOT Standard Specifications for Road and Bridge Construction, March 2018, Section 301 and M.0109, Table I, Column Ia)*

For areas expected to be subjected to repeated, heavy traffic loads, such as dumpster pads, we recommend a rigid concrete section as such:

Heavy-Duty Rigid Concrete Section
6.0 inches of 4,000-psi jointed concrete
8.0 inches of processed aggregate base *(RIDOT Standard Specifications for Road and Bridge Construction, March 2018, Section 301 and M.0109, Table I, Column Ia)*

Pavement materials should conform with and be placed in accordance with the most recent edition of the *Rhode Island Department of Transportation (RIDOT) Standard Specifications for Road and Bridge Construction (Blue Book)*. Rigid pavement sections should be designed and constructed in accordance with appropriate American Concrete Institute (ACI) recommendations and with the applicable specifications of the *RIDOT Standard Specifications*.

The recommended pavement sections shown above are generally suitable for a 20-year design life; however, maintenance such as sealing of cracks and localized patching due to normal weathering should be expected within the first 5 to 10 years of life.

5.8 Subsurface Drainage

Boring B-1 was conducted primarily to support site stormwater design, which is currently in the schematic design phase. Based on experience with similar facilities, we expect stormwater will be managed on-site using basins and/or subsurface detention chambers installed on lower areas of the site.

Based on the results of boring B-1, stormwater features on this area of the site would likely be founded in moderate to highly permeable native sand to gravelly sand, with groundwater at least 12 feet below current grade. From our experience and testing in similar soils, a field-measured infiltration rate on the order of 10 inches/hour may be assumed for preliminary design and costing. Final design of stormwater features must include confirmation infiltration testing at the actual stormwater feature location(s) and bottom depth(s).

6. Construction Considerations

6.1 Subgrade Preparation

6.1.1 General

To prepare the site for grading operations, topsoil, organic matter, and other deleterious material should be stripped from the building and site improvement areas. Soft, wet, loose, or otherwise un-suitable soils should be removed and replaced, or potentially re-compacted in-place.

6.1.2 Site Demolition

All structures on the property within the proposed construction area should be removed in their entirety and removed from the site in accordance with all regulatory requirements. Where below proposed site improvements, asphalt pavements should be thoroughly pulverized/reclaimed in place or milled off to allow for subgrade proof-compaction and promote through-drainage. Subject to review during final design, milled asphalt and processed demolition concrete may also be suitable for beneficial re-use on the project.

Any foundation remnants within the proposed building pad should be removed and the entire footprint backfilled to grade with Structural Fill. Below-grade elements such as foundation walls may be left in place within pavement and landscaped areas, cut to at least 2 feet below the bottom of subgrade elevation to reduce the potential for a hard spot forming.

Existing utilities to remain in use should be rerouted around the proposed building footprint. If not removed, any pipes over 3 inches in diameter should be filled with flowable fill or grout. Otherwise, these pipes may serve as conduits for subsurface erosion resulting in formation of voids below foundations or floor slabs. Where existing utilities are left in place and plugged in the building footprint, it may be necessary to undercut poorly compacted backfill to provide adequate support for footings or slabs.

6.1.3 Grade Slabs and Pavements

Following the required stripping, excavation to rough grade, and before placing any new fill to achieve design grades, the resulting subgrade should be firm, stable, and unyielding. Stabilization, where required, may consist of removing unsuitable material and replacement with compacted Structural Fill, or where unsuitable soils are relatively thin, drying and compacting in place.

Soil subgrades should be proof-rolled with at least four (4) passes of a minimum 10-ton vibratory roller in open areas, or a 1-ton vibratory roller or large plate compactor, such as

Wacker DPU4545 or equivalent, in trenches. Final bearing surfaces should be free of standing water, frost, and loose soil. Protruding cobbles to small boulders, if encountered, in the pavement and slab subgrades should be removed to a minimum of 12 inches below subgrade. Existing fills may be encountered during the proof-rolling process that require treatment in place or replacement, particularly along the west side and in formerly developed areas.

6.1.4 Foundations

Footings should bear on a subgrade consisting of native sand and gravel or compacted Structural Fill. If existing fill is encountered at footing grade, this material should be removed and replaced with Structural Fill or, alternatively, crushed stone. Protruding cobbles to small boulders, if encountered, should be removed a minimum of 12 inches below bearing grade.

Bearing surfaces should be free of standing water, frost, and loose soil before placement of reinforcing steel and concrete. A 6-inch layer of crushed stone over geotextile fabric, at the contractor's option, may be used to protect subgrades and allow the excavations to be open longer. We recommend that a GEI representative observe the final preparation of all subgrades prior to footing construction.

We recommend that a GEI representative observe the final preparation of all subgrades prior to footing construction.

6.2 Excavation and Dewatering

Excavations at most locations can be accomplished with conventional earthmoving equipment. Excavations should be sloped or shored in accordance with the local, state, and federal regulations, including Occupational Safety and Health Agency (OSHA 29 CFR Part 1926) excavation trench safety standards.

Groundwater is not likely to impact construction of the building pad and appurtenances. However, maintaining proper site drainage during initial grading may become very difficult unless measures to control surface water are put in place before grading starts and maintained throughout.

6.3 Freezing Conditions

The soils at the site are frost susceptible. Therefore, if construction is performed during freezing weather, special precautions will be required to prevent the subgrade soils from freezing. Freezing of the soil beneath the foundation during construction may result in subsequent settlement of the structure.

All subgrades should be free of frost before placement of concrete. Frost-susceptible soils that have frozen should be removed and replaced with compacted Structural Fill. The footing and the soil adjacent to the footing should be insulated until they are backfilled. Soil placed as fill should be free of frost, as should the ground on which it is placed.

If slabs-on-grade or footings are built and left exposed during the winter, precautions should be taken to prevent freezing of the underlying soil.

6.4 Backfilling and Compaction

Recommended specifications for gradation and compaction of backfill soils are provided in the attached recommended Material Specifications.

Native soils excavated as part of earthwork activities can likely be re-used on site as Structural Fill or Ordinary Fill, provided they can meet the appropriate compaction requirements and do not contain deleterious material. Near-surface silty soils similar to those encountered in B-11 and B-13 and existing fills containing debris similar to those encountered in B-6 are not suitable for re-use on the project. Cobbles to small boulders in excess of 4 inches in diameter should be screened out of the native soils prior to re-use.

Soils to be used as fill imported from off-site should also meet the attached gradation requirements. Proposed borrow materials that fall slightly outside of these specifications may also be suitable for use, subject to review and approval by GEI.

If existing asphalt pavements are milled, these materials (recycled asphalt pavements/RAP) may be suitable for use, subject to review by the geotechnical engineer, as recycled base beneath new pavements or mixed into general grade-raise fills at a proportion of no more than 50 percent by weight.

7. Closure

7.1 Follow-on Services

We recommend that GEI be kept on the project through the final design and construction phases for the following services:

- Perform supplemental subsurface investigations to support final design efforts.
- Review geotechnical-related contractor submittals and assist in developing responses to questions from the contractor (i.e. RFI's).
- Provide periodic site visits during construction to view subgrades and consult on geotechnical-related issues that occur.

7.2 Limitations

This report was prepared for the use of the project team, exclusively. Our recommendations are based on the project information provided to us at the time of this report and may require modification if there are any changes in the nature, design, or location of the proposed building. We cannot accept responsibility for designs based on our recommendations unless we are engaged to review the final plans and specifications to determine whether any changes in the project affect the validity of our recommendations, and whether our recommendations have been properly implemented in the design.

Our professional services for this project have been performed in accordance with generally accepted engineering practices. No warranty, expressed or implied, is made.

Figures

Source: ArcGIS Online, 6/30/2023.

GEI Consultants

BORING LOCATION PLAN – SOUTH KINGSTOWN HIGH SCHOOL
215 COLUMBIA ST.
WAKEFIELD, RI

GEI PROJECT NO: **2302246**

FIGURE NO.
1

Appendix A

Boring Logs

BORING INFORMATION

LOCATION: See plan.

GROUND SURFACE EL. (ft): NM | **DATE START/END:** 6/5/2023 - 6/5/2023

VERTICAL DATUM: | **DRILLING COMPANY:** New England Boring

TOTAL DEPTH (ft): 12.3 | **DRILLER NAME:** Dave DeAngelis

LOGGED BY: T. Rezzani | **RIG TYPE:**

BORING

B-1

DRILLING INFORMATION

HAMMER TYPE: Automatic | **CASING I.D./O.D.:** NA/ NA | **CORE BARREL TYPE:**

AUGER I.D./O.D.: 3.25 inch / NA | **DRILL ROD O.D.:** NM | **CORE BARREL I.D./O.D.** NA / NA

DRILLING METHOD: Solid Stem Auger

WATER LEVEL DEPTHS (ft): Free groundwater not encountered.

ABBREVIATIONS:

Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		S1	0.3 to 2.3	24/14	5-10-13-8		SAND & GRAVEL	3 inches ASPHALT S1: SILTY SAND WITH GRAVEL (SM); ~70% F-C sand, ~15% F-C gravel, ~15% NP fines, more coarse with depth, brown, dry.
		S2	2.3 to 4.3	24/22	14-6-8-8			S2: SILTY SAND (SM); ~70% F-M sand, ~20% NP fines, ~10% F-C gravel, light-brown, dry.
	5	S3	4.3 to 6.3	24/20	9-12-8-12			S3: WIDELY GRADED SAND (SW); ~95% F-C sand, ~5% NP fines, grayish-brown, dry.
		S4	6.3 to 8.3	24/22	11-9-10-9			S4: WIDELY GRADED SAND (SW); 94.7% F-C sand, 2.8% F-gravel, 2.5% NP fines, grayish-brown, dry.
		S5	8.3 to 10.3	24/17	12-6-14-20			S5: Similar to S4.
	10	S6	10.3 to 12.3	24/12	20-12-8-9			S6: Similar to S5.
	15							Planned depth. Backfilled with drill cuttings.
	20							

NOTES:

PROJECT NAME: South Kingstown High School

CITY/STATE: South Kingstown, Rhode Island

GEI PROJECT NUMBER: 2302246

GEI Consultants

GEI WOBURN STD 1-LOCATION-LAYER NAME 2302246 - GAROFALO-SOUTH KINGSTOWN HIGH SCHOOL.GPJ GEI DATA TEMPLATE 2013.GDT 7/14/23

BORING INFORMATION

LOCATION: See plan.

GROUND SURFACE EL. (ft): NM | **DATE START/END:** 6/5/2023 - 6/5/2023

VERTICAL DATUM: | **DRILLING COMPANY:** New England Boring

TOTAL DEPTH (ft): 4.3 | **DRILLER NAME:** Dave DeAngelis

LOGGED BY: T. Rezzani | **RIG TYPE:**

BORING

B-2

DRILLING INFORMATION

HAMMER TYPE: Automatic | **CASING I.D./O.D.:** NA/ NA | **CORE BARREL TYPE:**

AUGER I.D./O.D.: 3.25 inch / NA | **DRILL ROD O.D.:** NM | **CORE BARREL I.D./O.D.** NA / NA

DRILLING METHOD: Hollow Stem Auger

WATER LEVEL DEPTHS (ft): Free groundwater not encountered.

ABBREVIATIONS:

Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Sample Information: Depth (ft)	Sample Information: Pen./ Rec. (in)	Sample Information: Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		S1	0.3 to 2.3	24/11	14-18-7-7		SAND & GRAVEL	4 inches of ASPHALT S1: WIDELY GRADED SAND WITH SILT AND GRAVEL (SW-SM); ~65% F-C sand, ~25% F-C gravel, ~10% NP fines, with asphalt, black to dark-gray, dry.
		S2	2.3 to 4.3	24/13	7-6-4-3			S2: WIDELY GRADED SAND WITH GRAVEL (SW); ~60% F-C sand, ~35% F-C gravel, ~5% NP fines, grayish-brown, dry.
	5							Planned depth. Backfilled with drill cuttings.
	10							
	15							
	20							

NOTES:

PROJECT NAME: South Kingstown High School

CITY/STATE: South Kingstown, Rhode Island

GEI PROJECT NUMBER: 2302246

GEI Consultants

GEI WOBURN STD 1-LOCATION-LAYER NAME 2302246 - GAROFALO-SOUTH KINGSTOWN HIGH SCHOOL.GPJ GEI DATA TEMPLATE 2013.GDT 7/14/23

BORING INFORMATION

LOCATION: See plan.

