

FACILITY ASSESSMENT AND RENOVATION

Mary P. Hinsdale School
15 Hinsdale Avenue
Winchester, Connecticut

April 6, 2019

Presented by: Silver Petrucelli & Associates, Inc.



Introduction

The Hinsdale Renovation Committee was formed after an extensive review of pros & cons of the two elementary schools; Hinsdale and Batcheller Schools, by the Board of Education.

The Hinsdale School Building Committee is composed of Community Citizens, Board of Education personnel and Ad Hoc town leaders.

The Building Committee members were selected by the Mayor and Board of Selectmen.

Introduction

Working with the Architectural and Engineering firm, Silver Petrucelli & Associates, to develop a project communication process to attain the best possible state reimbursement support for said plan and to assist in various community communication meetings.

Conduct communication meetings, to ensure everyone has a complete understanding of the project parameters and costs, the schools future educational program needs and addressing critical inputs prior to bringing forth a referendum to approve the overall project.

Introduction

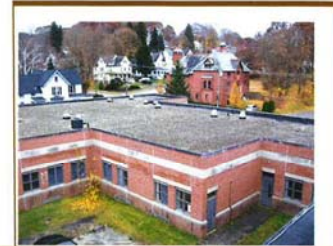
Today, our Committee is here to inform our citizens of the proposed project, its projected costs and timelines. It is our goal today to solicit your feedback, answer questions and concerns and attain your support for this project. Our committee fully supports bringing this project forward to referendum and views this as an absolute requirement to help our town lay the foundation for our children's future and the future economic development of our town.

Existing Site



Schematic Design Report

March 20, 2019



TOWN OF WINCHESTER
Mary P. Hinsdale School
15 Hinsdale Avenue

SCHEMATIC DESIGN REPORT - FINAL
March 20, 2019

Silver Petrucci & Associates, Inc.
Architects / Engineers / Interior Designers

3190 Whitney Avenue
Hamden CT 06518

One Post Hill Place
New London CT 06320

203-230-9007
silverpetrucci.com



Code Standards

Current Connecticut State Building Codes

Effective October 1, 2018

2018 Connecticut State Building Code

2018 Connecticut State Fire Safety Code

2018 Connecticut State Fire Prevention Code

2015 International Building Code (Including CT Amendments)

2015 International Existing Building Code (Including CT Amendments)

2015 International Mechanical Code (Including CT Amendments)

2015 International Plumbing Code (Including CT Amendments)

2015 International Energy Conservation Code (Including CT Amendments)

2017 National Electrical Code (NFPA 70)

2009 ICC/ANSI A117.1 Accessible and Usable Buildings and Facilities

2010 Americans with Disabilities Act

- Title I Employment

- Title III Public Accommodations

SMACNA – IAQ Guidelines for Occupied Buildings Under Construction

PA 07-242 & PA 07-249 (Portions of these Public Acts that deal with sustainable design)

Title 29, Chapter 538 – Elevators, Escalators and Lifts

Title 29, Chapter 540 - Boilers and Water Heaters

Title 29, Chapter 541 – Building, Fire and Demolition Codes. Fire Marshals and Fire Hazards.

Safety of Public and Other Structures.

Assessment & Design Concepts

Facility Assessment

Civil

Architecture

Mechanical

Plumbing / Fire Protection

Electrical

Programming & Design Concept Plans

Estimate

CIVIL

SITE CONDITIONS AND UTILITY SYSTEMS

- Drainage
- Flooding
- Paving & Curbing
- Utilities
- Accessibility
- Circulation
- Recreation & Play Areas



Facility Existing Conditions Analysis

Hinsdale School			
FACILITY EXISTING CONDITIONS ANALYSIS			
TAG NO.	ASSESSMENT	SYSTEM/ CODE REFERENCE	CORRECTIVE ACTION
SITE CONDITIONS			
S1	Watercourse runs under the school and can flood the site and building in a severe storm event.	Civil	Remove two story original portion of building to restore open watercourse and eliminate site and building flooding. Minor relocation of the domestic water and fire sprinkler services are required in conjunction with the abandonment of the existing subterranean boiler
S2	Lack of existing parking and loss of parking with proposed building addition.	ADA	Construct new, on-site parking area to off-set parking spaces lost by building addition. The work also includes construction of a small stormwater management area to mitigate increase in stormwater runoff
S3	New 5-12 year old play structure and surface, and new PK-K play structure and surface		New play structure is required due to removal of existing play structure in order to construct on-site parking. New PK-K playground required in the Ed. Spec.
S4	Paving, curbing and plaza are in poor condition and do not meet accessibility requirements.	ADA	Replace sidewalks, paving and curbs and redo pedestrian transitions as needed.
S5	Parking lot and overall site drainage is poor. Sheet flow and icy conditions are common.		Some minor drainage relocations, new drainage structures and drainage connections are required by renovations and the proposed building expansion.
S6	Existing bollards, signs, fencing and misc. items are in poor condition		Site improvements recommended for misc. items noted.

