



TISBURY SCHOOL
 PRELIMINARY DESIGN PROGRAM SUBMISSION
 for the Massachusetts School Building Authority



MARCH 28, 2017

MODULE 3: PRELIMINARY DESIGN PROGRAM

EXECUTIVE SUMMARY

Following several years of study related to the needs of the Tisbury School, including an independent study undertaken by the town, which was prepared by Flansburgh Associates in 2012, the town submitted a Statement of Interest to the Massachusetts School Building Authority (MSBA) for the Tisbury School in April 2015.

The town was invited into the MSBA Core Grant Program for a feasibility study in May 2016, and by December 2016 the town had assembled a team, including Daedalus Projects, Inc. and Turowski2 Architecture, Inc. to complete the study.

The study proceeded with four parallel efforts:

- Review of Previous Study
- Identification of Potential Alternative Sites
- Existing Conditions Assessments
- Educational Planning and Programming

Details of these efforts are included in the following pages of this report. The following six alternatives were explored initially:

- Option 1 Base Repair
- Option 2 Addition / Renovation to the Existing Tisbury School
- Option 3 New School on the Existing Site
- Option 4 New School on the Alternative Tashmoo Well Site
- Option 5 New School on the Alternative Manter WII Site

The above alternatives and final space summary were presented to the Building Committee on March 22, 2017. The Committee unanimously approved submission of the Preliminary Design Program (PDP) to the MSBA. The committee voted to continue studying the Option 2, 3, 4 and 5 in the Preferred Schematic Report (PSR) phase of the study.

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SECTION 1.1

(Introduction)

MODULE 3: PRELIMINARY DESIGN PROGRAM

1.1 INTRODUCTION

1. OVERVIEW

The Town of Tisbury, also commonly referred to as Vineyard Haven, is one of six towns that make up the island of Martha's Vineyard in Dukes County, Massachusetts. Located off the southern coast of Massachusetts the island is accessible only by boat or air travel. Vineyard Haven is the island's main port of entry with the only year round ferry service running between the Port of Vineyard Haven and the mainland to the Port of Woods Hole in Falmouth, MA. In addition to its scenic harbor, Vineyard Haven has a lively central shopping district and other regional services that serve the entire island.

The Tisbury School is a single School District, administered by the Martha's Vineyard Public School District which consists of five (5) independent Kindergarten through Grade Eight schools, and a single regional High School.

In recent years, the Tisbury School has experienced significant growth in enrollment of children from Brazilian immigrant families that come to the island to work in service occupations. While these families had in the past been transient, the consistent increase in enrollment of children from these families in recent years, particularly at Kindergarten age, indicates that these families are becoming permanent community members. This demographic has increased the need for ELL and Title 1 programs.

2. PROJECT INITIATION

STATEMENT OF INTEREST

The Town of Tisbury submitted a *Statement of Interest* for the Tisbury School in April 2015, citing overcrowding, the need to modernize the school facility systems to increase energy conservation and reduce energy costs, and to provide the space for the full range of programs consistent with State requirements and offered by the District. An initial analysis of space compared to MSBA's standard space needs (without consideration of the Districts Educational Program) indeed confirms a shortfall of program space. The *Statement of Interest* application is provided in Appendix A of this report.

PROJECT TEAM AND DIRECTORY

On May 25, 2016, the MSBA Board of Directors invited the Town of Tisbury to perform a Feasibility Study to address the needs outlined in the Statement of Interest for the Tisbury School. A Building Committee was formed and selection of the Owner Project Manager, Daedalus Projects, Inc., followed.

Selection of the Designer, Turowski2 Architecture, Inc. (T2), occurred in December 2016. A directory of the team follows:

Martha Vineyard Public Schools Administration

4 Pine Street
Vineyard Haven, MA 02568

Dr. Matthew T. D’Andrea - Superintendent of Schools
Tel: 508-693-2007 ext.

Richard Smith – Assistant Superintendent
Tel: 508-693-2007 ext. 19

Edith Rousseau-Administrative Assistant to the Superintendent
Tel: 508-693-2007 ext. 15

Amy Tierney – School Business Administrator
Tel: 508-693-2007 ext. 12

Jocelyn Broadley – Business Secretary for Tisbury
Tel: 508-693-2007 ext. 14

John Custer -Principal, Tisbury School
508-696-6546

Sean Mulvey – Assistant Principal Tisbury School
508-696-6826

Tisbury School Committee

Mrs. Colleen McAndrews, Chairperson
Mrs. Janet Packer
Ms. Amy Houghton

Tisbury School Building Committee

Colleen McAndrews	Chairperson
Catherine Coogan	School Nurse
John Custer	Principal
Cheryl Doble	Planning Board
Jay Grande	Town Administrator
Jeff Kristal	Selectman
Melinda Loberg	Chairman, Board of Selectmen
Reade Milne	Parent
Siobhan Mullin	Chair of PTO
Erika Mulvey	Teacher
Sean Mulvey	Assistant Principal
Dan Seidman	Chairman, Planning Board

Massachusetts Schools Building Authority

Chris Alles, Project Manager
Kathryn DeCristofaro, Capital Program Manager

40 Broad Street
Boston, MA 02109
Tel: 617-720-4466

Owners Project Manager

Daedalus Projects Inc.
112 South Street
Boston, MA 02111

Tel: 617- 451- 2717

Fax: 617-451-2679

Richard Marks, Project Director
Joseph Sullivan, Project Manager
Sidni Bragg, Assistant Project Manager

Designer

Turowski 2 Architecture, Inc.
313 Wareham Road
P.O. Box 1290
Marion, MA 02738

Tel: 508-758-9777

Fax: 508-758-2444

Peter Turowski, Principal
Project Manager for Study

Libby Turowski, Principal
Project Manager for Design

Teresa Poulin, Assistant Project Manager

Consultants

Consulting Architect

Keenan & Kenny
189 Main Street, #2A
Falmouth, MA 02540

John Keenan, Principal
Antonia Kenny, Principal
Tel: 508-540-0075

Education Programming Consultant

New Vista Design
32 Sheridan Street
Jamaica Plain, MA 02130

David Stephen, Principal

Tel: 617-733-0847

Landscape Architect

Horiuchi Solien, Inc.
200 Main Street, #202
Falmouth, MA 02540

Dan Solien, Principal

Tel: 508-540-5320

**Civil Engineer, Environmental Permitting,
Traffic, & Site Survey**

Nitsch Engineering, Inc.
2 Center Plaza, #430
Boston, MA 02108

William Maher, PE

Nijdeh Haven , PE

Denis Seguin, PLS

Tel: 857 206-8707

Structural Engineer

Engineers Design Group, Inc.
350 Main Street
Malden, MA 02148

Mehul Dhruv, PE

Tel: 781-369-9007

MEP Engineers

Griffin & Vary, Inc.
12 Kendrick Road
Wareham, MA 02571

Wayne Mattson, PE

Robert Bravo, PE

Tel: 508-295-0050

Geotechnical

Lahlaf Geotechnical
23 McGinness Way
Billerica, MA 01821

Madjid Lahlaf

Tel: 978-330-5912

Geo-Environmental & Hazardous Materials

CDW Consultants, Inc.
40 Speen Street, #301
Framingham, MA 01701
Susan Cahalan
Kathleen Campbell
Tel: 508-875-2657

Food Service

Crabtree McGrath Associates, Inc.
161 West Main Street
Georgetown, MA 01833
John Sousa, Jr.
Tel: 978-352-85500
Fax: 978-352-8588

Sustainability/Green Energy

Cynthia M. Kaplan, LLC
64 Blue Ridge Drive
South Windsor, CT 06074
Cynthia M. Kaplan
Tel: 860-338-7902

Code & Accessibility

R.W. Sullivan Engineering
529 Main Street, Suite 203
Boston, MA 02129
Samantha R. Sinapi
Tel: 617-337-9319
Marcy Stefura
Tel: 617-723-5164

FF& E

Stefura Associates
77 N. Washington Street
Boston, MA 02114

Cost Estimator

Project Management & Cost
20 Downer Avenue, Suite 1C
Hingham, MA 02043
Peter Bradley
Tel: 781-740-8007

Acoustical, Data/Communication & Tech/Audio Visual

Acentech Incorporated
33 Moulton Street
Cambridge, MA 02138
John Sacks
Jay Epstein
David Bateman
Tel: 617-499-8053

Security

Good Harbor Techmark, LLC.
17 Accord Park Drive, Suite 201
Norwell, MA 02601
Matthew Allain
Tel: 781-871-6555

ENROLLMENT AGREEMENT

The enrollment agreement for the feasibility study calls for 285 students for grades K-8. In addition, the school is planning to provide one Pre-K classrooms with a maximum occupancy of 16 students. The enrollment certification is provided in the Appendix C of this report.

3. NARRATIVE SUMMARY OF CAPITAL BUDGET STATEMENT

The Capital Budget Statement can be found in Appendix D of this report.

4. PROCESS AND SCHEDULE

Daedalus Projects, Inc. and Turowski2 Architecture, Inc. together with the District to developed a project schedule that reflects the time required to complete the feasibility study process outlined in the MSBA's Module 3, and a pace that would allow the District ample time to vet options fully through an open community process. Regular meetings with the Building Committee focused initially on identification of existing schools for site visits, identification of alternative sites, site development restrictions and requirements of the existing and alternative sites, conditions review of the existing building and site, educational program development and review, space summary review, and preliminary review of design alternatives. Details on these topics follow in this report. Submission of the Preferred Schematic Submission is scheduled to be May 18, 2017 in anticipation of being on the MSBA Board meeting agenda on June 28, 2017. The full project schedule can be found in Appendix E.

SITE VISITS

A subcommittee of the School Building Committee was assembled to participate in school tours. This group included members of the Building Committee, School and District Administration, School Faculty, and parents. On January 18, 2017 the group visited three schools:

1. The **Carr School**, Newtonville, MA designed by T2 Architecture. This school was suggested because it represents the designer's work and is an addition/renovation project of a school that is a similar vintage to the Tisbury School, and a similar size.
2. The **Wood School**, Fairhaven, MA design by HMFH, Inc. This project was suggested by Daedalus Projects, Inc. who served as the Owner's Project Manager for the project because it is a new school designed for a similar enrollment and age group, and at low cost.
3. The **Hannigan School**, New Bedford, MA designed by T2 Architecture. This school was suggested because it represents the designers work, and, similar to the Tisbury School, a majority of students who attend this school are walkers and the school was designed for a similar enrollment and age group on constricted site. The project was visited under construction, and a future tour will occur when the building is substantially complete.
4. The **New Hingham Regional Elementary School**, Chesterfield MA designed by Peter Turowski with Margo Jones Architects. This school was suggested because it represents the designers work and is a successful example of a school designed to allow wider community use, a goal for the Tisbury School. It also represents a single story building on a site that it outside of the town centers.
5. The **Williamstown Elementary School**, Williamstown, MA designed by Peter Turowski with Margo Jones Architects. This school was suggested because it represents the designers work, it is a Model School, and is traditional in design, a goal for the Tisbury School. This school also represents a new school with in the town center.

PUBLIC OUTREACH

The Feasibility Study process thus far has included the following informational meetings:

- Regularly Scheduled and publicly posted Building Committee meetings on the 2nd and 4th Wednesday of each month, including in 2016; 12/14, and in 2017; 1/11, 1/25, 2/8, 2/22, 3/8 and 3/22. Meeting minutes from these meetings can be found in 1.7.3 Local Actions and Approvals/Meeting Minutes. See presentations in Appendix J.
- An Educational Leadership Team meeting with core educational staff with the goal of establishing project priorities and developing the agenda for Visioning sessions. Participation included School and District Administrative staff, Building Committee members and teachers. Meeting minutes and the agendas for Visioning Sessions can be found in Appendix F.
- Two full day Educational Visioning sessions with representation from School and District Administrative staff, teachers, Building Committee members, parents, community members and students. The sessions set priority overall and specific learning goals, considered the Tisbury Schools' current strengths and challenges in the context of looking for opportunities to explore with a renovated or new school, identified relevant and desirable design patterns, and developed guiding design principals for the project. See Appendix F for Agendas for each day and a summary of notes developed from the workshops.
- Preliminary staff and faculty meetings in groups by grade and specialty to review the outcome of the visioning sessions and gather pertinent preliminary information related to space needs, adjacencies, etc. Future meetings will be held with faculty and staff groups to develop more specific space requirements. See Appendix F for notes from these meetings.
- Daytime and evening public workshop meetings are planned for Monday April 3, 2017. These workshops will focus primarily on community impact for the various options.

EDUCATIONAL PROGRAM

The Tisbury School Educational Program was developed by the Tisbury School Principal, Mr. John Custer. Development of the Program followed school tours and educational visioning workshops described above. The Tisbury School supports a program that maximizes every student's individual talents. In recent years, the school population has seen shifts in two areas which have direct impact on program delivery and space requirements. Presently 25% of the student population comes from Brazilian immigrant families, providing welcome diversity but also a need for the establishment and steady expansion of English Language Learner programs. Additionally, the school has seen an increase in the number of students from low income families (determined by students who qualify for free or reduced price lunch). These two demographics have required bolstering of resource programs.

The focus of the Educational Program is to maintain small class sizes by providing 2 classes per grade section, and small communities of learning complete with proximate resource spaces, including spaces

that support different modes of learning such; small group rooms, project based learning areas, resource rooms for specialized instruction, flexible spaces, and access to outdoors where possible. The Educational Program can be found in Section 1.2 of this submission.

INITIAL SPACE SUMMARY

The Initial Space Summary was developed around the MSBA template and the unique Educational Program requirements for the Tisbury School. The space summary is designed around K-8 programs for 285 students plus one Pre-Kindergarten section of 16 students. Below is a summary of variances of the proposed Space Summary from the MSBA guidelines. The proposed Space Summary and further detail on the reason for the variances follows in Section 1.3 of this submission:

Core Academics: total variation is an additional **7,440 SF**.

Special Education: total variation is an addition of **170 SF**.

Art and Music: total variation is an addition of **300 SF**.

Vocational & Technology: total variation is a reduction of **(1,000 SF)**.

Health and Physical Science: total variation is a reduction of **(800 SF)**.

Media Center: no variation proposed.

Dining and Food Service: Total variation is a reduction of **(400 SF)**.

Medical: no variation proposed.

Administration: total variation is a reduction of **(69 SF)**. The variations results from:

Custodial and Maintenance: no variation proposed.

The total net variation from the MSBA guidelines is 5,641 SF.

SUMMARY OF FINDINGS, EXISTING CONDITIONS

SITE

The Tisbury School site contains a total of 5.15 acres, has been in continuous use as a school since its construction in 1929, and with its proximity to the village of Vineyard Haven and the population of students served, it is appropriate for continued use as a school. The site can accommodate additions to the existing building or a new building to replace the existing building. However, the challenges of topography are greater with the existing building because the building is formally centered on the long axis, and is artificially elevated above the natural contours of the land, with the site grading off to lower elevations toward the east and west. Currently this condition presents accessibility issues across the site, which would need to be ameliorated in an addition / renovation scheme. A new building would allow substantial flattening of the site, and greater ease of accessibility across the site.

The site is served by both municipal water and sewer. The existing building was connected to town sewer relatively recently, although the Design Team has been unsuccessful in obtaining any drawing records of the connection or exact date of connection. It is reported that the existing septic system at the west end of the site was abandoned in place. There is a sewer pump chamber northwest of the building which collects most of the sanitary lines from the building from which it is sent into the public sewer system. A small septic system to the east continues to serve the locker rooms at the east end of the site. These conditions warrant further study in the next phases.

There is no significant storm water system on the site, predominately the site drains to surrounding public ways. Play fields are well worn and the ground compacted from heavy use. Parking is inadequate, but the site also serves parking needs for the MVPS Administration building across Spring Street. The school utilizes a parking lot across Spring Street as well as on-site parking.

BUILDING

The building is comprised of a three story structure, constructed in three phases; 1929, 1938 and 1995. The building is approximately 56,410 Gross Square Feet. The building is structurally sound but due to its age and the conditions of exposure on an island, has experienced significant deterioration of the building envelope including failing steel lintels supporting masonry, spalling cast concrete elements on the facade and windows with broken seals to name a few.

The interior of the building has seen recent replacement of some finish systems, but predominately the finishes date back to the 1995 renovation or earlier and have all served their useful life.

While the building is generally code compliant, there are areas of non-compliance, which will trigger correction in a comprehensive renovation, including ADA upgrades, fire alarm system upgrades, energy conservation measures, code compliant ventilation, and structural upgrades. Hazardous materials were also identified at the interior and exterior of the building. Abatement of these materials will be required in any renovation scheme, and in the case of demolition.

See detailed existing conditions reports in Section 1.4 of this report.

SECTION 1.2

(Educational Program)

Tisbury School

Education Program

Prepared by: John Custer, Principal
Tisbury School
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40 West William Street
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TISBURY SCHOOL EDUCATIONAL PROGRAM

The Tisbury School is a single-school district, one of six schools in the Martha's Vineyard Public School System. It serves children in Kindergarten through grade 8.

The Tisbury School recognizes that each student is a unique individual whose development is the responsibility of the staff, the parents, the community as a whole, and the child him/herself. It is the school's purpose, privilege, and obligation to create an educational environment that maximizes each student's individual talents. The Tisbury School supports a school environment that emphasizes respect, tolerance, community service, personal integrity and sensitivity toward diversity. This focus is apparent throughout the building, in Kindergarten through eighth grade. Academic, social, and extracurricular opportunities for Tisbury School students incorporate the message that individual excellence is recognized, while simultaneously encouraging collaboration and strengthening relationships. Classroom practices and routines reinforce this vision.

The Tisbury School ranks high in grade level scores on the MCAS and PARCC. The continued success of Tisbury School students is the result of a collaborative effort of teachers, students, administrators, and parents. In addition to its traditional focus on building and improving students' academic skills, the Tisbury School also maintains an emphasis on educating the whole child. Accordingly, the arts are a valuable and integral part of the school's program. Students participate in vocal and instrumental music, art, family and consumer science, industrial technology, health, physical education, and education technology. Also, the Tisbury School is the only elementary school on Martha's Vineyard that sees students in Kindergarten through eighth grade enrolled in Spanish. Programs that have been eliminated or reduced in many other districts have been maintained in the Tisbury School, reflecting a continued commitment to its students. The School Committee and administration are considerate of this, and together have ensured that the educational needs of children are the highest priority when it comes to spending.

Over the past decade, the student population in Vineyard schools has shifted. The percentage of Brazilian students has steadily risen to over 25% of the students in the Tisbury School, requiring the establishment and growth of an English Language Learner program, as well as increased work in translating communications. More Brazilian students attend the Tisbury School than any other school on the island. While this has brought challenges, it has also created meaningful learning opportunities in diversity. Also, the number of low-income families (determined by students who qualify for free- or reduced-price lunch) whose children attend the Tisbury School has increased. These two demographic groups historically perform lower on standardized tests, so the school has responded to this need by bolstering resources in these areas. Remediation (Response To Intervention) programs have been strengthened, taught by teachers with content-specific certifications. Focused instruction in building and developing math, reading, and writing skills are thus

being addressed for students with identified needs in those areas. In recent years, the school has adopted an inclusion model for Special Education, adding two additional full-time Special Education teachers and re-assigning paraprofessionals to work more directly on students' individual needs.

The Tisbury School is dedicated to identifying the needs of its students and working to ensure those needs are met. A talented and devoted staff - including all highly qualified teachers - shares a common commitment to the students, parents, community, as well as to each other.

STRATEGIC PLAN OBJECTIVES

The teaching and learning aspirations described in the Martha's Vineyard Public Schools Strategic Plan objectives will drive our building plans. The MVPS vision is to promote the development of confident, competent children who are well prepared for a lifetime of learning and active participation in a culturally diverse democratic society and an interdependent global economy. The Tisbury School building plan will be developed with an understanding of how the physical structures can create and sustain an environment that maximizes student learning. It is essential that the school be flexible, with spaces that can be used for multiple purposes, that are accessible (physically and technologically), and that create an environment that promises curiosity, creativity, collaboration, and multiple learning opportunities.

Student Needs

Increase the performance of all students in need through systemic and consistent academic and social-emotional interventions.

Educator Growth

Build a system of teaching and leading that reflects research-based, effective, and collaborative practices.

Facilities

Facilitate repairs and renovations of school facilities and establish a systematic preventive maintenance program in each building.

Budgets

Look for opportunities to use resources more effectively and slow the growth of school budgets.

GRADE AND SCHOOL CONFIGURATION

The Tisbury School provides educational programs for students in Kindergarten through grade 8. The school district plans to add a pre-Kindergarten program in the new or expanded Tisbury School to address growing community needs. As of March 1, 2017, there were 315 Kindergarten through 8th grade students enrolled. No pre-K students are currently served, due to a lack of space in the current facility.

The Tisbury School's current space needs limit educational opportunities, especially for Special Education and English Language Learner programs. To serve K-8 students most effectively, the physical space, at a minimum, needs to feel intimate and small, although with appropriate room. Students thrive in small learning communities where teachers know them well; in communities that support a sense of safety, respect and trust; in communities that are energizing and promote creativity; and in communities that support differentiated learning with the appropriate facilities. Our educational plan, for pedagogical reasons, calls for clustering grade levels. This creates the necessary intimacy and scale to create caring, connected, and collaborative learning communities.

CLASS SIZE GUIDELINES

The Tisbury School Committee and MVPS leadership recognize that class size is an important factor in a quality education. The School Committee and administration are committed to keeping class sizes small, thus the plan for two sections at each grade level. A goal of the new facility is to create classroom spaces and adjacencies that are small personalized learning environments.

The number of required classrooms based on current enrollment is outlined below.

2 Section School

Grade Level	# of Classrooms	Avg. Class Size	Enrollment with Avg. Class Size
Pre-Kindergarten	1	16	16
Kindergarten	2	13	26
Grade 1	2	16	32
Grade 2	2	15	30
Grade 3	2	22	44
Grade 4	2	22	44
Grade 5	2	19	38
Grade 6	2	16	32
Grade 7	2	21	42
Grade 8	2	17	34
Total	19	18	338

We value the preK-8 configuration, and believe that pre-kindergarten classes offer benefits as part of a contiguous preK-8 school community. Therefore, the building project includes a pre-kindergarten classroom allowing the school's youngest learners to be housed in an elementary school setting.

Applying the design principle of making a large school feel smaller, grade levels should be clustered to allow teams of teachers to work with their cohort of students. A smaller, more personalized learning environment can be created within such clusters, which also promotes a strong sense of teachers "owning" all students and helps to ensure that no student feels anonymous. We plan a clustering of grades that will support teachers to collaborate within specific grade spans (PK-1, 2-4, 5-6, and 7-8). Clustering in these groupings will support a culture of these groups of teachers taking collective responsibility for preparing students in their grade span for the upcoming grade span. In addition to

supporting a strong sense of community and allowing teachers to get to know their students well, clustering grade levels promotes collaboration. For this reason, proximity matters. Teachers teaching side-by-side in classrooms naturally promotes a sharing of practice. Interior classroom windows will serve the purpose of informal supervision with a clear line of sight into hallways and gathering spaces while also making teachers' practice more public and student learning more visible.

Input from teachers and district administrators makes it clear that classroom spaces need to be adaptable to the many different structures and instructional methods used today and anticipated in the future. While the choice of classroom furniture will play a large role in how flexibly a classroom can be used, all classrooms will have some consistent features such as areas for small group instruction and work, seating area at desks or tables for an entire class for full group instruction, counter space that abuts a wall and can be used for individuals to work at either while standing or sitting on stools, magnetic whiteboard space to be used during instruction as well as display space, built in storage, and movable walls within a classroom and between classrooms that will enable the creation of larger or smaller spaces when needed

Through programming and physical space this school will also take into consideration the separate and distinct needs of 6th-8th grade students while still allowing older students to be leaders and role models for the entire school community and interact with and support their younger peers. The middle school program should have a space that is distinctly theirs and that provides a sense of "graduating" to a different part of the school community. At the same time, it should feel "semi-permeable" in that the middle school program should not feel sequestered or entirely separate from the rest of the school.

SCHOOL SCHEDULING

The Tisbury School has a rich program of specials – visual arts, education and industrial technology, library/media studies, physical education, and music - that allows students to begin to develop mastery in these areas within separate classes and through the integration of these subjects with the other disciplines. A secondary benefit of these classes is the use of this time for teachers' planning (individual and common planning time). Appropriate space for the specialists to provide a high level of instruction is essential.

The English Language Learner (ELL) program is an area of attention in the school's master schedule. The support system for our ELL students is both push-in and pullout, as determined by the student's level of English proficiency. Students at the entering and developing stage need a designated ELL "newcomer" classroom. We anticipate needing two designated ELL classrooms at the new school.

To offer the required least-restrictive environment for Special Education students, separate resource rooms are needed to house these four distinct (K-2, 3-4, 5-6, and 7-8) programs. These should be located with proximity to the classrooms of the students they serve. In addition, the Tisbury School must also provide additional types of spaces for the teaching and learning that is aligned to our local standards and our strategic goals. These include:

- Appropriate spaces to schedule math specialists and literacy specialists providing intervention services to students; based on a 2-section school, 4 literacy and math specialist spaces will be needed to support K-4 and 5-8 needs.
- For vocal music, grades K-8, students require an appropriate space, separate from the space that houses the instrumental music program. Two large rooms are needed to support this music/performing arts instruction.
- Flex spaces with proximity to clustered grade levels.
- Project areas that are flexible and large enough to accommodate a full grade level at a time, and include adequate storage with moveable furniture allowing use by multiple users.
- Grade level clusters to allow elementary teachers to collaborate on interdisciplinary and project based learning across all the classes of the grade, integrating the learning of students.
- Instrumental lessons conducted in a proper space, and not in a classroom, hallway or an alcove where they can disrupt other classes. We anticipate classes will be provided in strings, band, and orchestra with additional small group lessons.
- Fully accessible classrooms allowing students with physical disabilities to be scheduled into any learning space in the building.
- Appropriate professional spaces available for teacher collaboration during common planning time.
- Adequate spaces (walls, glass cabinets, display areas) for extended display of student work so that a space is not deemed "not available" while displaying student work.

TEACHING METHODOLOGY AND STRUCTURE

Teachers at the Tisbury School support students through a variety of teaching models: co-teaching, team teaching, flexible grouping, small group instruction, project-based learning, and individualized instruction. We recognize that all students learn in different ways, rates, and timeframes. To that end, the Tisbury School needs to be adaptable with its staffing support, instructional methodologies, and assessment practices.

Tiered levels of instruction provide the general education foundation in all classrooms, with high quality Tier I instruction provided to every student every day, Tier II support provided inside and outside of class, and Tier III interventions typically provided in a pullout or separate classroom. If a student demonstrates academic, social-emotional, or behavioral concerns despite thorough Response to Intervention (RTI) procedures, the teacher refers the student to the building Child Study Team (CST). The CST supports teachers implementing additional strategies. CST meetings require a professional space for confidential collaboration, such as a small conference room.

Grouping Practices

General education teachers, in collaboration with special educators and other instructional specialists, determine a variety of grouping methods to meet the instructional needs of their students. Grouping and regrouping methods take place regularly within classrooms and across a grade level. General education, special education, literacy and math specialists, and ELL teachers collaborate to provide tiered instruction in the inclusive environment. Pullout instruction is provided for students who require it, based on their identified need for Tier II support or Tier III intervention. Grade level classrooms should be organized within common hallways and adjacent locations. Close proximity of grade level classrooms and the necessary small group learning spaces is critical in order to achieve the requisite communication and collaboration for a variety of grouping methods in grade level teams. Additionally, classrooms should include spaces where small groups of students can work independently, receive instructional support, and participate in interventions within the classroom.

The School Building and School Setting as a Classroom

Building a new school in the early 21st century when our community and society are more conscious than ever of the delicate balance between environmental sustainability and ongoing development provides an opportunity to have the physical plant itself play a significant role in the culture, educational approach and daily lives of students and teachers. Environmentalism is a strong force on the island, and the new school should reflect the passion that many residents have for preserving the environment. Whether it's through monitoring waste water, understanding the science behind passive and active solar power, or studying conservation measures built into the new building, the physical plant can be

used to help students learn about science, sustainability, and taking care of the environment. For example, signs and working exhibitions created by students could identify design elements that demonstrate architectural, structural, mechanical, and green building strategies. Student tour guides could be trained to introduce visitors to the building's features. Back-of-the-house spaces could be used as instructional spaces for students and staff, and could be used by town building and maintenance staff for hands-on training. Tisbury's new elementary school should stand as a physical demonstration of environmental stewardship and innovation, providing a local case study for sustainable school construction.

With the school being close to conservation lands and saltwater ponds, it will provide access to a wide range of natural habitats that can be explored by students, play a central role in their education, and impact students' attitudes towards school and the broader environment. Thoughtfully connecting the school grounds with these natural resources will allow the school to:

- Create a richer teaching environment and enable pupils to connect the natural world to their daily experience in school;
- Create a sense of responsibility and an awareness of nature within the school grounds;
- Encourage pupils to explore and understand biodiversity in their locality and to appreciate the need for environmental care on a global level; and
- Encourage pupils to value the school grounds as a place to play, explore and make a connection with the natural world.

Further, we would like to consider leaving some of the school grounds unfinished and allow the students who ultimately attend this school to lend a hand in the final design and even construction of a portion of the school grounds.

Educational Technology

Technology and digital learning play an ever-increasing and critical role in teaching and learning, both inside and outside of schools. Educational Technology lessons are taught K-8, and an appropriate computer lab is needed to house 24 desktops for students. This room should be located close to the library/media center, allowing for collaboration and flexibility. As well, the computer lab offers opportunities for staff professional development and training. Classrooms need to be flexible and dynamic spaces that allow for all types of learning and have reliable access to the digital resources available to enhance teaching and learning, and they need to operate with an understanding of the appropriate role of technology in our schools and students' lives.

We envision technology improving our ability to:

- Communicate and collaborate in our schools, our community, and the evolving global society;

- Maximize learning for all students using techniques and materials that take into account varying backgrounds, capabilities, and learning styles;
- Ensure that all students obtain digital literacy skills that are required in the 21st century;
- Create a well-integrated, learner-centered environment focused on inquiry into engaging problems;
- Enrich and extend professional learning for all teachers and instructional leaders; and,
- Enable all school personnel to effectively and comfortably use technology as a teaching and administrative tool so that more resources and time can be focused on teaching students.

The new facility will support a variety of improvements in the school's technology, for example, but not limited to: a more robust and reliable wireless network to support multiple devices per user; multiple and strategically placed electrical outlets and drops for easy access, relocation and setup; sufficient space for technology closets; and well provisioned classrooms that redefine the current standard. We are planning for the standard learning space to include: a wireless access point and appropriate network drops; voice over internet protocol (VOIP) phone; a mounted projection/interactive whiteboard with enhanced audio system; two (2) classroom desktop computers with speakers and headphones; a district-issued teacher desktop, classroom tablet, and document camera. Teachers should have access to control and utilize much of this technology through a smart teacher control panel with USB ports that allow for easy document camera connections, interactive whiteboard equipment controls, and speakers. With this as the standard, there will be learning spaces that have more technology in the room and others possibly less. The technology in the room should be dependent on the educational goals and functional demands of the space.

Project-based learning is an area of curriculum and instruction in need of significant growth, and the new building will not only support these improvements but, with the proper 21st century school design, can promote growth in this area. A new Tisbury School will improve collaboration, encourage curiosity and inquiry, and be user-friendly, with technology that is accessible, sustainable, and flexible. Two project areas, each large enough to accommodate a full grade level, will support this.

English Language Arts/Literacy

The K-8 English Language Arts program emphasizes explicit instruction in strategies of proficient readers and writers as well as meaningful exploration of the content of Language Arts and literature.

Tisbury was well positioned for the move to the Common Core State Standards, through a rigorous priority learning standards identification process. This provided a strong foundation with which to meet the demands of the new Massachusetts Curriculum Frameworks.

Literacy instruction in Tisbury includes:

- Interactive Read-Aloud and Literature Discussion
- Shared and Performance Reading
- Writing About Reading
- Writing
- Oral, Visual, and Technological Communication
- Phonics, Spelling, and Word Study
- Guided Reading (small-group reading instruction)

Schedules for grades 1 – 4 reflect a daily literacy block of 90-120 minutes. During this protected instructional block, students receive small group reading instruction from their classroom teachers and may participate in a variety of language arts learning centers, allowing students to refine reading and writing skills. Students who receive targeted literacy interventions do so outside of this time, their core instruction in literacy. Interventions may be provided by a literacy specialist, a special educator, or an ELL teacher. In grades 5-8, students have a daily 55-minute block of English Language Arts instruction. Students requiring additional supports and literacy intervention receive targeted instruction from classroom teachers, special educators and ELL teachers during designated 30-minute instructional blocks each day.

Teachers use multiple assessments to measure student progress, including running records and observational notes. In grade level data meetings, teachers examine whole class and small group instructional implications, as well as identify students and develop plans for individual literacy interventions.

Although most of the reading and writing instruction takes place within the classroom environment, smaller work areas are necessary to facilitate individualized instruction, including both 1:1 and small group settings for discussions and conferencing. In addition, small work areas are needed to support individual and small group general education interventions in reading and writing, inside and outside the classroom. Literacy specialists need office space in which planning, coaching, direct instruction, and intervention can take place.

English Language Learners (ELL)

The English Language Learners (ELL) program provides services to students whose primary language is not English and who are not yet proficient in English. The program provides support, with services focused on students' English language acquisition, literacy development, social integration, and academic achievement.

The ELL program serves students outside of the classroom and, therefore, needs its own spaces. Like special education, housing the ELL programs in the general vicinity of the grade level clusters is intentional. Wall space and storage is also important, given the use of visuals and the need for storage of the general education program materials made available to the teachers and students in the ELL classrooms. ELL classrooms will be reflective of other learning spaces – flexible, well provisioned, and accessible, and able to be used to support small group instruction and center-based learning.

Currently, 25% of the student population in our school is made up of English Language Learners, so in a 315- student school, we anticipate that the ELL program will support 80+ students, requiring at least two classrooms in the school. Small groups of students meet with ELL teachers several times per week both in and out of the classroom for direct English instruction.

Library/Media Center

The Tisbury School library/media center (LMC) should be centrally located, the heart of the school. Used heavily, the LMC has scheduled classes as well as the opportunity to reserve space for research, presentations, and meetings. It is a gathering hub for the school, and houses desktop computers and mobile laptop and ipad carts. The presence of audio-visual technology will support the student-run television program that is produced and filmed in the LMC. The space needs to be flexible to allow the room layout to be adaptable to different uses. There should be adequate space for display of student work. Currently, the space has over 16,000 volumes, and needs to provide for growth. Given that most K-8 students visit the LMC multiple times each week, the space needs to provide for a variety of needs. It also should provide opportunities for community use, after school hours and on weekends.

Mathematics

The goal of the mathematics program in Tisbury is to meet the needs of all learners so that they become critical problem solvers and reflective thinkers about mathematics in our evolving global, technological, and digital world. We also seek to stimulate interest and curiosity in the field of mathematics to develop students' passion and interest in a math career. The mathematics program is grounded in the 2011 Massachusetts Curriculum Frameworks for Mathematics, in both Standards for Mathematical Content and the Standards for Mathematical Practice. The transition to the new standards started with focused attention on students' learning through the Standards of Mathematical Practice.

The most effective instruction for in-depth math content and deliberate attention to mathematical practices places different requirements on the physical space. Instruction varies, in that there are opportunities for individual learning, pairs and small groups, and whole-class instruction. Teachers need the space to change as instruction changes – furniture easily reconfigured for different groups, technology easily employed throughout the room, ample space so that students can spread out and use a variety of objects to manipulate and see the math, projection with robust Internet access to show real-life applications and simulations, examples of mathematical models, and sharing student work. Appropriate, safe and secure storage space is also critical to accommodate the various manipulative materials that students use to explain their mathematical thinking and problem solve.

The needs of the physical space in K-4 for math are mirrored in the middle grades. In grades 5-8, students continue this progression to geometry, algebra, probability and statistics, again focused on student learning and application. Teachers use instructional materials from chosen curricula, as well as those developed by the Math Department to align with the content and practice standards. Teachers are utilizing instructional practices and mathematical experiences that are accessible to all, and provide opportunities for all students to engage in meaningful mathematics. There are opportunities to work with other teachers to integrate the disciplines and highlight STEM project-based opportunities.

Students are supported and challenged in various ways through teacher collaboration with Math Specialists. In addition, we are piloting adaptable universal screening assessments and instructional support programs in different grades across the schools. This will help us target student-learning needs across the units of the math curriculum and across all grades. This level of detailed analysis will support more targeted instruction and map student progress over time.

Students who show mastery of grade level standards engage in enrichment that takes the math concept deeper and provides more learning of the concept. As with all other examples, this type of creative investigation requires flexible educational spaces. Students also have opportunities to engage in online coursework, requiring access to devices and robust Internet connections.

The math specialists at the Tisbury School, who provide individual and small group support across all grade levels, require adequate office and teaching space. The space is used for collaborative planning, coaching teachers, and intervention work with students. For interventions and pullout services, math specialists need well-equipped learning spaces with access to the appropriate technology that supports math learning and assessment. The space should be adaptable to accommodate students of various ages as specialists work with students across grade levels. Teachers and students will benefit from the office size, storage facilities, flexible configurations of space, and location. Proximity to classrooms as

well as other specialists is important due to the frequent student transitions and the ongoing collaboration between specialists.

Performing Arts

The Tisbury School is proud to continue a tradition of a strong performing arts department. The school has vocal music instruction for all students across all grades. In grade 2, students have the opportunity to begin participation in a strings program. In grade four, all students have the opportunity to begin the study of a band instrument. The school hosts a variety of music concerts (choral and instrumental) throughout the school year. Additionally, students in grades 4 – 8 are involved in musical theater. Performances take place in the gymnasium, which has a capacity of 350 people.

The new building will have a tremendously positive impact on the performing arts department. An improved stage, preferably located in a “cafetorium,” will provide a more appropriate, appealing, and comfortable venue for student performances and audiences, and also serve community use.

Physical Education

The physical education department provides standards-based instruction to all students across grades K-8. Students participate in quality instructional physical education programming twice per week, for 30-35 minutes in each class. The curriculum is presented in accordance with the Massachusetts Frameworks and the National Standards for Quality Physical Education. The curriculum follows a developmental sequence from body management competence, to fundamental skills, to specialized skills, while simultaneously addressing physical fitness and social skills. The physical education facilities will require ample and appropriate storage space for large physical education equipment and supplies that can be easily accessed and set up. Additionally, bleachers that can accommodate spectators are desired, as athletic events (basketball, volleyball, floor hockey) are held as part of the junior high sports program.

Science and Engineering

Tisbury’s Science & Engineering program is designed to actively engage students in their own learning using hands-on inquiry, outdoor learning, intriguing materials, science notebooks, scientific tools and high quality media (books, video and online resources) accessible to all learners. The curriculum integrates science/engineering content, science and engineering practices, and crosscutting concepts and is aligned with the new Massachusetts Science Technology and Engineering Curriculum Frameworks that are based on the national Next Generation Science Standards.

The middle school science lab (available to grades 5-8) needs to be an ample, flexible space for students to work and for the safe storage of science materials and supplies. Specific needs of a science lab are in addition to the general design and development of other contemporary teaching spaces – wall space for visuals, projection area(s), technologically

versatile, natural light, flexible furniture, etc. Storage space for tools and other “making” materials needs to be provided.

In order to implement our robust and rigorous hands-on, inquiry-based science and engineering curriculum, teachers require flexible spaces beyond the classroom that invite and promote creativity, innovation, and collaboration. The industrial technology and engineering classroom (serving students in grades 5-8) and makerspace/project areas (K-8) will serve these needs. These spaces need to be equipped with wall space for recording questions and ideas, sinks to provide water for investigations and cleanup, space for storing tools and “making” materials (glue guns, cardboard, etc.), and adequate storage space for science materials. Sunny windows are needed to grow plants. These spaces should be central to classroom clusters.

Although students will be “making” (solving real world problems by creating solutions) in their classrooms, the stand-alone makerspace is needed to allow students to have a place to extend their projects. This space will provide a common area where students can display and present projects. It will need to be equipped with sinks, design “thinking” walls for recording ideas and questions, tools, tool walls, sewing machines, etc. as well as spaces for laptops. It also could house the 3D printer.

Outdoor learning is built into the science and engineering curriculum. We envision using the outdoor spaces of the school as learning labs (providing field trips right outside the school doors). Students can observe and study the natural world in areas that include outdoor seating areas so that classes can go outside, not only to study science, but also to listen to stories and engage in other group work.

Social Studies

The K-8 social studies department includes units of study in civics and government, physical and human geography, economics, and US and world history. Along with content, teachers are developing strategies for explicit literacy instruction, including how to make difficult primary texts accessible to all students and disciplinary literacy instruction. Each unit lesson includes modification and differentiation suggestions, assessment options, and identification of natural connections to other subjects to support the development of interdisciplinary units.

Teachers continue to incorporate more technology into social studies teaching, enabling them to access real-time data, utilize digital textbooks and atlases, and support the development of digital literacy that includes Internet research, online student learning activities, and diverse instructional strategies to accommodate all learning styles. Students are also taught media literacy skills to prepare them to be discerning media consumers and critical thinkers.

The social studies curriculum and instruction demand physical spaces similar to the other subjects – flexible, accessible, safe and secure storage, and wall space for visuals and student work displays. To make sure 21st Century learners can engage in classroom activities, classrooms require a combination of electrical outlets and power strips that are distributed through the classroom, along with a smart teacher control panel with USB ports that allow for easy document camera connections, interactive whiteboard equipment controls, and speakers. In addition, teachers need to be able to control natural and artificial lighting quickly.

Visual Arts

The Tisbury School has a vibrant visual arts program serving K-8 students. Ideally located adjacent to an outdoor space, the art room houses supplies and equipment necessary for varied instruction methods. A kiln is used regularly, requiring the presence of an appropriate safe room and storage space. In art, students develop observational skills, inquiry, creativity, and craftsmanship through illustration, painting, pottery, ceramics, and design and production with wood, leather, and other assorted materials. Students make projects and produce artwork to decorate and display around the school. A mural in the cafeteria is an example of this, as well as painted ceramic tiles. Presentation of student artwork is essential for building a sense of pride and ownership, celebrating creativity, and providing a public audience.

World Language (Spanish)

K-8 Spanish instruction takes place in its own dedicated classroom, and therefore is directly impacted by the distribution of classrooms throughout the building, as all students must travel to this space. Thus, its location needs to be thoughtfully considered, and ideally as central as possible. As well, the Spanish classroom needs to be a space that comfortably accommodates students ages 5-14. Its layout and furniture must therefore offer flexibility.

With a solid foundation in oracy, students are well prepared to move into literacy-based language instruction in later grades, when students continue to focus on oral proficiency while also developing skills in in the interpretive and presentational modes of communication. Authentic materials in the target language become an essential source of input for students, requiring individual and group access to technology. Flexible space is needed for students to circulate to talk with each other or to work individually, in pairs or in small groups.

SPECIAL EDUCATION AND STUDENT SERVICES

Special education services throughout the district address the needs of identified learners with disabilities between the ages of three and twenty-two, who require specialized instruction to support access to the curriculum. A wide range of services is provided to meet the individual needs of students, from academic intervention to related services in areas such as speech therapy, occupational therapy and physical therapy. Availability of therapeutic services for students requiring special education intervention in the realm of social, emotional and adjustment areas is present at all levels. Staff works closely with families in ensuring that necessary services are identified and provided to students in accordance with applicable mandates.

Inclusion is a core belief and practice at the Tisbury School. This educational model expects us to meet the needs of all students by educating learners with disabilities alongside their non-disabled peers. The environment necessary to nurture and foster inclusion is built upon a shared belief system between general and special education, and a willingness to merge the talents and resources of teachers. An inclusive education helps prepare students with disabilities for an integrated adult life and builds understanding and acceptance within the broader community. In 2016-2017, 14% of all students in Tisbury had documented disabilities.

Physical environment impacts learning for all students and especially for students with disabilities. The physical structure of the new school building should support our inclusive approach, our commitment to providing all students an appropriate education in the least restrictive environment, and our system-wide special education programs. It is important that every student has an authentic sense of belonging and feels safe in their school. Clustering grade levels, integrating special education classes and spaces throughout the school, and providing services to students in close proximity to their cohort peers are examples of how the design of the school can support the academic and social-emotional learning goals for students with special needs.

The location of the classrooms allows staff to communicate and collaborate fluidly throughout the day on student needs and programming. To support teachers, special educators and families, there should be a small conference room that is primarily used for IEP meetings and Child Study Team meetings. This conference room should be able to hold at least 12 people comfortably.

The dedicated special education resource rooms in the new school should provide equitable access to high quality learning. Equitable access begins with being fully ADA compliant and includes equity in classroom quality, access to natural light and windows, as well as proper heating and ventilation. Special education classrooms need to be flexible and easily reconfigured, given that different students are served in the same space at different times. In addition, accessibility to a wide variety of technology options is essential. Assistive

technology plays a critical role in supporting engagement and learning for students with special needs. Different devices and equipment for different purposes need to be available with supports for quick set-up and secure storage.

Flex Spaces

Flex spaces, located near classrooms, are desired for students with varied disabilities who require a flexible level of services outside of a general education classroom. These spaces would provide special educators opportunities to conduct small group instruction, social skills groups, and collaborate with other related service providers to support students. Students may receive higher levels of direct, specially designed instruction in academic areas within the flex spaces. There should be several such rooms in the building located both in the K-4 classroom area and in the 5-8 classroom area. Within each room there should be adequate space for academic support, social skills instruction, an area for sensory support and quiet academic work.

Student Services

In addition to the special education services our educators provide, a wide range of specialists including school psychologists, social workers, speech and language pathologists, occupational therapists, and physical therapists provides other essential services and support. In most cases, these positions are shared among more than one school, but together they represent a team-based approach to supporting students and families at the elementary level. In order to provide coordinated services and promote collaboration among these professionals, the Tisbury School should include two separate dedicated spaces for these services. The occupational therapy and physical therapy space should include necessary equipment to serve students' needs. As such, it could be located near the gymnasium, as some equipment could be shared with the physical education department.

Guidance

With two full-time guidance counselors, the Tisbury School needs two separate dedicated spaces to serve K-4 and 5-8. The K-4 guidance office will ideally be located close to both the nurse and associate principal. It needs to provide adequate space to host 4-6 individuals, particularly considering that a common practice is for the counselor to conduct lunch groups with students. Neighboring this should be a small conference room to serve as a "de-escalation" space for students who require a safe, confidential setting to meet with staff and/or parents. The 5-8 guidance office should be located near 5th grade classrooms and special education spaces. It should not be next to the principal's office. It should also provide ample space to comfortably accommodate 4-6 students for lunch groups. All of these spaces should allow for privacy but include doors with windows that can be covered as necessary.

Health Services

The Health Services Suite houses the nurse and allows students to be checked, receive services, or wait comfortably for a parent, guardian or family member to pick them up. The Health Service Suite requires an entry or reception area where students can await services,

two examination/treatment areas that include beds and space for private meetings and confidential consultations. There should be locked storage, a sink, and a refrigeration unit in the nurse's office. Also in this suite should be a separate ADA-compliant restroom. The suite should be located close to the general/main school office and associate principal.

SCHOOL CULTURE AND SOCIAL EMOTIONAL LEARNING

It is the mission of the Martha's Vineyard Public Schools and the Tisbury School to prepare students for a successful transition from early childhood to adulthood. Students will develop critical minds, compassionate hearts, healthy habits, and confidence through educational experiences filled with high-quality instruction and meaningful opportunities. Our students will be engaged citizens and good stewards of their communities. To truly live this mission, it is essential that our school is safe, welcoming, respectful and nurturing. Such a culture is created when everyone in the school is aligned to requisite beliefs, values, and behaviors. Children need to learn these beliefs, values and behaviors, and adults need to model, guide, and explicitly teach them to children using intentional strategies in order to establish a culture conducive to learning.

The physical structure and spaces need to support and reinforce the school's culture. Overall, to support a positive, collaborative, and welcoming culture, the school needs to provide gathering spaces to promote social interaction and engagement among students and adults. The Tisbury School needs to facilitate and encourage connections among grade levels and across the disciplines, be welcoming by design, and show evidence of collaboration, respect, and high expectations with student work prominently displayed throughout the school. All of this supports the social emotional learning of students.

Elements of *Responsive Classroom* (K-4) and *Developmental Designs* (5-8) represent the social emotional curriculum in Tisbury. Both require classroom space to conduct morning meetings. Each classroom should accommodate these class meetings and other similar functions that are developmentally appropriate. Larger project areas also provide adequate space for full grade level meetings, presentations, and performances.

OUTDOOR SPACE FOR PHYSICAL ACTIVITY

The use of outdoor spaces for physical education, athletics, recess, and curriculum-based learning will be an integral part of the learning at Tisbury's new PK-8 elementary school. Dedicated and age appropriate playground space is needed for all grades. A playground specifically for PK-1 grade cluster is necessary with easy access for these grade levels, as they will often have more than one recess per day. Space for grades 2-4 and 5-8 play areas can be integrated as long as they contain a variety of spaces and structures appropriate for the broad developmental and recreational needs of this age span. A soccer field and basketball court should be included in playground design.

A school garden, maintained by Island Grown Schools staff and Garden Club students and integrated across the K-8 science curriculum, should be easily accessible from an exit in close proximity to classroom clusters to ease access during class periods for a variety of grade levels. This area could include a greenhouse and composting facility as well.

PROFESSIONAL LEARNING AND TEACHER PLANNING

The new school's physical spaces will support a culture of professional learning characterized by: shared norms and values; a focus on student learning; making professional practice more visible; collaboration; and, inquiry, reflection, and analysis. We have moved past the mindset of a classroom teacher only being responsible for the general education students in his or her classroom toward a team approach that better balances the essential community of a classroom with the collective responsibility of a team of adults ensuring every student succeeds. The physical spaces where teachers meet and collaborate need to support this shift towards a professional learning culture and teams of adults taking responsibility for all of their students succeeding.

As designers of learning, teachers will spend time planning with colleagues to create the best learning experience for all students. Educators need appropriate and well-provisioned spaces to gather to analyze data, determine next steps for instruction, participate in a webinar, review student work, vet online resources, and read and discuss the contemporary literature of the profession. Suitable meeting space necessary for this variety of professional collaboration and learning is needed. These needs will be met with two work areas (one K-4 and another 5-8) that have tables for group work, storage for materials and professional resources, and individual workspaces.

LUNCH PROGRAM

The mission of the Tisbury School lunch program is to provide healthy, nutritious, affordable meals to the students and staff. Breakfast and lunch are served daily. As part of the National School Breakfast and Lunch Program, we follow guidelines set by the USDA regulating what qualifies as a healthy breakfast and lunch. Meals are cooked from scratch and we are continually looking for ways to improve our school meals. This effort is in partnership with the Wellness Committee and Island Grown Schools, groups committed to providing locally sourced foods in our school cafeteria. Plentiful freezer space is necessary for storage of local vegetables and fish, which are gleaned, harvested, and purchased “in season,” then frozen to be used later.

The Tisbury School cafeteria should be large enough so that the entire school is able to eat lunch over the course of two lunch periods. An appropriately sized cafeteria will ensure that lunch can both start and end at appropriate times. A neighboring staff lunchroom is desired.

TRANSPORTATION

The Tisbury School provides bus transportation for K-8 students residing more than 1.1 walking miles from the school. These students are transported at district expense. Families of students who live less than 1.1 miles from the school are responsible for their own transportation. The district will make exceptions for students whose needs are “safety” related. Appropriate Special Education transportation services are separate from regular bus transportation.

Two busses easily accommodate the current transportation needs of students. If the school is relocated to another area of town, it is possible that additional busses will be necessary to accommodate a greater number of students who qualify for transportation.

For students who walk to school, routes are staffed with a total of six crossing guards, in various locations. While the school community desires encouraging increased biking and walking to school, safety concerns with neighborhood roads and traffic make this prohibitive. An inordinate number of students are driven to school by parents daily. This is the most common method of transportation used by families.

FUNCTIONAL AND SPATIAL RELATIONSHIPS AND ADJACENCIES

Functional and spatial relationships and adjacencies are the key to the successful design of the new facility. These relationships between classrooms and programs in the school define the programmatic, functional, spatial, and environmental requirements of the educational facility and become the basis for the design at the next phase. The Tisbury School will rely upon adjacencies for communication, collaboration, flexible grouping, and teaming. Providing learning areas both in and outside classrooms for small group work, individual tutorial spaces, and additional instructional break out rooms are critical in a school with a focus on integrated classrooms at grades K-8, requiring specialized instruction and an emphasis on inclusive practices.

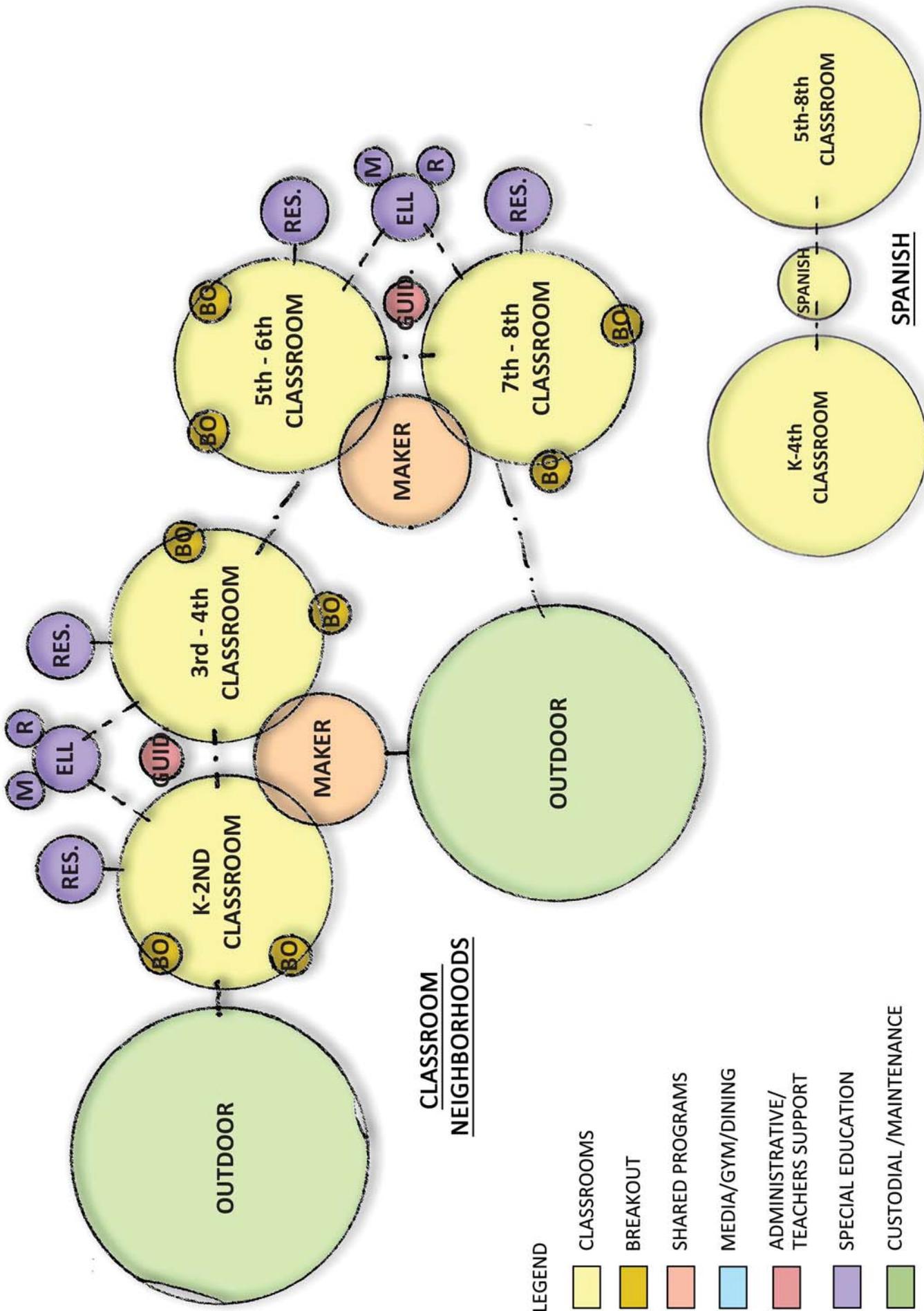
Community is a core value among students, staff and parents. The Tisbury School will be a warm and inviting place for children, staff and families. A priority for the students, staff and community is to retain a “small school” feel in the elementary school design. The school will require a welcoming main office and community arrival space that can accommodate a large morning influx of students, as well as active dismissal procedures. The students, faculty, and parent community value and require a space for the entire school to gather, both as a common space to gather and celebrate learning and as an area to spotlight the arts through assemblies and performances. A functional dining facility with a reasonable capacity is a need of the school. After school, we will provide extended day programming. Community gathering space is necessary, as well as smaller spaces for homework support, small group activities and gross motor play.

The Tisbury School will be a relationship-oriented community that practices and values inclusive partnerships and mutual support in all aspects of the school community. This is the overall spirit of the school that will drive the design of the facility.

SECURITY AND SAFETY

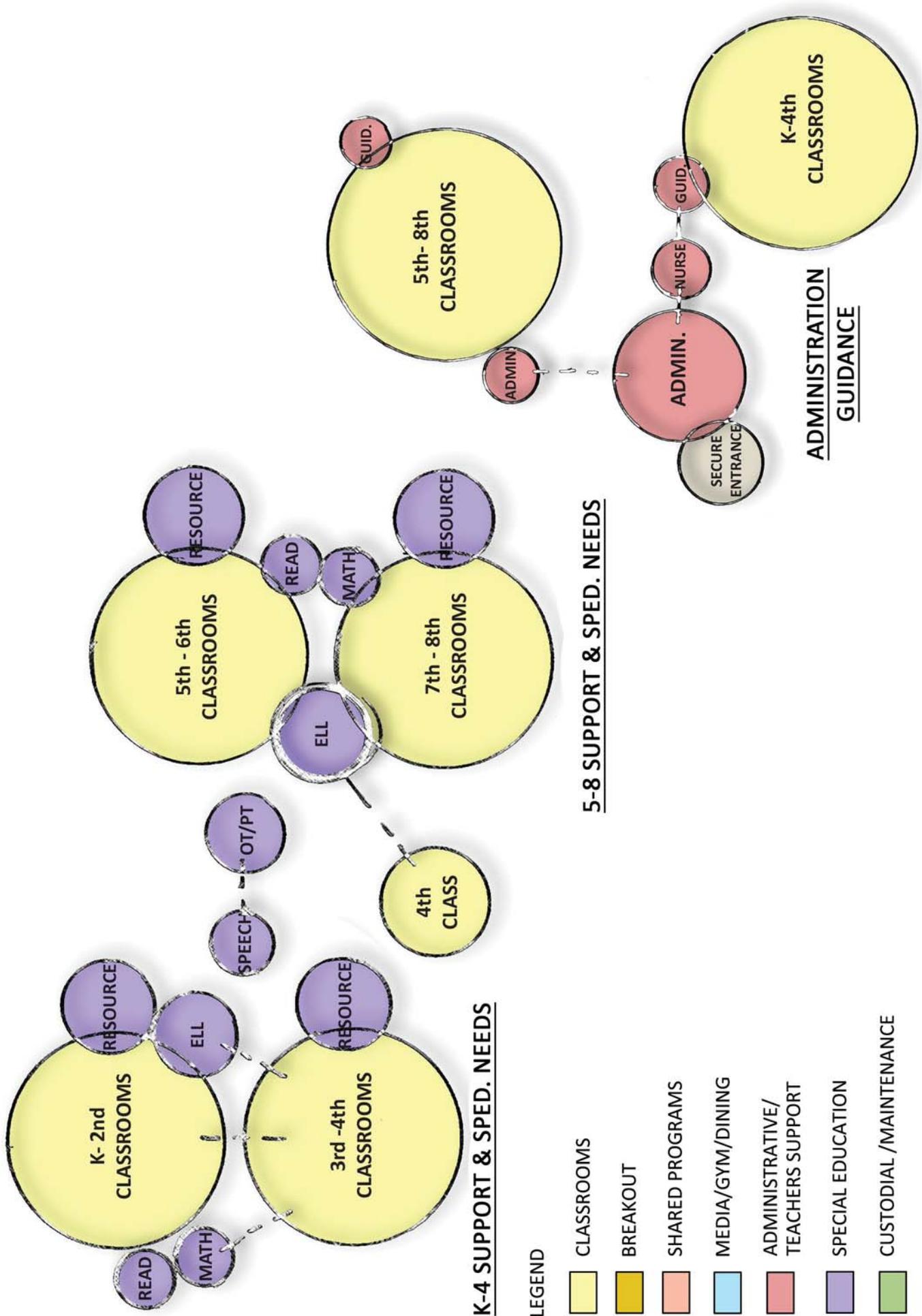
The new school facility will ensure the safe drop off of students, with safe secondary access for emergency needs. The Tisbury School requires:

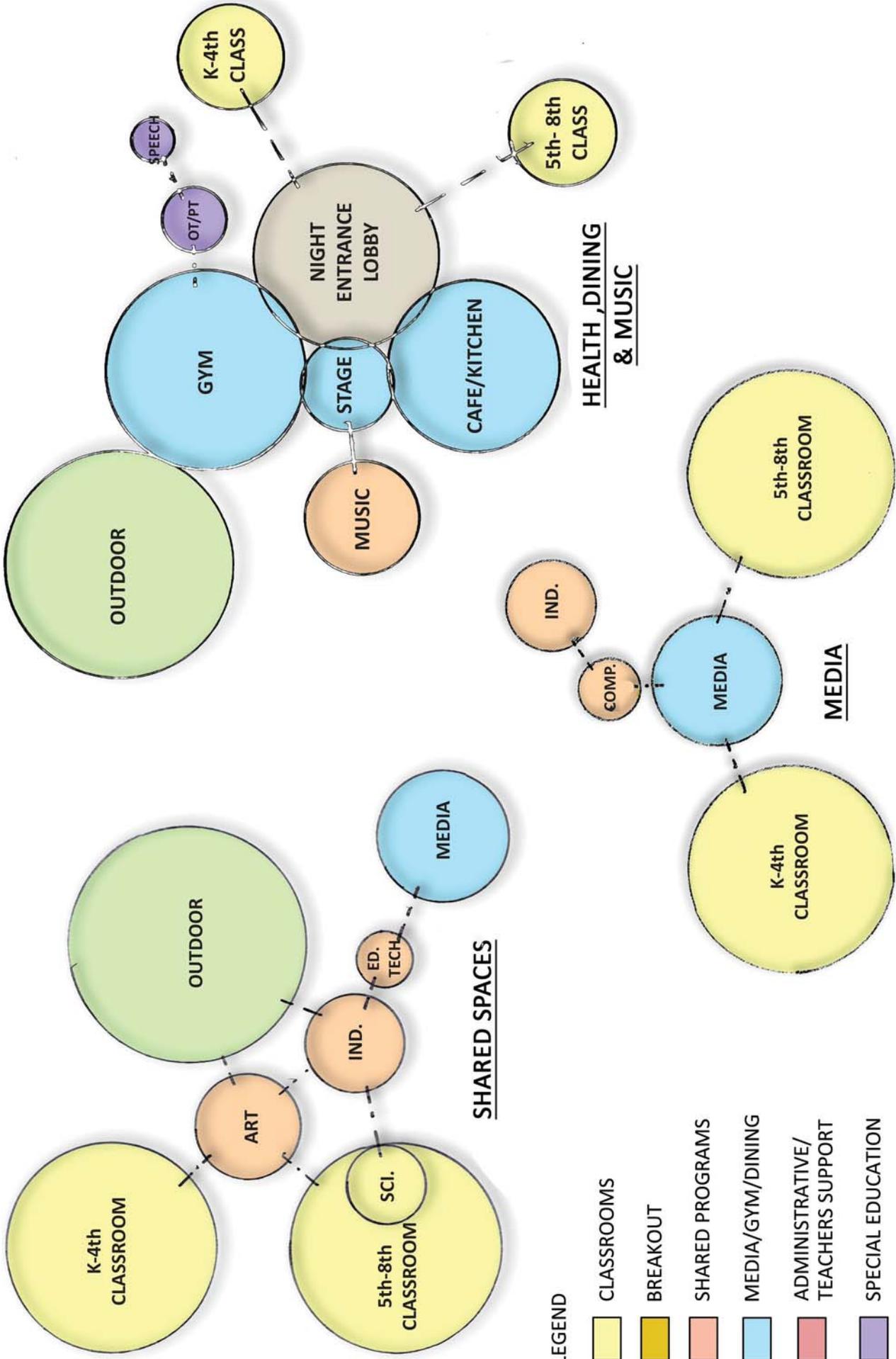
- Access Control utilizing a security access fob device by authorized staff
- Visual Security of entrances utilizing a video monitoring/recording system that will be monitored at the main office by administration and the School Resource Officer
- Safe staff parking
- Safe visitor parking
- Safe pathways for pedestrians and bicyclists coming from varied directions to the school
- Safe bus access systems that do not interfere with drop off and pick up traffic
- Safe recess grounds and play fields that can be properly supervised by staff and protected from vehicular traffic
- Visual monitoring of the driveway and parking lots
- Safe access for kitchen, facility, and shipping/receiving separate from school traffic at the main entrance
- Safe and appropriate access to the perimeter of the building and play fields



LEGEND

- CLASSROOMS
- BREAKOUT
- SHARED PROGRAMS
- MEDIA/GYM/DINING
- ADMINISTRATIVE/TEACHERS SUPPORT
- SPECIAL EDUCATION
- CUSTODIAL/MAINTENANCE





SECTION 1.3

(Initial Space Summary)

MODULE 3: PRELIMINARY DESIGN PROGRAM

1.3 INITIAL SPACE SUMMARY

1. OVERVIEW

A single space summary was developed representing a program for 285 Kindergarten through Grade 8 students plus 16 Pre-Kindergarten students. This space summary applies equally to both an addition/renovation and a new building scheme, as it is expected that the existing building would be reconfigured to conform to the space summary and educational programs, and its adaptability would be one measure of success of that option. Comparison between the existing space, MSBA guidelines and the proposed space follows:

	<u>NET</u>	<u>GROSS</u>	<u>EFFICIENCY</u>
Existing:	35,019	56,410	1.61
MSBA Guideline:	47,294	70,941	1.5
Proposed:	52,935	79,403	1.5

The most significant portion of proposed increases over MSBA guidelines is attributed to the Core Academics section of the space summary and the inclusion of a Pre-Kindergarten classroom, the provision for 2 classrooms per grade section, the provision for a dedicated World Language classroom, the provision for Small Group flexible use spaces, and the provision for dedicated Project Areas. A detailed listing of existing and proposed spaces is presented on the following pages. An explanation of differences from MSBA standards is also presented.