GROUND SURFACE EL. (ft): NM | **DATE START/END:** 6/6/2023 - 6/6/2023

VERTICAL DATUM: | **DRILLING COMPANY:** New England Boring

TOTAL DEPTH (ft): 6.0 | **DRILLER NAME:** Dave DeAngelis

LOGGED BY: T. Yurman | **RIG TYPE:**

BORING

B-3

DRILLING INFORMATION

HAMMER TYPE: Automatic | **CASING I.D./O.D.:** NA/ NA | **CORE BARREL TYPE:**

AUGER I.D./O.D.: 3.25 inch / NA | **DRILL ROD O.D.:** NM | **CORE BARREL I.D./O.D.** NA / NA

DRILLING METHOD: Hollow Stem Auger

WATER LEVEL DEPTHS (ft): Free groundwater not encountered.

ABBREVIATIONS:

Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Sample Information: Depth (ft)	Sample Information: Pen./ Rec. (in)	Sample Information: Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		S1	0 to 2	24/19	2-4-8-10		SAND & GRAVEL	S1A (0-13"): SILT WITH SAND (ML); ~70% NP fines, ~25% F-sand, ~5% F-gravel, organic fibers, brown, dry. TOPSOIL S1B (13-19"): NARROWLY GRADED SAND WITH SILT (SP); ~90% F-sand, ~10% F-gravel, cobbles to small boulders, light-brown, dry. S2: Similar to S1B, sand is F-C.
		S2	2 to 4	24/20	13-22-23-32			
	5	S3	4 to 6	24/15	30-31-37-39			S3: WIDELY GRADED SAND WITH GRAVEL (SW); ~80% F-C sand, ~20% F-gravel, cobbles to small boulders, light-brown, dry to moist.
	10							Planned depth. Backfilled with drill cuttings.
	15							
	20							

NOTES:

PROJECT NAME: South Kingstown High School

CITY/STATE: South Kingstown, Rhode Island

GEI PROJECT NUMBER: 2302246

GEI Consultants

GEI WOBURN STD 1-LOCATION-LAYER NAME 2302246 - GAROFALO-SOUTH KINGSTOWN HIGH SCHOOL.GPJ GEI DATA TEMPLATE 2013.GDT 7/14/23

BORING INFORMATION

LOCATION: See plan.

GROUND SURFACE EL. (ft): NM | **DATE START/END:** 6/6/2023 - 6/6/2023

VERTICAL DATUM: | **DRILLING COMPANY:** New England Boring

TOTAL DEPTH (ft): 12.0 | **DRILLER NAME:** Dave DeAngelis

LOGGED BY: T. Yurman | **RIG TYPE:**

BORING B-4

DRILLING INFORMATION

HAMMER TYPE: Automatic | **CASING I.D./O.D.:** NA/ NA | **CORE BARREL TYPE:**

AUGER I.D./O.D.: 3.25 inch / NA | **DRILL ROD O.D.:** NM | **CORE BARREL I.D./O.D.** NA / NA

DRILLING METHOD: Hollow Stem Auger

WATER LEVEL DEPTHS (ft): Free groundwater not encountered.

ABBREVIATIONS:

Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
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U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Sample Information: Depth (ft)	Sample Information: Pen./ Rec. (in)	Sample Information: Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		S1	0 to 2	24/13	2-4-9-13	Auger grinding	SAND & GRAVEL	S1: SILT WITH SAND (ML); ~70% NP fines, ~25% F-sand, ~5% F-gravel, organic fibers, brown, dry. TOPSOIL
		S2	2 to 4	24/24	9-10-10-10			S2: WIDELY GRADED SAND WITH GRAVEL (SW); 47.5% F-C sand, 45.6% F-gravel, 6.9% NP fines, with cobbles, brown, dry.
	5	S3	4 to 6	24/12	12-11-11-12			S3: WIDELY GRADED SAND (SW); ~85% F-C sand, ~10% F-C gravel, ~5% NP fines, cobbles to small boulders, light-brown to dark-brown, dry to moist.
		S4	6 to 8	24/6	20-20-10-9			S4: WIDELY GRADED SAND WITH SILT (SW-SM); ~85% F-C sand, ~10% NP fines, ~5% F-gravel, brown, dry.
	10	S5	10 to 12	24/19	3-6-7-7			S5: WIDELY GRADED SAND (SW); ~100% F-C sand, light-brown with dark brown, moist.
	15							Planned depth. Backfilled with drill cuttings.
	20							

NOTES:

PROJECT NAME: South Kingstown High School

CITY/STATE: South Kingstown, Rhode Island

GEI PROJECT NUMBER: 2302246

GEI Consultants

GEI WOBURN STD 1-LOCATION-LAYER NAME 2302246 - GAROFALO-SOUTH KINGSTOWN HIGH SCHOOL.GPJ GEI DATA TEMPLATE 2013.GDT 7/14/23

BORING INFORMATION

LOCATION: See plan.
GROUND SURFACE EL. (ft): NM
VERTICAL DATUM:
TOTAL DEPTH (ft): 12.0
LOGGED BY: T. Yurman
DATE START/END: 6/7/2023 - 6/7/2023
DRILLING COMPANY: New England Boring
DRILLER NAME: Dave DeAngelis
RIG TYPE:

BORING

B-5

DRILLING INFORMATION

HAMMER TYPE: Automatic
AUGER I.D./O.D.: 3.25 inch / NA
DRILLING METHOD: Hollow Stem Auger
CASING I.D./O.D.: NA/ NA
DRILL ROD O.D.: NM
CORE BARREL TYPE:
CORE BARREL I.D./O.D. NA / NA
WATER LEVEL DEPTHS (ft): Free groundwater not encountered.

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
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HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Sample Information: Depth (ft)	Sample Information: Pen./ Rec. (in)	Sample Information: Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		S1	0 to 2	24/21	2-3-4-4	Auger grinding	SAND & GRAVEL	S1: SANDY SILT (ML); ~60% NP fines, ~40% F-sand, more sand with depth, organic fibers, brown to light-brown, dry. TOPSOIL
		S2	2 to 4	24/7	8-15-42-30			S2: WIDELY GRADED SAND (SW); ~95% F-C sand, ~5% NP fines, grayish-brown, dry.
	5	S3	4 to 6	24/7	24-22-30-29			S3: WIDELY GRADED SAND WITH GRAVEL (SW); ~70% F-C sand, ~25% F-C gravel, ~5% NP fines, cobbles to small boulders, gray to brown, dry to moist.
		S4	6 to 8	24/10	20-17-23-15			S4: NARROWLY GRADED SAND WITH SILT (SP-SM); ~85% M-C sand, ~10% NP fines, ~5% F-gravel, cobbles to small boulder fragments at top of spoon, brown, moist.
	10	S5	10 to 12	24/12	11-11-9-12			S5: NARROWLY GRADED SAND (SP); ~90% F-M sand, ~5% F-gravel, ~5% NP fines, light-brown, moist.
	15							Planned depth. Backfilled with drill cuttings.
	20							

NOTES:

PROJECT NAME: South Kingstown High School
CITY/STATE: South Kingstown, Rhode Island
GEI PROJECT NUMBER: 2302246

GEI Consultants

GEI WOBURN STD 1-LOCATION-LAYER NAME 2302246 - GAROFALO-SOUTH KINGSTOWN HIGH SCHOOL.GPJ GEI DATA TEMPLATE 2013.GDT 7/14/23

BORING INFORMATION

LOCATION: See plan.

GROUND SURFACE EL. (ft): NM | **DATE START/END:** 6/5/2023 - 6/5/2023

VERTICAL DATUM: | **DRILLING COMPANY:** New England Boring

TOTAL DEPTH (ft): 22.0 | **DRILLER NAME:** Dave DeAngelis

LOGGED BY: T. Rezzani | **RIG TYPE:**

BORING

B-6

DRILLING INFORMATION

HAMMER TYPE: Automatic | **CASING I.D./O.D.:** NA/ NA | **CORE BARREL TYPE:**

AUGER I.D./O.D.: 3.25 inch / NA | **DRILL ROD O.D.:** NM | **CORE BARREL I.D./O.D.** NA / NA

DRILLING METHOD: Solid Stem Auger

WATER LEVEL DEPTHS (ft): Free groundwater not encountered.

ABBREVIATIONS:

Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
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SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		S1	0.5 to 2.5	24/14	9-5-6-7		FILL	4 inches ASPHALT S1A (0-7"): NARROWLY GRADED SAND WITH GRAVEL (SW); ~70% F-M sand, ~25% F-C gravel (R, SR), ~5% NP fines, brown, dry. BASE S1B (7-14"): SANDY SILT WITH GRAVEL (ML); ~65% LP fines, ~20% F-sand, ~15% F-C gravel, brown, dry.
		S2	2.5 to 4.5	24/12	13-15-22-17		FILL	S2: WIDELY GRADED SAND WITH SILT AND GRAVEL (SW-SM); ~65% F-C sand, ~25% F-C gravel, ~10% NP fines, brick, asphalt, processed stone, brown to gray, dry.
	5	S3	4.5 to 6.5	24/12	20-17-19-23		SAND & GRAVEL	S3: WIDELY GRADED SAND WITH GRAVEL (SW); ~65% F-C sand, ~30% F-C gravel, ~5% NP fines, gray, dry.
		S4	6.5 to 8.5	24/20	16-25-13-14		SAND & GRAVEL	S4: Similar to S3, yellowish-brown, moist.
	10	S5	10 to 12	24/10	12-10-8-9		SAND & GRAVEL	S5 (7-17"): WIDELY GRADED SAND (SW); ~85% F-C sand, ~10% F-gravel, ~5% NP fines, gray, dry.
	15	S6	15 to 17	24/13	6-7-7-6		SAND & GRAVEL	S6: WIDELY GRADED SAND WITH SILT AND GRAVEL (SW-SM); ~70% F-C sand, ~20% F-C gravel (R, SR), ~10% NP fines, dark-gray, moist.
	20	S7	20 to 22	24/24	7-7-8-13		SAND & GRAVEL	S7A (0-10"): Similar to S6. S7B (10-24"): WIDELY GRADED SAND (SW); ~90% F-C sand, ~5% F-gravel, ~5% NP fines, grayish-brown, dry.
								Planned depth. Backfilled with drill cuttings.

NOTES:

PROJECT NAME: South Kingstown High School

CITY/STATE: South Kingstown, Rhode Island

GEI PROJECT NUMBER: 2302246

GEI Consultants

GEI WOBURN STD 1-LOCATION-LAYER NAME 2302246 - GAROFALO-SOUTH KINGSTOWN HIGH SCHOOL.GPJ GEI DATA TEMPLATE 2013.GDT 7/14/23

BORING INFORMATION

LOCATION: See plan.

GROUND SURFACE EL. (ft): NM | **DATE START/END:** 6/5/2023 - 6/5/2023

VERTICAL DATUM: | **DRILLING COMPANY:** New England Boring

TOTAL DEPTH (ft): 27.0 | **DRILLER NAME:** Dave DeAngelis

LOGGED BY: T. Rezzani | **RIG TYPE:**

BORING

B-7

DRILLING INFORMATION

HAMMER TYPE: Automatic | **CASING I.D./O.D.:** NA/ NA | **CORE BARREL TYPE:**

AUGER I.D./O.D.: 3.25 inch / NA | **DRILL ROD O.D.:** NM | **CORE BARREL I.D./O.D.** NA / NA

DRILLING METHOD: Hollow Stem Auger

WATER LEVEL DEPTHS (ft): Wet sample observed at 25 feet.

ABBREVIATIONS:

Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Sample Information: Depth (ft)	Sample Information: Pen./ Rec. (in)	Sample Information: Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		S1	0 to 2	24/6	3-5-5-6		SAND & GRAVEL	S1: SILTY SAND WITH GRAVEL (SW); ~70% F-C sand, ~15% NP fines, ~15% F-C gravel, few organic fibers, brown, dry. TOPSOIL
		S2	2 to 2.9	11/0	29-50/5"			S2: No recovery, cave-in.
	5	S3	4 to 6	24/18	16-23-18-22			S3: WIDELY GRADED SAND WITH GRAVEL (SW); ~65% F-C sand, ~30% F-C gravel, ~5% NP fines, cobbles to small boulders, yellowish-brown, dry.
		S4	6 to 8	24/16	22-21-13-13			S4: WIDELY GRADED SAND WITH GRAVEL (SW); ~80% F-C sand, ~15% F-gravel, ~5% NP fines, gray with orange seams, dry.
	10	S5	10 to 12	24/15	6-5-8-7			S5: Similar to S4.
	15	S6	15 to 17	24/11	13-7-7-8			S6: Similar to S4.
	20	S7	20 to 22	24/17	6-6-16-10			S7: Similar to S4, moist, seams of F-gravel, yellowish-gray.

