

## AGENDA

**This meeting is physically closed to the public but the public  
may view the meeting on livestream at:**

**[https://townhallstreams.com/towns/mansfield\\_ct](https://townhallstreams.com/towns/mansfield_ct)**

1. Call to Order
2. Approval of April 23, 2020 minutes **(page 2-3)**
3. Owners Project Manager Update
  - a) Additional Survey work proposal from BSC **(page 4-7)**
  - b) Archaeological Assessment RFP **(page 8-14)**
  - c) SHPO Archaeological Assessment Letter requiring the Phase IA assessment **(page 15)**
  - d) Commissioning Owners Project Requirements from CES **(page 16-31)**
  - e) Update Milestone Schedule capturing PZC Application timelines **(page 32-34)**
4. Architect's Update **(page 35-59)**
5. Other matters coming before the committee
6. Adjournment

Next Meeting Date: Regular Meeting May 28, 2020

## DRAFT MINUTES

Members Present: Randy Walikonis, Chris Kueffner, Madison Day, Richard Weyel, Steve Ferrigno, Chris McNaboe, Mary deVecchis, Toni Moran, Kathy Ward, Kelly Lyman, John Carrington

Staff Present: Allen Corson, Director of Facilities Management; Derek Dilaj, Acting Director of Public Works; Curt Vincente, Director of Parks and Recreation

Guests: Scott Pellman (Project Manager, Colliers International), Felicia Smith (Colliers International), Ryszard Szczypek (TSKP Studio), Jeff Brown (TSKP Studio), Tai Soo Kim (TSKP Studio), Mehmet Sahin (TSKP Studio)

1. CALL TO ORDER

Meeting called to order at 4:31PM by Chairman Randy Walikonis.

2. APPROVAL OF MINUTES

Mr. Kueffner **moved** to approve the minutes of the April 4, 2020 meeting.  
Ms. deVecchis seconded the motion.

The motion **passed** unanimously.

3. OWNERS PROJECT MANAGER UPDATE

Mr. Pellman and Ms. Smith talked to the committee about the presentation to the Town Council on April 13<sup>th</sup>, and shared the updated Milestone Schedule. There was discussion of upcoming deadlines and the status of the State's reimbursements for approved projects as related to the national health emergency. Mr. Pellman told the Committee that everything with the State appears to be moving along and there are no reported hold ups. He also told the Committee that he will continue to closely monitor the State Legislature and report back about a possible special session sometime in May.

4. ARCHITECTS UPDATE

Representatives from TSKP shared a presentation showing updated site plans that included well locations and classroom layouts. Mr. Kim shared a presentation that focused on the exterior and interior studies for the wall details. There was discussion of zinc panels and cafeteria plans.

5. OTHER MATTERS COMING BEFORE THE COMMITTEE

Ms. deVecchis made a motion to **move**, effective April 23, 2020, to approve BSC Group invoice number 9139315 for Site Survey and Wetlands Delineation, Consulting

Engineering Services invoice number 2020067.0000002 for engineering services, and Collier's invoice number 5675 for project management services related to Project #078-0068N Mansfield Elementary School. Mr. Weyel seconded the motion.

The motion **passed** unanimously.

6. ADJORNMENT

Ms. deVecchis **moved** to adjourn the meeting at 6:10PM. Ms. Ward seconded the motion.

The motion **passed** unanimously.

Respectfully Submitted,

Tasha N. Smith  
Executive Assistant, Town Manager's Office

May 13, 2020

Mr. John Carrington, Interim Town Manager  
Town of Mansfield  
Audrey P. Beck Municipal Building  
4 South Eagleville Road  
Storrs Mansfield, CT 06268

655 Winding Brook Drive  
Glastonbury, CT 06033

Tel: 860-652-8227

[www.bscgroup.com](http://www.bscgroup.com)

RE: Proposal for Amendment - Well Stake-out Location  
Southeast Elementary School Project  
134 Warrenville Road

Dear Mr. Carrington:

BSC Group-Connecticut, Inc. (BSC) is pleased to submit this proposal to the Town of Mansfield (the “Town”) and the Mansfield School Building Committee, for an Amendment 1 to our existing Agreement for land surveying services in support of the then new elementary school construction project at 134 Warrenville Road (the “Site”). It’s been our pleasure to provide services in support of this important project, and we appreciate the opportunity to submit this proposal.

BSC has prepared this proposal based upon the following understanding of your needs and circumstances which have affected the scope of services.

1. This proposal for an Amendment 1 will amend our Agreement dated April 1, 2020 and is intended to address addition land surveying and environmental services in support of the project.
2. Colliers Project Leaders (CPL) has requested addition land surveying services via e-mail (April 20, 2020; Felicia Smith, Project Manager) to field-locate (“stake-out”) three (3) proposed water supply wells, one (1) geothermal well, and six (6) proposed building corners at the Site.
3. Subsequent e-mails and phone conference on April 24, 2020 with CPL identified the need to provide further on-Site investigations to:
  - determine the location of inland wetlands within 150 feet of the project’s boundaries; and
  - provide additional topography and mapping of the Federal Emergency Management Agency’s (FEMA) floodplain associated with the 0.2-percent-annual-chance flood (formerly “500-year flood”) on the Site.
4. Additional requests were made on May 4, 2020 and May 7, 2020 adding additional work at Route 89 and at the Route 195 intersection.
5. A map was provided to BSC identifying items 1 through 14 on Consolidated\_Additional\_Survey\_Requests\_20200504144348.pdf herein referred to as (CASR#\_) R.S. Sketch 5/4/2020.

Engineers  
Environmental  
Scientists  
GIS Consultants  
Landscape  
Architects  
Planners  
Surveyors



## 1.0 SCOPE OF SERVICES

BSC proposes to provide the following specific services under this Amendment 1.

1. BSC will calculate and stake-out the (3) proposed water supply wells one (1) geothermal well locations based on mapping provided by CPL. Each location will be marked with a temporary wood stake. Geodetic coordinates of each temporary wood stake will be provided in latitude and longitude for use (by others) in State of Connecticut Department of Health Well site approval applications.
2. BSC will calculate and stake-out the six (6) proposed building corners based mapping provided by CPL. Each building corner location will be marked with a temporary wood stake.
3. A BSC Soil Scientist will provide an on-Site investigation limited to 150 feet from the project boundaries (on property owned by the United States of America Mansfield Hollow Dam, a.k.a. "USA Lands") to determine whether or not jurisdictional inland wetlands (per CGS Title 22a, Chapter 440, Sec. 22a-38 and local definitions) are present within 150 feet of the Town boundaries. If jurisdictional wetlands are present, a BSC Soil Scientist will delineate the boundaries of inland wetland areas with sequentially-numbered flagging tape placed at regular intervals. To document the wetlands delineation work, the 2019 report will be updated to reflect the second visit to the property. (CASR#11 and #12)
4. BSC will provide additional topographic survey and mapping on the USA Lands as follows: Any wetlands, as determined within 150-feet of the Town boundaries will be field-located from project control. BSC will field-locate ground elevations within 50 feet of the project boundaries in an effort to further map topographic contours to "T-2" standards for one-foot contours. Areas between 50 feet to 150 feet will be topographically-mapped utilizing using 2016 orthophotography and Light Detection and Ranging (LIDAR) data from the State of Connecticut. (CASR#10)
5. BSC will provide an update to the Existing Conditions Plan showing proposed well locations, additional topography within 150 feet of the project boundaries, delineated wetlands within 150 feet of the Town boundary, and the boundaries of the 0.2-percent-annual-chance flood based on published FEMA studies. (CSAR#14)
6. BSC Surveyors will field locate the newly constructed sidewalks and bituminous curbing recently installed. (CASR#1)
7. BSC Surveyors will address various locations of trees/ stumps and utility pole identified as (CADR#2-6).
8. BSC Will locate the Electrical supply between the Garage and Concessions building (CASR#7).
9. BSC Will Map the concession building onsite subsurface disposal reserve areas identified on mapping supplied by (CPL). (CASR#8)
10. BSC will locate conduit to future Field C Announcers booth if traceable (CASR#9).
11. BSC Will review mapping provided by (CPL) entitled "LEASE SKETCH TOWN OF MANSFIELD SKETCH SHOWING LAND LEASED TO TOWN OF MANSFIELD BY THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION WARRENVILLE ROAD (CT ROUTE 89) SCALE 1" = 40' SEPTEMBER 2016" The limits of the leased area will be added to existing conditions mapping. (CASR#13)
12. BSC will perform Limited title research at the Mansfield Town Clerk's and Tax Assessor's offices. This research is intended to obtain pertinent data such as property and adjoining owners' parcel information, filed deeds, easements, property maps, and street right-of-way maps. BSC will Contact the Connecticut Department of



Transportation (CTDOT) for record highway maps and Construction mapping from former roadway widening projects. BSC will provide an existing conditions survey of the Route 195 and Route 89 intersection within the "Survey Limits" depicted on Attachment A. The survey will conform to T-2 standards depicting topography at a one-foot contour intervals. Horizontal control and boundary evidence will be field located to A-2 Survey Standards. Adjoining street and property lines will be mapped to Class D Standards. Vertical control will be established to class V-2 Standards. Final mapping will be provided at a scale of 1" = 20' depicting approximate streetline rights-of-way, property lines, existing conditions, visible utilities, record location of subsurface utilities based on best available evidence. Topography will be mapped at a one foot contour interval and provided in a Microstation format.

## **2.0 ADDITIONAL SERVICES**

The following services are not included as a part of this Amendment 1. These services may become necessary based upon the conclusions derived from the performance of the proposed scope above. If required, these services will be performed for an additional fee in accordance with additional amendments.