2. PROCESS AND OBSERVATIONS

Overview

The initial space summary represents the outcome of a planning process that included teachers, administrators, community members, architects, owner project managers and the building committee. The process included the following components:

- Analysis of existing educational facilities in use at the Tisbury School.
- A preliminary planning session with the Educational Leadership Team made up of school administrators and faculty.
- Two intensive full-day Visioning Sessions facilitated by David Stephens of New Vista Design, educational planning consultant to the design team. These sessions were conducted after existing conditions assessments and prior to developing the Educational Program and Space Summary.
- Meetings with individual faculty groups by section.
- Meetings with the school Principal.

- Review and refinement of the Educational Program developed by the District.
- Review and refinement of the initial Space Summary developed by the Design Team with input from the District and the Building Committee.

Analysis of Existing Educational Facilities

A detailed space use analysis and scaled building plans of the existing Tisbury School can be found in the Existing Conditions portion of this report (Section 1.4).

Visioning Session and Summary of Findings

In the course of the planning sessions, participants were presented an overview of research about learning and effective educational practices. The group shared thoughts about the Tisbury School's Strengths, Challenges, Opportunities and Goals (SCOG analysis) and established Priority Goals for the project, as well as more focused Learning Goals. The following learning goals were considered priorities:

- Effective Communication
- Empathy and Integrity
- Curiosity and Creativity
- Joy and Play
- Problem Solving and Critical Thinking
- Adaptability and Agility
- Citizenship and Ethics
- Disciplined Mind
- Community as a Resource

The group agreed the following learning goals were overarching, inherent in each of the above:

- The 5 C's (Critical Thinking, Communication, Collaboration, Creativity and Citizenship)
- Mastery of Core Content

A complete and expanded summary on the visioning sessions can be found in Appendix F.

Following the review and establishment of Learning Goals, Guiding Design Principles were developed. These design principles will be used by the Designers to inform spatial relationship and building layouts moving forward. Guiding Design Principals include:

- **Small School Feel, K-8 Pride**
 - Comfortable and Safe Learning Environment

- Unified Arts
- Heart of the Building
- Cafetorium with Gym Extension
- School Pride
- **Outdoor Learning**
 - Courtyard and Outdoor Classrooms
 - Inside Connections to Outside
 - Science Lab Connection
 - Central Space – Indoor / Outdoor
 - Playground and Resource Space
 - Gardens
- **Personalization, Connection and Ownership**
 - Whole Child
 - Wayfinding
 - Visible Learning
 - Kid’s Lounge / Teacher’s Lounge
 - STEAM and PBL
- **Adaptable Space**
 - Flexible Learning Spaces
 - Extended Learning
 - Learning Streets and Displays
 - Different Places to Learn
- **Sustainability**
 - Environmentally Friendly
 - Natural Light and Fresh Air
- **Community Collaboration / Cooperation**
 - Collaboration
 - Community Building
 - Common Areas to Work Together

The renovated or new building should be planned to promote the following:

- Central space(s) available to the community but also serving flexibly as school gathering spaces / lounge
- Unified Arts at the heart of the building, with strong connections to outdoors
- Ease of wayfinding, and wayfinding that isn’t just connecting spaces, but is itself designed as extended learning space
- Learning clusters that are small and personalized with strong connections to the outdoors, both physically and through views

- Learning clusters that offer flexible and differentiated spaces to promote a variety of activities and groupings of students
- Learning clusters that promote common work areas and collaboration

The Design Team and the District plan to hold future group planning sessions with the community as the project moves forward into the next phase.

3. INITIAL ASSESSMENT OF EXISTING TO PROPOSED

This initial space summary varies from the MSBA guidelines in several key areas. The total difference is a Net Increase of 6,141 NSF. The summary of variations is as follows:

Core Academic - Total Net Difference: 7,440 SF

1. Pre-Kindergarten
 - A single Pre-Kindergarten space is proposed vs. no Pre-K per MSBA
 - **Net difference: 1,100 SF**
2. Kindergarten
 - Two Kindergarten classrooms at 1,100 SF are proposed in lieu of 1 at 1,200 per MSBA
 - **Net difference: 1,000 SF**
3. General Classrooms for Grades 1-4
 - 8 classrooms at 900 SF are proposed in lieu of 6 at 950 SF per MSBA
 - **Net difference: 1,500 SF**
4. General Classrooms for Grades 5-8
 - 6 classrooms at 900 SF are proposed in lieu of 6 at 950 SF per MSBA
 - **Net difference: (300 SF)**
5. Science Classrooms
 - 2 classrooms at 600 SF and 1 lab at 1,200 SF in lieu of 2 classroom/labs @ 1,200 SF
 - No dedicated Prep Room vs. 2 dedicated Prep Rooms at 80 SF per MSBA
 - **Net difference: (160 SF)**
6. World Language Classroom (K-8)
 - 1 dedicated classroom vs. no classroom per MSBA
 - **Net difference: 900 SF**
7. Flexible Learning Spaces
 - 3 spaces at 200 SF for grades K-4
 - 2 spaces at 200 SF for grades 5-8
 - **Net difference: 1,000 SF**
8. K-4 and 5-8 Project Areas
 - 1 space at 1,200 SF for grade K-4

- 1 space at 1,200 SF for grades 5-8
- **Net difference: 2,400 SF**

Special Education - Total Net Difference: 170 SF

1. 2 Resource Rooms at 500 SF for K-4 vs 2 Self Contained Sp'Ed, with toilets at 1,010 SF per MSBA
 - **Net difference: (1,020 SF)**
2. 2 Resource Rooms at 500 SF for 5-8 vs 1 Self Contained Sp'Ed with toilet at 1,010 SF per MSBA
 - **Net difference: (10 SF)**
3. 1 ELL Room at 500 SF for K-3 vs 1 Resource Room at 500 SF or 1-5 per MSBA
 - **Net difference 0 SF**
4. 1 ELL Room at 500 SF for 4-8 vs. 1 Resource Room at 500 SF for 6-8 per MSBA
 - **Net difference 0 SF**
5. 4 Tutorials (Reading and Math) @200 SF vs. Small Group Reading Room at 500 SF per MSBA
 - **Net difference: 300 SF**
6. 1 Speech Room at 100 SF
 - **Net difference: 100 SF**
7. 1 OT/PT active room at 600 SF
 - **Net difference: 600 SF**
8. 1 OT/PT quiet room at 200 SF
 - **Net difference: 200 SF**

Art and Music - Total Net Difference: 300 SF

1. 2 Music Classrooms at 1,000 SF and 800 SF vs. 1 Music Classroom at 1,500 SF per MSBA
 - **Net difference: 300 SF**

Vocational and Technology - Total Net Difference: (1,000 SF)

1. 2 Tech Classrooms at 600 SF vs. 1 Tech Classroom at 1,200 SF per MSBA
 - **Net difference: 0 SF**
2. 1 Tech Shop at 1,000 SF vs. 1 Tech Shop at 2,000 SF per MSBA
 - **Net difference: 0 SF**

Health and Physical Education - Total Net Difference: (800 SF)

1. 2 Changing Rooms with toilets at 600 SF vs. 2 Locker Rooms and toilets at 1,000 SF per MSBA
 - **Net difference: 800 SF**

Media Center - Total Net Difference: 0 SF

Dining and Food Service – Total Net Difference: (400 SF)

1. Stage at 1,200 SF vs. 1,600 SF per MSBA
 - **Net difference: (400 SF)**

Medical – Total Net Difference: 0 SF

Administration and Guidance – Total Net Difference: (69 SF)

1. Principal Office at 150 SF vs. 375 SF
 - **Net difference: (225 SF)**
2. 2 Conference Rooms, 1 at 150 SF and 1 at 295 SF vs. 1 at 295 SF per MSBA
 - **Net difference: 150 SF**
3. No Principal Secretary vs. 1 at 150 SF per MSBA
 - **Net difference: (125 SF)**
4. 1 Assistant Principal at 150 SF vs. 1 @ 134 SF per MSBA
 - **Net difference: 16 SF**
5. 1 General Office at 400 SF vs. 1 at 300 Sf per MSBA
 - **Net difference: 100 SF**
6. 1 Combined Duplicating, Supply Teacher Mail Room at 270 SF vs 2 rooms, 1 at 100 SF and 1 at 172 SF per MSBA
 - **Net difference: (2 SF)**
7. 1 Supervisory Office at 100 SF vs. 1 at 133 SF per MSBA
 - **Net difference: (33 SF)**
8. 2 Teachers Work Rooms at 175 SF vs. 1 @ 300 SF per MSBA
 - **Net difference: 50 SF**

Custodial and Maintenance – Total Net Difference: 0 SF

Please refer to the following Space Summary



SHEET NO: **EX-1.0**

EXISTING LOWER LEVEL & BASEMENT PLANS

DATE: 3/28/2017 JOB NUMBER: 16-14 SCALE: AS NOTED

TISBURY SCHOOL
 40 W. WILLIAM STREET
 VINEYARD HAVEN, MA 02568

CONSULTANT:

Turowski2 Architecture
 P.O. Box 1290
 313 Wareham Road
 Marion, MA 02738



EXISTING MAIN LEVEL (SECOND FLOOR) PLAN

LEGEND

- CORE ACADEMIC
- BREAKOUT
- SPECIAL EDUCATION
- SHARED PROGRAMS
- MEDIA / HEALTH / DRINKING / GYMNASIUM
- ADMINISTRATION & MEDICAL
- CUSTODIAL & MAINTENANCE
- CIRCULATION
- RESTROOMS

SHEET NO: **EX-1.1**

EXISTING MAIN LEVEL PLAN

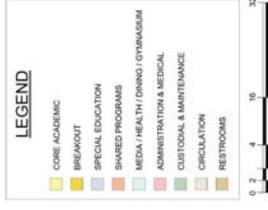
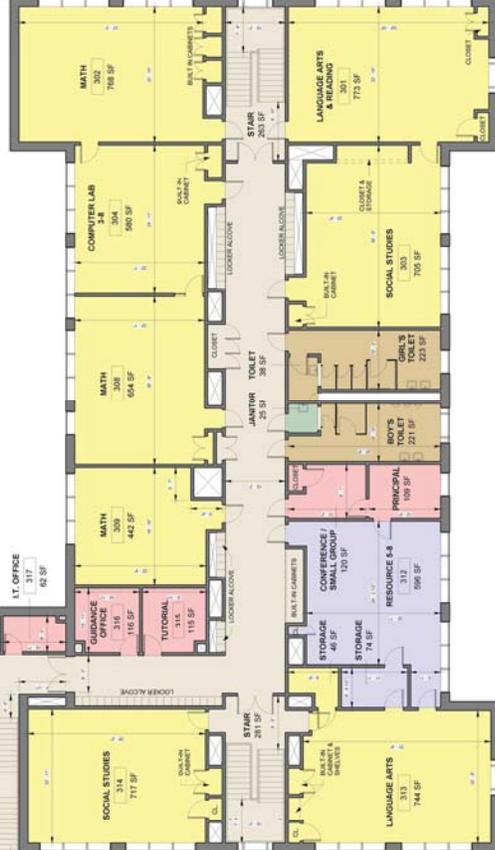
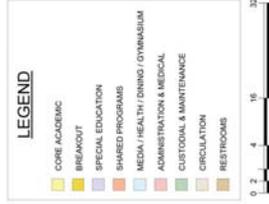
DATE: 3/28/2017 JOB NUMBER: 16-14 SCALE: AS NOTED

TISBURY SCHOOL
 40 W. WILLIAM STREET
 VINEYARD HAVEN, MA 02568

CONSULTANT:

Turowski2 Architecture
 P.O. Box 1290
 313 Wareham Road
 Marion, MA 02738





EXISTING UPPER LEVEL (THIRD FLOOR) PLAN

TISBURY SCHOOL 40 W. WILLIAM STREET VINEYARD HAVEN, MA 02568	SHEET NO: EX-1.2
	DATE: 3/28/2017 JOB NUMBER: 16-14 SCALE: AS NOTED
CONSULTANT: Turowski2 Architecture P.O. Box 1290 313 Wareham Road Marion, MA 02738	

SECTION 1.4

(Evaluation of Existing Conditions)

MODULE 3: PRELIMINARY DESIGN PROGRAM

1.4 EXISTING CONDITIONS

INTRODUCTION: SUMMARY OF PROPERTY RESTRICTIONS

1. LEGAL TITLE AND DEED

Current School – Assessor Map 8/A/1, Deed Reference Book 173, Page 132

The Town of Tisbury holds the title and deed to the property. The Town of Tisbury Assessor’s map, Assessor’s card, and the property Deed are attached in Appendix G. Also attached are MA GIS map data related to the site.

Tashmoo Well Site – Assessor Map 39/B/1, Deed Reference Book 210, Page 437

The Town of Tisbury holds the title and deed to the property. The Town of Tisbury Assessor’s map, Assessor’s card, and the property Deed are attached in Appendix G. Also attached are MA GIS map data related to the site.

Manter Well Site – Assessor Map 41/A/2, Deed Reference Book 441, Page 464

The Town of Tisbury holds the title and deed to the property. The Town of Tisbury Assessor’s map, Assessor’s card, and the property Deed are attached in Appendix G. Also attached are MA GIS map data related to the site.

2. APPROPRIATENESS FOR DEVELOPMENT

Please refer to Appendix H for MA GIS and Zoning Overlay Maps locating the three sites.

Current School

The site is currently used for a K-8 school and has been in continuous use as a school since the original construction in 1929. The size (5.15 acres) and topography of the site present clear challenges, including accessibility, the provision for adequate play areas and adequate on-site parking for faculty, staff and visitors. Being bounded on three sides provides certain opportunities, including inherent accessibility by emergency vehicles, and the ability to segregate traffic flows to and from the site.

The site offers several key advantages, including its history as use for a school, its proximity to the town’s public safety building (across Spring Street) and other town facilities such as the Senior Center, and proximity to the village – a walkable distance for many of the school children, and the only of three sites with ready connection to town sewer.

Tashmoo Well Site

Although substantially larger than the existing school site at 15 acres, the site also contains one of three wells that provide fresh drinking water to the town residents. The well has been operating since

approximately 1960 and is capable of drawing approximately 1M gallons per day, an important part of the town's water supply. While there are no known restrictions prohibiting a school and public well from occupying the same site, Massachusetts Drinking Water Regulations 310 CMR 22.0 require a 400' protected radius around the well, inside of which limited improvements can be made. While some improvements are allowed within the protected radius (as permissible by DEP), septic systems are not. Therefore, the protected radius of the well effectively reduces the useable site area to about ½ the total acreage. This reduction is compounded by the steep topography of the site, which further reduces the usable area of the site approximately to the size of the existing school site (+/- 5 acres).

Of the sites being considered this site is closer to the existing school. It fronts on a developed and legal road, is located north of State Road and closer to the populated areas of town. However, it is not within walking distance and there are no sidewalks connecting this site to the village. Its potential use is further compounded by the fact that the Tisbury Water Works has been pursuing incremental development of the site over the last few years, and has completed plans for a new maintenance facility building on the site, developed a driveway into the site and begun clearing land. They are seeking funds to construct the building at the annual Spring Town meeting. If the town was to select this site for a new school, the Water Department would have to delay their construction for the duration of the school feasibility study, and possibly find a new location for their maintenance building.

While closer proximity to the village is desirable, there are several key disadvantages to this site, including its current use as a well and the restrictions that imposes, its steep topography and limited point of access into the site, and the current plans by the Water Department to expand its operations to this site (see Evaluation of Alternatives, Section 1.6 of this report). Also, this site is not currently served by town sewer.

Manter Well Site

This site is the largest of the three available sites. At 39.6 acres it offers the greatest flexibility for development of a new school. Another contiguous parcel owned by the town could expand the site by an additional 8 acres if needed. Like the Tashmoo site, this site also contains one of three wells that provide fresh drinking water to town residents. This well has been operational since approximately 2006. While there are no known restrictions prohibiting a school and public well/water supply from occupying the same site, Massachusetts Drinking Water Regulations 310 CMR 22.0 require a 400' protected radius around the well, inside of which limited improvements can be made. While some improvements are allowed within the protected radius (as permissible by DEP), septic systems are not. While this site is not served by town sewer, there appears to be ample area to accommodate the school development and related utilities and facilities fully outside of the well radius.

This site is accessible from an existing road, Holmes Hole Road, which is semi-improved, and a good portion of which crosses through the Town of Oak Bluffs to the point of access into the site. Cooperation and coordination with Oak Bluffs to develop this road, and maintain it, would be critical to the success of this site.

This site offers a single strong advantage and a several disadvantages:

Advantage:

- Its size offers the greatest flexibility to develop a new school suitable for the educational program and the next 50 years.

Disadvantage:

- It is the furthest from the existing school located south of State Road and remote from the village population. This site would increase bus ridership to nearly 100%.
- It requires infrastructure development beyond the school property limits.
- It is not served by town sewer.

3. DEVELOPMENT RESTRICTIONS

Current School

Development restrictions for this site are limited:

- Existing town sewer WICK systems at the southeast edge of the site along W William Street require setback clearances which impact buildable area on the site. While these systems have not been made operational yet, there is plan to active them in the near future.
- NHESP restrictions if any which are to yet be determined.
- A Phase 1 site assessment has been performed. A Phase 2 site assessment is recommended based upon the findings in the Phase 1. This will be performed if this site is determined to be the preferred alternative in the next phase.
- Historical geotechnical data is available from previous projects. Further geotechnical exploration and analysis will be performed if this site is determined to be the preferred alternative in the next phase.

Tashmoo Well Site

Development restrictions of this site:

- Possible costs related to buy out of the Water Department
- MA Drinking Water Regulations development restrictions
- Lake Tashmoo Watershed development restrictions
- NHESP restrictions if any which are yet to be determined
- A Phase 1 site assessment will be performed if this site is further studied in the Preferred Schematic Phase.
- Preliminary geotechnical explorations and analysis will be performed if this site is further studied in the Preferred Schematic Phase.

Manter Well Site

Development Restriction for this site:

- MA Drinking Water Regulations development restrictions
- Lake Tashmoo Watershed development restrictions

- NHESP restrictions if any which are yet to be determined
- Public way access to the site
- A Phase 1 site assessment will be performed if this site is further studied in the Preferred Schematic Phase.
- Preliminary geotechnical explorations and analysis will be performed if this site is further studied in the Preferred Schematic Phase.

4. HISTORIC RESTRICTIONS

Current School

- Martha's Vineyard Revolutionary War Battlefield site under the jurisdiction of the Massachusetts Historical Commission. Impact to project unknown.
- No other known historical restrictions

Tashmoo Well Site

- Martha's Vineyard Revolutionary War Battlefield site under the jurisdiction of the Massachusetts Historical Commission. Impact to project unknown.
- No other known historical restrictions

Manter Well Site

- No known historical restrictions

MODULE 3: PRELIMINARY DESIGN PROGRAM

1.4. EXISTING CONDITIONS

5 SITE-CIVIL - TISBURY ELEMENTARY SCHOOL

EXISTING CIVIL SITE NARRATIVE

Nitsch Engineering has performed research of the existing site utility conditions and anticipated site permitting requirements for the Tisbury Elementary School located at 40 William Street (identified as Lot 1, Block A on Assessor Map 8) in Tisbury, Massachusetts. Nitsch Engineering's research included a site visit conducted on Tuesday, December 27, 2016 and research with the Tisbury Board of Health. Information included in this report is also based on record plans and compiled documents from T2 Architecture, Inc., Paul Wohler, Tisbury DPW and Paul Ernst, Superintendent/Lab Director Tisbury WWTF. (An existing conditions topographic survey is currently under way of the site by Nitsch Engineering). Nitsch Engineering reviewed the record plans and documents in preparing this document.

A summary of our observations and findings are listed below.

EXISTING SITE UTILITIES

Tisbury Elementary School consists of several buildings that includes the main school building, a temporary modular structure and some small shed outbuildings. The main school building was constructed in 1929 and has undergone renovations and additions from dates that range between 1939 and 1995. Based on record documents, and site observations, the summary descriptions below represent the site utility conditions/assumptions as we understand them at this time. (Nitsch Engineering understands that the temporary modular structure and small shed outbuildings are not served by utilities).

SEPTIC SYSTEM

The school is serviced by one (1) on-site septic system located on the easterly side of the school. Nitsch Engineering understands that the sewer flows that were previously directed to the septic system on the westerly side of the school were connected to the Tisbury sewage collection system, installed approximately 5-6 years ago.

Easterly Side

The easterly side of the school is serviced by an on-site septic system for the gymnasium showers. Sanitary flows from the gymnasium discharge by gravity through a 4-inch pipe to a cesspool being used

as a septic tank. The sewage then flows by gravity via a 4-inch PVC pipe to a distribution box. From the distribution box, there are three (3) 4-inch plastic pipes discharging sewer flows to leaching pits, each consisting of a 8-foot diameter precast concrete drywell with 1.5 feet of stone around the pit for a total effective diameter of 11 feet. Mr. Maher did not observe any vents at the leaching pits.

Westerly Side

The majority of sewer flows from the Tisbury Elementary School were previously discharged to an on-site septic system located to the west of the school. Originally, sanitary flows from the school discharged by gravity through a 6-inch cast iron pipe to an approximate 10,000-gallon septic tank located on the westerly side of the building. The sewage then flowed by gravity via a 4-inch PVC pipe to a 9-outlet distribution box that acts as a manhole. From this 'manhole', there are two (2) 4-inch pipes located to the north and south in the manhole in which each pipe gravity flows to another 9-outlet distribution box. From each of these 'north' and 'south' distribution boxes, there are seven (7) discharge pipes to leaching pits, each consisting of a 6-foot diameter precast concrete drywell with 4 feet of stone around the pit for a total effective diameter of 15 feet. Mr. Maher observed three (3) access manholes for the manhole and distribution boxes. Mr. Maher did not observe any vents at the distribution boxes. Nitsch Engineering understands that the sanitary line to the septic tank was cut and capped, the tank was filled with sand and the soil absorption system was abandoned in place approximately 5-6 years ago when the school flows were connected to the Tisbury sewage collection system.

Nitsch Engineering understands that there is a sanitary sewer connection from the Elementary School to the sewer pump station located on the site near Spring Street that is then connected to the Town's Sewer System. Nitsch Engineering understands that this work was performed by the Town and that there are no known plans or other documents indicating this sewer connection. Nitsch Engineering recommends that further engineering studies (ground-penetrating-radar [GPR], televising the sewer lines, etc.) be performed to determine the location of the sewer lines.

There appears to be a sewer pump station located on school property off Spring Street near a small on-site parking lot by the 'White House Building'.

Mr. Maher did not observe any external grease traps for the school. Mr. Maher did not observe any pumping records on file with the Board of Health.

Record plans indicate a 55-gallon acid neutralizing tank located on the westerly side of the building. There is a separate 4-inch inlet pipe to the tank and a 4-inch outlet pipe that connects to the existing 6-inch sanitary sewer line from the building and prior to the septic tank.

There are two (2) effluent disposal (septic) wicks located on school property off William Street. According to a report entitled, "Tisbury Effluent Disposal Engineering Report in support of Groundwater Discharge Permit Application for the Department of Public Works, Tisbury, Massachusetts" dated August 2015, prepared by Wright-Pierce, the 24-inch diameter wicks were installed in 2013. The report mentions that "An effluent disposal wick is a vertical subsurface structure built for the purpose of transporting highly treated effluent to the groundwater. A wick is basically a large diameter borehole that can be partially or completely filled with gravel pack. The entire top of the wick can be enclosed in a

precast concrete structure to protect it from the elements and vandalism. This type of system has a low profile, utilizes a small footprint, and fits well within the Elementary School site.” Each wick is connected to a 4-inch force main that connects to a Wick Flow Distribution Structure (8’x16’) located between the wicks. There is a 6-inch sewer force main from the Wastewater Treatment Facility (extension from Pine Tree Road) to the structure. Nitsch Engineering understands that the wicks are not in service at this time.



MANHOLE COVERS OF SEPTIC DISTRIBUTION BOXES



SEPTIC WICK #1



SEPTIC WICK #2



SEWER PUMPING STATION

STORM WATER SYSTEM

Other than some leaching catch basins that collect stormwater runoff at various locations of the Tisbury Elementary School site, a majority of the stormwater runoff from the site appears to sheet flow onto abutting roadways and properties. Mr. Maher did not observe any on-site collection storm drain system.

The MEP/FP System Existing Conditions Report for the Tisbury School prepared by Garcia, Galuska & DeSousa dated December 4, 2012 included in the Flansburgh Architects, Inc. Feasibility Study (and Sections 9 and 10 of this report by Griffith & Vary) indicates that rain water from flat roof areas is discharged with a series of roof drains connected to rain leaders and storm drains discharging to a collection system. The runoff from the sloped roofs areas is collected by gutters and downspouts which discharge to a collection system or on grade. The termination of the storm water is unknown and appears to be directed to an existing on site drywell system.



LEACHING CATCH BASIN AT SOUTHWEST BUILDING CORNER



SPRING STREET PARKING LOT TO THE NORTHEAST OF BUILDING



DOWNSPOUT CONNECTION IN GROUND AT BUILDING



GUTTER & DOWNSPOUT AT REAR OF BUILDING

WATER

The plans that were provided for this review indicate two (2) service connections from an existing 12-inch water main in Spring Street. One is a 6-inch fire protection service connection to the rear of the building. The other is a 4-inch domestic water service connection to the rear of the school. According to Mr. Ernst, the water lines were installed by directional drilling.

During the site visit, Mr. Maher did not observe a post indicator valve on the fire service line.

Mr. Maher also observed three (3) fire hydrants in close proximity to the school building: one located at the rear of the school on Spring Street; one located at the front of the school at the intersection of William Street and Rogers Way and the other located on the westerly side of the school building on William Street at the half-circle shaped parking lot exit.

There is a fire department/service connection located at the rear of the school

The domestic water service appears to be connected to a 2-inch water meter (No. 0060849005) located in the boiler room.



FIRE HYDRANT BEHIND SCHOOL ON SPRING STREET



FIRE HYDRANT IN FRONT OF SCHOOL ON WILLIAM STREET AT PARKING LOT



FIRE HYDRANT AT WILLIAM STREET AND ROGERS WAY



FIRE DEPARTMENT/SERVICE CONNECTION AT REAR OF SCHOOL



2-INCH WATER METER IN BOILER ROOM

GAS

The plans that were provided for this review indicate a 1¼-inch gas service to the building from a propane gas storage tank located at the rear of the building.

UNDER/ABOVE GROUND TANKS

Two (2) tanks, a below grade tank of an unknown size and a smaller above ground tank was observed behind the school.



BELOW GRADE TANK



ABOVE GRADE TANK

DUMPSTER

A trash dumpster was observed on the southerly side of the building.



DUMPSTER BEHIND SCHOOL BUILDING

SOIL CONDITIONS

Based on the Natural Resources Conservation Service (NRCS) Web Soil Survey (2011), the majority of the soils for the Tisbury Elementary School is classified as Carver loamy coarse sand of varying slopes. Carver Loamy Coarse Sand is classified as a Hydrologic Soil Group (HSG) Type A and is described as very rapid with high permeability rates greater than 20 inches/hour. Further investigation (test pits and percolation tests) will be needed to determine groundwater elevations and in-situ infiltration capacities to support new septic and stormwater infrastructure.

SCHOOL ZONE SIGN

A solar powered flashing school zone sign was observed on each of the approaching streets (William Street, Spring Street, West Spring Street, Martin Street, Pine Street and Pine Tree Road) to the Tisbury Elementary School.



FLASHING SCHOOL ZONE SIGN ON WEST SPRING STREET

PRELIMINARY PERMITTING CONSIDERATIONS – Tisbury Site

WETLANDS/WETLANDS PROTECTION ACT (310 CMR 10.00)

The Wetlands Protection Act ensures the protection of Massachusetts' inland and coastal wetlands, tidelands, great ponds, rivers, and floodplains. It regulates activities in coastal and wetlands areas, and contributes to the protection of ground and surface water quality, the prevention of flooding and storm damage, and the protection of wildlife and aquatic habitat.

A review of the Massachusetts Department of Environmental Protection (DEP) wetland layers available on the Massachusetts Geographic Information System (MassGIS), dated April 2009 indicates no wetland resource areas located within 200 feet of the Tisbury Elementary School site.

Work performed within resource areas or buffer zones would require the filing of a Notice of Intent (NOI) with the Tisbury Conservation Commission and the Massachusetts Department of Environmental Protection.

FLOOD PLAIN

Based on the Flood Insurance Rate Map (FIRM), Community Panel Numbers 25007C0103J dated July 20, 2016, the Tisbury Elementary School site is located in Zone X (Areas determined to be outside the 0.2% annual chance floodplain).

NATIONAL HERITAGE AND ENDANGERED SPECIES ACT (NHESP)

A review of the 13th Edition of the Massachusetts Natural Heritage Atlas prepared by the Natural Heritage and Endangered Species Program (NHESP), dated October 1, 2008, indicates that a portion of the Tisbury Elementary School site is located within a Priority Habitat of Rare Species or an Estimated Habitat of Rare Wildlife and that there are no vernal pools on or adjacent to the site. It appears that the project will require NHESP review.

MASSACHUSETTS HISTORICAL COMMISSION (MHC)

It appears that the Tisbury Elementary School site is located within the Martha's Vineyard American Revolution Battlefield designation.

Any projects that require funding, licenses, or permits from any state agency must be reviewed by MHC in compliance with Massachusetts General Laws Chapter 9, sections 26-27C. This law creates the MHC, the office of the State Archaeologist, and the State Register of Historic Places among other historic

preservation programs. It provides for MHC review of state projects, State Archaeologist's Permits, the protection of archaeological sites on public land from unauthorized digging, and the protection of unmarked burials.

AREA of CRITICAL ENVIRONMENTAL CONCERN (ACEC)

A review of the Massachusetts Geographic Information System (MassGIS) dated April 2009, indicates that the Tisbury Elementary School site is NOT located within any Area of Critical Environmental Concern.

US EPA NPDES

Construction activities that disturb more than one (1) acre of area are regulated under the United States Environmental Protection Agency's (EPA) National Pollution Discharge Elimination System (NPDES) Program. In Massachusetts, the USEPA issues NPDES permits to operators of regulated construction sites. Regulated projects are required to develop and implement stormwater pollution prevention plans (SWPPPs) in order to obtain permit coverage. All proposed options being considered will disturb more than one (1) acre and will require this permit.

SURFACE WATER SUPPLY PROTECTION (310 CMR 22.20)

The Massachusetts Department of Environmental Protection (DEP) ensures the protection of surface waters used as sources of drinking water supply from contamination by regulating land use and activities within critical areas of surface water sources and tributaries and associated surface water bodies to these surface water sources.

The Tisbury Water works receives its water from three (3) supply sources: The Sanborn Well, the Tashmoo Well and the Manter Well. All sources are groundwater supplied from the Island's sole source aquifer. A review of the Massachusetts DEP resource layers available on the MassGIS indicates the Tisbury Elementary School is not located within a Water Supply Protection Zone, and appears to not require permitting under 310 CMR 22.20.

PERMITTING TABLE TIMELINE

Permit	Permitting Authority	Anticipated Filing Date	Anticipated Approval Date
MEPA Certificate	EOEA	After SD	Up to 6 months+
Planning Board Site Plan Review (If Required)	Town of Tisbury Planning Board	From SD to DD	Up to 6 months+
Massachusetts Historical Commission	Secretary of State	At SD	Up to 4 months+
National Pollutant Discharge Elimination System (NPDES) with EPA Notice of Intent (NOI)	Environmental Protection Agency (EPA)	After 100% CD	Once Submitted; Close NOI at end of Construction with Notice of Termination (NOT)

PRELIMINARY PERMITTING CONSIDERATIONS – Tashmoo Site

WETLANDS/WETLANDS PROTECTION ACT (310 CMR 10.00)

The Wetlands Protection Act ensures the protection of Massachusetts' inland and coastal wetlands, tidelands, great ponds, rivers, and floodplains. It regulates activities in coastal and wetlands areas, and contributes to the protection of ground and surface water quality, the prevention of flooding and storm damage, and the protection of wildlife and aquatic habitat.

A review of the Massachusetts Department of Environmental Protection (DEP) wetland layers available on the Massachusetts Geographic Information System (MassGIS), dated April 2009 appears to indicate that there wetland resource areas located within 200 feet of the proposed Tisbury Elementary School site in order to obtain an Order of Conditions.

Work performed within resource areas or buffer zones would require the filing of a Notice of Intent (NOI) with the Tisbury Conservation Commission and the Massachusetts Department of Environmental Protection.

FLOOD PLAIN

Based on the Flood Insurance Rate Map (FIRM), Community Panel Numbers 25007C0103J dated July 20, 2016, the proposed Tisbury Elementary School site is located in Zone AE (Base Flood Elevations determined – El. 10) and Zone X (Areas determined to be outside the 0.2% annual chance floodplain).

NATIONAL HERITAGE AND ENDANGERED SPECIES ACT (NHESP)

A review of the 13th Edition of the Massachusetts Natural Heritage Atlas prepared by the Natural Heritage and Endangered Species Program (NHESP), dated October 1, 2008, indicates that a portion of the proposed Tisbury Elementary School site is located within a Priority Habitat of Rare Species or an Estimated Habitat of Rare Wildlife and it appears that there are no vernal pools on or adjacent to the site. It appears that the project will require NHESP review.

MASSACHUSETTS HISTORICAL COMMISSION (MHC)

It appears that the proposed Tisbury Elementary School site is located within the Martha's Vineyard American Revolution Battlefield designation.

MASSACHUSETTS HISTORICAL COMMISSION (MHC) – continued

Any projects that require funding, licenses, or permits from any state agency must be reviewed by MHC in compliance with Massachusetts General Laws Chapter 9, sections 26-27C. This law creates the MHC, the office of the State Archaeologist, and the State Register of Historic Places among other historic preservation programs. It provides for MHC review of state projects, State Archaeologist's Permits, the protection of archaeological sites on public land from unauthorized digging, and the protection of unmarked burials.

AREA of CRITICAL ENVIRONMENTAL CONCERN (ACEC)

A review of the Massachusetts Geographic Information System (MassGIS) dated April 2009, indicates that the proposed Tisbury Elementary School site does NOT appear to be located within any Area of Critical Environmental Concern.

US EPA NPDES

Construction activities that disturb more than one (1) acre of area are regulated under the United States Environmental Protection Agency's (EPA) National Pollution Discharge Elimination System (NPDES) Program. In Massachusetts, the USEPA issues NPDES permits to operators of regulated construction sites. Regulated projects are required to develop and implement stormwater pollution prevention plans (SWPPPs) in order to obtain permit coverage. All proposed options being considered will disturb more than one (1) acre and will require this permit.

SURFACE WATER SUPPLY PROTECTION (310 CMR 22.00)

The Massachusetts Department of Environmental Protection (DEP) ensures the protection of surface waters used as sources of drinking water supply from contamination by regulating land use and activities within critical areas of surface water sources and tributaries and associated surface water bodies to these surface water sources.

The Tisbury Water works receives its water from three (3) supply sources: The Sanborn Well, the Tashmoo Well and the Manter Well. All sources are groundwater supplied from the Island’s sole source aquifer. A review of the Massachusetts DEP resource layers available on the MassGIS indicates the proposed Tisbury Elementary School is located within a DEP Water Supply Zone Protection Area (Zone II) and appears to require permitting under 310 CMR 22.00.

TISBURY BOARD OF HEALTH

In accordance with Section 15.254 of the State Environmental Code (310 CMR - Title V), all septic systems that generate 2,000 GPD or more require a pressure dosing system. An area to the north of the site appears to be located outside the Water Supply Protection Zone for the siting of an on-site septic system.

New on-site waste treatment systems and system upgrades which are deployed in the Watershed Districts employ ‘best available de-nitrification technology’, removing significantly more wastewater nitrogen than standard Title 5 septic systems. Suitable technologies include those approved for pilot program use by the Massachusetts Department of Environmental Protection, thus enabling the Board of Health to partner with property owners and septic engineers in the in-field testing of innovative de-nitrification technologies.

PERMITTING TABLE TIMELINE

Permit	Permitting Authority	Anticipated Filing Date	Anticipated Approval Date
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Massachusetts Historical Commission	Secretary of State	At SD	Up to 4 months+
National Pollutant Discharge Elimination System (NPDES) with EPA Notice of Intent (NOI)	Environmental Protection Agency (EPA)	After 100% CD	Once Submitted; Close NOI at end of Construction with Notice of Termination (NOT)

Groundwater Discharge Permit	Massachusetts Department of Environmental Protection (DEP)	After SDs	Up to 6 months+
Disposal Works Construction Permit	Tisbury Board of Health	Prior to installation of Septic System	Up to 1 month
Notice of Intent (NOI) filing to obtain an Order of Conditions (OoC)	Tisbury Conservation Commission & DEP	After 100% DD	Up to 3 months+
MESA Project Review Checklist Application	Natural Heritage and Endangered Species Program (NHESP)	Before SDs	Up to 3 months+
Filed in conjunction with NOI (If the MSEA Checklist is performed before the NOI is filed, then this action would not apply)	NHESP	After 100% DD	Up to 3 months+

PRELIMINARY PERMITTING CONSIDERATIONS – Manter Site

WETLANDS/WETLANDS PROTECTION ACT (310 CMR 10.00)

The Wetlands Protection Act ensures the protection of Massachusetts' inland and coastal wetlands, tidelands, great ponds, rivers, and floodplains. It regulates activities in coastal and wetlands areas, and contributes to the protection of ground and surface water quality, the prevention of flooding and storm damage, and the protection of wildlife and aquatic habitat.

A review of the Massachusetts Department of Environmental Protection (DEP) wetland layers available on the Massachusetts Geographic Information System (MassGIS), dated April 2009 appears to indicate that there are no wetland resource areas located within 200 feet of the Tisbury Elementary School site.

Work performed within resource areas or buffer zones would require the filing of a Notice of Intent (NOI) with the Tisbury Conservation Commission and the Massachusetts Department of Environmental Protection.

FLOOD PLAIN

Based on the Flood Insurance Rate Map (FIRM), Community Panel Number 25007C0111J dated July 20, 2016, the proposed Tisbury Elementary School site appears to be located in Zone X (Areas determined to be outside the 0.2% annual chance floodplain).

NATIONAL HERITAGE AND ENDANGERED SPECIES ACT (NHESP)

A review of the 13th Edition of the Massachusetts Natural Heritage Atlas prepared by the Natural Heritage and Endangered Species Program (NHESP), dated October 1, 2008, indicates that a portion of the Tisbury Elementary School site is located within a Priority Habitat of Rare Species or an Estimated Habitat of Rare Wildlife and that there are no vernal pools on or adjacent to the site. It appears that the project will require NHESP review.

AREA of CRITICAL ENVIRONMENTAL CONCERN (ACEC)

A review of the Massachusetts Geographic Information System (MassGIS) dated April 2009, indicates that the proposed Tisbury Elementary School site is NOT located within any Area of Critical Environmental Concern.

US EPA NPDES

Construction activities that disturb more than one (1) acre of area are regulated under the United States Environmental Protection Agency's (EPA) National Pollution Discharge Elimination System (NPDES) Program. In Massachusetts, the USEPA issues NPDES permits to operators of regulated construction sites. Regulated projects are required to develop and implement stormwater pollution prevention plans (SWPPPs) in order to obtain permit coverage. All proposed options being considered will disturb more than one (1) acre and will require this permit.

SURFACE WATER SUPPLY PROTECTION (310 CMR 22.20)

The Massachusetts Department of Environmental Protection (DEP) ensures the protection of surface waters used as sources of drinking water supply from contamination by regulating land use and activities within critical areas of surface water sources and tributaries and associated surface water bodies to these surface water sources.

The Tisbury Water works receives its water from three (3) supply sources: The Sanborn Well, the Tashmoo Well and the Manter Well. All sources are groundwater supplied from the Island's sole source aquifer. A review of the Massachusetts DEP resource layers available on the MassGIS indicates the

proposed Tisbury Elementary School is located within a DEP Water Supply Zone Protection Area (Zone II) and appears to require permitting under 310 CMR 22.00.

TISBURY BOARD OF HEALTH

In accordance with Section 15.254 of the State Environmental Code (310 CMR - Title V), all septic systems that generate 2,000 GPD or more require a pressure dosing system.

New on-site waste treatment systems and system upgrades which are deployed in the Watershed Districts employ ‘best available de-nitrification technology’, removing significantly more wastewater nitrogen than standard Title 5 septic systems. Suitable technologies include those approved for pilot program use by the Massachusetts Department of Environmental Protection, thus enabling the Board of Health to partner with property owners and septic engineers in the in-field testing of innovative de-nitrification technologies.

PERMITTING TABLE TIMELINE

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Groundwater Discharge Permit	Massachusetts Department of Environmental Protection (DEP)	After SDs	Up to 6 months+
Disposal Works Construction Permit	Tisbury Board of Health	Prior to installation of Septic System	Up to 1 month
MESA Project Review Checklist Application	Natural Heritage and Endangered Species Program (NHESP)	Before SDs	Up to 3 months+

Appendix A – Maps

Locus Map

Soils Maps

Flood Insurance Rate Maps

Assessor Map

Massachusetts Historical Commission Historic Inventory Map



Figure X: NHESP and MHC Historic Area
Tisbury Elementary School
Tisbury, Massachusetts



Figure X: Contours
 Tisbury Elementary School
 Tisbury, Massachusetts

Soil Map—Dukes County, Massachusetts
(Tisbury Elementary School)



Map Scale: 1:2,180 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

- Area of Interest (AOI)**
 - Area of Interest (AOI)
- Soils**
 - Soil Map Unit Polygons
 - Soil Map Unit Lines
 - Soil Map Unit Points
- Special Point Features**
 - Blowout
 - Borrow Pit
 - Clay Spot
 - Closed Depression
 - Gravel Pit
 - Gravelly Spot
 - Landfill
 - Lava Flow
 - Marsh or swamp
 - Mine or Quarry
 - Miscellaneous Water
 - Perennial Water
 - Rock Outcrop
 - Saline Spot
 - Sandy Spot
 - Severely Eroded Spot
 - Sinkhole
 - Slide or Slip
 - Sodic Spot
- Water Features**
 - Streams and Canals
- Transportation**
 - Rails
 - Interstate Highways
 - US Routes
 - Major Roads
 - Local Roads
- Background**
 - Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Dukes County, Massachusetts
Survey Area Data: Version 12, Sep 14, 2016

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 30, 2011—Oct 8, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Dukes County, Massachusetts (MA007)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
259B	Carver loamy coarse sand, 3 to 8 percent slopes	22.3	95.1%
259C	Carver loamy coarse sand, 8 to 15 percent slopes	1.1	4.9%
Totals for Area of Interest		23.5	100.0%



Data Source: MassGIS
 Nitsch Project #11915



MODULE 3: PRELIMINARY DESIGN PROGRAM
1.4 EXISTING CONDITIONS

6 LANDSCAPE-TISBURY SCHOOL

TOPOGRAPHY

The existing Tisbury School site features a considerable amount of grade change, with the school centrally located on a high point and open spaces/play fields below on either side. The elevation within the school parcel ranges from +98' at the front entrance and rear service entrance (highest), to +84' at the lowest points on both of the fields. The transition from the school to the east field is relatively steep, ranging from a slope of ~30% at the gymnasium entrance to the lower parking lot, to ~20% from the entrance drive off W William St. The east field is relatively flat, with a slope of ~1.5% pitching away from the school towards the northeast corner. The west field has a flat lower area where the soccer field is located, and slopes up to the west entrance of the school at ~5% across the area where the play equipment is located. W William St, along the south side of the site, is level with the front entrance to the school in the center, but as the lower fields slope away to the east and west, it sits 4-6' above the lower fields with slopes of 10-30% down to the fields. Spring St, which runs along the north of the site, is slightly lower, and is more or less at grade with the fields, with the sidewalk 5-8' below the school at its midpoint. These changes in elevation have created challenges in providing accessible routes to the school and between its various outdoor spaces. The front entrance to the school is located on the second floor, which is ½ story above adjacent grade and is accessed by a single set of 11 stairs. Handicapped accessible entrances are located on the lower level at the west end and at a handicap ramp at the east gymnasium entrance.

VEGETATION

The school site itself is relatively open, though it does contain a number of mature trees, both planted and naturalized, as well as some smaller, recently planted specimens. The only adjacent private properties are located to the east, with a few residential lots covered by mature trees, primarily oak/maple/locust mix. There are a number of mature sugar maple trees that surround the west field, though there are gaps where it appears previous plantings have failed. Some of these maples are in a severe state of decline and should be removed. There are four large historic oak trees, exceeding 24" in diameter, located to the north and east of the school along Spring St, which should be preserved and protected if possible. Also of considerable value to the neighborhood are flowering cherry trees at the south entrance that border the driveway island and frame the front entrance of the school. Additional noteworthy trees include a grove of mature honey locust at the west entrance, and a row of black locust along W William St on the south side of the east field. There is at least one memorial tree, an immature

flowering dogwood with a plaque at the southeast corner of the building. There is a mature yew planted against the south side of the building next to the main entrance that is overgrown and should be removed. Many of the trees on site are growing in compacted soils and other suboptimal conditions, and would require professional care in order to enable their longevity. All existing trees are in need of pruning and fertilization.

Additional plantings include ornamental beds at the main entrance island, west entrance, and gymnasium steps, as well as several large specimen shrubs located around the site. There are two formal gardening areas for growing vegetables, located in the east and west fields. The east field garden includes several raised beds and a storage shed. The west garden includes more raised beds, a storage shed, and composting areas.

The turfgrass on both fields is in very poor condition, resulting from severe compaction, poor drainage/erosion, and lack of maintenance. The two soccer fields are sparsely covered, and all lawn areas contain significant bare spots. The recreational fields lack the irrigation needed to provide a safe and healthy playing environment.

Figure 1: Existing trees around project site



Figure 2: Views of existing vegetation



SITE STRUCTURES

In addition to the main school building, there is what was meant to be a temporary trailer (see next page) which currently houses the special education classrooms. Other accessory structures include a storage sheds in the north parking lot and east ball field, as well as garden sheds in the east and west fields. The garden sheds appear to be insufficient for meeting the current needs, as the adjacent areas are also used for storing materials outside. The adjacent properties to the east include single family residential homes and undeveloped wooded lots. Across W William St to the south are more single family residences, as well as the American Legion Post #257. Across Pine Tree Rd to the west is Oak Grove Cemetery. Across Spring St to the north is the Town Emergency Medical Services facility, off-site school parking, the offices of Martha's Vineyard Public Schools, and more single family residential homes.

Figure 3: Views of existing site structures



SOLAR ORIENTATION

The school sits atop a hill, sloping to the east and to the west. The long axis of the parcel runs roughly east-west, with the building's front façade facing 9° east of south, though the primary entrance is from the west. The west entrances have fairly consistent shade coverage from trees, the south face is sparsely planted and very exposed. The service entry on the north side of the building is enclosed on three sides, with tall trees on the open north side, creating a cool and damp environment, which is likewise undesirable for classrooms which face into this area. The ideal solar orientation for most passive solar design strategies is with the longest side and windows facing north/south.

OTHER CLIMATIC FACTORS

Prevailing breezes in the region see a southwesterly wind direction in the summer months and cold northwesterly winds in the winter. Sited atop a hill that slopes down .5 miles ENE to the harbor that is open to the north east, the school can take advantage of this natural cooling from ocean winds in the summer and fall, but can be subject to high wind exposure, particularly during “nor’easter” events.

SCHOOL BUS SERVICE

The school currently has two buses that provide pickup and drop off along the loop at the north side of the building at Spring St. A sidewalk island separates the drop off area from the street, but there is no curbside pickup; students enter and exit the buses from the street level. The current configuration will not accommodate additional buses, should there be an increase in enrollment. Because this area is lower than the school’s west entrance, students must ascend a set of stairs or make their way up and around the sloped driveway to access the building.

Figure 4: Views of existing bus drop off area



PARENT DROP OFF AREAS

Parent drop off occurs along the semicircular drive at W William St on the south side of the building. The current drive is not wide enough to accommodate separate lanes for both through traffic and pulling over, resulting in a queuing of cars along W William St. The sidewalk in this area has deteriorated significantly, and the entrance here is at the top of a set of steps. Students must access the building through the lower level at the west side via a sloped walkway, creating accessibility issues. Any new design needs to incorporate safe and universally accessible routes to and from the building without the need to redirect students from the most direct route.

Figure 5: Views of existing parent drop off area



PARKING

Parking is currently provided at several lots on site, with an additional lot across Spring St. The largest parking lot lies at the northeast corner of the site off of Main St, and has approximately 53 spaces, 5 of which are reserved for visitors. This lot is used primarily for visitor parking and for the superintendent's office, located across the street to the north. At the drop off area at W William St there are two areas of reserved parking for administrators and staff located to the east and west of the front entrance, with 4 and 5 spaces, respectively. Of the 5 spaces to the west, 2 of these are reserved for handicapped parking, but lack the proper access aisles. Additional staff lots are located on the north side of the building bus drop off area (10 spaces), and the service entrance for maintenance staff (5 spaces). Total parking on site is approximately 71 spaces, and does not meet the required spaces for 75 staff members. Staff

parking is currently provided at the American Legion parking lot, across W William St to the south. The .30 acre dirt lot on the other side of Spring St to the north of the building can accommodate approximately 30 vehicles, and is also used for staff parking.

Figure 6: Views of existing parent drop off area



SERVICE AND DELIVERIES

Service and deliveries are currently made at the north side of the building. The tight configuration created by the new addition makes for challenging and unsafe conditions when deliveries are made by large trucks.

Figure 7: Views of existing service/delivery area



EMERGENCY ACCESS

The existing site benefits from a close proximity to the new EMS building, but access on site is an issue. The circulation and space issues mentioned previously all likewise create the same challenges for emergency vehicles to access.

SIDEWALKS AND PEDESTRIAN ROUTES

The entire site suffers from accessibility issues, related to both layout and elevation changes, as well as deterioration of walkway conditions. The new school will require a complete overhaul of existing walkways, ramps and stairs to bring them into compliance with current ADA and MAAB codes for accessibility. The paving around the site is in poor condition, and is comprised of a mixture of asphalt and concrete sidewalks with significant patching or repair work. There are many instances of uneven, cracked or broken sidewalks, with uneven transitions between materials. The former main entrance to the school is on the south façade on William St. at the parent drop off area, and at ½ story above grade it is accessed by a staircase and lacks a ramp or accessible entrance. Accessible and secondary entry is accessed on the west side of the building, creating a stark disparity between entry experiences.

Night entrance for public functions and performances in the gymnasium is located on the east side of the building, adjacent to the visitor parking lot. Also situated ½ story above adjacent grade, it features a handicapped ramp which can be accessed by the upper level, but no longer appears to be in compliance with current codes. There is no accessible route from the lower parking level to this area. New accessible ramps will need to be constructed at the visitor or parents parking lot, the bus drop off area along Spring Street, and at the 3-8 grade playground on the east side of the school. The current configuration does not require students to cross a street or driveway when they are dropped off by parents or buses, a condition which should be maintained in any new configuration. The entire site is surrounded by public sidewalks along the street, the only exception being the east athletic fields at W William St, though a public sidewalk across the street is connected by crosswalk. There are 5 crosswalks connecting the site to sidewalks and public spaces, including the staff parking lot, town EMS building, Oak Grove cemetery, and the American Legion building.

Figure 8: Views of existing walkways





HANDICAPPED ACCESSIBILITY

(See above)

RECREATIONAL ELEMENTS

There are two primary outdoor recreation spaces, located to the east and west of the school building on the same site. The east field is used by grades 3-8, and is situated well below the school building. It includes a baseball diamond with players' benches, bleachers and backstop, a soccer field with two goals, a basketball court with foursquare and hopscotch, a balancing beam, and a student garden with storage shed. There is an additional storage shed adjacent to the visitor parking lot, which is currently vacant but appears newly purchased. The basketball court surfacing is cracked and uneven, and would need to be repaired, sealed and repainted with an acrylic surface treatment, and the nets all need to be replaced. The T-ball diamond is uneven and eroded in some areas, exposing a layer of silt fabric below much of the topsoil. Overall it suffers from drainage issues and there is noticeable puddling and

washouts. It is in need of a new layer of infield mix around the baselines and on the pitcher's mound. There are aluminum bleachers that are in fair to good condition. The baseball backstop is of relatively recent construction and is in good condition. The soccer field with portable goals is extremely compacted, and there is very little grass left on the playing surface. The student gardens appear well used and feature several raised beds with irrigation.

Figure 9: Views of East play field



The west field is used by grades K-2, and begins at level with the adjacent west school entrances, but slopes away from the school, creating issues with accessibility, drainage and erosion. Separate play equipment for 2-5 and 5-12 year olds are not clearly delineated, and the equipment itself is outdated and in poor condition. The play structures are surrounded by a layer of wood chips that does not meet safety standards for impact attenuation, and should be replaced with some form of rubber play surfacing. Several informal play components include a concrete elephant, camel, and part of a boat appear well used, demonstrating a desire for creative and innovative play experiences. Larger, fixed goals provide a more formal soccer field than the east field, but likewise suffer from compaction and a complete lack of turfgrass on the playing surface. The basketball court in this area is in poor condition, with a cracked surface and no netting at the hoops or painted lines on the court. A larger student garden here includes more raised beds, composting areas, and a garden shed. There is an additional storage shed that can be accessed from the parking lot, though its purpose is unclear. The entire play area on the west side of the school is indicated as Priority Habitat on the Natural Heritage Maps for rare and endangered species found on the MASS GIS data layers.

Figure 9: Views of West play field



Site Furnishings

There are several different types of metal and wooden benches and picnic tables in varying condition from new to complete disrepair, and lack a cohesive style or consistent visual standard. Outdoor picnic tables near the gymnasium have been covered in paint from student projects and would require refurbishment. There is a clear lack of handicapped accessible tables and gathering opportunities throughout the site. Wooden structures, such as the picnic tables and various benches, are aging and in deteriorating condition with numerous rough surfaces and edges, presenting safety concerns. There was originally a significant amount of lights on bollards but none of them appear to be operational any longer, and new lighting should be pole mounted for maximum coverage and safety. Wood/PVC trash receptacles appear to be matching, but are outdated and in poor condition. There doesn't appear to be any outdoor recycling receptacles on site. Two water fountains, one in each playfield, were observed but were not operational at time of December site visit. Bike racks are old and rusted, and lack a paved surface below. There is a mixture of fencing materials on site, including galvanized and black vinyl coated chain link. The black vinyl coated chain link fencing appears to be of recent construction and is in good condition, but the galvanized fencing is in fair to poor condition and should be replaced. Wooden split rail fencing is also prevalent on site and is in fair to good condition, and there are several sections of wooden guiderails in the lower parking lot. See next page for views of existing site furnishings.

Figure 10: Views of existing site furnishings



Figure 10 continued: Views of existing site furnishings

MODULE 3: PRELIMINARY DESIGN PROGRAM
1.4 EXISTING CONDITIONS

7 HAZARDOUS MATERIALS

Summary

- The interior of the building is typical for its age (Const. 1929, 1938).
 - 9"x9" flooring in wood shop
 - Glue on shims for slate boards
 - Small amount pf plaster in room 216
 - Asbestos may be found in pipe insulation behind walls
 - Asbestos may be found on paper or mastic under gym and stage floors
 - Small amounts of lead paint on metal radiators
- The exterior of the building had a relatively small amount of hazardous material including:
 - Asbestos tar on roof vents
 - Exterior asbestos caulking at univents, horizontal and vertical coping, 1929 wing
 - Asbestos in exterior door caulk at 1929 and 1938 wings
 - Asbestos in remnant roofing materials near chimney
 - Lead paint on exterior door frames of 1938 portion
 - PCBs <10 milligrams per kilograms (mg/kg) in exterior window caulk, uninvent caulk vertical coping caulk, exterior door caulk
 - PCBs (>10mg/kg and less than 50mg/kg) in exterior horizontal coping caulk 1938 portion
- The site contains an underground storage tank.
- Limited information of the on-site UST was available at the time of the report.

Conclusions

- If the building is demolished:
 - Abate all asbestos containing materials
 - Remove all lead painted trim and doors and dispose of in a land fill which accepts LBP materials
 - Abate all the PCB sealant
 - Dispose of the remaining waste in the waste stream of the whole sale demolition.
 - Remove the UST
- If the building is retained:
 - Abate all materials fully

- Should the sites be selected for further review and development, the sites should be accessed in the next phase.

Recommendations

- We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527 of the Site.
- Recognized Environmental Concerns include:
 - Potential contamination from the fuel oil underground storage tank.
 - Potential contamination from ash burial from the incinerator.
 - Potential contamination from elevator(s) reservoirs and/or transformer. It is unknown if PCBs are in the elevator or transformer fluids.
 - Potential contamination from unknown discharges of oil or hazardous material to the septic system.
- It is the opinion of this EP to conduct a subsurface investigation (commonly referred to as a “Phase II” environmental investigation) on this Site.

See Appendix I for Phase 1 Executive Summary and Hazardous Material Summary Report.

PRELIMINARY DESIGN PROGRAM
1.4 EXISTING CONDITIONS – TISBURY SCHOOL

8.A ARCHITECTURE – PHYSICAL BUILDING

INTRODUCTION

The Design team of Architects and Engineers inspected the building and site over the course of several visits during October 2016 to January 2017. Conditions are based on direct observations in the field. Original Architectural Drawings of the original building, constructed in 1929, could not be obtained from the Town, but drawings of the 1938 Gymnasium addition by H. E. Maron, Architect from Leominster, MA and drawings of the 1995 Additions by Anthony Tappé and Associates, Inc. of Boston, MA, were obtained from the Tisbury School. The Feasibility Study prepared by Flansburgh Architects, Inc. (FA) in 2012 provided additional information. Information was also obtained from the Town of Tisbury Property Card (PC) regarding Building Permit Records.

A review of Site, Code, Structural and M/E/P/FP related findings can be found in their respective sections of this report.



South façade with Main Entrance

The original Tisbury Elementary School building is an early 20th Century, three-story brick school building designed in the Classical Revival style, typical of public school architecture of c. 1900 – 1940 with Classical details. It features brick exterior walls with precast concrete elements and tall window

openings. The building and district are not listed with the Massachusetts Historical Commission or National Register of Historic Places.

Organized along a linear plan, the original classrooms feature tall windows and ceilings; the central corridor exits to grade via stairwells at the East and West ends. See photos below.



The original Main Entrance at the center of the South façade on West William Street requires access up a flight of stairs and is not handicapped accessible.



The Gymnasium, an addition in 1938, was constructed at a higher elevation than the First Floor of the original school, requiring eventual construction of a long interior ramp and additional stairs and ramps at the exterior of the gym entrance on the East façade.



The construction of the 1995 addition provided additional classroom and library space on all three floors that met the elevations of the existing floors as well as an elevator that made all floors in the original building and addition accessible. This entrance to the Kindergarten/Library addition is the main accessible entrance for the school.



The acquisition of a leased Modular Building in 2003 provided four additional classroom spaces but has no direct, covered access to the main building, leaving students exposed to weather when accessing the rooms. A generator was installed in 2010 (PC) and the Gymnasium, Locker Rooms, and Cafeteria now also serve as an Emergency Shelter for the Town of Tisbury.



Building Data:

- Construction Classification:
 - 1929 Original Building and 1938 Gym Addition: 3B Noncombustible
 - 1995 Addition: 2B Noncombustible
 - 2000 Modular Bldg.: 2C Combustible
- Areas:

· Boiler Room:	2,040 SF
· Basement / Music Room:	1,890 SF
· Lower Level (First Floor):	22,935 SF
· Main Level (Second Floor):	14,090 SF
· <u>Upper Level (Third Floor):</u>	<u>14,020 SF</u>
· Total (Main Building):	54,975 SF
· <u>Total (Modular Building):</u>	<u>1,435 SF</u>
TOTAL ALL BUILDINGS:	56,410 SF
- Plan: U-shaped, 28 classrooms with the Gymnasium serving as Auditorium.
Classrooms are listed below:
 - Instrumental Music 003
 - Kindergarten 118
 - Kindergarten 117
 - First Grade 113
 - First Grade 111

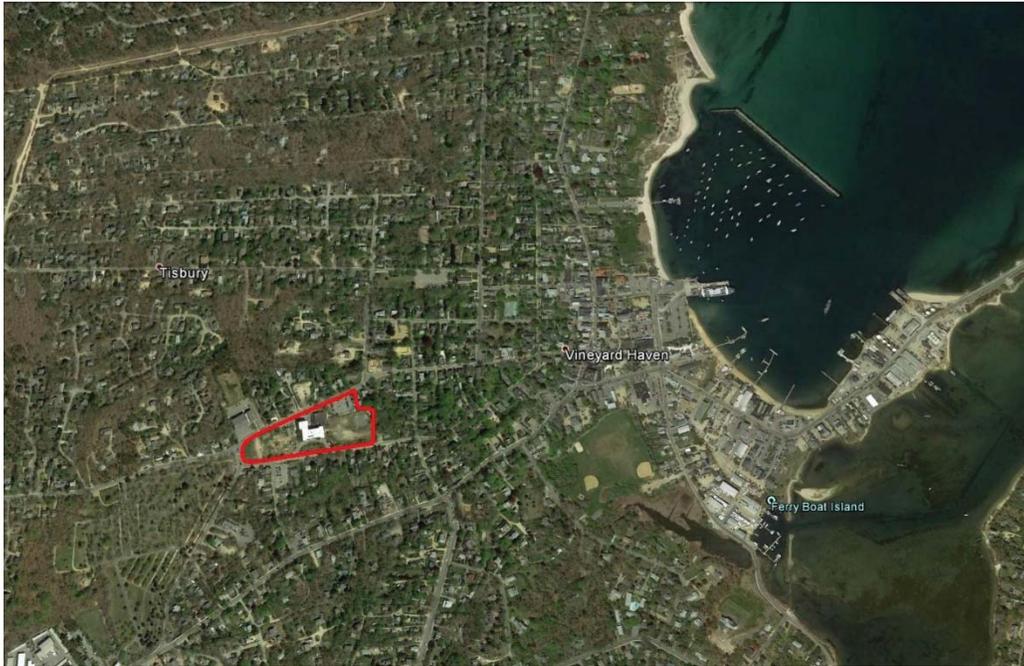
- Life Skills Center 104
- Art 101
- Technology Lab 102
- Spanish 004
- Vocal Music 003
- Second Grade 217
- Second Grade 216
- Resource K-4 215
- Third Grade 204
- Fourth Grade 203
- Third Grade 202
- Fourth Grade 201
- Science 319
- Science 318
- Social Studies 314
- Language Arts 313
- Resource 5-8 312
- Math 309
- Math 308
- Social Studies 303
- Computer Lab 304
- Math 302
- Language Arts & Reading 301

Building Construction Timeline (estimated):

- 1929: Original Building
- 1938: Gymnasium Addition
- 1995: Three Story Addition – 2 Kindergarten Classrooms, Library/Media and 2 Screen Rooms.
- 2003: Modular Classroom Building leased.
- 2009: New EPDM roof at Gym (FA) and Generator.
- 2014: New EPDM roofs at Third Floor Roofs.