NOTES:

PROJECT NAME: South Kingstown High School

CITY/STATE: South Kingstown, Rhode Island

GEI PROJECT NUMBER: 2302246

GEI Consultants

GEI WOBURN STD 1-LOCATION-LAYER NAME 2302246 - GAROFALO-SOUTH KINGSTOWN HIGH SCHOOL.GPJ GEI DATA TEMPLATE 2013.GDT 7/14/23

LOCATION: See plan.
GROUND SURFACE EL. (ft): NM
VERTICAL DATUM:
DATE START/END: 6/5/2023 - 6/5/2023
DRILLING COMPANY: New England Boring

BORING B-7

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Sample Information: Depth (ft)	Sample Information: Pen./ Rec. (in)	Sample Information: Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		S8	25 to 27	24/15	7-8-7-8		SAND	S8: NARROWLY GRADED SAND (SP); ~90% F-M sand, ~5% F-gravel, ~5% NP fines, dark-gray, wet.
								Planned depth. Backfilled with drill cuttings.
	30							
	35							
	40							
	45							
	50							
	55							

NOTES:

PROJECT NAME: South Kingstown High School
CITY/STATE: South Kingstown, Rhode Island
GEI PROJECT NUMBER: 2302246

GEI Consultants

GEI WOBURN STD 1-LOCATION-LAYER NAME 2302246 - GAROFALO-SOUTH KINGSTOWN HIGH SCHOOL.GPJ GEI DATA TEMPLATE 2013.GDT 7/14/23

BORING INFORMATION

LOCATION: See plan.
GROUND SURFACE EL. (ft): NM
VERTICAL DATUM:
TOTAL DEPTH (ft): 22.0
LOGGED BY: T. Yurman
DATE START/END: 6/7/2023 - 6/7/2023
DRILLING COMPANY: New England Boring
DRILLER NAME: Dave DeAngelis
RIG TYPE:

BORING
B-8
PAGE 1 of 1

DRILLING INFORMATION

HAMMER TYPE: Automatic
AUGER I.D./O.D.: 3.25 inch / NA
DRILLING METHOD: Hollow Stem Auger
CASING I.D./O.D.: NA/ NA
DRILL ROD O.D.: NM
CORE BARREL TYPE:
CORE BARREL I.D./O.D. NA / NA
WATER LEVEL DEPTHS (ft): Wet sample observed at 20 feet.

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Sample Information: Depth (ft)	Sample Information: Pen./ Rec. (in)	Sample Information: Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		S1	0 to 2	24/10	3-6-15-12	Auger grinding/resistance, small boulder	SAND & GRAVEL	S1: SILT WITH SAND (SP); ~80% NP fines, ~10% F-sand, ~10% F-gravel, organic fibers, cobbles to small boulders, brown, dry. TOPSOIL
		S2	2 to 4	24/7	20-23-13-8			S2: NARROWLY GRADED SAND WITH GRAVEL (SP); ~75% F-M sand, ~20% F-C gravel, ~5% NP fines, cobbles to small boulders, grayish-brown, dry.
	5	S3	4 to 6	24/12	40-36-40-30			S3: Similar to S2, cobbles to small boulders at top of recovery.
		S4	6 to 8	24/17	32-26-25-27		SAND	S4: WIDELY GRADED SAND WITH SILT (SW-SM); ~85% F-C sand, ~10% NP fines, ~5% F-gravel, brown, moist.
	10	S5	10 to 12	24/10	5-9-12-12			S5: WIDELY GRADED SAND (SW); ~95% F-C sand, ~5% NP fines, light-brown, moist.
	15	S6	15 to 17	24/13	7-12-10-10			S6: Similar to S5, damp.
	20	S7	20 to 22	24/16	6-7-10-16			S7: Similar to S5, light-brown to brown, orange discoloration, wet.
								Planned depth. Backfilled with drill cuttings.

NOTES:

PROJECT NAME: South Kingstown High School
CITY/STATE: South Kingstown, Rhode Island
GEI PROJECT NUMBER: 2302246

GEI Consultants

GEI WOBURN STD 1-LOCATION-LAYER NAME 2302246 - GAROFALO-SOUTH KINGSTOWN HIGH SCHOOL.GPJ GEI DATA TEMPLATE 2013.GDT 7/14/23

BORING INFORMATION

LOCATION: See plan.
GROUND SURFACE EL. (ft): NM
VERTICAL DATUM:
TOTAL DEPTH (ft): 22.0
LOGGED BY: T. Rezzani
DATE START/END: 6/5/2023 - 6/5/2023
DRILLING COMPANY: New England Boring
DRILLER NAME: Dave DeAngelis
RIG TYPE:

BORING

B-9

DRILLING INFORMATION

HAMMER TYPE: Automatic
AUGER I.D./O.D.: 3.25 inch / NA
DRILLING METHOD: Hollow Stem Auger
CASING I.D./O.D.: NA/ NA
DRILL ROD O.D.: NM
CORE BARREL TYPE:
CORE BARREL I.D./O.D. NA / NA
WATER LEVEL DEPTHS (ft): Free groundwater not encountered.

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Sample Information: Depth (ft)	Sample Information: Pen./ Rec. (in)	Sample Information: Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		S1	0 to 2	24/17	2-4-6-11		SAND & GRAVEL	S1A (0-8"): TOPSOIL, brown. S1B (8-17"): WIDELY GRADED SAND WITH GRAVEL (SW); ~70% F-C sand, ~25% F-C gravel, ~5% NP fines, grayish-brown, dry.
		S2	2 to 4	24/18	8-12-30-18			S2: SILTY SAND WITH GRAVEL (SM); 50.0% F-C sand, 33.3% F-C gravel (up to 1 1/4 in.), 16.7% NP fines, grayish-brown, dry.
	5	S3	4 to 6	24/10	26-25-21-20			S3: Similar to S2.
		S4	6 to 8	24/21	16-12-15-24			S4: WIDELY GRADED SAND WITH GRAVEL (SW); ~75% F-C sand, ~20% F-C gravel, ~5% NP fines, gray, dry.
	10	S5	10 to 12	24/7	8-8-9-7		SAND	S5: NARROWLY GRADED SAND WITH SILT (SW-SM); ~90% F-M sand, ~10% NP fines, gray, moist.
	15	S6	15 to 17	24/15	8-8-7-8			S6: WIDELY GRADED SAND (SW); ~85% F-C sand, ~10% F-gravel, ~5% NP fines, gray, moist.
	20	S7	20 to 22	24/15	9-10-12-10			S7A (0-8"): Similar to S6. S7B (8-15"): SILTY SAND (SM); ~70% v.F-sand, ~30% NP fines, dark-gray, damp.
								Planned depth. Backfilled with drill cuttings.

NOTES:

PROJECT NAME: South Kingstown High School
CITY/STATE: South Kingstown, Rhode Island
GEI PROJECT NUMBER: 2302246

GEI Consultants

GEI WOBURN STD 1-LOCATION-LAYER NAME 2302246 - GAROFALO-SOUTH KINGSTOWN HIGH SCHOOL.GPJ GEI DATA TEMPLATE 2013.GDT 7/14/23

BORING INFORMATION

LOCATION: See plan.

GROUND SURFACE EL. (ft): NM | **DATE START/END:** 6/7/2023 - 6/7/2023

VERTICAL DATUM: | **DRILLING COMPANY:** New England Boring

TOTAL DEPTH (ft): 22.0 | **DRILLER NAME:** Dave DeAngelis

LOGGED BY: T. Yurman | **RIG TYPE:**

BORING

B-10

DRILLING INFORMATION

HAMMER TYPE: Automatic | **CASING I.D./O.D.:** NA/ NA | **CORE BARREL TYPE:**

AUGER I.D./O.D.: 3.25 inch / NA | **DRILL ROD O.D.:** NM | **CORE BARREL I.D./O.D.** NA / NA

DRILLING METHOD: Hollow Stem Auger

WATER LEVEL DEPTHS (ft): Wet sample observed at 20 feet.

ABBREVIATIONS:

Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Sample Information: Depth (ft)	Sample Information: Pen./ Rec. (in)	Sample Information: Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		S1	0 to 2	24/14	6-18-18-11		SAND & GRAVEL	S1: SILTY SAND WITH GRAVEL (SM); ~45% NP fines, ~40% F-sand, ~15% F-gravel, organic fibers, cobbles to small boulders, brown, dry. TOPSOIL
		S2	2 to 4	24/12	17-33-28-25			S2: WIDELY GRADED SAND WITH GRAVEL (SW); ~80% F-C sand (mostly F-sand), ~15% F-gravel, ~5% NP fines, grayish-brown, dry.
	5	S3	4 to 6	24/10	23-27-19-15			S3: NARROWLY GRADED SAND (SP); ~85% F-M sand, ~10% F-gravel, ~5% NP fines, cobbles to small boulders, light-brown, dry to moist with depth.
		S4	6 to 8	24/20	10-11-11-12		SAND	S4: WIDELY GRADED SAND (SW); ~95% F-C sand, ~5% NP fines, light-brown, moist.
	10	S5	10 to 12	24/14	19-8-8-10			S5: Similar to S4, F-M sand.
	15	S6	15 to 17	24/15	6-8-10-9			S6: WIDELY GRADED SAND (SW); ~95% F-C sand (mostly M-C sand), ~5% NP fines, light-brown, moist to damp.
	20	S7	20 to 22	24/15	7-15-15-17			S7: Similar to S6, wet, brown.
								Planned depth. Backfilled with drill cuttings.

NOTES:

PROJECT NAME: South Kingstown High School

CITY/STATE: South Kingstown, Rhode Island

GEI PROJECT NUMBER: 2302246

GEI Consultants

GEI WOBURN STD 1-LOCATION-LAYER NAME 2302246 - GAROFALO-SOUTH KINGSTOWN HIGH SCHOOL.GPJ GEI DATA TEMPLATE 2013.GDT 7/14/23

BORING INFORMATION

LOCATION: See plan.

GROUND SURFACE EL. (ft): NM | **DATE START/END:** 6/6/2023 - 6/6/2023

VERTICAL DATUM: | **DRILLING COMPANY:** New England Boring

TOTAL DEPTH (ft): 27.0 | **DRILLER NAME:** Dave DeAngelis

LOGGED BY: T. Yurman | **RIG TYPE:**

BORING

B-11

DRILLING INFORMATION

HAMMER TYPE: Automatic | **CASING I.D./O.D.:** NA/ NA | **CORE BARREL TYPE:**

AUGER I.D./O.D.: 3.25 inch / NA | **DRILL ROD O.D.:** NM | **CORE BARREL I.D./O.D.** NA / NA

DRILLING METHOD: Hollow Stem Auger

WATER LEVEL DEPTHS (ft): Wet sample observed at 20 feet.

ABBREVIATIONS:

Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Sample Information: Depth (ft)	Sample Information: Pen./ Rec. (in)	Sample Information: Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		S1	0 to 2	24/12	2-8-12-14		SANDY SILT	S1: SANDY SILT (ML); ~70% NP fines, ~20% F-sand, ~10% F-C gravel, organic fibers, cobbles to small boulders, brown, dry. TOPSOIL
		S2	2 to 4	24/12	12-17-13-9			S2: SILT WITH SAND (ML); ~85% NP-LP fines, ~10% F-sand, ~5% F-gravel, cobbles to small boulders, light-brown, dry to moist.
	5	S3	4 to 6	24/12	5-5-10-16			S3: Similar to S2, cobbles to small boulders at top of recovery.
		S4	6 to 8	24/10	20-30-32-27		SAND & GRAVEL	S4: SILTY SAND WITH GRAVEL (SM); ~55% F-M sand, ~30% NP fines, ~15% F-gravel, cobbles to small boulders, grayish-brown, moist.
	10	S5	10 to 12	24/10	20-40-68-30			S5: WIDELY GRADED SAND WITH GRAVEL (SW); ~75% F-C sand, ~20% F-gravel, ~5% NP fines, cobbles to small boulders, light-brown, dry to moist.
	15	S6	15 to 17	24/16	8-9-11-12		SAND	S6: NARROWLY GRADED SAND (SP); ~95% F-M sand, ~5% NP fines, light-brown to brown, damp.
	20	S7	20 to 22	24/16	6-7-7-9			S7: WIDELY GRADED SAND (SW); ~95% F-C sand, ~5% NP fines, brown, wet.