ARCHITECTURAL

EXISTING EXTERIOR CONDITIONS

Roof Replacement

Window Condition

Door Accessibility

Masonry Repairs

Main Entrance Upgrades

Limited Removal & Addition



Facility Existing Conditions Analysis

Hinsdale School			
FACILITY EXISTING CONDITIONS ANALYSIS			
TAG NO.	ASSESSMENT	SYSTEM/ CODE REFERENCE	CORRECTIVE ACTION
ARCHITECTURAL - EXTERIOR CONDITIONS			
A1	Minor brick repair/replacement and some mortar is in need of repointing. Significant mildew and staining on brick/masonry surfaces. Deteriorated sealant joints.	General	Patch, repair, or replace brick and repoint. Power wash as necessary. Minor concrete repair as needed. Prime and paint steel lintels as applicable. Clean mildew and staining on brick/masonry surfaces. Replacement of all sealant joints.
A2	Door thresholds or concrete pads have a greater than 1/2" transition to grade. Steps at many doors.	ANSI 117 (ADA)	Provide ramp or re-pave to allow for 1/2" maximum vertical transition.
A3	Windows and glazing date from 1988 addition and are in fair to poor condition, with some broken windows.		Window and glazing system lifespan is generally considered 30-40 years. Window replacement recommended with safety glass and new screens. Energy savings benefit.
A4	Roofs are nearing the end of their useful life		Full roof replacement is recommended.
A5	Exterior soffit cracks and poor overall condition		Repair and replace sections as needed.
A6	Exterior doors rusting and sticking		Exterior door replacement recommended
A7	HVAC louver vents abandoned, not required		Infill of low, former HVAC louver vents to match adjacent brick

ARCHITECTURAL

EXISTING INTERIOR CONDITIONS

Door Clearances & Hardware

Bathroom ADA Accessibility

Upgrade Finishes: painting, ceilings & floors

New Casework / Cabinetry

Current Moisture Issues

New Kitchen, Multi-Purpose Room & Addition Classrooms



Facility Existing Conditions Analysis

Hinsdale School			
FACILITY EXISTING CONDITIONS ANALYSIS			
TAG NO.	ASSESSMENT	SYSTEM/ CODE REFERENCE	CORRECTIVE ACTION
ARCHITECTURAL - INTERIOR CONDITIONS			
A8	Many door push and/or pull maneuvering clearances do not meet code. Includes conditions where the jamb thickness is larger than 8" beyond face of door.	413.6 (ADA) 1101.2 (IBC) ANSI 117.1	Where obstruction is not furniture related, modify door swing and/or location to comply. Where the previous is not easily achieved, supply push button door operator where required.
A9	The required toilet grab bars are not installed. Sinks do not meet accessibility requirements.	(B)1108.0 (ANSI A117.1) 603-606	Install code required grab bars. Replace toilet and sink fixtures.
A10	Cabinetry is in poor condition. Required accessible work spaces and sinks do not exist in original cabinetry. Full cabinet replacement recommended.		Full cabinet replacement recommended.
A11	Some door hardware is not accessible. Knob handles require grasping and twisting.	4.13.9 (ADA) 404.2.6 (ANSI 117.1)	Remove door locksets and install new accessible lever handle locksets where designated.
A12	Handicap signage at doors is missing and does not comply with current code.		Provide new signage around building.
A13	Existing kitchen prep area does not meet accessibility requirements and clearances		New kitchen provided in design
A14	Finish flooring in fair to poor condition		Replace flooring to refresh spaces
A15	Sagging ceilings		Replace ceilings to refresh spaces
A16	Interior painted surfaces old and dull		Repaint rooms to refresh spaces

MECHANICAL

EXISTING CONDITIONS

New HVAC System

New Kitchen Exhaust Fan



Facility Existing Conditions Analysis

Hinsdale School			
FACILITY EXISTING CONDITIONS ANALYSIS			
TAG NO.	ASSESSMENT	SYSTEM/ CODE REFERENCE	CORRECTIVE ACTION
MECHANICAL SYSTEMS			
M1	Existing kitchen hood, ventilation system has outlived its useful life expectancy and might not meet the latest code requirements.		If the building is repurposed and the intent is to keep the kitchen operational we strongly recommend replacing the entire ventilation system. Provide new exhaust hood, makeup air unit and UL762 compliant fan.
M2	The existing boilers are over 30 years and are past their useful life. The lower boiler room is below grade and adjacent to the underground stream. The stream has flooded and subsequently has flooded the adjacent boiler room.		Recommend that the boilers be removed and the lower boiler room be re-purposed as another room.
M3	Baseboard fin tube radiation should be removed.		The new system will consist of gas fired RTU's with energy wheels and fan powered VAV boxes that are more efficient and more effective. The new system will provide Heating, Ventilation and Air Conditioning.
M4	Building exhaust fans have outlived their useful life expectancy.		Replace with replacement fans that are properly sized and code compliant during renovations.
M5	Building management system has outlived its useful life expectancy and it is dated.		Replace system if a major project is undertaken to replace the building's HVAC systems with a modern and expandable system to monitor and control the school.

PLUMBING

EXISTING CONDITIONS

Relocate Domestic Water Service

New Water Heaters

Bathroom Fixtures

New ADA Bathrooms

Roof Drainage

New Gas Service



Facility Existing Conditions Analysis

Hinsdale School			
FACILITY EXISTING CONDITIONS ANALYSIS			
TAG NO.	ASSESSMENT	SYSTEM/ CODE REFERENCE	CORRECTIVE ACTION
PLUMBING			
P1	Boiler room, Below flood plain	2015 IBC / 2015 IPC	Relocate all equipment, water heaters, water meters, pumps, etc. above the anticipated flood level elevation
P2	Water heater #1's thermostatic mixing valve not compliant	2015 IPC	System will require a new NSF 61 compliant 1017 Thermostatic Mixing Valve (TMV)
P3	Water heater #2 Pump and Thermostatic Mixing Valve not compliant	2015 IPC	Recirculation pump is in poor operating condition and was observed leaking, replacement is recommended immediately. Currently the system is not provided with a thermostatic mixing valve, Provide a new NSF 61 compliant 1017 TMV
P4	Plumbing Fixtures, Urinals not compliant	2015 IPC	Existing floor mounted urinals shall be replaced with wall hung type with partitions.
P5	Plumbing Fixtures, General	2015 IPC	Some bathrooms are provided with non-ADA compliant wash stations, these should be replaced. All lavatories shall be provided with ADA compliant insulation on drain and supply lines and shall have 1070 thermostatic mixing valves.
P6	Roof drainage, Overflow provisions not observed in all locations	2015 IPC	Means of secondary roof drainage should be provided per code to ensure the roof's structural integrity is intact in the event of excessive ponding or water accumulation caused by primary drain obstructions