SITE AND ENVIRONMENT

Located in Vineyard Haven, in an area of mixed residential and municipal uses, the site is just over a mile from Vineyard Haven Harbor on a 5.15 acre parcel. The school building is centered on the site and the land slopes away from the building to the east and west. While the area is zoned R10 and is mainly residential in nature, the site is also adjacent to the School Administration Building, new Town Fire Station, and the Town Cemetery. The site includes the brick school building, the modular building, 65 parking spaces, a ballfield to the east and a playground area to the west.



Building Site

Local climatological factors that are relevant to the condition and performance of the existing building enclosure include precipitation, snow and windspeed levels that are well above US averages. The Basic Wind Speed for Tisbury is 120 MPH (MA State Building Code). Snowfall, precipitation, and wind speed are all greater than U.S. averages.

The primary implication of this is if the building envelope is not effective at preventing the ingress of severe wind-driven rain, we can expect to see accelerated deterioration of the exterior envelope, increased heating costs, and occupant discomfort.

EXECUTIVE SUMMARY

The existing building structure and enclosure were soundly constructed but, due to age and deterioration, require considerable repairs. In addition, all walls and roofs in the building lack adequate insulation. While the windows throughout the school were replaced with new aluminum windows with the latest 1995 addition, the seals in most of the windows and the curtain wall enclosures have failed and require replacement. The interior finishes in the existing building, as with the exterior, were well suited for their use but have become worn with age and wear and require replacement. Classroom sizes need to be enlarged to meet current requirements and will require the relocation of partitions. Accessibility at all areas of the school needs to be reviewed. Other required improvements include all new bathrooms, and renovations to or new Mechanical, Electrical, Plumbing and Fire Protection systems as noted in the attached sections.

The following is a summary of existing conditions and required improvements, based on the reuse and renovation of the existing building with additions as required.

EXTERIOR ENVELOPE:

ROOFS

The gymnasium roof was replaced (as per FA Report) in 2009 with a new EPDM roof and is in good condition with a warranty. The high roofs on the original building and 1995 addition were replaced with a new membrane roof as well in 2014, however the insulation value of all roofs need to be determined. As per the FA report the R-Values of the existing roofs are approximately 10.55, far below current roof requirements of R-30 or R-40.

Recommendation: Replace all roofs with new membrane roofing and increased insulation to meet current energy codes. The school is also in a windspeed zone of 120 MPH and all roofing needs to be improved to meet current requirements.





WALLS

The original 1929 building and 1938 gym addition walls are constructed of three wythes of brick masonry (FA). The brick is bonded together without a cavity. The assembly should be tested for air and water infiltration. These walls require new insulation and a vapor barrier. Many walls have cracks in the exterior brick that have been crudely repaired with grout. The exposed foundations of these buildings also have cracks that have been parged over. On the gymnasium wall, exposed through wall fasteners have been installed to reinforce the basketball hoops installed on the interior. Recommendation: the brick on these walls require repointing, repair and replacement as required.



The 1995 additions are constructed with a steel frame and hollow metal stud wall, insulation, airspace and exterior brick. A brick relieving angle on the north elevations has rusted and should be repaired or replaced. Recommendation: the flashings and caulking require replacement and the walls require additional insulation to meet current energy codes.



To offset air infiltration at the exterior walls, most thru-wall mechanical grilles are covered in the winter with duct tape. These units should be replaced with new insulated ducts with dampers.



Existing precast features are spalling and many are cracked, chipped or broken. Recommendation: They should be tested to verify they are secure and repointed, repaired or replaced as required. All masonry should be seal coated.



WINDOWS and DOORS

The windows in the entire school were replaced at the time of the 1995 addition with insulated aluminum windows. The seals in most of the windows, including well over half of those on the south elevation have failed, as have many of the seals in the aluminum curtain walls constructed at the East and West Elevation entrances. The units are fogged from condensation and have lost their insulating value. Recommendation: since the windows are all of the same era, the recommendation is to remove all windows, blocking and trim completely. Install impact-rated, triple glazed, thermally broken aluminum windows. Provide all new interior wood trim and solid surface sills. Replace wood features at the original building window surrounds with new synthetic replacements. Total number of windows: 150.





The steel lintels over many of the windows have rusted well past repair. As noted above, many of the precast sills and lintels are chipped, cracked or broken. Recommendation: remove and replace all steel lintels with new galvanized steel lintels and rebuild the masonry headers.



Exterior Doors are in fair condition with insulated glass, but have considerable wear. The recommendation is to remove and replace all exterior doors with new insulated hollow metal doors and new hardware. Remove and replace existing wood trim at entry doors and replace with synthetic trim to match the original shapes.



MODULAR CLASSROOMS

The modular building that contains four classrooms with no toilet facilities. The exterior has vinyl siding and aluminum gutters and trim. The exterior doors from the classrooms are newer and in fair condition. This is a leased building so making any improvements for energy loss such as additional insulation would not be beneficial. Providing additional space in the main building for these programs would be the best solution. Currently students are required to travel outside from the modular building to the main building which exposes them to inclement weather and security issues.

EXTERIOR STAIRS, RAMPS AND RAILINGS

The exterior stairs, ramps and railings have seen the wear of many decades of exposure to inclement weather and are in poor condition. Cracks have enlarged as water has frozen and expanded and brick piers are coated with efflorescence from water infiltration. Railings that were painted have minimal peeled paint remaining and are rusting. Some stair treads and risers are crumbling from use and age, and grout and caulking have been used as a temporary measure to provide additional use.

Recommendation: many of these elements require extensive repair or replacement. Redesign of the entrance areas to reduce the amount elevation change could eliminate the necessity of some the stairs and ramps altogether.





BUILDING INTERIOR

WALLS AND PARTITIONS

The interior classroom and office partitions are primarily wallboard and paint, in fair condition and with limited damage that can be repaired and replaced. There is and some cracking at the 1995 stair



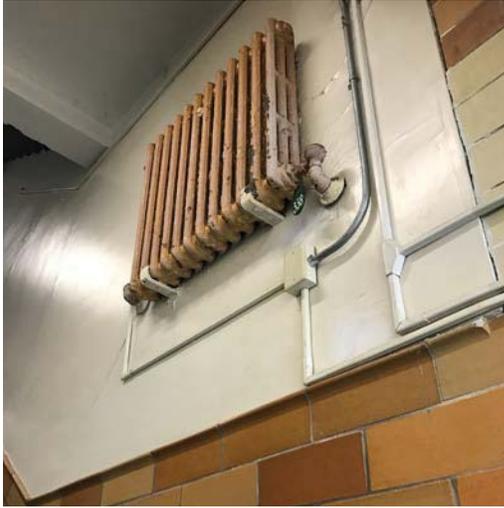
additions walls that will require replacement of wallboard and repainting.

The walls and partitions in the 1995 classroom addition are in good and require minor repair and repainting.



Corridor finishes have a mix of structural glazed tile and wallboard as noted above. The structural glazed tile requires regrouting and sealing. Corridors have lockers and storage cabinets in several areas.





Wiring is run in exposed conduit in many of the circulation areas and classrooms and should be recessed in the walls.

Bathroom partitions are wallboard and paint in poor condition. Replacement with an abuse and moisture resistant finish is required.

All painted metal, wood and wallboard finishes require repainting.



The Gymnasium walls are CMU and have acoustic wallcovering above a wood wainscot, the acoustic wallcovering is in fair condition and requires maintenance or replacement. The wood wainscot is in good condition and requires refinishing. The walls and partitions on and behind the platform require replacement and finishes. The Ceramic Tile walls and floors in the Locker Rooms off of the Gym (also used by the public for the Auditorium functions and as an Emergency Shelter), require regrouting, sealing and in some areas replacement of areas of tile.



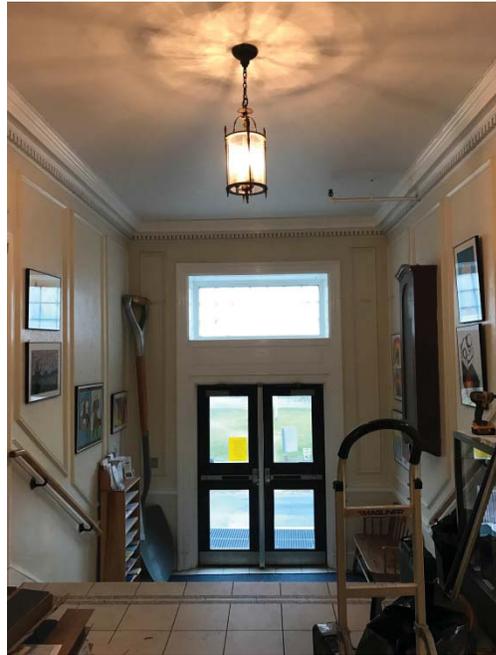
FLOORS

Floor finishes vary throughout the school and have received heavy use. There is a mixture of carpet, vinyl composite tile, ceramic tile, rubber and wood floors that have been installed at various times and are in different states of condition. Most are in need of replacement. The wood flooring in some of the classrooms is buckling due to wear and has created a tripping hazard.



The flooring in the 1995 classroom addition is in better condition than the remainder of the school, but should be replaced with the remainder of the school if a different material is chosen. An alternate material may be utilized in classrooms, corridors and offices for durability and ease of maintenance.





Ceramic tile areas at the main lobby, toilet rooms, locker rooms, and cafeteria are also in mixed condition and require maintenance and new grout, or replacement, preferably with another material to reduce future maintenance.



The gymnasium floor is wood and is maintained, but is uneven and buckling and should be replaced with an athletic cushioned wood floor.



CEILINGS

The corridors have suspended acoustic tile ceilings in fair condition.



Classrooms have a mix of exposed plaster ceilings and suspended ceiling grids below existing plaster ceilings. Although the acoustic tile is in good or fair condition, it is concealing the plaster ceiling above and reducing the height of the rooms, in many cases below the windows.



The high ceilings and windows are the one of the greatest assets of the school and should be maximized, so the original ceilings could be repaired and the suspended acoustic ceilings removed. With an extensive renovation, the suspended ceilings may need to be removed or replaced.

INTERIOR DOORS

The interior doors are wood and in fair condition but due to their need for repairs, new hardware and accessibility requirements, should all be replaced.

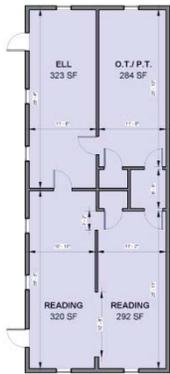


**PRELIMINARY DESIGN PROGRAM
EXISTING CONDITIONS – TISBURY SCHOOL**

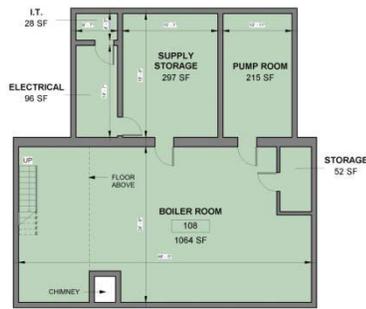
ARCHITECTURE – PHYSICAL BUILDING – KEY PLANS

LEGEND

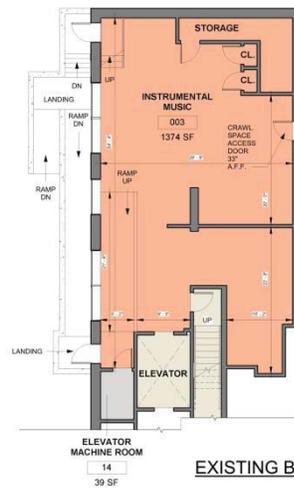
- CORE ACADEMIC
- BREAKOUT
- SPECIAL EDUCATION
- SHARED PROGRAMS
- MEDIA / HEALTH / DINING / GYMNASIUM
- ADMINISTRATION & MEDICAL
- CUSTODIAL & MAINTENANCE
- CIRCULATION
- RESTROOMS



THE WHITE HOUSE



EXISTING BOILER ROOM FLOOR PLAN



EXISTING BASEMENT FLOOR PLAN

ARCHITECTURE – PHYSICAL BUILDING – KEY PLANS





ARCHITECTURE – PHYSICAL BUILDING – KEY PLANS



MODULE 3: PRELIMINARY DESIGN PROGRAM

1.4. EXISTING CONDITIONS

8.B ARCHITECTURE - SPACE AND USE

GENERAL

The Tisbury Elementary School was originally constructed in 1929, with later additions in 1938 and 1995. It has been in continuous use as a school since its construction. Currently the school serves Tisbury's Kindergarten through Grade Eight students. Students matriculate to the Martha's Vineyard Regional High School which serves all towns on the Island in grades 9-12. Some services for special needs Pre-Kindergarten are currently served off site, in other districts, due to space constraints at the Tisbury School. It is the goal for this project to provide space for these students in their home school to ease transitions in following years. The below describes space assignment as the building is currently be used, and general recommendations for improvements based upon programming meetings with the school administration and staff.

BUILDING SIZE

The existing building is approximately 56,410 gross square feet (GSF). This includes a small detached modular building. Overall useable program area is approximately 35,019 net square feet (NSF), resulting in an efficiency factor of 1.61.

The proposed design enrollment for the Tisbury School is for 285 students in grades Kindergarten through Grade 8. The district also plans to accommodate one Pre-Kindergarten classroom to serve 16 students. Based upon MSBA guidelines in the Proposed Space Summary for K-8 schools, version 11.24.2010, this would require approximately 47,294 NSF of program space. The current building is approximately 12,275 NSF short of that goal.

BUILDING LAYOUT

The original 1929 building plan is a symmetrical plan with a prominent central entrance and classrooms organized along a linear corridor with stairways at each end. There are three floor levels overall. The main level (2nd floor) sets above a raised basement (1st floor) - this lowest level being partially below grade. In 1938 an addition was added at the northeast corner of the building, to provide a gym, stage and locker rooms. This is a single story addition, with the floor elevated a few feet above the lowest level of the original 1929 building, and a partial basement beneath an elevated stage. Access between the two portions of the building is accommodated by an interior ramp.

In 1995, another addition was added at the northwest corner of the building. This addition has three levels all matching up to the original 1929 building. Its lowest level is predominately above grade. This

addition accommodated an accessible entrance at the west end of the building, and an accessible elevator between floors. However, the main entrance was not made accessible as part of that renovation/addition project. The main entrance is flanked by administrative offices on one side of a very small lobby, and a conference room on the other.

The layout is typical of educational facilities constructed in the early twentieth century and found throughout the Commonwealth. Due to the raised basement, the main entry door is elevated above grade and not accessible. Other entrances around the building are accessible (although paths to them are not always accessible), with the exception of an exterior entrance to the Gym. In addition to the significant shortage in program space, the building layout has organizational problems:

- The building is surrounded by streets on three sides, with sloping topography from the center of the site to the east and west making accessibility to entrances and across the site very challenging. Accessibility is not accommodated at all entrances or to all areas of the site.
- The building is positioned squarely in the middle of the site, with additions on the north side very close to Spring Street making additions problematic.
- Conflicts exist between vehicular traffic and pedestrian traffic, most notably the proximity of the loading zone to the exterior Kindergarten classroom doors.
- The main floor (2nd floor) of the building is elevated several feet above grade, making the main entrance inaccessible.
- Traditionally public functions of the building; gym, cafeteria, library are all separated from each other in different areas of the building, compromising secure after hour community use.

BUILDING SECURITY AND SAFETY ISSUES

The existing building has a total of thirteen (13) exterior doors making the building difficult to secure and monitor. Although the original south entrance is maintained as the secure visitor entrance, this entrance is not accessible. While the gym has a dedicated entrance that is served by a ramp at the exterior, access between parking and this entrance is not accessible, and the entrance is not accessible at the interior, the gym floor being lower than the door threshold. None of the entrances have visibility from administrative staff areas, including the main entrance.

CORE ACADEMIC SPACES

The building supports 16 general classrooms in addition to 2 Kindergarten rooms and 2 Science classrooms. Generally the classrooms are rectangular in shape and undersized as compared to MSBA standards. The general classrooms range from a low of 442 SF to a high of 790 SF, averaging overall at about 710 SF. The Science classrooms are undersized at 992 SF. The Kindergarten rooms contain toilets and are adequate size at 1,154 SF.

Generally the classrooms are well lighted with natural light from large windows, although most of the windows are clouded due to failed seals. Kindergarten and First grade classrooms have cubbies within

each classroom. Student storage for all other grades is accommodated with hallway cubbies and lockers. Each classroom is equipped with a marker boards and smart boards with projectors. Storage varies from classroom to classroom and is generally inadequate.

Classroom recommendations:

- Increase classrooms sizes to consistent sizes for grades 1-8.
- Maintain adequate sized Kindergarten classrooms.
- Increase Science room sizes to meet MSBA standard.

SPECIAL EDUCATION AND SUPPORT SPACES

There are two Resource rooms within the building, one serving Kindergarten through Grade 4 at 466 NSF and one serving Grades 5-8 at 670 SF. These rooms are in close proximity to the students served. There are also two small tutorial spaces within the building; Reading Remediation at 112 SF, and English Language Learner (ELL) Support at 115 SF. A detached modular building identified as “Little White House” provides an additional 1,219 SF divided into four areas to serve special needs programs. The four spaces within this building include; one for ELL, one shared for Occupational and Physical Therapy (OT/PT) and Speech and Language Therapy (SLP) and two spaces for Reading/Speech (1 for K-4 and 1 for 5-8). The Little White House is detached from the main school structure, therefore requiring students and staff to exit the building at the west to reach these spaces. This building also does not have toilets. The total accommodation of 2,582 SF for Special Needs is far below what is needed and also below the MSBA recommendations of 4,530 SF for the enrollment served. Moreover, the remote location of half of the special needs spaces in a detached building is problematic.

Special Education recommendations:

- Increase accommodations for Special Education.
- Provide dedicated spaces with acoustical privacy.
- Locate all special needs spaces within the main building.
- Disperse special education resources so that they are close to students served.

ART AND MUSIC

The Music program is served by two vertically adjacent rooms, one for vocal (658 NSF) and one for instrumental (1,374 NSF) totaling 2,032 NSF. Neither room accommodates the music program well. The instrumental room, located partially below grade, is irregular in shape and partitioned into several small areas. The vocal room is long and very narrow which is not suitable for vocal practice or instruction and poor for acoustics. While adjacency to the stage and gym is good, access to the vocal music program is from the back of the stage. These rooms are stacked vertically, and located at mid-levels from the gym, which requires access by a dedicated three stop elevator or stair. The placement of these rooms vertically adjacent to each other and adjacent to the stage presents acoustical isolation issues. Access to

the vocal room across the stage impedes the free use of the gym and stage. The total area dedicated to Music (2,032 SF) is above the MSBA recommendations of 1,775 NSF, but the space is poorly configured.

The Art room is located at the ground floor, has very limited storage, and has windows facing east and south. It has direct access to the exterior. The kiln is highly used but it is not in a separate room, nor properly ventilated. The Art room is undersized at 773 NSF compared to the MSBA recommendation of 1,350 NSF.

Art and Music recommendations:

- Accommodate Art and Music with appropriately configured spaces with proper adjacencies, acoustical separations, daylighting and storage.
- Position Music close to the stage.

VOCATIONAL AND TECHNOLOGY

The existing building accommodates a Technology Lab, a Life Skills Lab and a dedicated Computer Lab. The Technology and Life Skills Labs serve only grades 5-8 yet are located on the ground floor far from where grade 5-8 core classrooms are located on the third floor. The result is significant movement vertically through the building during the day by middle school students, which due to the poor acoustical isolation within the building structure, can be disruptive to elementary grade students. The Computer Lab has a dedicated instructor and serves all grade levels, yet is located on the third floor, adjacent to the middle school core academic spaces. The Technology Lab is a wood shop / maker space and has a dedicated instructor who collaborates with middle school teachers to develop projects that are relevant to core content of the classroom. The Life Skills Lab has a dedicated instructor, and teaches skills in nutrition, cooking, cleaning, clothes washing, etc. All of the spaces have specialized equipment that is not accommodated fully to code requirements, for instance there is no working dust collection system in the Technology Lab, and no exhaust hoods over cooking ranges. These labs generally are not fully accessible and all of the spaces are undersized.

Computer / Technology recommendations:

- Accommodate vocational and technology labs in appropriately sized spaces, with appropriate ventilation and meeting other safety requirements.
- Provide full accessibility to the full range of all equipment in the labs.
- Locate labs appropriately to students being served.
- Consider clustering labs around a common share space, along with other relevant special programs to foster collaboration.

HEALTH AND PHYSICAL EDUCATION

The Physical Education program is accommodated in the 1938 addition and has an exterior entrance that allows community use of this space after hours. However, the entrance is not fully accessible. The

program includes a Gym (3,743 SF), a gym office (86 SF), boy's and girl's locker rooms/showers (total 904 SF), a performance stage (869 SF) and equipment storage (353 SF). The total program area is 5,972 SF compared to the MSBA standard of 8,345 SF. The equipment storage is adequate sized. The locker rooms are undersized compared to MSBA standard, but they are underutilized by the school. All other spaces are undersized.

Physical Education recommendations:

- Provide a larger gym, with at least a junior high school sized basketball court.
- Provide a larger stage, adjacent to Music.
- Provide changing rooms/toilets to meet the school's program.
- Provide a health instructor office and adequate equipment storage.
- Position these spaces to allow secure community use after hours.

MEDIA CENTER / LIBRARY

The existing library is located in the newest section of the building, on the second floor above the west accessible entrance and in close proximity to the elevator. At the mid-level, it is equally accessible to all grades. The current total area 1,965 SF is about 12% below the MSBA standard of 2,317 SF.

Media Center / Library recommendations:

- Renovate library to meet current needs, and increase size to MSBA standard.
- If the library remains in the current location in a renovation scenario, capture the adjacent resource room to bring the library up to MSBA standard.
- If the library is relocated either in an addition/renovation or new building scenario, locate the library in a prominent location.

DINING AND FOOD SERVICE

The existing building dining and food service is accommodated at the lowest level. The food preparation area, service area and dining area all share a single 1,243 SF room. There is no dedicated staff toilet as required by code. The limited size of the dining area requires five lunch periods. A walk in freezer is located in the dining area, and the dry storage, kitchen office and dishwashing area all share a small space adjacent to the kitchen/dining area. There are numerous code violations within the kitchen area, including lack of separation of functions. These are described in other sections of this report. But in general, the space is woefully inadequate at 1,570 SF as compared to the MSBA standard of 5,738 SF. There is no stage associated with the cafeteria (see Physical Education above) and there is no dedicated staff dining area.

Dining and Food Service recommendations:

- Expand Dining to accommodate no more than three lunch periods.

- Provide adequate Food Service area with appropriate separation of functions, including cold and dry storage, food preparation areas, cooking areas, serving areas, and dishwashing areas.
- Provide Staff Toilet as required by code.
- Locate adjacent to the Gym and stage.

MEDICAL SUITE

The existing Nurse’s Room is located adjacent to the Administrative suite on the main level of the building. The space does have a dedicated toilet room, but does not have a student resting area or a private exam room. The total area is approximately 253 SF including the toilet, and well below the MSBA standard of 510 SF for a 285 pupil school.

Medical Suite recommendations:

- Accommodate a full Medical Suite in a future renovation/addition or new building.
- Locate adjacent to the main administrative suite, and near the main public entrance.

ADMINISTRATION AND GUIDANCE

The existing administrative program is distributed throughout the building. A central administrative suite adjacent to the main entrance and lobby consists of four small spaces: a Main Office (216 SF), two private Administrative Offices (213 SF and 169 SF), and a Supply Room (101 SF). These spaces are directly adjacent to and connected via an interconnecting door to the Nurse’s Office. A single unisex non-accessible toilet is provided across from the Administrative Suite off the lobby, as well as a Conference Room (184 SF). A small Guidance Office (62 SF) and a Mail Room (112 SF) are also located at this level. The Principal’s Office/Conference Room (229 SF) and a single Guidance Office (116 SF) are located on the third floor adjacent to Grades 5-8. The combined area of 1,402 SF is well below the MSBA standard of 2,526 SF for a 285 pupil K-8 school. The above mentioned toilet is the only dedicated staff toilet in the school, aside from a toilet within the Spanish classroom. Dedicated teacher planning space is virtually non-existent.

Administration recommendations:

- Accommodate a central administration suite adjacent to and with excellent visibility to the public entrance.
- Consider some remote locations for administrative functions and presence in other area of the building.
- Provide adequate Teacher Planning space.
- Provide dedicated staff toilets in quantities required by code.

CUSTODIAL AND MAINTENANCE

The existing facility contains one custodial office which at 280 SF is a mezzanine within the boiler room. This area also serves as the central receiving area. There are three small custodial closets, one at each floor level, including two at 30 SF and one at 25 SF. There is a small 62 SF IT Office on the third floor. There are small storage areas under each of the three stairs at the lowest level which contain a mixture of custodial storage, records storage and classroom storage. Custodial supplies were observed within fire department connection boxes in some locations. Custodial work and storage space is woefully inadequate in the current building.

Custodial recommendations:

- Provide proper custodial office, work shop and storage.
- Provide a dedicated receiving area with storage.
- Provide dedicated trash and recycling rooms.
- Provide a central and secure IT Office and Server room.

OTHER

There is a single multipurpose space at 388 SF adjacent to the Library. This room has many functions including serving as a teacher resource and planning room, tutorial space, strings instrumental instruction and practice space, among other uses. The space is in high demand and highly scheduled.

CORRIDORS AND STAIRS/VERTICAL CIRCULATION

The main corridors in the 1920 structure are approximately 10'-2" wide with a combination of double tier locker and wooden shelf and hook cubby storage. The double tier lockers are difficult to reach for younger students.

Stairs are ample width and meet code requirements for egress. There are three stairs that communicate between all floors.

The building has two elevators, one three stop elevator in the 1995 addition that reaches all main levels, and another three stop elevator in the 1938 addition that reaches mid levels.

Circulation recommendations:

- Maintain and upgrade existing corridors, elevators and stairs.

TOILET ROOMS

Gang toilet facilities for students are accommodated at each level within the original 1929 Structure. In addition, there are classroom toilets in the Kindergarten Rooms in the 1995 addition, and toilets associated with locker rooms in the 1938 addition.

There is only one staff toilet, at the main level of the 1929 structure.

Toilet room recommendations:

- Upgrade toilets throughout the renovated facility or in additions, on all floors.
- Add more staff toilet rooms.

TABLE SUMMARY OF EXISTING SPACES COMPARED TO MSBA STANDARD AND PROPOSED

The following table compares existing net square feet area totals to MSBA Area Guidelines and the Proposed Program based on a student enrollment of 285.

Space Category	Existing Area	MSBA Guideline	Proposed Area
Core Academic	15,998	15,160	22,600
Special Education	2,582	4,530	4,700
Art and Music	2,805	3,125	3,425
Vocations and Technology	1,657	3,200	2,200
Health and Physical Ed	5,972	8,345	7,545
Media Center	1,965	2,316	2,316
Dining and Food Service	1,570	5,738	5,338
Medical	253	510	510
Administration and Guidance	1,402	2,526	2,457
Custodial and Maintenance	427	1,844	1,844
Other	388	0	0
Total Net Floor Area	35,019	47,294	52,935
Total Gross Area	56,410	70,941	79,403

*Net Floor Area (nfa) excludes building walls, corridors, stairs, toilet rooms and other space dedicated to building service.

**MSBA Area Guidelines are standard calculations based on approved enrollments and are provided for reference. Individual schools have specialized circumstances and educational programs that affect the overall space needs requirements.

Existing Space Summary- Tisbury School

3/28/2017

TISBURY SCHOOL	Existing Conditions		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals
Locker Rooms - Boys / Girls w/ Toilets	440	1	440
Stage / Platform	869	1	869
MEDIA CENTER			1,965
Media Center/Reading Room	1,965	1	1,965
DINING & FOOD SERVICE			1,570
Cafeteria / Dining			
Kitchen			
Cafeteria / Kitchen	1,243	1	1,243
Pantry / Dishwash	327	1	327
Chair / Table / Equipment Storage			
Staff Lunch Room			
Stage			
MEDICAL			253
Medical Suite Toilet	44	1	44
Nurses' Office / Waiting Room	209	1	209
Examination Room / Resting			
ADMINISTRATION & GUIDANCE			1,402
Principal's Office w/ Conference Area	229	1	229
Principal's Secretary / Waiting			
Assistant Principal's Office - AP1	213	1	213
Assistant Principal's Office - AP2			
General Office / Waiting Room / Toilet	216	1	216
Conference room	184	1	184
Teachers' Mail and Time Room	112	1	112
Duplicating Room	101	1	101
Teacher Mail, Time, Duplicating			
Records Room			
Supervisory / Psychologist	169	1	169
General Waiting Room			
Guidance Office	62	1	62
Guidance Office	116	1	116
Guidance Storeroom			
Teachers' Work Room			
Small Conference Room			
CUSTODIAL & MAINTENANCE			427
Custodian's Office	280	1	280
Custodian's Workshop			
Custodian's Storage	30	1	30
Custodian's Storage	30	1	30
Custodian's Storage	25	1	25
Storeroom			
Recycling Room / Trash			
Receiving and General Supply			
Network / Telecom Room	62	1	62
OTHER			388
Multi-Purpose	388	1	388
TOTALS			
Total Building Net Floor Area (NFA)			35,019
Proposed Student Capacity / Enrollment			
Total Building Gross Floor Area (GFA) ²			56,410
Grossing factor (GFA/NFA)			1.61

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA ¹	# OF RMS	area totals	Comments
1,000	2	2,000	
		2,316	
2,316	1	2,316	
		5,738	
2,138	1	2,138	2 seatings - 15SF per seat
1,600	1	1,600	1600 SF for first 300 + 1 SF/student Add'l
200	1	200	200 SF for first 300 + .333 SF/student Add'l
200	1	200	200 SF for first 400 + .25 SF/student Add'l
1,600	1	1,600	
		510	
60	1	60	
250	1	250	
100	2	200	
		2,526	
375	1	375	
125	1	125	
133	1	133	
133	0	-	
300	1	300	
295	1	295	
100	1	100	
172	1	172	
150	1	150	
133	1	133	
100	1	100	
150	2	300	
42	1	42	
300	1	300	
		1,844	
150	1	150	
319	1	319	
375	1	375	
200	1	200	
400	1	400	
200	1	200	
200	1	200	
		0	
		47,294	
		285	Enter grade enrollments to the right
		70,941	
		1.50	

MODULE 3: PRELIMINARY DESIGN PROGRAM
1.4 EXISTING CONDITIONS

8.C CODE NARRATIVE

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INTRODUCTION

The existing building is located at 40 W William St, Vineyard Haven, MA. The building currently is a school making this a Group E occupancy. The potential future renovations are expected to involve a major upgrade to the school building. An addition could be added on to help upgrade the school. This code summary is based on drawings dated December 9, 1992 and a site visit December 28th 2016. Following is a list of applicable codes:

Code Type	Applicable Code (Model Code Basis)
Building	780 CMR: Massachusetts State Building Code, 8 th Edition ¹ (2009 International Building Code) (2009 International Existing Building Code)
Fire Prevention	527 CMR: Massachusetts Fire Prevention Regulations (2012 NFPA 1)
Accessibility	521 CMR: Massachusetts Architectural Access Board Regulations
Electrical	527 CMR 12.00: Massachusetts Electrical Code (2017 National Electrical Code)
Elevators	524 CMR: Massachusetts Elevator Code (2004 ASME A17.1)
Mechanical	2009 International Mechanical Code (IMC)
Plumbing	248 CMR: Massachusetts Plumbing Code
Energy Conservation	2015 International Energy Conservation Code

1 The 9th edition of 780 CMR based on the 2015 International Codes is expected to go into effect in July 2017 and become mandatory January 1, 2018.

INTERNATIONAL EXISTING BUILDING CODE

The 2009 International Existing Building Code with Massachusetts amendments allows for 3 separate compliance methods, the Prescriptive Method (in general, altered areas must comply with the code for new construction), Work Area Method (level of compliance is based on the classification of work), and Performance Compliance Method (numerical method that allows tradeoffs for deficiencies). This report is based on the Work Area Method.

1. Work Area and Classification of Work:

For the purposes of this report we have assumed that a future renovation would be classified as an alteration Level 3 where the work area exceeds 50% of the aggregate area of the building. Alteration Level 3 includes the reconfiguration of spaces, the addition or elimination of doors and windows, the reconfiguration or extension of systems, and/or the installation of additional equipment in more

than 50% of the aggregate area of the building. An addition could also be part of the future scope of work. The work must comply with IEBC Chapters 6, 7, and 8 and 10.

In general, the work conducted in the existing building should comply with the requirements for the new construction. The renovation should not make the building less safe than the existing condition nor less stringent than the code requirements applicable at the time of construction. Unless specifically required in the code, the non-renovated portion of the building are not required to be upgraded to comply with the new construction requirements.

2. Occupancy Classification:

Non-Separated Mixed Uses:

- Use Group E (Classrooms, Cafeteria)
- Use Group A-4 (Gymnasium)

Note it is assumed that the gym is used for non-school functions and therefore requires a separate Assembly use classification.

3. Construction Type:

Based on the field observation the building construction is Type IIIB. This is based on the brick exterior bearing walls, wood interior, and unprotected steel.

4. Height and Area Limitations:

The Following table summarizes the height and area limitations for use group E and A-4 based on type IIIB construction

Code Reference	Type IIIB – Use Group E		Type IIIB – Use Group A-4	
	Height	Area	Height	Area
<u>780 CMR Table 503:</u> Tabular Value	2 St. (55)	14,500	2 St. (55)	9,500
<u>780 CMR Section 504.2:</u> Sprinkler Height Increase	1 St. (20 ft)	-	1 St. (20 ft)	-
<u>780 CMR Section 506.2:</u> Frontage Increase	-	75% ^A	-	75% ^A
<u>780 CMR Section 506.3:</u> Sprinkler Area Increase	-	200%		200%
Height and Area Allowed	3 St. (75 ft)	54,375 ft²	3 St. (75 ft)	35,625 ft²
Actual Height and Area	3 St.	~22,856 ft²	3 St.	~22,856 ft²

^{A.} Only if the addition stays 30 feet away from the street and other buildings

The building already contains the maximum number of stories that it is allowed. Therefore if there is an addition it cannot be another floor up. However, a basement would be acceptable. Any addition would have to be one that adds area but not height. If the new addition were to exceed the allowed area it could be separated from the existing building by a fire wall and treated as a separate building.

Note if necessary the use group A-4 space (gym) could potentially be treated as a separated use to allow a slightly larger addition.

5. Fire Department Access:

For a future addition all newly constructed portions of an existing facility are required to be provided with a fire department access road which may consist of roadways, fire lanes, parking lot lanes, or some combination thereof (527 CMR 1 Section 18.2.3.1). These access roads must have the following features.

- Must extend to within 50' of an exterior door that can be opened from the outside and provide access to the interior of the building;
- No portion of the facility or exterior wall on the first story of a building is greater than 240' from fire department access roads measured along an approved route;
- Multiple access roads can be required by the AHJ if it is determined that a single road can be significantly impaired by external factors;
- Unobstructed minimum width of 20';
- Unobstructed vertical clearance of 13'-6".

6. Fire Resistance Ratings:

The following table summarizes the required fire resistance ratings for the building elements of Type IIIB construction, based on 780 CMR Table 601 and other applicable code provisions:

Building Element	Fire Resistance Rating (Hrs)	Opening Protectives (Hrs)
Primary Structural Frame ^A	0	-
Exterior Bearing Walls including columns along the exterior wall	2	0
Exterior Non-Bearing Walls	0	-
Interior Bearing Walls	0	-
Floor Construction	0	-

Roof Construction	0	-
Existing shafts < 4 stories - E occupancy (IEBC 703.2.1 exception 6)	0	0
Existing shafts < 4 stories - A occupancy (IEBC 703.2.1 exception 4)	½	½
New Stair shafts < 4 Stories (780 CMR 1022)	1 ^B	1
New Stair shafts > 3 Stories (780 CMR 1022)	2 ^B	1 ½
Other New Shafts <4 Stories (780 CMR 708.4)	1 ^B	1
Other New Shafts >3 Stories (780 CMR 708.4)	2 ^B	1 ½
Exit access corridor (780 CMR 1018)	0 ^C	0

- A. Includes beams, trusses, floor members, etc. having a direct connection to the columns (780 CMR 202).
 B. Basements count as a story
 C. Group E and A occupancies in fully sprinklered buildings do not require a fire rating.

7. Exterior Wall and Openings

The addition must comply with 780 CMR Table 602 and Table 705.8. The fire separation distance is measured perpendicular to the exterior wall to the centerline of public street, an interior lot line, or an imaginary lot line between two building on the same lot (780 CMR 702.0). Two buildings exist on this property so an imaginary lot line between the two buildings must be drawn to determine the fire separation distance of each wall and the required rating and opening limitations. The requirements are summarized below.

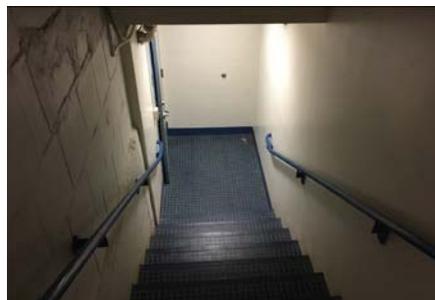
Exterior Wall Requirement- Group E-A-4, Type IIIB Construction, Sprinklered

Fire Separation Distance=X (ft.)	Fire Rating of Exterior Wall	Area of Openings in Exterior wall
10≤X<15	1	45%
15≤X<20	1	75%
20≤X<30	1	No Limit
X≥30	0	No Limit

Note that the side is large enough that a new addition likely would not have limitations on the window openings, unless the addition is separated from the existing building by a fire wall due to area limitations, in which case windows would be limited where the two buildings are in close proximity.

8. Vertical Openings:

All existing vertical openings in the work area connecting two or more floors must be enclosed with 1 hour rated construction and approved opening protectives unless the openings meet one of the exceptions in IEBC 703.2.1. Since this is a Use Group E and Use Group A-4 occupancy then exception 6 and exception 4 are applicable. Therefore, the existing vertical openings in the E occupancy do not have to be rated. There are three stairs in the group E occupancy and an elevator. These do not need to be upgraded to have a rating if one does not exist since the building is equipped throughout with an automatic sprinkler system. The vertical openings in the A-4 occupancy only need to be ½ hour rated. The stairs to the basement do not need to be rated per 1016.1 exception 3 since it only connects 2 floors. The stairs to the stage do not require an enclosure since the stage is not considered a separate story. The two stairs are shown in the pictures below. New vertical openings are required to comply with 780 CMR 708.2.



9. Interior Finishes:

The existing interior finish of walls and ceilings in the work area and in all exits and corridors serving the work area must comply with the code requirements for new construction (IEBC 703.4 and 803.3). All newly installed wall and ceiling finishes, and interior trim materials must also comply with 780 CMR Table 803.9 (IEBC 602.1, 602.2, 602.3). The requirements are summarized below:

Walls & Ceilings (780 CMR Table 803.9) - Sprinklered

Use Group:	E	A-4
Exit Enclosures	Class B	Class B
Exit Access Corridors	Class C	Class B
Rooms & Enclosed Spaces	Class C	Class C

- Lobby areas are permitted to be Class B.

Note that where exit stairs and exit access corridors serve more than one use group, the most restrictive interior finish is required. The existing conditions of the interior finishing's appeared to comply with the code.

10. Exterior Finishes

For the addition exterior wall finishes must fully comply with the requirements of 780 CMR 14. Combustible materials are permitted to be used as an exterior wall finish for this building in accordance with 780 CMR Section 1406.0; however wood veneer and metal composite materials shall not exceed 40 feet in height above grade. If the wood is fire retardant treated then it is must not exceed 60 feet in height above grade. Wood veneer shall be attached to noncombustible backing.

The use of plastic materials as part of the exterior wall assembly must comply with 780 CMR 26. Plastic veneer shall not exceed 50 feet in height above grade, shall not exceed 300 square feet in area, and shall be separated by a minimum of 4 feet (780CMR 2605). Foam plastic installation shall comply with 780 CMR 2603 and be test in accordance with NFPA 285.

11. Means of Egress:

The means of egress including the number of exits and egress capacity must be sufficient for the number of occupants on all floors and adequate egress lighting and exit signs must be provided (780 CMR 102.6.4). The building contained exit signs and emergency lighting that appeared to provide fairly good coverage, however we did not perform a comprehensive survey of these systems. The calculated occupant load for the original floor plans and the egress capacity are summarized in the table below (780 CMR Table 1004.1.1, Table 1021.1, and 1005.1). See Appendix A of this report for detailed egress calculations.

Floor	Occupant load	Number of Exits		Exit Capacity (Persons)
		Required	Provided	
School Basement	7	1	1	155
Gym Basement	58	2	2	453

First Floor	503	2	5	2040
Second Floor	299	2	3	755
Third Floor	388	2	3	755
Little White house	62	2	3	680

General Egress Requirements

The means of egress in the work areas are required to comply with Chapters 6, 7, and 8 of the existing building code. The means of egress from the highest work area floor to the floor of exit discharge shall be provided with artificial lighting within the exit enclosure in accordance with the requirements of the IBC (IEBC 805.2). Means of egress from the highest work area to the floor of exit discharge shall be provided with exit signs in accordance with the requirements of the IBC. (IEBC 805.3). Since this is a single tenant space the provisions of chapter 7 do not apply.

Since the buildings is not used by multiple tenants, further egress provisions of the IEBC do not apply however the addition must comply with 780 CMR 10. This includes but not limited to the general requirements listed below.

- Maximum exit access travel distance for the E and A occupancy must not exceed 250 ft. for sprinklered buildings (780 CMR Table 1016.1).
- Maximum dead-end corridor length must not exceed 20 ft. or 2. 5 times the least width of the dead end corridor for the A occupancy. E occupancies in buildings equipped throughout with an automatic sprinkler system can have a dead end corridor not exceeding 50 feet (780 CMR 1018.4).
- All rooms or spaces with an occupant load greater than 50 people or a common path of egress travel distance over 75 ft, must be provided with two egress doors and illuminated exit signs at each exit (780 CMR Sections 1015.1, 1014.3, & 1011.1).
- Doors serving an occupant load of 50 or more must swing in the direction of egress travel and have panic hardware(780 CMR 1008.1.2)

12. Required Fire Protection Systems:

The building has an existing sprinkler system and an existing fire alarm system. The following fire protection systems must be maintained and upgraded as necessary in the existing areas:

- Automatic sprinkler system (IEBC 804.1, 780 CMR Table 903.2)
- Fire alarm (IEBC 804.2, 780 CMR 907.2.3, 780 CMR 9-7.2.1)

Existing previously approved fire alarm system and voice alarm system are allowed but must be automatically activated. (IEBC 912.2.2) Note that the fire alarm system and voice alarm system must be altered as necessary in the new construction areas to reflect the new configuration and comply with NFPA 72.

- Fire extinguishers (527 CMR 1 Section 13.6)

The following fire protection systems are required in a future addition.

- Automatic sprinkler system (780 CMR table 903.2)
- Fire alarm and emergency voice/alarm communication system (780 CMR 907.2.1, 780 CMR 907.2.3)
- Fire extinguishers (527 CMR 1 Section 13.6)
- Emergency responder radio coverage (780 CMR 915)

13. Energy Code Provisions for Existing Buildings

The building is subject to the 2015 International Energy Conservation Code (IECC) including the amendments contained in 780 CMR Chapter 13. The addition must completely follow the IECC for new construction and Level 3 alterations to existing buildings are permitted without requiring the entire building to comply with the energy requirements of the International Energy Conservation Code (IECC). The alterations (new elements) shall conform to the energy requirements of the IECC as they relate to new construction only (IEBC 808.1).

The Stretch Code is adopted by Tisbury but does not apply to existing buildings or additions to existing buildings (780 CMR Appendix AA104).

14. Ventilation Requirements

All reconfigured spaces must be provided with ventilation that complies with new occupancy requirements of the IBC (IEBC Section 709). The addition shall comply with new construction requirements of the IBC as well. The building shall be provided with natural ventilation in accordance with 780 CMR 1203.4(i.e. exterior openings equal to 4% of floor area) or mechanical ventilation in accordance with IMC. (780 CMR 1203.1)

15. Structural Provisions for Existing Buildings

Structural alterations and additions to buildings must be evaluated by a registered structural engineer to determine compliance with the IEBC. New structural elements are required to comply with 780 CMR (IEBC 807.2).

16. Plumbing

248 CMR: The Massachusetts State Plumbing Code

The Massachusetts Plumbing Code (248 CMR) regulates the number of plumbing fixtures required throughout buildings. The minimum number of plumbing fixtures is established by 248 CMR 10.10(18) Table 1 based on the building use and the expected population as determined by the local Plumbing Inspector per 248 CMR 10.10 (18)(2).

The Plumbing Inspector must approve the building population, however, the building population can generally be based on the designer's determination of the actual number of people expected within the building. The Plumbing Code expects that the building population will be divided evenly between male and female for the purpose of determining fixture counts. Any distribution other than 50/50 must be justified to the Plumbing Inspector.

The following factors listed in the table below must be utilized when determining the required number of fixtures based on the actual anticipated occupant load. The anticipated occupant load is 285 students. There are 9 grades so it is assumed that the occupant load is split evenly through the grades. There should be approximately 32 students per grade. These calculations include the occupant load from the white detached building.

Population	Classification	Water Closets		Male Urinals ¹	Lavatories (Each Sex)	Drinking Fountains	Service Sink
		Female	Male				
32	Kindergarten ²	1 per 20	1 per 20	-	1 per 20	1 per 75	1 per floor
	Required fixtures	1.6 Unisex		-	1.6 Unisex		
Total Required Fixtures		2 Unisex		-	2 Unisex		
Provided Fixtures		2 Unisex		-	2 Unisex		
128	Elementary	1 per 30	1 per 60	1 per 60	1 per 60		
64 Female	64 Male	Required fixtures	2.13	1.07	1.07		
Total Required Fixtures		3	2	2	2		
Provided Fixtures		4	3	3	2		
128	Secondary	1 per 30	1 per 90	1 per 90	1 per 90		
64 Female	64 Male	Required Fixtures	2.13	.07	.07		
Total Required Fixtures		3	1	1	1		
Provided Fixtures		4	2	3	2		
285	Students	-	-	-	-	3.8	
	Required Fixtures	-	-	-	-		
Total Required Fixtures		-	-	-	-	4	
Provided Fixtures		-	-	-	-	4	

1. Urinals are in addition to.
2. Unisex toilet facilities may be installed for children six years of age or younger in classroom areas or toilet rooms

Classification	Water Closets		Male Urinals ¹	Lavatories (Each Sex)	Drinking Fountains	Service Sink
	Female	Male				
Staff ²	1 per 20	1 per 25	33%	1 per 40	-	1 per floor
Kitchen ³	1 per 20	1 per 25	33%	1 per 40		

1. Urinals may be substituted for toilets up to the percentage shown of the required number of water closets.
2. Separate toilet facilities for Staff
3. Separate toilet facilities for Kitchen employees that are located in the kitchen area.

The Staff bathrooms cannot be located within the student toilet facilities. In addition auditoriums used for community service shall have 1 toilet per ever 200 seats for women, for men 1 toilet per every 600 seats and 1 urinal per every 200 seats, and the women’s and men’s toilet facilities shall be located within 300 feet.

17. Accessibility for Persons with Disabilities

Massachusetts Architectural Access Board Regulations

Alterations to the building must comply with the requirements of the Massachusetts Architectural Access Board Regulations (521 CMR). For existing building alterations the requirements of 521 CMR are based on the cost of the proposed work:

- A. If the cost of the proposed work is **less than \$100,000**, only the new work must comply.
- B. If the cost of the proposed work is **greater than \$100,000** then all new work must comply and the existing building must include an accessible public entrance, toilet room, telephone and drinking fountain (if public phones and drinking fountains are provided) (521 CMR Section 3.3.1(b)). Exempt work when calculating the cost of work includes roof repair or replacement, window repair or replacement, and repointing and masonry repair work unless the exempt work exceeds \$500,000.
- C. If the cost of the proposed work is **greater than 30% of the full and fair cash value** of the existing building, the entire building is required to comply with 521 CMR (521 CMR Section 3.3.2). There is no exempt work, i.e. the entire project costs apply to determining the 30% criteria.

The cost of all work performed on a building in any 36 month period must be added together in determining the applicability of 521 CMR (521 CMR Section 3.5). The full and fair cash value of the existing building is determined by using the 100% equalized assessed value of the building on record with the city assessor's office. If no assessed value exists or if the assessment is more than 3 years old, an appraised value may be substituted. The certified appraised value must be submitted to the Massachusetts Architectural Access Board for approval.

The work to be performed is major in scope. The assessment value from the town of Tisbury, Appendix B, is 9,957,000 dollars. If the scope of work goes over 2,987,100 dollars then all portions of the building open to the general public (students, visitors, etc) must be upgraded to comply in full with the current requirements of 521 CMR. Any employee-only areas such as staff lounges, staff bathrooms, and staff work areas are not required to comply with 521 CMR, as long as general public access is not permitted. It should be noted that the Access Board expects to extend their jurisdiction to employee areas. Major upgrades required to meet full compliance with the provisions of 521 CMR will likely include the following building features:

- All public entrances must be accessible (521 CMR 25.1)

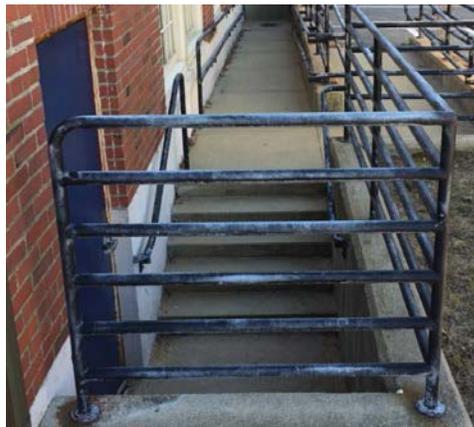


All entrances are accessible except for the main entrance which is not accessible to wheelchair access and the stairs are not accessible which is discussed below. The gym entrance is not accessible either due to the wood ramp inside the door, see picture above. All ramps that are used to enter the building must comply with 521 CMR 24.00.

All stairs that are used to enter the building must comply with 521 CMR 27.00.



Stair nosing shall not project more than 1 ½ inch



At the bottom of the stair the handrail shall continue to a slope for a distance of the width of one tread beyond the bottom riser and extend at least 12 inches plus the width of the one tread beyond the bottom riser. Some examples of noncompliance are shown above.

- Accessible routes throughout the building (521 CMR 20.1)

Accessible routes must be provided to all public spaces inside and outside of the building. The building has two elevators and inside the building all areas generally had accessible routes. The elevators should comply with 521 CMR 28. If any accessible route has a ramp then it must comply with 521 CMR 24.00.



There must be an accessible route from the school to the playground areas.

- Accessible Stairs (521 CMR 27.)

Stairs in a building also need to become accessible by complying with 521 CMR 27.00

Noncompliant stair nose



The underside of a stairs nosing shall not be abrupt. The underside of the nosing must not have an angle less than 60 degrees unlike the stairs shown above.

- Service counters (521 CMR 7.2)

Service counter such as the cafeteria need to comply with this section.

- Accessible toilet rooms (521 CMR 30)

Bathrooms should be accessible and comply with this section. The general toilet room was compliant. The issues with the toilet rooms are discussed below such as doors not having 18 inches for pulling them open or compliant handicap stalls.



All doors must comply with 521 CMR 26.00. The door above is an example of bathroom doors at the facility. It does not have at least 18 inches on the pull side that is required under the accessibility code.



Accessible stalls should have doors that swing out or if the door swings in it must be a clear space of 42 inches from edge of door and toilet as shown in the picture above.

Children toilet rooms:

The toilet rooms looked to be all adult heights in the general bathroom. There did not seem to be any lower fixtures for other ages except for the kindergarten rooms. At least one water closet and one sink should be provided in each location for children's toilet rooms. Or a separate accessible unisex toilet room shall be provided at each location

Kindergarten to Third Grade water closets shall be at a height of 12-15 inches. Fourth Grade to Sixth Grade water closets should be between 15-17 inches in height. Toilet paper dispensers shall be 14-17 inches in height for Kindergarten to Third Grade and 18-19 inches for Fourth Grade to Sixth Grade. Kindergarten to Third Grade shall have a grab bar at the height 20-25 inches and Fourth Grade to Sixth Grade should have a grab bar from 25- 27 inches. Sinks in toilet rooms should comply with 521 CMR 30.9 for adults and 30.16 for children. Adult sinks shall be no higher than 34 inch and shall only extend 17 inches from the wall. Children sinks shall be no higher than 30 inch and shall no extend more than 19 inches. The faucets for sinks shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist.

- Library (521 CMR 12.00)



Libraries shall be made accessible and shall comply with 521 CMR 12.2. At least 5% with a minimum of 1 of the tables, study carrels, computer stations and fixed seating shall be accessible. The aisle access way between tables must be at least 36 inches. Portion of the checkout counter cannot be more than 36 inches in height. Tables and desk height shall range from 28-34 inches.

- Classrooms (521 CMR 12.00)



Sinks and counters in class rooms must comply to 521 CMR 12.4 for accessibility code where at least 1 and up to 5% of each element is in a classroom. Counters and sinks shall be 28-34 inches high, 30 inches wide and 19 inched deep. 50% of shelf space in cabinets shall comply with 521CMR 6.5 and 6.6. Most classrooms were compliant for accessibility. The pictures above shows a non-compliant sink and counter area for someone in a wheelchair.

Kitchens shall comply with 521 CMR 32 for accessibility. Kitchens in classrooms shall have a 60 in diameter of clear space.



There must be 15 inches of open space next to oven ranges.

- Drinking fountains (521 CMR 36.00)

At least one drinking fountain per floor has to be accessible. When there is more than one on the floor then one at each location shall be accessible. Drinking fountains must comply with 521 CRM 36 for accessibility. The existing fountains all appear to be compliant.

- Assembly seating (521 CMR 14.00)

Bleachers shall be accessible and must comply with 521 CMR 14.



Bleacher seating that can seat 51- 300 need to provide 4 spaces for wheelchair spaces. At least one companion seat shall be provided next to each wheel chair seating space. Signage must be installed indicating that the seat are reserved as companion seating for accessible seating area. The picture above shows that the bleachers do not accommodate for wheelchair spaces.

- Performing Area (521 CMR 14.00)

Places where performances are held must comply with 521 CMR 14.00. The assembly area should have a permanently installed assistive listening system.

There must be an accessible route to the stage. An accessible route that coincides with the route for performers must be provided to the backstage area. Access to stage must be either by ramp or wheelchair lift. There is an elevator that goes to the stage but it requires passage through another classroom and does not meet MAAB requirement for access to be within the theater area.

- Tables and Seating (521 CMR 35.00)



Seating at tables such as the cafeteria shall be accessible and comply with 521 CMR 35.00. 5% of fixed tables shall be accessible and shall not have fixed seating. The accessible tables shall be 28-34 inches in height. The picture above shows that there is no accessible seating for the cafeteria.

- Parking (521 CMR 23.00)





Accessible parking spaces must be provided based on the total number of parking spaces (521 CMR 23.2.1). Additionally, one in every 8 accessible spaces, but not less than one, must be van accessible (521 CMR 23.2.2). The pictures above show that there is accessible parking in the front but no accessible parking in the back lot. Accessible parking in the back lot is needed for people that want to access the playground/field. The signs for accessible parking in the front are too low and there is no marked access aisle for the building.

Americans with Disabilities Act Guidelines

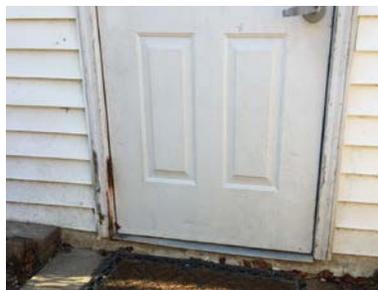
The ADA Guidelines are not enforced by the Commonwealth of Massachusetts, they can only be enforced through a civil lawsuit or complaint filed with the U.S. Department of Justice. Compliance with the ADA Guidelines is triggered by renovations to the existing building. All renovations to the building must be made to ensure that, to the maximum extent feasible, the altered portions of the facility are readily accessible to and usable by individuals with disabilities (28 CFR Part 36 Section 36.402(a)). Alterations made to provide an accessible path of travel to altered areas and accessible facilities (i.e. provide accessible toilet facilities) are not required if the cost exceeds 20% of the total cost of the alteration (28 CFR Part 36 Section 36.403(f)). However, if the cost to meet these accessibility requirements does exceed 20%, alterations are still required to the maximum extent that the area can be made accessible without exceeding the 20% criteria (28 CFR Part 36 Section 36.403(g)). The ADA also contains less stringent dimensional requirements for some building elements in an existing building where it is infeasible to meet the requirements for new construction (ADA Section 4.1.6).

18. White detached building



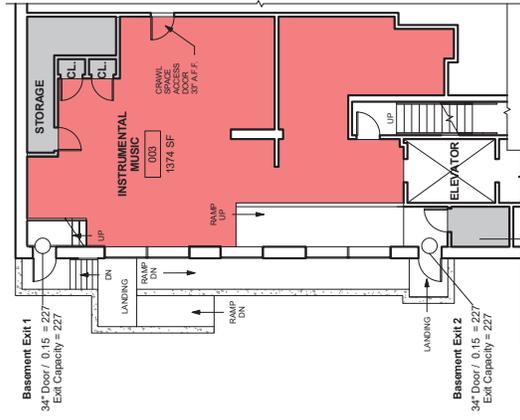
On the West side of the school there is a white building called Little White House. The building is used as a class room making it a Group Use - E occupancy. The inside of this building could not be examined. From examining the outside of the building it appears to be a construction type VB building. The building is located greater than 20 feet from the school, which means the exterior walls do not need to be fire rated. Since this is a type VB construction no walls, floor or roof construction has to be fire rated. This is a one story building so there is no shaft enclosure requirements.

This is a single tenant space so the provisions of IEBC chapter 7 does not apply for means of egress. The means of egress capacity calculations for this building are above in section 11: means of egress. The building has no sprinklers but is less than 12,000 square feet so it does not require sprinklers per 780 CMR 903 Table 903.2. There is a fire alarm system on the outside of the building. Existing previously approved fire alarm system and voice alarm system are allowed but must be automatically activated (IEBC 912.2.2). Note that the fire alarm system must be altered as necessary in the new construction areas to reflect the new configuration and comply with NFPA 72. Any new work to the building must comply with the 2015 IECC. Reconfigured spaces must comply with the IBC. There is no toilet facilities or drinking fountains in this building. When calculating the plumbing fixtures for the main building the occupant load from the white detached building will have to be included in the calculation. The building is not accessible. It was noticed from the outside that the entrances to the building are not accessible as shown in the pictures below. If the whole work on the school goes over 30% as stated in section 16, then this building would have to be brought up to accessibility requirements.



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Appendix A: Egress Plan



Occupant Load Level 0 Gym Basement

Use	Floor Area (SF)	Floor Area Per Occupant (SF / OCC)	Occupant Load
Classroom	1,148 SF	20	57.4
Storage/ Mechanical	1,736 SF	300	0.6
			56.0

Exit Capacity Level 0 (780 CMR 1005.1) Gym Basement

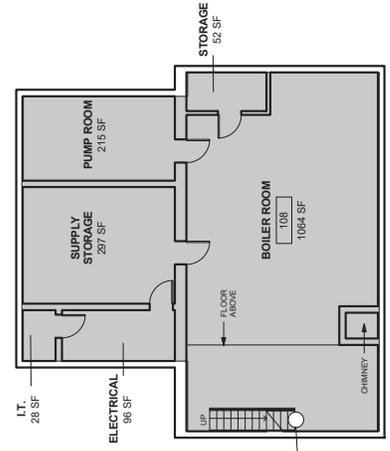
Exit	Stair Width (In / person)	Stair Exit Allowance (In / person)	Stair Capacity (persons)	Door Width (In / person)	Door Exit Allowance (In / person)	Door Capacity (persons)	Exit Capacity (persons)
Basement Exit 1	34"	34"	227	34"	0.15	227	227
Basement Exit 2	34"	34"	227	34"	0.15	227	227
							453

Occupant Load Level 0 Boiler Room Basement

Use	Floor Area (SF)	Floor Area Per Occupant (SF / OCC)	Occupant Load
Storage/ Mechanical	1,682 SF	300	6.3

Exit Capacity Level 0 (780 CMR 1005.1) Boiler Room Basement

Exit	Stair Width (In / person)	Stair Exit Allowance (In / person)	Stair Capacity (persons)	Door Width (In / person)	Door Exit Allowance (In / person)	Door Capacity (persons)	Exit Capacity (persons)
Boiler Stair	31"	31"	155	31"	0.2	155	155



Boiler Stair
31" Stair / 0.2 = 155
Exit Capacity = 155

Occupant Load Densities (780 CMR TABLE 1004.1.1)

15 Net S.F. / Occ.	Assembly without Fixed Seats - Unconcentrated (Tables and Chairs)
20 Net S.F. / Occ.	Classrooms
50 Gross S.F. / Occ.	Educational - Shops and Laboratories, Exercise and Fitness Areas; Locker Rooms
100 Gross S.F. / Occ.	Office Areas/Library Stack Area
200 Gross S.F. / Occ.	Residential; Parking; Kitchen
300 Gross S.F. / Occ.	Storage / Mechanical

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Phone: (617) 523-8016
www.rwsullivan.com
RWS JOB# 100560



Project: Tisbury School

Date: March 13, 2017

Scale: N.T.S.

**Level 0
Egress**

Occupant Load Level 2

Use	Floor Area (SF / OCC)	Occupant Load
Classroom	3673 SF	183.9
Conference	598 SF	30.0
Library	1812 SF	90.6
Office	1891 SF	94.5
Storage / Mechanical	1014 SF	50.7
	680 SF	34.0
	9473 SF	473.7

Exit Capacity Level 2 (780 CMR 1005.1)

Exit	Stair Width	Stair Exit Allowance (in / person)	Stair Capacity (persons)	Door Width	Door Exit Allowance (in / person)	Door Capacity (persons)	Exit Capacity (persons)
Stair 1	50"	0.2	250	68"	0.15	453	250
Stair 2	50"	0.2	250	68"	0.15	453	250
Stair 3	51"	0.2	255	68"	0.15	453	255
							755

Occupant Load Densities (780 CMR TABLE 1004.1.1)

15 Net S.F. / Occ.	Assembly without Fixed Seats - Unconcentrated (Tables and Chairs)
20 Net S.F. / Occ.	Classrooms
50 Gross S.F. / Occ.	Educational - Shops and Laboratories; Exercise and Fitness Areas; Locker Rooms
100 Gross S.F. / Occ.	Office Areas/Library Stack Area
200 Gross S.F. / Occ.	Residential; Parking; Kitchen
300 Gross S.F. / Occ.	Stairway / Mechanical

**Level 2
Egress**

Project: Tisbury School

Date: March 13, 2017

Scale: N.T.S.

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**Level 2
Egress**

Appendix B: Assessed Value

Parcel #: 8-A-1

Owner Name	TISBURY TOWN OF
Location	40 WEST WILLIAM ST
Street Name	WEST WILLIAM ST
Street Number Index	40
Street Number	40
Map	8
Map Cut	A
Block	N/A
Block Cut	N/A
Lot	1
Lot Cut	N/A
Unit	N/A
Unit Cut	N/A
Total Assessed Bldg Value	9957000
Total Assessed Extra Features	91100
Total Assessed Outldbg Value	59900
Total Assessed Improvements	10108000
Total Assessed Land Value	987000
Total Assessed Parcel Value	11095000
Use Code	934C
Use Descript	IMP EDU M94
Use Code 2	N/A
Use 2 Descript	N/A
Use Code 3	N/A
Use 3 Descript	N/A
Zone	R10
Zone Desc	N/A
Frontage	0
Grantee	TISBURY TOWN OF
Co grantee s Name	TISBURY SCHOOL
Mailing Address	BOX 1239

MODULE 3: PRELIMINARY DESIGN PROGRAM
1.4 EXISTING CONDITIONS

9 **ACOUSTICS**

EXECUTIVE SUMMARY

The acoustical conditions of the existing school will need updates to meet LEED and today's classroom acoustics standard (ANSI-S12.60). The following are field visit notes from our walkthrough.

1. The classrooms generally have acoustical ceiling panels extended through the entire classroom. For some classrooms, they are in relatively good shape and will likely meet the LEED reverberation time requirements for classrooms with slight modifications. Some classrooms have no acoustical finish ceiling, and some others have older acoustical panel ceilings that will unlikely meet today's standards.
2. Sound isolation between classrooms appear to be good horizontally where communicating doors are not present. Sound isolation is poor at walls where there are communicating doors. The doors do not appear to be gasketed. This will need to be upgraded to meet the LEED credit.
3. Sound isolation is very limited vertically due to the existing wood frame structure in parts of the school. This will be difficult to upgrade to meet the LEED credit since a reconstruction of the floor/ceiling assembly will be necessary.
4. Impact sound isolation is clearly an existing problem since all chairs and desks have tennis balls or glides. This is particularly the case for the areas with hard wood floors. This will also be difficult to upgrade to meet the LEED credit.
5. Unit ventilators serving the classrooms are outdated and considered noisy in today's HVAC design. Sample measurements of the operating unit ventilators exceeded the LEED prerequisite sound level.
6. The music classrooms are poorly sized and stacked on top of each other. The current configuration has poor sound isolation and classes most likely cannot be conducted concurrently without hearing the other class. It also will not be able to meet the LEED credit. Acoustical finishes within the room are outdated and can be upgraded.
7. The gymnasium lacks sufficient sound absorptive treatments for a space that is also used for performances.
8. The library is in relatively good shape since it is located in the newer wing of the school. Similarly, classrooms and labs located on this wing have newer acoustical finishes. However, the HVAC system is still similar to the rest of the school.