NOTES:

PROJECT NAME: South Kingstown High School

CITY/STATE: South Kingstown, Rhode Island

GEI PROJECT NUMBER: 2302246

GEI Consultants

GEI WOBURN STD 1-LOCATION-LAYER NAME 2302246 - GAROFALO-SOUTH KINGSTOWN HIGH SCHOOL.GPJ GEI DATA TEMPLATE 2013.GDT 7/14/23

LOCATION: See plan.
GROUND SURFACE EL. (ft): NM **DATE START/END:** 6/6/2023 - 6/6/2023
VERTICAL DATUM: **DRILLING COMPANY:** New England Boring

BORING B-11

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Sample Information: Depth (ft)	Sample Information: Pen./ Rec. (in)	Sample Information: Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		S8	25 to 27	24/24	10-11-14-28		SAND	S8: Similar to S7.
	30							Planned depth. Backfilled with drill cuttings.
	35							
	40							
	45							
	50							
	55							

NOTES:

PROJECT NAME: South Kingstown High School
CITY/STATE: South Kingstown, Rhode Island
GEI PROJECT NUMBER: 2302246

GEI Consultants

GEI WOBURN STD 1-LOCATION-LAYER NAME 2302246 - GAROFALO-SOUTH KINGSTOWN HIGH SCHOOL.GPJ GEI DATA TEMPLATE 2013.GDT 7/14/23

BORING INFORMATION

LOCATION: See plan.

GROUND SURFACE EL. (ft): NM | **DATE START/END:** 6/7/2023 - 6/7/2023

VERTICAL DATUM: | **DRILLING COMPANY:** New England Boring

TOTAL DEPTH (ft): 27.0 | **DRILLER NAME:** Dave DeAngelis

LOGGED BY: T. Yurman | **RIG TYPE:**

BORING

B-12

DRILLING INFORMATION

HAMMER TYPE: Automatic | **CASING I.D./O.D.:** NA/ NA | **CORE BARREL TYPE:**

AUGER I.D./O.D.: 3.25 inch / NA | **DRILL ROD O.D.:** NM | **CORE BARREL I.D./O.D.** NA / NA

DRILLING METHOD: Hollow Stem Auger

WATER LEVEL DEPTHS (ft): Wet sample observed at 20 feet.

ABBREVIATIONS:

Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Sample Information: Depth (ft)	Sample Information: Pen./ Rec. (in)	Sample Information: Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		S1	0 to 2	24/9	6-13-15-19		SAND & GRAVEL	S1: SANDY SILT (ML); ~70% NP fines, ~25% F-sand, ~5% F-C gravel, organic fibers, mostly brown (some gray sand at bottom of spoon), dry. TOPSOIL
		S2	2 to 4	24/18	15-9-12-15			S2: WIDELY GRADED SAND (SW); ~85% F-C sand, ~10% F-gravel, ~5% NP fines, grayish-brown to brown, dry.
	5	S3	4 to 6	24/12	30-25-8-6			S3: NARROWLY GRADED SAND (SP); ~95% F-M sand, ~5% NP fines, brown, dry to moist.
		S4	6 to 8	24/19	12-9-8-10			S4: Similar to S3, light-brown.
	10	S5	10 to 12	24/5	14-13-15-15			S5: NARROWLY GRADED SAND WITH GRAVEL (SP); ~70% F-M sand, ~25% F-C gravel, ~5% NP fines, cobbles to small boulders, light-brown, dry.
	15	S6	15 to 17	24/12	7-6-8-12			S6: NARROWLY GRADED SAND (SP); ~95% F-M sand, ~5% NP fines, light-brown, dry to moist.
	20	S7	20 to 22	24/20	10-12-15-15			S7: SILTY SAND (SM); ~80% F-C sand, ~20% NP-MP fines, increase in fines with depth, grayish-brown, damp to wet.

NOTES:

PROJECT NAME: South Kingstown High School

CITY/STATE: South Kingstown, Rhode Island

GEI PROJECT NUMBER: 2302246

GEI Consultants

GEI WOBURN STD 1-LOCATION-LAYER NAME 2302246 - GAROFALO-SOUTH KINGSTOWN HIGH SCHOOL.GPJ GEI DATA TEMPLATE 2013.GDT 7/14/23

LOCATION: See plan.
GROUND SURFACE EL. (ft): NM
VERTICAL DATUM:
DATE START/END: 6/7/2023 - 6/7/2023
DRILLING COMPANY: New England Boring

BORING B-12

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Sample Information: Depth (ft)	Sample Information: Pen./ Rec. (in)	Sample Information: Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		S8	25 to 27	24/24	14-16-17-25		SILT	S8: SILT (ML); ~95% LP-MP fines (thinly interbedded), ~5% F-sand, gray, wet.
	30							Planned depth. Backfilled with drill cuttings.
	35							
	40							
	45							
	50							
	55							

NOTES:

PROJECT NAME: South Kingstown High School
CITY/STATE: South Kingstown, Rhode Island
GEI PROJECT NUMBER: 2302246

GEI Consultants

GEI WOBURN STD 1-LOCATION-LAYER NAME 2302246 - GAROFALO-SOUTH KINGSTOWN HIGH SCHOOL.GPJ GEI DATA TEMPLATE 2013.GDT 7/14/23

BORING INFORMATION

LOCATION: See plan.
GROUND SURFACE EL. (ft): NM
VERTICAL DATUM:
TOTAL DEPTH (ft): 22.0
LOGGED BY: T. Yurman
DATE START/END: 6/6/2023 - 6/6/2023
DRILLING COMPANY: New England Boring
DRILLER NAME: Dave DeAngelis
RIG TYPE:

BORING
B-13
PAGE 1 of 1

DRILLING INFORMATION

HAMMER TYPE: Automatic
AUGER I.D./O.D.: 3.25 inch / NA
DRILLING METHOD: Hollow Stem Auger
CASING I.D./O.D.: NA/ NA
DRILL ROD O.D.: NM
CORE BARREL TYPE:
CORE BARREL I.D./O.D. NA / NA
WATER LEVEL DEPTHS (ft): Wet sample observed at 20 feet.

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Sample Information: Depth (ft)	Sample Information: Pen./ Rec. (in)	Sample Information: Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		S1	0 to 2	24/12	1-2-3-6		SANDY SILT	S1: SILT WITH SAND (ML); ~80% NP fines, ~20% F-sand, organic fibers, brown, dry. TOPSOIL
		S2	2 to 4	24/16	5-5-8-10			S2: SILT WITH SAND (ML); 64.9% NP-LP fines, 31.4% F-sand (bottom of sample), 3.7% F- gravel, brown to light-brown, dry.
	5	S3	4 to 6	24/15	12-15-15-15		SAND & GRAVEL	S3: WIDELY GRADED SAND (SW); ~90% F-C sand, ~5% NP fines, ~5% F-gravel, grayish-brown, moist.
		S4	6 to 8	24/9	16-14-15-17			S4: Similar to S3, cobbles to small boulders, moist.
	10	S5	10 to 12	24/13	12-13-11-8			S5: WIDELY GRADED SAND WITH SILT AND GRAVEL (SW-SM); ~70% F-C sand, ~20% F-gravel, ~10% NP fines, cobbles to small boulders, brown, moist to damp.
	15	S6	15 to 17	24/12	7-11-14-13			S6: NARROWLY GRADED SAND WITH SILT (SP-SM); ~90% F-M sand, ~10% NP fines, grayish-brown, damp (dry at top of spoon).
	20	S7	20 to 22	24/24	17-18-26-30			S7: WIDELY GRADED SAND (SW); ~95% F-C sand, ~5% NP fines, brown with dark brown, wet.
								Planned depth. Backfilled with drill cuttings.

NOTES:

PROJECT NAME: South Kingstown High School
CITY/STATE: South Kingstown, Rhode Island
GEI PROJECT NUMBER: 2302246

GEI Consultants

GEI WOBURN STD 1-LOCATION-LAYER NAME 2302246 - GAROFALO-SOUTH KINGSTOWN HIGH SCHOOL.GPJ GEI DATA TEMPLATE 2013.GDT 7/14/23

Appendix B

Laboratory Test Results

Client:	GEI Consultants, Inc.				
Project:	South Kingston High School				
Location:	South Kingston, RI			Project No:	GTX-317489
Boring ID:	---	Sample Type:	---	Tested By:	ckg
Sample ID:	---	Test Date:	07/13/23	Checked By:	jsc
Depth :	---	Test Id:	724222		

Moisture Content of Soil and Rock - ASTM D2216

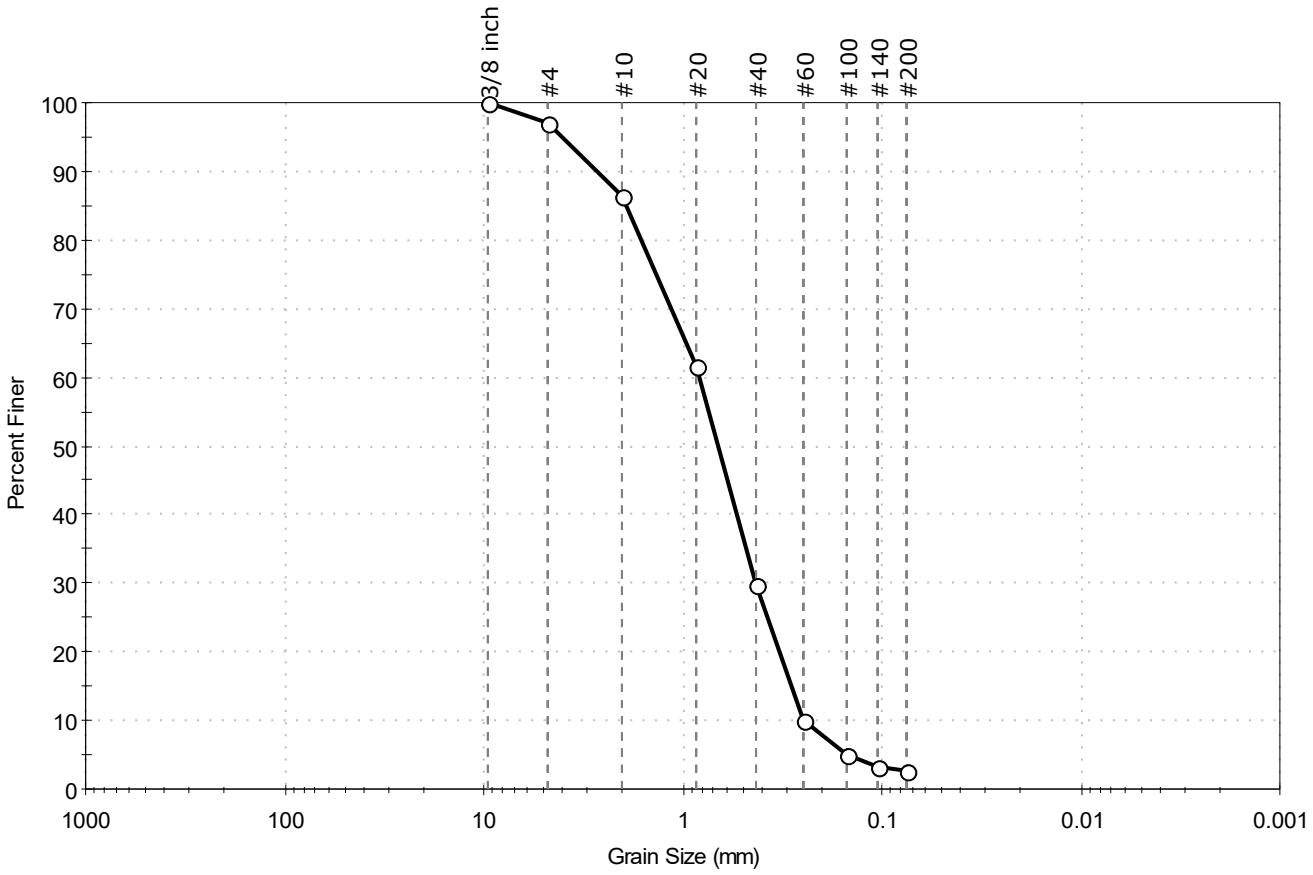
Boring ID	Sample ID	Depth	Description	Moisture Content,%
B-1	S4	6.25-8.25'	Moist, yellowish brown sand	2.7
B-4	S2	2-4'	Moist, dark yellowish brown sand with silt and gravel	2.6
B-9	S2	2-4'	Moist, grayish brown silty sand with gravel	4.3
B-13	S2	2-4'	Moist, light yellowish brown sandy silt	18.0