1. Verification Well locations after installation.
2. Return visits in the event re-staking is required.
3. Copying or reproduction services for mapping.
4. Construction based Surveying

## **3.0 SCHEDULE FOR SERVICES**

BSC is prepared to begin work on the services identified in Section 1.0 of this Amendment 1 immediately upon your written authorization to proceed. The lump sum fee presented in Section 4.0 herein assumes all work will be substantially completed by May 25, 2020.

## **4.0 FEE FOR SERVICES**

BSC will perform the Scope of Services presented in Section 1.0 herein for a lump sum fee of **\$20,000**. This fee includes labor and anticipated direct expenses.

If the fee for the scope of services defined herein will be exceeded due to changes in the scope of services, BSC will notify you to discuss and evaluate the work and related fees. BSC will not exceed the authorized fees presented in this Amendment 1 without your authorization. Changes in fees will be mutually revised by written amendment.

If the scope and fee presented herein are acceptable, please execute two (2) copies of this Amendment and return one (1) copy with an original signature for our records. BSC welcomes the opportunity to continue providing professional services for this project.



Please contact me by phone at 860-652-8227 (extension 4553) or by e-mail at mhealey@bscgroup.com if you should have any questions or comments.

Sincerely,  
**BSC Group – Connecticut, Inc.**

Michael C. Healey, PLS  
Senior Associate/Manager of Survey

Attachments: Attachment A - Survey Limits

**AMENDMENT 1 ACCEPTED BY:**  
**Town of Mansfield**

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Printed Name

**APPROVED BY:**  
**BSC Group – Connecticut, Inc.**

  
\_\_\_\_\_  
Kurt A. Prochorena, PE, LEED AP  
Principal

\_\_\_\_\_  
Date



**New Elementary School  
Mansfield, Connecticut  
Request for Proposals for:**

***Phase IA Archaeological Site Assessment***

<p>RFP Issue Date: May 15, 2020</p> <p>Proposal Due Date: May 25, 2020</p>
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**Appendix A – 134 Warrenton Road Site Plan**

**Appendix B – Route 195 and Route 89 Intersection Roadwork**

**Appendix C – SHPO Archaeological Assessment Letter – 4.23.2020**

## **I. Project Overview**

### **A. Project Background**

The Town of Mansfield is building a new elementary school on a currently developed Town owned parcel of 16.1 acres located at 134 Warrenville Road, Mansfield CT, the current location of the Southeast Elementary School. The proposed project will create a new elementary school designed for 566 student's grades K through 4. The design will reflect the educational specifications developed and approved by the Mansfield Board of Education. The proposed school will be approximately 80,000 gross square feet incorporating the latest technology and energy efficient systems while implementing State recommended security features. Site improvements will include new play fields and playgrounds, entry drive, parking lots along with a new septic system and well. The building will be designed to meet the CT high performance building standards as well as looking to achieve net zero status. The new school will be built on the occupied site while maintaining the existing school's operation. Geothermal wells will be drilled in the current undeveloped areas between the existing ball fields and the wetlands on the perimeter of Mansfield Hollow. A new domestic well will also be located in a yet to be determined area adjacent to the existing ball fields and concession stand. When the new construction is complete the existing school building will be demolished and that area will be developed into parking and vehicular access areas. The anticipated completion of the project is the fall of 2022 and the estimated total project cost is 52.8 million dollars. In addition to the main project area at 134 Warrenville Road, there will be related roadwork to the adjacent roadway intersection at Route 195 and Route 89 as indicated in Appendix B. This roadwork shall be incorporated into the full archaeological assessment.

### **B. Project Description**

The project parcel encompasses nearly 16 acres, much of which consists of the existing school and associated infrastructure. The new building and associated geothermal wells, infrastructure, sitework and paving will impact approximately 4 acres of previously undisturbed area. The State Historic Preservation Office (SHPO) has concluded that the Area of Potential Effects (APE) for this project has an elevated potential to contain significant archaeological resources. The soil type and previously reported resource surveys suggest a strong potential for pre- and post-contact period archaeological activity on the site. There are at least (6) previously reported archaeological sites within 0.5 miles of the project area and (24) reported within 1.0 miles in all directions of the parcel. Aside from the existing Southeast Elementary School and associated outbuildings, there are no additional current or known historic structures on the parcel.

## II. Project Scope

### A. Project Scope

The scope of services shall be provided in 2 phases, Phase IA preliminary archaeological assessment, the first phase will determine whether a second phase IB field investigations are necessary. The purpose of the Phase IA archaeological assessment is to determine whether there remains a potential for archaeological resources within the 134 Warrenville Road parcel, and if so, to identify the nature of the potential resources and the most appropriate field methods to investigate the resources. A professional Phase IA survey is to be completed and reviewed with the SHPO prior to any construction or project related ground disturbance is initiated on the site. All work shall be in compliance with the CT SHPO *Environmental Review Primer for Connecticut's Archaeological Resources* and the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation. To determine whether Phase IB field investigations will be required, the selected consultant shall consult with CT SHPO within ten days of concluding all Phase IA tasks. The time allowed for completion of all work is 25 working days for completion of all necessary research, excavation and associated monitoring for Phase IA as described in this RFP. All site work will be scheduled with the Owners Project Manager in advance and completed between the hours of 7 AM and 5 PM, Monday through Friday.

### B. Project Tasks

The following tasks are anticipated in order to complete the full Phase IA survey. .

#### Task 1 – Management and Work Plan

Submit a workplan for review and approval by the SHPO per the "SHPO Archaeological Assessment Letter" dated 4.23.2020 provided as Appendix C. The work plan should detail out the approach that will be followed in regard to background research, GIS-based elevation change analysis, archaeological assessment, site visit and management summary/report preparation. Review proposed workplan with SHPO and adjust to incorporate any comments or requests prior to conducting site visits.

#### Task 2 -Background Research

Background research shall be conducted to address the cultural context of possible archaeological resources in the project parcel and the land-use history as it relates to the presence of potential archaeological resources. Previous adjacent archaeological investigations shall be reviewed for insight into the potential resources within project parcel. Research items shall include but not be limited to pedestrian surveys, mapping, and photo documentation. The end report determine if the proposed area of disturbance possess no-to-low and/or

moderate-to-high potential of intact cultural deposits and/or surficial expressions of cultural resources and the related back up to support the report findings.

### **Task 3 – Site Visit, Surface Investigation and Archaeological Assessment**

Upon completion of background research and approval of the work plan, a qualified archaeologist shall make a site visit to the project parcel. The purpose of the site visit will be to visually verify conditions identified by the background research and any areas of disturbance not identified in previous off-site reviews. Site visit will confirm the boundaries of the proposed areas of disturbance and potential impacts to adjacent areas. Archaeologist shall perform a thorough surface investigation to obtain the necessary information to compile the final archaeological resources assessment. The Owner does not anticipate encountering any artifacts during either Phase of the survey and review, however, any artifacts discovered or disturbed shall be reported to the Owners Project Manager immediately and properly catalogued and protected. Include a separate item in the proposal bid form for the costs associated with processing and analysis of artifacts.

### **Task 4 – Management Summary and Report Preparation**

Once all background research, site visit, surface investigations and other components of the archaeological assessment are completed, the selected firm shall prepare a short summary report to submit to the SHPO for review. The report will summarize all findings and research and provide recommendations on whether further investigations, including subsurface investigations, and a Phase IB are necessary. If it is determined that a Phase IB investigation is needed, the selected firm shall confirm this conclusion with the SHPO and present a proposal for the scope and pricing for services to execute a full Phase IB analysis to the Owners Project Manager for review.

## **III. Project Schedule**

The current schedule provides for design, construction and full occupancy by September 7, 2022. The project architect, TSKP, has begun design efforts with the programming and schematic design phase. Contract documents are scheduled for completion in December 2020 with construction scheduled to start in Spring 2021.

The Archaeological Consultant selection schedule is as follows and is subject to change:

1. RFP Published: May 15, 2020
2. Site Visit: Consultant to visit at their discretion, coordinate access with OPM
3. Last Day for Addenda questions: May 21, 2020
4. Proposals Due: May 25, 2020
5. Consultant Selection: May 29, 2020, or shortly thereafter.

The successful contractor will enter into an Agreement directly with the Town of Mansfield. This RFP and the proposal provided by the consultant shall be referenced in the Agreement. The proposals shall include all services as described in this RFP.

#### IV. Contents of Proposal

##### 1. Transmittal Letter, including:

- a. Company name, main office address and local office address
- b. Statement indicating your understanding of the work to be performed
- c. Name, title, address, telephone number, and e-mail address of the individual to whom all inquiries about this response should be addressed

##### 2. Basic Firm Information (may be simply listed), including:

- a. Name of company
- b. Date organized
- c. Tax Identification number(s)
- d. Legal form of ownership. If a corporation, where incorporated
- e. Number of years engaged in services under present name
- f. Identify and explain any work awarded to your company that your company has failed to complete
- g. Identify and explain any instance in which your company has defaulted or has been accused of defaulting on a contract
- h. Identify and explain any potential conflicts of interest
- i. Identify the individuals who are authorized to bind the company in negotiations
- j. Describe any previous and pending litigation or other factors that could affect your company's ability to perform this agreement

##### 3. Qualifications and Capacity, including:

- a. **Firm's Qualifications:** Provide information demonstrating the qualifications of your firm to complete this work. Please include:
  - Unique qualifications that your firm has regarding this project
  - Projects completed in the past 5 years with a similar purpose, size and scale and timeframe (please include project name, client and size)
  - Proposed staffing for this project
  - Resumes / qualifications for personnel that would be assigned to this project for each aspect of the proposed staffing plan, including their experience on projects of this size and type and their years with the firm
  - Describe your firm's familiarity with SHPO and Secretary of the Interior regulations related to archaeological assessments of proposed construction sites.
- b. **Firm's Capacity:** Provide information indicating the capacity of the office that will provide the Phase IA assessment. Please include:

- The number of full-time professional staff your (local) office employs
- A list of all services required for this project that would be provided in-house by your firm, and a list of all services that would be outsourced.