MODULE 3: PRELIMINARY DESIGN PROGRAM
1.4 EXISTING CONDITIONS

10 **STRUCTURE**

PURPOSE

The purpose of this report is to describe, in broad terms, the structure of the existing building; to comment on the condition of the existing building; and on the feasibility of renovation and expansion of the school.

SCOPE

1. Description of existing structure.
2. Comments on the existing condition.
3. Comments on the feasibility of renovation and expansion.

BASIS OF THE REPORT

This report is based on our visual observations during our site visit on December 28, 2016, a review of the feasibility study report prepared by Flansburgh Architects, dated December 4, 2012, drawings of the Auditorium/Gymnasium addition dated October 1, 1938 prepared by H.E. Mason Architect and drawings for the additions and renovations prepared by Anthony Tappe and Associates dated December 9, 1992. The drawings of the original 1929 construction were not available at the time of the writing of this report.

During our site visit, we did not remove any finishes or take measurements, so our understanding of the structure is limited to the available drawings and observations of the exposed structure and the exterior facade.

BUILDING DESCRIPTION

The school is located on West William Street in Vineyard Haven, Massachusetts. The original portion of the school was constructed in 1929. There were two additions constructed, one in 1938 and one in 1995. The building is a three-story masonry, concrete, steel and wood structure.

The structure is supported on traditional reinforced concrete foundations. The lowest level slab is a concrete slab on grade. The first and second floor of the original construction are wood planking spanning between open web metal joists spanning between interior steel beams, columns, bearing masonry walls and exterior bearing masonry walls. The floors of the 1992 addition are concrete slabs on metal form deck supported on open web bar joists spanning between wide flange steel girders and columns. The typical pitched roof in the original structure is framed with open web steel joists supported on interior wood stud cripple walls on steel beams and exterior masonry walls. The long span auditorium roof is constructed of structural steel trusses supporting wood framing members. The steel trusses are bearing on steel columns within masonry walls. The roof of the 1995 addition is metal deck spanning between open web steel joists spanning between wide flange steel girders and columns.

EXISTING CONDITIONS

Based on our observations, the school structure is in fair condition. We observed signs of water leaks at numerous locations. The exterior masonry walls of the original construction are in poor condition and there are signs of water infiltration through these walls. The exterior lintels over the doors and windows are heavily corroded and need to be replaced. The corrosion of the lintels has caused distress in the masonry causing the masonry to sag and crack. We observed spalling of the cast stone in the masonry façade. We observed signs of water leaks in the upper levels even in the 1995 addition. The roof framing of the original construction requires stabilization. The roof pitch that is created by the wood stud cripple walls leaves the roof steel beams unbraced and does not appear to be well connected to the roof sheathing. We observed deterioration in the exterior concrete stairs and they are in need of repair or may require replacement. We did not observe positive connections of interior masonry walls to the building structure and these may require further investigation and may require new connections. We did not observe any signs of foundation settlement. We did not observe or perceive any undue vibrations due to footfalls on the floors. We observed excessive sound transmission in the classrooms between floors.

FEASIBILITY OF RENOVATION AND EXPANSION OF THE STRUCTURE

Depending on the scope of the renovations to the school, it may be feasible to make modifications to the existing structure without requiring full compliance with the code requirements for new construction. We would recommend that any additions, if planned, be separated from the existing structure by way of expansion joints.

PRIMARY STRUCTURAL CODE ISSUES RELATED TO THE EXISTING STRUCTURE

If any repairs, renovations, additions or change of occupancy or use are made to the existing structures, a check for compliance with 780 CMR, Chapter 34 “Existing Structures” (Massachusetts Amendments to The International Existing Building Code 2009) of the Massachusetts Amendments to the International Building Code 2009 (IBC 2009) and reference code “International Existing Building Code 2009” (IEBC 2009) is required. The intent of the IEBC and the related Massachusetts Amendments to IEBC is to provide alternative approaches to alterations, repairs, additions and/or a change of occupancy or use without requiring full compliance with the code requirements for new construction.

The IEBC provides three compliance methods for the repair, alteration, change of use or additions to an existing structure. Compliance is required with only one of the three compliance alternatives. Once the compliance alternative is selected, the project will have to comply with all requirements of that particular method. The requirements from the three compliance alternatives cannot be applied in combination with each other.

The three compliance methods are as follows:

1. Prescription Compliance Method.
2. Work Area Compliance Method.
3. Performance Compliance Method.

Comment

The approach is to evaluate the compliance requirements for each of the three methods and select the method that would yield the most cost effective solution for the structural scope of the project. The selection of the compliance method may have to be re-evaluated after the impact of the selected method is understood and after analyzing the compliance requirements of the other disciplines, Architectural, Mechanical, Fire Protection, Electrical and Plumbing.

Since the existing building contains un-reinforced masonry wall structures, the analysis and reinforcement of the existing structure would be governed by the requirements of Appendix A1 “Seismic Strengthening Provisions for Un-reinforced Masonry Bearing Wall Buildings” in the IEBC.

Prescriptive Compliance Method

In this method, compliance with Chapter 3 of the IEBC is required. As part of the scope of this report, the extent of the compliance requirements identified are limited to the structural requirements of this chapter.

Additions

Based on the project scope, the following structural issues have to be addressed:

- All additions should comply with the code requirements for new construction in the IBC.
- For additions that are not structurally independent of an existing structure, the existing structure and its addition, acting as a single structure, shall meet the requirements of the code for new construction for resisting lateral loads, except for the existing lateral load carrying structural elements whose demand-capacity ratio is not increased by more than 10 percent, these elements can remain unaltered.
- Any existing gravity, load-carrying structural element for which an addition or its related alterations causes an increase in the design gravity load of more than 5 percent shall be strengthened, supplemented or replaced.

Alterations

- Any existing gravity, load-carrying structural element for which an addition or its related alterations causes an increase in the design gravity load of more than 5 percent shall be strengthened, supplemented or replaced.
- For alterations that would increase the design lateral loads or cause a structural irregularity or decrease the capacity of any lateral load carrying structural element, the structure of the altered building shall meet the requirements of the code for new construction, except for the existing lateral load carrying structural elements whose demand-capacity ratio is not increased by more than 10 percent, these elements can remain unaltered.

Work Area Compliance Method

In this method, compliance with Chapter 4 through 12 of the IEBC is required. As part of the scope of this report, the extent of the compliance requirements identified are limited to the structural requirements of these chapters.

In this method, the extent of alterations has to be classified into LEVELS OF WORK based on the scope and extent of the alterations to the existing structure. The LEVEL OF WORK can be classified into LEVEL 1, LEVEL 2 or LEVEL 3 Alterations. In addition, there are requirements that have to be satisfied for additions to the existing structure.

The extent of the renovations (includes Architectural, FP and MEP renovations) for this project will exceed 50 percent of the aggregate area of the building, thus the LEVEL OF WORK for this project would be classified as LEVEL 3 Alterations. This would require compliance with provision of Chapter 6, 7 and 8 of the IEBC. If the scope of the project includes new additions to the existing structure; this would trigger compliance with provisions in Chapter 10 of the IEBC.

Level 3 Alterations

- Any existing gravity, load-carrying structural element for which an alteration causes an increase in the design gravity load of more than 5 percent shall be strengthened, supplemented or replaced.
- For alterations where more than 30 percent of the total floor area and roof areas of a building or structure have been, or proposed to be, involved in structural alterations within a 12 month period, the evaluation and analysis shall demonstrate that the altered building complies with the full design wind loads as per the code requirements for new construction and with reduced IBC level seismic forces.
- For alterations where not more than 30 percent of the total floor and roof areas of a building are involved in structural alterations within a 12 month period, the evaluation and analysis shall demonstrate that the altered building or structure complies with the loads at the time of the original construction or the most recent substantial alteration (more than 30 percent of total floor and roof area). If these alterations increase the seismic demand-capacity ratio on any structural element by more than 10 percent, that particular structural element shall comply with reduced IBC level seismic forces.
- For alterations that involve structural alterations to more than 30 percent of the total floor and roof area of a building within a 12 month period, the evaluation and analysis shall demonstrate that the altered building structure complies with IBC for wind loading and with reduced IBC level seismic forces.
- For alterations where more than 25 percent of the roof is replaced for buildings assigned to seismic design category B, C, D, E or F, all un-reinforced masonry walls shall be anchored to the roof structure and un-reinforced masonry parapets shall be braced to the roof structure.

Additions

- All additions shall comply with the requirements for the code for new construction in the IBC.
- Any existing gravity, load-carrying structural element for which an addition or its related alterations cause an increase in design gravity load of more than 5 percent shall be strengthened, supplemented or replaced.
- For additions that are not structurally independent of any existing structures, the existing structure and its additions, acting as a single structure, shall meet the requirements of the code for new construction in the IBC for resisting wind loads and IBC Level Seismic Forces

(may be lower than loads from the Code for New Construction in the IBC), except for small additions that would not increase the lateral force story shear in any story by more than 10 percent cumulative. In this case, the existing lateral load resisting system can remain unaltered.

Performance Compliance Method

Following the requirements of this method for the alterations and additions may be onerous on the project because this method requires that the altered existing structure and the additions meet the requirements for the code for new construction in the IBC.

PARTICULAR REQUIREMENTS OF COMPLIANCE METHODS

For our project, in order to meet compliance with one of the two compliance methods “Prescriptive Compliance Method” or the “Work Area Compliance Method”, we have to address the following:

Prescriptive Compliance Method

Additions

The proposed additions would be designed structurally independent of the existing structures, thus, would not impart any additional lateral loads on the existing structure.

If the proposed alterations are such that the alterations increase the design lateral loads on the existing building or cause any structural irregularity or decrease the lateral load carrying capacity of the building, the structure of the altered building shall meet the requirements of the Code for New Construction in the IBC.

If the proposed additions increase the design gravity load on portions of the existing roof members, these members would have to be reinforced and this incidental structural alteration of the existing structures would have to be accounted for in the scope of the alterations to the existing schools and would trigger requirements for alterations.

Alterations

Alterations that would increase the design gravity loads by more than 5 percent on any structural members would have to be reinforced.

If the proposed alterations of the structures increase the effective seismic weight on the existing structures due to the greater snow loads from the drifted snow against any proposed additions, or, by addition of equipment on the roof, the increase of the effective seismic weight from the drifted snow and the equipment would require that the existing lateral load resisting system comply with the requirements of the code for new construction in the IBC and it would increase

the demand-capacity ratio on certain structural elements of the existing lateral load resisting system.

Work Area Compliance Method

Level 3 Alterations

If the proposed structural alterations of an existing structure are less than 30 percent of the total floor and roof areas of the existing structure, we have to demonstrate that the altered structure complies with the loads applicable at the time of the original construction and that the seismic demand-capacity ratio is not increased by more than 10 percent on any existing structural element. Those structural elements whose seismic demand-capacity ratio is increased by more than 10 percent shall comply with reduced IBC level seismic forces. The percentage increase in seismic demand-capacity ratio on any particular structural element from the added snowdrift load against the proposed addition would be fairly low, thus, this would not have any major impact on the existing lateral load resisting system, though we would have to verify that the increase in seismic demand-capacity ratio on any of those particular structural elements is not greater than 10 percent.

If the proposed structural alterations of an existing structure exceed 30 percent of the total floor and roof areas of an existing structure, we have to demonstrate that the altered structure complies with the IBC for wind loading and with reduced IBC level seismic forces.

The seismic design category (SDC) of the existing structures is 'B'; thus, the replacement of the existing roofs would trigger anchorage of un-reinforced masonry walls to the roof structures and bracing of un-reinforced masonry parapets to the roof structures. All un-reinforced masonry walls in the existing schools will have to be identified. These un-reinforced masonry walls are required to be anchored to the roof structures. Since there are no existing un-reinforced masonry parapets, this requirement does not have any impact on the structural scope of the project.

Additions

The proposed additions would be designed structurally independent of the existing structures, thus, they would not impart any additional lateral loads on the existing structures.

Comment

The compliance requirements of the two methods, in most respects, are very similar. The Prescriptive Compliance Method would require that the existing lateral load resisting systems meet the requirements of the code for new construction of the IBC, even for small increases of design lateral loads. We are required to comply with some of the requirements of Appendix A1 of IEBC for either method, which requires anchorage of all existing masonry walls. Based on this, we would recommend the Work Area Compliance Method for the project.

SUMMARY

The existing school structure appears to be performing well. The exterior masonry walls of the original structure are in poor condition. The roof framing of the original structure would require stabilization and possible reinforcement. The existing masonry wall connections, if they exist, may require reinforcement. The exterior stairs may have to be replaced or repaired.

Any proposed renovations and additions would likely require that the structure be updated to meet the requirements for the code for new construction. This may require addition of some shear walls, connecting the floor and roof diaphragms to the existing masonry walls and the clipping of non-structural masonry walls to the structure. All of the existing masonry walls would have to be adequately connected to the roof and floor structure.

MODULE 3: PRELIMINARY DESIGN PROGRAM
1.4 EXISTING CONDITIONS

11 **GEOTECHNICAL**

Lahlaf Geotechnical Consulting, Inc. (LGCI) has completed a preliminary review of the available subsurface data for the proposed Tisbury Elementary School Tisbury, Massachusetts.

The purpose of our services was to review the existing information and to submit this report containing a summary of the subsurface data we reviewed. Our report also includes our opinion about possible issues that may affect the construction of the proposed foundations. We understand that explorations will be performed at the site during the schematic design (SD) phase and design development (DD) phase.

Reviewed Documents

LGCI reviewed the geotechnical aspect of following documents:

- Map titled: “Surficial Geologic Map of Martha’s Vineyard, Massachusetts,” prepared by Stone, B.D., and DiGiacomo-Cohen, M.L. for U.S. Geological Survey, Open File Report 2006-1260 E, 2009.
- Logs of soil borings advanced at the site of the existing school and provided to us by Turowski2 via e-mail on January 5, 2017.
- Drawing titled: “Auditorium, Gymnasium for The Town of Tisbury, Mass,” prepared by H. E. Mason Architect and dated October 1, 1938 (1938 Plans)
- Drawings AS.1.1 and AS.1.2, titled: “Existing Conditions Site Plan, Additions and Renovations to the Tisbury Elementary School, Tisbury, Massachusetts,” prepared by Anthony Tappe and Associates, Inc. and dated December 9, 1992 (Existing Conditions Plan)
- Drawing titled: “New Site Plan and Details, Additions and Renovations to the Tisbury Elementary School, Tisbury, Massachusetts,” prepared by Anthony Tappe and Associates, Inc. and dated December 9, 1992 (Site Plan)
- Structural Drawings S1 to S5 titled: “Classroom Addition Plans; Gymnasium, Locker Room & Entry Part Plans, Plans Sections & Details; Typical Details; General Notes, Schedules and

Details; and Sections & Details, Additions and Renovations to the Tisbury Elementary School, Tisbury, Massachusetts,” prepared by Anthony Tappe and Associates, Inc. and dated December 9, 1992 (Structural Drawings).

Site Location and Project Description

We understand that Turowski2 Architecture, Inc. (T2) was selected to conduct a feasibility study for the proposed Tisbury Elementary School in Tisbury, Massachusetts. The existing school is located between Spring Street and West William Street in Tisbury, Massachusetts as shown in Figure 1. The existing school is accessible from both Spring Street and West William Street. The site includes the existing one- to three-story school building, an access driveway on West William Street, paved parking lots on the northern side (accessible from Spring Street), playgrounds west of the school building, and athletic fields on the eastern side of the site.

We understand that the original school building was constructed in the 1930s and that an addition was constructed in the early 1990s as part of renovations to the school.

We understand that, at this time, the project is in the Project Development Process (PDP) stage and that our review will be used to assist T2 Architecture with the Preferred Schematic Report (PSR). At this time, it is not known whether the project will proceed at this site with additions, or new construction and where the proposed construction, if any, will take place.

Review of Existing Drawings

Based on our review of sheets 1 and 2 of the 1938 Drawings, the original building is supported on spread footings. Sheet 3 of the 1938 Drawings indicates that the existing gymnasium has a basement level on the northern side and that slight fill was required on the southern side to establish a level building pad. The Structural Drawings indicate that the 1990s addition is also supported on shallow spread footings.

The Site Plan indicates that the site is generally level and at grade with West William Street. The Site Plan also indicates that the grades drop from immediately against the building to the eastern and northern sides by 5 to 10 feet. The Existing Conditions Plan indicates that the finished floor elevation (FFE) of the gymnasium is at about El. 99.25 feet. The FFE of the remainder of the building is between El. 99.14 feet and El. 95.18 feet.

Summary of Existing Subsurface Data

Surficial Geologic Maps – The surficial geologic map indicates that the natural soils at the site consist mostly of coarse deposits. These deposits are comprised of gravel deposits, sand and gravel deposits, and sand deposits. Coarser layers may contain up to 25 percent gravel, and finer layers may contain very fine sand, silt, and clay. The surficial geologic map of the site is shown in Figure 2.

Previous Borings – Five (5) borings were advanced by Al Shiner Test Boring, Inc. in 1992 as part of the 1990s school renovation project. The borings extended to depths of 20 feet beneath the ground surface. The borings indicated sand and gravel extending to the boring termination depths. The sand and gravel layer was generally loose in the top 5 feet and medium dense to dense at depths greater than 5 feet. The logs of the previous borings and a boring location plan are attached to this letter.

Preliminary Recommendations

Please note that the review of available information summarized in this letter is not a substitute for a subsurface exploration program. The information gathered as part of this review may be incomplete and the recommendations derived therefrom are at best preliminary in nature and must be confirmed with actual subsurface explorations, laboratory testing, and geotechnical analyses.

Based on the available subsurface data, we believe that the subsurface conditions at the site are suitable to support shallow foundations after the surficial topsoil, subsoil, and root balls are removed.

Based on the site topography and the presence of a basement on the northern side of the existing gymnasium, we anticipate that the top few feet of soil will likely consist of fill that may need to be removed during construction. The depth and lateral extent of removal will be determined after subsurface explorations are performed at the site.

To explore the depth and lateral extent of the existing fill and to characterize the natural soil within the proposed construction area, we recommend performing test pits and soil borings at the site. We believe that an exploration program consisting of one (1) day of test pits and one (1) day of borings will be sufficient during the SD phase. Additional test pits and borings should be performed during the DD phase.

Please note that the natural soils at the site are sandy in nature and ravel easily in excavations. If the project proceeds with additions to the existing building, the design should include underpinning of existing footings where proposed foundations are designed in proximity of existing footings.

Limitations

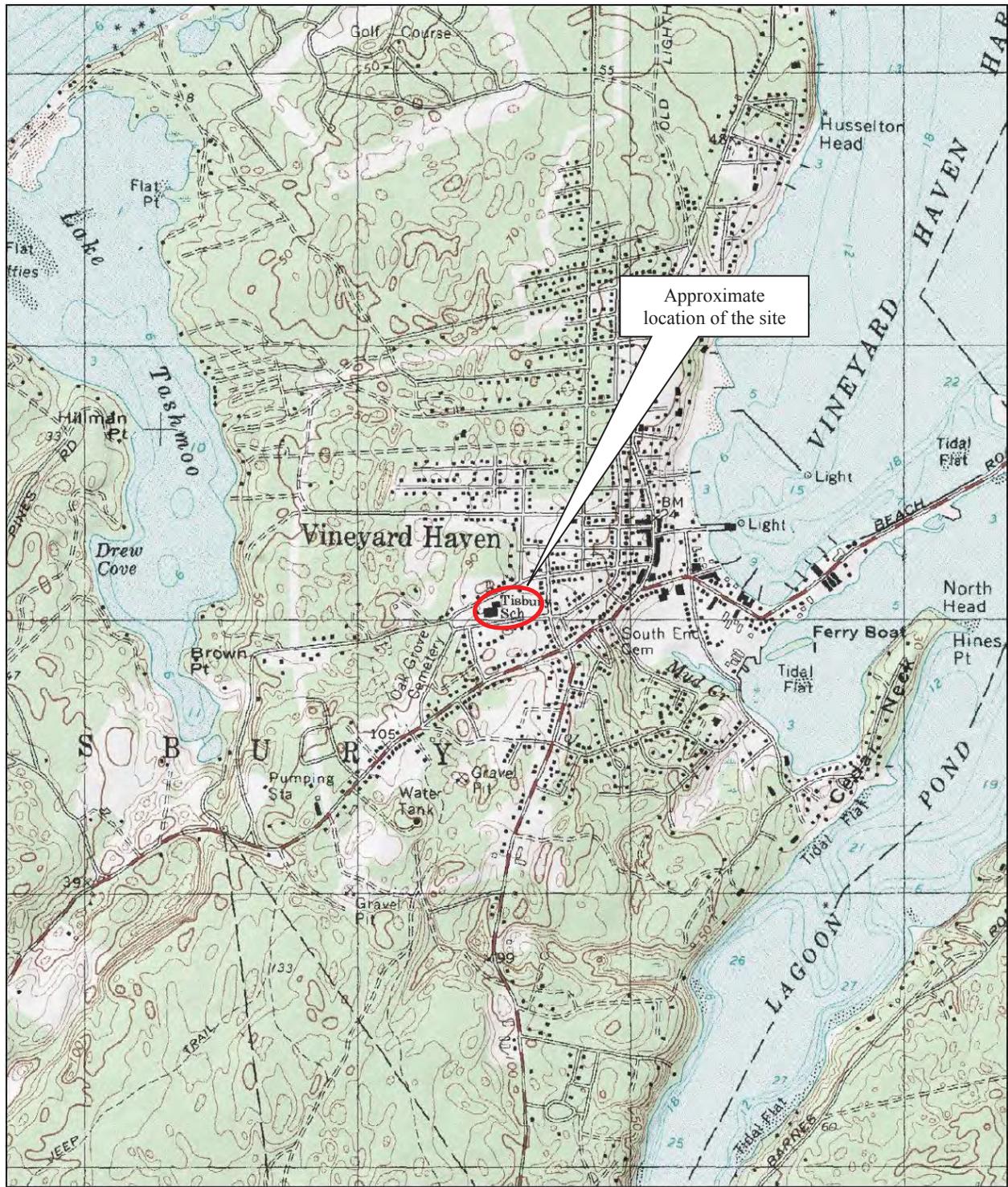
Our letter is based on project information provided to us at the time of this letter. If changes to the type, size, and location of the proposed structures or to the site grading are made, the recommendations contained in this letter shall not be considered valid unless the changes are reviewed and the conclusions and recommendations modified in writing by LGCI. LGCI cannot accept responsibility for designs based solely on these preliminary recommendations.

It is not part of our scope to perform a more detailed site history; therefore, we have not explored for or researched the locations of buried utilities or other structures in the area of the proposed construction. Our scope did not include environmental services or services related to moisture, mold, or other biological contaminants in or around the site.

The recommendations in this letter are based in part on the data obtained from the review of existing subsurface data. The recommendations contained in this letter are at best preliminary in nature and must be confirmed with actual subsurface explorations, laboratory testing, and geotechnical analyses.

Our letter has been prepared in accordance with generally accepted engineering practices and in accordance with the terms and conditions set forth in our agreement. No other warranty, expressed or implied, is made. This report has been prepared for the exclusive use of Turowski2 Architecture, Inc. for the specific application to the proposed Tisbury Elementary School in Tisbury, Massachusetts as conceived at this time.

Attachments: Figure 1 – Site Location Map (1 sheet) Figure 2 –
Surficial Geologic Map (1 sheet) Logs of Previous
Borings (6 sheets)Material Summary Report.



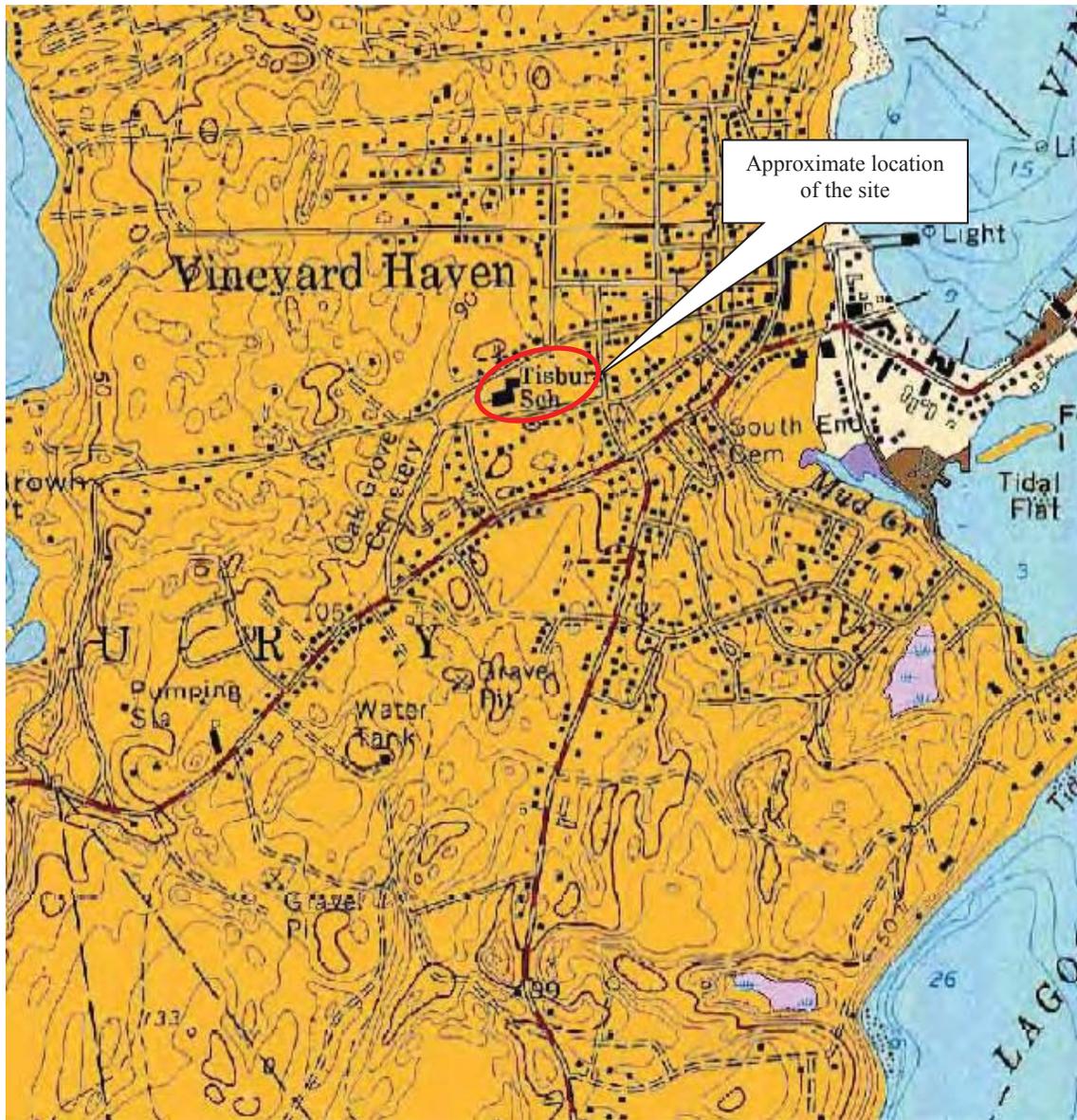
0 0.5 Mi
0 3000 Ft

Map provided by MyTopo.com

Contour Intervals: 10 meters

Figure based on USGS topographic map of Everett, MA obtained from www.mytopo.com/maps

Client: Turowski2 Architecture, Inc.	Project: Proposed Tisbury Elementary School	Figure 1 – Site Location Map	
 LGCI Lahlaf Geotechnical Consulting, Inc.	Project Location: Tisbury, MA	LGCI Project No.: 1704	Date: Feb. 2017



Coarse deposits include *Gravel deposits* composed of at least 50 percent gravel-size clasts; cobbles and boulders predominate; minor amounts of sand occur within gravel beds, and sand composes few separate layers. Gravel layers generally are poorly sorted and bedding commonly is distorted and faulted due to postdepositional collapse related to melting of ice. *Sand and gravel deposits* are composed of mixtures of gravel and sand within individual layers and as alternating layers. Sand and gravel layers generally range from 25 to 50 percent gravel particles and from 50 to 75 percent sand particles. Layers are well to poorly sorted; bedding may be distorted and faulted due to postdepositional collapse. *Sand deposits* are composed mainly of very coarse to fine sand, commonly in moderately sorted layers. Coarser layers may contain up to 25 percent gravel particles, generally granules and pebbles; finer layers may contain some very fine sand, silt, and clay

Figure based on map titled: "Surficial Geologic Map of Martha's Vineyard, Massachusetts," prepared by Stone, B.D., and DiGiacomo-Cohen, M.L. for U.S. Geological Survey, Open File Report 2006-1260 E, 2009.

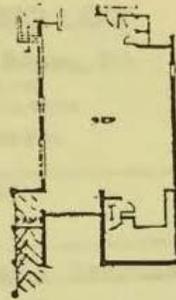
Client: Turowski2 Architecture, Inc.	Project: Proposed Tisbury Elementary School	Figure 2 – Surficial Geologic Map	
 LGCI Lahlaf Geotechnical Consulting, Inc.	Project Location: Tisbury, MA	LGCI Project No.: 1704	Date: Feb. 2017

SEWAGE FLOW ESTIMATES.*
 (From Article XI - The Sanitary Code)

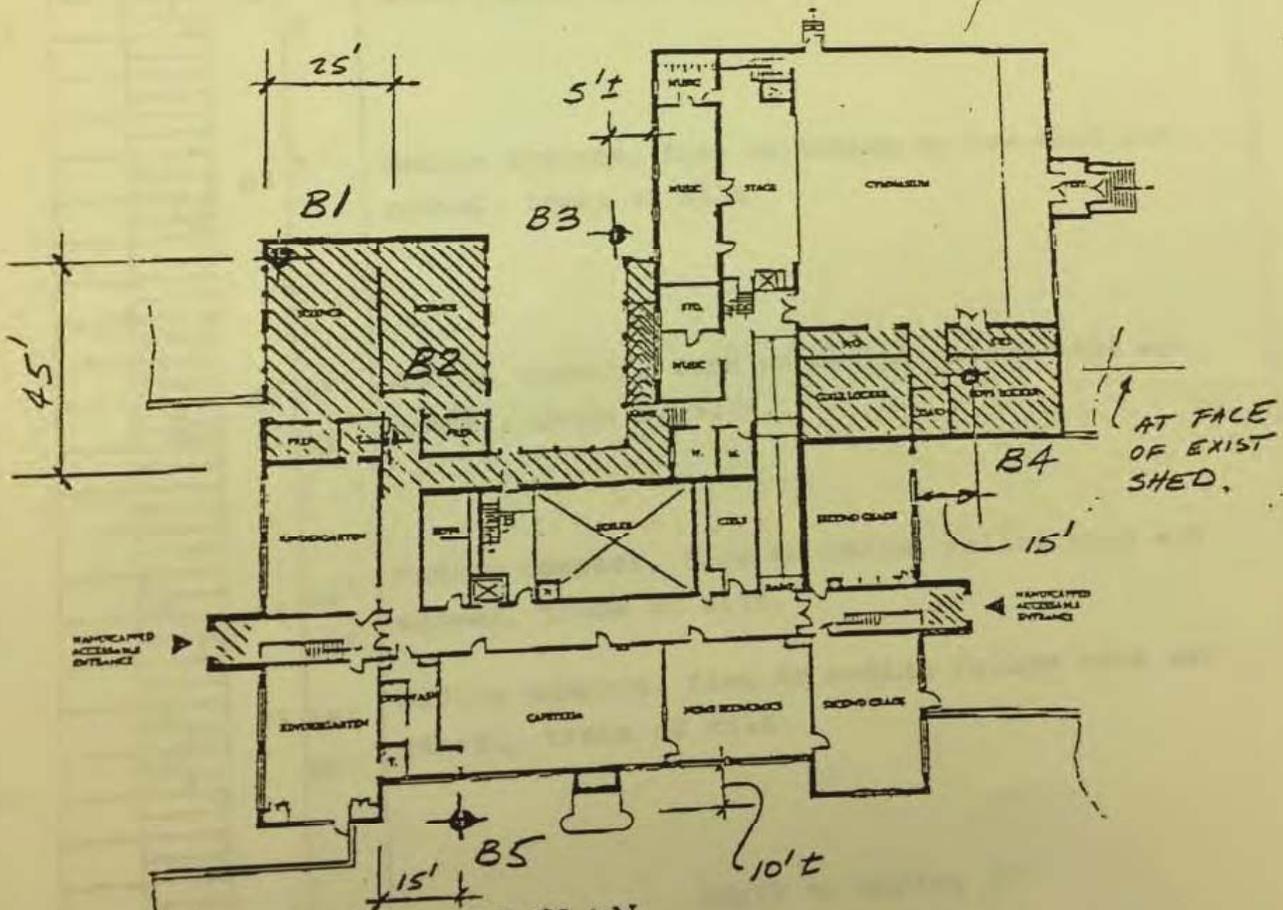
TYPE OF ESTABLISHMENT

DEC 8 '92 9:19

PAGE.002



LOWER FLOOR PLAN



FIRST FLOOR PLAN
 SCHEME B-3

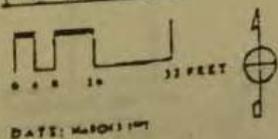
NEW CONSTRUCTION

TISBURY ELEMENTARY SCHOOL

ANTHONY TAPPE AND ASSOCIATES, INC.

PROPOSED BOILING
 PLAN 3/20/92

NEW CONSTRUCTION
 8,900 SQUARE FEET



DATE: MARCH 1992

TEST BORING LOG

Al Shiner Test Boring, Inc.
P.O. BOX 142
MELROSE, MA 02176
Tel. (617) 665-0452

PROJ. NO
Tisbury Elementary
LOCATION School
FILE NO.
OFFSET
GROUND ELEVATION
HOLE NO. B-1
CASING SAWPLER CORE BARR
TYPE BW SS
SIZE I.D. 3" 1-3/8"

FINISH 5/18/92
GHT OF HAMMER (140) 300
GHT OF FALL 30" 24"
GROUND WATER OBSERVATION
DATE 5/18 TIME Comp. DEPTH N/W
AMPLER O.D. 2" I.D. 1-7/8"
TYPE OF RIG GMC

CLIENT
A. Anthony Tappe & Associates
132 Lincoln Street
Boston, MA

DEPTH IN FEET	STRATA CHANGE	CASING BLOWS PER FOOT	SAMPLER BLOWS PER 6 INCHES	SAMPLE NUMBER	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
2'			3	S1	0'	Loose yellow sand and gravel.
			4		2'	
			5			
			4			
5'			5	S2	5'	Medium compact, fine to medium yellow sand and gravel, trace of silt.
			9		7'	
			7			
			7			
10'			7	S3	10'	Medium compact, fine to medium yellow sand and gravel, trace of silt.
			7		12'	
			8			
			10			
15'			9	S4	15'	Medium compact, fine to medium yellow sand and gravel, trace of silt.
			8		17'	
			10			
			11			
20'	20'		9	S5	18'	Medium compact, fine to medium yellow sand and gravel, trace of silt.
			10		20'	
			10			
			9			
25'						
30'						

Depth of boring 20'

PARK PRESS 5291

Proportions used: trace 0-10%, little 10-20%, some 20-35%, and 35-50%

DRILLER Frank Doyle SAMPLE TYPE C Cored W Washed

COHESIONLESS DENSITY 0.4 very loose 2.4 soft

COHESIVE CONSISTENCY 0.2 very soft 2.4 soft

TOTAL FOOTAGE Earth Boring 20' Rock Coring _____

TEST BORING LOG

SHEET 01

DATE FINISH 5/18/92
 HEIGHT OF HAMMER 140 300
 HEIGHT OF FALL 30" 24"
 GROUND WATER OBSERVATION
 DATE 5/18 TIME Comp. DEPTH N/W
 SAMPLER O.D. 2" ID 1-7/8"
 TYPE OF RIG GMC

Al Shiner Test Boring, Inc.
 P.O. BOX 142
 MELROSE, MA 02176
 Tel. (617) 665-0852

PROJ. NO. Tisbury Elementary
 LOCATION School
 FILE NO. _____
 OFFSET _____
 GROUND ELEVATION _____
 HOLE NO. B-2
 CASING SAMPLER CORE BARR
 TYPE BW SS
 SIZE I.D. 3" 1-3/8"

CLIENT A. Anthony Tappe & Associates
132 Lincoln Street
Boston, MA

SCALE IN FEET	STRATA CHANGE	CASING BLOWS PER FOOT	SAMPLER BLOWS PER 6 INCHES	SAMPLE NUMBER	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
			2	S1	0'	Loose black and yellow sand and gravel, trace of silt.
			3		2'	
2'			2			
			9	S2	5'	Medium compact, fine to medium yellow sand, some gravel, trace of silt.
			7		7'	
5'			9			
			18	S3	10'	Compact, fine to medium yellow sand, some gravel, trace of silt.
			14		12'	
9'			16			
			16	S4	15'	Compact, fine to medium yellow sand, some gravel, trace of silt.
15'			8		17'	
			17			
			17	S5	18'	Compact, fine to medium yellow sand, some gravel, trace of silt.
			8		20'	
20'	20'		19			
						Depth of boring 20'
25'						
30'						

Proportions used: trace 0-10%, little 10-20%, some 20-35%, and 35-50%

TOTAL FOOTAGE

DRILLER Frank Doyle
 SAMPLE TYPE _____
 COHESIONLESS DENSITY _____
 COHESIVE CONSISTENCY _____
 Earth Boring 20'
 Back Coring _____

TEST BORING LOG

Al Shiner Test Boring, Inc.
 P.O. BOX 142
 MELROSE, MA 02176
 Tel. (617) 665-0852

PROJ. NO. _____
 LOCATION Tisbury Elementary School
 FILE NO. _____
 OFFSET _____
 GROUND ELEVATION _____
 HOLE NO. B-4
 CASING SAMPLER CORE BARR
 TYPE BW SS
 SIZE I.D. 3" 1-3/8"

FINISH 5/19/92
 WGT OF HAMMER (140) 300
 WGT OF FALL (30") 24"
 GROUND WATER OBSERVATION
 DATE 5/19 TIME Comp. DEPTH N/W

SAMPLER O.D. 2" I.D. 1-7/8" A. Anthony Tappe & Associates
132 Lincoln Street
Boston, MA
 CLIENT _____

DEPTH IN FEET	STRATA CHANGE	CASING BLOWS PER FOOT	SAMPLER BLOWS PER 6 INCHES	SAMPLE NUMBER	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
3'			2	S1	0'	Loose brown loamy sand, some gravel, trace of silt.
			2		2'	
			4			
5'			6	S2	5'	Medium compact, fine to medium yellow sand and silt, little gravel.
			5		7'	
			6			
7'6"			7			
10'			17	S3	10'	Compact, fine to medium yellow sand, some gravel, trace of silt.
			18		12'	
			19			
15'			13	S4	15'	Compact, fine to medium yellow sand, some gravel, trace of silt.
			14		17'	
			15			
20'			14	S5	18'	Compact, fine to medium yellow sand, some gravel, trace of silt.
			15		20'	
			13			
Depth of boring 20'						

DRILLER Frank Doyle SAMPLE TYPE _____
 Proportions used: trace 0-10%, little 10-20%, some 20-35%, and 35-50%
 COHESIONLESS DENSITY _____ COHESIVE CONSISTENCY _____
 0-4 very loose 0-2 very soft
 2-4 soft
 TOTAL FOOTAGE Earth Boring 20' " " Rock Coring _____ "

TEST BORING LOG

Al Shiner Test Boring, Inc.
 P.O. BOX 142
 MELROSE, MA 02176
 Tel. (617) 665-0852

PROJ. NO. _____
 LOCATION Tisbury Elementary School
 FILE NO. _____
 OFFSET _____
 GROUND ELEVATION _____
 HOLE NO. B-5
 CASING SAMPLER CORE BARR
 TYPE BW SS
 SIZE I.D. 3" 1-3/8"

5/19/92
 WEIGHT OF HAMMER (140) 300
 HEIGHT OF FALL (30) 24"
 GROUND WATER OBSERVATION
 DATE 5/19 TIME Comp. DEPTH N/W
 SAMPLER O.D. 2" ID 1-7/8"
 TYPE OF RIG GMC

CLIENT
A. Anthony Tappe & Associates
132 Lincoln Street
Boston, MA

DEPTH IN FEET	STRATA CHANGE	CASING BLOWS PER FOOT	SAMPLER BLOWS PER 6 INCHES	SAMPLE NUMBER	SAMPLE DEPTH RANGE	FIELD CLASSIFICATION AND REMARKS
0' - 2'						No sample 0' to 2'
5' - 7'			10 9 10 10	S1	5' - 7'	Medium compact, fine to medium yellow sand, some gravel, trace of silt.
10' - 12'			12 13 14	S2	10' - 12'	Medium compact, fine to medium yellow sand, some gravel, trace of silt.
15' - 17'			9 10 12 9	S3	15' - 17'	Medium compact, fine to medium yellow sand, some gravel, trace of silt.
18' - 20'			10 11 10 4	S4	18' - 20'	Medium compact, fine to medium yellow sand, some gravel, trace of silt.
20' - 20'						Depth of boring 20'

DRILLER Frank Doyle
George Carbone
 SAMPLE TYPE C W
 Proportions used: trace 0-10%, little 10-20%, some 20-35%, and 35-50%
 COHESIONLESS DENSITY 0.4 very loose 0.6 loose
 COHESIVE CONSISTENCY 0-2 very soft 2-4 soft
 TOTAL FOOTAGE Earth Boring 20' Rock Coring _____

MODULE 3: PRELIMINARY DESIGN PROGRAM
1.4 EXISTING CONDITIONS

12-15 PLUMBING, FIRE PROTECTION, MECHANICAL, ELECTRICAL

12 PLUMBING

EXISTING SYSTEM SUMMARY:

DOMESTIC WATER:

The building is served by a single four inch domestic water service supplied from the town municipal system. This service pipe enters the school in the Boiler Room. The water meter assembly is two four inch OS&Y valves, spool connection, two inch Neptune water meter. The service is not provided with any backflow prevention or a full size by-pass.



WATER METER



WATER SERVICE

Domestic Hot Water:

Domestic hot water is provided from an oil fired Bock storage tank type heater with 68 gallon storage capacity with 215 gallons per hour recovery. The water storage temperature appears to be set at 140 degree. The water is piped to a building Leonard water temperature control valve and the discharge temperature at 120 degree. The domestic hot water return system is provided with a single in-line pump with aquastat for temperature control.



WATER HEATER



MIXING VALVE

Plumbing Fixtures:

Most of the original plumbing fixtures have been replaced with lower flow type fixtures. Appears some of the original plumbing fixtures remain but are not in service. The science sinks are the molded sink with the countertop, single deck mounted faucet with atmospheric vacuum breaker for cross connection protection, deck mounted gas turret (dual).



WATER CLOSET



LAVATORY



SCIENCE SINK

Gas System:

The building is supplied with a propane storage (vertical) tank with a single system regulator. This system supplies the kitchen and science rooms. The kitchen did not appear to be provided with a master gas shut off valve and box. The science classroom was provided with a master gas valve and box.



PROPANE TANK

Sanitary System:

The building sanitary system piping drains by gravity to the outside of the building except for the Basement which has couple of sumps which only handle the floor drains. The science waste and vent piping is schedule 40 polypropylene pipe with mechanical joints.

Storm System:

The building is a mix of roof drainage type collection systems. The flat roof areas are drained by interior piping system with cast iron roof drains. This system is collected and piped to the exterior of the building. All the storm water runoff for the pitched roofs is collected by an exterior gutter system and piped to grade.

13 FIRE PROTECTION

EXISTING SYSTEM SUMMARY:

Fire Service:

The building is served by a single six inch fire service supplied from the town municipal system. The system is provided with a double check valve assembly on the discharge side of the pump.



FIRE SERVICE

Fire Pump:

The building fire pump is a base mounted split case centrifugal type pump. The pump is 50 HP. The design and delivery gallons per minute and discharge pressure was not determined. No jockey pump was provided. The system was provided with a pump controller panel. It appears the transfer switch was added to the system at a later date.



FIRE PUMP



FIRE PUMP TEST HEADER

Fire and Sprinkler System:

The building is fully sprinkled. There is a Gem four inch alarm check valve provided on the discharge side of the fire pump. The building is protected by number of sprinkler zones which are addressed with a supervised switch (sprinkler zone). Some areas of the building are provided with sprinkler coverage above and below the hung ceilings. There are number of fire valve cabinets, the cabinets have the hoses removed. The valves are 2 ½" X 1 ½" reducer.



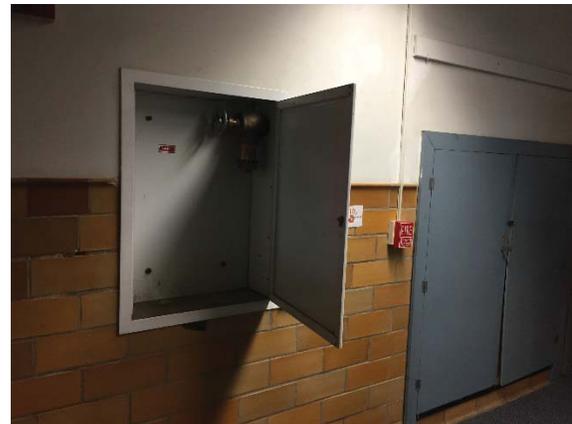
ALARM CHECK VALVE



SPRINKLER HEAD



**FIRE DEPARTMENT CONNECTION
& ALARM BELL**



FIRE HOSE CABINET

14 HEATING, VENTILATION, AND AIR CONDITIONING

BOILER PLANT:

The building is heated by (2) two oil-fired cast iron steam boilers and (1) one oil fired cast iron hot water boiler. The single hot water boiler was installed to serve the 1995 addition. The two steam boilers are identical but not the same vintage. The far boiler was installed around 2015 where the middle boiler was installed around 2000. All three boiler appear to be in good working shape. The steam boilers are manufactured by Burnham model V9A with Carlin burners, each having a burning capacity of 13.2 gallons per hour on Number 2 fuel oil. The hot water boiler was manufactured by Buderus Logano model GE315 with a Riello burner having a burning capacity of 3 gallons per hour on Number 2 fuel oil.



CENTRAL BOILERS

The older sections of the building are heated by steam where the 1997 addition is heated by hot water. The hot water boiler is backed up by the steam boilers through a skid mounted steam to hot water shell and tube exchanger. The skid includes an expansion tank, air separator and two end suction pumps configured for primary/stand-by operation.



SHELL AND TUBE HEAT EXCHANGER SKID

Steam and hot water are delivered to the building via schedule 40 steel piping. The piping is insulated and appears to be in fair shape. Condensate is collect in the receiver equipped with a duplex pump set. The duplex pump set pumps feed water back to the steam boilers.



CONDENSATE RECEIVER

Fuel oil transfer pumps are used to feed the three boiler and domestic water heater. The oil tank is below grade located just outside the boiler room. The age and condition of the tank is unknown.



OIL LINES TO AND FROM UNDERGROUND TANK



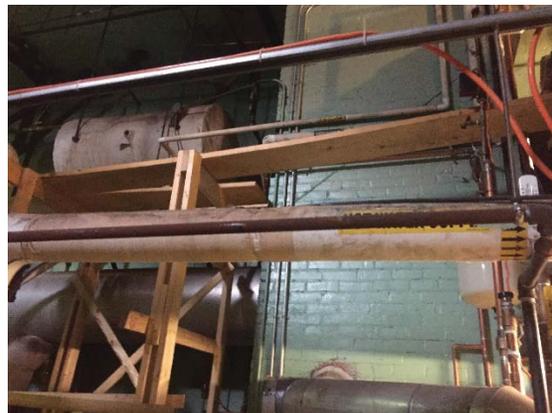
UNDERGROUND OIL TANK

Combustion air for the boilers and water heater is provide though a single 36x16 galvanized sheet metal duct that terminates approximately 18” above the floor. There is a control damper which will close when boilers are off. The system appears to be providing enough combustion air to the equipment, however the design does not meet today’s codes of having two individual openings, one high and one low.

Products of combustion are exhausted through a welded black steel breeching system tied into a brick covered chimney. It is unknown if the chimney is lined. If lined the condition of the liner is unknown. The welded black steel is insulated with calcium silicate material with a canvas jacket. Sections of the insulation has been removed to allow the installation of the newer boiler.



BREECHING SYSTEM



BRICK CHIMNEY

CONTROLS:

The automatic temperature controls system is a combination of pneumatic and electric/electronic controls. There is an 80 gallon air storage tank with two tank mounted compressors, which appears to have been abandon in place. There is no central control system to make global changes, review device trends or trouble shoot issues. The classroom unit ventilators, and some of the older radiation devices, have been fit with local electric/electronic control. These control devices appear to be stand alone. Unit ventilators are controlled by standalone programmable thermostats. There is a small electric/electronic control system for the three boilers.



**ABANDON PNEUMATIC CONTROLS
COMPRESSOR**



CONTROL PANEL FOR BOILERS



STAND ALONE THERMOSTAT

HEATING SYSTEM:

The majority of the building is heated and ventilated by perimeter vertical unit ventilators. Outside air is supplied to the unit ventilators via wall louvers located below the windows. Each unit ventilator either has a steam or a hot water coil, filters, outside/return air dampers and supply fans. Each unit ventilator is controlled by a standalone programmable thermostat. It was noted that the majority of the outside air intake louvers have been blocked off on the outside. This could be due to control issues with the outside air dampers.



CLASSROOM UNIT VENTILATOR



BLOCKED OFF OUTSIDE AIR INTAKES

Areas not served by unit ventilators, such as Administration, are heated by either steam or hot water radiation such as fin tube, cabinet unit heaters or radiators. The devices appear to be in fair shape but show signs of wear.



FIN TUBE RADIATION

The gymnasium is heated and ventilated by two indoor air handling units. The air handling units are located on either side of the stage. Supply air is discharged into the gymnasium by galvanized sheet metal ductwork terminating with mesh side wall grilles. Return air is drawn back through the stage opening. Outside air is ducted to the air handler units from a nearby wall louver. Exhaust air is discharged from the building by wall mounted propeller fans. The gymnasium also has steam radiators mounted mid height on the exterior walls. The gymnasium is also equipped with ceiling propeller fans for de-stratification.



GYM INDOOR AHU

The kitchen is heated and ventilated by an indoor make-up air unit located within the space. The air handler houses the steam coil, supply fan, mixing box and filters. The unit provides space ventilation as well as make up air to the kitchen hood. The kitchen hood is a stainless steel canopy with a side wall propeller fan mounted at the back of the hood. This design is not code compliant with grease laden air. The hood is not equipped with filters allowing the grease to build up on this hard to clean fan. The dishwasher is not equipped with an exhaust system.



KITCHEN MAKE UP AIR UNIT



KITCHEN HOOD



DISH WASHER W/O EXHAUST

VENTILATION SYSTEMS:

Classroom ventilation air is discharged to the space by the classroom unit ventilators. The majority of the outside air intakes to the classroom unit ventilators have been blocked up on the outside preventing outside air from entering the classroom unit ventilators. Classrooms are exhausted through ganged ducted exhaust systems to roof mounted exhaust fans. The exhaust inlets are located low to the floor in the old section of school and at the ceiling in the addition. Some room the exhaust opening have been block over.



CEILING CLASSROOM EXHAUST

Administration does not have mechanical ventilation. Rooms at the exterior have access to operable window however room without access to windows do not have any means of ventilation air. Ventilation is a code requirement either through natural or mechanical means.

Corridors do not have ventilation which by today’s standards is a code violation.

Art room kiln does not have hood or kiln exhaust system.



KILN W/O EXHAUST

It is unknown if the 1995 addition, which has three connecting floors, is considered an atrium. Currently there is no smoke exhaust. If determined to be an atrium a smoke exhaust system will be required by code. Dust collection system has been abandoned in place.

AIR CONDITIONING SYSTEMS:

Air conditioning is limited to administration area and media center. Both areas are air conditioned by dedicated ductless fan coil unit with remote outside condensers. The air conditioning units appear to be in good working order. Each ductless fan coil is controlled by a local thermostat.



DUCTLESS FAN COIL (MEDIA CENTER)



REMOTE CONDENSER

SUMMARY:

Overall the HVAC system has been well maintained for the vintage. However, advancements have been made for improved efficiency and performance and we would recommend updating the system to today's industry standards.

One boiler is new while the other two are over 17 years old. The control system works but is in disarray with no central means to program schedules, review trends, make global adjustments, etc. There are code concerns regarding ventilation air requirements. The blocked classroom unit ventilator intakes should be reviewed and repaired. The kitchen hood exhaust system should be reviewed and brought up to code. The connected three floors in the 1997 addition should be reviewed to determine if it is considered an atrium. If determined to be an atrium, a smoke exhaust system will be required by code.

15 ELECTRICAL

EXISTING SYSTEM SUMMARY:

Electrical Distribution System:

The primary service runs underground from a utility pole on Spring Street to a pad mounted transformer. The electric meter is mounted adjacent to the pad mounted transformer. The secondary service originates at the pad mounted transformer to a 120/208V, 1600A, 3 phase, 4 wire switchboard located in the Basement Main Electric Room off the Boiler Room. The switchboard is as manufactured by Westinghouse and was installed at the time of the 1995 expansion. The switchboard is two section, one for the 1600 amp main breaker and the second for distribution. The distribution section has two blank spaces left for expansion. Although the switchboard appears to be in good shape it should be tested and cleaned to make sure lugs are properly torqued and breakers are functioning. The service size should be reviewed at the time of design to verify its adequacy for any expansion / renovation project.



Pad Mounted Transformer



1600 AMP Switchboard



1600 AMP Main Breaker

There is a 1200 amp service for the fire pump connected ahead of the main service. The service comes into a 1200 amp switch located in the Fire Pump Room off the Boiler Room. Wiring in the fire pump room is in EMT.



Fire Pump Switch

Breaker panels are installed on each floor of the building. In the 1995 addition, the panels are flush mounted in the corridor. In the original 1929 building the panels are flush mounted in the corridors and surface mounted in the Janitors Closet. There is a surface mounted panel in the Cafeteria with no emergency off button, as well as a surface panel in the Shop and Home Economics Classrooms. The panelboards in the 1995 addition are in good condition; the panelboards in the 1938 building are in fair to poor condition and should be considered to be replaced during any construction project.



1997 Wing Panelboard



1938 Building Panelboard

Emergency Generator:

A building optional standby, backup generator is installed on the exterior, adjacent to the pad mounted transformer. The generator is located in an exterior enclosure with a below enclosure diesel fuel belly storage tank. The generator is rated at 120/208V, 3P, 300 kW. The generator was installed by the Town's Civil Defense and connects to a manual transfer switch which feeds distribution panel D1. Distribution panel D1 feeds panels in the 1995 addition as well as the Boiler Room and Cafeteria Panel. The generator also appears to feed a transfer switch for the fire pump. The generator appears to be in good condition.



Emergency Generator

Emergency Lighting System:

The emergency lighting system generally consists of emergency battery units and battery backup exit signs. Exit signs are LED. There are no exterior emergency lighting fixtures which is an NEC/IBC code violation. The emergency lighting appears to provide adequate coverage and appears to be in good condition with where the majority of the units were installed during the 1995 building project, they should be considered to be replaced under any new construction project.



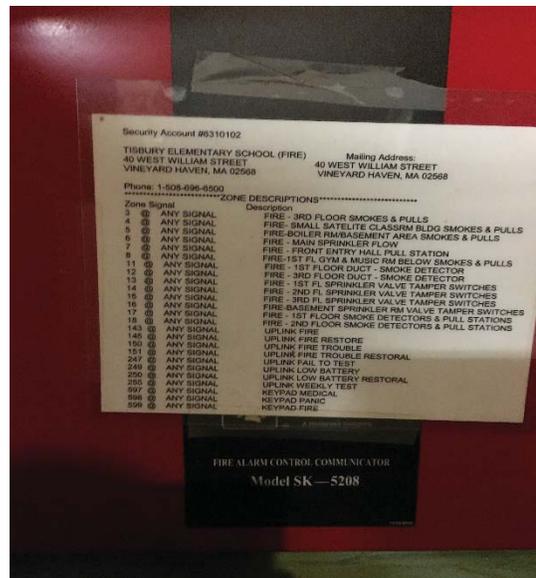
Corridor with Emergency Battery Unit

Fire Alarm System:

The fire alarm system control panel is located behind the door of the upper level of the Boiler Room. The panel is a Silent Knight SK-5208 20 conventional type panel and appears to have been installed in the last 5-7 years and appears to be in good condition. The system is not a voice system. The system is central station connected via digital communicator. Devices throughout the school were updated at the time of the panel installation and appear to meet ADA requirements for heights and locations. Smoke detectors are installed in the corridors and stairs. Pull stations are installed at egress doors. Audio/visual units are installed in the corridors and classrooms and strobe only units are installed in toilet rooms.



Fire Alarm Control Panel



Fire Alarm Zoning



Class Room Audio/Visual Unit

According to the 2015, International Building Code, 907.2.3, in a Group E occupancy of over 50 occupants, a voice alarm communication system is required.

Lighting System:

Interior lighting is made up of mostly wraparounds, parabolic and prismatic lens troffers and recessed compact fluorescent downlights.

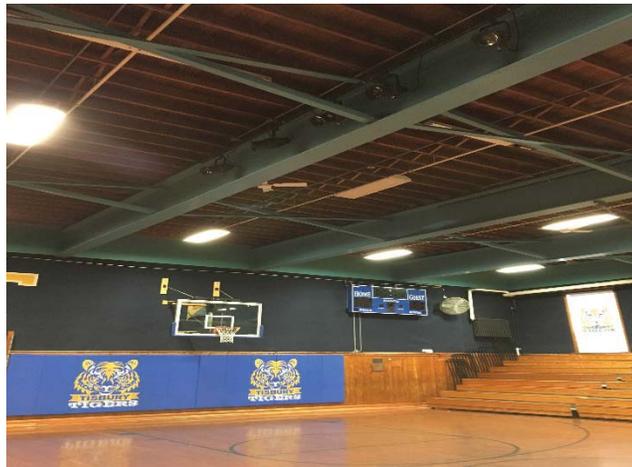
In the 1929 building the lighting in the classrooms are primarily pendant mounted wrap around fluorescent light fixtures. The lighting in the 1995 building classrooms are primarily recessed 2x4 parabolic fluorescent light fixtures. The lighting fixtures in the gymnasium consists of 2x4 high output fluorescent fixtures. The lighting fixtures in the Media Center consist of 2x4 parabolic fluorescent fixtures and compact fluorescent downlights. In general, the lighting fixtures throughout the school are in fair condition.



1929 Classroom Lighting



1995 Wing Classroom Lighting



Gymnasium Lighting

Lighting is controlled primarily via local switches with occupancy sensors in a few of the rooms. The lighting controls do not meet the requirements of the latest edition of the International Energy Conservation Code for automatic controls and daylight harvesting.



Classroom Switching

Exterior Lighting System:

Site lighting consists of building mounted flood lighting. Exterior doors have wall mounted sconces in fair condition. Exterior doors with canopies have recessed compact HID fixtures. There is a pole light at the stair to the main parking lot which is in poor condition. There is minimal lighting of the main parking lot which does not meet the standards set forth by the latest edition of the Illuminating Engineering Society Standards. There is no lighting for the athletics fields.



Exterior Sconces



Canopy Lighting Fixtures



Pole Lighting Fixture

Solar Array:

There is solar array located on the roof. The inverter for the system is Solectria which was registering 1500 watts at the time of observation.



Solar Inverter

General:

Although there is a kitchen panelboard, the breakers serving the equipment under the hood are not shunt trip type and

Kitchen receptacles are not GFCI type.

Kindergarten classroom have been provided with an emergency off shunt trip system for the electric range.

Science classrooms do not have GFCI receptacles within 6 feet of sinks.

The building does not have a lightning protection system.

The building does not have an emergency responder radio amplification system.



KITCHEN RECEPTACLE



KITCHEN HOOD

MODULE 3: PRELIMINARY DESIGN PROGRAM
1.4 EXISTING CONDITIONS

16 SECURITY AND COMMUNICATIONS

EXECUTIVE SUMMARY

On December 28, 2016 Good Harbor Techmark (GHT) provided an in depth existing security system assessment of the Tisbury Elementary School in Tisbury, MA. This assessment included a review of the access control system, doors and door hardware and security communication system. An intrusion detection system and video surveillance system is not installed at the school.

At the time when the school was designed and constructed, when high profile threats, especially active shooter and other violent events, were not prevalent, the philosophy of security was based on lock and key. Now as schools, both new and old, continue to struggle with a balance between securing access with keeping schools open and welcoming places of learning it is often a difficult task.

Due to the many challenges with rehabilitation and renovation, conformance with school safety and security best practices, as well as the guidelines outlined by the Massachusetts Task Force and the Department of Homeland Security should be implemented, wherever possible and within reason. Although at this time there is no “code,” the strategies stated in this report are meant to be a guide to ensure safety in the school.

Basing our findings and security strategies on the above-mentioned reports, as well as our own expertise and past experience, any renovation or addition to the school would require significant upgrades. A new school would require complete replacement of the system. Furthermore, operational policies and procedures regarding access to and within the school must be reviewed to ensure coordination with the system. .

SECURITY SYSTEM

Security System - Site

- There are no perimeter cameras around the exterior of the building, playground, parking lot, street or sidewalks.
- Wall-mounted and street lighting provide lighting around the site.
- Basement windows are at or below grade.
- There is no vehicular or pedestrian control to get onto the site.
- Cars can pull up to the exterior wall on the north and south side of the school without encountering any barriers.
- A 4' high chain link fence that transitions to 6' surrounds the perimeter of the playground on the west side of the site. A split rail fence is also used. A 6' high chain link fence and split rail fence is used on the perimeter of east playground.

Security System – 1st Floor

- Access control is used at 3 doors in the school, the playground doors on the east and west of the school, and the interior entrance door at the 2nd floor landing at the front lobby of the school.
- Once inside the school, staff has the ability to remotely unlock the access controlled foyer door from a door release button in the main office.
- Classroom doors are equipped with thumb turn locks that enable teachers to secure themselves in the room without entering the hallway.

Security System – 2nd Floor

- The main office is equipped with two (2) video intercom stations to communicate with the video door station provided at the west door of the school.
- The access control panel is located in the Assistant Principal Office on the 2nd floor. The panel wiring is not secure and can be easily tampered with.
- The exterior gym door is accessible from the ramp and is equipped with a mechanical lock that is not tied into the access control system.
- A locking sliding gate is used to separate the gym from the school during events for outside organizations.
- Classroom doors are equipped with thumb turn locks that enable teachers to secure themselves in the room without entering the hallway.

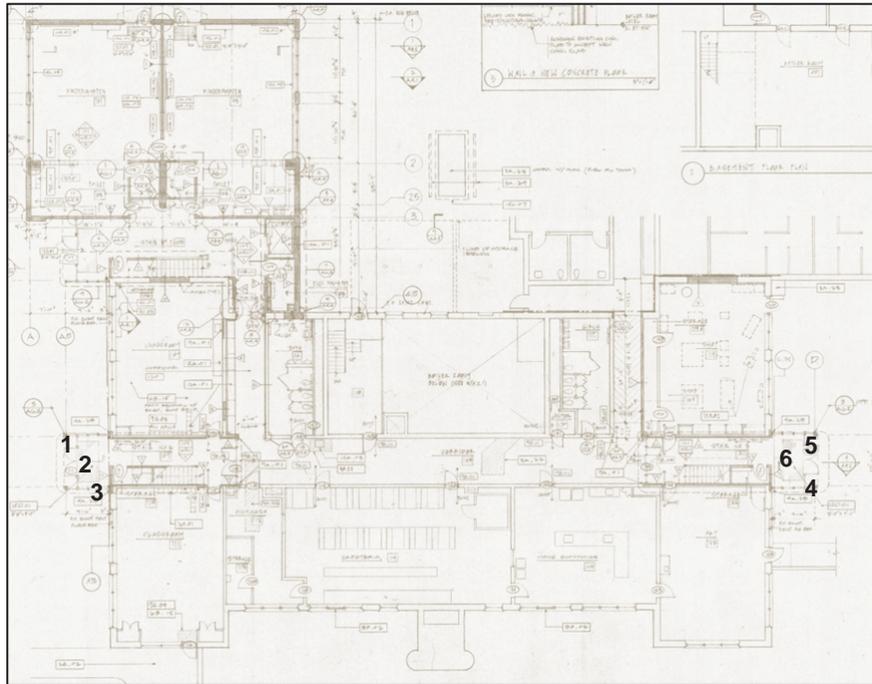
Security System – 3rd Floor

- Storage room 317 is the location where the access control workstation and software is located. This room also includes the badge printer. This room is secured by lock and key.
- Classroom doors are equipped with thumb turn locks that enable teachers to secure themselves in the room without entering the hallway.