Notes: Temperature of Drying : 110º Celsius

GeoTesting EXPRESS

Client:	GEI Consultants, Inc.				
Project:	South Kingston High School				
Location:	South Kingston, RI			Project No:	GTX-317489
Boring ID:	B-1	Sample Type:	jar	Tested By:	ckg
Sample ID:	S4	Test Date:	07/14/23	Checked By:	jsc
Depth :	6.25-8.25'	Test Id:	724215		
Test Comment:	---				
Visual Description:	Moist, yellowish brown sand				
Sample Comment:	---				

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	2.8	94.7	2.5

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/8 inch	9.50	100		
#4	4.75	97		
#10	2.00	86		
#20	0.85	62		
#40	0.42	30		
#60	0.25	10		
#100	0.15	5		
#140	0.11	3		
#200	0.075	2.5		

Coefficients

D_{85} = 1.9044 mm	D_{30} = 0.4262 mm
D_{60} = 0.8181 mm	D_{15} = 0.2850 mm
D_{50} = 0.6583 mm	D_{10} = 0.2470 mm
C_u = 3.312	C_c = 0.899

Classification

ASTM — Poorly graded SAND (SP)

AASHTO — Stone Fragments, Gravel and Sand (A-1-b (1))

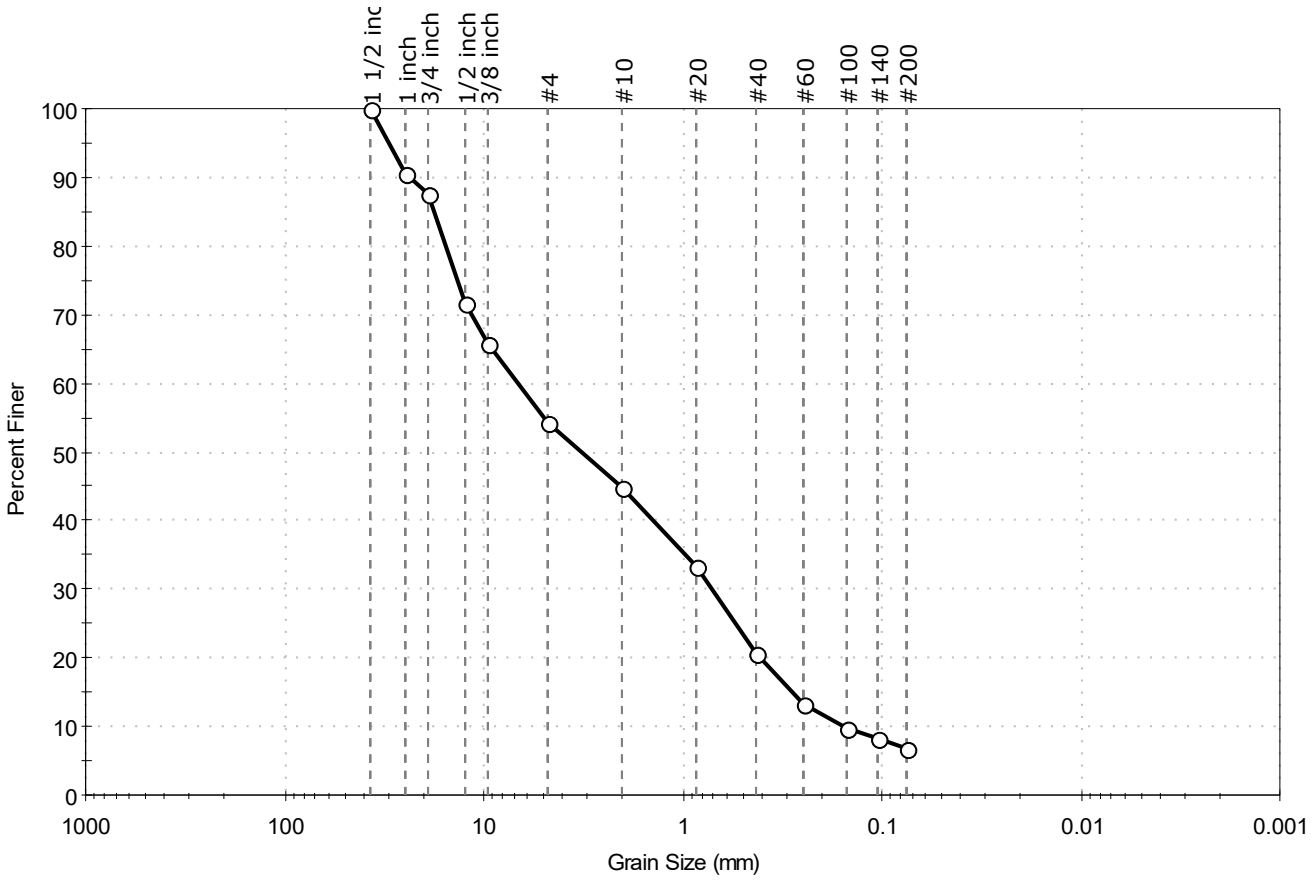
Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

Client:	GEI Consultants, Inc.				
Project:	South Kingston High School				
Location:	South Kingston, RI			Project No:	GTX-317489
Boring ID:	B-4	Sample Type:	jar	Tested By:	ckg
Sample ID:	S2	Test Date:	07/14/23	Checked By:	jsc
Depth :	2-4'	Test Id:	724216		
Test Comment:	---				
Visual Description:	Moist, dark yellowish brown sand with silt and gravel				
Sample Comment:	---				

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	45.6	47.5	6.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1 1/2 inch	37.50	100		
1 inch	25.00	90		
3/4 inch	19.00	88		
1/2 inch	12.50	72		
3/8 inch	9.50	66		
#4	4.75	54		
#10	2.00	45		
#20	0.85	33		
#40	0.42	21		
#60	0.25	13		
#100	0.15	10		
#140	0.11	8		
#200	0.075	6.9		

Coefficients

D_{85} = 17.7335 mm	D_{30} = 0.7104 mm
D_{60} = 6.6812 mm	D_{15} = 0.2816 mm
D_{50} = 3.2062 mm	D_{10} = 0.1538 mm
C_u = 43.441	C_c = 0.491

Classification

ASTM N/A

AASHTO Stone Fragments, Gravel and Sand (A-1-a (1))

Sample/Test Description

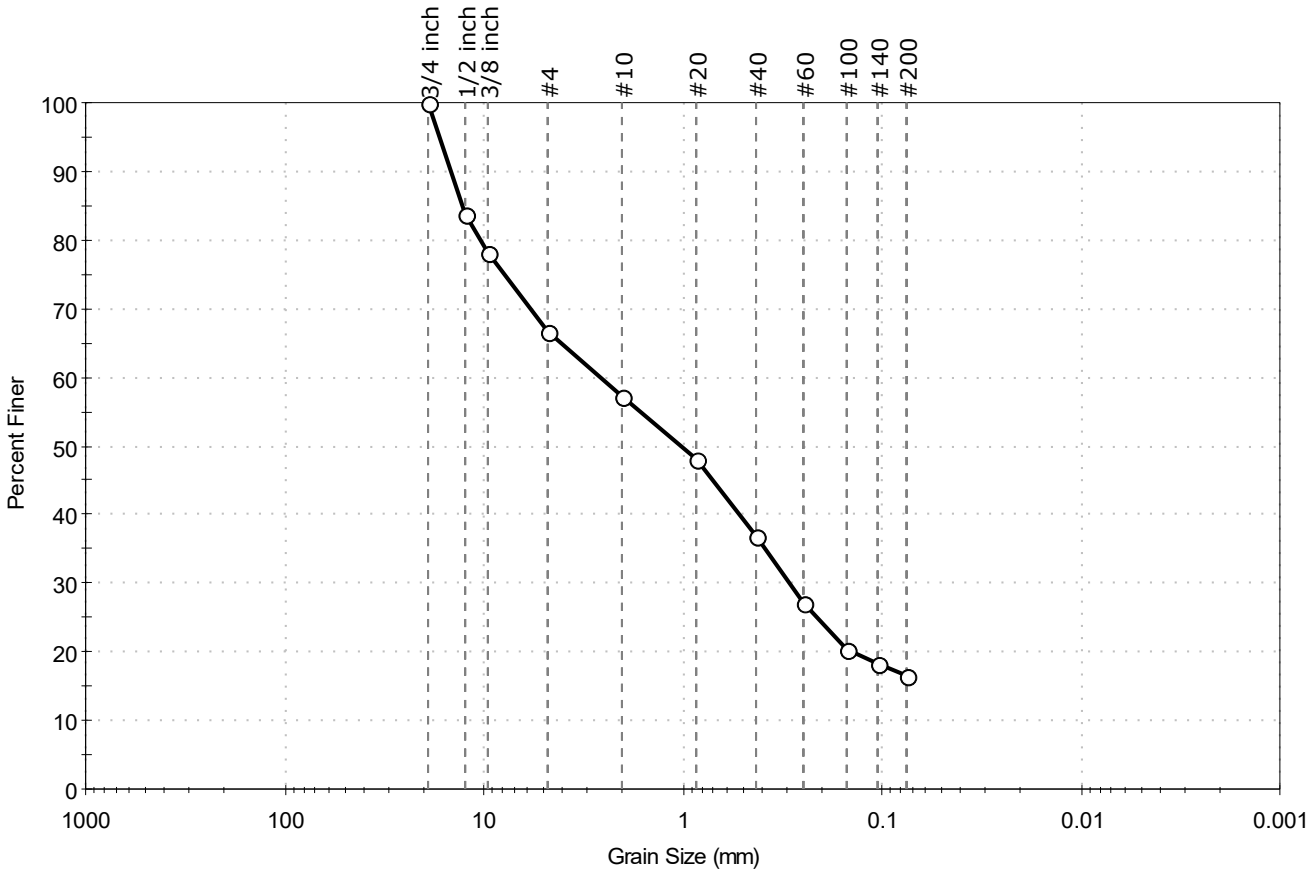
Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

GeoTesting EXPRESS

Client:	GEI Consultants, Inc.				
Project:	South Kingston High School				
Location:	South Kingston, RI			Project No:	GTX-317489
Boring ID:	B-9	Sample Type:	jar	Tested By:	ckg
Sample ID:	S2	Test Date:	07/14/23	Checked By:	jsc
Depth :	2-4'	Test Id:	724217		
Test Comment:	---				
Visual Description:	Moist, grayish brown silty sand with gravel				
Sample Comment:	---				

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
--	33.3	50.0	16.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/4 inch	19.00	100		
1/2 inch	12.50	84		
3/8 inch	9.50	78		
#4	4.75	67		
#10	2.00	57		
#20	0.85	48		
#40	0.42	37		
#60	0.25	27		
#100	0.15	20		
#140	0.11	18		
#200	0.075	17		

Coefficients

D_{85} = 12.9318 mm D_{30} = 0.2902 mm

D_{60} = 2.5924 mm D_{15} = N/A

D_{50} = 1.0280 mm D_{10} = N/A

C_u = N/A C_c = N/A

Classification

ASTM N/A

AASHTO Stone Fragments, Gravel and Sand (A-1-b (0))