**4. Insurance:** Provide the name of your insurance company and agents, your insurance coverage including type and limits, with a sample certificate of representative coverage.

**5. References:** Include the name, title, and contact information of the authorized owner's representative for at least three recent projects of similar size, scale, and timeframe.

**6. Fee Proposal:** Provide fee proposal for this project as noted below and as provided on the enclosed bid proposal form:

- Fixed Lump Sum** - Proposed fees shall be in the form of a fixed lump sum to provide the Phase IA archaeological assessment and SHPO review.

## V. Selection Criteria

The firm's qualifications will be evaluated by based on the proven ability of each respondent to perform the requested services and any other factor of criterion that may be deemed relevant or pertinent for its evaluation of such qualifications. The evaluation will include:

1. Evidence of firm's and proposed personnel's ability to perform all the work responsibilities.
2. Past experience with providing a similar set of services for projects with similar potential archaeological resources.
3. Provision of indemnity and insurance consistent with requirements.
4. Proposed cost of services.

## VI. Instructions for Submission of Proposal

### A. Submission Logistics

Electronic submissions should be sent to [Felicia.Smith@colliers.com](mailto:Felicia.Smith@colliers.com) copy [Scott.Pellman@colliers.com](mailto:Scott.Pellman@colliers.com).

Questions regarding this request for proposals should be directed to Felicia Smith, Project Manager who can be reached at 203-233-0589, or at the above email.

## Bid Proposal Form

For

### Phase IA Archaeological Assessment

<b>Lump Sum Proposal:</b>	\$
134 Warrenton Road Parcel	\$
Route 195/Route 89 Portion	\$
<b>Hours Expected Per Task:</b>	
Management/Work Plan	
Meeting or Calls	
Background Research	
Archaeology Assessment/Site Visit/Surface Investigation	
Management Summary/Report Preparation	
<b>Total Hours for Phase IA Tasks:</b>	

Provide separate description of processing and analysis of found artifacts and hourly rate for services.



April 23, 2020

Ms. Lauren Mello  
Fuss & O’Neill  
146 Hartford Road  
Manchester, CT 06040

Subject: Mansfield Elementary School Construction Project  
134 Warrentown Road  
Mansfield, Connecticut

Dear Ms. Mello:

The State Historic Preservation Office (SHPO) has reviewed the potential effects of the referenced project on historic properties. SHPO understands that the proposed project will consist of constructing a new elementary school and demolishing an existing school on the property. The project parcel encompasses nearly 16 acres, much of which consists of the existing school and its associated infrastructure (e.g., parking, walkways, and ballfields). The new building and associated infrastructure will impact approximately 4 acres of what appears to be previously undisturbed areas of the parcel.

There are no properties listed on the National Register of Historic Places recorded within, or immediately adjacent to, the Area of Potential Effects (APE) for this project. The soil types and previously reported resources in the area, however, suggest a strong potential for pre and post-contact period archeological sites. There are at least six previously reported archeological sites within 0.5 miles of the project area and more than 24 reported within 1.0 mile and in all directions of this parcel. Based on the environmental characteristics of the project site, the density of known resources, and the assumed minimally impacted nature of the new impact areas; it is SHPO’s opinion that the proposed construction has an elevated potential to contain significant archeological resources. We are therefore requesting that a professional archeological assessment and, if needed, reconnaissance survey be completed prior to construction. All work should be in compliance with our *Environmental Review Primer for Connecticut’s Archeological Resources* and no construction or other project-related ground disturbance should be initiated until SHPO has had an opportunity to review and comment upon the requested survey. A list of qualified consultants is attached for your convenience.

This office appreciates your cooperation and we look forward to continuing consultation. For additional information, please contact me at (860) 500-2329 or [catherine.labadia@ct.gov](mailto:catherine.labadia@ct.gov).

Sincerely,

Catherine Labadia  
Deputy State Historic Preservation Officer



CONSULTING ENGINEERING SERVICES, INC.  
811 Middle Street, Middletown, CT 06457  
860.632.1682



Commissioning Services

CES PN: 2020067.00 G

**MANSFIELD**  
**ELEMENTARY SCHOOL**  
**MANSFIELD, CT**

April 17, 2020

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## Project Information

Project Name:	Mansfield Elementary School
Location:	134 Warrenville Rd, Mansfield, CT
State Project Number:	
CES Project Number:	2020067.00 G
Total Square Footage:	78,000

## Overview:

The following document identifies the Owner’s Project Requirements for this project. This document is intended to detail the functional requirements of the project and the expectations of the building’s use and operation as they relate to the mechanical, electrical, plumbing, fire protection systems, security, technology and building envelope systems, which shall serve the proposed new school. The goal of this project is to achieve a Net Zero Energy.

## Project Budget

The construction budget for this project is approximately \$40.6 Million

## Occupancy

**DISTRICT SHALL PROVIDE INFORMATION** – This information shall be provided later.

Occupants	Students	Staff
Full Time Staff		
Part Time Staff		
Full Time Students		

### School Year: September

Building Area	Students	Staff
	Hours of Operation	Hours of Operation
Classrooms		
Admin		
Gym		
Media Center		
Cafeteria		

**Summer Months: July and August**

Building Area	Students	Staff
	Hours of Operation	Hours of Operation
Classrooms		
Admin		
Gym		
Media Center		
Cafeteria		

**Project Schedule**

The project schedule shall be per the following schedule:

Date	Project Phase	Remarks
Dec 2019 – Nov 2020	Design	
May 12 <sup>th</sup> 2020	SD	
Aug 17 <sup>th</sup> 2020	DD	
Nov 2 <sup>nd</sup> 2020	CD	
May 2021 – Aug 2022	Construction	
Aug 2022 – Aug 2023	Warranty	

**Operation and Maintenance Requirements**

The Owner is requesting electronic copies of the O&M Manuals in addition to any hard copy provided.

The owner is requesting shutdown procedures/isolation procedures for any major pieces of equipment.

**Equipment and System Maintainability Expectations**

- Adequate access to valves and dampers.
- Adequate access for cleaning and servicing of equipment and associated components.
  - Heat pumps shall be considered during design. Adequate access for cleaning, service and routine maintenance shall be provided for all units.
  - Proper access for filter changes and servicing is a number one priority.
- Adequate access to ductwork for future ductwork cleaning.

- This shall include properly sized access panels in ductwork
- Complete and thorough O&M Manuals, Asbuilt Drawings that accurately depict equipment, components, configurations and locations.
- Complete and thorough Training and associated training Videos provided with similar formats for ease of end user use.
- Complete provision of all attic stock (Extra materials) at project closeout.
  - All typical MEP extra materials shall be provided as per standards in contract documents
  - Extra BMS sensors shall be provided as attic stock for the Owner. Qty shall be discussed with the Engineer of Record.
  - Be sure to include all necessary extra materials for carpet or flooring, bathroom tiles etc.

## Warranty Requirements

No specific requirements noted by Owner.

## Training Requirements for Owner's Personnel

The Commissioning Agent will verify and assist with the coordination of the required training of the Owners Personnel to ensure that it planned and performed satisfactorily.

The Owner intends to have all 5 mechanics, some custodial crew (4) and two management staff present for training. All training sessions shall be coordinated to ensure that Owner representative are properly trained.

- The specifications will detail the required training/demonstration of equipment and systems to the operating staff.
- Included in the specification shall be the quantity of hours of training for each specific type of equipment/systems.
- The respective contractors shall coordinate with the Owner to perform the necessary training sessions.
  - O&Ms shall be provided (understanding they may not be fully completed with as-builts) prior to the training session.
  - Training Agendas shall be provided (submitted to A/E and Cx Agent) prior to the training sessions for review and approval.
    - Outline should be provided of instructional program with proposed dates, times, length (duration) of instruction time and instructors names for each training module and the document shall include learning objectives and outline.
  - Sessions shall include sign-in sheets to document that the training has been performed.
  - Training shall be videotaped (digitally) by contractor. Training shall include (at minimum) the following for each type of equipment/system:
    - Description of equipment/system
    - Typical operation and setpoints
    - Emergency Operation (if applicable)
    - General maintenance of equipment/systems and troubleshooting
    - Question and answer session
- Demonstration and Training Digital Video Disks: 2 electronic copies shall be submitted within 7 days of the training module.

- Label shall include the following:
  - Name of Project
  - Name and address of photographer/videographer.
  - Name of Architect and Owner
  - Name of Contractor
  - Date Material was recorded
  - Description of vantage point, indicating location.
- Controls Contractor shall provide increased training with some offsite classes available as needed for the owner in addition to onsite training.
- Heat Pumps shall be provided with additional training to ensure that the owner is fully aware of system operation and maintenance criteria.

## Owner Specific Requirements

Description	Owner Provided Information
Requirements and Directives:	None noted at this time
Restrictions and Limitations:	None noted at this time
Communication Requirements:	None noted at this time
Adaptability for Future Change and Expansion:	None noted at this time

## Environmental and Sustainability Goals

The project goal is to achieve a Net Zero Energy Building through innovative design and best practices. It is a priority of the Mansfield community that all facilities are planned and developed with the consideration of sustainable practices including school placement, building design, building materials and components, long term energy use, sustainability and maintenance. The new building will include features that minimize Energy Use Intensity.

Per the State of Connecticut requirements for public construction, the project will be designed to exceed CT High Performance Building Standards.