Telephone System

- The school utilizes 50+ Centrex lines for telephone services.
- Phones are a mixture of AT&T, Panasonic and a few generics.
- There are phones in all offices and classrooms.
- The telephone cabling is Category 3 copper.
- The telephone cabling terminates on 110 punch-down blocks.

Existing Condition – 1st Floor



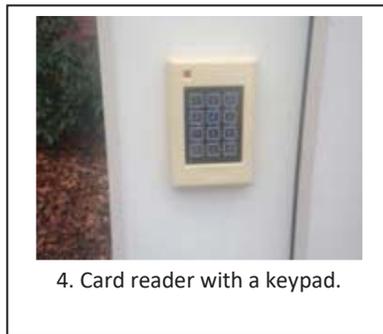
1. Video intercom and card reader at the door.



2. Magnetic locks and door position switches on the interior of the door.



3. Motion sensors used to activate the sliding doors.



4. Card reader with a keypad.



5. Electric strike lock.



6. Magnetic locks and door position switches on the interior of the door.

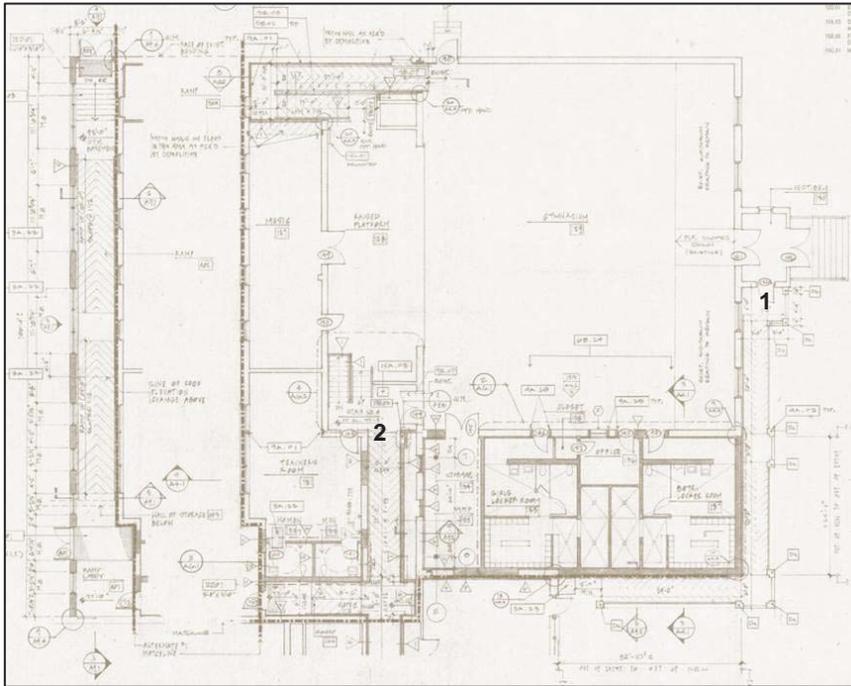


Motion sensor tied into lighting system.



Classroom door lock with deadbolt. Typical for each classroom.

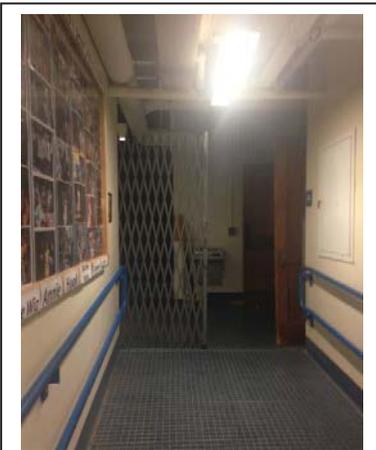
Existing Condition – Gym



No security in fields/yard next to gym.



No perimeter security or vehicle barriers.



1. Locking gate to control access from the gym to the school.

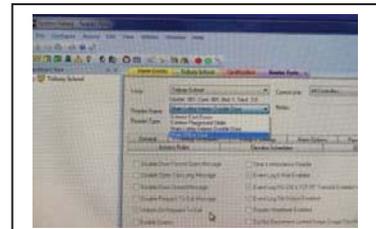
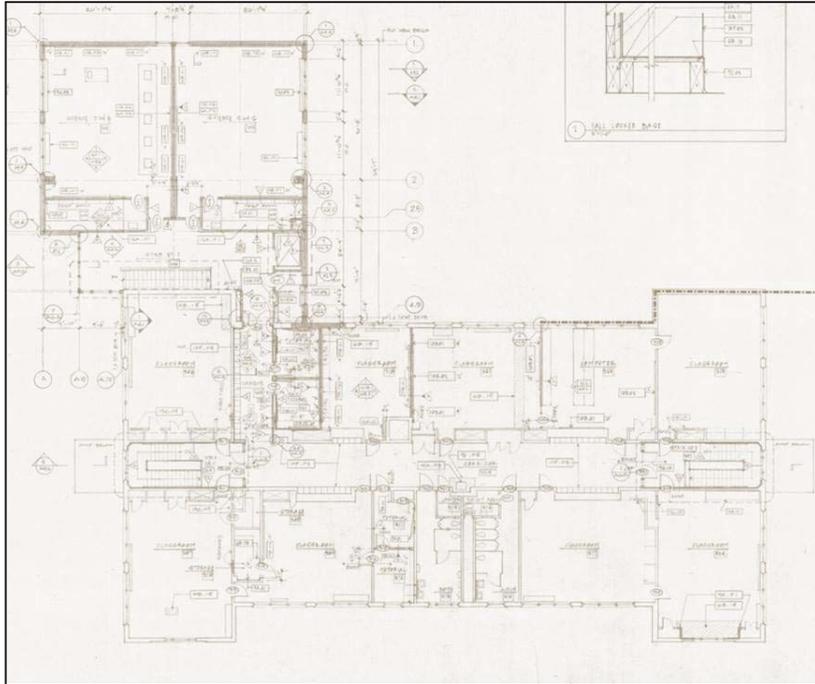


2. Mechanical keypad outside gym doors.

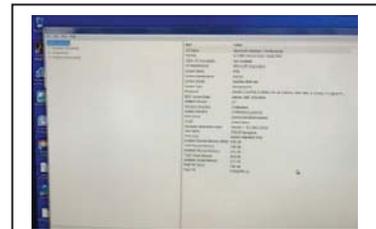


Shed in field next to parking lot.

Existing Condition – 3rd Floor



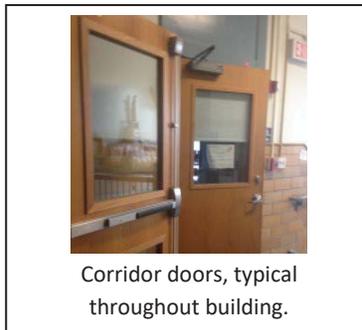
“Reader Points” screenshot from the access control system computer.



“System Properties” screenshot from the access control system computer.



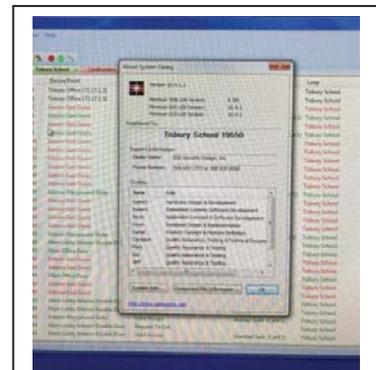
Badge printer located in storage room.



Corridor doors, typical throughout building.



Operable windows screened in on higher floors.



“About” screen screenshot from the access control system computer.

MODULE 3: PRELIMINARY DESIGN PROGRAM
1.4 EXISTING CONDITIONS

17 AUDIOVISUAL

EXECUTIVE SUMMARY

The audiovisual systems within the Tisbury School are legacy systems and are outdated. Following are field visit notes from our walkthrough.

1. The classrooms and offices do not have a master clock system that works. The classrooms and offices have clocks with batteries.
2. There is a Dukane 3200 paging system in the main office administration area. There are surface speakers in the classrooms and offices. The corridors do not have installed speakers.
3. There is no, working, centralized bell system. Teachers and students know their schedules and move from class to class when teachers allow.
4. There are CRT Televisions in each of the classroom connected to coax cable. There are VCR players mounted to some of the TV. VCR tapes are stored on shelves and desktops.
5. We understand from the users that there are no longer CATV service into the building from Comcast. Comcast only provides high speed internet service.
6. There are short-throw video projectors at the front of the classrooms. There are input plates with RCA jacks and an analog VGA connection at the teacher's desk. There are also input devices at the teacher's desk including: scanners and an Apple TV device. Some classrooms have an Epson ELMPB27 projecting on ENO by Poly Vision interactive white boards. In addition, there are overhead projectors in some classrooms. *Note: Most, if not all, PCs and Mac desktop computers and laptops have a HDMI or other type of digital video output. The existing VGA input jack will not support digital video connections.*
7. The cafeteria has a surface mounted speaker connected to the PA system.
8. The gymnasium has a two-way speaker cluster with a large multi-cell HF (high-frequency) horn and low frequency speaker cabinets. The speaker cluster is hung in place by chain.
9. The gymnasium also has a Biamp Mix-Pack that is a multi-channel powered audio mixer that may power the speaker cluster. *Note: As of this inspection speaker cables are not plugged into the mixer-amplifier.*
10. The gymnasium also has a wireless microphone receiver and a XLR microphone snake. It is unknown how these are connected to the Biamp mixer-amplifier.
11. The library has two motorized projection screens. There is one ceiling plate in a position that would serve one of the motorized screens but does not have a projector.
12. The library has a large portable interactive SmartBoard and USB cabling for use with a local computer.

18 DATA COMMUNICATIONS

EXECUTIVE SUMMARY

The data communications systems within the Tisbury School are legacy systems that are outdated. Following is a field visit notes from our walkthrough.

1. The demarcation point for the incoming voice, data and coaxial TV services are below the boiler room in the main electric room. The demarcation point is co-located with the main distribution frame MDF room. The MDF portion of the room has wall mounted network rack. The wall mounted network rack has the computer terminations on patch panels and 10/100 network switches. The MDF is connected to the IDF (Storage 317) with 6 strands multimode fiber optic cable.
2. There is less than three feet clearance from the front of the 10/100 network switches to the side of the main electrical switchboard.
3. Sharing the main electrical room with demarcation services is not a recommended practice due to EMI.
4. Telephone service is from Verizon. Telephone cabling are terminated in the MDF and in the third floor IDF.
5. The network cabling is category 5. Category 5 has been phased out and is no longer an accepted ANSI/TIA structured cabling system.
6. The phone cabling is category 3. While category 3 is technically not phased out, good engineering practice is to provide category 5e, at a minimum, to phones to enable voice over IP to phones.
7. There are printers located in the hallways. They are not connected to the data network.

MODULE 3: PRELIMINARY DESIGN PROGRAM

1.4 EXISTING CONDITIONS

19 FOOD SERVICE

GENERAL OVERVIEW

The Tisbury Elementary School Foodservice Program currently services a population of approximately 330 students in grades Kindergarten through 8th. The original building construction was in 1929 with a renovation and addition in 1995. Other than minor equipment replacements the kitchen does not appear to have benefited from the renovation. At present the kitchen facilities are inadequate. The kitchen production space is located in among the seating area and directly behind the serving line. There is no clear organization as to how the kitchen must flow. The serving line, preparation, and cooking is open to view and in the same room as the seating with no separation for safety or security. There is a small back of house space that serves as the storage area, small office, and washing station. This space is also in need of an upgrade as there is no adequate separation of functions. For example the dry goods storage is in the same room as the office and washing station.

The finishes within the kitchen are varied and worn. The walls are painted gypsum and not very durable with visible wear at the corners. The floors are a porcelain tile in the serving area and a painted concrete floor in the back of house space. Both lack the code mandated integrate cove base where the walls meet the floor. The coving adds to the ease of cleaning.

The ceiling is a lay in ceiling tile but the tiles themselves are not kitchen rated, meaning they are not smooth and washable. The kitchen is not well lighted and in general, from a foodservice standpoint, surfaces are difficult to maintain.

Additional observations:

- The serving counter is missing the means to keep cold food chilled during service. The hot wells do not work efficiently as they have no drain and heat transfer is inadequate due to lack of water in the pan. The tray slide on the serving counter is a ribbed style slide. The ribbing is difficult for the younger children to navigate and may lead to spills. Additionally, the slide is too tall for the younger students (image 1).
- There are many reach in refrigerated units throughout the facility. Refrigeration for bulk storage should be consolidated into a single point with reach-in units being used at the point of service. Central refrigerated storage is more efficient and offers one point of control.



Image 1

- The range is outdated. New ranges offer spark ignition systems resulting in better safety and less gas usage when the unit is sitting idle (image 2).
- The hand sink and prep sink seen in image 3 is all that is available. The prep sink is inadequate and there is no separation or shield between the hand sink and the prep sink. There is no dedicated place to store detergents.
- The exhaust hood does not have a fire suppression system. The hood is not code compliant. The fan consists of a blade type fan pushing air to the outside through a louvered opening. This is not very effective and the hood itself is not as large as the equipment below it. As a result capture and containment of heat and grease laden vapors is not possible (image 3 & 4).
- The wood shelves located within the storage area are not code compliant. Wood is not an appropriate surface for a kitchen environment. Shelving must be made of material that is easy to clean and rated for use in foodservice (image 5).
- The office desk is located among the food preparation space. The office must be placed within its own area and out of the food preparation space (image 6).
- There is no drinking fountain available to the children. There is a federal requirement as part of the USDA school lunch program for a supply of fresh drinking water to children during the lunch period must be available.
- This facility lacks the required three compartment wash sink. The health code required that there be a sink available to wash, rinse, and sanitize ware. At present there is only a two compartment sink available.



Image 2



Image 3



Image 4

- The 20-quart mixer shown in image 7 is about the level of condition of a majority of the equipment. The mixer is leaking oil. There is also a 60-quart mixer on site. Both units are missing the bowl safety guard needed to comply with current OSHA standards.

Not all equipment is in poor shape. We identified eight items that should be saved and used should a renovation take place.

- Single door reach-in refrigerator
- Rubbermaid utility cart
- True brand work top refrigerator
- Panini press
- True brand glass door refrigerator
- Milk chest
- VacMaster brand vacuum sealer
- Rubbermaid ingredient bin and miscellaneous dish racks.

It is clear that a complete renovation and reorganization is needed. Reorganizing the kitchen area will allow for improved kitchen efficiency, with more space utilized to facilitate food production on appropriate surfaces. It is not clear if a complete renovation is possible or feasible within the same space but it is clear something must be done to improve sanitation, safety, and the overall work environment.

We estimate that the equipment cost related to a major renovation is estimated to be approximately \$285,000. This estimate takes into consideration that recent purchase of new equipment that would be transferred over should a new facility be constructed.

This concludes our report.



Image 5



Image 6



Image 7

SECTION 1.5

(Site Development Requirements)

MODULE 3: PRELIMINARY DESIGN PROGRAM
1.5 SITE DEVELOPMENT REQUIREMENTS

EXISTING SCHOOL SITE

Storm Drainage

The existing site offers little to no water quantity or water quality mitigation. Redevelopment will require a stormwater management system designed according to MassDEP standards, which require reductions in both stormwater discharge rates and volumes for the 2-year, 10-year, 25-year, and 100-year 24-hour rainfall events. Such work would improve drainage conditions for the elementary school site, which will result in better drainage and quality of stormwater.

Proposed systems will likely include a new closed drainage system incorporating deep sump catch basins with outlet hoods, drain manholes and as many Low Impact Development BMP's as possible, such as grassed swales and biofiltration (if appropriate). A retention/detention element will likely be needed as part of the proposed stormwater design.

In addition, due to the on-site soil consisting of predominately sand which indicates a high drainage rate, an underground detention system, in the form of underground pipes/arch chambers will help mitigate the increased rate of runoff from any proposed increase in impervious area. This will promote infiltration and groundwater recharge.

Discharge points for stormwater will drain onsite.

Water

An existing 12-inch water main in Spring Street will provide water for the new school. New cement-lined ductile iron water services will be required as a part of a renovation/addition project to provide for both fire service water (indoor sprinkler systems and outdoor hydrants) as well as domestic water service. Capacities of the existing water main system will be confirmed by hydrant flow tests as design proceeds.

Any increase in the number of staff and students for the school building over existing conditions or original design conditions may require larger pipe sizing and/or pressure supplementation (such as fire pumps) based on the final size of the building. Such requirements will be vetted during the design process.

Sewer

Sanitary sewer service at the existing school site will remain as is with new sewer connections to an existing sewer force main located in Spring Street. Grease traps will be required for any sanitary sewer connections to kitchen waste lines. Acidic wastes from chemistry labs or other uses such as MEP systems will require neutralization prior to discharge into the main, and any interior floor drains will be directed to an on-site tight tank. An existing leach basin at the east end of the building would be removed.

Additional Utility Connections

The site is serviceable with nearby electric, telephone, and cable services. All proposed utility connections will be coordinated with each respective utility provider. A new transformer/generator for electrical service will likely be required, and all services will be provided in underground duct banks and/or conduit similar to existing conditions. The school will be provided with gas service via a propane tank for the science classrooms and for any potential gas-fired appliances in the kitchen.

Site Orientation and Other Location Considerations

- The existing school site is in a dense single-family residential neighborhood near the center of the town village, whereas other two sites under consideration are outside the village core in less dense residential neighborhoods.
- The site's topography and boundary limitations limit the opportunities to building design and configuration, and presents a challenge to provide adequate athletic recreation areas for students.
- The site's topography also requires close attention be paid to site and roof drainage.
- The site's long axis is east west, which presents optimum building planning related to solar orientation.
- An addition/renovation option on site would likely require the displacement of students from the existing building during construction.

- A new building option may require demolition of the existing school gym before construction of the new school building could commence, which could adversely impact existing physical education programming.

Site Access and Circulation

- Frontage on two main streets (W Spring and W William) is ideal as it provides separate access for buses and car pickup/drop off.
- Arrange walkways and barriers to facilitate pedestrian flow to controlled and secure access points.
- Arrange walkways and barriers to increase the functionality of existing pedestrian flow on surrounding streets. A significant amount of the student population currently walks to school.

Structures and Fences:

- Provide pedestrian/vehicular barriers around playgrounds to control student movement and to provide safety and increase functionality.
- Provide pedestrian/vehicular barriers to control access and increase safety for students.
- Provide fencing at play areas designed for lowest grades.

Parking and Paving:

- The site is located within a walkable residential neighborhood, which reduces the need for buses and parent drop-off, as well as employee parking.
- The existing school site is located in a dense neighborhood, making it difficult to accommodate all required parking while minimizing impervious surface.
- The use of angled parking space configurations could be used to reduce the amount of paved area.
- Paving on site will likely be limited to parking lots and driveways, pedestrian walkways and hard play surfaces.

Code Requirements:

- Provide handicap accessible parking near the main public entrance and employee entrances.
- Upgrade all sidewalks, curb cuts and crosswalks to maximize safe student/pedestrian routes.
- Design fire lanes and other code required setbacks for use as play and related activity areas.

Zoning Setbacks, Limitations and Permitting

- Proposed building is exempt from local zoning by use of the Dover Amendment. However, the project will endeavor to respect local restrictions wherever possible, particularly relative to height and setbacks.
- Routine Site Plan Review with the Planning Board will be required for the selected site.
- If the project is determined to be classified as a Development of Regional Impact (DRI), the Martha's Vineyard Commission must approve the project before a town board may issue a required permit or take any action.
- The western portion of the site is under the Natural Heritage Endangered Species Program (NHESP) Priority Habitat (PH 221, 13th Ed. Heritage Atlas – Effective Oct 1, 2008), which would require filing with NHESP for review and approval.
- A special permit is required from the Special Permit Granting Authority (SPGA) for any use that will render impervious 15% or 2,500 square feet of any lot, whichever is greater. A system for groundwater recharge must be provided which does not degrade groundwater quality. For non-residential uses, recharge shall be by storm water infiltration basins or similar system covered with natural vegetation, and dry wells shall be used only where other methods are unfeasible. All such basins and wells shall be preceded by oil, grease, and sediment traps to facilitate removal of contamination.

Zoning code required setbacks:

- | | |
|---------------------|----------|
| ○ Zoning District | R-10 |
| ○ Proposed Use | Ed/Muni. |
| ○ Min. lot Frontage | 80ft |
| ○ Front Setback | 20ft |
| ○ Side Setback | 10ft |
| ○ Rear Setback | 20ft |
| ○ Height | 35ft |

Wetlands and/or Flood Restrictions

- Conservation Commission is not required as the selected site does not contain wetlands or lie in flood areas.

Emergency Vehicle Access

- Emergency vehicular access is inherent in this site due to the fact that it is bounded by public ways on three sides.
- Provide efficient building layout and circulation routes to enhance access for emergency vehicles to building and site.
- Design fire lanes and other emergency use areas for dual purpose related to recess/play and other public activities.
- The site's close proximity to existing Town EMS facility is an advantage to the site.

Utilities

- Plan building to maximize efficient connectivity to utilities.
- Design site lighting to limit off site light pollution, and improve impact to adjacent public areas for security purposes.

Athletic fields/Play areas and outdoor education space

- The southern and western side of the site should ideally be used for active recreation and outdoor education space. Play spaces would optimally offer a diversity of active and passive recreations opportunities on a mix of surface types including concrete, turf, and resilient play surfacing. Some space should be designated for passive play/outdoor classroom space in a more gardenlike setting.
- To the greatest extent possible enclose outdoor play areas within the walls of school or within a fenced in area.
- Provide outdoor education spaces and learning gardens in close proximity to classrooms to enhance educational opportunities.
- Provide safe and separate playground areas for ages PK-1, 2-5 and 5-8.
- Shelter play areas from prevailing winter winds.
- Limited open space on site presents challenges for providing full size athletic fields.

Historic Considerations

- Site is located with the Martha's Vineyard American Revolution Battlefield, as determined by Massachusetts Historical Society.
- The existing school building is of historic significance to the town, though it lacks any formal designation.

- There is not Demolition Delay By-Law in place in the Town of Tisbury.
- A Preliminary Project Notification Form (PNF) has been filed with the MHC.

Other Considerations:

- Consider sustainable features and systems in all of the above.
- Consider student safety and privacy during school occupancy or during recess and outdoor activities.
- Consider off school hours use, visibility and security of play areas.
- Consider durable vandal proof materials for the building and site.

TASHMOO WELL SITE

Storm Drainage

This site is currently largely undeveloped except for the Tashmoo well and related structures at the south end of the site. Any new development will therefore require a complete new stormwater management system designed according to MassDEP standards, which require reductions in both stormwater discharge rates and volumes for the 2-year, 10-year, 25-year, and 100-year 24-hour rainfall events.

Proposed drainage will likely include a new closed drainage system incorporating deep sump catch basins with outlet hoods, drain manholes and as many Low Impact Development BMP's as possible, such as grassed swales and biofiltration (if appropriate). A retention/detention element will likely be needed as part of the proposed stormwater design.

In addition, due to the on-site soil consisting of predominately sand which indicates a high drainage rate, an underground detention system, in the form of underground pipes/arch chambers will help mitigate the rate of runoff from the proposed increase in impervious area. This will promote infiltration and groundwater recharge.

Discharge points for stormwater will drain onsite.

Water

A new cement-lined ductile iron water service loop will need to be provided (typically 8-inch) around the proposed school building for both fire service water (indoor sprinkler

systems and outdoor hydrants) as well as domestic water service. Capacities will be confirmed by hydrant flow tests as design proceeds.

Larger pipe sizing and/or pressure supplementation (such as fire pumps) may be required based on the size of the building. Such requirements will be vetted during the design process.

Sewer

- This site is outside of an approved sewer district, and therefore will require onsite sewage disposal and treatment.
- This site is in the Town of Tisbury Tashmoo Pond Watershed Nitrogen Management District.

Sanitary sewer service for the Site will be provided to an on-site septic system comprised of an approximately 12,000-gallon septic tank, 10,000-gallon pump chamber with duplex pump system and controls and an approximate soil absorption system (leaching field) of 6,000 square feet. (These figures are based on a school population of 365 persons and Class I soils at a percolation rate of ≤ 5 minutes/inch). Grease traps will be required for any sanitary sewer connections to kitchen waste lines. Acidic wastes from chemistry labs or other uses such as MEP systems will require neutralization prior to discharge into the main, and any interior floor drains will be directed to an on-site tight tank.

Recently, the Tisbury Board of Health adopted new regulations entitled “Town of Tisbury, Board of Health Regulation, Deployment of Enhanced De-Nitrification Technologies within the Lake Tashmoo and Lagoon Pond Watershed Nitrogen Management Districts.”

Accordingly, the regulation requires that new on-site waste treatment systems and system upgrades which are deployed in the Watershed Districts, identified as Appendix A of the adopted regulations, to employ ‘best available de-nitrification technology’, removing significantly more wastewater nitrogen than standard Title 5 septic systems.

Enhanced De-Nitrification Technology means an on-site de-nitrification wastewater disposal technology that is intended to meet a nitrogen groundwater discharge standard of

not more than 19mg/liter and is approved by the Massachusetts Department of Environmental Protection for general use, provisional use, or pilot program use for nitrogen reduction.

See Board of Health Regulation and Overlay Map at the end of this section.

Additional Utility Connections

The site is serviceable with nearby electric, telephone, and cable services. All proposed utility connections will be coordinated with each respective utility provider. A new transformer for electrical service will be required, and all services will be provided in underground ductbanks and/or conduits. The school will be provided with gas service via a propane tank for the science classrooms and for any potential gas-fired appliances in the kitchen.

Site Orientation and Other Location Considerations and Issues

- The site is located on the outskirts of the town village, which would increase the reliance on buses and parent drop-off.
- Much of the site's area that is available for new construction has steep slopes, and would require significant earthmoving to create buildable spaces.
- The adjacent Tashmoo Overlook site, historic pumping station, and Tisbury Amphitheater would provide added educational and recreational resources.
- The steep slopes would likely require earthmoving and/or retaining walls to create level areas for the building and outdoor areas.
- The steep slopes and limited area would likely reduce flexibility in building and site layout and likely require a reduced footprint and a 3 story structure.

Site Access and Circulation

- Site would be accessed from W Spring St, a narrow residential road which isn't ideal for bus access.
- Limitations on development within the well head zones would limit access points to the site, likely reducing to a single access point across a steeply graded access driveway.
- Separating bus and parent pick-up/drop-off would be possible at this site.

Structures and Fences:

- Provide pedestrian/vehicular barriers around playgrounds to control student movement provide safety and increase functionality.
- Provide pedestrian/vehicular barriers to control access and increase safety for students.

Parking and Paving:

- The use of angled parking space configurations could be used to reduce the amount of paved area.
- Paving on site will likely be limited to parking lots and driveways, pedestrian walkways and hard play surfaces.
- The site is occupied by a functioning well, and special consideration maybe required for impervious surfaces within a 200'-400' boundary.

Code Requirements:

- Provide handicap accessible parking near the main public entrance and employee entrances.
- Design all sidewalks, curb cuts and crosswalks to maximize safe student/pedestrian routes.
- Design fire lanes and other code required setbacks for use as play and related activity areas.

Zoning Setbacks, Limitations and Permitting

- Proposed building is exempt from local zoning by use of the Dover Amendment. However, the project will endeavor to respect local restrictions wherever possible.
- Routine Site Plan Review with the Planning Board will be required for the selected site.
- If the project is determined to be classified as a Development of Regional Impact (DRI), the Martha's Vineyard Commission must approve the project before a town board may issue a required permit or take any action.
- The site is in the town' Ground Water Protection Overlay District. This district requires a special permit from the Special Permit Granting Authority (SPGA) for any use that will render impervious 15% or 2,500 square feet of any lot, whichever is greater. This district is subject to certain development standards and restrictions:
 - A system for groundwater recharge must be provided which does not degrade groundwater quality. For non-residential uses, recharge shall be by storm water infiltration basins or similar system covered with natural vegetation, and dry

wells shall be used only where other methods are unfeasible. All such basins and wells shall be preceded by oil, grease, and sediment traps to facilitate removal of contamination.

- Emergency generators are prohibited in any portion of a site within the GDP.
- Earth removal to within 4 feet of historical high groundwater, except for excavations for building foundations, roads, or utility works, is prohibited within the GDP.

Zoning code required setbacks:

- Zoning District R-10
- Proposed Use Ed/Muni.
- Min. lot Frontage 80ft
- Front Setback 20ft
- Side Setback 10ft
- Rear Setback 20ft
- Height 35ft
-
- A portion of the site is located within the Tashmoo Lake Watershed Management District (Tisbury Board of Health) and subject to requirement for reduced nitrogen flow in waste water (see above Sewer section).
- The site contains one of three town wells – the Tashmoo Well, and is therefore subject to the requirements of the Massachusetts Drinking Water Regulations 310 CMR 22.0. Septic systems must be constructed outside the 400’ radius of the well (zone 1), and certain other restriction apply within zone 1 and zone 2 of the well.
- The site is under the Natural Heritage Endangered Species Program (NHESP) Priority Habitat (PH 221, 13th Ed. Heritage Atlas – Effective Oct 1, 2008), which would require filing with NHESP for review and approval.

Easements

- Contains an electrical easement of .15 Ac at northern corner of the site.

Wetlands and/or Flood Restrictions

- Conservation Commission is not required as the selected sites do not contain wetlands or lie in flood areas.

Emergency Vehicle Access

- Limited access, steep grades and limited site area would present challenges to emergency vehicular access around the full circumference of the building.
- Provide efficient building layout and circulation routes to enhance access for emergency vehicles to building and site.
- Design fire lanes and other emergency use areas for dual purpose related to recess/play and other public activities.

Utilities

- Denitrifying septic systems will be required for new construction on the Tashmoo Well site.
- Plan building to maximize efficient connectivity to utilities
- Design site lighting to limit off site light pollution, and improve impact to adjacent public areas for security purposes.

Athletic fields/Play Areas and outdoor education space

- The southern end of the site toward the well is most suitable for active recreation and outdoor education space. This site would require significant separation between building and play areas. Play spaces would optimally offer a diversity of active and passive recreations opportunities on a mix of surface types including concrete, turf, and resilient play surfacing. Some space should be designated for passive play/outdoor classroom space in a more gardenlike setting.
- To the greatest extent possible enclose outdoor play areas within the walls of school or within a fenced in area.
- Provide outdoor education spaces and learning gardens in close proximity to classrooms to enhance educational opportunities.
- Provide safe and separate playground areas for ages PK-1, 2-5 and 5-8.
- Shelter play areas from prevailing winter winds.

Historic Considerations

- Tashmoo site is located with the Martha's Vineyard American Revolution Battlefield, as determined by Massachusetts Historical Society.

MANTER WELL SITE

Storm Drainage

This site is currently largely undeveloped except for the Manter well and related structures at the southwest edge of the site. Any new development will therefore require a complete new stormwater management system designed according to MassDEP standards, which require reductions in both stormwater discharge rates and volumes for the 2-year, 10-year, 25-year, and 100-year 24-hour rainfall events.

Proposed drainage will likely include a new closed drainage system incorporating deep sump catch basins with outlet hoods, drain manholes and as many Low Impact Development BMP's as possible, such as grassed swales and biofiltration (if appropriate). A retention/detention element will likely be needed as part of the proposed stormwater design.

In addition, due to the on-site soil consisting of predominately sand which indicates a high drainage rate, an underground detention system, in the form of underground pipes/arch chambers will help mitigate the rate of runoff from the proposed increase in impervious area. This will promote infiltration and groundwater recharge.

Discharge points for stormwater will drain onsite.

Water

A new cement-lined ductile iron water service loop will need to be provided (typically 8-inch) around the proposed school building for both fire service water (indoor sprinkler systems and outdoor hydrants) as well as domestic water service. Capacities will be confirmed by hydrant flow tests as design proceeds.

Larger pipe sizing and/or pressure supplementation (such as fire pumps) may be required based on the size of the building. Such requirements will be vetted during the design process.

Sewer

- This site is outside of an approved sewer district, and therefore will require onsite sewage disposal and treatment.
- This site is in the Town of Tisbury Tashmoo Pond Watershed Nitrogen Management District.

Sanitary sewer service for the Site will be provided to an on-site septic system comprised of an approximately 12,000-gallon septic tank, 10,000-gallon pump chamber with duplex pump system and controls and an approximate soil absorption system (leaching field) of 6,000 square feet. (These figures are based on a school population of 365 persons and Class I soils at a percolation rate of ≤ 5 minutes/inch). Grease traps will be required for any sanitary sewer connections to kitchen waste lines. Acidic wastes from chemistry labs or other uses such as MEP systems will require neutralization prior to discharge into the main, and any interior floor drains will be directed to an on-site tight tank.

Recently, the Tisbury Board of Health adopted new regulations entitled “Town of Tisbury, Board of Health Regulation, Deployment of Enhanced De-Nitrification Technologies within the Lake Tashmoo and Lagoon Pond Watershed Nitrogen Management Districts.”

Accordingly, the regulation requires that new on-site waste treatment systems and system upgrades which are deployed in the Watershed Districts, identified as Appendix A of the adopted regulations, to employ ‘best available de-nitrification technology’, removing significantly more wastewater nitrogen than standard Title 5 septic systems.

Enhanced De-Nitrification Technology means an on-site de-nitrification wastewater disposal technology that is intended to meet a nitrogen groundwater discharge standard of not more than 19mg/liter and is approved by the Massachusetts Department of Environmental Protection for general use, provisional use, or pilot program use for nitrogen reduction.

See Board of Health Regulation and Overlay Map at the end of this section.

Additional Utility Connections

The site is serviceable with nearby electric, telephone, and cable services. All proposed utility connections will be coordinated with each respective utility provider. A new transformer for electrical service will be required, and all services will be provided in underground ductbanks and/or conduits. The school will be provided with gas service via a propane tank for the science classrooms and for any potential gas-fired appliances in the kitchen.

Site Orientation and Location Considerations:

- The site is accessed by Holmes Hole Rd, a portion of which is outside of the Town of Tisbury, and would require some degree of coordination with the Town of Oak Bluffs.
- The site is located outside of the town's core village and walkable neighborhoods, and would increase the reliance on buses and parent drop-off.
- The site's larger size affords considerably more opportunities and flexibility for building design and site configuration.
- The site would require roadway improvements in order to accommodate vehicle access, particularly for buses and deliveries.
- The site's varying topography would require a fair amount of earthmoving to accommodate the required spaces.

Site Access and Circulation

- Arrange walkways and barriers to facilitate pedestrian flow to controlled and secure access points.
- Separating bus and parent pick-up/drop-off would be possible at this site.

Structures and Fences:

- Provide pedestrian/vehicular barriers around playgrounds to control student movement provide safety and increase functionality.
- Provide pedestrian/vehicular barriers to control access and increase safety for students.

Parking and Paving:

- The use of angled parking space configurations could be used to reduce the amount of paved area.
- Paving on site will likely be limited to parking lots and driveways, pedestrian walkways and hard play surfaces.
- The site is occupied by a functioning well, and special consideration maybe required for impervious surfaces within a 200'-400' boundary.

Code Requirements:

- Provide handicap accessible parking near the main public entrance and employee entrances.
- Design all sidewalks, curb cuts and crosswalks to maximize safe student/pedestrian routes.
- Design fire lanes and other code required setbacks for use as play and related activity areas.

Zoning Setbacks and Limitations

- Proposed building is exempt from local zoning by use of the Dover Amendment. However, the project will endeavor to respect local restrictions wherever possible, particularly height and setbacks.
- Routine Site Plan Review with the Planning Board will be required for the selected site.
- If the project is determined to be classified as a Development of Regional Impact (DRI), the Martha's Vineyard Commission must approve the project before a town board may issue a required permit or take any action.
- The site is in the Ground Water Protection Overlay District. The district requires a special permit from the Special Permit Granting Authority (SPGA) for any use that will render impervious 15% or 2,500 square feet of any lot, whichever is greater. The district is subject to certain development standards and restrictions:
 - A system for groundwater recharge must be provided which does not degrade groundwater quality. For non-residential uses, recharge shall be by storm water infiltration basins or similar system covered with natural vegetation, and dry wells shall be used only where other methods are unfeasible. All such basins and wells shall be preceded by oil, grease, and sediment traps to facilitate removal of contamination.
 - Emergency generators are prohibited in any portion of a site within the GPD.

Utilities

- Denitrifying septic systems will be required for new construction on the Manter Well site, as it lies within the Groundwater Protection District.
- Plan building to maximize efficient connectivity to utilities
- Design site lighting to limit off site light pollution, and improve impact to adjacent public areas for security purposes.

Athletic fields/Play Areas and outdoor education space

- The southern and western side of the site should be used for active recreation and outdoor education space. Play spaces would optimally offer a diversity of active and passive recreations opportunities on a mix of surface types including concrete, turf, and resilient play surfacing. Some space should be designated for passive play/outdoor classroom space in a more gardenlike setting.
- To the greatest extent possible enclose outdoor play areas within the walls of school or within a fenced in area.
- Provide outdoor education spaces and learning gardens to enhance educational opportunities.
- Provide safe and separate playground areas for ages PK-1, 2-5 and 5-8
- Shelter play areas from prevailing winter winds.

Other Considerations:

- Consider sustainable features and systems in all of the above.
- Consider student safety and privacy during school occupancy or during recess and outdoor activities.
- Consider off school hours use, visibility and security of play areas.
- Consider durable vandal proof materials for the building and site.

TOWN OF TISBURY
Board of Health Regulation
Deployment of Enhanced De-Nitrification Technologies within the
Lake Tashmoo and Lagoon Pond Watershed Nitrogen Management Districts

SECTION 1. FINDINGS

In connection with, and for the purpose of, adoption of this regulation the Board of Health makes the following findings, pursuant to Massachusetts General Laws Chapter 111, section 31 and all other enabling authority.

- 1.1 The Town's population has grown to the point where the wastewater treatment infrastructure in place lacks the capacity and/or capability a) to remove sufficient nitrogen to assure that Tisbury's ponds and other water resources meet applicable water quality standards and b) provide for the safety of those using those resources.
- 1.2 It is now established that excess amounts of nitrogen, in the form of oxides, have the potential to damage human health, particularly in infants, young children, pregnant women and some people with compromised immune systems who consume nitrates in excess of established safe drinking water standards under the federal Safe Drinking Water Act and other regulatory authority.
- 1.3 In addition, the presence of excess nitrogen in water resources contributes to undesirable algal and aquatic plant growth, destroying wildlife habitat and degrading the waters for shellfishing, recreation and other public purposes. In addition, excess nitrogen can result in harmful algal blooms (HABs) that are toxic and create a potential public health issue for swimmers.
- 1.4 The Massachusetts Estuaries Project final report for Lake Tashmoo, dated February, 2015 and draft report for Lagoon Pond dated June, 2010 ("**Reports**") concluded that 6,435 pounds (32%) and 13,016 pounds (35%), respectively, of the *current* nitrogen load entering these water bodies annually must be removed in order for Lake Tashmoo and Lagoon Pond to comply with the nitrogen standards in the federal Clean Water Act and remain sustainable water resources. These quantities are premised on the assumption that *no new nitrogen* will be entering these water bodies as a result of any further development.
- 1.5 To this end, the Board of Health proposed, and the Town approved, at the April 29, 2014 Special Town Meeting, regulations reducing by approximately one-third the amount of nitrogen entering Lake Tashmoo and Lagoon Pond from lawn fertilizer (Fertilizer Management District of Critical Planning Concern Regulations).
- 1.6 The Reports noted that nitrogen from human wastewater is considered to be controllable locally and that it constitutes 80% and 76% of the overall controllable nutrient loading for Lake Tashmoo and Lagoon Pond, respectively. The current wastewater loading equates to approximately 15,128 and 27,695 pounds, respectively, of nitrogen annually to these water bodies.

SECTION 2. PURPOSE

This regulation seeks primarily to protect the public health by mitigating nitrogen toxicity in Lake Tashmoo and Lagoon Pond, while moving toward compliance with applicable water quality standards relating to controllable nitrogen. Accordingly, the regulation requires that new on-site waste treatment systems and system upgrades which are deployed in the Watershed Districts (as defined in Section 4) employ 'best available de-nitrification technology', removing significantly more wastewater nitrogen than standard Title 5 septic systems. Suitable technologies include those approved for pilot program use by the Massachusetts Department of Environmental Protection, thus enabling the Board of Health to partner with property owners and septic engineers in the in-field testing of innovative de-nitrification technologies. This approach is designed to enhance the Town's capability and capacity to reduce the flow of nitrogen from on-site wastewater treatment systems into Lake Tashmoo and Lagoon Pond.

SECTION 3. AUTHORITY

This Regulation is adopted by the Tisbury Board of Health as authorized by Massachusetts General Laws, Chapter 111, Section 31 and all other enabling authority.

SECTION 4. DEFINITIONS

For the purposes of this regulation (including the Appendices), the following words shall have the following meanings unless the context clearly indicates a different meaning:

Approved Sewer District means a district (with specified boundaries) approved by the Town for sewerage.

Watershed District means the area of Tisbury lying within the boundaries of (a) the Lake Tashmoo Watershed Nitrogen Management District or (b) the Lagoon Pond Watershed Nitrogen Management District, both as established and defined by the Town of Tisbury at the Special Town Meeting of April 14, 2015, and as indicated on Appendix A.

Enhanced De-Nitrification Technology means an on-site de-nitrification wastewater disposal technology that is intended to meet a nitrogen groundwater discharge standard of not more than 19mg/liter and is approved by the Massachusetts Department of Environmental Protection for general use, provisional use, or pilot program use for nitrogen reduction. For the avoidance of doubt, Enhanced De-Nitrification Technology includes self-contained, zero discharge, stand-alone composting toilets, used in conjunction with a greywater system, approved by the Massachusetts Board of State Examiners of Plumbers and Gas Fitters.

Property means residential or commercial property or properties.

Proposed Sewer District means a district (with specified boundaries) proposed by the Tisbury Wastewater Planning Committee or the Tisbury Sewer Advisory Board, or other method provided for by law, for sewerage.

Subsidy means a program or scheme the purpose of which is to subsidize some or all of the costs of engineering, installing, monitoring, and/or testing an Enhanced De-Nitrification

Technology the beneficiaries of which include eligible owners of Property on which wastewater treatment systems have failed and require replacement.

SECTION 5. INSTALLATION OF ENHANCED DE-NITRIFICATION TECHNOLOGY

- 5.1 Upon the occurrence of a “trigger event” as set out in section 5.2 (and subject to sections 5.4 and 5.5), the Board of Health will only issue a permit for a proposed new wastewater treatment system and/or any system upgrade for a property in a Watershed District provided:
- a) the application provides for an Enhanced De-Nitrification Technology; and
 - b) all other conditions for the issuance of a permit are met.
- 5.2 The following situations are trigger events for the purposes of section 5.1:
- a) a new wastewater treatment system is required to serve a Property (i.e., new construction);
 - b) a Property’s existing wastewater treatment system fails and replacement is necessary, as determined by the Board of Health, provided a Subsidy has been approved by the Board of Selectmen or the Town at a Town Meeting, as may be required;
 - c) a Property’s existing wastewater treatment system capacity is insufficient to handle any proposed additional development, as determined by the Board of Health;
 - d) a Property is transferred, or proposed for transfer, to another owner and, based on a septic system inspection, the Board of Health determines that a new wastewater treatment system or system upgrade is necessary.
- 5.3 An Enhanced De-Nitrification Technology required under this regulation must be installed, commissioned, monitored, tested and maintained in accordance with all applicable state and local regulations and any manufacturer instructions. Copies of testing reports must be provided to the Board of Health within 30 days after completion of the testing.
- 5.4 This regulation does not apply to any Property within an Approved Sewer District.
- 5.5 If a Property is within a Proposed Sewer District, the Board of Health in its discretion may require an applicant for a wastewater treatment system permit to engineer the proposed wastewater treatment system to accommodate an Enhanced De-Nitrification Technology. Such an applicant will be required to install the Enhanced De-Nitrification Technology only if the Proposed Sewer District is not approved by the Town at a Town Meeting. In this event, installation of the Enhanced De-Nitrification Technology must be completed within 12 months of the date the Proposed Sewer District is voted down.
- 5.6 The Board of Health will review new technologies as they become available and may amend this regulation to lower the 19mg/liter nitrogen groundwater discharge standard as appropriate.

SECTION 6. EFFECTIVE DATE

This regulation applies to all applications for wastewater treatment system permits submitted after the date of approval of this regulation. The Board of Health will declare that the regulation

ceases to apply in respect of a Watershed District as of the date on which the Board determines or confirms that sufficient nitrogen is being removed from that Watershed District to enable it to meet established applicable state and federal water quality standards for nitrogen applicable to that Watershed District.

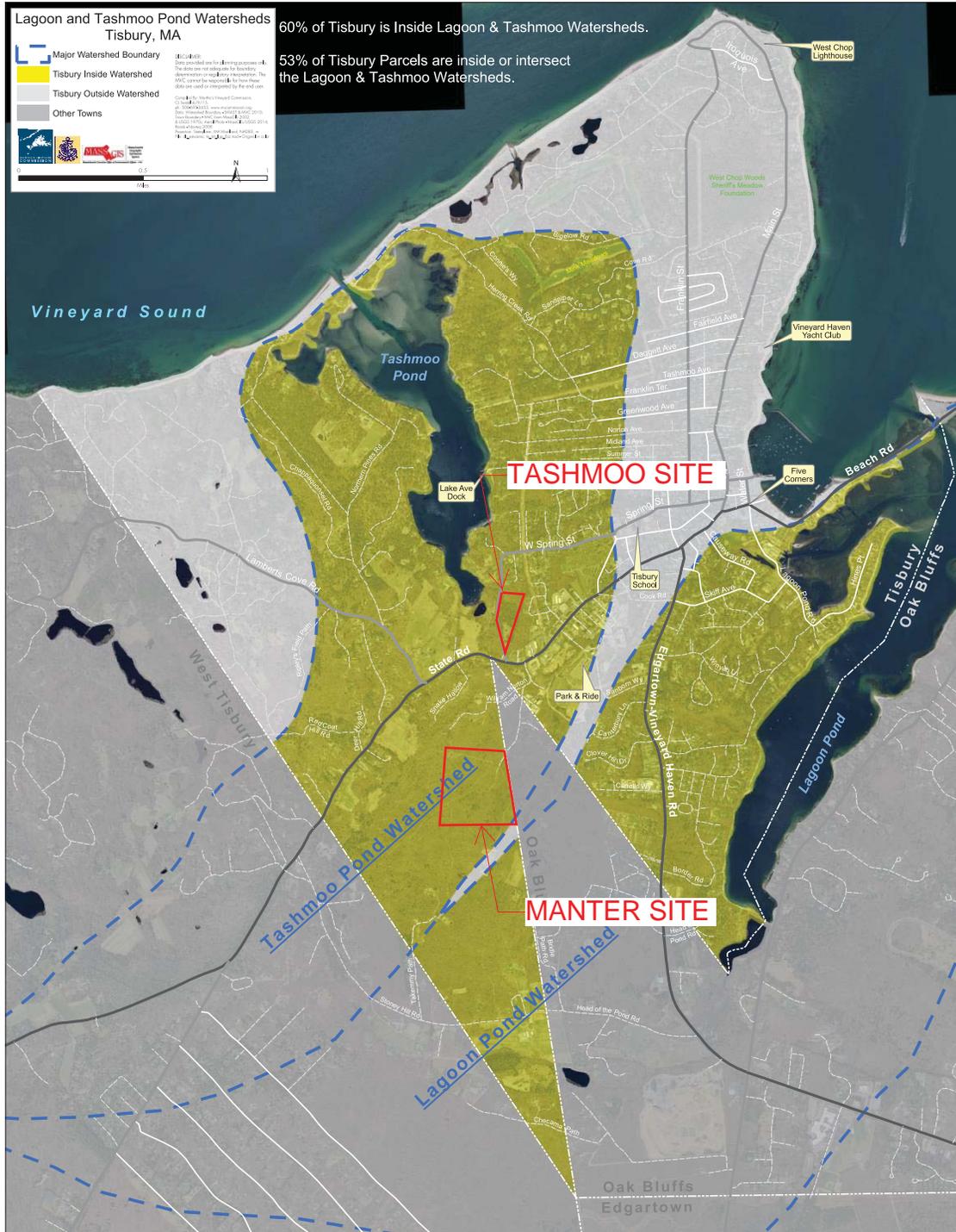
Appendix

Appendix A

Map of the Lake Tashmoo Watershed Nitrogen Management District and the Lagoon Pond Watershed Nitrogen Management District

Appendix A

Map of the Lake Tashmo Nitrogen Management District and the Lagoon Pond Watershed Nitrogen Management District



SECTION 1.6

(Evaluation of Alternatives)

MODULE 3: PRELIMINARY DESIGN PROGRAM
1.6 EVALUATION OF ALTERNATIVES

1. SCHOOL DISTRICT ASSIGNMENT PRACTICES AND AVAILABLE SPACE:

The Tisbury School is the only school in the Tisbury School District and it serves Grades K-8. It currently has an enrollment of 315 students. The School participates in an island wide school choice program which currently has 22 incoming students from other schools on Martha's Vineyard and 33 outplaced students spread fairly evenly across the other island K-8 schools. This is also the average number of students participating in this program over the last five years. It is worth noting that the Tisbury School only accepts 25% of the applicants for school choice due to its current limited capacity to absorb additional students. Once the new or renovated/expanded school is completed, it is expected that there will be more of a balance of incoming and outplaced students.

Students who cannot be accommodated in their "home" schools due to special needs are provided services and education through an island-wide "Shared Services" program, which allows many students to remain on the island as opposed to traveling to residential or collaborative schools. Currently there are eight Tisbury School district students placed in this program.

2. TUITION AGREEMENTS WITH ADJACENT SCHOOL DISTRICTS

The school choice program noted above provides \$5,000 in funding per student into a school choice fund managed by the School Committee. In other words, at the present time, there is a net of 11 students outplaced from the Tisbury School, so the Town pays \$55,000 into that fund. The funding for the special needs students placed into other schools on the island is funded through a contribution by each island school into the shared services budget – currently the Tisbury School contributes approximately 23% of that shared services budget.

3. RENTAL OR ACQUISITION OF EXISTING BUILDINGS POTENTIALLY AVAILABLE FOR SCHOOL USE

Due to the limited large scale real estate development in the Town of Tisbury, there are no known buildings which could temporarily or permanently house the Tisbury School students. If a renovation/addition option is selected, it is expected that modular units will be used on the existing site to house the students and staff while the existing building is renovated. Modular units may also be required if a new school option on the existing site is selected, as partial demolition of the existing school may be required to accommodate construction of the new school.

4. OPTIONS

OVERVIEW OF PROCESS RELATED TO IDENTIFYING ALTERNATIVE SITES

At the outset of the study, a minimum site area for alternative sites was established by what is available at the existing site - 5.15 acres. The town provided the design team an inventory of all sites in Tisbury 5 acres and greater. Please refer to a map of the sites identified in this survey under Tab “A” at the end of this section.

The design team reviewed the data and determined that of available privately owned sites, the preponderance of sites were lands with perpetual conservation restrictions. Ultimately six Tisbury owned sites were identified for further consideration:

- **Existing School Site**, 40 West William Street – 5.15 acres. This site is on the edge of the village of Vineyard Haven, accessible by Spring Street to the north and West William Street to the south. Please refer to the existing site survey and other detailed site information under Tab “B” at the end of this section.

This site is suitable for development as continued use for the school. Consideration of this site will be continued into the Preferred Schematic phase of the Feasibility Study.

- **Bigelow Road Site**, 8.7 acres. This site is north of the existing site, in the West Chop area of Tisbury, accessible by Bigelow Road from Franklin Street. Please refer to detailed site information under Tab “C” at the end of this section.

This site, while one of the most favorable sites in terms of supporting a school; relatively flat, central to population, and adequate size, was removed from further consideration after review of the deed by Town Counsel and opinion that the site is subject to perpetual conservation under Article 97 of the Constitution of the Commonwealth.

This site was eliminated from consideration for reasons noted above and will not be carried forward into the following phases of the study.

- **Veteran’s Park Site**, 10.62 acres. This site is east of the existing school site, adjacent to the center of Vineyard Haven, close to the waterfront, and accessible by Lagoon Pond Road to the east and Causeway Road to the west. Please refer to detailed site information under Tab “D” at the end of this section.

This site, while favorable in terms of supporting a school; relatively flat, central to population, and adequate size, was removed from further consideration after determined to be in a FEMA designated flood zone which would present future risks and make development challenging. The site may also be subject to perpetual conservation under Article 97 of the Constitution of the Commonwealth, although this was not confirmed by Town Counsel.

This site was eliminated from consideration for reasons noted above and will not be carried forward into the following phases of the study.

- **Overlook Site**, 24.03 acres. This site is south west of the existing school at the outskirts of Vineyard Haven, accessible by State Road to the north, and West Spring Street to the east. Please refer to detailed site information under Tab “E” at the end of this section.

This site, while favorable in terms of supporting a school in terms of its size, presented other challenges including its State Road frontage along the *Islands Road Overlay Zoning District*, which aims to preserve scenic vistas along Tisbury’s roads. New construction would likely impede vistas to the scenic Tashmoo Pond. Also, this site, and the historic waterworks buildings and other structures within the site are listed on the United States Department of Interior Register of Historic Places. In addition to local zoning restrictions, the site presented challenging topography.

This site was eliminated from consideration for reasons noted above and will not be carried forward into the following phases of the study.

- **Tashmoo Well Site**, 15 acres. This site is south west of the existing school at the outskirts of Vineyard Haven, accessible from State Road to the north and West William Street to the west. Please refer to detailed site information under Tab “F” at the end of this section.

This site contains one of three town wells that supply water to the Town of Tisbury, and therefore subject to development restrictions of MA DEP 310 CMR 22.0 Drinking Water Regulations, which prohibits certain developments within Zone 1 (400’ radius) of the well. While this regulation reduces the developable area of the site, it does not in itself preclude the site from consideration of development for the school. However this site presents other challenges identified under evaluations in Option 4 below.

This site may be suitable for development as use for the school. Consideration of this site will be continued into the Preferred Schematic phase of the Feasibility Study.

- **Manter Well site**, 55.3 acres. This site is south west of the existing school, across State Road in an underdeveloped area of the Town. It is accessible from Holmes Hole Road to the east and William Norton Road to the west. Please refer to detailed site information under Tab “G” at the end of this section.

This site contains one of three town wells that supply water to the Town of Tisbury, and therefore subject to development restrictions of MA DEP 310 CMR 22.0 Drinking Water Regulations, which prohibits certain developments within Zone 1 (400’ radius) of the well. While this regulation reduces the developable area of the site, it does not in itself preclude the site from consideration of development for the school. However this site presents other challenges identified under the evaluations in Option 5 below.

This site may be suitable for development as use for the school. Consideration of this site will be continued into the Preferred Schematic phase of the Feasibility Study.

OPTION 1: BASE REPAIR

Description:

This option includes a comprehensive upgrade to the Tisbury School building systems, interior finishes, exterior envelope including roofing (except recently replaced roof at the main building), thermal envelope, new windows and exterior doors, new door hardware throughout, and other code related upgrades including minor renovations to accommodate full accessibility and a fire suppression system. No additions would be anticipated with this option, and there would be no increase to the school’s program area.

This option would retain the historic building and renew it. Please refer to the preliminary site plan under Tab “H” at the end of this section.

Addressing Site Goals:

This option, due to the limited area of the site (5.15 acres) constrains parking areas, playgrounds and play fields.

Site upgrades would be limited, but would include providing handicap accessible paths around the site, and between parking, play areas and the building. Improvements to play areas (equipment and fields), parking, and storm water controls would also be achieved.

The site and play areas will continue to be divided by the placement of the building in the middle of the site.

Fulfilling Educational Programs:

This option is not seen as a viable solution. While it will improve the overall performance toward a more energy efficient building, it does not address the other serious deficiencies of the school in terms of program space. No added space would be provided. See the comparison of existing space to proposed space in the Proposed Space Summary in Section 1.3 of this report.

Construction Impact:

This option would cause significant impact to students during construction. The project would require temporary displacement of all of the student body to temporary structures (likely on site modular units). In addition to displacement, the educational curriculum would be impacted by loss of use of large portions of the site during construction, both contractor lay down area utilized to accommodate temporary modular classrooms.

It is possible that this renovation could be phased with rotating student displacement. However, because the floor structure of the main building is wood, there is very limited acoustical isolation between floors, which impacts education just in normal operation of a school day. Construction above or below occupied floors would be very disruptive.

Estimated Preliminary Construction and Project Costs:

Please refer to the "Option Cost Comparison" spreadsheet under Tab "N" at the end of this section.

Development Considerations:

The following requirements will be further explored in the future phases:

- Town Water and Sewer available
- Electrical Service available
- Subject to NHESP review
- Subject to MHC review – Project Notification Form (PNF) has been filed
- NPDES permitting may be required

- Local Site Plan Review may be required

OPTION 2: ADDITION/RENOVATION

Description:

This option would achieve all of the upgrades noted above in Option 1, with the addition of spatial reconfiguration within the existing building to achieve (as feasible) minimum space needs for all program areas. This option would include demolition of the existing gym addition, and construction of a new addition accommodating most of the shared areas of the program. This option could ameliorate some of the grading and accessibility issues around the site by placing the new addition below the existing ground floor elevation to the east.

This option would retain most of the historic building, and renew it. Please refer to preliminary site diagram and floor plans under Tab “I” at the end of this section.

Fulfilling Educational Programs:

This option will provide spaces to meet the basic needs of the educational program. However, given the configuration of the existing building and limitations in its structure and layout, it is likely that compromises will need to be made in terms of meeting the goals established in the educational program, particularly in terms of desired adjacencies. There would also likely be compromises in meeting minimum space requirements proposed. See the Proposed Space Summary in Section 1.3 of this report.

Addressing Site Goals:

This option, due to the limited area of the site (5.15 acres) constrains parking areas, playgrounds and play fields. Parking counts may be reduced. Playfields will overlap. Playgrounds will be reduced in size. In addition, the town has installed septic “WICKS” at the southeast boundary of the site along West William Street. These WICKS are not currently operational, but once in operation, will require a 25’ radius setback from any building footprint.

While a lower elevation of the ground floor of an addition can mitigate some of the vertical challenges presented by the topography of the site, this option will still require complicated access with ramps and winding 5% walks for accessibility between parking and playgrounds and the school.

The site and play areas will continue to be divided by the placement of the building in the middle of the site.

Construction Impact:

This option, like option 1 above would cause significant impact to students during construction. The project would require temporary displacement of all of the student body to temporary structures (on site modular units). In addition to displacement, the educational curriculum would be impacted by loss of use of large portions of the site during construction, both contractor lay down area utilized to accommodate temporary modular classrooms.

Estimated Preliminary Construction and Project Costs:

Please refer to the “Option Cost Comparison” spreadsheet under Tab “N” at the end of this section.

Development Considerations:

The following requirements will be further explored in the future phases:

- WICK system setbacks
- Town Water and Sewer available
- Electrical Service available
- Subject to NHESP review
- Subject to MHC review – Project Notification Form (PNF) has been filed
- NPDES permitting required
- Local Site Plan Review required

OPTION 3: NEW SCHOOL ON EXISTING TISBURY SCHOOL SITE

Description:

This option would replace the existing school with an entirely new 2 story school at the east end of the site. This option would likely require early demolition of a portion of the existing building (gym addition) to allow adequate area to develop the new structure. The existing building would remain in service through construction and demolished after the new building is complete and occupied. Finishing site work will be the final phase of the project, and should be scheduled to occur in early spring or fall. Please refer to preliminary site diagram and floor plans under Tab “J” at the end of this section.

Fulfilling Educational Programs:

While configuration of the building will be limited by the area of the site open to development, it is anticipated that this option would substantially meet the goals established in the Educational Program.

Addressing Site Goals:

This option, due to the limited area of the site (5.15 acres) constrains parking areas, playgrounds and play fields. Parking counts may be reduced. Playfields will overlap. Playgrounds will be reduced in size. In addition, the town has installed septic “WICKS” at the southeast boundary of the site along West William Street. These WICKS are not currently operational, but once in operation, will require a 25’ radius setback from any building footprint.

However, this option would allow significant flattening of the site, improving accessibility across the site in its final configuration. It would also allow contiguous open space connecting all outdoor play spaces. The site and play areas will no longer be divided by the placement of the building in the middle of the site.

Construction Impact:

This option would cause less impact to students during construction. With the possible exception of the gym addition, which contains space for physical education, music and foreign language instruction, the school would remain fully in service during construction of the new building. The above programs would be displaced and accommodated in temporary structures (on site modular units).

Estimated Preliminary Construction and Project Costs:

Please refer to the “Option Cost Comparison” spreadsheet under Tab “N” at the end of this section.

Development Consideration:

The following requirements / conditions will be further explored in the future phases:

- WICK system setback
- Town Water and Sewer available
- Electrical Service available
- Subject to NHESP review
- Subject to MHC review – Project Notification Form (PNF) has been filed
- NPDES permitting required
- Local Site Plan Review required

OPTION 4: NEW SCHOOL ON TASHMOO WELL SITE

Description:

This option would replace the existing school with an entirely new school on this alternative site. The existing building would remain in service through construction and adapted for new use upon vacating by the school.

Given the limitations of the site area and topography, it is likely that this option would require a 3 story solution. Please refer to preliminary site diagram and floor plans under Tab “K” at the end of this section.

Fulfilling Educational Programs:

While configuration of the building will likely be 3 stories, it is anticipated that this option would substantially meet the goals established in the Educational Program.

Addressing Site Goals:

This option, due to the limited developable area of the site outside the protected well zone, will likely constrain access to and from the site to a single point of entry/exit, and will also constrain parking areas, playgrounds and play fields. Parking counts may be reduced. Playfields will overlap. Playgrounds will be reduced in size.

This site, due to its distance from the populated center of the town, would require an increase in bussing, and likely an increase in parent traffic. To encourage walking, sidewalks would be recommended along West Spring Street connecting back to their current termination point west of the existing school site.

Construction Impact:

There would be no impact to students during construction with this option.

Estimated Preliminary Construction and Project Costs:

Please refer to the “Option Cost Comparison” spreadsheet under Tab “N” at the end of this section.

Development Considerations:

The following requirements will be further explored in the future phases:

- Town Water available
 - Ground Water Protection Zone – Special Permit required
- Town Sewer not available

- Septic subject to BOH nitrogen reduction requirements.
- Electrical Service available
- Subject to NHESP review
- Subject to MHC Project Notification Form (PNF)
- NPDES permitting required
- Local Site Plan Review required
- The Town Counsel opinion is that this property is not subject to protection under Article 97 of the Constitution of the Commonwealth. See email in Tab “P” at the end of this section.

Other Consideration:

The Tisbury Water Works has undertaken partial development of this site for a garage and office facility over a number of recent years. The Water Works is seeking funding at Spring 2017 Town Meeting to complete funding to construct this building. Given the limited developable area of the site, both a school and this new waterworks building could not cohabitate on this site.

Communication has occurred between the Town and the Water Board related to the possible use of the site for a new school. Please refer to a letter from the Water Board under Tab “M” at the end of this section.

OPTION 5: NEW SCHOOL ON MANTER WELL SITE

Description:

This option would replace the existing school with an entirely new school on this alternative site. The existing building would remain in service through construction and adapted for new use upon vacating by the school.

Given the size of the site, this option provides the greatest flexibility for school and site configuration. Please refer to preliminary site diagram and floor plans under Tab “L” at the end of this section.

Fulfilling Educational Programs:

Configuration of the building will likely be 2 stories. It is anticipated that this option would provide the greatest opportunity to meet the goals established in the Educational Program.

Addressing Site Goals:

This option, while subject to similar limitations as the Tashmoo site due to the well location, is less restricted due to the available acreage of the site.

However, this site presents other possible challenges. It is located the furthest distance from the existing school site, and the village of Vineyard Haven. It is south of State Road which is a major arterial roadway connecting Vineyard Haven and other island communities. It's most accessible route is across Holmes Hold Road, a partially developed road, a portion of which crosses the neighboring town of Oak Bluffs. Development of the road

This site, due to its distance from the populated center of the town, would likely require nearly 100% busing, and likely an increase in parent traffic. To encourage walking, sidewalks could be constructed along with other improvements to Holmes Hole Road, connecting back to State Road.

Construction Impact:

There would be no impact to students during construction with this option.

Estimated Preliminary Construction and Project Costs:

Please refer to the "Option Cost Comparison" spreadsheet under Tab "N" at the end of this section.