FIRE PROTECTION

EXISTING CONDITIONS

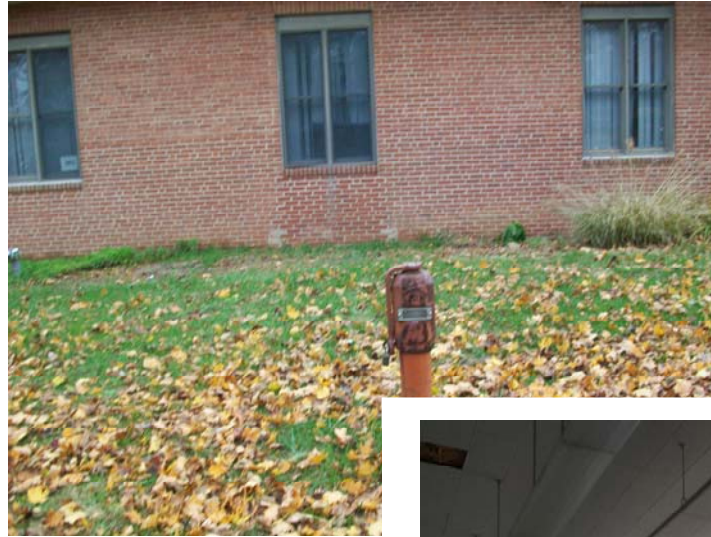
Sprinkler System:

Attic / Above Ceiling Areas

Renovated Spaces Reworked

New Service Entrance / Room

Addition Coverage



Facility Existing Conditions Analysis

Hinsdale School			
FACILITY EXISTING CONDITIONS ANALYSIS			
TAG NO.	ASSESSMENT	SYSTEM/ CODE REFERENCE	CORRECTIVE ACTION
FIRE PROTECTION			
FP1	Building is not currently fully protected with a sprinkler system (no protection in combustible attics)	NFPA 13	Provide sprinkler system for combustible attics to achieve fully sprinklered building per NFPA 13
FP2	Modify basement service entrance to be above floodplain	General	Reroute fire service and provide new backflow preventer and wet/dry system risers in new 1st Floor Sprinkler Room
FP3	Reconfiguring of existing spaces	General	Modify sprinkler layout as needed in renovated, reconfigured rooms and provide full sprinkler coverage in addition.