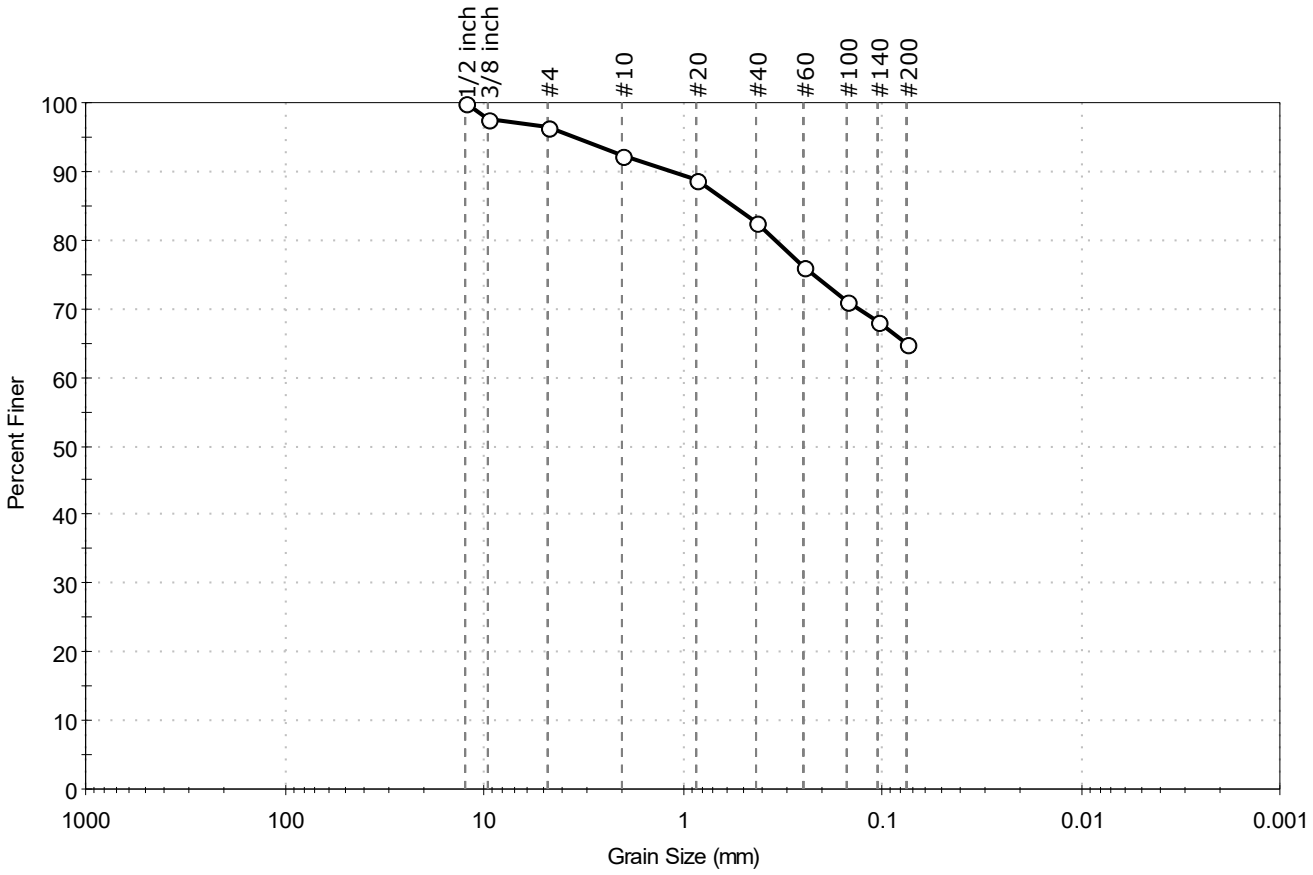
Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

Client:	GEI Consultants, Inc.				
Project:	South Kingston High School				
Location:	South Kingston, RI			Project No:	GTX-317489
Boring ID:	B-13	Sample Type:	jar	Tested By:	ckg
Sample ID:	S2	Test Date:	07/14/23	Checked By:	jsc
Depth :	2-4'	Test Id:	724218		
Test Comment:	---				
Visual Description:	Moist, light yellowish brown sandy silt				
Sample Comment:	---				

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	3.7	31.4	64.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1/2 inch	12.50	100		
3/8 inch	9.50	98		
#4	4.75	96		
#10	2.00	92		
#20	0.85	89		
#40	0.42	83		
#60	0.25	76		
#100	0.15	71		
#140	0.11	68		
#200	0.075	65		

Coefficients

D_{85} = 0.5615 mm	D_{30} = N/A
D_{60} = N/A	D_{15} = N/A
D_{50} = N/A	D_{10} = N/A
C_u = N/A	C_c = N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

Appendix C

Recommended Material Specifications

Recommended Material Specifications
South Kingstown High School Project
Wakefield, Rhode Island

Per the Geotechnical Report, native soils excavated as part of earthwork activities can likely be re-used on site as Structural Fill or Ordinary Fill, provided they can meet the appropriate compaction requirements and do not contain deleterious material. Near-surface silty soils similar to those encountered in B-11 and B-13 and existing fills containing debris similar to those encountered in B-6 are not suitable for re-use on the project. Cobbles to small boulders in excess of 4 inches in diameter should be screened out of the native soils prior to re-use.

Fill placed within the building limits, within a 3-foot wide zone outside foundation walls, and under pavements should meet the compaction requirements for Structural Fill. Backfill placed in non-structural areas should meet the compaction requirements for Ordinary Fill. Soils to be used as fill imported from off-site should also meet the below gradation requirements. Proposed borrow materials that fall slightly outside of these specifications may also be suitable for use, subject to review and approval by GEI.

If existing asphalt pavements are milled, these materials (recycled asphalt pavements/RAP) may be suitable for use, subject to review by the geotechnical engineer, as recycled base beneath new pavements or mixed into general grade-raise fills at a proportion of no more than 50 percent by weight.

Structural Fill

Structural Fill should consist of hard, durable sand and gravel. It should be free of clay, organic matter, surface coatings, and other deleterious materials. Soil finer than the No. 200 sieve (the "fines") should be non-plastic. Structural Fill shall meet the following gradation requirements:

Sieve Size	Percent Passing by Weight
3 inches	100
1 - ½ inch	55 – 100
No. 4	35 – 85
No. 16	20 – 65
No. 50	5 – 40
No. 200 (fines)	0 – 10

Structural Fill should be compacted in maximum 12-inch-thick, loose lifts to at least 95 percent of the maximum dry density determined in accordance with ASTM D1557 (Modified AASHTO Compaction). The moisture content should be held to within +/- 3 percent of optimum moisture content (as determined by ASTM D1557).

Ordinary Fill

Ordinary fill should consist of hard, durable sand and gravel, free of clay, organic matter, surface coatings, and other deleterious materials. Soil finer than the No. 200 sieve (the "fines") should be non-plastic. Ordinary Fill shall meet the following gradation requirements:

Sieve Size	Percent Passing by Weight
6 inches	100
3 inches	80 – 100
No. 4	20 – 100
No. 200 (fines)	0 – 20

Ordinary fill should be compacted in maximum 12-inch-thick, loose lifts to at least 92 percent of the maximum dry density determined in accordance with ASTM D1557 (Modified AASHTO Compaction). The moisture content should be held to within +/- 3 percent of optimum moisture content (as determined by ASTM D1557).

Crushed Stone

Crushed Stone should consist of a ¾-inch size durable crushed rock or durable crushed gravel stone and shall conform to the requirements of Section M.01.09, Table I, Column II of the RI DOT Standard Specifications for Road and Bridge Construction. Crushed stone should be compacted with at least four passes of a vibratory compactor.

Geotextile Fabric

Geotextile fabric should be a non-woven fabric, consisting of Mirafi 140N or an approved equal product.

GEI Consultants

Consulting
Engineers and
Scientists

Preliminary Geotechnical Report

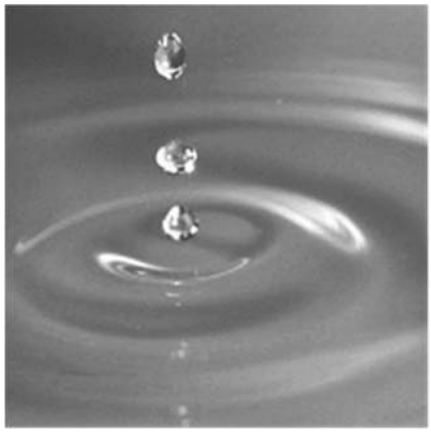
Proposed Athletic Field

Curtis Corner Middle School
South Kingstown, Rhode Island

Submitted to:
Garofalo & Associates, Inc.
85 Corliss Street
Providence, RI 02940

Submitted by:
GEI Consultants, Inc.
455 Winding Brook Drive, Suite 201
Glastonbury, CT 06033
860-368-5300

July 17, 2023
Project No. 2302440



Thomas Rezzani, E.I.T.
Geotechnical Engineer

Matthew Glunt, P.E.
Senior Geotechnical Engineer

Table of Contents

Figures

Appendices

1. Introduction

1.1 Project Summary

The project under consideration is located at Curtis Corner Middle School at 301 Curtis Corner Road in Wakefield, Rhode Island. Though plans are in early stages, we understand construction will involve a new athletic complex with supporting features over the existing campus footprint.

This report was prepared to address preliminary foundation and site preparation recommendations for the proposed construction. Additional explorations and geotechnical study will be required in a later phase of design to confirm or revise the preliminary recommendations presented herein.

1.2 Scope of Services

Our scope of work included the following tasks:

Our scope of work included the following tasks:

- Reviewed *Grading, Drainage & Utility Plan*, C-4, Schematic Design, prepared by Garofalo and provided to GEI on May 22, 2023.
- Engaged a subcontractor to drill five (5) test boring and three (3) augered probes.
- Observed soil samples recovered from the test borings, took groundwater level measurements, and prepared test boring logs.
- Engaged a testing laboratory to perform laboratory analyses on soil samples from the test borings.
- Developed preliminary recommendations for earthworks, pavements, and foundation design and construction.
- Prepared this *Preliminary Geotechnical Report*.

1.3 Authorization

Our work was performed in general accordance with our proposal dated May 25, 2023, and the resulting Subconsultant Agreement.

1.4 Horizontal and Vertical Reference

Boring locations were located and referenced using handheld GPS with accuracy on the order of 5 to 10 feet. The locations shown on the attached figure should be considered approximate.

2. Site and Project Description

2.1 Site Description

The property slated for development is located at 301 Curtis Corner Road in Wakefield, Rhode Island. The south side of the property is occupied by Curtis Corner Middle School, a one-story building. Athletic fields and maintained grass are located to the north. The site is bounded by undeveloped property to the north and east, Curtis Corner Road to the south and Onion Street to the west.

In general, the property slopes upward from east to west, flattening as it approaches Onion Street. The existing athletic field is approximately 10 feet lower in elevation than the plateau directly west. Total topographic relief across the site is on the order of 16 feet.

2.2 Proposed Construction

We understand that site plans are in the schematic stage and proposed grades are still being developed. To date, we have been provided by Garofalo with schematic site layouts and facility renderings.

We understand that new construction will include a new multi-purpose athletic field with supporting features such as metal bleachers, light poles, a field house, and a large parking area. Though final grades have not been developed, we expect cuts and fills up to 8 feet would likely be required, with the highest cuts near Onion Street and the largest fills occurring over the existing field. Reconfigured parking to support the development will be located on the east side of the property. A north-south grade separation retaining wall will likely be needed behind the field house. Stormwater will likely be managed using control basins, underground detention chambers, or a combination of both at the north end of the project.

3. Exploration Procedures

3.1 Test Borings

The boring locations were laid out on the site from the provided site plan using approximate measurements and a GPS-locator with horizontal accuracy on the order of 5 to 10 feet. Approximate boring locations relative to the site plan are shown on Figure 1.

Five (5) soil test borings and three (3) augered probes were conducted at the site on June 8, 2023, by New England Boring Contractors, Inc., under subcontract to GEI, with a track-mounted drilling rig. The appropriate one-call utility locate service (DigSafe) was contacted prior to our arrival. Each boring location was also pre-scanned for utilities using geophysical methods. The borings were advanced to depths of 5.5 feet to 17 feet utilizing hollow-stem and solid-stem augering techniques. Soil test boring logs are attached in Appendix A.

Standard Penetration Testing (SPT) and split-spoon sampling were generally performed continuously through the upper 8 feet of the borings and at 5-foot intervals thereafter using an automatic 140-lb. hammer. Representative samples of the soils obtained by the sampler were classified by a GEI representative. The samples were placed in appropriately identified sealed glass jars and transported to our office for storage and laboratory assignment.

3.2 Laboratory Testing

Laboratory testing was conducted on representative soil samples to confirm field identification of the soils and establish engineering characteristics for design. Tests performed by GeoTesting Express, under subcontract to GEI, included the following:

- Three (3) grain-size analyses with standard sieve set and hydrometer (ASTM D6913)
- Three (3) natural moisture content (ASTM D2974)

The laboratory test results are included in Appendix B.

4. Subsurface Conditions

4.1 Geologic Setting

Local geology maps indicate that the site is underlain by upland glacial till, characterized as dense non-sorted, generally non-stratified soils.

Bedrock is mapped (Moore, 1964) as the Ten Rod Granite Gneiss formation, characterized as medium to pinkish-gray, medium to coarse-grained metamorphic rock.

4.2 Subsurface Conditions

The generalized subsurface conditions at the site are described below, in order of increasing depth. The subsurface conditions between test locations may differ. The nature and extent of variations between the sampling points will not become evident until construction.

Surface Materials – Approximately 12 to 18 inches of topsoil was measured in grassed areas. Asphalt thickness in existing parking areas was approximately 3 inches, with no dedicated stone base observed.

Glacial Till – Upland glacial till soils common to the area were encountered in all borings. The light brown to brown soil was generally classified as sand to silty sand with suspended gravel. The non-plastic silt fines proportion generally varied between 10 and 30 percent. Based on sampler and drilling tool advancement, frequent zones with cobbles and small boulders should be expected within site soils. As presumed at probe AP-1, zones with larger boulders may also be present.

SPT N-values were generally consistent with dense to very dense conditions.