Development Considerations:

The following requirements will be further explored in the future phases:

- Town Water available
 - Ground Water Protection Zone – Special Permit required
- Town Sewer not available
 - Septic subject to BOH nitrogen reduction requirements
- Residential 3A District requires up to 1,500' separation between a septic system and public water supply.
- Electrical Service available
- Improvements of access road required
- Subject to NHESP review
- Subject to MHC Project Notification Form (PNF)
- NPDES permitting required
- Local Site Plan Review required

- The Town Counsel opinion is that this property is not subject to protection under Article 97 of the Constitution of the Commonwealth. See email in Tab “P” at the end of this section.

Other Consideration:

- Development of access along Holmes Hole Road may require cooperation and agreement between the towns of Tisbury and Oak Bluffs. A meeting between the two town’s is planned to occur in the early part of the Preferred Schematic phase.

5. RECOMMENDATION:

The Building Committee has determined the following options be included for further study in the Preferred Schematic Study.

Option 2: Addition / Renovation of the existing Tisbury School

Option 3: New School on the Tisbury School Site

Option 5: New School on the Manter Well Site

Option 4: New School on the Tashmoo Well remain under consideration, but only if encouraged from community members after public forums scheduled for Monday April 3rd at 10:30am and 7:00 pm. The Building Committee is leaning toward removing this site from consideration due to the competing interests on the site.

TAB A

School Feasibility Study

Tisbury, MA

Parcels Over 5 Acres in Size

- Town Owned - Vacant
- Town Owned - Not Vacant
- Other Ownership - Vacant
- Other Ownership - Not Vacant

Open Space/Conservation Land

- Open Space/Conservation Land

Roads

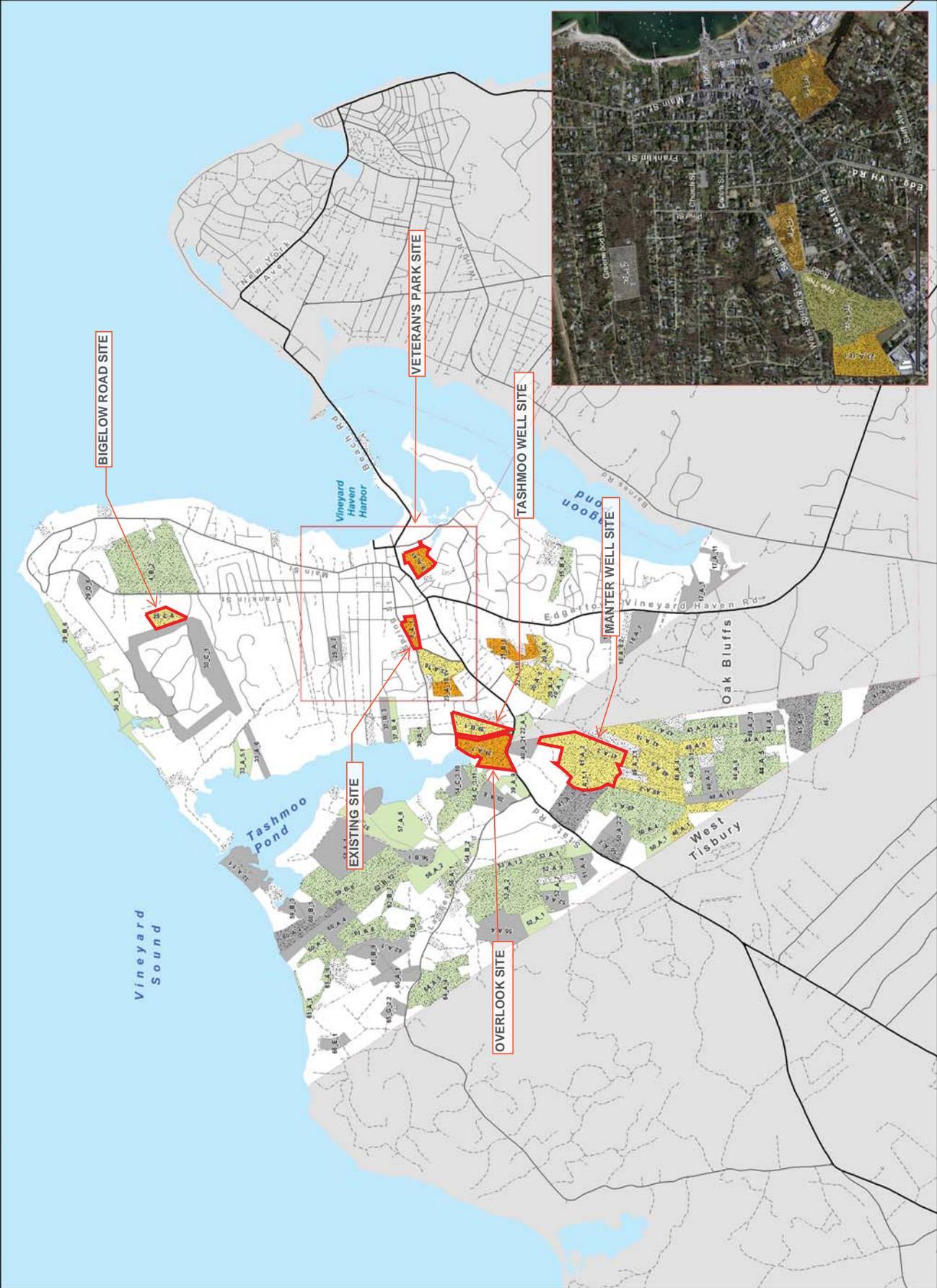
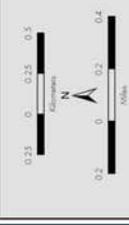
- Primary Road
- Secondary Road
- Neighborhood Road
- Local Road

Town Boundary

- Town Boundary

NOTE: Parcels displayed on this map were selected based on the following criteria: parcels owned by the Town of Tisbury with a Building Value of \$50,000 or more as assessed by the Assessor's Office as of fiscal year 2016. The Assessor's data is as of fiscal year 2016. The Open Space/Conservation Land is as of 2016. These data were compiled by the MMC and the Board of Conservation. All efforts are made to ensure the data are accurate. However, the MMC and the Board of Conservation make no warranty as to the accuracy of the data. All information is provided for informational purposes only. The MMC and the Board of Conservation are not responsible for any errors or omissions. All information is provided for informational purposes only. The MMC and the Board of Conservation are not responsible for any errors or omissions.

DISCLAIMER: The data provided on this map is for planning purposes only. The data was not intended to be used for any other purpose. The data was not intended to be used for any other purpose. The data was not intended to be used for any other purpose. The data was not intended to be used for any other purpose.



TAB B



Figure X: NHESP and MHC Historic Area
Tisbury Elementary School
Tisbury, Massachusetts

TAB C

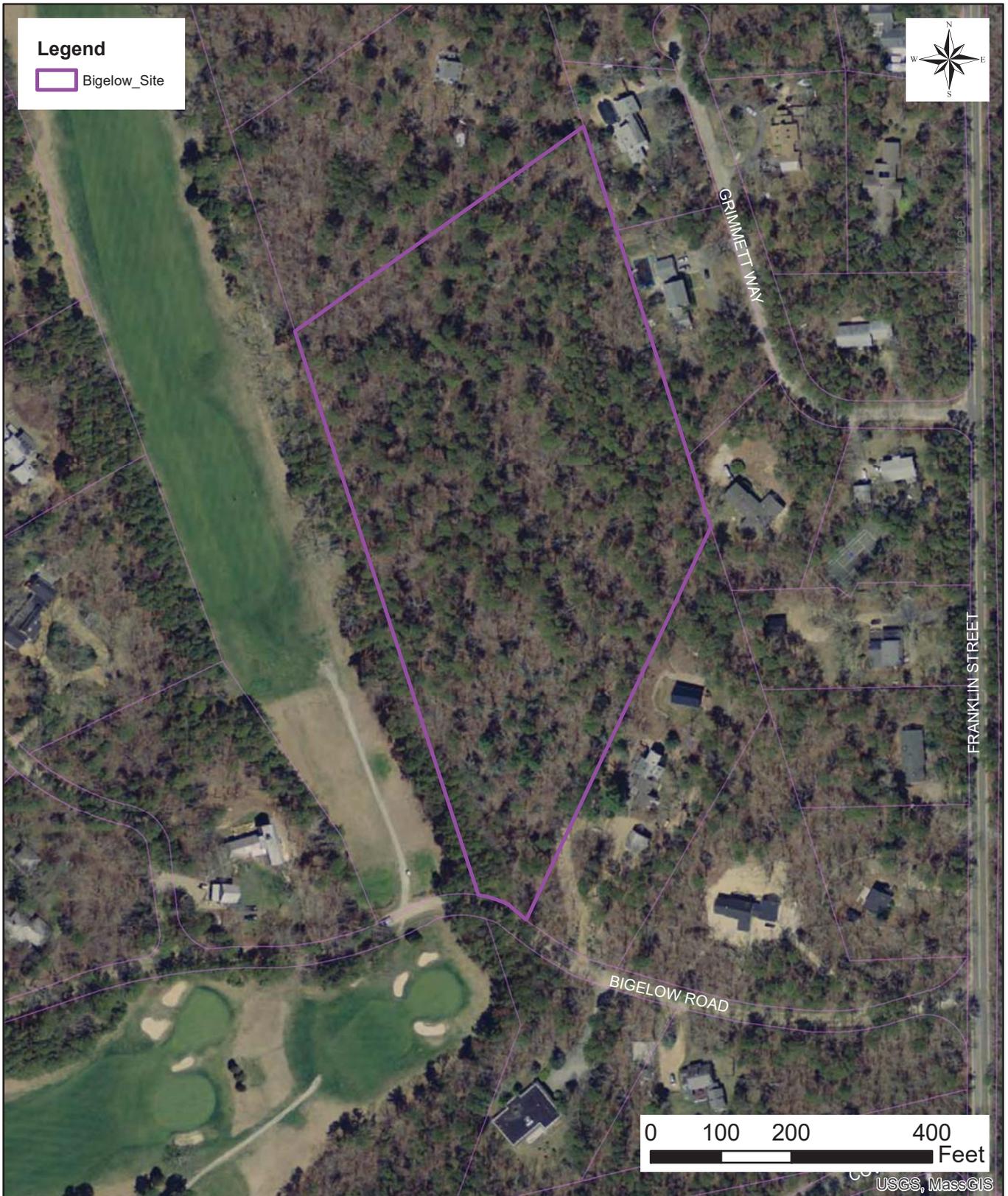


Figure X: MHC Historic Inventory
 Tisbury Elementary School - Bigelow Site
 Tisbury, Massachusetts



Figure X: Contours
 Tisbury Elementary School - Bigelow Site
 Tisbury, Massachusetts

TAB D



Figure X: MHC Historic Inventory
 Tisbury Elementary School - Park Site
 Tisbury, Massachusetts



Figure X: Coastal
 Tisbury Elementary School - Park Site
 Tisbury, Massachusetts



Figure X: Contours
 Tisbury Elementary School - Park Site
 Tisbury, Massachusetts

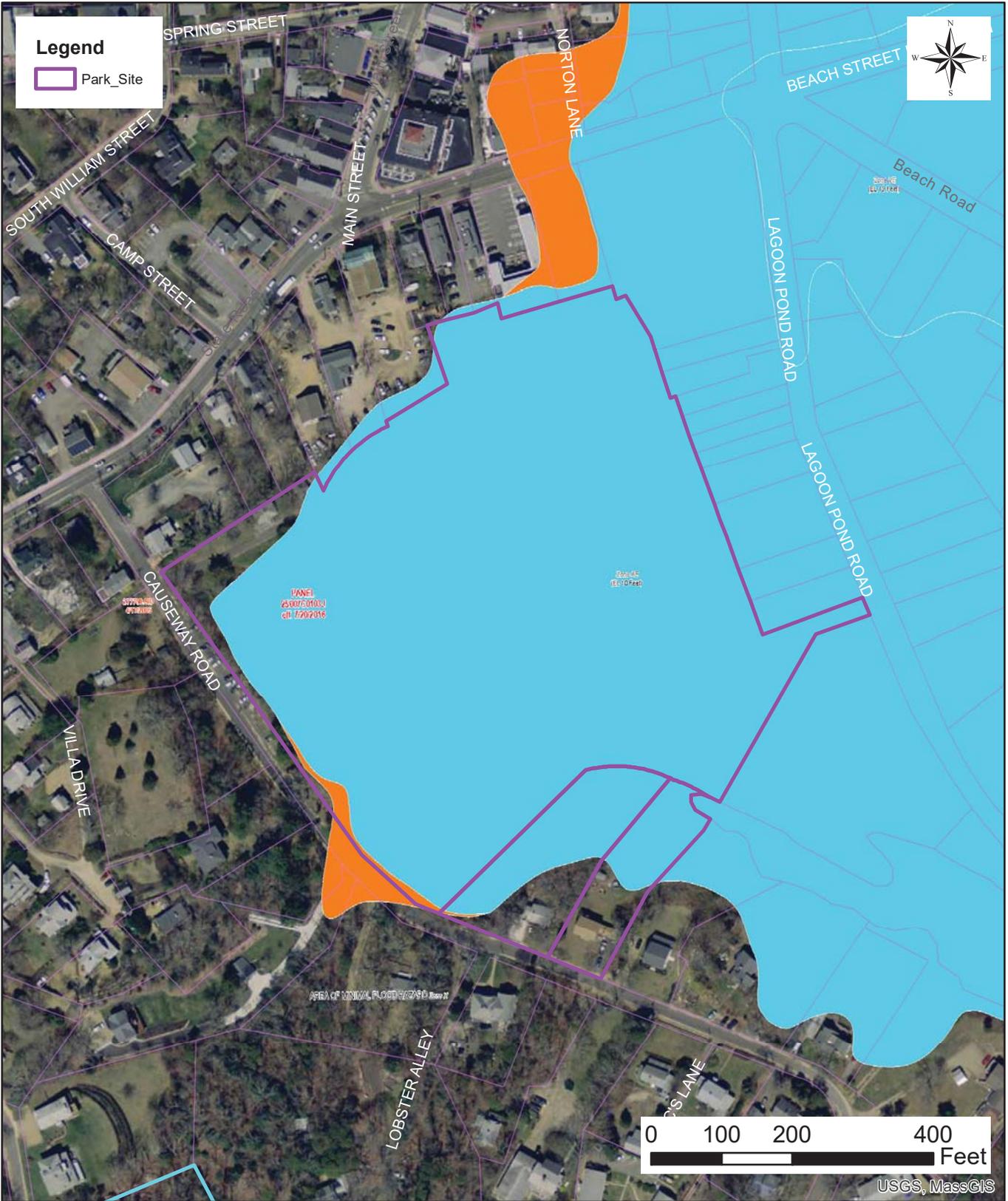


Figure X: National Flood Hazard
 Tisbury Elementary School - Park Site
 Tisbury, Massachusetts

Data Source: MassGIS
 Nitsch Project #11915



Figure X: DEP Wetland
 Tisbury Elementary School - Park Site
 Tisbury, Massachusetts

TAB E

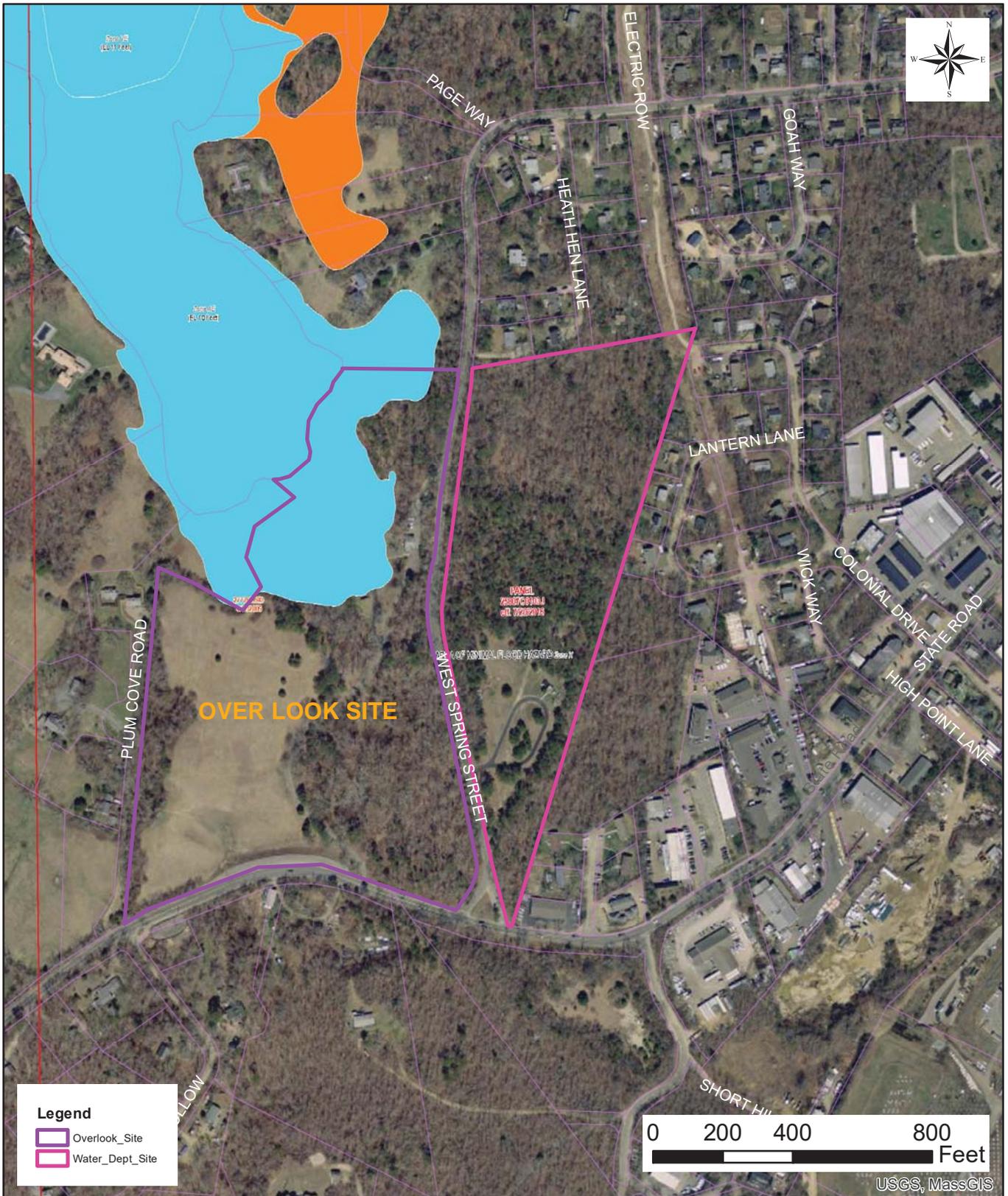


Figure X: National Flood Hazard
 Tisbury Elementary School - Overlook/Water Dept Site
 Tisbury, Massachusetts

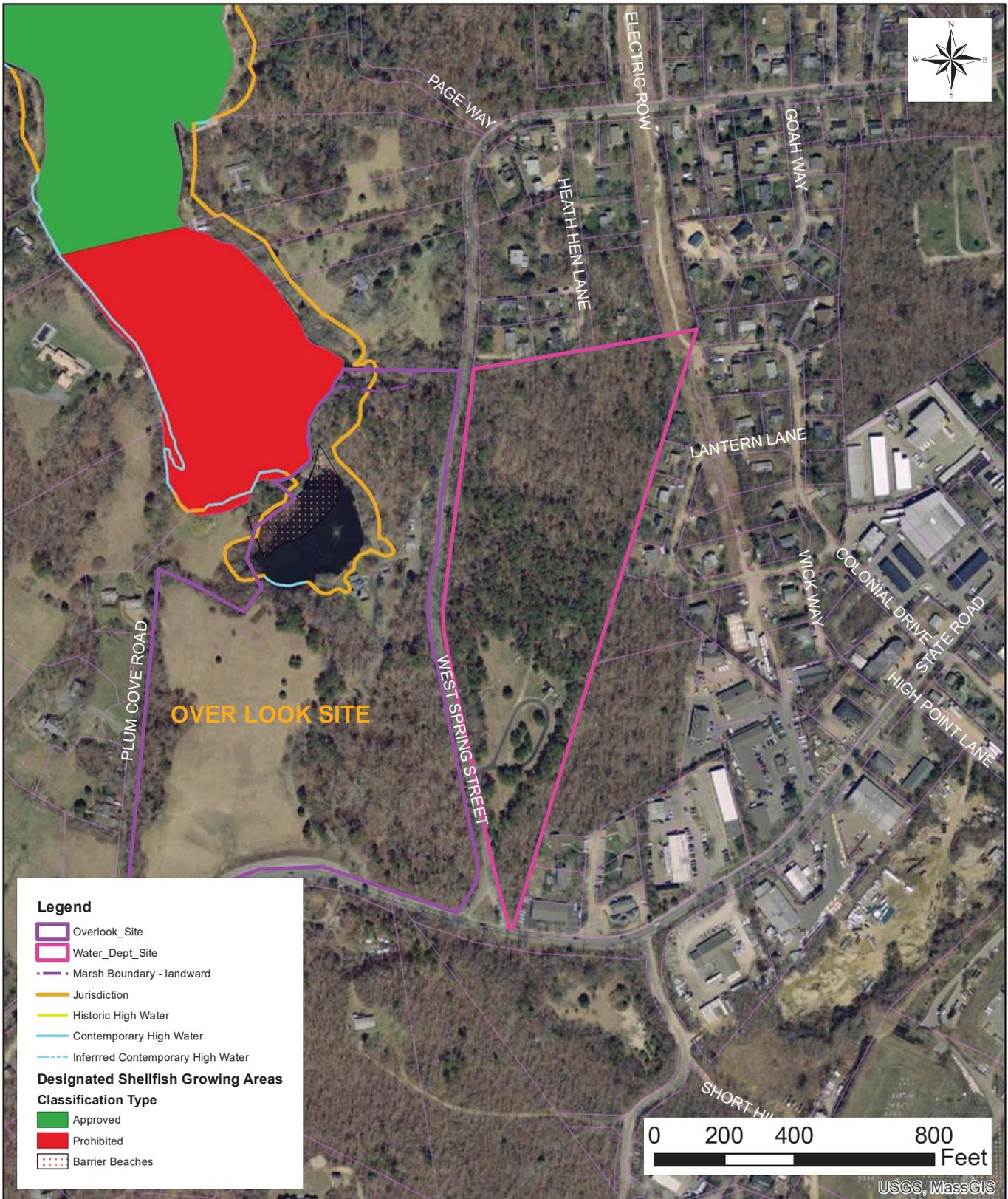


Figure X: Coastal
 Tisbury Elementary School - Overlook/Water Dept Site
 Tisbury, Massachusetts

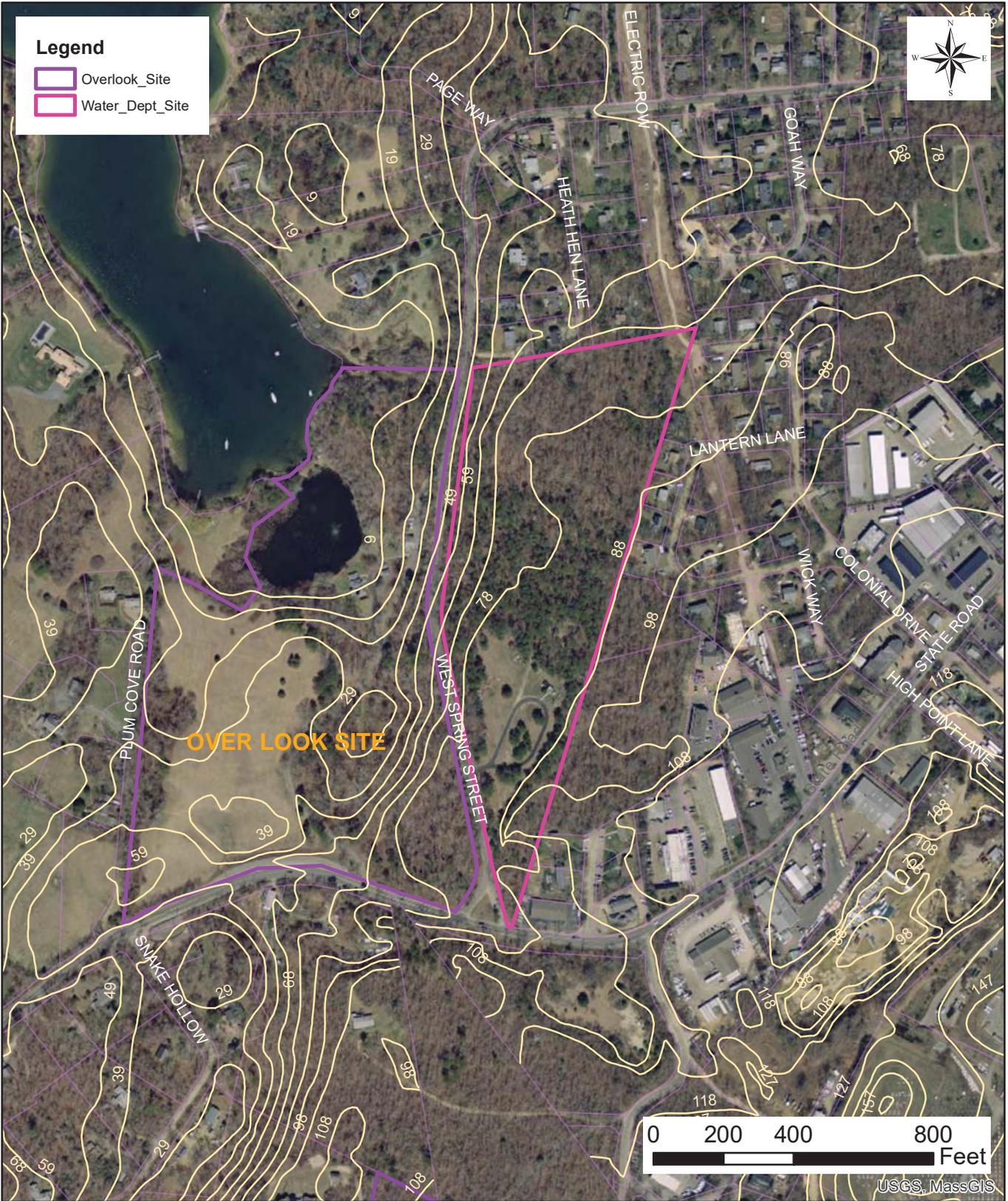


Figure X: Contours
 Tisbury Elementary School - Overlook/Water Dept Site
 Tisbury, Massachusetts

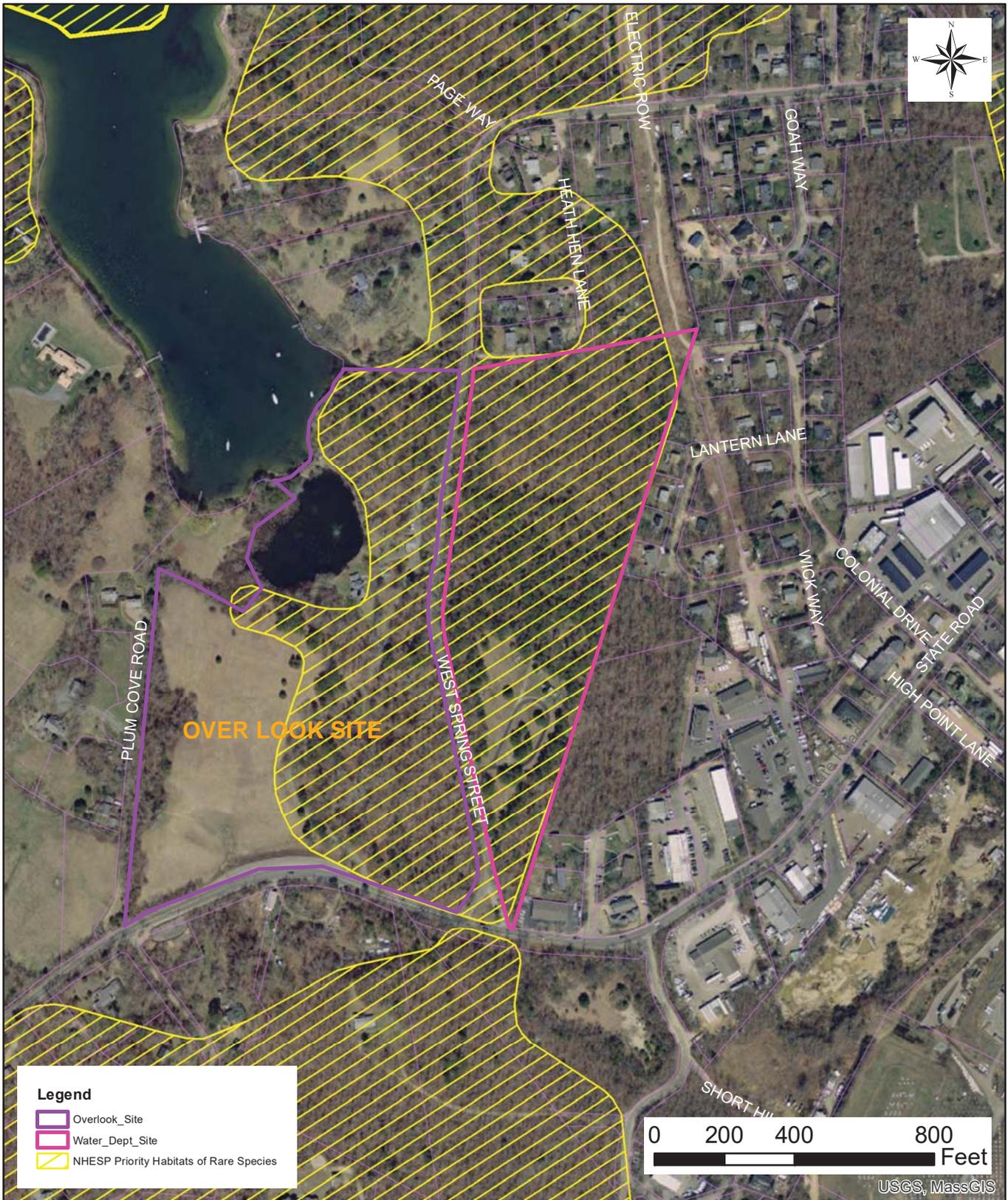


Figure X: National Heritage and Endangered Species Program
 Tisbury Elementary School - Overlook/Water Dept Site
 Tisbury, Massachusetts

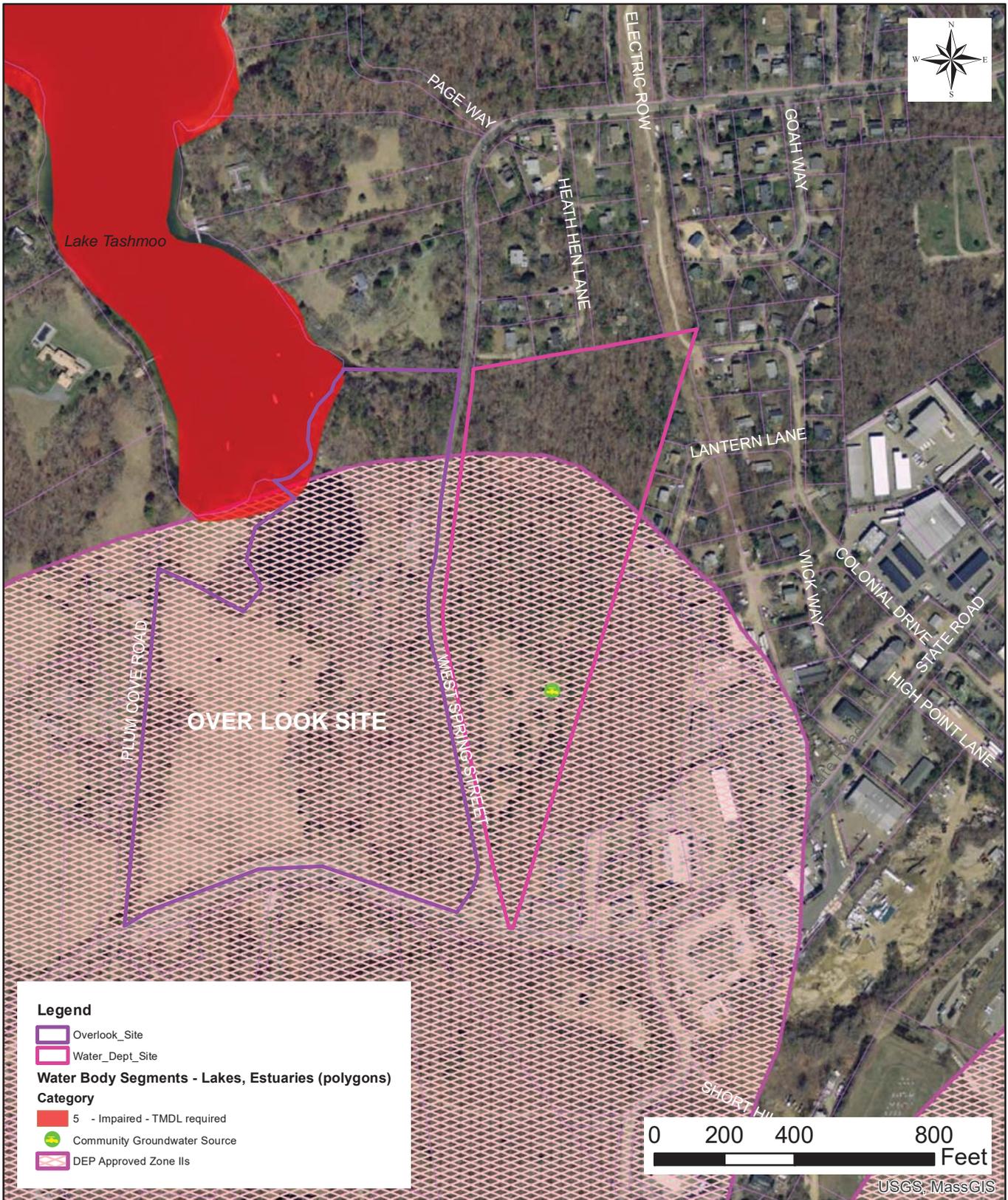


Figure X: DEP Wellhead Protection Areas
 Tisbury Elementary School - Overlook/Water Dept Site
 Tisbury, Massachusetts

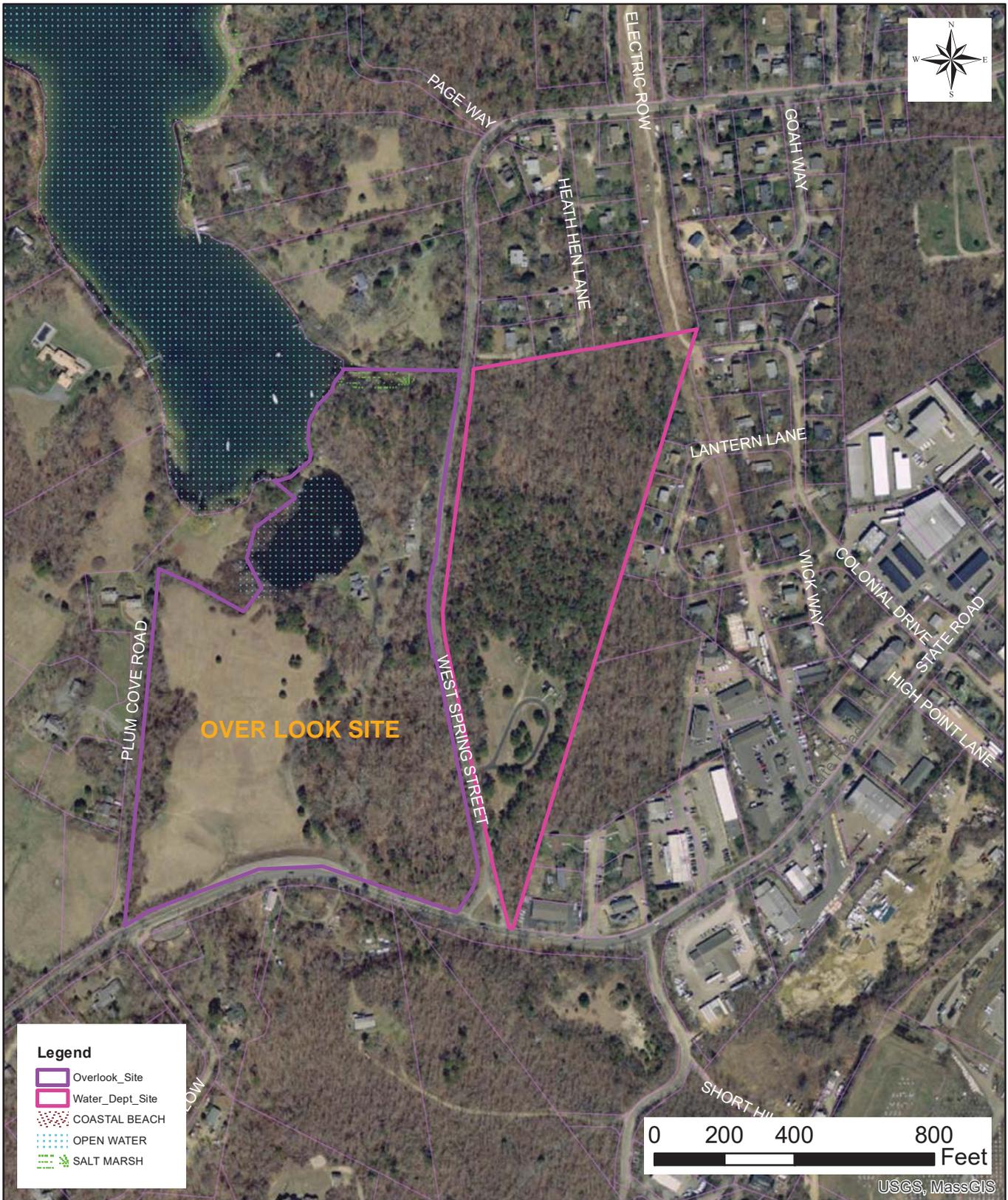


Figure X: DEP Wetlands
 Tisbury Elementary School - Overlook/Water Dept Site
 Tisbury, Massachusetts

TAB F

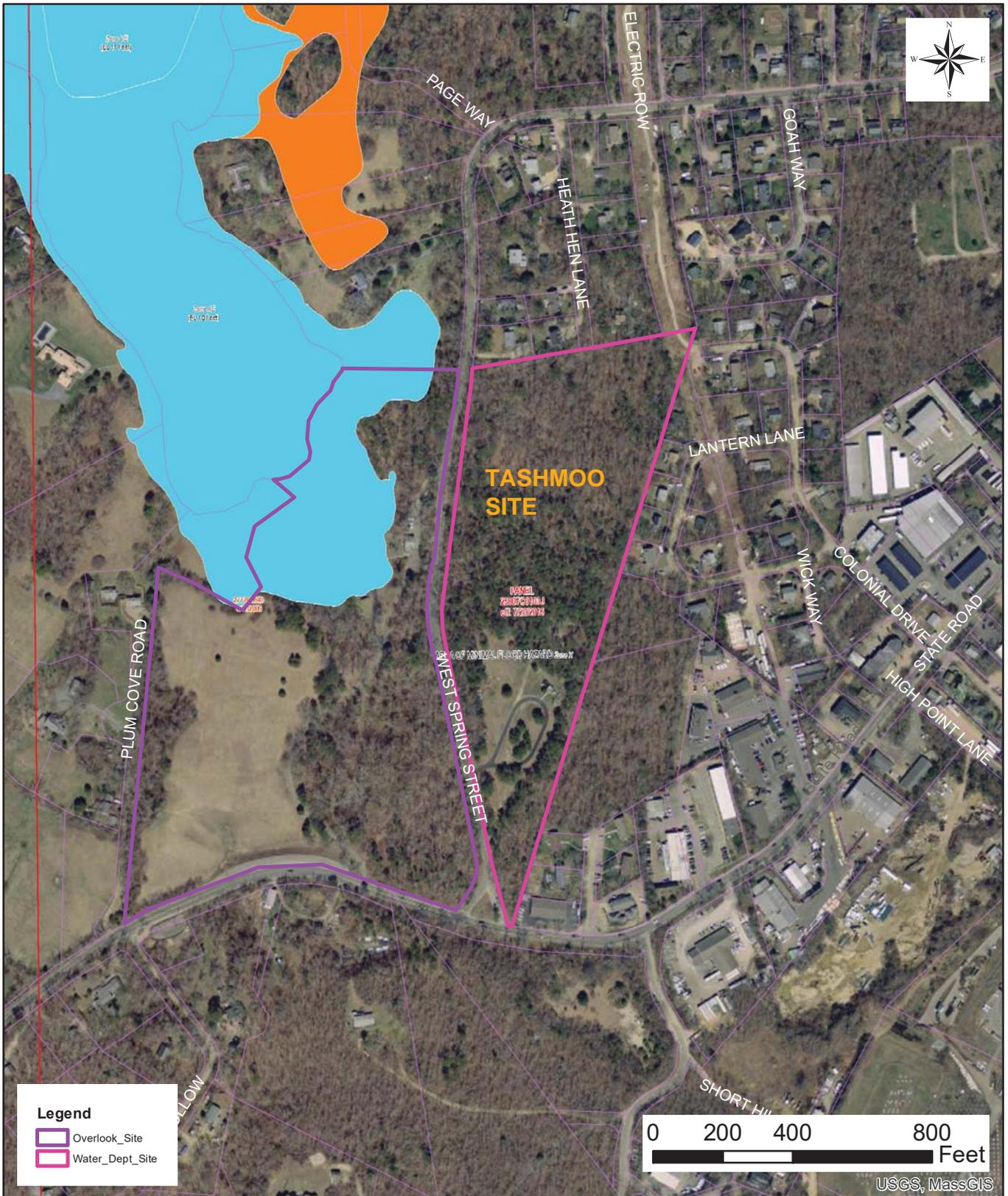


Figure X: National Flood Hazard
 Tisbury Elementary School - Overlook/Water Dept Site
 Tisbury, Massachusetts

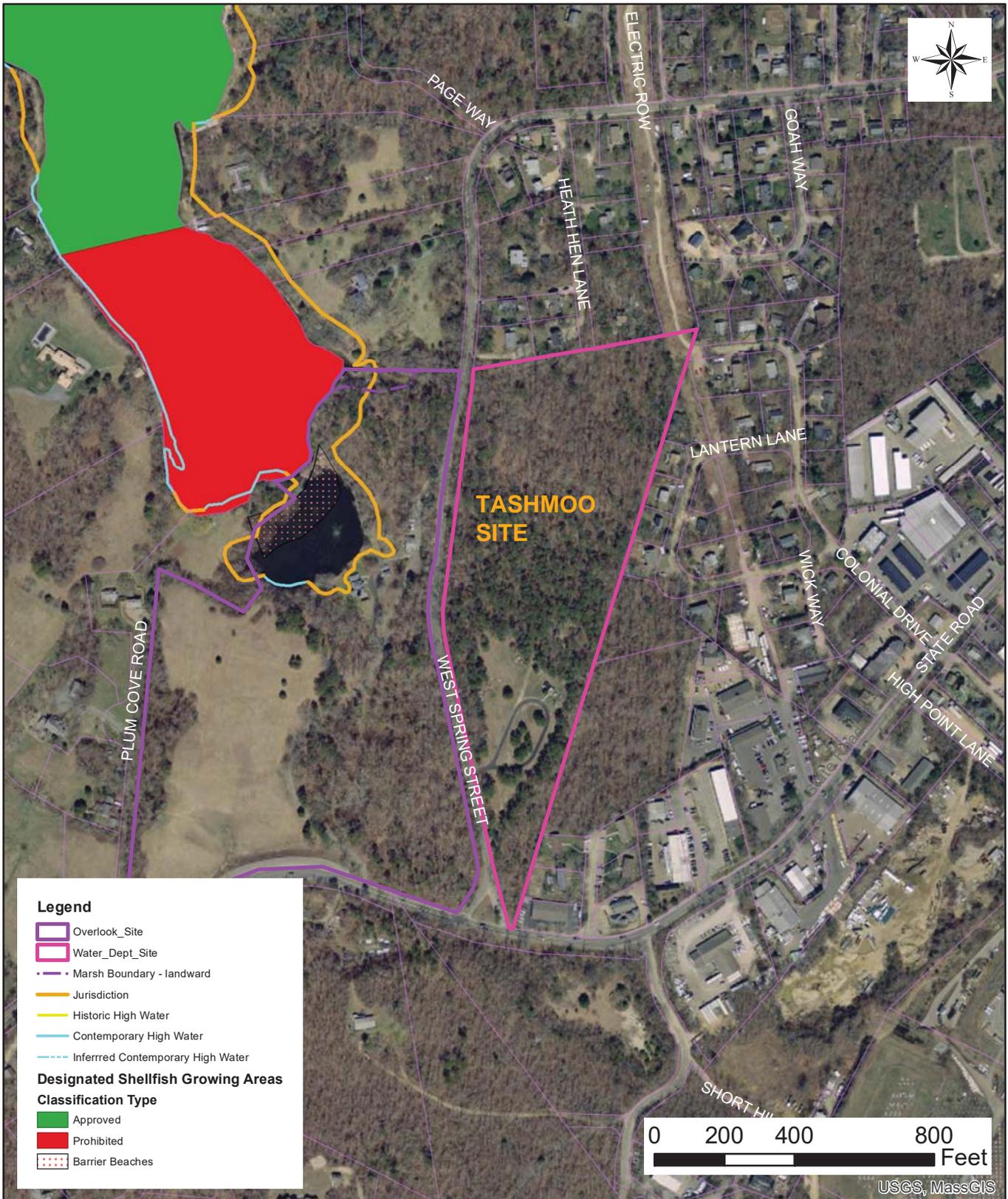


Figure X: Coastal
 Tisbury Elementary School - Overlook/Water Dept Site
 Tisbury, Massachusetts

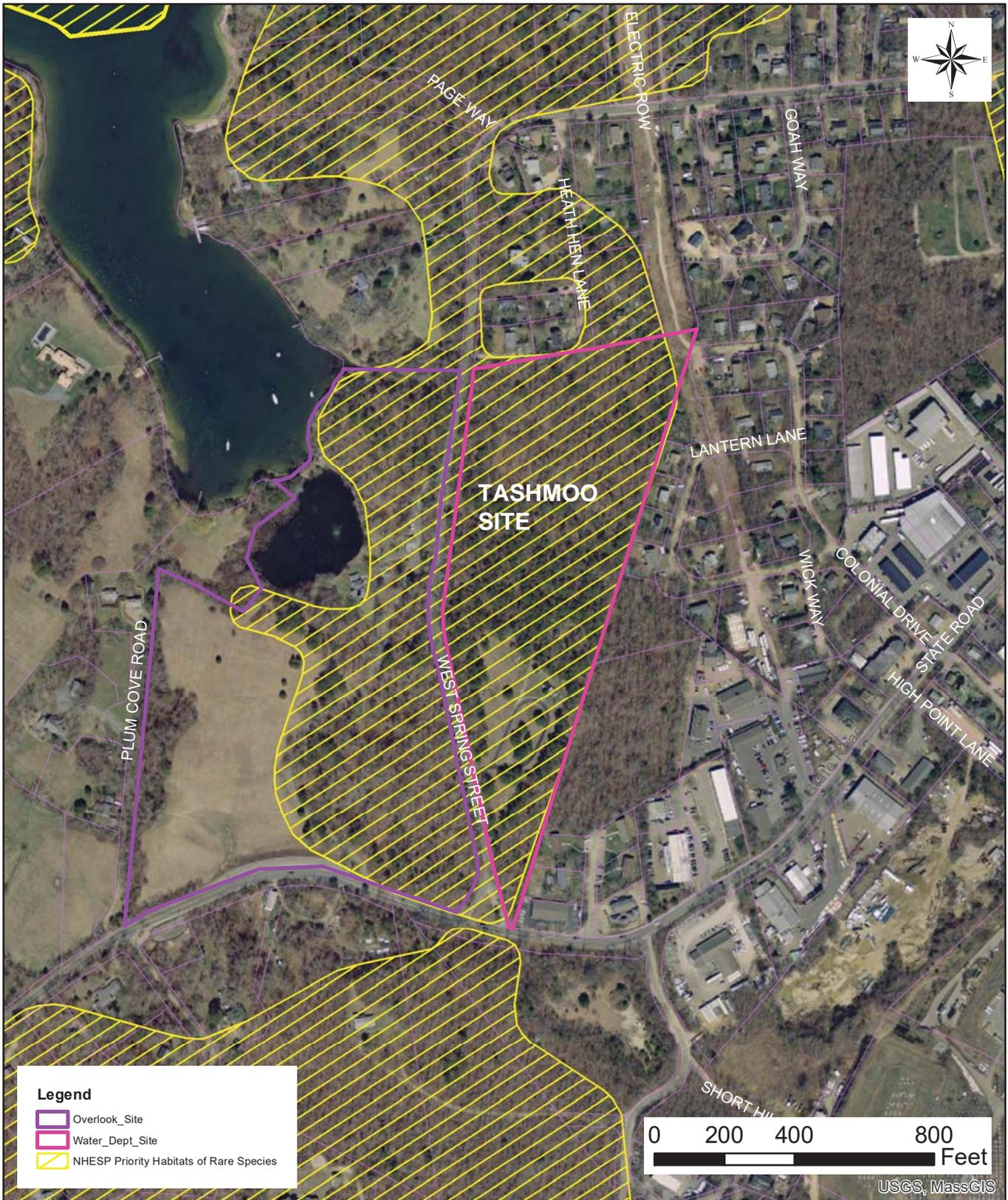


Figure X: National Heritage and Endangered Species Program
 Tisbury Elementary School - Overlook/Water Dept Site
 Tisbury, Massachusetts

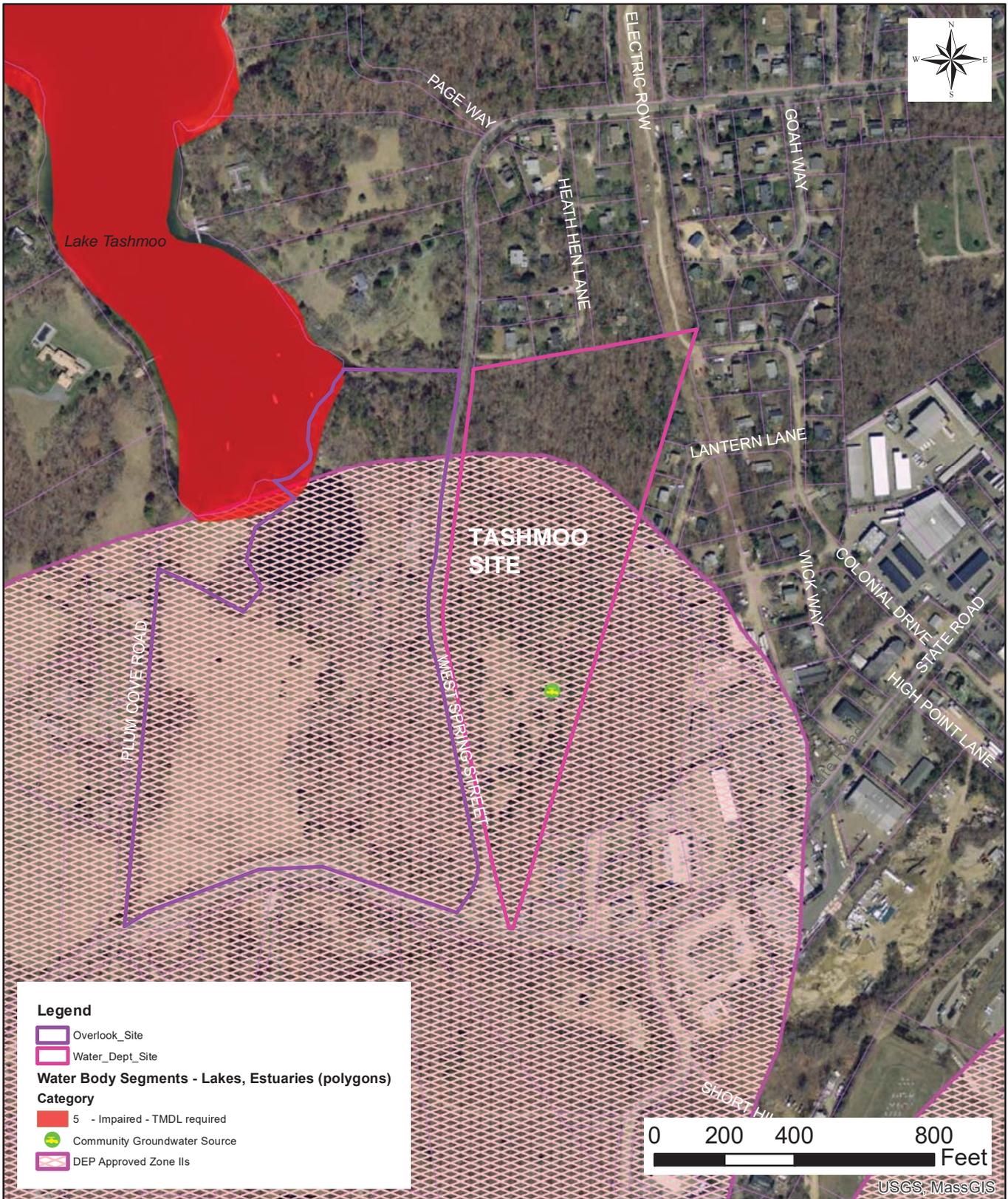


Figure X: DEP Wellhead Protection Areas
 Tisbury Elementary School - Overlook/Water Dept Site
 Tisbury, Massachusetts

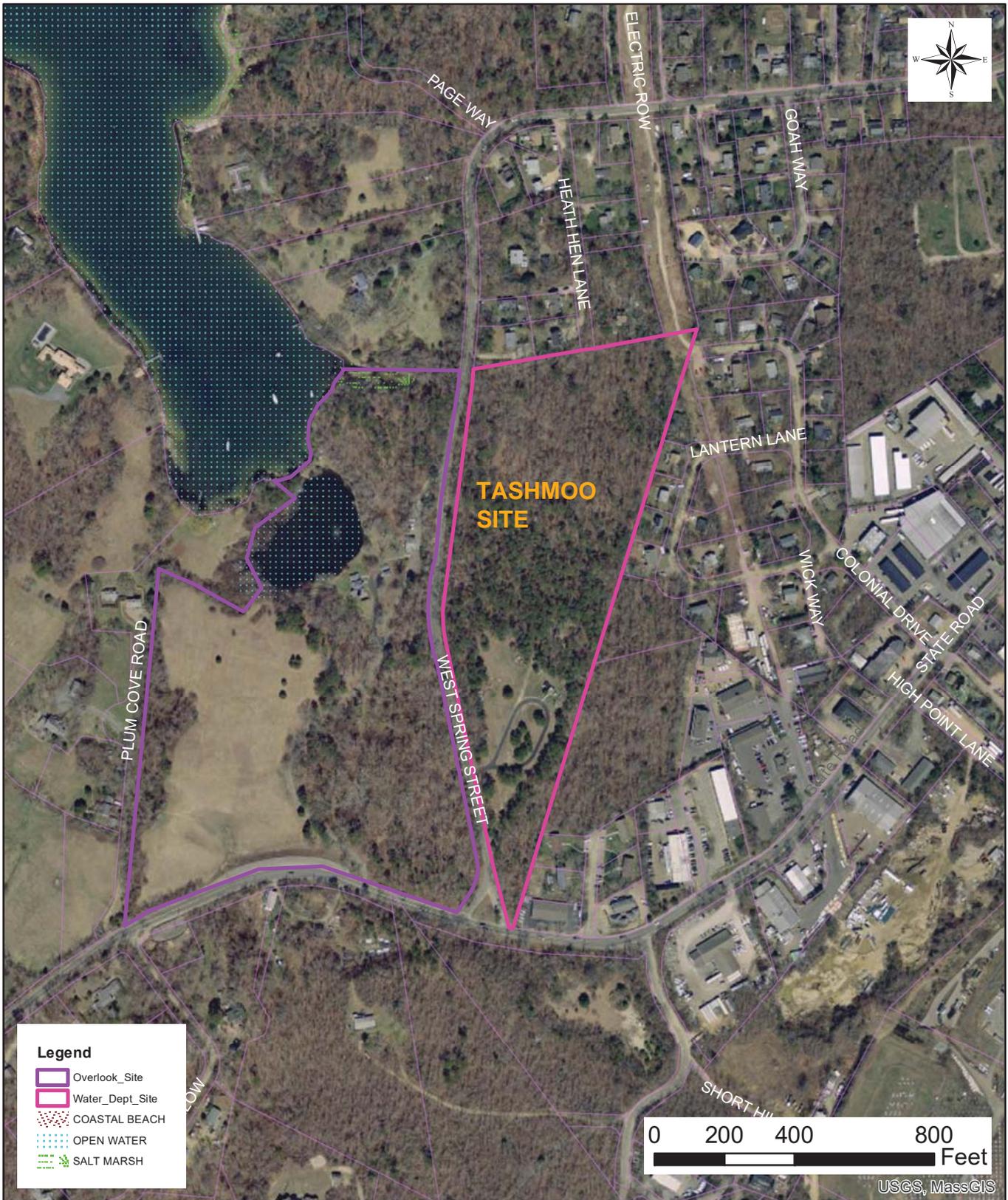


Figure X: DEP Wetlands
 Tisbury Elementary School - Overlook/Water Dept Site
 Tisbury, Massachusetts

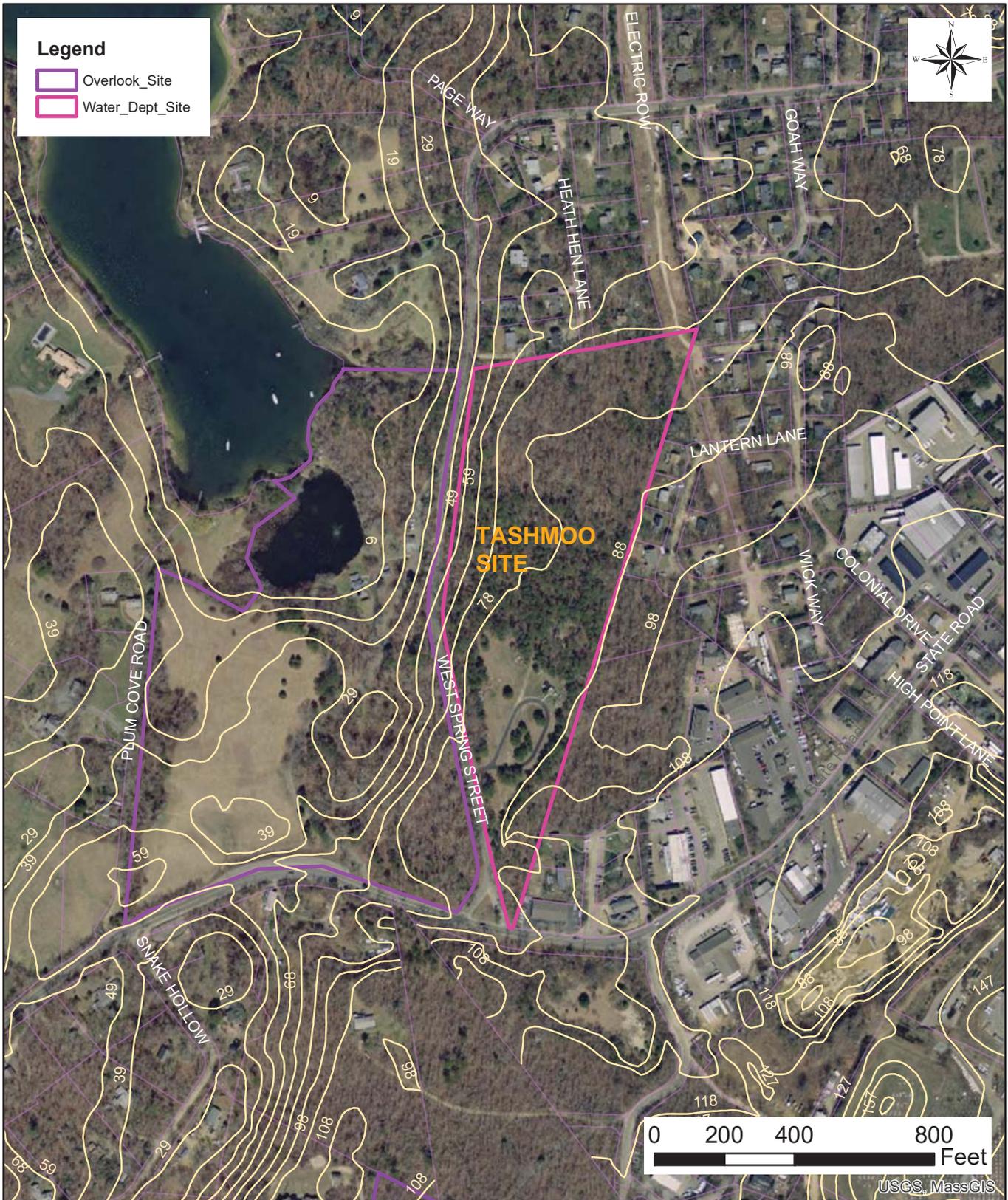


Figure X: Contours

Tisbury Elementary School - Overlook/Water Dept Site
 Tisbury, Massachusetts

TAB G



Figure X: Natural Heritage and Endangered Species Program
 Tisbury Elementary School - Manter Well Site
 Tisbury, Massachusetts