ELECTRICAL

EXISTING CONDITIONS

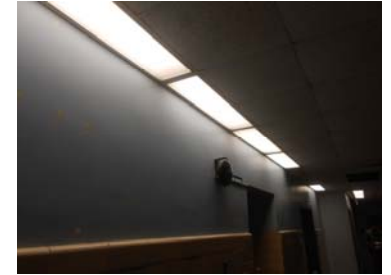
New Electrical Service

Interior Emergency Lighting

New PA System

Emergency Lights

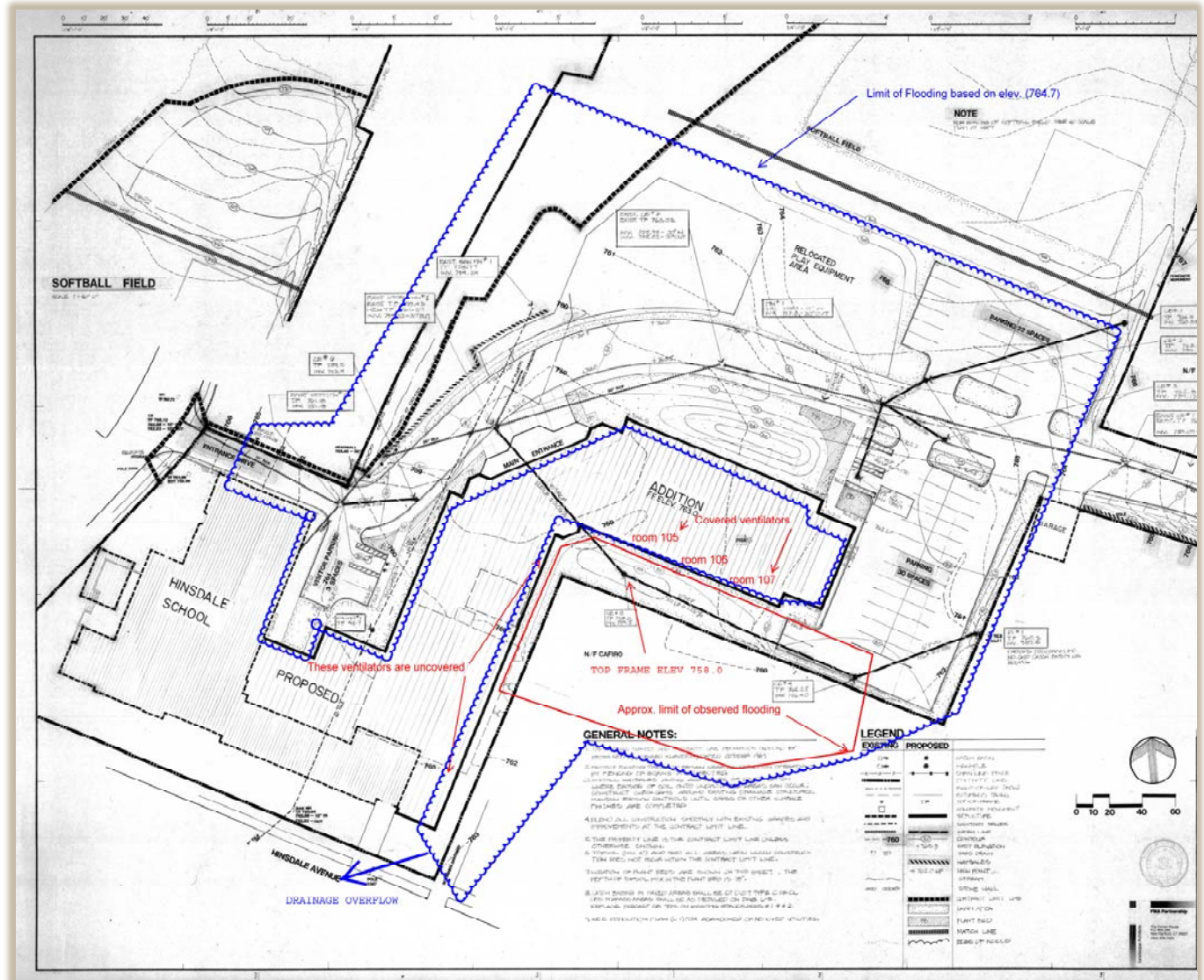
Emergency Generator



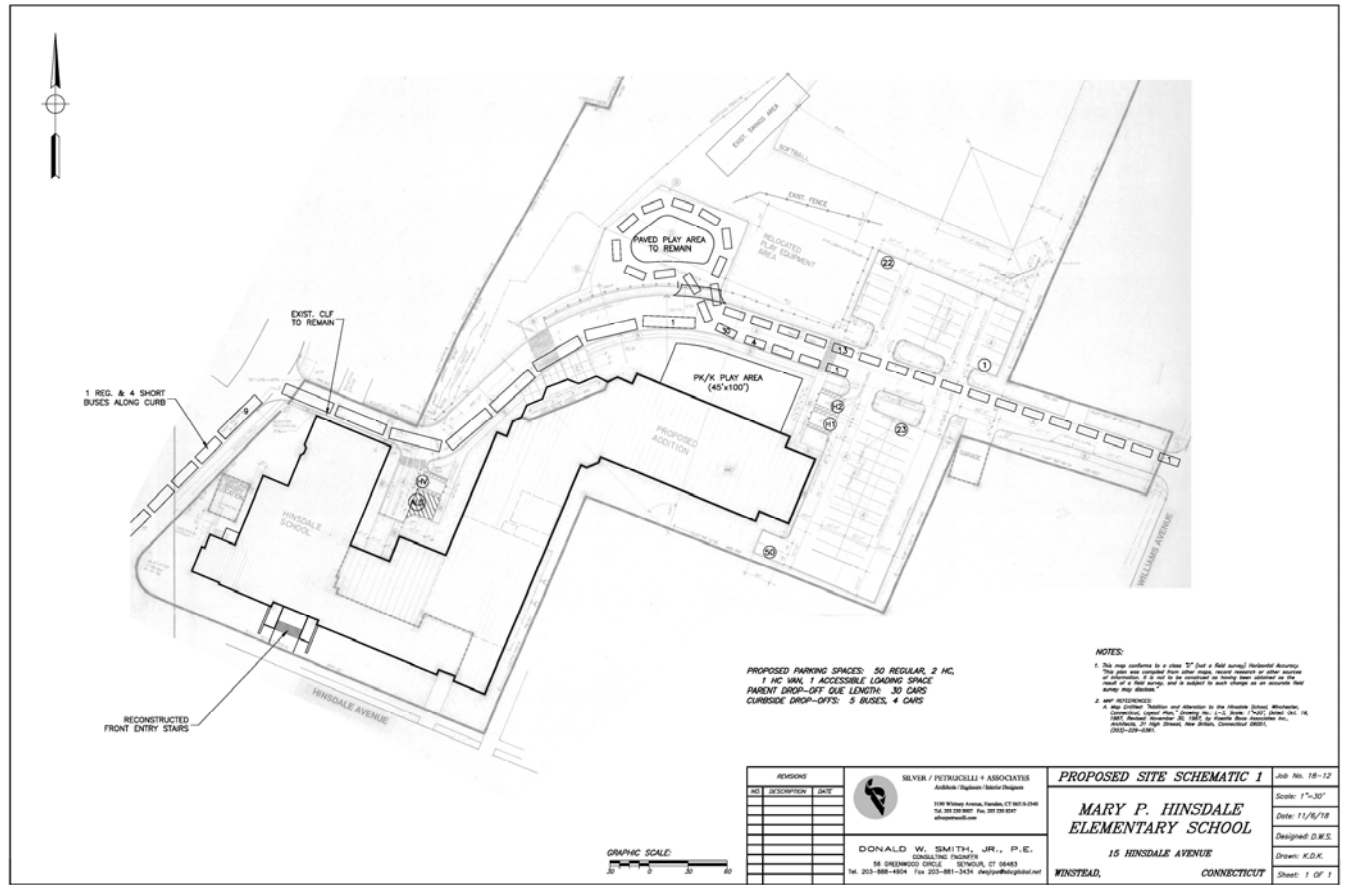
Facility Existing Conditions Analysis

Hinsdale School			
FACILITY EXISTING CONDITIONS ANALYSIS			
TAG NO.	ASSESSMENT	SYSTEM/ CODE REFERENCE	CORRECTIVE ACTION
ELECTRICAL SYSTEMS			
E1	The existing Fire Alarm System does not meet the current code requirements.		Testing & certification is required before opening the building. Additional devices will be needed in areas lacking coverage and in the new addition.
E2	Currently the emergency lighting is provided by single point products.		Most lights were outdated and a large amount were broken and inoperable. All units will be replaced with new.
E3	Existing fluorescent lighting will not meet current codes (30% reduction (by level lighting = 50% plug load control.		Existing building light fixtures are being replaced by Eversource Energy with new energy efficient LED fixtures. New LED fixtures will be provided in the new addition. Add control panels to convenient power receptacles in all classrooms