**[Insert LEED Goals checklist once available – To be provided by Design Team]**

# Eversource Energy Efficiency Services

## ***Energize CT's Whole Building Performance Approach***

Energize CT's Whole Building Performance approach of the New Construction Program and the simulation documentation requirements: The following steps must be taken to obtain incentives and in the following order:

Check	No	Description
	1.	<u>Energy Efficiency Services Application</u> : The Owner requests energy efficiency services and submits a program application.
	2.	<u>Integrated Design Agreement</u> : The Owner, Simulator, Design Lead, and Eversource execute Eversource's Whole Building Performance Integrated Design Agreement. Under this agreement, the Simulator agrees to collaborate with the Design Lead and Eversource on two phases of the project, one performed during the design phase and one performed following commissioning.
	3a.	<u>Design Charrette</u> : The Owner, Simulator, Design Lead, and Eversource brainstorm to define Energy Efficiency Measures (EEMs) to be evaluated for savings and potential incentives with an energy model.
	3b	A modeling plan is submitted to Eversource to document the meeting that includes a high level narrative of the project, the baseline and proposed case HVAC system types, list of EEMs to be evaluated, and a list of proposed intermediate measure runs to assist with model reviews. This is done with the VBP Modeling Report Spreadsheet in Excel (Report Spreadsheet) filling in the General Information and Modeling Plan Charrette tabs. The Brainstorming incentive is then paid per the Integrated Design Agreement.
	4a.	<u>Design Phase Simulations</u> : The Simulator develops baseline building and proposed high-efficiency building simulations (a minimum of 2 simulations, with additional measure runs) with assistance from the Design Lead to estimate energy savings, during the design phase. The Design Lead agrees to facilitate information flow between the Owner's Design Team and the Simulator.
	4b.	The Simulator provides deliverables as required by Eversource in the Report Spreadsheet (version current at the time of execution of the Integrated Design Agreement or later) or Utility approved alternate submissions. Eversource pays the Simulator the agreed upon amount listed in the Integrated Design Agreement for completing these Simulations and submissions as requested by Eversource.
	5.	<u>Letter of Authorization</u> : Eversource issues the approved installation incentive amount with required conditions for payment, otherwise known as a "Letter of Authorization" or "LOA". The LOA will offer incentives based upon the current incentive structure and caps at the time of execution. Eversource pays the Participant the Whole Building Performance Installation Incentive according to the Whole Building Performance Building Incentive Schedule.
	6.	<u>Construction</u> : The building is built and commissioned. The Design Lead notifies the Simulator and Eversource of any equipment or system design changes made to the building during the construction phase. The Owner shall give notice to Eversource in time to allow in progress inspections of equipment or material that will be covered

		and unavailable for viewing at project completion and facilitate an inspection with the constructor.
7.		<u>Post-Construction Simulation</u> : The Simulator reports on the energy-efficiency performance of the commissioned, “as-built,” building after updating any of the performance values that may have changed during the construction and commissioning phase of the project. The Simulator provides deliverables as required by Eversource in the Report Spreadsheet or other approved submissions to arrive at accepted energy savings for the project.
8.		<u>Project Inspection and Measure Verification</u> : Final inspection of installed measures is conducted by Eversource to check compliance with the post-construction simulation report. At this time, the Participant shall have an appropriate design professional sign the LOA documentation that verifies that the pre-construction simulation report reflects the as-built conditions, or alternately, that changes were made in the installed equipment and measures such that the pre-construction report does not reflect the as-built conditions. In such cases, the Participant’s design profession shall sign the LOA documentation verifying that a post-construction report has been provided with detailed descriptions of the changes and reflects the revised energy performance.
9.		<u>Payment of Incentives</u> : Eversource pays the Owner the incentive earned by installation of EEMs as agreed in the LOA. Eversource pays the Simulator and Design Lead the agreed upon amounts listed in the Integrated Design Agreement for completing the Final Simulation Report, and Design Bonus if applicable.

**Simulation Documentation Requirements:**

**Energy Model Plan:** The following shall be submitted in electronic format following the Design Charrette and before the model is created.

Check	Description	Comments:
	WBP Modeling Report Spreadsheet in Excel: General Information and Design Charrette tabs.	
	Supplemental Calculation Method description if applicable	

**Pre Construction Report Deliverables:** The following shall be submitted in electronic format following Pre-Construction Simulations:

Check	Description	Comments:
	Completed WBP Modeling Report Spreadsheet, all tabs, (current version, when WBP IDA executed or later)	
	Additional modeling reports listed in Submittal Checklist tab of Report Spreadsheet.	
	Modeling input files for baseline and proposed building simulations.	
	Sim output files for baseline and proposed building simulations.	
	Current design phase Mechanical and Electrical drawings PDF for proposed design (and other plans if required such as envelope sections.)	

	Milestone construction schedule	
	Other documents requested by Eversource to enable a reasonableness review of the submission	
	Transmittal of above documents	

**Post Construction Report Deliverables:** The following shall be submitted in electronic format following Post-Construction Simulations:

Check	Description	Comments:
	Updated WBP Modeling Report Spreadsheet, if any changes from pre construction report	
	Additional modeling reports listed in Submittal Checklist tab of Report Spreadsheet, if changes present	
	Narrative of changes from Pre construction report if any	
	Modeling input files for baseline and proposed building simulations.	
	Sim output files for baseline and proposed building simulations.	
	Asbuilt Plans (PDF)	
	Approved Equipment Submittals (As-Built) for equipment listed in LOA	
	Other documents requested by Eversource to enable a reasonableness review of the submission	
	Transmittal of above documents	

**Measure Run Reports Required:**

Check	Description	Comments:
	Monthly estimated consumption of all fuels with usage and demand (kWh, kW, CCF, demand CCF, gals of oil, etc.) with breakout by End Use if energy model has the report capability (lighting, cooling, heating, process, refrigeration, domestic hot water, other)	
	Annual summary report of energy use with demands and energy cost, peak annual building cooling load, peak annual heating load, annual cooling ton-hours.	
	Annual End Use breakout for the following electricity and natural gas end uses: lighting, cooling, heating, process, refrigeration, domestic hot water, other.	

**Agreement Specifics**

Through funding from Connecticut Energy Efficiency Fund (EEF), all parties involved are agreeing to work together to produce energy saving calculations from the whole building energy simulation of the proposed facility. Below is a summary of the agreement. Specifics can be found on the Design Agreement. The following is meant only to provide a summary for the Project for record purposes.

1. When simulation results are accepted, a LOA (Letter of Authorization) shall be generated to detail the installation incentives available based on the program rules in effect at that time.
2. Simulator and Design Firms shall coordinate estimate performance ratings, load profiles and control methodologies of EEM options as required.
3. Simulator uses the approved computer based 8760 hour, while building program for annual analysis of energy consumption.
4. The results of the simulation shall be used to assist the project owner and design team in selecting electric and gas EEMs to be incorporated into the project and assist the Utility in the preparation of financial incentives for the actual installation of the EEMs.
5. The Simulator and design firms shall respond to questions raised by the Utility and/or independent engineers retained by the Utility.
6. The Simulator submits an energy modeling report per the WBP reference documents which summarize the findings of the proposed baseline building and proposed building with all EEMs incorporated into the design.
7. The utility agrees to pay from the EEF the full amount of \$2,500.00 per project as a design Charrette incentive to the Design Firm to be paid after Design Charrette has occurred and after receiving a fully executed whole building performance integrated design agreement.
8. The utility agrees to pay from the EEF the full amount of \$15,000.00 for projects in schematic design or earlier and completing schematic design modelling or \$10,000.00 for projects in design development as the initial simulation subsidy to the Simulator to be paid upon acceptance of the energy modeling report showing comparison between baseline and proposed.
9. Upon completion of the project, the utility agrees to pay from the EEF, the full amount of \$5,000.00 per project as the final simulation subsidy to the Simulator to be paid upon acceptance of the final energy model.
10. The utility agrees to pay from the EEF upon project completion a design incentive which shall be earned if as-built performance is better than or equal to a 25% reduction from baseline in source energy saving. Design incentive shall be a sum of \$0.07 per annual kWh saved plus \$0.34 per CCF saved limited to the lesser of \$15,000.00 per project or \$0.20 per gross interior square foot of a project, payable to the Design Team upon acceptance of the final simulating report from Simulator.
11. The utility agrees to pay from the EEF \$10,000.00 for path to Net Zero Ready Projects to the Participant. \$5,000.00 shall be paid when the LOA is issued to the Participant if the initial simulation shows performance is better than or equal to a 5 reduction from baseline in source energy savings. \$5,000.00 will be paid upon project completion if the final simulation shows performance is better than or equal to a 35% reduction from baseline in source energy savings.
12. Utility must receive the required initial simulation reports by the bid date in order to be eligible for the incentives listed in 8, 9 and 10.
13. Unless the offer in this agreement is sooner revoked in writing by the Utility, it must be accepted by the Simulator, Design Lead and Participant no later than 30 days from the date of acceptance by the Utility.

- 14. The agreement is administered and interpreted under the laws of the State of Connecticut.
- 15. The Simulator and Participant understand that funding for this program is derived from the EEF which is managed by the Utility.
- 16. The Parties endeavor to resolve any dispute arising out of and/or relating to this Agreement by mediation under CPR Mediation procedure then currently in effect.
- 17. Maximum allowable payments to all of the parties in this agreement is \$47,500.00
- 18. The offer for Design Charrette, Simulation, Design and Path to net Zero Ready incentives expires on December 14, 2023.