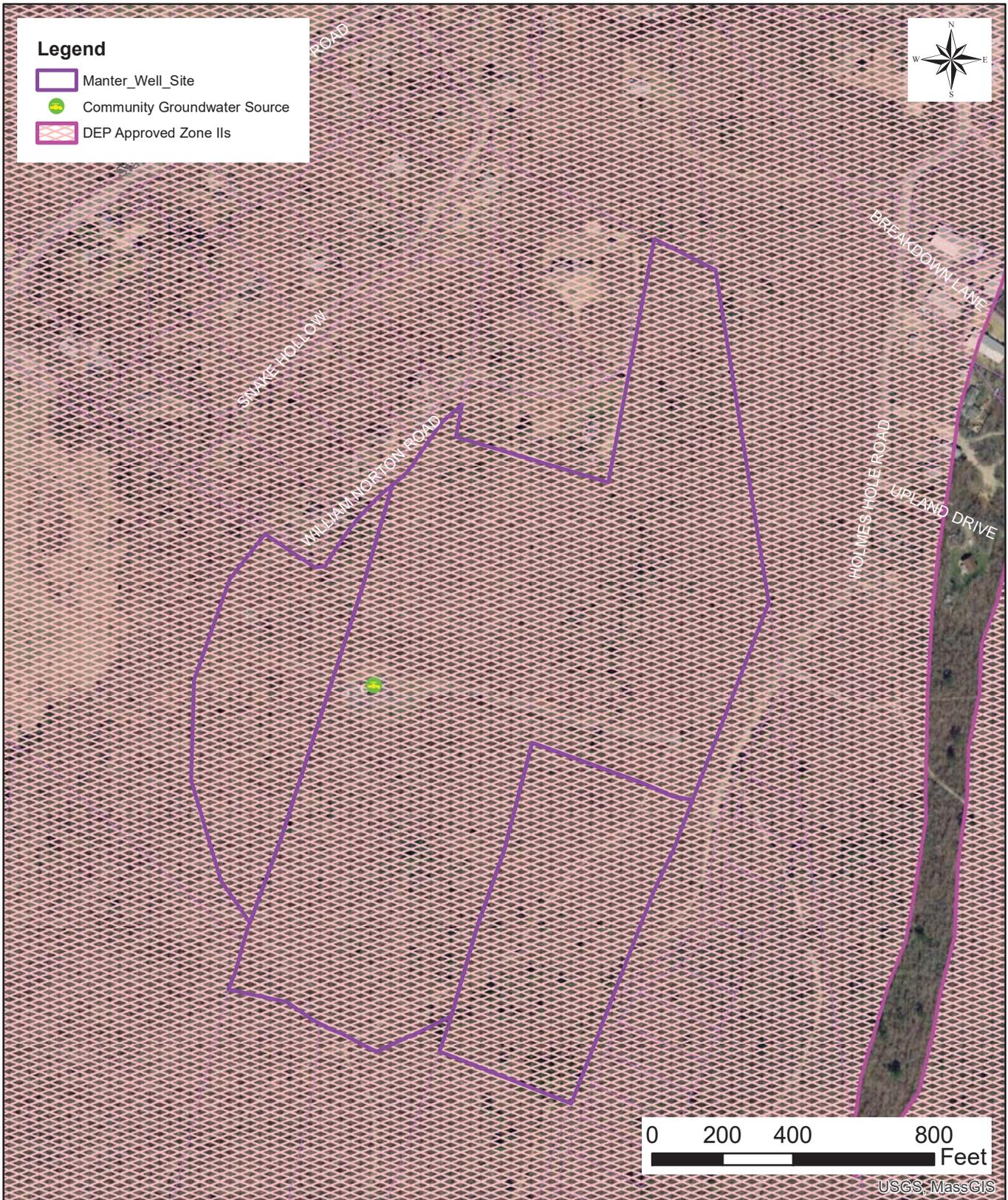


Figure X: DEP Wellhead Protection Area

Tisbury Elementary School - Manter Well Site
Tisbury, Massachusetts

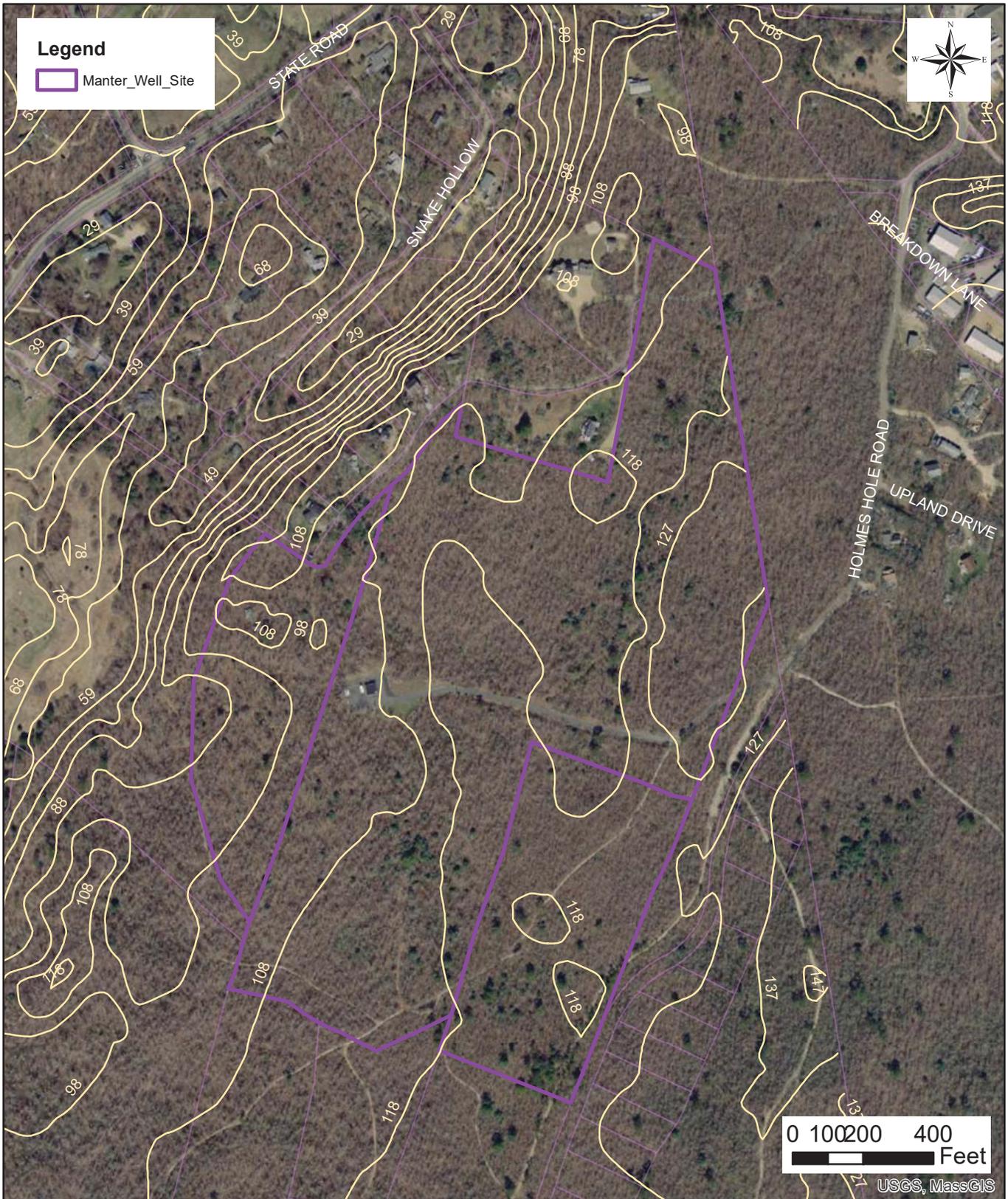


Figure X: Contours
 Tisbury Elementary School - Manter Well Site
 Tisbury, Massachusetts

TAB H



SITE PLAN

TISBURY SCHOOL SITE - BASE REPAIR
TISBURY SCHOOL

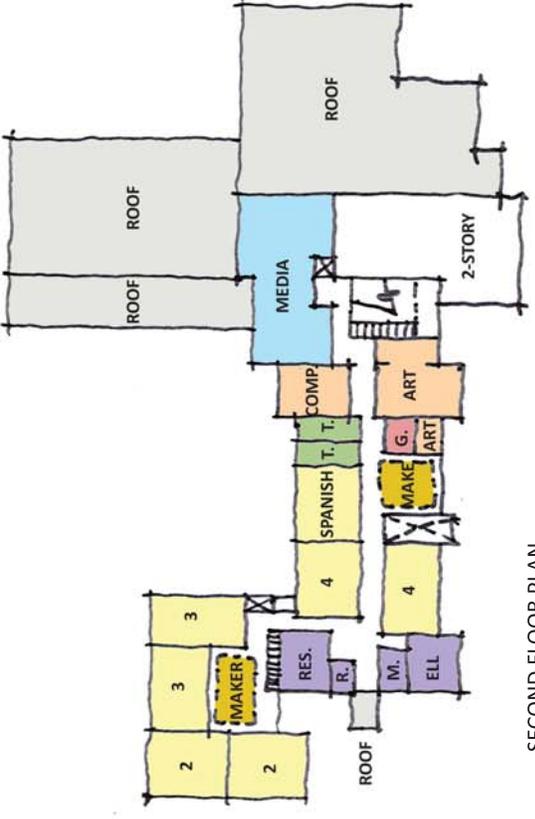
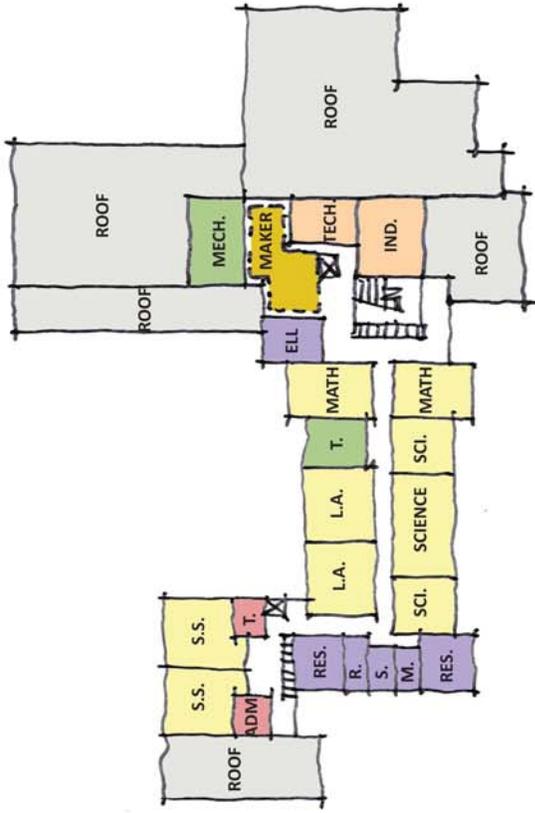
OPTION 1
12 ARCHITECTURE

TAB I



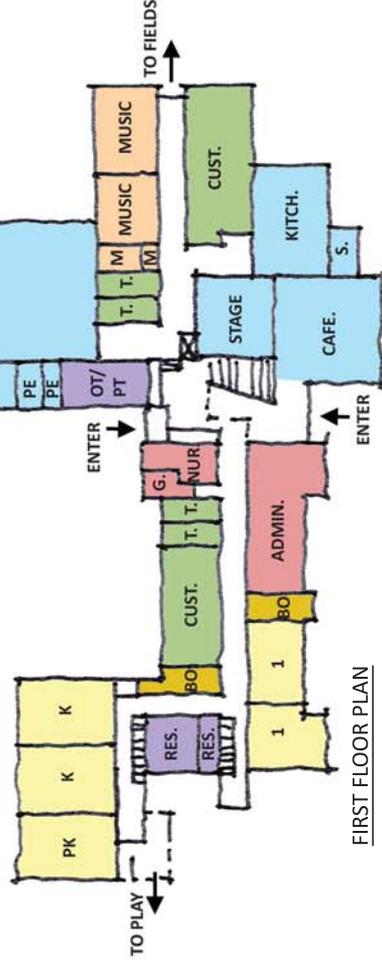
SITE PLAN

TISBURY SCHOOL SITE - ADDITION - RENOVATION
 TISBURY SCHOOL



THIRD FLOOR PLAN

SECOND FLOOR PLAN



LEGEND

- CORE ACADEMIC
- BREAKOUT
- SPECIAL EDUCATION
- SHARED PROGRAMS
- MEDIA / HEALTHY DRINKING / OT/PAUSIUM
- ADMINISTRATION & MEDICAL
- CUSTODIAL & MAINTENANCE
- CIRCULATION
- RESTROOMS



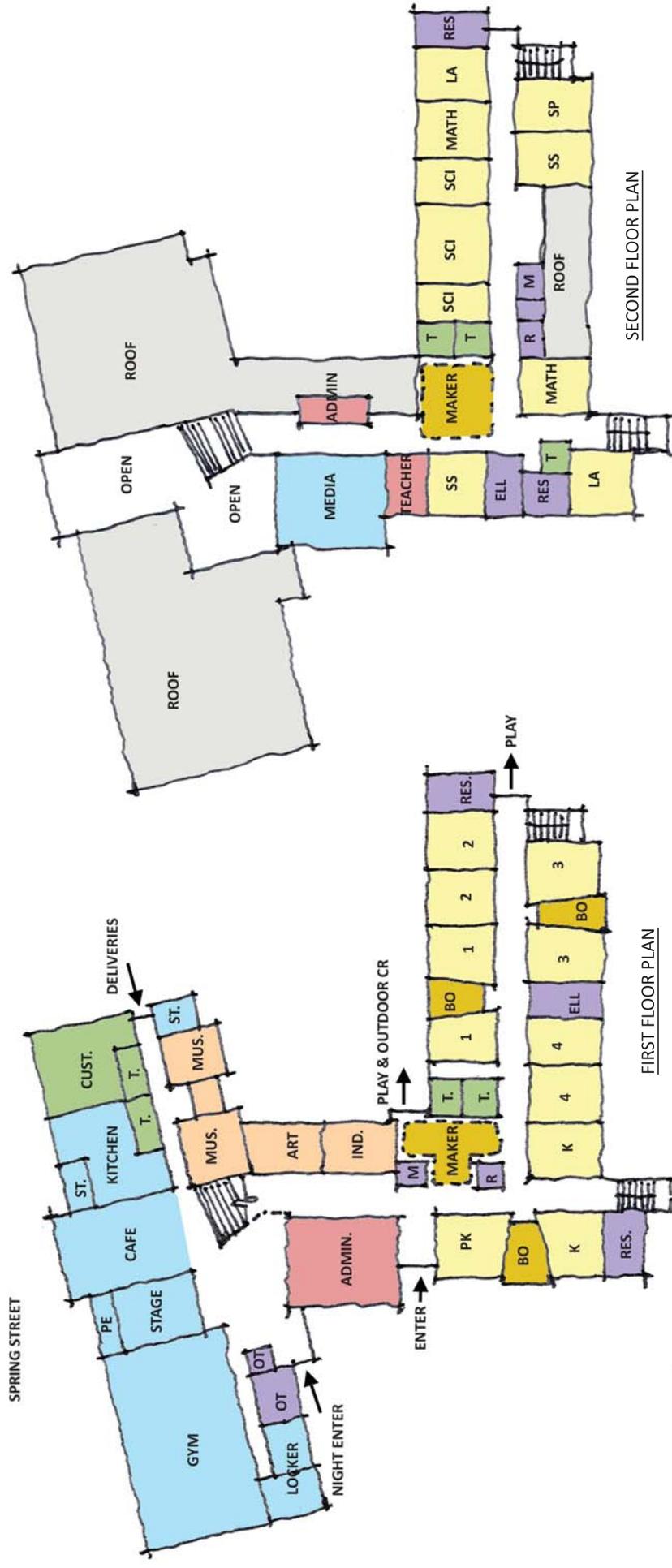
TISBURY SCHOOL SITE- ADDITION RENOVATION FLOOR PLANS
TISBURY SCHOOL

TAB J



SITE PLAN

TISBURY SCHOOL SITE - NEW 2-STORY SCHOOL
 TISBURY SCHOOL



LEGEND

Yellow	CORE ACADEMIC
Light Blue	BREAKOUT
Light Green	SPECIAL EDUCATION
Light Purple	SHARED PROGRAMS
Light Orange	MEDIA / HEALTHY DRINK / OT/ATRIUM
Light Red	ADMINISTRATION & MEDICAL
Light Grey	CUSTODIAL & MAINTENANCE
Light Blue-White	CIRCULATION
Light Yellow	RESTROOMS

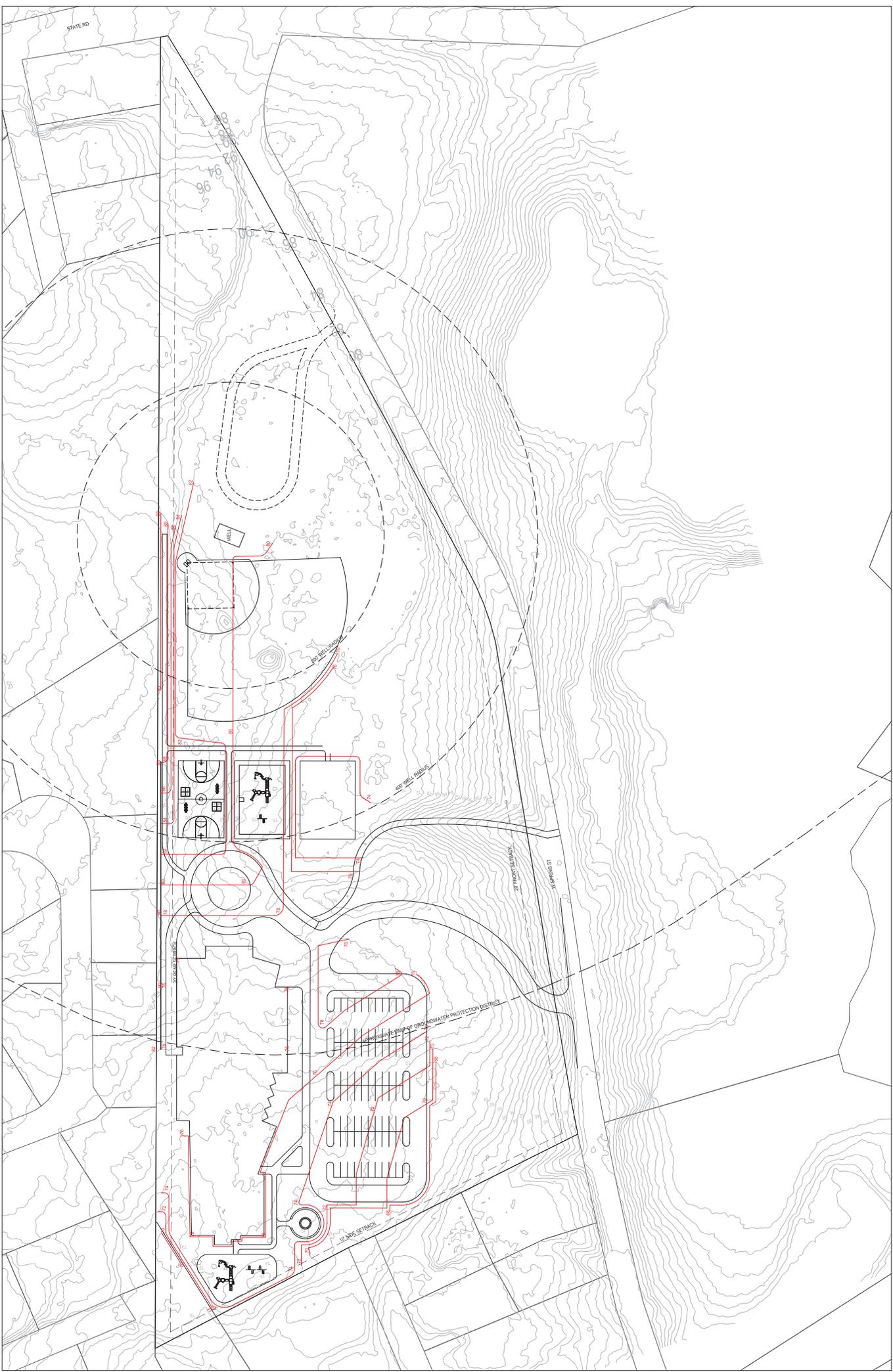
TISBURY SCHOOL SITE- NEW 2-STORY SCHOOL FLOOR PLANS
TISBURY SCHOOL

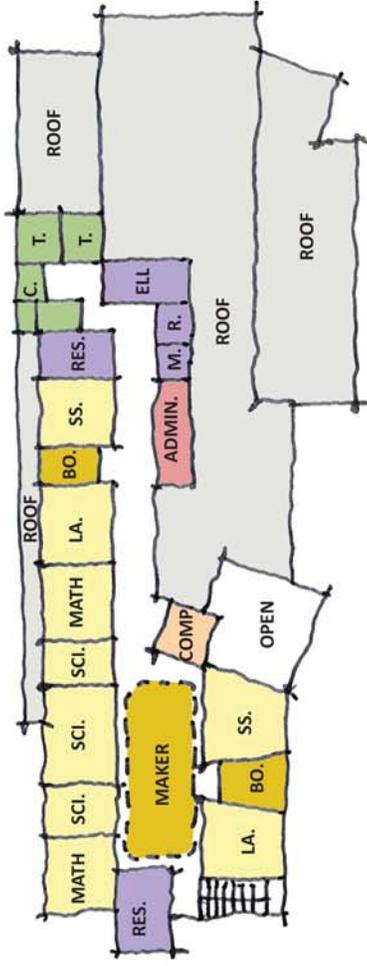
TAB K



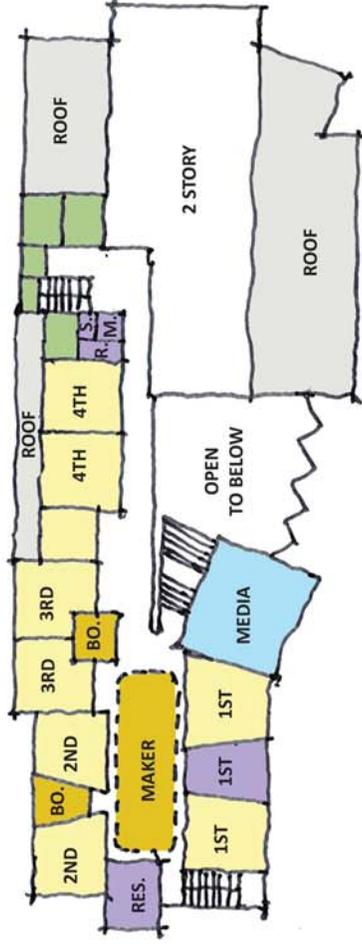
SITE PLAN

TASHMOO WELL SITE - NEW 3-STORY SCHOOL
 TISBURY SCHOOL

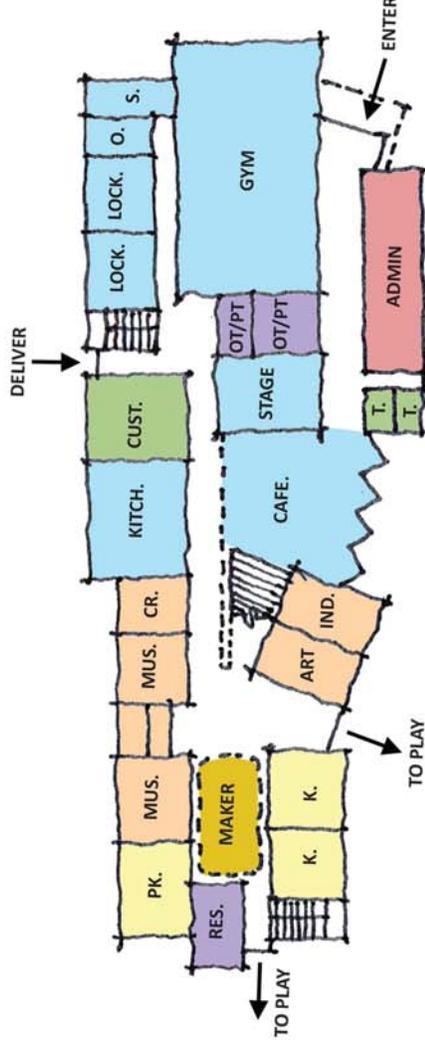




THIRD FLOOR PLAN



SECOND FLOOR PLAN



FIRST FLOOR PLAN

LEGEND

Yellow	CORE ACADEMIC
Light Blue	BREAKOUT
Light Green	SPECIAL EDUCATION
Light Purple	SHARED PROGRAMS
Light Orange	MEDIA / HEALTHY DRINKING / OT/PT/STUDIO
Light Red	ADMINISTRATION & MEDICAL
Light Grey	CUSTODIAL & MAINTENANCE
Light Yellow	CIRCULATION
Light Blue	RESTROOMS

TASHMOO WELL SITE- NEW 3-STORY SCHOOL FLOOR PLANS
TISBURY SCHOOL

TAB L



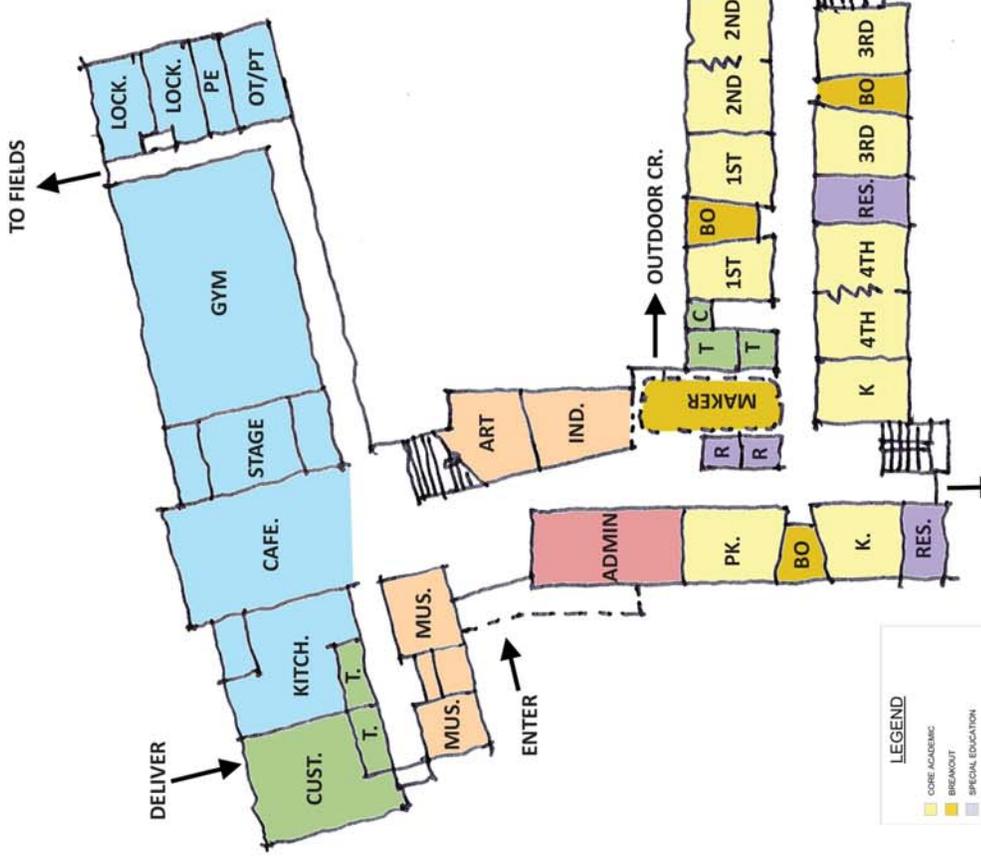
SITE PLAN

MANTER WELL SITE - NEW 2-STORY SCHOOL
TISBURY SCHOOL





FIRST FLOOR PLAN



SECOND FLOOR PLAN

LEGEND

Yellow	CORE ACADEMIC
Light Blue	BREAKOUT
Light Green	SPECIAL EDUCATION
Light Purple	SHARED PROGRAMS
Light Orange	MEDIA / HEALTHY DINING / OT/WORKSHOP
Light Red	ADMINISTRATION & MEDICAL
Light Grey	CUSTODIAL & MAINTENANCE
Light Blue-Grey	CIRCULATION
Light Brown	RESTROOMS

MANTER WELL SITE- NEW 2-STORY SCHOOL FLOOR PLANS
TISBURY SCHOOL

TAB M

TISBURY WATER WORKS
400 West Spring Street
P.O. Box 84
Vineyard Haven, MA 02568
(508) 693-3100

Dear Jay,

Concerning your January 5th email which was received January 9th, you raise two questions:

1. Whether it is acceptable to presume that Lot 39B1 on West Spring Street is available for consideration for a new school building.
2. What is the future status of the Tashmoo Well?

We would like to respond first to your question regarding the future of the Tashmoo Well. The Tashmoo Well is one of only three municipal wells in Tisbury. It supplies up to 900 gallons per minute of high quality water. We could not meet peak demand without this well on line. Moreover, 16% of our distribution system is made of un-lined cast iron which should be replaced in the near future at a cost of approximately \$7.5M. We have no plans to invest in a fourth well.

Additionally, finding a new water supply well to replace the Tashmoo Well would be a formidable challenge:

1. Locating a suitable site
2. Multi-agency approvals required
3. Connecting to existing distribution system
4. Building new station
5. Paying for new station(\$2.2 – \$3.6M)
6. Land acquisition costs – unknown

All of this would require a minimum of 5-7 years and may require as much as 12 years to complete.

Tackling such a project in the face of current infrastructure needs would substantially impact our rate payers. We are inclosing a memo from EPG explaining this in further detail.

Second, you ask if the TWW would be willing to find another location for our new garage/office facility. We would like to remind you of the recent history pertaining to this project.

The Tisbury Water Works has been planning a garage/office facility for a number of years and settled on Lot 39B1 on West Spring Street in 2013. The site selection was based on a thorough and public process. The steps are outlined below:

- In December of 2012 we hired Environmental Partners Group (EPG) to conduct a feasibility study on the project and to select the optimum location for our needs.
- EPG submitted their final recommendations 8/13/2013 recommending the Tashmoo Well site outside the Zone I of the well. That fall we submitted Article #29 for the April 2014 ATM for \$1,000,000. This article was approved by both FinComm and the Board of Selectmen.

- On the day before Town Meeting, Jim Norton and Bob Tankard stopped by the Water Department at 3:45 PM to state that they represented the School Department and that they have been planning to build a new school on this site for years.
- In response, the TWW Board of Commissioners asked that Article #29 be tabled.
- After Town meeting, Commissioner Roland Miller met with School Superintendent James Weiss to discuss the issue and was assured that the School Department had no plans to build a school on this site.
- The TWW then asked EPG to review their report and to prepare a public presentation for Town Meeting.
- The article was re-submitted for the April 2015 ATM and was reviewed again by FinComm and the Board of Selectmen. Both boards approved the article a second time.
- On 2/13/2015 the TWW conducted a public meeting with abutters to listen to any concerns. The Abutters appeared to be agreeable to the project.
- Mark White of EPG gave a presentation to the 2015 Town Meeting on the project and the process we went through selecting this site. It was well received and the article was approved by a vote of 113-20.
- In May of 2015, we began to clear the trees on the site at a cost of approximately \$15,000. The TWW made the firewood generated by this activity available free to all Tisbury residents at the LDO.
- In June of 2015 we hired PAL Consultants to conduct an archeological survey. They submitted their final report in January of 2016 finding no conflicts.
- The Tisbury Board of Health approved the septic plan for the building 4/12/2016.

EPG advertised a Request for Proposals for the building using a “design-build” bidding method that would save the TWW hundreds of thousands of dollars over conventional bidding methods. On 10/26/2016 EPG submitted their Proposals Evaluation and Recommendations recommending the low bidder, Cape Building Systems as the “most advantageous overall proposal from responsible and eligible proposer”.

To date, the TWW has expended in excess of \$170,000 on this site and the contractor has spent over \$25,000 in material and bid bonding for which we are liable.

If this project does not move forward we will be forced to re-bid it using conventional methods at substantially higher costs and require the general contractor to use off-island subcontractors

TISBURY WATER WORKS

400 West Spring Street

P.O. Box 84

Vineyard Haven, MA 02568

(508) 693-3100

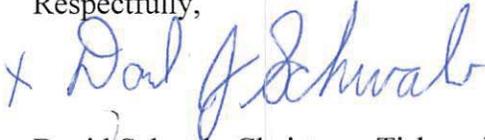
since no island contractors are qualified by the State to work DCAM certified. The Design-Build method is no longer allowed under Commonwealth of Massachusetts purchasing regulations.

In summary, if we make Lot 39B1 available for consideration for a new school building, it would present a number of challenges and expenses for the TWW:

- We don't have a ready site selected. We reviewed all Town owned land and found them lacking in one or more of our selection criteria.
- We would probably have to revise the design and bid the project conventionally at an additional cost of over \$300,000.
- We would be starting from the beginning with site preparation on any new site which would require tree clearing, stumping, levelling, drainage and paving.
- Every delay so far has driven the costs up. What started out as a \$1M project is approaching \$2M plus.

If you have further questions, please don't hesitate to contact us. We would be glad to meet with you again to discuss any issues or questions you may have.

Respectfully,

x 

David Schwab, Chairman, Tisbury Water Commission

x 

Roland Miller

Tisbury Water Commissioner

Cc: John Custer, Principal, Tisbury Elementary School
Colleen McAndrews, Chair, Tisbury School Committee
Tisbury Board of Selectmen

To: Paul Wohler
From: Ryan Allgrove, P.E.
Date: January 12, 2017
Subject: Tisbury Water Works Proposed Headquarters and Existing Tashmoo Well Site Assessor's Parcel 39 B 1

It is our understanding that the Town of Tisbury has inquired into the feasibility of utilizing the subject parcel as a new school building site. This 15± acre parcel, shown on the attached Figure 1, contains an existing Tisbury Water Works (TWW) groundwater supply source (Tashmoo Well No. 2) and is the site of the proposed TWW headquarters building. As shown in Figure 1, the Zone 1 radius encompasses 6.2± acres of the parcel, or approximately 40% of the site. MassDEP regulations do not permit locating a school within a well Zone 1.

Tashmoo Well No. 2 is one of three groundwater supplies in Tisbury. The well is permitted to pump a maximum of 0.71 million gallons per day (MGD) which equates to approximately 30% of the overall TWW supply pumping capacity. Abandoning Tashmoo Well No. 2 would require replacement with a new groundwater supply source in order to meet the Town's maximum daily water demands. The table below shows the anticipated range of schedule and costs (in 2017 dollars) to locate, permit, design and construct a new groundwater supply.

Task	Completion Time	Cost
Identify and Screen Potential Well Sites	3 Months	\$10,000 - \$15,000
Groundwater Exploration for Potential Sources	12 - 24 Months	\$150,000 - \$250,000
Site Examination & Pumping Test	18 - 24 Months	\$250,000 - \$350,000
Land Acquisition	0 - 36 Months	??
Pump Test Approval, Water Management Act Permitting, MEPA Permitting	9 - 18 Months	\$100,000 - \$200,000
Design & Bidding	9 - 18 Months	\$200,000 - \$300,000
Construction	12 - 18 Months	\$1.5M - \$2.5M
Total	5 - 12 Years	\$2.2 - \$3.6M+

As shown, the time and expense to establish a new groundwater source varies significantly based on many factors. These factors include but are not limited to land availability, location and sensitivity of environmental receptors and existing infrastructure proximity. **Costs for land acquisition are not included above and could significantly increase the cost of a new source**

Memorandum

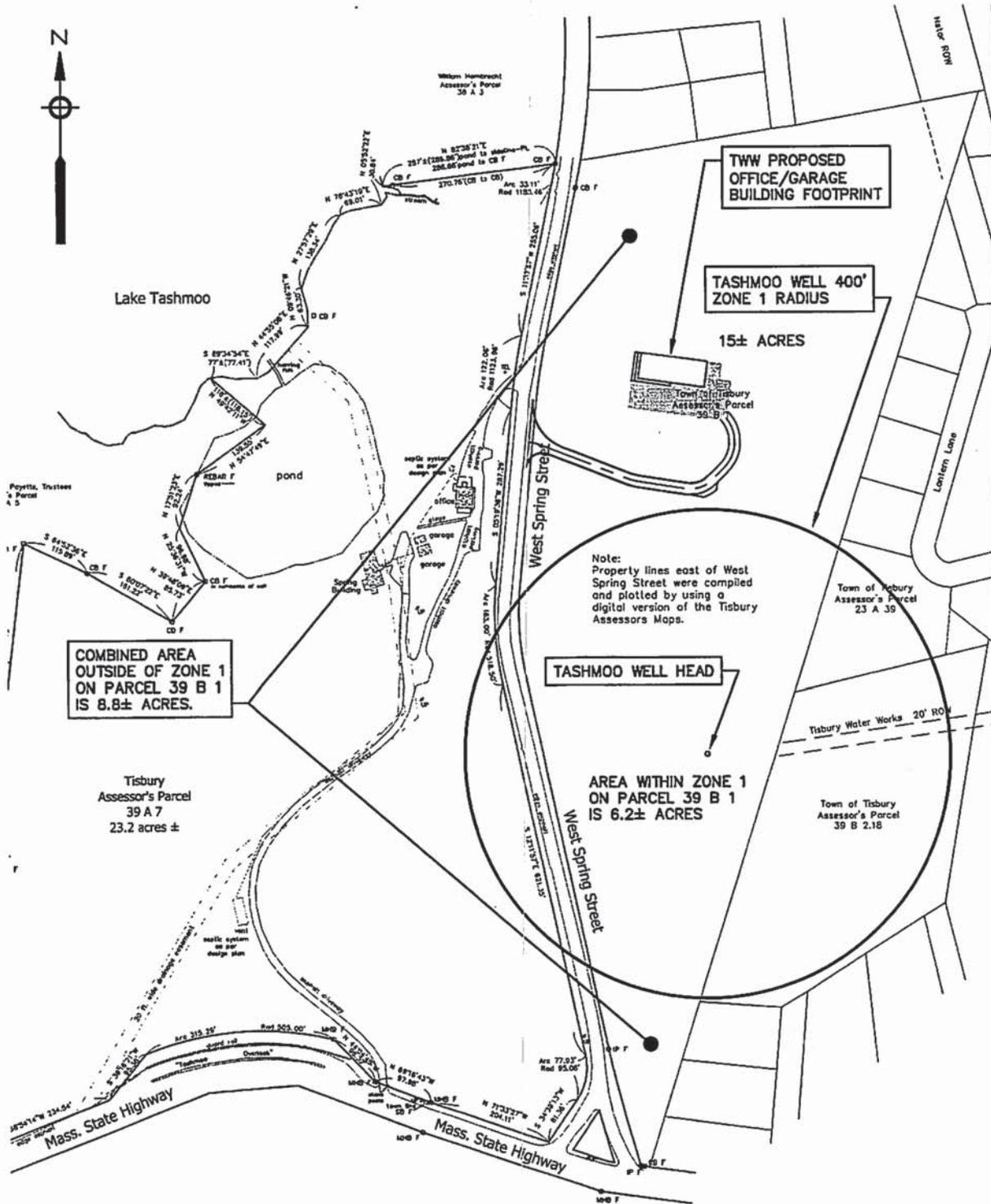
Page 2

Additionally, Tashmoo Well No. 2 is one of two registered supply wells under the Town's MassDEP Water Management Act (WMA) permit. The two registered supplies can withdraw 0.55 MGD from the watershed which is approximately 70% of the Town's allowable withdrawal. Removal of the Tashmoo Well would have a significant negative impact on the Town's water supply as it would eliminate registered withdrawal redundancy.

Furthermore, a significant permitting effort is required to abandon any drinking water supply under MassDEP BRP WS 26 and BRP WS 36. These permits are intended to protect public health and welfare by ensuring that changes in land related to water supply purposes will meet minimum drinking water standards and guidelines, and will not adversely impact the quantity or quality of the water supply.

In summary, we understand that the Town must balance its multiple needs, and seeks to do so based on the best information available. Therefore, if the Town wishes to advance the discussions on this subject, we recommend that the initial site identification and screening task be undertaken. Findings and conclusions of this task will better inform the discussions on competing needs with a thorough understanding of the available water supply options.

FIGURE 1



COMBINED AREA OUTSIDE OF ZONE 1 ON PARCEL 39 B 1 IS 8.8± ACRES.

Tisbury Assessor's Parcel 39 A 7 23.2 acres ±

TASHMOO WELL HEAD

AREA WITHIN ZONE 1 ON PARCEL 39 B 1 IS 6.2± ACRES

TWW PROPOSED OFFICE/GARAGE BUILDING FOOTPRINT

TASHMOO WELL 400' ZONE 1 RADIUS

15± ACRES

Note: Property lines east of West Spring Street were compiled and plotted by using a digital version of the Tisbury Assessors Maps.

Town of Tisbury Assessor's Parcel 23 A 39

Tisbury Water Works 20' ROW

Town of Tisbury Assessor's Parcel 39 B 2.18

Compiled Plan

Plan of Land in Tisbury, Mass.

Prepared For the Town of Tisbury & the Tisbury Water Works

Scale: 1" = 100' January 11, 2012

Schofield, Barhini & Hoehn Inc. Land Surveying & Civil Engineering 12 Surveyor's Lane, Box 338 Veveyard Haven, Mass. 508-693-2781 www.sbhinc.net mv 8502

NOTE: LOCATIONS AND AREAS BASED ON AVAILABLE INFORMATION FROM TISBURY ASSESSORS, MASSGIS AND TWW PROVIDED WELLHEAD COORDINATES. ALL LOCATIONS AND AREAS SHOULD BE CONSIDERED APPROXIMATE.

TAB N



Option Costs Comparison

	Approx. Area (SF)		Approx. Cost/SF	Construction Costs (Bldg)	Total Adjusted with Site and Hazmat	Total Adjusted with Contingencies	Total Construction Costs w/ Markups*	Total Project Costs and Estimated Grant
1	Base Repair Tisbury	54,194 Reno 0 New	\$193	\$10,480,311 \$0	Site \$527,590 HazMat \$500,000			
	Sub-Total Trade Costs	54,194	\$212	\$10,480,311	\$11,507,901			
	Sub-Total Trade Costs and Contingencies		\$251 \$290		6% escalation \$690,474 12% design contingency \$1,380,948	\$13,579,323	\$17,119,724	
1	Total Project Cost		\$397					\$21,502,668.36
1	Total Estimated Grant							\$6,671,638
2	Addition/ Reno. Tisbury	42,930 Reno 37,525 New 13,480 Demo	\$230 \$360 \$12	\$9,857,084 \$13,516,617 \$161,760	Site 15% \$2,671,334 HazMat \$527,590			
	Sub-Total Trade Costs	80,455	\$332	\$23,535,461	\$26,734,385			
	Sub-Total Trade Costs and Contingencies		\$392 \$474		6% escalation \$1,604,063 12% design contingency \$3,208,126	\$31,546,574	\$39,771,397	
2	Total Project Cost		\$621					\$49,953,560
2	Total Estimated Grant							\$15,499,103
3	New Tisbury Site	79,403 New 56,410 Demo 1,433 Demo	\$302 \$10 \$12	\$24,002,780 \$564,100 \$17,196	Site 15% \$2,918,956 HazMat \$527,590			
	Sub-Total Trade Costs	79,403	\$353	\$24,584,076	\$28,030,622			
	Sub-Total Trade Costs and Contingencies		\$417 \$491		6% escalation \$1,681,837 12% design contingency \$3,363,675	\$33,076,134	\$40,677,692	
3	Total Project Cost		\$636					\$50,489,076
3	Total Estimated Grant							\$15,478,906
4	New Tashmo Well Site	79,403 New 0 Demo	\$297 \$8	\$23,617,713 \$0	Site 15% \$3,975,670 HazMat \$0			
	Sub-Total Trade Costs	79,403	\$398	\$23,617,713	\$27,593,383			
	Sub-Total Trade Costs and Contingencies		\$410 \$491		6% escalation \$1,655,603 12% design contingency \$3,311,206	\$32,560,192	\$39,372,435	
4	Total Project Cost		\$615					\$48,868,993.43
4	Total Estimated Grant							\$14,982,222
5	New Manter Well Site	79,403 New 0 Demo	\$302 \$8	\$24,002,780 \$0	Site 15% \$4,410,510 Street Improvements \$250,000			
	Sub-Total Trade Costs	79,403	\$361	\$24,002,780	\$28,663,290			
	Sub-Total Trade Costs and Contingencies		\$426 \$493		6% escalation \$1,719,797 12% design contingency \$3,439,595	\$33,822,682	\$40,899,064	
5	Total Project Cost		\$629					\$49,968,819
5	Total Estimated Grant							\$15,029,383

Notes

* Temporary Modularity Included in Project Cost Where Necessary

TAB P

EMAIL CORRESPONDENCE FROM TOWN COUNSEL RELATED TO APPLICABILITY OF ARTICLE 97 TO THE TASHMOO WELL SITE

From: David Doneski [<mailto:DDoneski@k-plaw.com>]

Sent: Friday, August 21, 2015 4:21 PM

To: John Grande

Cc: 'Paul Wohler'; Ken Barwick

Subject: FW: West Spring Street, Proposed Waterworks Building and Maintenance Building

Jay,

I have reviewed the additional materials you forwarded on Wednesday: 1997 update to Tisbury Open Space Plan and accompanying maps (Maps 1 – 10); copy of section 09.11 of the Zoning By-law – Groundwater Protection District. For the reasons stated herein, my review does not change the view stated in my e-mail of August 18, printed below.

The Open Space Plan is a planning tool, intended “to provide an organizational model and rational framework within which residents of Tisbury may determine the future of the town’s natural resources . . .” (Section 2.B) The Plan contains an “Inventory of Lands of Conservation and Recreation Interest.” (Section 5) The inventory includes various categories of land, such as fee ownership interests held by private conservation entities, conservation restrictions held by public conservation entities, parks and recreation, and “town aquifer protection.” Assessors’ parcel 39-B-1 is listed in the town aquifer protection category, together with three other parcels, under the entry of “Spring St. Well Site.” (entry no. 21) For each entry, the inventory includes a classification of the nature of protection of the land listed. The classification for entry no. 21 is “Perpetual.”

The documentation provided indicates that a perpetual classification for Assessors’ parcel 39-B-1 is inaccurate. The other parcels listed in entry no. 21 may be subject to a perpetual restriction by the terms of a deed or other document reflecting such a use restriction, but the deed for parcel 39-B-1, as described in my e-mail of August 18, contains no such restriction and no other restrictive document for that parcel has been provided. As noted below, it is my opinion that a zoning designation is a matter separate from Article 97 considerations. Zoning provisions may restrict development of land, but the placement of land in a groundwater protection district does not, in my opinion, subject that land to the provisions of Article 97 of the Amendments to the Constitution. In particular, a zoning provision is subject to amendment by vote of Town Meeting, such that a land use restriction imposed by a zoning by-law cannot be considered a “perpetual” restriction.

Based on the classification scheme used in the Open Space Plan, it could be expected that not all the parcels included in the Section 5 inventory would be subject to a permanent conservation or recreation use restriction of the type that would make Article 97 applicable. For example, the Introduction section (Section 2) states that the plan “defines open space in its broadest terms to encompass all types of undeveloped land within the Town of Tisbury,” so that the term “includes land which is conserved permanently as well as land which is presently kept in an open condition but is “impermanently protected” – not subject to perpetual development restrictions.” (Section 2.A) It also includes the following statement: “According to the Commonwealth of Massachusetts and the Town of Tisbury Conservation Commission, open space also refers to any undeveloped land with a particular conservation or recreation interest, whether or not permanently dedicated to conservation purposes. It is therefore appropriate for this plan update to include historic, cultural, recreational, agricultural, and

environmental resources.” (Section 2.A) In addition, I note that for some entries in the inventory (four of the five parcels under the heading “Fee Interests in Public Conservation Entity”) the protection status is stated as “Art. 97 Perpet.,” indicating that even by the terms of the Open Space Plan only those parcels with the “Art. 97” designation would be considered subject to Article 97. (Those four parcels are the only entries with an Article 97 reference in the protected status description.)

Accordingly, while the land at 275 West Spring Street shown on the Assessors’ maps as parcel 39-B-1 could be considered to be an open space parcel within the broad classification scheme of the Open Space Plan, the information provided indicates that the land does not have “perpetual” protected status so as to make Article 97 applicable to its proposed use. In my opinion, inclusion of the land within the Zoning Bylaw’s groundwater protection district, by itself, does not make the land subject to the provisions of Article 97.

Please contact me if you have any further questions on this matter.

David J. Doneski, Esq.
Kopelman and Paige, P.C.
101 Arch Street
12th Floor
Boston, MA 02110
(617) 556-0007
(617) 654-1735 (fax)
ddoneski@k-plaw.com

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From: John Grande [<mailto:jgrande@tisburyma.gov>]
Sent: Wednesday, August 19, 2015 2:12 PM
To: David Doneski
Subject: FW: West Spring Street, Proposed Waterworks Building and Mainenance Building

From: John Grande
Sent: Wednesday, August 19, 2015 2:08 PM
To: 'dschwab@tisburywaterworks.org'; Paul Wohler; Roland Miller
Cc: Ken Barwick
Subject: RE: West Spring Street, Proposed Waterworks Building and Mainenance Building

Town Counsel wants to examine MVC Open Space Plan before finalizing his opinion.

From: dschwab@tisburywaterworks.org [<mailto:dschwab@tisburywaterworks.org>]
Sent: Wednesday, August 19, 2015 9:58 AM

To: John Grande; Paul Wohler; Roland Miller

Subject: Re: West Spring Street, Proposed Waterworks Building and Mainenance Building

Hi Jay:

So where does this leave us ?

Contact Ken and get a determination on the Groundwater Protection Overlay District ?

Thanks again for your help.

David

From: [John Grande](#)

Sent: Wednesday, August 19, 2015 9:13 AM

To: [David Doneski](#)

Cc: pwohler@tisburywaterworks.org ; [Ken Barwick](#) ; [Jane Varkonda](#) ; [Hillary Conklin](#) ; tristan.r@verizon.net ; <mailto:melindaloberg@gmail.com> ; <mailto:greenwd@tiac.net> ; [David Schwab](#)

Subject: RE: West Spring Street, Proposed Waterworks Building and Mainenance Building

I appreciate your efforts David. I have copied interested parties and who also have been assisting me with researching this matter so they are aware of this opinion. Ken will follow up on your closing recommendation.

Sincerely,

Jay

From: David Doneski [<mailto:DDoneski@k-plaw.com>]

Sent: Tuesday, August 18, 2015 4:43 PM

To: John Grande

Cc: pwohler@tisburywaterworks.org; Ken Barwick

Subject: RE: West Spring Street, Proposed Waterworks Building and Mainenance Building

Jay,

This is in response to your request for an opinion regarding the property at 275 West Spring Street, which is proposed as the site of a new garage facility for the Tisbury Water Department pursuant to the vote of the 2015 Annual Town Meeting. In particular, you have inquired regarding the matter of the land being subject to Article 97 of the Articles of Amendment to the Massachusetts Constitution and the consequences of such status for the garage facility project.

I have reviewed the deed to the subject property, as identified by the Assessors – Assessors' parcel 39-B-1 – which is dated January 18, 1946 and recorded on January 25, 1946 in Book 210, Page 437 of the Dukes County Registry of Deeds. Based on that review and review of other information you have provided and the ongoing discussions we have had regarding the property, I do not find evidence that the property is subject to Article 97.

Amendment Article 97 states that “the protection of the people in their right to the conservation, development and utilization of the agricultural, mineral, forest, water, air and other natural resources is hereby declared to be a public purpose.” The article provides that “[l]ands and easements taken or acquired for such purposes shall not be used for other purposes or otherwise disposed of except by laws enacted by a two thirds vote, taken by yeas and nays, of each branch of the general court.” In a 1973 opinion to the Massachusetts House of Representatives, the State Attorney General declared that “[w]ithin any agency or political subdivision any land, easement or interest therein, if originally taken or acquired for the purposes stated in Article 97, may not be “used for other purposes” without the requisite two thirds roll-call vote of each branch of the General Court.” Rep. A. G., Pub. Doc. No. 12, 139 (1973). In general, the elements of that opinion have been cited with approval by the courts of the Commonwealth. See, e.g. Opinion of the Justices, 383 Mass. 895, 917-918 (1981).

In this instance, the deed to the Town for the subject property simply states a conveyance to “THE INHABITANTS OF THE TOWN OF TISBURY.” (Book 210, Page 437) There is no language regarding restriction of use to park or open space purposes, only reference to easements to which the property is subject.

As we have discussed, if there were a Town Meeting vote placing custody of the property in a particular Town body and subject to certain use restrictions so as to implicate Article 97, or if there were other Town action indicating such a use designation, that would be evidence to review regarding the applicability of Article 97 to the project. However, it is my understanding that no such documentation has been identified.

Finally, I note that among the communications you have provided on this subject are forwarded messages of other Town employees referencing inclusion of the property in the Groundwater Protection Overlay District under the Zoning Bylaw. In my opinion, zoning designation is a matter separate from Article 97 considerations, and if the property is so located a determination by the Building Inspector will need to be made (if it has not already) regarding the provisions of the bylaw applicable to the proposed building.

Please contact me if you wish to discuss this matter further.

David J. Doneski, Esq.
Kopelman and Paige, P.C.
101 Arch Street
12th Floor
Boston, MA 02110
(617) 556-0007
(617) 654-1735 (fax)
ddoneski@k-plaw.com

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delete all electronic copies of this message and its attachments, if any, and destroy any hard copies you may have created, and notify me immediately.

From: John Grande [<mailto:jgrande@tisburyma.gov>]

Sent: Friday, June 19, 2015 11:02 AM

To: David Doneski

Cc: pwohler@tisburywaterworks.org; Ken Barwick

Subject: West Spring Street, Proposed Waterworks Building and Mainenance Building

MVC shows the MassGIS Open Space database classifying the town's four aquifer protection parcels on either side of the western end of West Spring Street as protected under Article 97 (39-B-1, 39-B-2.18 and 23-A-39 on the east side; 39-B-7, Tashmoo Springs, on the west side). If so protected and the town wanted to change the use, it would have to obtain approval from two-thirds of the state legislature and the town would have to protect other land to offset the acreage being taken out of Article 97 protection. Can you give us some guidance in general and weigh in on the change of use question. Thank you.

Town Administrator
51 Spring Street, Box 1239
Vineyard Haven, MA 02568

Office 508-696-4203
Cell 774-563-8624
Fax 508-693-5876

EMAIL FROM TOWN COUNSEL RELATED TO THE APPLICABILITY OF ARTICLE 97 TO THE MANTER WELL SITE

From: David Doneski [mailto:DDoneski@k-plaw.com]

Sent: Wednesday, March 08, 2017 2:22 PM

To: Peter Turowski

Cc: John Grande (jgrande@tisburyma.gov); 'rmarks@dpi-boston.com'; 'jsullivan@dpi-boston.com'

Subject: Tisbury, school site search; Manter Well site

Importance: High

Peter,

I have reviewed the materials you forwarded. Based on the documents and information provided it does appear to be the case that the Manter Well site (Assessors' parcels 41-A-1.1, 41-A-2, and 41-A-3) has three separate source deeds: Book 441, Page 464 (parcel one) for 41-A-2; Book 496, Page 41 for 41-A-1.1; and Book 968, Page 297 for 41-A-3. (NOTE that the page for this last deed is 297, not 287 as referenced in your e-mail below – just a typo.)

Parcel 41-A-2 is the largest parcel, at 39+ acres. Parcels 41-A-1.1 and 41-A-3 are, respectively, 6.9+/- acres and 8.7+/- acres according to the Assessors' cards information. (The title source for Parcel 41-A-3 is a Land Court judgment in a tax lien foreclosure case.) For Parcels 41-A-2 and 41-A-3 the title sources do not implicate Article 97.

PLEASE NOTE that Parcel 41-A-1.1 is presently subject to a development restriction:

The 1988 deed for Parcel 41-A-1.1 that you forwarded makes reference to an easement and a Grant of Development Rights and Use ("Grant"), which were conveyed to the Martha's Vineyard Land Bank Commission immediately prior to the conveyance to the Town. The conveyance to the Town is subject to both the easement and the grant, so I retrieved copies from the Dukes County Registry of Deeds, where they are recorded in Book 496, page 37 and page 39. Copies of the deed, easement and Grant are attached for reference. Also attached is the 'open space' layer version of the applicable Assessors' Map that you forwarded with your e-mail of March 2.

The easement is for the right to pass and repass over Parcel 41-A-1.1 and to use the land for passive recreational purposes. The Grant states that it is to be "in perpetuity" and provides that no building or other temporary or permanent structure, driveway, road, etc. may be placed on the property, and reserves the right of the grantor (executrix of the estate of Mai Fane) and successors to maintain and use existing trails and wood roads on the property. While the Grant also states that it does not impose upon the Land Bank the duty to require that the property be maintained in any particular condition, it includes a provision that no building or structure of any sort may be placed on the property without the consent of the Land Bank.

The law governing land use restrictions provides that except for conservation, preservation, agricultural preservation, and affordable housing restrictions with state approval pursuant to section 32 of chapter 184 of the General Laws and other restrictions held by any governmental body, such restrictions are not enforceable after 30 years. See generally, G.L. c. 184, §§26-33. "Governmental body" is defined to include "the United States or the commonwealth, acting through any of its departments, divisions, commissions, boards or agencies, or any political subdivision or public instrumentality thereof." G.L. c.

184, §26. The legislation establishing the Martha's Vineyard Land Bank, Chapter 736 of the Acts of 1985, as amended, provides that the Land Bank is constituted a body politic and corporate and a public instrumentality. Therefore, although the 30-year period from the date of the Grant would expire in March of 2018, the Land Bank may have the right to enforcement of the restriction beyond that date. Accordingly, if the Parcel 41-A-1.1 portion of the Manter well site is being considered as part of a possible school site or an area that would provide access to the school site, further analysis and consultation with the Land Bank will be required.

With respect to applicable zoning, the Tisbury Zoning Bylaw does not include a total exemption for municipal use. For example, Section 04.02, permitted uses in residential districts, provides for municipal use as follows:

Any municipal use under direct town control and on town owned property, where the use has been established prior to 1 January 1982; or thereafter authorized by town meeting vote. Such uses include the related construction or expansion of structures and facilities where areas, set backs, heights and accesses conform to the Zoning District requirements for the district in which the site is located. (Subsection 04.02.13)

Please contact me if you would like to discuss this matter further.

David J. Doneski, Esq.

KP | LAW

101 Arch Street, 12th Floor

Boston, MA 02110

O: (617) 556 0007

F: (617) 654 1735

ddoneski@k-plaw.com

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SECTION 1.7

(Local Actions and Approval)



John Custer
Principal

The Tisbury School
40 West William Street
Post Office Box 878
Vineyard Haven, Massachusetts 02568
Tel: 508-696-6500 • Fax: 508-696-7437



Sean Mulvey
Associate Principal

Appendix 3D

March 22, 2017

Ms. Diane Sullivan
Senior Capital Program Manager
40 Broad Street
Boston, Massachusetts 02109

Dear Ms. Sullivan:

The Town of Tisbury School Building Committee ("SBC") has completed its review of the Feasibility Study *Preliminary Design Program* for the Tisbury School project (the "Project"), and March 22, 2017, the SBC voted to approve and authorize the Owner's Project Manager to submit the Feasibility Study related materials to the MSBA for its consideration. A certified copy of the SBC meeting minutes, which includes the specific language of the vote and the number of votes in favor, opposed, and abstained, are attached.

Since the MSBA's Board of Directors invited the District to conduct a Feasibility Study on May 25, 2016, the SBC has held ten (10) meetings regarding the proposed project, in compliance with the state Open Meeting Law. These meetings include:

June 1, 2016	August 3, 2016	September 14, 2016
November 16, 2016	December 14, 2016	January 11, 2017
February 8, 2017	February 22, 2017	March 8, 2017
March 22, 2017		

All meetings were held at 5:00pm in the Tisbury School Library.

In addition to the SBC meetings listed above, the District held ten (10) public meetings, which were posted in compliance with the state Open Meeting Law, at which the Project was discussed. These meetings include:

Tisbury Board of Selectmen Meetings on:
September 20, 2016 October 4, 2016 January 3, 2017

Tisbury School Committee Meetings on:

September 13, 2016

October 11, 2016

November 15, 2016

December 13, 2016

January 10, 2017

February 14, 2017

March 14, 2017

The presentation materials for each meeting, meeting minutes, and summary materials related to the Project are available locally for public review at the Tisbury Town Hall (51 Spring Street, Vineyard Haven, MA) and the Tisbury School (40 West William Street, Vineyard Haven, MA).

To the best of my knowledge and belief, each of the meetings listed above complied with the requirements of the Open Meeting Law, M.G.L. c. 30A, §§ 18-25 and 940 CMR 29 *et seq.*

If you have any questions or require any additional information, please contact John Custer, Tisbury School Principal (jcuster@mvyps.org).

By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.

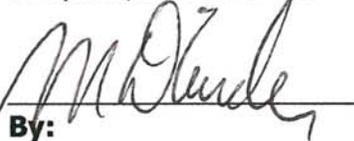
By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.

By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.


By:

Title: Chief Executive Officer

Date: 3-25-17


By:

Title: Superintendent of Schools

Date: 3/22/17


By:

Title: Chair of the School Committee

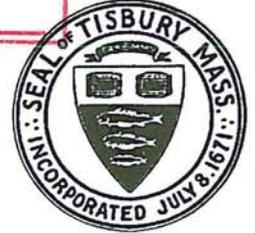
Date: 3/22/17



John Custer
Principal

The Tisbury School

40 West William Street
Post Office Box 878
Vineyard Haven, Massachusetts 02568
Tel: 508-696-6500 • Fax: 508-696-7437



Sean Mulvey
Assistant Principal

MAR 16 2017

Tisbury School Building Committee \ Tisbury School Committee 5:30PM, Wednesday, June 1, 2016 Tisbury School Library

1

SBC Chair Amy Houghton called the meeting to order at 5:35 pm.

Principal John Custer summarized the Massachusetts School Building Authority Board Meeting on May 25, noting that the Tisbury School was formally voted in to the Feasibility Study and Schematic Design phase, having successfully completed the Eligibility Period. Credit for creating public awareness and promoting the project was given to the Tisbury School Parent-Teacher Organization. School Committee Chair Colleen McAndrews provided an overview of the steps involved in the Feasibility Study and Schematic Design phase.

Amy Houghton reviewed the process for selection of an Owner's Project Manager, explaining that we are hoping to have a recommendation to the MSBA for its September 12 meeting. The draft Request for Services, application, and interview timeline was shared.

• A MOTION TO CREATE AN OWNER'S PROJECT MANAGER SELECTION SUBCOMMITTEE COMPRISED OF AMY TIERNEY, AMY HOUGHTON, JOHN CUSTER, AND LEO DESORCY WAS MADE, SECONDED, AND APPROVED UNANIMOUSLY.

A review of the OPM Request for Services language included project cost range (\$25-60 million), square footage (55,000 for renovation and 70,000 for new construction), and the consideration of the model schools program. As well, the evaluation criterion for OPM applicants was discussed as follows: Amy Tierney would develop the ratings scale, and all criteria would be included. The highest priority criteria would be items 1, 5, 6, 7, 8.

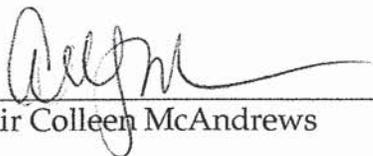
• A MOTION TO AUTHORIZE THE REQUIRED ADVERTISING FOR REQUEST FOR SERVICES AND TO INCLUDE THESE PROVISIONS IN THE REQUEST FOR SERVICES AND TO MEET ALL ADVERTISING REQUIREMENTS WAS MADE, SECONDED, AND APPROVED UNANIMOUSLY.

It was noted that, following the OPM selection process, the Designer selection would take place. It is hoped that a recommendation can be made at the November 22 MSBA meeting.

It was agreed that the next SBC meeting would be held on August 3, 2016 at 5:00 pm in the school library.

- THE MEETING WAS ADJOURNED AT 6:32 PM.

Minutes respectfully submitted by Office On Call / Marni Lipke.



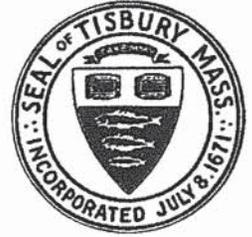
Chair Colleen McAndrews

Minutes approved 8/3/16.



John Custer
Principal

The Tisbury School
40 West William Street
Post Office Box 878
Vineyard Haven, Massachusetts 02568
Tel: 508-696-6500 • Fax: 508-696-7437



Sean Mulvey
Assistant Principal

Tisbury School Building Committee \ Tisbury School Committee
5:00PM, Wednesday, August 3, 2016
Tisbury School Library

1

TSBC Members Present: Chair Colleen McAndrews, Ian Aitchison, Wiet Bacheller, John Custer, Matt D'Andrea, Sean DeBettencourt*, Jay Grande*, Amy Houghton, Jeff Kristal, Melinda Loberg, Reade Milne*, Siobhan Mullin*, Janet Packer, Dan Seidman, Richie Smith, Amy Tierney,

TSC Members Present: Chair Amy Houghton, Colleen McAndrews, Janet Packer,

Others: Marni Lipke – Recorder

* Late Arrivals or early departures.

The Tisbury School Building Committee (TSBC) and Tisbury School Committee (TSC) meetings were called to order at 5:02PM. TSBC meetings would be posted jointly with TSC meetings in order to:

- avoid open meeting law violations (TSC and TSBC Chairs constituted a TSC quorum);
- maintain transparency, and
- promote the free flow of information.
- The TSC had voted the following reorganization at it's July 6th meeting:
 - Ms. Amy Houghton - TSC Chair,
 - Ms. Colleen McAndrews - TSBC Chair

I. Approval of the TSBC Minutes of June 1, 2016

• **ON A MOTION DULY MADE BY MS. AMY HOUGHTON AND SECONDED BY MR. MATTHEW D'ANDREA THE MINUTES OF THE JUNE 1, 2016 TISBURY SCHOOL BUILDING COMMITTEE MEETING WERE APPROVED AS AMENDED; 10 AYES, 0 NAYS, 2 ABSTENTIONS—MR. JEFF KRISTAL, MR. DAN SEIDMAN.**

The Massachusetts School Building Authority (MSBA) required a vote to approve/authorize advertising the Request For Services (RFS). There was general agreement that the authorization was implicit in the discussion and approval of the RFS criteria and requirements.

II. TSBC Membership Updates – See documents on file.

III. MSBA Feasibility Study and Schematic Design Phase

A. Owner's Project Manager (OPM) Selection Process Update

Tisbury School Principal John Custer and School Business Administrator Ms. Amy

Tierney spent much of June and early July securing and advertising a Request for Services (RFS), which went out to 21 prompts. Five firms attended the site visit and six applications were received. Respondent bids were sent out to the OPM Selection Subcommittee along with evaluation criteria forms of 11 categories and 100 points. (Former TSC Chair/current TSBC Chair Ms. McAndrews sat in to facilitate transition but left the meeting and did not participate in the choice.) Members filled out forms and met to consolidate results, choosing four interview candidates in a close point spread:

- Atlantic Construction & Management, Inc. of Concord MA – 86 points
- Daedalus Projects, Inc. of Boston MA – 85 points
- Hill International, of Boston MA – 83 points
- Vertex Companies of Weymouth MA – 82 points
- Firms were being asked to send the key staff and engineers to the interview so that the Subcommittee could judge compatibility.
- This phase did not include pricing and the Town was clearly and repeatedly instructed not to negotiate fees.
- One finalist had worked on Martha's Vineyard and two had worked on Nantucket.
- The Subcommittee would interview candidates August 9th and submit their choice to the MSBA on August 18th so that the MSBA could approve and formally hire them at their September 12th meeting.
- The interview protocol was reviewed including: asking all candidates the same questions, and MSBA guidelines on confirming: qualifications, ability to meet schedules, identification of key personnel, and contract terms (see below: Actions).

B. Town "Pro-Pay" Meeting with MSBA

Prin. Custer, Ms. Tierney and Town Treasurer Jonathon Snyder would attend an August 12th training on "Pro-Pay" the MSBA software system, to learn invoice and reimbursement processing.

- The next phase would be choosing a Designer Selection Subcommittee at the September meeting—the advertisement placement deadline being October 6th for a November 22nd MSBA meeting to hire the recommended designer.