E4	Exterior Building lighting - will not meet current codes		All exterior building lighting will be removed and replaced with exterior LED products.
E5	Exterior emergency lighting - path of egress illumination		All exterior emergency lighting will be removed and replaced with LED emergency lights to meet current code.
E6	Emergency generator		The building currently has no generator. A new 200KW natural gas powered, 208/120V, 3ph, 4w generator and 800A transfer switch will be provided.
E7	Main electrical service will need to be moved to the Main Level from the Basement.		All new electrical service equipment and panels will be provided.

Flood Plain

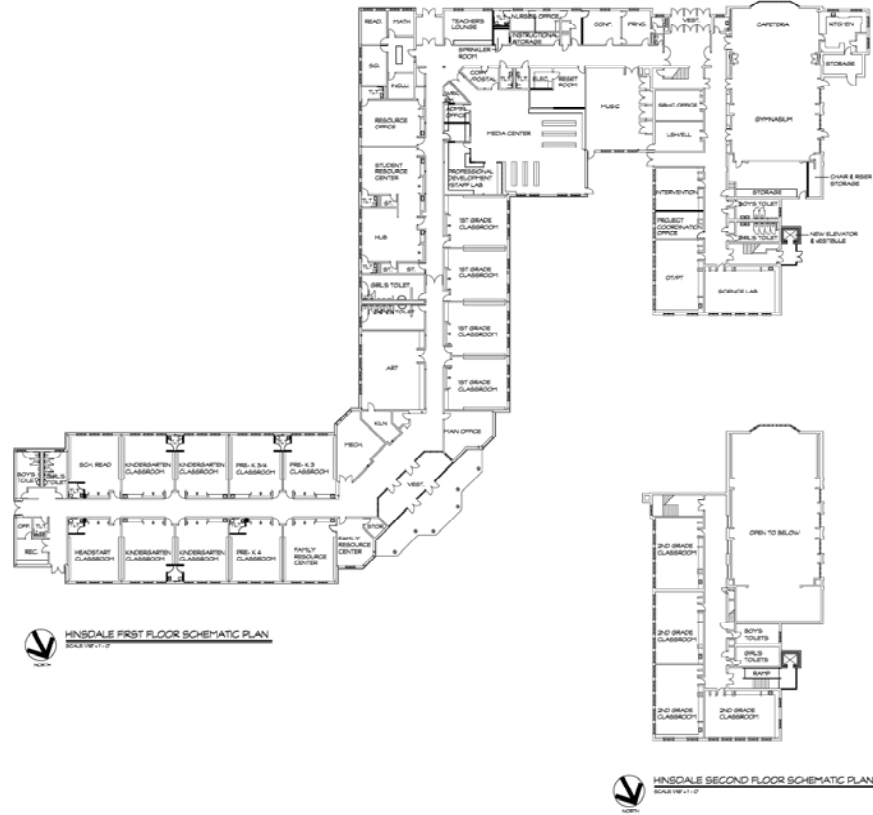


Proposed Site Schematic 1



Overall Schematic Floor Plan

SD1



Project: Hinsdale Elementary School

SILVER / PETRUCELLI + ASSOCIATES
Architects / Engineers / Interior Designers
3190 Whitney Avenue, Hamden, CT 06518-2340
Tel: 203.239.8900 Fax: 203.239.8200