Silt – Zones of fine-grained silt differing in character from the sandy glacial till soils elsewhere were encountered in boring B-4 and B-5 on the eastern part of the site. Recovered samples were classified as predominantly moist, brown, non-plastic to moderately plastic fines with about 5 to 15 percent sand.

SPT N-values were generally consistent with stiff to very stiff conditions.

Refusal Material – Drilling refusal is defined as material that could not be penetrated with the drill rig used on the project. Refusal of the drilling tools may have resulted from the presence of tight gravel/cobble beds, boulders or ledges of weathered rock, or continuous,

relatively hard competent rock. Diamond core procedures would be necessary to assess the character and apparent strength of materials below refusal.

Drill refusal occurred at the locations and depths noted below.

Table 1: Summary of Refusal Depths

Test ID	Refusal Depth (ft)	Refusal Elev. (ft)	Note
B-1	--	< 122.0	Frequent cobbles and small boulders
B-2	--	< 122.0	Frequent cobbles and small boulders
B-3	--	< 122.0	Frequent cobbles and small boulders
B-4	--	< 116.0	--
B-5	5.5	129.5	Auger refusal at 5.5
AP-1	8.5	128.5	Auger refusal at 8.5; expected boulders
AP-2	--	< 123.0	Frequent cobbles and small boulders
AP-3	--	< 1226.0	Frequent cobbles and small boulders

Based on our observations and expectations of rock conditions, the refusal depth noted in boring B-5 on the south end of the property may be presumed as relatively intact bedrock for development planning and costing purposes. The refusal depth at probe AP-1 is likely the product of a heavy boulder zone. Both of these assessments should be confirmed as part of a final design investigation.

4.3 Groundwater Conditions

Groundwater was noted in four of the eight borings and probes at depths of approximately 6 to 13 feet below current grade. In general, groundwater within these types of soils tends to concentrate within discontinuous sandy seams and near the till/rock interface. We also note that dense glacial till deposits may exhibit very slow infiltration and recharge rates. Therefore, groundwater may be present within these soils but not observed as free water within boreholes (or excavations) until several hours after the hole is opened.

Groundwater levels are subject to seasonal and weather-related variations. Groundwater measurements made at different times and different locations may be significantly different than the measurements taken as part of this investigation.

5. Design Recommendations

5.1 General Suitability

The purpose of this preliminary investigation was to inform the project team of general subsurface conditions at the site and any risks identified that could have a significant impact on cost and schedule planning.

The site is underlain by dense, silty glacial till soils with frequent cobble to boulder-laden zones at depth and shallow rock likely within a depth of interest to construction. The primary geotechnical concerns and risk factors for this project would include:

- Potential for minor to moderate quantities of rock excavation, depending on finished grades.
- Though feasible, re-use of similar on-site soils with high silt fines content and oversize material as Structural Fill will likely present challenges.
- Limitations of shallow rock and cobbles to boulders with use of drilled-in foundations to support features such as light poles.
- Relatively low stormwater infiltration rates.

The influence of shallow rock and cobble to boulder-laden zones on proposed construction will be highly dependent on finished grades, which were not available at the time of this report.

5.2 Soil Properties

Recommended soil properties for design are presented below. We selected these values based on published correlations to SPT N-values, our experience with similar soils in this locale, and our engineering judgment.

Table 2: In-Place Soil Properties

Stratum	Angle of Internal Friction ($\phi°$)	Cohesion (c) (psf)	Moist (Total) Unit Weight (γ_T) (lb/ft^3)	Active Earth Pressure Coeff. (K_a)	Passive Earth Pressure Coeff. (K_p)
New Structural Fill	34	0	125	0.28	3.54
Glacial Till	36	0	125	0.26	3.85

5.3 Foundation Design

Shallow Foundations – Field House and Bleachers

From our review of the current site layout, it appears that bearing conditions for building and bleacher foundations at most locations will vary from Structural Fill to dense silty sands and sandy silts (glacial till). Depending on finished grades, there is potential for portions of the proposed fieldhouse to bear on rock. These materials are suitable for support of the buildings and bleachers using conventional shallow foundations designed and constructed as recommended below.

We caution that native soils and those re-used as Structural Fill will be highly susceptible to moisture disturbance; therefore, protection of exposed subgrades will be critical. In this regard, we recommend that all soil foundation subgrades be protected soon after exposure of 6 inches of crushed stone underlain by separation geotextile fabric. This would also serve to improve expediency of foundation construction.

We recommend that all footing subgrades be evaluated by a GEI representative prior to placement of crushed stone. The maximum allowable bearing pressure for design of footings are:

Table 3: Allowable Bearing Pressure – Building Foundations

Bearing Stratum	Net Allowable Bearing Pressure
Structural Fill, Native Sands and Silts, or Weathered to Sound Rock[1]	4,000 lb/ft^2

[1] Based on the results of this investigation, portions of the fieldhouse may bear on weathered on sound rock.

An ultimate friction coefficient of 0.45 should be used for cast-in-place concrete over soil subgrades prepared in accordance with this report. A factor of safety of 1.5 should be applied for the sliding case.

Minimum individual column footing and wall footing widths should be at least 36 and 18 inches, respectively. Exterior footings should bear at least 3’-4” below the adjacent exterior grade for frost protection, per Rhode Island Building Code. Interior footings should be founded at least 18 inches below the bottom of the floor slab. The tops of all footings should be at least 6 inches below the bottom of the overlying floor slab.

Foundations founded on rock will have no frost depth requirement. Where rock within unit foundation excavations cannot be removed with conventional equipment (i.e. hoe-ramming as required), we recommend assuming a minimum embedment depth of 2 feet below finished

grade. Where rock is broken or highly weathered and can be removed, we recommend extending the footings to bear 42 inches below the adjacent exterior grade for frost protection.

Light Pole Foundations

Individual drilled piers to support overhead light poles will be feasible, so long as suitable embedment can be achieved within the dense and cobble-laden natural soils and, potentially, rock. As noted elsewhere, cobble to boulder-sized obstructions that would hinder drilling advancement were frequently encountered at depth during the recent investigation. Ballast-type foundations should also be considered for use on this project, due to these limitations.

5.4 Floor Slab Design

We recommend that floor slabs bear on a minimum 6-inch layer of compacted crushed stone placed over a soil subgrade prepared in accordance with Section 6.1. Large cobbles or small boulders, where encountered, should be removed a minimum of 12 inches below the bottom of the floor slab.

Design of the slab-on-grade floors may assume a modulus of subgrade reaction of 200 pounds per cubic inch (pci). We recommend that contraction joints be incorporated between the slab-on-grade and the columns and perimeter walls of the proposed building to accommodate minor differential settlements.

To limit moisture infiltration into finished spaces, a 15-mil (min.) polyethylene vapor barrier should be placed beneath all moisture sensitive floor slabs. The vapor barrier should be sealed at the foundation walls, columns, and utility penetrations, and panels should be overlapped and joints sealed.

5.5 Settlement

Assuming the design and construction recommendations herein are followed, we estimate total settlement of the building will be less than 1 inch, and differential settlement between adjacent columns will be less than ½ inch. We expect nearly all expected settlements will occur during construction or soon after.

5.6 Seismic Design

The current edition of the Rhode Island Building Code document mirrors the 2018 International Building Code, with exception of the revisions and supplemental information provided by state building officials.

Based on the criteria of Building Code Section 1613.3.2 and the SPT N-values measured on site, we recommend the use of Site Class C for seismic design. The Site Class was used in conjunction with the seismic hazard (S_S, S_1) for this location to determine spectral design values, as follows:

Table 4: Seismic Design Values

Rhode Island Building Code	
S_S	0.161 g
S_1	0.058 g
S_{DS}	0.129 g
S_{D1}	0.065 g
PGA_M	0.10 g
Seismic Design Category (Risk Category I, II, or III)	A

We calculated the spectral response parameters for the Site using general procedures outlined in Building Code Section 1613.3. Peak ground acceleration (PGA_M) is adjusted for Site Class effects, per ASCE 7-10 Section 11.8.3.

The soils below the foundation level at this site are not considered susceptible to liquefaction.

5.7 Retaining Wall Design

Site plans are currently in the schematic design phase. Grade-separating retaining walls up to about 6 to 8 feet in height may be required between the fieldhouse and adjacent parking area. Where required, the site soils are generally well suited to wall construction and most commercial systems rated for the heights expected should be suitable for use on this project. Note shallow rock may be encountered on this area of the site, to be confirmed during final design.

Building foundation design criteria, including allowable bearing pressure and resistance to sliding, may be applied to retaining wall design. Well-draining granular soils should be used to backfill the areas directly behind the walls. Based on this investigation, most soils excavated in the course of this project will not be suitable for wall backfill.

Retaining wall designs, including all necessary details, plans, and internal stability computations, shall be by a Rhode Island-licensed Professional Engineer engaged by the chosen wall manufacturer.

All earth retaining structures used on the project should be designed using the earth pressures shown in Table 2. Note that no factor of safety has not been applied to these values. Retaining walls free to rotate at the top should be designed for active earth pressures. In addition to the lateral loads exerted by the soil against the walls, allowance should be included for lateral stresses imposed by any temporary or long-term surcharge loads, such as cars or trucks adjacent to the walls or adjacent footing loads.

We recommend limiting the passive pressure coefficient to 3.0 as shown above, due to the relatively high movement required to fully engage passive resistance. The minimum factors of safety for sliding and overturning under static loads should be 1.5 and 2.0, respectively.

The recommended wall design parameters do not consider the development of hydrostatic pressure behind the walls. As such, backfill must be well-draining, and positive wall drainage must be provided for all earth retaining structures. These drainage systems can be constructed of open-graded washed stone isolated from the soil backfill with a geosynthetic filter fabric and drained by perforated pipe, or several wall drainage products made specifically for this application. Where backfill soils are not drained using an appropriately designed drainage system, the lateral soil pressure on proposed retaining walls must consider hydrostatic forces and submerged soil unit weight.

The earth pressures given in Table 2 assume placement and compaction of the backfill in accordance with recommendations elsewhere in this report. Compact backfill directly behind walls with light, hand-operated compactors. Heavy compactors and grading equipment should not be allowed to operate within 10 feet of the walls during backfilling to avoid developing excessive temporary or long-term lateral soil pressures.

5.8 Pavement Design

We expect traffic to this facility will consist predominantly of passenger vehicles and school buses. Assuming preparation of the subgrade in accordance with Section 6.1, we recommend the following pavement section:

Parking and Drive Areas

4.0 inches bituminous concrete
- 1.5 inches wearing course
- 2.5 inches binder course

12.0 inches of processed aggregate base *(RIDOT Standard Specifications for Road and Bridge Construction, March 2018, Section 301 and M.0109, Table I, Column Ia)*

For areas expected to be subjected to repeated, heavy traffic loads, such as dumpster pads, we recommend a rigid concrete section as such:

Heavy-Duty Rigid Concrete Section
6.0 inches of 4,000-psi jointed concrete
12.0 inches of processed aggregate base *(RIDOT Standard Specifications for Road and Bridge Construction, March 2018, Section 301 and M.0109, Table I, Column Ia)*

Pavement materials should conform with and be placed in accordance with the most recent edition of the *Rhode Island Department of Transportation (RIDOT) Standard Specifications for Road and Bridge Construction (Blue Book)*. Rigid pavement sections should be designed and constructed in accordance with appropriate American Concrete Institute (ACI) recommendations and with the applicable specifications of the *RIDOT Standard Specifications*.

The recommended pavement sections shown above are generally suitable for a 20-year design life; however, maintenance such as sealing of cracks and localized patching due to normal weathering should be expected within the first 5 to 10 years of life.

5.9 Subsurface Drainage

Based on experience with similar facilities, we expect stormwater will be managed on-site using basins and/or subsurface detention chambers installed on lower areas of the site.

Stormwater features on this site would likely be founded in moderate to poorly-draining, dense sands and silts. From our experience and testing in similar soils, a field-measured infiltration rate on the order of 0.5 inches/hour may be assumed for preliminary design and costing. Final design of stormwater features must include confirmation infiltration testing at the actual stormwater feature location(s) and bottom depth(s).

5.10 Site Slopes

The project is expected to include finished earthen cut and fill slopes on the periphery of the development area and within the stormwater basins. We recommend that all cut and fill slopes on the project be constructed at grades no steeper than 2H:1V. Suitable erosion protection should be established as quickly as possible following construction of slopes.

6. Construction Considerations

6.1 Subgrade Preparation

6.1.1 General

To prepare the site for grading operations, topsoil, organic matter, and other deleterious material should be stripped from the building and site improvement areas. Soft, wet, loose, or otherwise un-suitable soils should be removed and replaced, or potentially re-compacted in-place.