Adjournment

- **ON A MOTION DULY MADE BY MR. KRISTAL AND SECONDED BY MS. PACKER THE TISBURY SCHOOL BUILDING COMMITTEE MEETING UNANIMOUSLY ADJOURNED AT 5:31PM.**
- **ON A MOTION DULY MADE BY MS. HOUGHTON AND SECONDED BY MS. PACKER THE TISBURY SCHOOL COMMITTEE MEETING UNANIMOUSLY ADJOURNED AT 5:31PM.**

Appendix A: Meetings/Events:

- OPM Subcommittee Interviews –Tuesday, August 9, 2016
- MSBA – 8:00-10:00AM, Pro-pay Training Friday, August 12, 2016 in Boston

continued

Appendix A: Meetings/Events (cont.):

- MSBA OPM Contract Meeting – Monday, September 12, 2016 in Boston
- TSC - 8:30AM, Tuesday, September 13, 2016 at the Tisbury School
- TSBC – 5:00PM, Wednesday, September 14, 2016 at the Tisbury School
- Design Advertising Deadline - Thursday, October 6, 2016
- MSBA Design Contract Meeting – Tuesday, November 22, 2016 in Boston

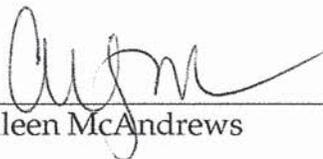
Appendix B: Actions –

- All – email suggested questions for OPM selection interview by Friday 8/5/16

Appendix C: Documents on File:

- Agenda 8/3/16
- McAndrews email re: Tisbury SBC 8/3/16
- Tisbury School Building Committee Meeting Minutes 6/1/16

Minutes respectfully submitted by Office On Call/Marni Lipke.



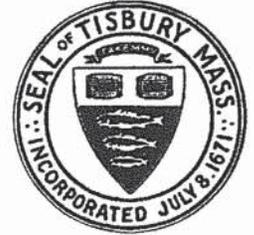
Chair Colleen McAndrews

Minutes approved 9/13/16 & 9/14/16.



John Custer
Principal

The Tisbury School
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Vineyard Haven, Massachusetts 02568
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Sean Mulvey
Assistant Principal

Tisbury School Building Committee \ Tisbury School Committee
5:00PM, Wednesday, September 14, 2016
Tisbury School Library

1

TSBC Members Present: Chair Colleen McAndrews, Ian Aitchison, Wiet Bacheller, Catherine Coogan, John Custer, Sean DeBettencourt, Cheryl Doble, Jay Grande*, Amy Houghton, Jeff Kristal, Melinda Loberg*, Reade Milne*, Sean Mulvey, Dan Seidman, Richie Smith,

TSC Members Present: Chair Amy Houghton, Colleen McAndrews,

Others: Joe Sullivan - Daedalus
Marni Lipke - Recorder

* Late Arrivals or early departures.

The Tisbury School Building Committee (TSBC) and Tisbury School Committee (TSC) meetings were called to order at 5:03PM. Mr. Joe Sullivan of Daedalus Projects, Inc. was introduced as the new Owners Project Manager (OPM) representative. Everyone around the table introduced themselves.

I. Approval of the Minutes of 8/3/2016

• ON A MOTION DULY MADE BY MS. AMY HOUGHTON AND SECONDED BY MS. WIET BACHELLER THE MINUTES OF THE AUGUST 3, 2016 TISBURY SCHOOL BUILDING COMMITTEE MEETING WERE APPROVED; 12 AYES, 0 NAYS, 3 ABSTENTIONS—MS. CATHERINE COOGAN, MS. CHERYL DOBLE, MR. SEAN MULVEY due to absence.

II. Owner's Project Manager Selection Process Update (See documents on file.)

Mr. Sullivan described the interview with the Massachusetts School Building Authority (MSBA) which was longer than usual to insure Daedalus' capacity to oversee the work along with its other projects. He described the structure of Daedalus from the President Richard Marks through the project managers, procurement and eligibility staff, outreach, marketing, etc. All Daedalus projects had come in on time and under budget with no arbitration or court action—all problems having been resolved by change order. - Daedalus was the OPM for four projects on the Island: the West Tisbury Town Hall, the West Tisbury Library, the Oak Bluffs Emergency Services building, and the Airport Rescue and Fire Fighter building.

- The MSBA met every other month, which was the driving force behind project timelines. The OPM contract having been finalized, the next step was a Designer Request for Proposal (RFP) or Request for Quotation (RFQ). The OPM would work closely with the TSBC drafting the bid and evaluation criteria to recommend the three best candidates to the MSBA Designer Selection Panel (DSP) by November 22nd (although the DSP required tracking the total pool). The DSP consisted of seven MSBA and three local votes—assigned by this group (see below: #III); and this was the general proportion of MSBA/Town representation throughout the process. If all went well the design (architectural) firm contract would be executed by November 28th.
- The Feasibility phase would then begin, with staff interviews, educational program design and town outreach. Discrepancies with MSBA rulings could sometimes be negotiated by strong justification. The MSBA would insist on a complete project, whether renovation, addition, or new so if the Town insisted on a halfway project it would withdraw, leaving all funding to the Town. Hopefully there would be a decision and estimated cost by June 2017 and a final scope and budget by October 2017.
- Renovation was usually the more difficult and expensive option—but also tended to garner more reimbursement points.
- Some tangible items (population, educational plan, soil, water, sewer, site constrictions) were determining factors but Mr. Sullivan emphasized the overwhelming necessity for Town input and support in choosing among the options. All towns loved their schools and the issue raised strong emotions so the Town vote was crucial – Carver, MA failed twice before passing a design. The designer, TSBC and OPM would conduct workshops, public forums, etc. but the ultimate decision rested with the TSBC.
- This timeline might require a Special Town Meeting in autumn 2017 to approve the construction bond; however it could be delayed by negotiations, or request, keeping in mind the MSBA two month meeting schedule. The only catch was increased costs dictated by construction price escalation.
- Student education contingencies (modulars, relocation, etc.) during construction/renovation were included in project costs.
- The OPM rented an apartment to be on site daily during construction, overseeing: quality of work, sustainability goals, energy efficiency, product quality, insuring systems life cycle were built/installed as designed, etc.
- MSBA Manager Ms. Kathryn DeCristofaro assigned to the Tisbury School project was very helpful, in constant communication and gave feedback before formal submittals.
- Daedalus would go before the Selectmen at their next meeting (see below: Meetings/Events) and then before the Finance Committee and the Planning Board.

III. Feasibility Study and Schematic Design Phase Next Steps

Three of the five Designer Selection Committee members were pre-determined by MSBA: the Superintendent or designee, a TSC designee and a Town Financial designee.

• ON A MOTION DULY MADE BY MS. HOUGHTON AND SECONDED BY MS. BACHELLER A FIVE MEMBER DESIGN SELECTION SUBCOMMITTEE WAS UNANIMOUSLY APPROVED (12 AYES, 0 NAYS, 0 ABSTENTIONS) AS FOLLOWS;

- SUPERINTENDENT'S DESIGNEE - TISBURY SCHOOL PRINCIPAL JOHN CUSTER,
- TISBURY SCHOOL COMMITTEE DESIGNEE – MS. COLLEEN MCANDREWS,
- TOWN ADMINISTRATOR JAY GRANDE OR HIS DESIGNEE;
- TISBURY SCHOOL BUILDING COMMITTEE MEMBER, ARCHITECT READE MILNE,
- TISBURY SCHOOL BUILDING COMMITTEE MEMBER, IAN AITCHISON.

Adjournment

- ON A MOTION DULY MADE BY MR. KRISTAL AND SECONDED BY MS. HOUGHTON THE TISBURY SCHOOL BUILDING COMMITTEE MEETING UNANIMOUSLY ADJOURNED AT 6:06PM.
- ON A MOTION DULY MADE BY MS. HOUGHTON AND SECONDED BY MS. MCANDREWS THE TISBURY SCHOOL COMMITTEE MEETING UNANIMOUSLY ADJOURNED AT 6:06PM.

Appendix A: Meetings/Events:

A second September TSBC/TSC meeting would be posted if needed.

- Bd. of Selectmen - (OPM agenda) 5:30PM, Tuesday, September 20, 2016 at KCT
- TSC - 8:30AM, Tuesday, October 11, 2016 at the Tisbury School
- TSBC/TSC – 5:00PM, Wednesday, October 12, 2016 at the Tisbury School

Appendix B: Actions – None

Appendix C: Documents on File:

- Agenda 9/14/16
- Sign In Sheet 9/14/16
- Tisbury School Owner's Project Manager Selection Panel – Daedalus (6 p.) 9/12 16

Minutes respectfully submitted by Office On Call/Marni Lipke.

Minutes respectfully submitted by Office On Call/Marni Lipke.



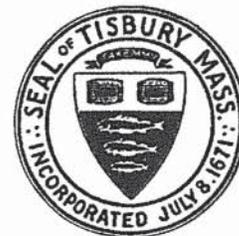
Chair Colleen McAndrews

Minutes approved 10/11/16



John Custer
Principal

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Sean Mulvey
Assistant Principal

Tisbury School Building Committee \ Tisbury School Committee
5:00PM, Wednesday, November 16, 2016
Tisbury School Library

1

TSBC Members Present: Chair Colleen McAndrews, Wiet Bacheller,
Catherine Coogan, John Custer, Matt D'Andrea,
Sean DeBettencourt*, Cheryl Doble, Jay Grande, Jeff Kristal,
Jynell Kristal, Melinda Loberg, Reade Milne*,
Siobhan Mullin, Erika Mulvey, Sean Mulvey,

TSC Members Present: Colleen McAndrews,

Others: Marni Lipke – Recorder

* Late Arrivals or early departures.

The Tisbury School Building Committee (TSBC) meeting was called to order.

I. Approval of the Minutes of September 14, 2016

• ON A MOTION DULY MADE BY MR. JOHN CUSTER AND SECONDED BY MR. JEFF KRISTAL THE MINUTES OF THE SEPTEMBER 14, 2016 TISBURY SCHOOL BUILDING COMMITTEE MEETING WERE UNANIMOUSLY APPROVED WITH ABSTENTIONS AS ABSENT.

II. Designer Selection Update (See documents on file.)

The process was on schedule as laid out by Owners Project Manager (OPM) representative Mr. Joe Sullivan of Daedalus Projects, Inc. (see 9/14/16 Minutes). The Request for Qualifications/Service was advertised October 12th; there was a pre-proposal site visit on October 20th, and the Designer Selection Subcommittee looked at five proposals earlier today.

• The Subcommittee would review the proposals with Daedalus, and the three TSBC representatives would speak first at a meeting with the Massachusetts School Building Authority (MSBA) Designer Panel where the responses would be rated on a point system and three finalists chosen. The finalists would each give presentations and probably the Designer would be chosen at a December 6th meeting.

- The MSBA took into account the amount of work a designer firm had, so that firms already working on multiple projects were less likely to be chosen. In consequence the TSBC representatives were asked to approach the process with an open mind and be prepared to work with any of the three finalists.

- **Please Note:** No one may contact, communicate or discuss the selection with any of the five applicants—i.e. do not call the candidates.
- **Please Note:** It was also important to remember that until the final decision on what kind of project would go forward (renovation/addition, new building on current site, new school in other location) any language should not assume one or another.
 - At the TSBC December 14th meeting (run by Daedalus) the assessment and existing conditions would be reviewed and the feasibility / design phase would probably start in January with conferences, workshops, visioning and surveys.
 - There would be at least seven meetings between now and the April 25th Annual Town Meeting and members were asked to attend as many as possible. Once the designer was chosen there were likely to be field trips to view other school projects.
 - Architect Ms. Reade Milne had reviewed the proposals as well as the company websites and found them all fairly qualified. The TSBC would be looking for comparable project sizes, creativity and responsiveness to communities.
 - Daedalus was relieving Business Administrator Amy Tierney of the very burdensome procurement process.
 - Other locations in Tisbury were limited and some sites had serious constraints, but all would be canvassed by the designer.

Adjournment

- **ON A MOTION DULY MADE BY MS. CHERYL DOBLE AND SECONDED BY MR. SEAN DEBETTENCOURT THE TISBURY SCHOOL BUILDING COMMITTEE MEETING UNANIMOUSLY ADJOURNED AT 5:31PM.**

Appendix A: Meetings/Events:

- TSC - 8:30AM, Tuesday, December 13, 2016 at the Tisbury School
- TSBC/TSC – 5:00PM, Wednesday, December 14, 2016 at the Tisbury School

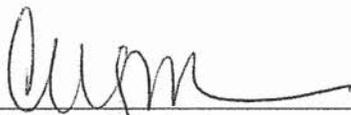
Appendix B: Actions

- Mr. Custer – email Flansburgh Architects Feasibility Study to Committee.
- Ms. McAndrews – email Daedalus Project schedule to all.
- All – send comments on proposals to the Designer Selection Subcommittee.

Appendix C: Documents on File:

- Agenda 11/16/16
- Sign In Sheet 9/14/16
- Tisbury School Project Schedule 11/2/16

Minutes respectfully submitted by Office On Call/Marni Lipke.



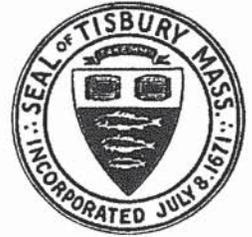
Chair Colleen McAndrews

Minutes approved 12/14/16



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Sean Mulvey
Assistant Principal

Tisbury School Building Committee \ Tisbury School Committee
5:00PM, Wednesday, December 14, 2016
Tisbury School Library

1

TSBC Members Present: Chair Colleen McAndrews, Wiet Bacheller,
Catherine Coogan, John Custer, Matt D'Andrea,
Sean DeBettencourt, Amy Houghton, Jynell Kristal,
Reade Milne, Siobhan Mullin, Sean Mulvey, Richie Smith,
Amy Tierney,

TSC Members Present: Chair - Amy Houghton, Colleen McAndrews,

Others: Joseph Sullivan – Daedalus Projects,
Libby Turowski, Peter Turowski – Turowski2 Architecture
Marni Lipke – Recorder

* Late Arrivals or early departures.

The Tisbury School Building Committee (TSBC) and Tisbury School Committee (TSC) meetings were called to order at 5:05PM.

II. New Business

A. Introduction of Architects/Owners Project Manager (OPM)

Turowski2 Architecture (T2) principals Ms. Libby Turowski and Mr. Peter Turowski were introduced as the chosen designer/architects. T2 was a small firm out of Marion, MA with school experience. They would consult with architects Keenan & Kenney because they had experience on Island. They were a WMVE company hiring minorities and women. The TSBC members introduced themselves with their affiliations.

I. Approval of the Minutes of 11/16/2016

• ON A MOTION DULY MADE BY MR. JOHN CUSTER AND SECONDED BY MS. WIET BACHELLER THE MINUTES OF THE NOVEMBER 16, 2016 TISBURY SCHOOL BUILDING COMMITTEE MEETING WERE UNANIMOUSLY APPROVED WITH ABSTENTIONS AS ABSENT.

II. New Business

B. Review of Massachusetts School Building Authority (MSBA) Selection Process

The School received five applications and narrowed the field to the top three which presented and were interviewed Tuesday, December 6th. The TSBC representatives found the interviews very revealing as to which were team players, how they would try to accommodate community needs and what staff was available. Any of the firms could have done a good jobs and the MSBA panel took all local comments into account.

C. Architect Contract

OPM Mr. Joe Sullivan gave feedback on consultant clauses/pricing in the T2 contract so T2 was looking at alternatives. The contract was drafted along specific MSBA guidelines, and was on the Tisbury Board of Selectmen Agenda for their December 20, 2016 meeting. Once signed the work could officially move ahead.

- T2 worked previously with MSBA Project Manager Mr. Chris Alley and Project Coordinator Ms. Kathryn DeCristofaro had been with the project since it was accepted.

B. Preliminary Schedule of Feasibility Study (See documents on file.)

Scheduling was driven by MSBA meeting dates, with the goal of a preliminary design submission to an internal MSBA group (rather than the full panel) by early February.

- This was the Kick-Off meeting.
- The entire design team (civil engineer, landscape designer, hazardous materials (hazmat) engineers, etc.) would come between Christmas and New Years to investigate of the current building and site, taking samples and assessments (see below: Actions).
- The MSBA tasked the team with due diligence on current and alternate sites, expecting pluses and minus such as: traffic, residential impact, specific space limits, etc. The current site did not need a survey since it had utilities, but other sites would require it. The report delivery target was around January 22nd. Any work done when school was in session would require either escort or Criminal Offenders Record Investigation (CORI) checks.
- T2 requested the TSBC identify a manageable core group of five or six people (Administrators, staff and one community member) for an initial Leadership Meeting in the first week of January 3-6, 2017.
- Two back-to-back seven-hour Visioning Workshops were tentatively schedule for January 23-24, 2017. These sessions should involve about 20 people (key teachers, active parents, administrators, etc.) committed to stay through both sessions. The process followed steps involving brainstorming exercises, creative thinking, education programing, teacher visions, out-of-the-box thinking and blue-sky ideas. well renowned educational consultant Mr. David Stephen of New Vista would help lead the sessions.
- TSBC members warned that the Vineyard had its own ways.
- The TSBC suggested workshops be scheduled 12N - 6PM so teachers could work half-days.
- Community input would essentially follow after visioning, although Daedalus would conduct outreach on project direction and feedback.

F. Site Survey Existing Conditions Reports and Other Preliminary Tasks

In a very preliminary look at different potential options the design team would calculate and submit to the MSBA baseline costs for each potential site. They would contact the Town Administrator and would review the Flansburgh Feasibility Study (see 8/20/12 TSC Minutes). This would determine costs and factors of renovation, addition or replacement on this site or other sites. The MSBA, in supplying at least 40% of the cost, was more interested in financial issues than the design team was.

E. Review of Study Budget

There was a long list of costs that were ineligible for MSBA reimbursement, including such substantial items as:

- temporary trailers to accommodate students during the construction phase, and
- site purchase price.
- A District Facilities Director would be a great help but was a sore subject with the Martha's Vineyard Public Schools (MPVS) which had been trying to hire/fund one for

many years.

- The Town Master Plan (also a difficult issue) was requested. T2 would contact the Planning Board and Town Cabinet. There was a moratorium on all Town projects until the School decision was made.

G. Invoicing Process

T2 would send all invoices to Daedalus who would review them and send them to the TSBC, who would pass it on to the Town—which worked off bi-weekly warrants (see below: Actions).

- The Turowskis expressed their pleasure at working with the Committee and being on the Island. Thanks were exchanged all around.

III. TSBC Meeting Schedule

The TSBC would plan two field trips (an overnight and a day trip) in early January to see three or four new schools. T2 recommended: Carr Elementary School in Newton, Hingham, Williamstown, and Fair Haven.

Adjournment

- **ON A MOTION DULY MADE BY MS. MCANDREWS AND SECONDED BY MS. AMY HOUGHTON THE TISBURY SCHOOL BUILDING COMMITTEE AND THE TISBURY SCHOOL COMMITTEE MEETINGS UNANIMOUSLY ADJOURNED AT 6:05PM.**

Appendix A: Meetings/Events:

- TSC - 8:30AM, Tuesday, January 10, 2017 at the Tisbury School
- PTO - 6:30PM, Tuesday, January 10, 2017 at the Tisbury School
- TSBC/TSC - 5:00PM, Wednesday, January 11 & 25, 2017 at the Tisbury School
- TSBC/TSC - 5:00PM, Wednesday, February 8 & 22, 2017 at the Tisbury School
- TSBC/TSC - 5:00PM, Wednesday, March 8 & 22, 2017 at the Tisbury School
- TSBC/TSC - 5:00PM, Wednesday, April 5, 2017 at the Tisbury School

Appendix B: Actions

- Mr. Custer – send HERA reports to T2/Daedalus
- Ms. McAndrews – identify 5-6 Leadership group - admin, staff & 1 community.
- Ms. McAndrews – identify 20 key staff/parents willing to commit to Vision Wkshps.
- Mr. Custer/Mr. Mulvey – supply School “as built” or any other plans to T2/OPM.
- Ms. McAndrews – contact Treasurer Jon Snyder re: invoice procedure and timing.
- Ms. McAndrews/Mr. Sullivan/T2 – email presentation to TSBC
- T2 – email list of team to TSBC
- All – contact Ms. McAndrews re: interest in field trips, or Visioning Workshops.
- Ms. Lipke – scan sign in sheet and email to T2.

continued >

Appendix C: Documents on File:

- Agenda 12/14/16
- Sign In Sheet 12/14/16
- Tisbury Elementary School Feasibility Study 12/14/16

Minutes respectfully submitted by Office On Call/Marni Lipke.



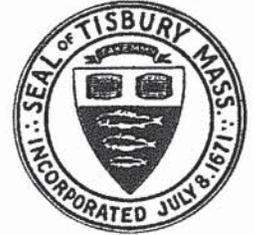
Chair Colleen McAndrews

Minutes approved 1/10/17 & 1/11/17



John Custer
Principal

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Sean Mulvey
Assistant Principal

Tisbury School Building Committee \ Tisbury School Committee
5:00PM, Wednesday, January 11, 2017
Tisbury School Library

1

TSBC Members Present: Chair Colleen McAndrews, Wiet Bacheller,
Catherine Coogan, John Custer, Sean DeBettencourt,
Cheryl Doble, Jay Grande, Melinda Loberg,
Reade Milne, Siobhan Mullin, Erika Mulvey,
Sean Mulvey, Richie Smith, Amy Tierney,

TSC Members Present: Colleen McAndrews,

Others: Richard Marks – Daedalus Projects,
Libby Turowski, Peter Turowski – Turowski2
Mary Ellen Larsen – Tis. FinCom
Marni Lipke – Recorder

* Late Arrivals or early departures.

The Tisbury School Building Committee (TSBC) meeting was called to order at 5:02PM.

I. Approval of the Minutes of December 14, 2016

• **ON A MOTION DULY MADE BY MR. JOHN CUSTER AND SECONDED BY MR. SEAN MULVEY THE MINUTES OF THE DECEMBER 14, 2016 TISBURY SCHOOL BUILDING COMMITTEE MEETING WERE UNANIMOUSLY APPROVED WITH ABSTENTIONS AS ABSENT.**

II. Old Business

A. Architect Contract

Owners Project Manager (OPM) Daedalus Representative Richard Marks reported the standard Massachusetts School Building Authority (MSBA) contract with the Architects was signed by the Tisbury Selectmen on January 3, 2017 and was now being circulated with Counsel and Turowski2 Architecture (T2) before being returned to the MSBA (see below: Actions).

B. Discussion of Existing Conditions Study (T2)

C. Site Survey Status (See documents on file.)

The entire T2 team was on site December 27-28th for the survey and found the building in about the same status as the 2012 Flansburgh study with a few more years of deterioration and a couple quality upgrades.

D. Initial Programming Session

After some snow delays the Leadership Team met to discuss programming sessions and workshops. The Team was particularly impressed with Mr. David Stephen of New Vista.

E. Feasibility Schedule (See documents on file & Meetings/Events.)

All were invited to the Educational Visioning Workshops January 23-24th. Hopefully some would commit to both six-hr. sessions, but people were encouraged to come when they could. About six-seven students would be chosen to attend and as many school staff as possible, along with representatives of the School Committee (TSC), School Advisory Council (SAC), Parent Teacher Organization (PTO), Selectmen, Planning Board, etc. T2 would then present at the February 1st faculty meeting and start convening teacher groups. These workshops should result in a preliminary design and space summary that would give the MSBA a flavor of the project parameters.

- The MSBA asked that the Kick-Off meeting with the Leadership Group take place on the Island—an unusual request. T2 and Mr. Marks commended the MSBA team with whom they had previous experience.
- The target was a “preferred schematic design” by the end of June, but there was a long process first.
- Tisbury was a fairly unusual school being small and kindergarten through eighth grade (K through 8), but if successful it could become a model school design. The School and MSBA were negotiating about size and number of classrooms.

F. Invoicing Process

A meeting had been set up with the Town Finance Dept. on January 25th to keep the process running smoothly. The Town would own the designs and schematics.

III. New Business

A. Sites to be Studied (See documents on file.)

With the guidance of Town Administrator Jay Grande, T2 was reviewing possible Town-owned sites of 5 acres or more—there was no mandated minimum but this was the desirable start size. All the sites had various zoning, historic or environmental restrictions.

- **Veterans Park** – was centrally located with utilities available however it was in a flood plain, would displace popular playing fields; had special sanitary control requirements, might have deed restrictions, and traffic was already severely congested.
- **The Overlook** – was on the National Historic Register and was an Island scenic view site. The steep topography would also be a challenge and it was in a protected water/well region under Water District jurisdiction.
- **Tashmoo** – was also in a protected water/well region and under Water District jurisdiction—both sites required de-nitrification measures. Both sites might have Natural Heritage/Endangered Species issues, however the topography was better suited. Utilities were available.
- **Manter Well** – also had water/well protection restrictions and possible Natural Heritage issues. It was less central to the village and access was either by dirt road or over Oak Bluffs land.
- **Bigelow** - the Team was initially excited by this location near Mink Meadows Golf Club. The space was flat with access from Franklin St. with utilities available, however it had stringent conservation deed restrictions (Article 97) that might preclude its use.

- **Existing** – was familiar, centrally located, with all utilities on site. Disadvantages were the disruption of education during construction and the loss of a historic building if replaced.

The Committee discussed:

- Water Dept. plans for the Tashmoo site,
- apprehension over flood plain/drainage issues as well as Federal Emergency Management Agency (FEMA) prohibition on municipal building in the new sea rise/climate change flood plains for Veterans Park; and status as the only recreational park in Tisbury,
- having to cross State Rd to access the Manter Well property versus the fields, walking paths, open space synergy of the lot.

- **ON A MOTION DULY MADE BY JOHN CUSTER AND SECONDED BY WIET BACHELLER THE TISBURY SCHOOL BUILDING COMMITTEE UNANIMOUSLY VOTED TO ELIMINATE VETERANS PARK AND THE OVERLOOK SITES FROM CONSIDERATION; 14 AYES, 0 NAYS, 0 ABSTENTIONS.**

B. School Visit Dates

The tours would visit: Newton, Fair Haven, Williamstown and New Hingham as examples of traditional and recent innovations in school buildings.

C. Upcoming Visioning Workshops

The schedule was reviewed (see above #II E, & below: Meeting/Events & Actions).

IV. Meeting Schedule (Next Meeting January 25, 2017)

Adjournment

- **ON A MOTION DULY MADE BY MR. SEAN DEBETTENCOURT AND SECONDED BY MS. MELINDA LOBERG THE TISBURY SCHOOL BUILDING COMMITTEE MEETING UNANIMOUSLY ADJOURNED AT 5:51PM.**

Appendix A: Meetings/Events:

- TSBC/TSC - 5:00PM, Wednesday, January 25, 2017 at Tisbury School
- TSBC Field Trips – January 18, & February 6-7, 2017 meet at the ferry
- Ed. Visioning Workshops – Monday-Tuesday January 24-25, 2017 – 12N - 6PM
- Faculty Meeting with Architect/Designers – Wednesday, February 1, 2017
- TSBC/TSC - 5:00PM, Wednesday, February 8 & 22, 2017 at Tisbury School
- TSC - 8:30AM, Wednesday, February 15, 2017 at the Tisbury School
- TSBC/TSC - 5:00PM, Wednesday, March 8 & 22, 2017 at Tisbury School
- TSBC/TSC - 5:00PM, Wednesday, April 5, 2017 at Tisbury School

Appendix B: Actions

- **T2/Ms. McAndrews/Mr. Custer** - send signed Arch. contract to Daedalus for MSBA.
- **Ms. Doble** - send 240 community email list to Mr. Marks/T2.
- **Mr. Markes** - send all packets & feasibility schedule Prin. Custer for distribution.
- **T2/Prin. Custer** - retain copy of background legal documentation at School for any interested members to come in and read.
- **Mr. Grande or Selectmen** - attend Educational Visioning Workshops.
- **All** –RSVP Prin. Custer or T2 re: attendance at Visioning Workshop.

continued >

Appendix C: Documents on File:

- Agenda 1/11/17
- Sign In Sheet 1/11/17
- Custer email re: School Building Project (2 p.) 1/5/17
- Custer email re: Feasibility Study Workshops 12/27/16
- Proposed Space Study Summary K – 8 Schools (10 p.)
- Building Committee Presentation for: Tisbury Elementary School January 11, 2017 (34 p.)
- Property Location: 525 West Spring St. (Overlook) Vision ID: 2878 (4 p.) 12/9/16

Appendix C: Documents on File (cont.):

- Property Location: 400 West Spring St. (Tashmoo) Vision ID: 2881 (3 p.) 12/9/16
- Property Location: 160 Holmes Hole Rd. (Manter) Vision ID: 2932 (9 p.) 12/9/16
- Property Location: 10 Causeway Rd. (Park) Vision ID: 1038 (3 p.) 12/9/16
- Property Location: Bigelow Rd. (Bigelow) Vision ID: 2550 (4 p.) 12/9/16
- Property Location: 40 West Williams St. (Existing) Vision ID: 763 (3 p.) 12/9/16
- School Feasibility Study Tisbury, MA Parcels Over 5 Acres in Size (4 p.) 12/23/16
- EEA Article 97 Land Disposition Policy Energy and Environmental Affairs (4 p.) 1/11/2017

Minutes respectfully submitted by Office On Call / Marni Lipke.



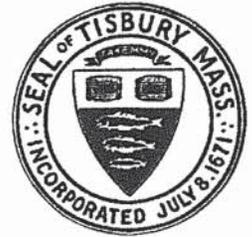
Chair Colleen McAndrews

Minutes approved 2/8/17



John Custer
Principal

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Sean Mulvey
Assistant Principal

Tisbury School Building Committee \ Tisbury School Committee
5:00PM, Wednesday, February 8, 2017
Tisbury School Library

1

TSBC Members Present: Chair Colleen McAndrews, Wiet Bacheller,
Catherine Coogan, John Custer, Matt D'Andrea, Jay Grande,
Reade Milne, Siobhan Mullin, Erika Mulvey, Sean Mulvey,
Dan Seidman, Richie Smith,

TSC Members Present: Colleen McAndrews,

Others: Richard Marks, Christina Opper – Daedalus Projects,
Libby Turowski, Peter Turowski – Turowski2
Marni Lipke – Recorder

* Late Arrivals or early departures.

The Tisbury School Building Committee (TSBC) meeting was called to order at 5:04PM. Daedalus representative Mr. Richard Marks introduced Ms. Christina Opper who would help put together the public process with mailings, website postings, community output, etc.

I. Approval of the Minutes of January 11, 2017

• ON A MOTION DULY MADE BY MR. JOHN CUSTER AND SECONDED BY MR. SEAN MULVEY THE MINUTES OF THE JANUARY 11, 2017 TISBURY SCHOOL BUILDING COMMITTEE MEETING WERE UNANIMOUSLY APPROVED: 10 AYES, 0 NAYS, 2 ABSTENTIONS DUE TO ABSENCE.

II. Old Business

A. Existing Conditions Study – (T2) (See documents of file.)

- The building was sewerred except for the Men's Locker room which seemed to be on a septic leaching field. There was no grease trap in the kitchen.
- Some trees were attractive and could be preserved but needed pruning; others were not healthy and should be taken down or replaced.
- There were several sheds (as well as the modular unit) but storage was scattered—and should be consolidated according to need. In general the array of outdoor furnishings was in poor shape. Wood structures (including sheds) had deteriorated and playground wood chips were not up to standard. (Students complained that they wanted to play on grass not dirt.) The basketball court was not striped; there was no recycling and no paving under the bike racks.

- Parking was insufficient and scattered between three lots (School, Veterans & Dept. of Public Works—DPW). The front drop-off space did not have two lanes. The loading entrance was not large enough for trucks to turn.
- Disability access was not very good and the Special Education modular units were not handicapped accessible. There was no disability designated outdoor seating.
- Most windows (and the front curtain wall) had broken seals, falling or cracking sills, and rusted headers/lintels treated with sealant where water backed up and froze. Masonry was cracking. Unit ventilators were either stuck open or duct taped over.
- The front steps and east ramp were deteriorating. There seemed to be a construction miscalculation on the foundation forming a brick overhang. The foundation cement was in good shape with no rebar exposure.
- The original lovely wood floors were starting to buckle. Students complained about noise levels and asked for thicker floors.
- Roof framing was open web steel joist; generally the structure was not braced and some beams didn't sit over their columns—all of which would have to be rectified to meet seismic standards.
- Overall conditions were crowded especially the kitchen. 600 to 750 sq. ft. classrooms were below Massachusetts School Building Authority (MSBA) standards and storage spaces were being used for classrooms—some as small as 250 sq. ft. It was found that hallway walls were not bearing although they might be providing lateral bracing, and could possibly be moved.
- There were some asbestos, lead paint and mercury issues around sealant/caulking, floor tiles, etc. (abatement cost estimate in process). There was an underground oil tank.
- Plumbing fixtures were low flow but not metered. Water service was sufficient including for the fire pump system. Bathrooms were plaster rather than tile.
- The kitchen hood was undersized; there was no fire suppression system, no grease collection and equipment was generally antiquated. Food service was mixed with the cafeteria without the required separation of functions.
- There were two heating systems with no central control. One was hot water and the other steam—considered the least efficient return for energy over fuel and difficult to control. Of the boilers (2000, 2011 and 2016) the newest would have to be replaced because it was part of the steam system.
- The electrical system was good as was the pad-mounted transformer. Florescent fixtures were the most efficient for the original construction time period but should now be replaced with LED lights.
- Building security was a hodge-podge and there was no lock-down capability. Neither the badge system equipment location nor the master intercom were in secure places.
- The cumulative result was that Turowski 2 disagreed with the 2012 Flansburgh Study that maintained the building was 78% salvageable.

C. Feasibility Schedule

The draft report would be the first submission to the MSBA. The full space analysis would be part of the future space proposal (see also below: p.4 #III).

B. Programming Sessions with Faculty/Staff

The Educator Working Group (35-60 people, community adults, faculty, and some students) met for two sessions with the Architects, the Owners Project Manager (OPM), and educational consultant Mr. David Stephen. Learning goals, school strengths,

challenges, opportunity and goals were identified and discussed in small groups and as a whole. There was consensus on favorite parts of the current school.

- Chosen priorities were: effective communication, empathy/integrity, joy/play, problem solving, disciplined minds, adaptability and citizenship.
- Emerging design patterns emphasized:
 - outdoor learning (requested by adults and students), for example an amphitheater;
 - distributed resources for less isolation of special needs,
 - space to exhibit student work,
 - flexible gathering spaces, scalable sizing, flexible hallways and differently sized hubs,
 - natural light, sustainability and welcoming entrances with good visibility,
 - alternative/effective storage such as bench cubbies,
 - 'cafetorium' i.e. cafeteria/gym/auditorium/community use with separate entrance for community use (to avoid disrupting classes), or two cafeterias (upper and lower schools) for distributed dining;
 - Tisbury Triangle - small neighborhood based clusters, with central shared spaces, surrounded by break-out classrooms.
- "Blue sky" ideas included: a bigger stage, teachers' bathrooms, bigger lockers, separating the gym from the auditorium, an aquarium wall, and a lot of student requests around playing and eating—e.g. an indoor slide,
- Students' guiding principals, included: kindergarten/eighth grade pride, small school feel, outdoor learning, adaptable spaces, personal connection and ownership, sustainability, community collaboration.
- Highly detailed schematics would show every piece of furniture, bathrooms, lighting, whether a room was adjacent to the outdoors, etc.

D. Alternate Sites (See documents on file & 1/11/17 Minutes p.2.)

- The Water Dept. was most cooperative over the **Tashmo Well** location acknowledging school consideration and only requesting some return for the Department's investment in the site. Well restrictions left 9 buildable acres—some legislation might be required. An enhanced Nitrogen removal system (standard required daily wastewater 7,000 g. vs. actual use well under half that) would not add appreciably to the cost. However the steep-sided topography presented problems requiring a three-story building that would break the horizon sight line, and making the site somewhat unrealistic.
- The 55 acre **Manter Well** location topography was fairly level and would easily support a two-story building. However access and development rights (currently a single lane dirt road) would require Oak Bluffs permission. The site had walking trails, a dog park and a sewer extension. Schools were exempt from zoning but not setbacks.
- Town Counsel ruled out the **Bigelow** site because its deed prohibited structures. At the end of the meeting:
 - **ON A MOTION DULY MADE BY JOHN CUSTER AND SECONDED BY SIOBHAN MULLIN THE TISBURY SCHOOL BUILDING COMMITTEE UNANIMOUSLY VOTED TO ELIMINATE THE BIGELOW ROAD SITE FROM FURTHER CONSIDERATION DUE TO DEED RESTRICTIONS; 12 AYES, 0 NAYS, 0 ABSTENTIONS.**
- The **Existing** site included two wastewater leaching wicks (see 3/12/13 TSC Minutes p. 1-2 #II) each requiring 50 ft. setbacks and small storage structures, thus inhibiting

development along Williams St. Utilities were on site. Parking, parent drop-off and playing fields would be reconfigured.

- Two renovation/addition proposals saved the historic building, one dispensing with the 1990 addition, the other keeping it. The first step was to determine how much of the existing historical building was to be preserved. Renovation would not meet the educational priorities as well as new construction.

- There were two new building proposals, one at the west corner of the site requiring a three story building was less favored than the other at the east end of the site—although wick setbacks now had to be included. Both would complete new construction before demolishing the current building.

- A national company could provide modular trailers to accommodate students for two school years and then take them away. This would increase project cost but was the most feasible way to deal with noise, safety, disruption, etc. factors. A small outdoor space could be reserved for play, children could eat in their classrooms and there would not be a full gym. There was a discussion on how the project would impact families and students.

E. School Visits

Committee members visited the Carr School in Newton and would return to the Fairhaven School when it was completed in the fall. The trip to the Williamstown School was postponed due to inclement weather. It was very interesting to hear feedback on the new buildings: making sure cafeteria doors allowed traffic flow, and that there was a big enough room for staff meetings. One had a huge library but the centrally located media information desk precluded large enough meeting space.

III. Meeting Schedule (Next meeting February 22, 2017)

- T2 hoped to present a draft space summary (based on visioning and staff meetings) on February 22nd and to finalize the site options and space studies for preliminary design work on March 8th. The preliminary design presentation target was the March 22nd meeting to review the final design alternatives and costs.
- Chair Colleen McAndrews and Principal John Custer participated in the MSBA conference call kick-off meeting with T2 and Daedalus representatives. MSBA Preferred Schematic Design (concept design) approval was targeted for June 28th.
- MSBA Board Approval of Scope and Budget (either Dec. 14, 2017 or Feb. 14, 2018) would start the 120-day time period to approve project funding—ideally at or before the 2018 Annual Town Meeting. The Town would be consulted as to whether they preferred an Annual or a Special Town Meeting. There was some concern over the MSBA preference for a one-year timeframe, and over possible legislation delays.
- MVTV could videotape TSBC meetings at \$75 each (set up/breakdown, 1 hr. meeting). Links and announcements could be posted on Tisbury School, Martha's Vineyard Regional High School (MVRHS) and Town websites as well as in the press.
- **IT WAS THE CONSENSUS OF THE TISBURY SCHOOL BUILDING COMMITTEE TO HIRE MVTV TO VIDEOTAPE THEIR MEETINGS STARTING MARCH 8, 2017.**
- In addition, a School Building Project page could be added to the School and/or Parent Teacher Organization (PTO) website.
- Community input workshops and a presentation to the Selectmen were scheduled for late March/early April.

- To educate the public on why renovation/upgrade was necessary, MVRHS students could videotape how existing conditions impacted students (see below: Actions).
- The Town requested the TSBC acknowledge all invoices to affirm work was done. The MSBA was looking to reimburse the Town, so a smooth process would benefit everyone.
- MR. CUSTER AFFIRMED THE WORK OUTLINED ON THE JANUARY 31, 2017 DAEDALUS INVOICE WAS PERFORMED.

Adjournment

- ON A MOTION DULY MADE AND SECONDED THE TISBURY SCHOOL BUILDING COMMITTEE MEETING UNANIMOUSLY ADJOURNED.

Appendix A: Meetings/Events:

- TSC - 8:30AM, Wednesday, February 15, 2017 at the Tisbury School
- TSBC/TSC - 5:00PM, Wednesday, February 22, 2017 at Tisbury School
- TSBC/TSC - 5:00PM, Wednesday, March 8 & 22, 2017 at Tisbury School
- TSBC/TSC - 5:00PM, Wednesday, April 5, 2017 at Tisbury School

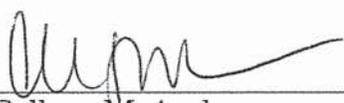
Appendix B: Actions

- Ms. McAndrews/Mr. Custer/Ms. Opper – publicize MVTV coverage of TSBC meetings (websites, press, etc.).
 - Ms. McAndrews/Mr. Custer/Ms. Opper – coordinate with PTO & Town IT re: School Building Project page/website.
 - Ms. McAndrews – contact Selectmen/Town Administrator re: Annual or Special Town Meeting construction funds vote.
 - Ms. McAndrews/Mr. Custer – ask MVRHS students to videotape current building condition impact on students.
- Request family/guardians permission for any students appearing in the video.

Appendix C: Documents on File:

- Agenda 2/8/17
- Sign In Sheet 2/8/17
- Tisbury School Education Working Group Visioning Workshop One Notes (14 p.) 1/23/17
- Tisbury School Project Schedule – December 2017 MSBA Board Meeting 2/8/17
- Building Committee Presentation for: Tisbury Elementary School February 8, 2017 (48 p.)

Minutes respectfully submitted by Office On Call/Marni Lipke.



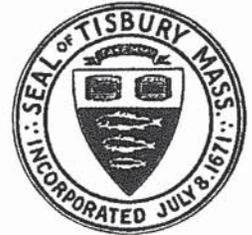
 Chair Colleen McAndrews

Minutes approved as amended for spelling 2/22/17



John Custer
Principal

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Sean Mulvey
Assistant Principal

Tisbury School Building Committee \ Tisbury School Committee
5:00PM, Wednesday, February 22, 2017
Tisbury School Library

1

TSBC Members Present: Chair Colleen McAndrews, Catherine Coogan, John Custer, Cheryl Doble, Jay Grande*, Jeff Kristal, Melinda Loberg*, Reade Milne, Siobhan Mullin, Erika Mulvey, Sean Mulvey, Dan Seidman,

TSC Members Present: Chair Amy Houghton, Colleen McAndrews,

Others: Joe Sullivan – Daedalus Projects,
Teresa Poulin, Peter Turowski – Turowski2
Jynell Kristal – Tis. FinCom
Marni Lipke – Recorder

* Late Arrivals or early departures.

The Tisbury School Building Committee (TSBC) and the Tisbury School Committee meetings were called to order at 5:06PM.

I. Approval of the Minutes of February 8, 2016

• ON A MOTION DULY MADE BY MS. AMY HOUGHTON AND SECONDED BY MR. DAN SEIDMAN THE MINUTES OF THE FEBRUARY 8, 2017 TISBURY SCHOOL BUILDING COMMITTEE MEETING WERE UNANIMOUSLY APPROVED AS AMENDED FOR SPELLING, WITH ABSTENTIONS AS ABSENT.

II. Feasibility Study

The team and School were moving steadily through the Massachusetts School Building Authority (MSBA) process.

- Project location (a critical issue) should be narrowed down by March 28th. Site testing was in process and some hand-drawn site plans to-scale should be ready for the March 8th meeting. Lawyers were looking into Article 97 (conservation) restrictions on the Tashmoo site and Oak Bluffs jurisdiction overlap on the Manter site.

- Individual preliminary visioning sessions on programming were being translated into space needs. So far plans tended to be 4,500 sq. ft. greater than MSBA standards for schools of this size. It would be important to advocate and justify class size at two sections per grade otherwise the cost differential would not be MSBA reimbursable. The MSBA allowed for growth. Design determined enrollment was at 285 and projected to

be stable or drop slightly, contrary to New England School Development Council (NESDEC) projections—which was found to be inaccurate leading to over-built schools.

III. Town Meeting Presentation

TSC Chair Amy Houghton was contacting Town Moderator Deborah Medders about a brief Department report at the start of Annual Town Meeting, to update citizens on the status of the project and the funds voted for project design (see below: Actions).

IV. Communication

A. Website Information

- Daedalus Public Relations specialist Ms. Christina Opper was working closely with the Parent Teacher Organization (PTO) on the launch of the Project website. An email blast was sent out and the Town Information Technology Director will link it to the Town website.
- Ms. McAndrews proposed that the first meeting of each month carry significant agendas for televising on MVTV and the second meeting would comprise housekeeping matters. Transparency was important although it triggered as well as resolved issues. THERE WAS GENERAL CONSENSUS TO REQUEST MVTV TO TELEVISION MEETINGS BASED ON THE SIGNIFICANCE OF THE AGENDA.
- Community input on design and locations would be schedule for late March / April.
- TSBC meetings were tentatively planned for every other week until the end of the school year, after which, depending on progress there might be August meeting, before picking up again in September.
- The next field trip to see new schools would visit Hingham and Williamstown (see below: Meetings/Events & Actions).
- Principal John Custer affirmed that the work on Turowski2 invoice #16-14-01 for \$69,190 was performed. MSBA would reimburse design costs 100%.
- It was agreed that the project should be presented to the Martha's Vineyard Commission (MVC) and/or its Land Use Planning Committee (LUPC) – the Tisbury representatives were Ben Robinson and Clarence "Trip" Barnes.

Adjournment

- **ON A MOTION DULY MADE BY MR. SEIDMAN AND SECONDED BY MS. HOUGHTON THE TISBURY SCHOOL BUILDING COMMITTEE MEETING UNANIMOUSLY ADJOURNED AT 5:32PM.**
- **ON A MOTION DULY MADE BY MS. HOUGHTON AND SECONDED BY MS. MCANDREWS THE TISBURY SCHOOL COMMITTEE MEETING UNANIMOUSLY ADJOURNED AT 5:32PM.**

continued

Appendix A: Meetings/Events:

- TSBC/TSC - 5:00PM, Wednesday, March 8 & 22, 2017 at Tisbury School
- TSC - 8:30AM, Tuesday, March 14, 2017 at the Tisbury School
- New School Field Trips – Monday, March 20, 2017
- TSBC/TSC - 5:00PM, Wednesday, April 5 & 26, 2017 at Tisbury School
- Tisbury ATM/STM – 7:00PM, Tuesday, April 25, 2017 – School Gym
- TSBC/TSC - 5:00PM, Wednesday, May 10 & 24, 2017 at Tisbury School
- TSBC/TSC - 5:00PM, Wednesday, June 14, 2017 at Tisbury School

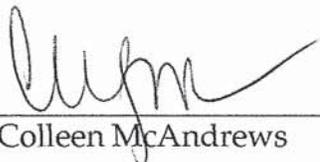
Appendix B: Actions

- **Ms. McAndrews/Daedalus** – prepare tri-fold handout for Town Meeting.
- **Ms. McAndrews/Team** – prepare written summary /slide show on new school visits.
- **Ms. McAndrews** – contact MVC re: new school project presentation.

Appendix C: Documents on File:

- Agenda 2/22/17
- Sign In Sheet 2/22/17

Minutes respectfully submitted by Office On Call /Marni Lipke.



Chair Colleen McAndrews

Minutes approved as amended 3/6/17



John Custer
Principal

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Sean Mulvey
Assistant Principal

Tisbury School Building Committee \ Tisbury School Committee
5:00PM, Wednesday, March 8, 2017
Tisbury School Library

1

TSBC Members Present: Chair Colleen McAndrews, Ian Aitchison, Wiet Bacheller, Catherine Coogan, John Custer, Matt D'Andrea, Sean DeBettencourt, Cheryl Doble, Jay Grande, Melinda Loberg*, Reade Milne, Siobhan Mullin, Erika Mulvey, Sean Mulvey, Richie Smith, Amy Tierney,

TSC Members Present: Colleen McAndrews,

Others: Richard Marks – Daedalus Projects,
Libby Turowski, Peter Turowski – Turowski2 (T2)
Evan Hammond – Horiuchi Solien
Marni Lipke – Recorder

* Late Arrivals or early departures.

The Tisbury School Building Committee (TSBC) meeting was called to order at 5:01PM. Horiuchi Solien landscape architect representative Mr. Evan Hammond was introduced. Chair Colleen McAndrews thanked everyone for their staunch and consistent attendance.

I. Approval of Minutes from Last Meeting (February 22, 2016) (See below: Actions.)

• **ON A MOTION DULY MADE BY MS. SIOBHAN MULLIN AND SECONDED BY MR. MATT D'ANDREA THE MINUTES OF THE FEBRUARY 22, 2017 TISBURY SCHOOL BUILDING COMMITTEE MEETING WERE UNANIMOUSLY APPROVED AS AMENDED, WITH ABSTENTIONS AS ABSENT.**

II. Old Business

A. Space Summary Update (See documents on file.)

- The existing building net square footage was 35,000, and the Massachusetts School Building Authority (MSBA) standard net allowance for a school in this size category (design population 285—see 2/22/17 Minutes p.1-2) was 46,795 sq. ft. However preliminary designs were for net 52,186 sq. ft. over the limit by about 5,000 sq. ft. T2 Architect Mr. Peter Turowski reviewed a breakdown of the differences between proposed and MSBA standard space requirements, which were weighted toward core academic space.
- The TSBC asked about the reduced stage space in the “cafetorium”. Staff and administration had noted that the space was minimally used. Mr. Turowski referred to the Fair Haven School use of such space for other purposes.

- Staff survey and programming analysis results emphasized:
 - neighborhood clustered classrooms with shared access to outdoors and maker space;
 - evenly distributed Special Education break out spaces;
 - distributed administration and guidance space, especially in the lower grades;
 - Spanish/foreign language space accessible to all grades;
 - shared industrial arts (art, technology, science) and media center/graphics lab, especially in the upper grades;
 - accessible administration, health, nurse and dining space;
 - a secure night entrance for after hours and public meetings,
 - equal upper and lower school access to Occupational Therapy (OT) and Physical Therapy (PT) close to the gym.

B. Alternate Sites

Preliminary tests were being run on all three remaining sites (existing, Tashmoo and Manter).

C. Architect Presentation (See documents on file.)

In keeping with the above program goals, Mr. Turowski and Mr. Hammond presented basic preliminary landscape and designs for each project (see documents on file).

- Renovation/addition of the current building (three levels) and site would require minimal grading/earthwork, but would require some changes, stairs and ramps for safe pedestrian access. The project would comprise two main areas, reducing safety. Playing fields would overlap and be limited. The original building would be maintained except for the gym, which would be demolished. There was a 5% reimbursement bonus for renovation. On the other hand students would have to vacate the building during construction incurring unreimbursable temporary relocation costs (see 2/8/17 Minutes p.4); also, Hazardous Material (Hazmat) removal expenses (see 2/8/17 Minutes p.2) were not fully reimbursable.
- A new building on the existing site (two stories) would reduce the saddle to consolidate outside play. The old building would be demolished. Public access would be via Spring St. and most classes would be towards the Williams St. side. The lot was a tight fit due to limited space. The wick system (see 2/8/17 Minutes p. 3 #D) set backs would be taken into account. There was an article on this years Annual Town Meeting warrant to further equip the wicks.
 - Although limited parking would remain a problem for both the current site projects, the advantage of central location reduced the need for bus and parking space.
- The Tashmoo Well site new construction (three stories) was also a tight fit due to well set backs and the topography of the lot. However it was surrounded by impressive Town owned resources; the amphitheater, historic fields and the Spring St. building. Well setbacks prohibited septic installation within 400 ft. but might allow paving. Existing access was a raw road that would have to be improved. Town Counsel had evaluated conservation restrictions and endorsed the site for the Water Dept. office/garage construction—also an article at the April ATM. Deliveries could be separated from parent drop-off and there was more room for parking.
- The Manter site was by far the largest, flattest and most flexible site with the most options for school (two stories) (and Town) facilities expansion, but it was also the most remote. There was more space for parking as well as for playing fields (available for community use) and it abutted hiking trails and natural spaces. The site would incur unreimbursable expenses for road and utility development. Oak Bluffs Town Hall

seemed cooperative regarding right of way over the piece of Oak Bluffs land.

The next phase of the design would look at solar orientation. Rough price estimates would be presented at the TSBC next meeting (see below: Meetings/Events) and submitted to the MSBA March 28th.

IV. Meeting Schedule (See below: Appendix A Meetings/Events.)

- The MSBA always asked for Town input and dates were discussed for community workshops with initial televised presentations, 10:00AM and 7:00PM either Monday April 3rd or Wednesday, April 5th.
- The next field trip would be to the new Williamstown and New Hingham schools.
- The Martha's Vineyard Commission (MVC) had been contacted but had not yet responded (see 2/22/17 Minutes p.2).

III. Invoices - None

Thanks went to Reade Milne for her excellent photos included in this presentation (see documents on file).

- The Carr Elementary School was built as a swing school to house students whose buildings were being renovated and then would it would be the Horace Mann School. It was a similar 45,000 sq. ft. school renovation and small addition. Ceiling, window and floor features of the old 1930's building were restored.
- The Wood School, housing 470 students in a building designed for 390, was inexpensively constructed with a long corridor broken out with bright spaces, artwork and natural light from big windows.
- The 400 student, three story Hannigan School on 1.6 acres was on an aggressive 14 month construction schedule to open in September 2017. It was very connected to an active community—an early opportunity to expand the site was missed. The play space was intense and impressive, the \$37 million project was 80% MSBA reimbursed.
- The visiting team took particular note of a number of features:
 - bubble windows,
 - rocking chairs
 - cafeteria booths,
 - good storage,
 - bathrooms with no entrance doors (like in airports),
 - huge welcoming entrance spaces,
 - see through cafeteria windows giving spacious, airy impression,
 - student decorated tile walls.
- Feedback from staff included: not centralizing the library desk which interfered with using the room as a large meeting space, and making sure cafeteria doors allowed sufficient traffic flow.

Adjournment

• ON A MOTION DULY MADE BY MS. ERIKA MULVEY AND SECONDED BY WIET BACHELLER THE TISBURY SCHOOL BUILDING COMMITTEE MEETING UNANIMOUSLY ADJOURNED AT 6:05PM.

continued >

Appendix A: Meetings/Events:

- TSC - 8:30AM, Tuesday, March 14, 2017 at the Tisbury School
- New School Field Trips - 6:00AM Ferry, Monday, March 20, 2017
- **TSBC/TSC - 5:00PM, Wednesday, March 22, 2017 at Tisbury School**
- Community Input Workshops - 10:15AM & 7:00PM, Monday, April 3, 2017 - EMS
- TSC - 8:30AM, Tuesday, April 11, 2017 at the Tisbury School
- **TSBC/TSC - 5:00PM, Wednesday, April 12 & 26, 2017 at Tisbury School**
- Tisbury ATM/STM - 7:00PM, Tuesday, April 25, 2017 - School Gym
- **TSBC/TSC - 5:00PM, Wednesday, May 10 & 24, 2017 at Tisbury School**
- Tisbury School Graduation - 5:00PM, Wednesday, June 14, 2017 - School Gym
- **TSBC/TSC - 5:00PM, Wednesday, June 6 &/or 21, 2017 at Tisbury School**

Appendix B: Actions

- **Ms. McAndrews/Daedalus** - decide and publicize community workshop dates.
- **Ms. Lipke** - print a set of Minutes with signature line

Appendix C: Documents on File:

- Agenda 3/8/17
- Sign In Sheet 3/8/17
- Building Committee Presentation for: Tisbury Elementary School March 8, 2017 (31 p.)
- School Visits 1/18/17 Carr Elementary (Newtonville), Leroy Wood Elementary School (Fairhaven), Hannigan School Site (New Bedford) (7 p.)

Minutes respectfully submitted by Office On Call/Marni Lipke.

Chair Colleen McAndrews

Minutes approved as amended 3/22/17

DRAFT

**Tisbury School Building Committee \ Tisbury School Committee
5:00PM, Wednesday, March 22, 2017
Tisbury School Library**

1

TSBC Members Present: Chair Colleen McAndrews, Ian Aitchison, Wiet Bacheller, John Custer, Matt D'Andrea, Sean DeBettencourt, Cheryl Doble, Jay Grande, Reade Milne, Siobhan Mullin, Erika Mulvey, Sean Mulvey, Amy Tierney

TSC Members Present: Chair - Amy Houghton, Colleen McAndrews

Others: Christina Opper, Joe Sullivan – Daedalus Projects
Libby Turowski, Peter Turowski – Turowski2 (T2)
Evan Hammond – Horiuchi Solien
Clarence “Trip” Barnes – MVC
Cameron Machell – MV Times
Marni Lipke – Recorder

* Late Arrivals or early departures.

The Tisbury School Building Committee (TSBC) and the Tisbury School Committee meetings were called to order at 5:15PM. Chair Colleen McAndrews introduced Mr. Trip Barnes the Tisbury representative to the Martha's Vineyard Commission (MVC) and Ms. Cameron Machell from the Martha's Vineyard Times.

• The TSBC gathered at 4:30PM for a field trip to the Tashmoo and Manter alternate sites before convening at this meeting.

Tisbury School Committee Agenda

I. School Choice

• **ON A MOTION DULY MADE BY MS. COLLEEN MCANDREWS AND SECONDED BY MS. AMY HOUGHTON THE TISBURY SCHOOL COMMITTEE UNANIMOUSLY VOTED TO REMAIN A KINDERGARTEN THROUGH EIGHTH GRADE SCHOOL OF CHOICE FOR THE 2017-2018 ACADEMIC SCHOOL YEAR; 2 AYES, 0 NAYS, 0 ABSTENTIONS.**

Tisbury School Building Committee Agenda

I. Approval of Minutes of March 8, 2016

• **ON A MOTION DULY MADE BY MS. HOUGHTON AND SECONDED BY MS. AMY TIERNEY THE MINUTES OF THE MARCH 8, 2017 TISBURY SCHOOL BUILDING COMMITTEE MEETING WERE APPROVED AS AMENDED, WITH ABSTENTIONS AS ABSENT.**

II. Old Business

A. Space Summary Update (See documents on file.)

A re-examination of the net square footage showed the Massachusetts School Building Authority (MSBA) standard net allowance for a school this size at 47,294 sq. ft., while the preliminary designs were for net 52,935 sq. ft. (see 3/8/17 Minutes p.1 #II A).

C. Architect Presentation (See documents on file & below: Actions.)

- The MSBA required a series of estimates, including during the design/construction phase, so that re-design or cuts could be instituted if necessary.
- This preliminary set of estimates were “order of magnitude” and included contingency rates as follows:
 - 6% renovation, 5% new construction (which probably would not be spent down);
 - 12% for design (to be absorbed into the project).
- The MSBA reimbursement rate of 41¢ on the \$1, was substantially moderated by a number of factors to about 30+%:
 - site costs capped at 8%;
 - incentives (renovation, energy efficiency, etc.—see below: Actions);
 - non-reimbursable or partially reimbursable components (modular classrooms, infrastructure, non-standard spaces, etc.).
- Although MSBA required an estimate, base repair was not a realistic option. Students would move to modulars while the existing building was renovated (total project: \$19,830,000 at \$366/sq. ft., grant: \$6,170,000).
- Addition/renovation would also require modular classrooms (~\$1,000,000) but for a longer construction period (total project: \$48,110,000 at \$598/sq. ft., grant: \$14,975,000).
- During new construction on the current site, students could remain in the old building for core academics (the gym would be demolished); and then move into the new building while the old one was demolished and site work completed (total project \$47,920,000 at \$603/sq. ft., grant: \$15,080,000).
- The Tashmoo and Manter sites presented simpler construction/landscape logistics (but would entail other Town owned infrastructure costs):
 - (Tashmoo - total project \$44,630,000 at \$562/sq. ft., grant: \$13,560,000)
 - (Manter - total project \$46,360,000 at \$584/sq. ft., grant: \$14,085,000).

B. Alternate Sites

In view of the fast approaching May 18th Preferred Schematic deadline and the imminent March 28th Preliminary Design submission the TSBC considered whether to eliminate the Tashmoo site. Tashmoo disadvantages included:

- new sidewalk construction and safety;
- new location advantages canceled by well and topography restrictions;
- three story structure altering Town aesthetics;
- politics, timing and responsibility in negotiations with Tisbury Water Works re: construction project vote at Town Meeting (see 2/8/17 Minutes p.2 #D).
- It was better to present three site choices at the Community Input Workshop, on the other hand too many choices could split the Town.
- Tisbury was careful with its funding and might hesitate over additional infrastructure costs (e.g. road improvement) for both the Manter and Tashmoo sites.
- The project would probably go before the MVC once the site was chosen.
- The Manter Site was the most flexible for school design and growth. The existing site (and Tashmoo) also had advantages.
- Other cases where schools moved to remoter locations were explored. Although not a in TSBC purview, there was a brief discussion on other uses of the current building; but Edgartown eventually demolished its much loved old school as too costly to renovate.

- The TSBC speculated about Community Input Workshops attendance levels. Mr. Turowski suggested that specific subcommittees (fields, sustainability, etc.) be formed to increase community participation throughout the project.
- The decision to narrow the site options was scheduled for the April 12, 2017 agenda—after Community Input Workshops and two weeks before Town Meeting.

D. School Site Visits (See documents on file.)

The second trip to other new schools was very productive. The team was impressed with the beautiful buildings and materials, and noticed the excellent condition of 15 and 20 year old schools that looked modern and new. Some had so much natural light that teachers didn't need to use classroom lights. The most consistent feedback was **need** for more flex space.

III. Communications

A technology glitch prevented this meeting from being videoed for MVTV.

A. Community Workshops

The workshops would be widely advertised (see below: Actions). T2 would give a brief presentation. Participants would then break into small groups and return to the wider forum with comments.

- The MV Times ad would be black and white; the flyer in color.

B. Board of Selectmen Presentation – pending scheduling.

C. Town Presentation

The Town Moderator agreed to a brief report at Annual Town Meeting.

IV. MSBA March Submission

• ON A MOTION DULY MADE BY MR. JOHN CUSTER AND SECONDED BY MS. HOUGHTON THE TISBURY SCHOOL BUILDING COMMITTEE UNANIMOUSLY APPROVED THE SUBMISSION OF ALL REQUIRED DOCUMENTS OF THE PRELIMINARY DESIGN PROGRAM TO THE MASSACHUSETTS SCHOOL BUILDING AUTHORITY ON MARCH 28, 2017.

III. Invoices

MR. CUSTER AFFIRMED:

- THE WORK OUTLINED ON THE FEBRUARY 28, 2017 DAEDALUS INVOICE; AND
- THE SCHOOL SITE VISITS TRAVEL EXPENSE DATED MARCH 21, 2017.

Adjournment

- **ON A MOTION DULY MADE BY MR. SEAN DE BETTENCOURT AND SECONDED BY MS. HOUGHTON THE TISBURY SCHOOL BUILDING COMMITTEE MEETING UNANIMOUSLY ADJOURNED AT 6:29PM.**
- **ON A MOTION DULY MADE BY MS. MCANDREWS AND SECONDED BY MS. HOUGHTON THE TISBURY SCHOOL COMMITTEE MEETING UNANIMOUSLY ADJOURNED AT 6:29PM.**

continued >

Appendix A: Meetings/Events:

- MSBA Preliminary Design – March 28, 2017
- Bd. of Selectmen Meeting – 4:00PM, Tuesday, March 28, 2017 at the KCT
- Community Input Workshops – 10:15AM & 7:00PM, Monday, April 3, 2017 at EMS
- TSC - 8:30AM, Tuesday, April 11, 2017 at the Tisbury School
- **TSBC/TSC - 5:00PM, Wednesday, April 12 & 26, 2017 at Tisbury School**
- Tisbury ATM/STM – 7:00PM, Tuesday, April 25, 2017 – School Gym
- **TSBC/TSC - 5:00PM, Wednesday, May 10 & 24, 2017 at Tisbury School**
- MSBA Preferred Schematic – May 18, 2017
- Tisbury School Graduation – 5:00PM, Wednesday, June 14, 2017 in the School Gym
- **TSBC/TSC - 5:00PM, Wednesday, June 6 &/or 21, 2017 at Tisbury School**

Appendix B: Actions

- **Ms. McAndrews** - send MSBA Incentives checklist to TSBC members.
- **Mr. Custer/Ms. Houghton** – post Community Workshops as TSC/TSBC meetings.
- **All** - publicize and attend Community Input Workshops
- **All** - review evaluation categories for next MSBA presentation
- **Community Workshop publicity** - MVTV, MV Times, Websites, Visioning, Tank Talk, WMVY – Laura Reddington, Sr. Center, Cronigs, Town Hall, Library, PTO, SAC, Bd. of Selectmen Announcement...
- email flyer to all TSBC members.
- **Ms. Lipke** - send 3/8/17 Final and 3/22/17 Draft minutes ASAP.
- **T2/Daedalus** – per sq. ft. estimate of renovating current building for Town use.

Appendix C: Documents on File:

- Agenda 3/22/17
- Sign In Sheet 3/22/17
- Building Committee Presentation for: Tisbury Elementary School March 22, 2017 (42 p.)
- Tisbury School Preliminary Design Program Submission for the Massachusetts School Building Authority March 22, 2017 (5 p.)

Minutes respectfully submitted by Office On Call/Marni Lipke.