Overall Schematic Floor Plans

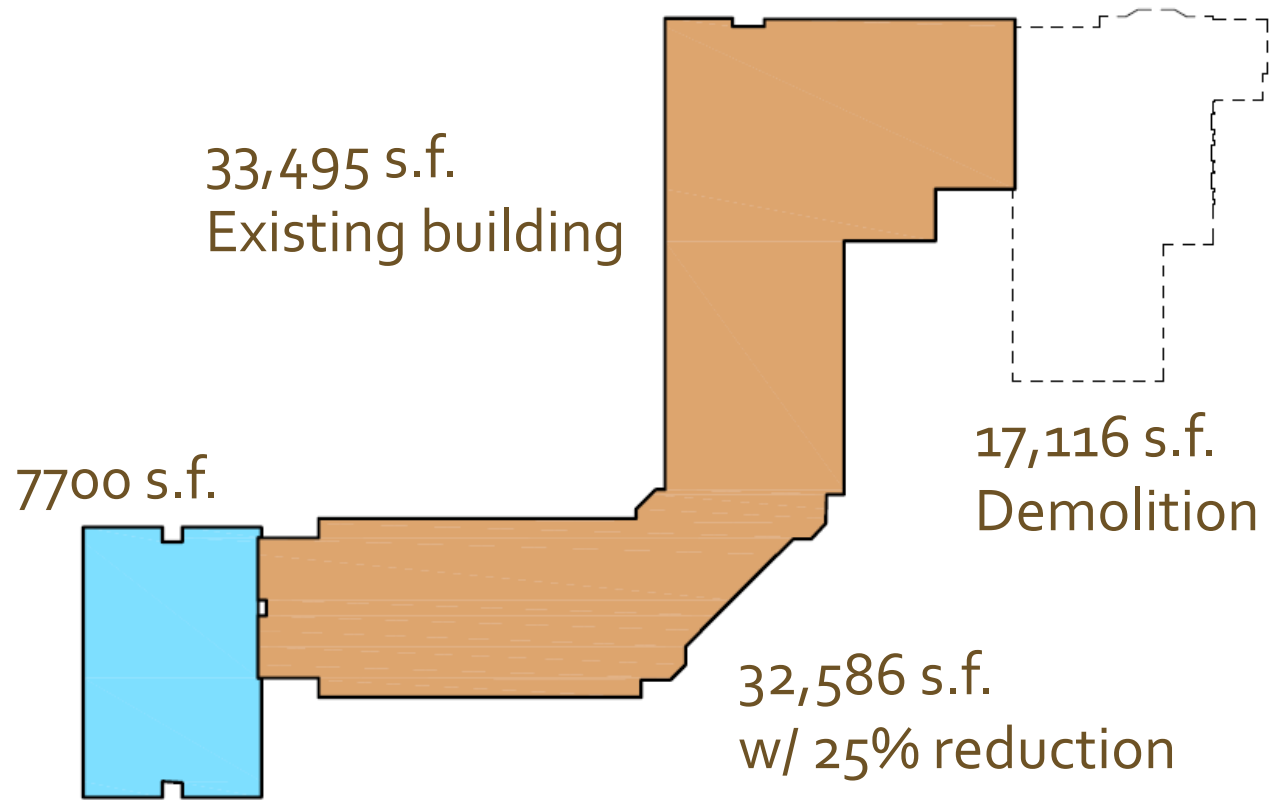
SD1

2020 Enrollment Projections

February 7, 2019

2020 Enrollment Projection																					
2/7/2019																					
Push Up Model																					
Birth Year	Births	School Year	PreK	*	**	***															
				K	1	2	PK-2	3	4	5	6	PK-6	7	8	9	10	11	12	7-12	K-12	
2007		2012-13	25		100	86	94	305	82	91	92	111	681	88	100	80	72	87	76	503	1184
2008		2013-14	29		117	93	88	327	82	89	99	108	705	96	82	99	86	70	80	513	1218
2009		2014-15	17		82	86	91	276	67	83	70	78	574	91	99	70	87	84	79	510	1084
2010	117	2015-16	13		72	64	75	224	92	71	90	81	558	86	91	96	65	79	78	495	1053
2011	99	2016-17	14		66	73	65	218	75	89	67	87	536	81	85	86	91	59	82	484	1020
2012	125	2017-18	31		69	68	72	240	66	80	84	66	536	83	79	83	84	94	58	481	1017
2013	82	2018-19	35		63	73	65	236	66	65	80	84	531	69	87	64	77	81	94	472	1003
PROJECTION																					
2014	106	2019-20	48		85	63	73	269	65	66	65	80	545	82	69	81	65	76	83	456	1001
2015	74	2020-21	40		60	85	63	247	73	65	66	65	516	78	82	64	83	65	78	450	966
2016	89	2021-22	54		72	60	85	270	63	73	65	66	537	64	78	77	65	82	66	432	969
2017	99	2022-23	54		81	72	60	266	85	63	73	65	552	65	64	73	78	65	83	428	980
2018	79	2023-24	54		65	81	72	272	60	85	63	73	552	64	65	59	74	77	66	405	957
2019	96	2024-25	54		79	65	81	279	72	60	85	63	558	72	64	60	60	74	79	408	966
2020	96	2025-26	54		80	79	65	278	81	72	60	85	575	62	72	59	61	60	75	389	964
2021	96	2026-27	54		80	80	79	293	65	81	72	60	570	83	62	67	60	61	61	394	964