## Commissioning Process Scope

### **Objectives:**

The objective of commissioning is to provide documented confirmation that a facility fulfills the functional and performance requirements of the building owner, occupants, and operators. To reach this goal, it is necessary for the commissioning process to establish and document the owner’s criteria for system function, performance, and maintainability; as well as, to verify and document compliance with these criteria throughout design, construction, start-up, and the initial period of operation. In addition, complete operation and maintenance (O&M) manuals, as well as training on system operation, should be provided to the building operators to ensure the building continues to operate as intended.

The commissioning provider should be involved throughout the project from the pre-design throughout the warranty phase. The primary role of the commissioning agent during the overall design phase is to develop detailed commissioning specifications and review design to ensure it meets the Owner’s objectives. During construction, the commissioning agent develops and coordinates the execution of a testing plan, which includes observing and documenting all system’s performance to ensure that systems are functioning in accordance with the Owner’s objectives and the contract documents. The commissioning agent is not responsible general construction scheduling, cost estimating, or construction management, but may assist with problem solving or resolving non-conformance issues or deficiencies.

### **Systems to be Commissioned:**

Heating, Ventilation, Air Conditioning and associated controls
Lighting and Daylighting Controls
Domestic Hot Water Systems
Renewable Energy Systems
Water Using Systems
Fire Protection Systems
Energy Management System
Emergency Power System
Building Envelope System

## **Scope:**

### **Design Phase**

- Attend Two Design Charrettes
- Assist in Development of an Owners Project Requirements Document
- Participate in one Integrated Design Meeting
- Conduct design reviews: These reviews will primarily focus on developing a fundamental understanding of design intent, as well as reviewing for constructability, accessibility, maintainability, and energy efficiency. This includes determination of performance criteria, operational sequence, and systems flexibility. These reviews will build a foundation upon which a technical understanding of operating complexities can be built. These reviews are also critical for the development of detailed systems testing procedures. SD, DD and CD Phase reviews.
- Provide Commissioning Plan
- Provide Commissioning Specifications needed outlining requirements and responsibilities.
- Participate in EUI Discussion.

### **Construction Phase**

- Conduct a kick-off meeting with the design and construction team to discuss the commissioning scope and review the commissioning plan. It will be scheduled after the team has reviewed the plan.
- Review selected shop drawings on systems to incorporate documentation from the submittals into the PFCs and FPTs. The PFCs and FPTs will be updated as needed.
- Preparation and execution of installation checklists called Pre-Functional Checklists (PFCs).
- Preparation of Functional Performance Tests (FPTs). CES will direct the execution of the FPTs by the contractors.
- Perform onsite observation reviews as needed to ensure that systems are installed per contractor documents and per the requirements of the Owner.
- Installation Reviews
- Witness to startup, duct pressure testing, pipe testing/flushing procedures, etc.
- Training: Review the status of the Owner training requirements and document that the requirements of the contract documents were followed.
  - As Built Documentation

### **Acceptance Phase**

- Perform/Witness/Review functional testing procedures with the assistance of the trade subcontractors responsible for the respective trade.
- Point to point checkout shall be performed and confirmed by the Cx Agent and necessary subcontractor.
- Contractors shall complete functional test sheet and Cx agent shall verify the work is completed and equipment is functioning properly.
- Assist with the coordination of a single building envelope air leakage by Fan pressurization Test using blower door equipment to pressurize and depressurize the building. Testing agency hired by the owner to conduct test.
- Review Closeout Documentation and provide review comment sheet to Design Team for inclusion into their own review and approval.
- O&M Manuals
- Warranty Certificates and Contractor Guarantees
- Develop and submit a Systems Manual document

- Coordinate with the construction manager in preparing and implementing a building turnover procedure. This process will confirm the documents and procedures required by Division I for closeout procedures are completed and turned over to the owner.
- Issue a Commissioning Final Report.

### **Warranty Phase**

- Follow-up on outstanding issues and assist in coordinating correction of deficiencies.
- Verify continued training.
- Perform/witness/verify deferred/seasonal testing.
- Conduct `warranty phase' review following project completion. The warranty phase site visit will be used to verify system performance, ensure that deliverables required by the contract have been turned over to the Owner, and follow-up on any outstanding issues.
- Measurement and Verification Reviews

## **Building Envelope Systems:**

Target Insulation Values:

- Walls - R25 to R30
- Roof – Minimum R-32
- Windows – U .28 to .35 (total assembly) and .4 for solar heat gain coefficient

Envelope Pressure Testing:

A single Building Envelope Air Leakage by Fan Pressurization Test shall be performed using blower door equipment to pressurize and depressurize the building to establish the building air leakage rate at a pressure differential of 75 pa pass/fail criteria when tested according to ASTM E 779 as stated in spec section 01 8316 Exterior Enclosure Performance Requirements. The Testing Agency shall be hired by the Owner to conduct the test.

## **Acoustical Requirements**

Project shall meet ANSI S12.60-202 to meet CT HPB requirements.

## **Accessibility Requirements**

This facility shall comply with all applicable codes regarding ADA requirements

## **Plumbing Systems:**

### ***Applicable Codes and Standards***

The plumbing systems will be designed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements:

- To be provided by Design Team in SD Narrative

### ***Plumbing Fixtures and Specialties:***

New plumbing fixtures shall be provided as follows:

- Water Closets shall be High Efficiency (1.28 gallon per flush)
- Urinals shall be Low Consumption (.125 gallon per flush)
- Flush valves shall be manual
- Lavatory faucets shall be manual
- Lavatories – In discussion
- Floor drains shall be provided for group bathrooms.
- Drinking fountains shall be provided with compressors and bottle fillers.

### ***Domestic Hot Water Systems:***

- Currently in discussion, to be finalized during design
- CMTA noted considering for Compressorized Geothermal

### ***Acceptable and Unacceptable Manufacturers***

Acceptable

- Drinking fountains: LK
- Fixtures: Kohler

Unacceptable

- None noted by Owner at this time.

## **Mechanical Systems:**

### ***Applicable codes and standards***

The mechanical systems design shall meet or exceed the requirements of the following codes and regulations and all applicable local authority requirements:

- To be provided by Design Team in SD Narrative

### ***Heating, Ventilating, and Air Conditioning***

Heating Season Design Conditions

- Indoor - 70°F
- Outdoor - 4°F

Cooling Season Design Condition

- Indoor - 75°F
- Outdoor – 88°F Dry Bulb, 73°F Wet bulb

Humidity

- Winter – No requirement
- Summer 55-65% RH

#### Renewable Energy Systems

- Geothermal Heat Pumps
- Photovoltaics

#### Energy Source

- Electricity

#### Filtration Needs

- Merv 8 with a possibility of MERV 13 for final filters (to be decided upon as design progresses)

#### Controls System

- Interest in Alerton Flat Spec as the District currently has Alerton town wide.
- Interest in 1°F differential from setpoint as a basis.
- Interest in non-display type sensors.
- All points shall be monitored and controlled via the BMS and existing work stations.
- Monitoring for Metering

#### Mechanical Systems

- Water source heat pumps with dedicated outdoor air unit

#### Zoning Requests

- Currently in discussion regarding averaging sensors versus one unit per classroom

#### Radiant Flooring

- Considering for select areas such as Pre-K

#### Perimeter Radiation

- Currently not considering this as an option.

#### Cooling Plant

- Water Cooled Heat Pump

#### Heating Plant

- Water Cooled Heat Pump

#### Piping Systems

- Ground Water Two Pipe

#### Air Handling Units

- Indoor

#### Ventilation

- Demand Control Ventilation

### ***Acceptable and Unacceptable Manufacturers***

#### Acceptable

- Alerton Controls
- Mitsubishi
- Grundfoss Pumps

Unacceptable

- TACO pumps

## **Electrical Systems**

### ***Applicable codes and standards***

The electrical systems design shall meet or exceed the requirements of the following codes and regulations and all applicable local authority requirements:

- To be provided by Design Team in SD Narrative

### ***Lighting and Lighting Control Systems***

The following fixtures will be provided:

- Site Lighting shall be LED
- Interior lighting shall be LED
- Daylighting shall be provided for all spaces
- Wireless is being considered for lighting controls however discussions are still evolving

### ***Fire Alarm Systems***

Fire Alarm Systems shall be provided per Code Minimum

### ***Special Systems -***

Emergency Generator: Conversations are still evolving. Considerations for discussion include:

- Heating, emergency lighting and technology are standard loads
- Load shifting
- Provide heat with DOAS to maintain freeze protection
- Fire Pumps: Diesel or Electric?
- Typical 24 hour run time

### ***Audio/Video Systems***

Information is evolving. More details will be provided at a later date.

### ***Security System***

Information is evolving. More details will be provided at a later date.