6.1.2 Site Demolition

All structures on the property within the proposed construction area should be removed in their entirety and removed from the site in accordance with all regulatory requirements. Where below proposed site improvements, asphalt pavements should be thoroughly pulverized/reclaimed in place or milled off to allow for subgrade proof-compaction and promote through-drainage. Subject to review during final design, milled asphalt and processed demolition concrete may also be suitable for beneficial re-use on the project.

Any foundation remnants within the proposed fieldhouse building pad should be removed and the entire footprint backfilled to grade with Structural Fill. Below-grade elements such as foundation walls may be left in place within pavement and landscaped areas, cut to at least 2 feet below the bottom of subgrade elevation to reduce the potential for a hard spot forming.

Existing utilities to remain in use should be rerouted around the proposed building footprint. If not removed, any pipes over 3 inches in diameter should be filled with flowable fill or grout. Otherwise, these pipes may serve as conduits for subsurface erosion resulting in formation of voids below foundations or floor slabs. Where existing utilities are left in place and plugged in the building footprint, it may be necessary to undercut poorly compacted backfill to provide adequate support for footings or slabs.

6.1.3 Grade Slabs and Pavements

Following the required stripping, excavation to rough grade, and before placing any new fill to achieve design grades, the resulting subgrade should be firm, stable, and unyielding. Stabilization, where required, may consist of removing unsuitable material and replacement with compacted Structural Fill, or where unsuitable soils are relatively thin, drying and compacting in place.

Soil subgrades should be proof-rolled with at least four (4) passes of a minimum 10-ton vibratory roller in open areas, or a 1-ton vibratory roller or large plate compactor, such as

Wacker DPU4545 or equivalent, in trenches. Final bearing surfaces should be free of standing water, frost, and loose soil. Protruding cobbles to small boulders, if encountered, in the pavement and slab subgrades should be removed to a minimum of 12 inches below subgrade.

6.1.4 Foundations

Fieldhouse footings are expected to bear on a subgrade consisting of dense silty sands and sandy silts (glacial till), weathered to sound rock, or Structural Fill.

Native soils and those re-used as Structural Fill will be highly susceptible to moisture disturbance; therefore, protection of exposed subgrades will be critical. In this regard, we recommend that all soil foundation subgrades be protected soon after exposure of 6 inches of crushed stone underlain by separation geotextile fabric. This would also serve to improve expediency of foundation construction.

If bedrock is encountered at or above planned bearing elevation, the top of rock should be excavated to a firm surface, cleaned, and examined. If the bedrock is sloping, below column footings, the rock surface should be cut to an approximately level surface (within 10 degrees of horizontal). Below exterior wall footings, the rock surface can slope in the direction of the wall but should be within 10 degrees of horizontal in the direction perpendicular to the wall. Minimum embedment requirements for rock-bearing foundations are discussed in Section 5.2.

Bearing surfaces should be free of standing water, frost, and loose soil before placement of reinforcing steel and concrete. Protruding cobbles or small boulders should be removed a minimum of 12 inches below bearing grade.

We recommend that a GEI representative observe the final preparation of all subgrades prior to footing construction. Subgrade soils that require undercutting should be replaced with either compacted structural fill or crushed stone.

6.2 Excavation and Dewatering

Mass excavations on upland areas of the site would take place through dense to very dense glacial till soils, minor to moderate cobbles and boulders, and, potentially, weathered to sound rock, and difficult excavation should be anticipated. It is our experience that large excavators can generally remove dense to very dense soils (hardpan) and highly weathered/decomposed metamorphic rock characterized with an SPT N-value of less than 50 blows per 6 inches (or less than 100 blows/foot). Heavy-duty rock teeth and slower, difficult excavation should be expected where the material is characterized as 50 blows per 6 inches (50/6”) to 50 blows per 3 inches (50/3”). Dozer-mounted rippers may also be effective in removing materials of this density. Rock removal using localized hoe-ramming or mass

blasting should be expected for any materials exhibiting 50 blows for less than 3 inches or drill refusal.

Based on the results of this investigation, the scale of this project, and our expectations of finished grades, we expect that rock excavation, if required, would be of relatively minor quantities, suitable for the use of pneumatic (i.e. hoe ramming or line drilling) procedures.

All excavations should be sloped or shored in accordance with the local, state, and federal regulations, including Occupational Safety and Health Agency (OSHA 29 CFR Part 1926) excavation trench safety standards.

Stabilized groundwater is not likely to significantly impact construction operations. However, perched water is likely to be encountered near the soil/rock interface, especially after rainfall events. If encountered during foundation or utility excavations or general site grading, groundwater can likely be controlled using conventional methods such as ditching, sumps, and pumps.

6.3 Freezing Conditions

The soils at the sites are frost susceptible. Therefore, if construction is performed during freezing weather, special precautions will be required to prevent the subgrade soils from freezing. Freezing of the soil beneath equipment foundations during construction may result in subsequent settlement.

All subgrades should be free of frost before placement of concrete. Frost-susceptible soils that have frozen should be removed and replaced with compacted Structural Fill. Soil placed as fill should be free of frost, as should the ground on which it is placed.

6.4 Backfilling and Compaction

Recommended specifications for gradation and compaction of backfill soils are provided in the attached recommended Material Specifications.

Most sandy native soils excavated as part of earthwork activities will not be ideal but can likely be re-used on site as Structural Fill or Ordinary Fill, provided they can meet the appropriate compaction requirements and do not contain deleterious material. We caution that this material will be difficult to work if it becomes wet and may require long drying times to obtain the required compaction. As such, careful moisture control will be required to achieve satisfactory compaction.

Silts with high fines content similar to those encountered in borings B-4 and B-5 are not suitable for re-use on the project. Cobbles to small boulders in excess of 4 inches in diameter should be screened out of the native soils prior to re-use.

Soils to be used as fill imported from off-site should also meet the attached gradation requirements. Proposed borrow materials that fall slightly outside of these specifications may also be suitable for use, subject to review and approval by GEI.

If existing asphalt pavements are milled, these materials (recycled asphalt pavements/RAP) may be suitable for use, subject to review by the geotechnical engineer, as recycled base beneath new pavements or mixed into general grade-raise fills at a proportion of no more than 50 percent by weight.

7. Closure

7.1 Follow-on Services

We recommend that GEI be kept on the project through the final design and construction phases of this project for the following services:

- Perform supplemental subsurface investigations to support final design efforts.
- Review geotechnical-related contractor submittals and assist in developing responses to questions from the contractor (i.e. RFI's).
- Provide periodic site visits during construction to view subgrades and consult on geotechnical-related issues that occur.

7.2 Limitations

This report was prepared for the use of the project team, exclusively. Our recommendations are based on the project information provided to us at the time of this report and may require modification if there are any changes in the nature, design, or location of the proposed building. We cannot accept responsibility for designs based on our recommendations unless we are engaged to review the final plans and specifications to determine whether any changes in the project affect the validity of our recommendations, and whether our recommendations have been properly implemented in the design.

Our professional services for this project have been performed in accordance with generally accepted engineering practices. No warranty, expressed or implied, is made.

Figures

Source: ArcGIS Online, 7/14/2023.

GEI Consultants

BORING LOCATION PLAN – CURTIS CORNER ATHLETIC FIELD
CURTIS CORNER ROAD
WAKEFIELD, RI

GEI PROJECT NO: **2302440**

FIGURE NO.
1

Appendix A

Boring Logs

BORING INFORMATION

LOCATION: See plan.

GROUND SURFACE EL. (ft): 139 **DATE START/END:** 6/8/2023 - 6/8/2023

VERTICAL DATUM: **DRILLING COMPANY:** New England Boring

TOTAL DEPTH (ft): 17.0 **DRILLER NAME:** Dave DeAngelis

LOGGED BY: T. Yurman **RIG TYPE:**

BORING

B-1

DRILLING INFORMATION

HAMMER TYPE: Automatic **CASING I.D./O.D.:** NA/ NA **CORE BARREL TYPE:**

AUGER I.D./O.D.: 3.25 inch / NA **DRILL ROD O.D.:** NM **CORE BARREL I.D./O.D.** NA / NA

DRILLING METHOD: Hallow Stem Auger

WATER LEVEL DEPTHS (ft): Free groundwater not encountered.

ABBREVIATIONS:

Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Sample Information: Depth (ft)	Sample Information: Pen./ Rec. (in)	Sample Information: Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		S1	0 to 2	24/18	7-9-14-8		GLACIAL TILL	S1: SILT WITH SAND (ML); ~75% NP fines, ~20% F sand, ~5% F-C gravel, organic fibers, brown, dry. TOPSOIL
		S2	2 to 4	24/11	5-8-10-20			S2: WIDELY GRADED SAND (SW); ~85% F-C sand, ~10% F-C gravel, ~5% NP fines, brown to light brown, dry.
	5	S3	4 to 6	24/18	24-42-66-47			S3: Similar to S2, light brown, cobbles to small boulders, dry to moist.
130						Auger grinding, cobbles or small boulders.		
	10	S4	10 to 12	24/8	35-54-45-41			S4: WIDELY GRADED SAND WITH GRAVEL (SW); ~60% F-M sand, ~35% F-C gravel, ~5% NP fines, cobbles to small boulders, brown, dry to moist.
						Auger grinding.		
	15	S5	15 to 17	24/23	30-18-16-20			S5: SILTY SAND WITH GRAVEL (SM); ~70% F-C sand, ~15% NP fines, ~15% F-C gravel, brown, moist.
120								Planned depth. Backfilled with drill cuttings.
	20							

NOTES:

PROJECT NAME: Curtis Corner Middle School

CITY/STATE: South Kingstown, Rhode Island

GEI PROJECT NUMBER: 2302440

GEI Consultants

GEI WOBURN STD 1-LOCATION-LAYER NAME 2302246 - CURTIS CORNER MS.GPJ GEI DATA TEMPLATE 2013.GDT 7/17/23

BORING INFORMATION

LOCATION: See plan.
GROUND SURFACE EL. (ft): 139
VERTICAL DATUM:
TOTAL DEPTH (ft): 17.0
LOGGED BY: T. Yurman
DATE START/END: 6/8/2023 - 6/8/2023
DRILLING COMPANY: New England Boring
DRILLER NAME: Dave DeAngelis
RIG TYPE:

BORING

B-2

DRILLING INFORMATION

HAMMER TYPE: Automatic
AUGER I.D./O.D.: 3.25 inch / NA
DRILLING METHOD: Hallow Stem Auger
CASING I.D./O.D.: NA/ NA
DRILL ROD O.D.: NM
CORE BARREL TYPE:
CORE BARREL I.D./O.D. NA / NA
WATER LEVEL DEPTHS (ft): ▽ 13.0 6/8/2023

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
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SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
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Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Sample Information: Depth (ft)	Sample Information: Pen./ Rec. (in)	Sample Information: Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		S1	0 to 2	24/12	8-12-17-28		GLACIAL TILL	S1: NARROWLY GRADED SAND (SP); ~90% F sand, ~5% F gravel, ~5% NP fines, organic fibers, brown to light brown, dry.
		S2	2 to 4	24/20	35-45-63-47			S2: WIDELY GRADED SAND WITH GRAVEL (SP); ~75% F-C sand, ~25% F-C gravel, cobbles to small boulders, light brown, dry.
	5	S3	4 to 6	24/15	60-52-108-75			S3: SILTY SAND (SM); ~50.7% F-C sand, 32.3% NP fines, 17.0% F gravel, cobbles to small boulders, brown, dry to moist.
		S4	6 to 8	24/14	62-72-85-79			S4: NARROWLY GRADED SAND WITH SILT (SP-SM); ~85% F-M sand, ~10% NP fines, ~5% F gravel, gray to brown, dry to moist.
130								
	10	S5	10 to 11.7	20/20	38-60-42-50/2"			S5: SILTY SAND (SM); ~80% F-C sand, ~15% NP fines, ~5% F gravel, brown, moist to damp.
	15	S6	15 to 17	24	12-25-15-15			S6: SILTY SAND (SM); ~80% F-M sand, ~15% NP fines, ~5% F gravel, cobbles, brown, wet.
120								Planned depth. Backfilled with drill cuttings.
	20							

NOTES:

PROJECT NAME: Curtis Corner Middle School
CITY/STATE: South Kingstown, Rhode Island
GEI PROJECT NUMBER: 2302440

GEI Consultants

GEI WOBURN STD 1-LOCATION-LAYER NAME 2302246 - CURTIS CORNER MS.GPJ GEI DATA TEMPLATE 2013.GDT 7/17/23