Area Plan
Calculation



40,286 s.f. Total Building

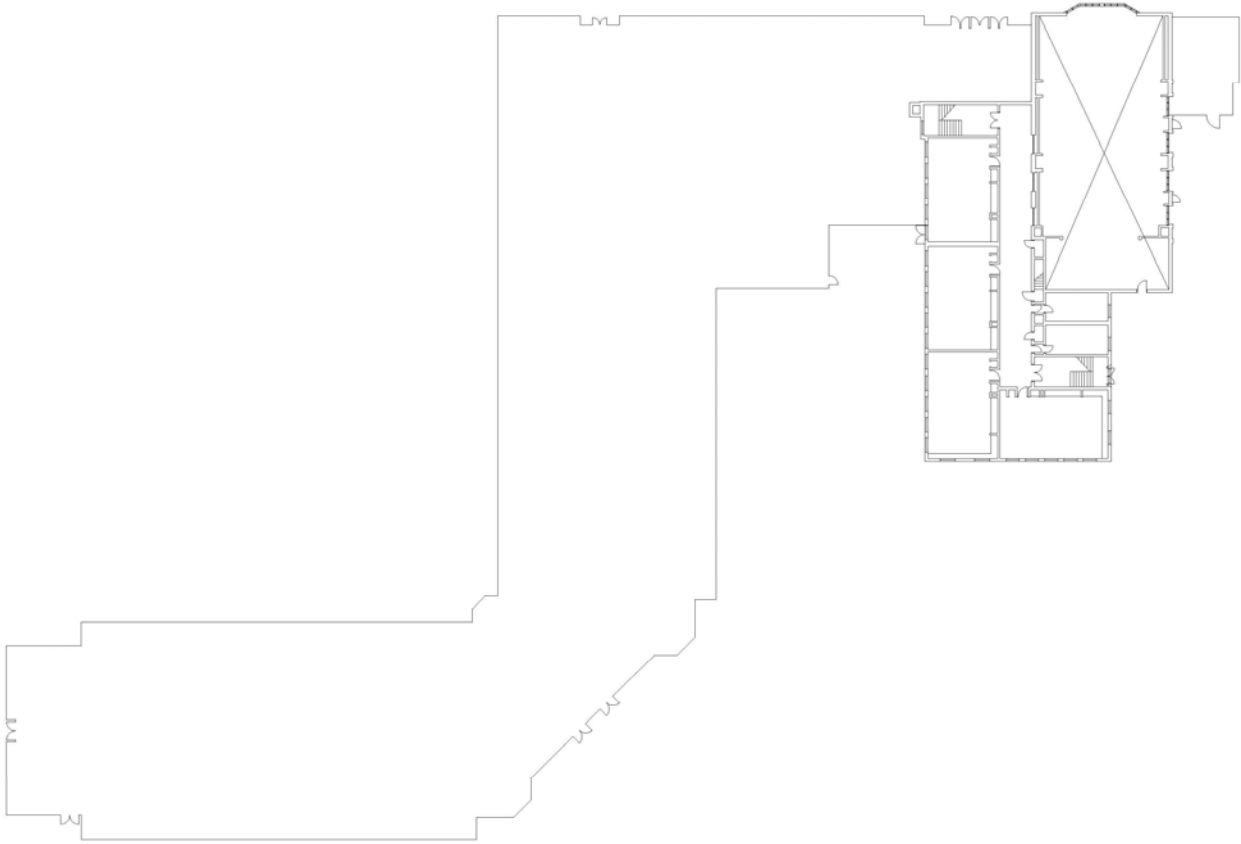
Existing First Floor Plan

EX1a



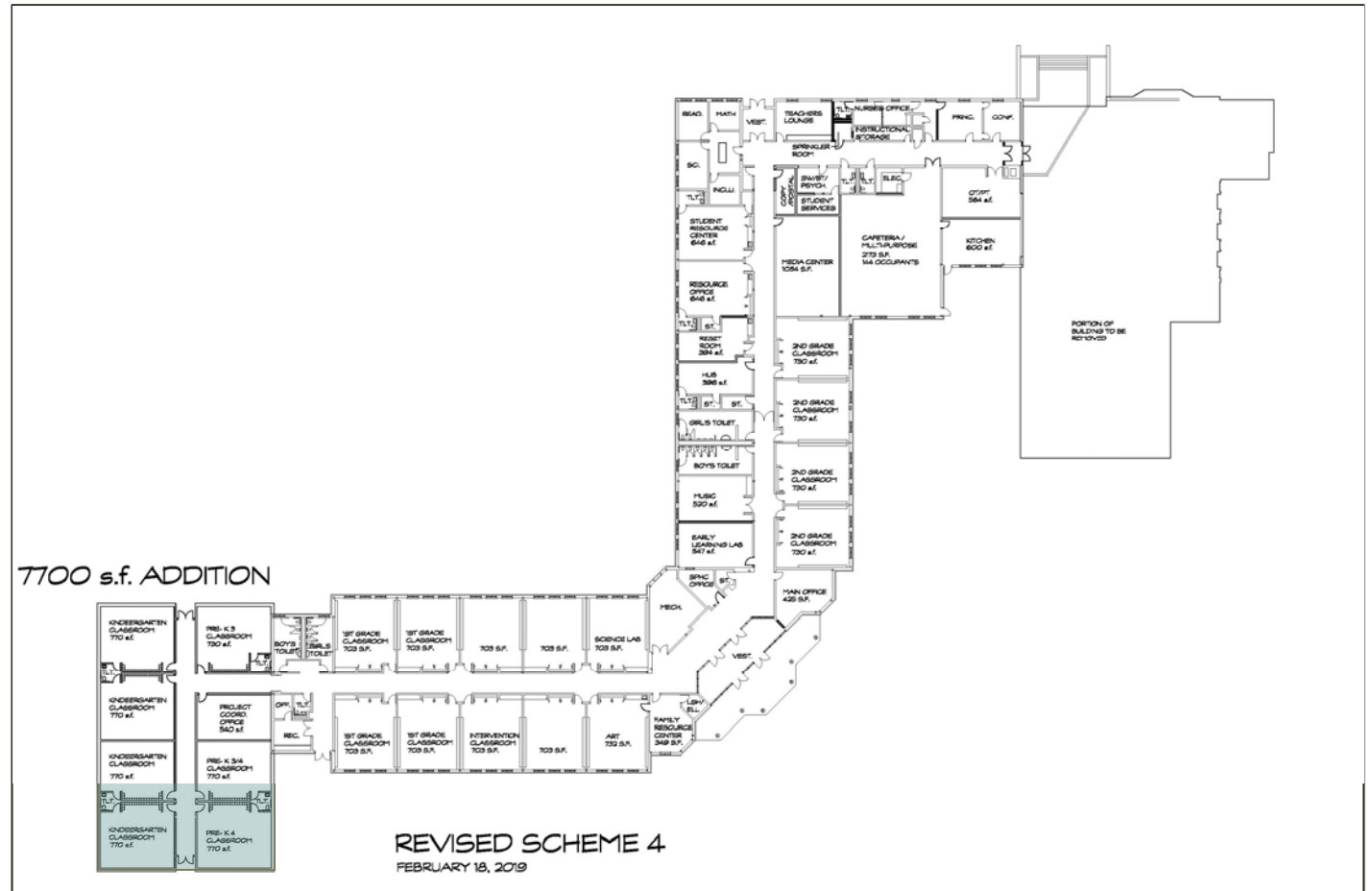
Existing Second Floor Plan

EX1b



Proposed Floor Plan

Revised Scheme 4



Rendering

with Ghost



Rendering

without Ghost



Program Objectives:

- Pre Kindergarten (Age 3) to grade 2
- (3) Pre K classrooms with toilets in room
- (4) Kindergarten Classrooms with toilets in room
- (4) 1st grade Classrooms
- (4) second grade Classrooms
- Dedicated Science Lab
- Dedicated Intervention Classroom
- Dedicated Early Learning lab
- Family Resource Center
- Dedicated Art & Music Classrooms
- Student Resource Center
- Reset room
- Hub Room
- Resource offices
- Media Center
- Cafeteria/Multi-purpose Room with Kitchen
- OT/PT Classroom
- Main office, Support Offices, Nurse suite & teachers lounge
- Toilet rooms, custodial space, Mechanical rooms, etc

Building Highlights:

- 40,000 square foot facility
- New 7,700 s.f. addition for Pre K and kindergarten
- STEAM Lab
- Early learning Center
- Special Services Programmatic Space
- Redesigned Gymnasium / Cafeteria
- Newly designed Kitchen Service area
- Two Playgrounds – Pre K/kindergarten & Early Elementary
- New mechanical & BMS systems
- Eliminate lower level boiler room
- New Air Conditioning and Heating Systems.
- New Electrical Service
- New Generator
- **Meets all programmatic needs**

Flooding/ Moisture Resolution:

- Removal of the Two story 1940's Building to expose the stream (eliminate culvert under building)
- New Mechanicals for Heating & AC with UV filtration
- Complete roof removal & replacement
- Replace exterior windows
- Complete restoration of Building Envelope
- All water access points permanently closed
- Regrading site to improve drainage
- Eliminate 100 year flood elevation on site

Proposed Timeline:

Complete Facility Study:	Spring 2019
Referendum:	Summer 2019
Grant Application:	Summer 2019
Project Evaluation with State:	Fall / Winter 2019
Complete Final designs:	Summer 2020
Construction Phase:	Fall 2020 – Summer 2021
Construction Complete:	Summer 2021

Estimates

Building Addition & Renovations
(Option 4)

HINSDALE ELEMENTARY SCHOOL

11-Mar-19

BUILDING ADDITION & RENOVATIONS (Option 4)

50,000 - 17,000 + 33,000 + 7,700 addition

Total 40,700 SF +/-

Opinion of Probable Construction Costs

RENOVATE EXISTING BUILDING (33,000 sf)

DIVISION	TASK	SUBTOTAL	REIMBURSABLE
1	GENERAL CONDITIONS (20%)	\$2,368,000	\$1,348,000
2	SELECT DEMOLITION AND EXISTING CONDITIONS	\$50,000	\$30,000
	HAZARDOUS MATERIALS ABATEMENT	\$50,000	\$45,000
3	CONCRETE WORK	\$25,000	\$20,000
4	MASONRY	\$70,000	\$40,000
5	STEEL AND METAL WORK	\$75,000	\$15,000
6	WOOD	\$20,000	\$5,000
7	THERMAL & MOISTURE PROTECTION (Roof, Soffit, Etc.)	\$800,000	\$750,000
8	DOORS AND HARDWARE	\$100,000	\$60,000
	NEW MAIN ENTRANCE SECURITY VESTIBULE	\$350,000	\$275,000
	WINDOWS AND SHADES	\$825,000	\$150,000
9	INTERIOR FINISHES (Floors, Ceilings & Paint)	\$700,000	\$40,000
10	SPECIALTIES	\$20,000	\$4,000
11 & 12	CASEWORK & EQUIPMENT	\$500,000	\$80,000
	FURNISHINGS	\$50,000	\$8,000
21	FIRE SUPPRESSION (incl. Entrance Relocation & Dry Attic Syst. -Orig Bldg)	\$110,000	\$20,000
22	PLUMBING	\$320,000	\$160,000
28	HVAC	\$1,200,000	\$80,000
26	ELECTRICAL (incl. Generator)	\$415,000	\$195,000
32	SITE WORK	\$900,000	\$200,000

TWO STORY ORIGINAL BUILDING REMOVAL (17,000 sf) AND REBUILD AS ADDITION (7,700 sf)

Demo (incl. utility relocations)	\$2,025,000	\$2,025,000
Addition	\$3,675,000	\$3,675,000

CONSTRUCTION SUBTOTAL	\$14,348,000	\$9,430,000
CONSTRUCTION CONTINGENCY (12%)	\$1,721,760	\$0

CONSTRUCTION TOTAL

	\$16,069,760	\$9,430,000
A/E CONSTRUCTION DESIGN, BD & CA (5%)	\$710,000	\$461,500
ENVIRONMENTAL ENGINEER	\$25,000	\$25,000
BID PRINTING & LEGAL NOTICES	\$5,000	\$3,250
MISCELLANEOUS FEES, MATERIAL TESTING	\$20,000	\$13,000
GEOTECHNICAL BORINGS & ENGINEERING	\$10,000	\$10,000
DESIGN CONTINGENCY	\$50,000	\$0

SOFT COST TOTAL

	\$820,000	\$512,750
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TOTAL PROJECT COST

	\$16,889,760	\$9,942,750
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Estimate Summary

Construction Subtotal:	\$14,348,000
Construction Contingency (12%):	\$1,721,760
<u>Soft Cost Total:</u>	<u>\$820,000</u>
Total Project Cost:	\$16,889,760
Town reimbursement Rate (70%)	\$6,959,925
Cost to Town:	\$9,929,835

The background of the slide features a photograph of a school building with a brick facade and a central entrance. In the foreground, a large group of children is sitting on the ground in a courtyard, some on mats and some on chairs. The scene is set outdoors under a clear blue sky. A semi-transparent olive-green overlay covers the middle portion of the image, where the text is placed.

Thank you

We hope you enjoyed our presentation.

We welcome any questions or comments?

Silver Petrucelli & Associates, Inc. • 3190 Whitney Avenue • Hamden, CT
silverpetrucelli.com