### ***Acceptable and Unacceptable Manufacturers***

Acceptable

- Sonitrol NE for Security

Unacceptable

- Siemens Panels

**Town of Mansfield, CT**

Mansfield Elementary School - Milestone Schedule  
May 13, 2020



**I. Pre-Referendum Activities**

September 24, 2018 thru June 28, 2019

**II. Pre-Referendum Activities Summer through Fall**

July 1, 2019 thru November 5, 2019

183 **Referendum**

**November 5, 2019**

**IV. Conceptual and Schematic Design**

December 6, 2019 thru May 28, 2020

1	Start Conceptual and Schematic Design	December 6, 2019	
2	<b>Issue RFP for Commissioning</b>	<b>December 9, 2019</b>	
3	<b>Issue RFP for Estimating</b>	<b>December 10, 2019</b>	
4	<b>MSBC meeting (4:30 pm)</b>	<b>December 12, 2019</b>	
5	Net Zero Design Charrette 4:15pm to 6:00pm	December 16, 2019	Location TBD
6	<b>Working Group Meeting</b>	<b>December 20, 2019</b>	Schedule Regular Meeting Dates
7	<b>Receive Commissioning Agent RFP's</b>	<b>January 6, 2020</b>	
8	<b>Receive Estimating RFP's</b>	<b>January 7, 2020</b>	
9	<b>MSBC meeting (4:30 pm)</b>	<b>January 9, 2020</b>	Shortlist commissioning agents
10	Re-post Estimating RFP's	January 13, 2020	
11	Tour of TSKP Schools	January 14, 2020	Wintonbury Early Childhood Magnet and Guilford High School
12	Commissioning Agent Interviews	January 23, 2020	
13	<b>MSBC meeting (4:30 pm)</b>	<b>January 23, 2020</b>	TSKP to present concept massing
14	Award Commissioning contract	January 24, 2020	
15	Second Tour of TSKP Schools	January 24, 2020	Stratford Academy Soto School and Greenwich New Lebanon
16	Receive Estimating RFP's	January 27, 2020	
17	Working Group Meeting 1:00pm	January 28, 2020	
18	<b>Kick Off meeting with OSCG&amp;R 1:00pm</b>	February 4, 2020	450 Capitol Ave, Hartford CT at 1PM
19	<b>MSBC meeting (4:30 pm)</b>	February 13, 2020	Review RFP's and Select Estimator
20	<b>Net Zero Design Meeting 9:00 am - TSKP Office</b>	<b>February 18, 2020</b>	Commissioning agent participation / Kitchen consultant
21	<b>MSBC meeting (4:30 pm)</b>	<b>February 27, 2020</b>	
22	Sketch Session with Superintendent	<b>March 2, 2020</b>	10:30AM TSKP Office
23	<b>Net Zero Design Meeting, 9:00am - TSKP Office</b>	<b>March 10, 2020</b>	Food Service Director / Kitchen Consultant / Superintendent
24	<b>Net Zero Design Meeting, 10:30am - TSKP Office</b>	<b>March 10, 2020</b>	IT Consultant, IT director Jaime
25	District Meeting on OPR Standards - TSKP Office	March 10, 2020	1PM-4PM
26	Sustainability committee 6:00pm	March 11, 2020	
27	<b>MSBC meeting (4:30 pm)</b>	<b>March 12, 2020</b>	
28	Meeting with Eversource -TSKP Studios- 1:30pm	<b>March 19, 2020</b>	
29	Site review meeting with Mansfield	<b>March 20, 2020</b>	Teleconference site plan review
30	<b>MSBC meeting (4:30 pm)</b>	<b>March 26, 2020</b>	
31	<b>BOE meeting 7:00pm - Video Conference</b>	<b>April 2, 2020</b>	Present Conceptual Design
33	<b>MSBC meeting (4:30 pm)</b>	<b>April 9, 2020</b>	Conceptual Design Update
34	School Break	<b>April 13 -April 19, 2020</b>	
35	Town Council Presentation, Video Conference 7:00pm	<b>April 13, 2020</b>	Conceptual Design Presentation
36	AHJ Initial Project Meeting and Review	<b>April 14, 2020</b>	
37	TSKP Site visit to review existing wells	<b>April 21, 2020</b>	
38	<b>MSBC meeting (4:30 pm)</b>	<b>April 23, 2020</b>	Conceptual Exterior Presentation
40	Review Loading Dock and Delivery Truck Size	<b>April 28, 2020</b>	
41	Initial Selection of Well Sites	April 28, 2020	
	Submit Well Site Application	May 11, 2020	
42	Finalize OPR for distribution	<b>May 12, 2020</b>	
43	<b>SD Set Due</b>	<b>May 12, 2020</b>	
44	SD Distribution to Project Team	May 13, 2020	
45	Start SD Design Review	May 13, 2020	
46	<b>Start of Early DD - At Risk</b>	May 13, 2020	
47	<b>Begin SD estimate</b>	<b>May 13, 2020</b>	
48	<b>MSBC meeting (4:30 pm)</b>	<b>May 14, 2020</b>	
49	Publish Arch. Assessment RFP	May 15, 2020	
50	Stake out Well and New Building Locations	May 18, 2020	Week of May 18
51	Stake out Geothermal Well Locations	May 18, 2020	Week of May 18
52	<b>Security Task Force Meeting</b>	<b>TBD</b>	
53	Well Drilling, Yield Testing, Water Quality Specs	TBD	
54	Arch Assessment RFP Due	May 25, 2020	
55	Obtain Hazmat Report on Existing School	TBD	



- 56 **MSBC meeting (4:30 pm)**
- 57 Begin DOT Roadway Improvements Design
- 58 Receive Survey for Offsite Intersection Changes
- 59 Public Hearing on Amendment to Zoning Regs.
- 60 Conduct Infiltration Tests for Stormwater System
- 61 Conduct Perc Tests for Septic System
- 62 SD Design Review Comments Due
- 63 **SD Estimate Due from Estimator**
- 64 Publish RFP for Well Drilling and Testing
- 65 Design Team Review Meeting of Comments
- 66 SD Reconciliation Meeting
- 67 **MSBC meeting (4:30 pm)**
- 68 File for Pre-Application Review by PZC
- 69 Award Well Drilling and Testing
- 70 Well Inspection Meeting, DPH Drinking Water Select.
- 71 Revised SD Estimates Due from Estimators
- 72 Revised Reconciled SD Estimate Due
- 73 Design Team VE Meeting
- 74 **MSBC meeting (4:30 pm)**
- 75 Approval to DD

<b>May 28, 2020</b>	Present SD to Committee / Public
June 1, 2020	
June 1, 2020	
June 1, 2020	6:30PM Exempt parking setback in front of school
TBD	2 days, between June 1-19
TBD	2 days, between June 1-19
June 3, 2020	
<b>June 3, 2020</b>	
TBD	
June 4, 2020	
June 9, 2020	All Day Reconciliation
<b>June 11, 2020</b>	
<b>June 12, 2020</b>	Request Mid-July Review of DD set in progress
<b>TBD</b>	
TBD	Onsite Meeting with DPH, Health District, CT Water, LEI
June 16, 2020	
June 23, 2020	
June 24, 2020	If Needed
<b>June 25, 2020</b>	Final Review of SD Design and Estimate
June 25, 2020	

**V. Design Development**

- 1 End of DD at Risk Period
- 2 Start DD Documents
- 3 State Funding Authorized
- 4 DOT Survey and Archaeological Report Due
- 5 **Tentative SD meeting with State**
- 6 **MSBC meeting (4:30 pm)**
- 7 PZC Pre-Application Review
- 8 DOT design status update
- 9 Conduct Geothermal and Water Well Tests
- 10 Obtain DPH Drinking Water Selection Approvals
- 11 **MSBC meeting (4:30 pm)**
- 12 Submit Plan for PZC-IWA Hearing
- 13 **MSBC meeting (4:30 pm)**
- 14 DD Set Due
- 15 Send DD Set to Estimators
- 16 Start DD Design Review
- 17 **Start of Early CD - At Risk**
- 18 **MSBC meeting (4:30 pm)**
- 19 DD Design Review Comments Due
- 20 DD Estimates due from Estimators
- 21 Design Team Review Meeting of Comments
- 22 DD Estimate Reconciliation Meeting
- 23 **MSBC meeting (4:30 pm)**
- 24 Revised DD Estimate Due from Estimators
- 25 Revised Reconciled DD Estimate Due
- 26 PZC-IWA Hearing
- 27 DD VE Meeting
- 28 Submit to OSCGR -DDR
- 29 **MSBC meeting (4:30 pm)**
- 30 Approval to CD

**June 26, 2020 thru September 24, 2020**

June 26, 2020	
June 26, 2020	
July 1, 2020	
July 2, 2020	
<b>after July 7th</b>	
<b>July 9, 2020</b>	
<b>TBD</b>	Mid-July
TBD	
TBD	
July 15, 2020	Estimated Timeframe
<b>July 23, 2020</b>	
August 5, 2020	
<b>August 13, 2020</b>	
August 17, 2020	
August 18, 2020	
August 18, 2020	
<b>August 18, 2020</b>	
<b>August 27, 2020</b>	
September 2, 2020	
September 2, 2020	
September 3, 2020	
September 8, 2020	All Day Reconciliation
<b>September 10, 2020</b>	
September 15, 2020	
September 18, 2020	
September 21, 2020	6:30 PM Council Chambers
September 22, 2020	If Needed
September 23, 2020	
<b>September 24, 2020</b>	
September 24, 2020	

**VI. Construction Documents**

- 1 End of CD at Risk Period
- 2 Start CD Documents
- 3 Second PZC-IWA Hearing
- 4 **MSBC meeting (4:30 pm)**
- 5 **MSBC meeting (4:30 pm)**
- 6 90% CD Set Due

**September 25, 2020 thru December 18, 2020**

September 25, 2020	
September 25, 2020	
October 5, 2020	If Needed
<b>October 8, 2020</b>	
<b>October 22, 2020</b>	
November 2, 2020	



**Town of Mansfield, CT**

**Mansfield Elementary School - Milestone Schedule**

May 13, 2020

- 7 90% CD Set to Estimators
- 8 Start CD Review Set Design Review
- 9 **MSBC meeting (4:30 pm)**
- 10 CD Estimate due from Estimators
- 11 CD Design Review Comments Due
- 12 CD Reconciliation Meeting
- 13 Construct Wells, Yield Testing, Quality Testing
- 14 100% CD Set for 3rd Party Code Review
- 15 Revised CD Estimate Due from Estimators
- 16 Reconciled CD Estimate Due
- 17 **MSBC meeting (4:30 pm)**

- November 3, 2020
- November 3, 2020
- November 12, 2020**
- November 20, 2020
- November 20, 2020
- December 1, 2020
- December 1, 2020      Submit to Engineer for Review
- December 4, 2020
- December 4, 2020
- December 10, 2020
- December 10, 2020**

**VII. Review and Approvals**

- 1 Submit Well Data and Water Quality to DPH
- 2 Receive Plan Review Comments
- 3 SBC -BOE Approvals SCG-042
- 4 OSCGR - PCR for Bidding Approval
- 5 Obtain DPH Well Use Approval
- 6 OSCGR Approval to Bid

**December 11, 2020 thru February 23, 2021**

- January 4, 2021
- January 12, 2021
- January 14, 2021
- January 19, 2021
- February 1, 2021
- February 23, 2021

**VIII. Bidding**

# Town of Mansfield Elementary School MSBC Meeting

May 14, 2020

**TOWN OF MANSFIELD**



**MANSFIELD ELEMENTARY SCHOOL**  
134 WARRENVILLE ROAD, MANSFIELD, CT 06266

STATE PROJECT NUMBER:  
078-068N

MAY 12, 2020  
SCHEMATIC DESIGN DRAWINGS

ARCHITECT TSKP ARCHITECTURE, PLLC AUTUMN, CT 06204	OWNER TOWN OF MANSFIELD 134 WARRENVILLE ROAD MANSFIELD, CT 06266	GEOTECHNICAL W. J. DAVIS CONSULTING, LLC 1075 W. MAIN STREET, SUITE 100 GASTONVILLE, CT 06033	VEHICLE ENGINEER PAUL J. HENNING, LLC 1000 MAIN STREET, SUITE 100 GASTONVILLE, CT 06033
CIVIL ENGINEER TSKP ARCHITECTURE, PLLC 134 WARRENVILLE ROAD MANSFIELD, CT 06266	PLUMBING CONSULTANT TERRY J. HANCOCK 1000 MAIN STREET, SUITE 100 GASTONVILLE, CT 06033	MECHANICAL ENGINEER TERRY J. HANCOCK 1000 MAIN STREET, SUITE 100 GASTONVILLE, CT 06033	STRUCTURAL ENGINEER TERRY J. HANCOCK 1000 MAIN STREET, SUITE 100 GASTONVILLE, CT 06033



**TOWN OF MANSFIELD**  
Mansfield, Connecticut

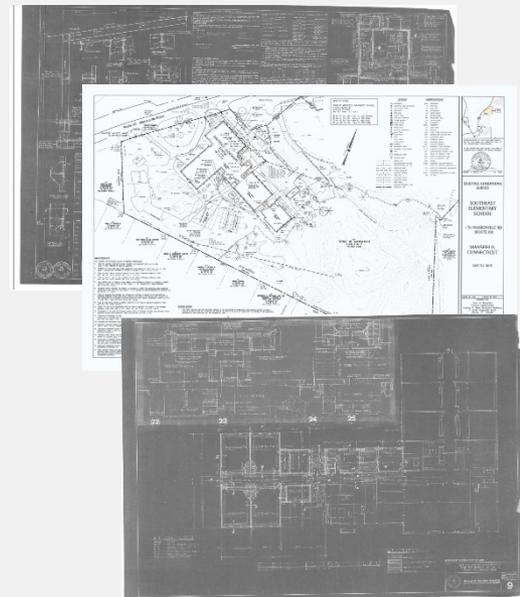


Schematic Design Specs  
Narrative Descriptions

**MANSFIELD ELEMENTARY SCHOOL**  
134 WARRENVILLE ROAD, MANSFIELD, CT 06266

STATE PROJECT NUMBER: 078-068N

MAY 12, 2020



**TSKP** ARCHITECTURE | PLANNING | INTERIORS  
STUDIO

# TOWN OF MANSFIELD



## MANSFIELD ELEMENTARY SCHOOL 134 WARRENVILLE ROAD, MANSFIELD, CT 06286

STATE PROJECT NUMBER:  
078-068N  
MAY 12, 2020  
SCHEMATIC DESIGN DRAWINGS

ARCHITECT  
TSKP STUDIO, LLC  
ONE HARTFORD SQUARE WEST  
HARTFORD, CT 06106

CIVIL ENGINEER  
FUSS & O'NEILL, INC  
146 HARTFORD RD.  
MANCHESTER, CT 06040

GEOTECHNICAL  
WELTI GEOTECHNICAL, P.C.  
227 WILLIAMS ST P.O. BOX 397  
GLASTONBURY, CT 06033

MEP/FP ENGINEERS  
KOHLER RONAN, LLC  
CONSULTING ENGINEERS  
93 LAKE AVE  
DANBURY, CT 06810

CIVIL ENGINEER  
(FOR OFF-SITE INTERSECTION IMPROVEMENTS)  
MILONE & MACBROOM, INC  
99 REALITY DRIVE  
CHESHIRE, CT 06410

NET ZERO CONSULTANT  
CMTA  
10411 MEETING STREET  
PROSPECT, KY 40059

STRUCTURAL ENGINEER  
MICHAEL HORTON ASSOCIATES, INC  
151 MEADOW ST, #2  
BRANFORD, CT 06405

LANDSCAPE ARCHITECT  
RICHTER & CEGAN, INC  
8 CANAL COURT, #B  
AVON, CT 06011

KITCHEN & FOOD SERVICE  
FOOD SERVICE DESIGN  
COLLABORATIVE, LLC  
10 MIDDLE DRIVE  
WINDSOR LOCKS, CT 06096

DRAWING LIST	
GENERAL	ALL 1 OFF-SITE IMPROVEMENTS
PHASING	PH1.00 DEMO AND PHASING PLAN
	PH1.01 ALTERNATE WELL PHASING
COLL	C0.01 GENERAL NOTES
	C1.01 SITE PREPARATION PLAN
	C1.02 EROSION & SEDIMENT CONTROL PLAN
	C1.03 STORMWATER MANAGEMENT PLAN
	C1.04 SITE UTILITY PLAN
LANDSCAPE	L1.00 SITE ILLUSTRATIVE PLAN
	L1.01 SITE MATERIALS LAYOUT PLAN
	L1.02 SITE GRADING PLAN
	L1.03 SITE PLANTING PLAN
	L1.04 SITE PLAYGROUND EQUIPMENT
ARCHITECTURE	A1.00 LOWER LEVEL FLOOR PLAN - OVERALL
	A1.00A LOWER LEVEL FLOOR PLAN - AREA A
	A1.00B LOWER LEVEL FLOOR PLAN - AREA B
	A1.00C LOWER LEVEL FLOOR PLAN - AREA C
	A1.10 MAIN LEVEL FLOOR PLAN - OVERALL
	A1.10A MAIN LEVEL FLOOR PLAN - AREA A
	A1.10B MAIN LEVEL FLOOR PLAN - AREA B
	A1.10C MAIN LEVEL FLOOR PLAN - AREA C
	A1.41 ROOF PLAN
	A2.00 LOWER LEVEL REFLECTED CEILING PLAN - OVERALL
	A2.10 MAIN LEVEL REFLECTED CEILING PLAN - OVERALL
	A3.01 EXTERIOR ELEVATIONS
	A3.02 EXTERIOR ELEVATIONS
	A3.11 BUILDING SECTIONS
	A3.12 BUILDING SECTIONS
	A4.01 WALL SECTIONS
STRUCTURAL	S1.00 LOWER LEVEL FOUNDATION PLAN - OVERALL
	S1.00A LOWER LEVEL FOUNDATION PLAN - AREA A
	S1.00B LOWER LEVEL FOUNDATION PLAN - AREA B
	S1.00C LOWER LEVEL FOUNDATION PLAN - AREA C
	S1.10 MAIN LEVEL FRAMING PLAN - OVERALL
	S1.10A MAIN LEVEL FRAMING PLAN - AREA A
	S1.10B MAIN LEVEL FRAMING PLAN - AREA B
	S1.10C MAIN LEVEL FRAMING PLAN - AREA C
	S1.20 ROOF FRAMING PLAN - OVERALL
	S1.20A ROOF FRAMING PLAN - AREA A
	S1.20B ROOF FRAMING PLAN - AREA B
	S1.20C ROOF FRAMING PLAN - AREA C
	S2.00 COLUMN SCHEDULE - A
	S2.01 COLUMN SCHEDULE - B & C
	S3.01 FOUNDATION SECTIONS
	S6.00 TYPICAL DETAILS
S6.01	TYPICAL DETAILS
FIRE PROTECTION	FP0.01 COVER SHEET - FIRE PROTECTION
	FP1.00 LOWER LEVEL PLAN - OVERALL - FIRE PROTECTION
	FP1.10 MAIN LEVEL PLAN - OVERALL - FIRE PROTECTION
	FP5.01 SCHEDULES & RISER DIAGRAM - FIRE PROTECTION
	FP6.01 DETAILS - FIRE PROTECTION
	FP6.02 DETAILS - FIRE PROTECTION
MECHANICAL	M0.1 LEGENDS AND NOTES
	M1.1 LOWER LEVEL HVAC ZONING PLAN
	M1.2 UPPER LEVEL HVAC ZONING PLAN
	M2.1A LOWER LEVEL - AREA A
	M2.1B LOWER LEVEL - AREA B
	M2.1C LOWER LEVEL - AREA C
	M2.2A UPPER LEVEL - AREA A
	M2.2B UPPER LEVEL - AREA B
	M2.2C UPPER LEVEL - AREA C
	M3.1 SCHEMATICS - MECHANICAL
	M4.1 CONTROLS - MECHANICAL
	M4.2 CONTROLS - MECHANICAL
	M5.1 DETAILS - MECHANICAL
	M5.1 VENTILATION REQUIREMENTS - MECHANICAL
ELECTRICAL	E0.01 COVER SHEET - ELECTRICAL
	E0.03 SITE PLAN - ELECTRICAL
	E1.00 LOWER LEVEL FLOOR PLAN - OVERALL
	E1.10 MAIN LEVEL FLOOR PLAN - OVERALL
	E1.20 ROOF PLAN - OVERALL
	E3.01 PARTIAL PLANS - ELECTRICAL
	E4.01 SINGLE LINE DIAGRAM - ELECTRICAL



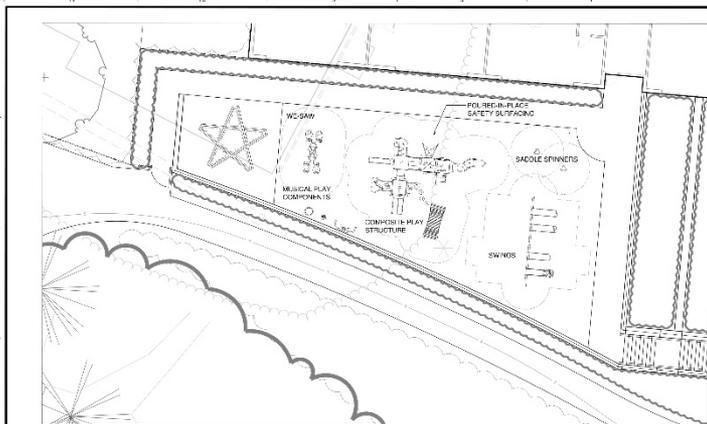
### DRAWING LIST

GENERAL	ALL 1 OFF-SITE IMPROVEMENTS
PHASING	PH1.00 DEMO AND PHASING PLAN
	PH1.01 ALTERNATE WELL PHASING
CIVIL	C0.01 GENERAL NOTES
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	A3.02 EXTERIOR ELEVATIONS
	A3.11 BUILDING SECTIONS
	A3.12 BUILDING SECTIONS
	A4.01 WALL SECTIONS
KITCHEN	K1.0 KITCHEN PLAN
STRUCTURAL	S1.00 LOWER LEVEL FOUNDATION PLAN - OVERALL
	S1.00A LOWER LEVEL FOUNDATION PLAN - AREA A
	S1.00B LOWER LEVEL FOUNDATION PLAN - AREA B
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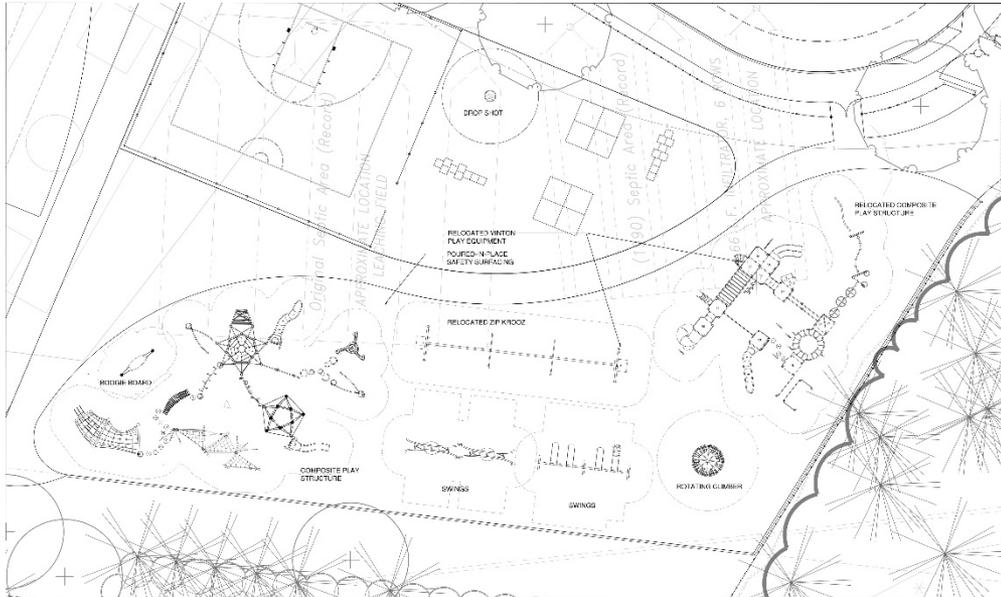
**TSKP** ARCHITECTURE | PLANNING | INTERIORS  
**STUDIO**



# Site | Playground Equipment



2 PRE-K AND K PLAY AREA



1 GRADES 1-4 PLAY AREA

**COBRIEN & SONS**  
 17 Trotter Drive • P.O. Box 718 / Medway MA 02053  
 508-859-4200 (phone) / 508-533-6312 (fax)  
 ISO 9001 Certified WIRE (MA Only)

**REVISED QUOTATION**

Date: April 25, 2020 Page 1 of 3  
 Job: Mansfield Elementary School  
 Location: Mansfield, CT  
 Salesman: Peter Wallace, CPNS / Phone: 508-966-1428 / Fax: 203-885-4234  
 Peter.Wallace@cobrien.com  
 Attention: Mike Egan / [megan@cobrien.com](mailto:megan@cobrien.com)  
 Cobrien Address: [www.cobrien.com](http://www.cobrien.com)

We warrant to offer no guarantee on the following items should they be used for any other job.

QTY	ITEM DESCRIPTION	TOTAL
<b>Landscaping Structures, Inc. - 061022072</b>		
<b>2019 Planting</b>		
<b>A. Play Equipment</b>		
<b>Play &amp; K Play Area</b>		
(1)	Play Shelter Structure for 2-3 year olds	\$41,800.00
(2)	4157 75% Shade Shelter	\$1,000.00
(1)	216164 W/S/S	\$5,000.00
(1)	P229716 Shaggy Kettle Drum	\$13,000.00
(1)	228214 Shaggy Kettle Drum	\$2,500.00
(1)	223971A Shaggy Waffle Chimes	\$4,370.00
(1)	Swing Set for each 12-13 year olds, (1) 180" seat and (1) ADA seated bucket seat	\$2,000.00

<b>Grades 1-4 Play Area</b>		
(1)	Redwood Play Shelter Structure (4x6) (4x6) (4x6)	\$2,200.00
(1)	Redwood Zip Structure (4x6) (4x6) (4x6)	\$2,200.00
(1)	Hydrant for retention of above equipment - #11405041-21	\$3,000.00

<b>Grades 1-4 Play Area</b>		
(1)	Play Shelter (4x6) Structure	\$164,370.00
(1)	#114744 Redwood Bench	\$2,200.00
(1)	C01814 Global Motion	\$24,200.00
(1)	Double Swing, Double Set	\$11,200.00
(1)	Swing Set for each 12-13 year olds, (1) ADA and (1) ADA seated bucket seat	\$2,000.00

<b>Final Play Area</b>		
(1)	115214 Zip Swing Box	\$1,370.00
(1)	Swing Set	\$5,000.00

**Total Furnished and Delivered for ALL 1-4 Play Area: \$289,750.00**

**K. Safety Surfacing - Estimated Pricing ONLY**  
 Surface Material: Polyurethane Safety Surfacing  
 (1) Area: total square footage = 10,500 sq. ft.  
 • Based on 2" thick "poly" thickness and a slope to a central location  
 • 100% Recycled, NSF Certified and recycled with (1) 100% recycled rubber  
 • Manufactured in the USA  
 • Estimated Total Safety Surfacing: \$205,000.00

**Estimated Total Installation: \$184,000.00**  
**Estimated Total Project Price: \$359,250.00**

**TERMS AND CONDITIONS - PLEASE READ**  
 • Quotes are based on information at the time of bid request. Any change, updates, additions, etc. may require quotes to be revised.  
 • Customer/Customer is responsible for the quantity, color, and product confirmation.  
 • Prices based on quantities listed. Any change to quantities may require prices quoted.  
 • M.E. O'Brien & Sons is NOT responsible for price fluctuations. All quantities, weights, packages, dimensions, etc. are the responsibility of the purchaser. Client's and double check quantities quoted. It is the responsibility of the purchaser to verify quantities before "you play".  
 • Prices are quoted for 2020, are firm for 30 days only and are subject to review thereafter.  
 • Prices are for materials only unless otherwise noted.  
 • Prices are NOT cash sale tax.  
 • If installation is included, M.E. O'Brien & Sons is NOT responsible for buried and/or ground hazards including, but not limited to: utility, unmarked bearing walls, unmarked utilities, landfills, construction debris and any other conditions beyond our control. Additional work will be required to fix any such conditions.  
 • Standard manufacturer's design (drawings, specifications, and construction apply).  
 • Revisions must be made within 30 calendar days of receipt of order. Customer is responsible for re-checking for plus shipping charges to and from for all returned items.  
 • Surfacing products are NOT fireproof.  
 • Our terms are: Net 30 days.  
 • Allow 4 to 6 weeks, preliminary materials after receipt of order and architectural approval of required. Installation to take place as soon as possible after receipt of materials and according to manufacturer's schedule, prevailing wage rates are not included unless otherwise noted.

If we can be of further assistance, please do not hesitate to contact us. Thank you!

**TSKP STUDIO**  
 100 Water Street  
 140 North Street, 10th Fl.  
 New York, NY 10038  
 212.677.1111  
 212.677.1112

**Richter/Cegan Inc.**  
 100 Canal Street  
 P.O. Box 987  
 Norwich, CT 06460  
 PH: 860-885-5268

**MANSFIELD ELEMENTARY SCHOOL**  
 134 WARRENVILLE ROAD  
 MANSFIELD, CT 06266

**SD SUBMISSION**



**DRIVING DIRECTIONS**



**SCALE**



**SCALE**

**SCALE**

**SCALE**

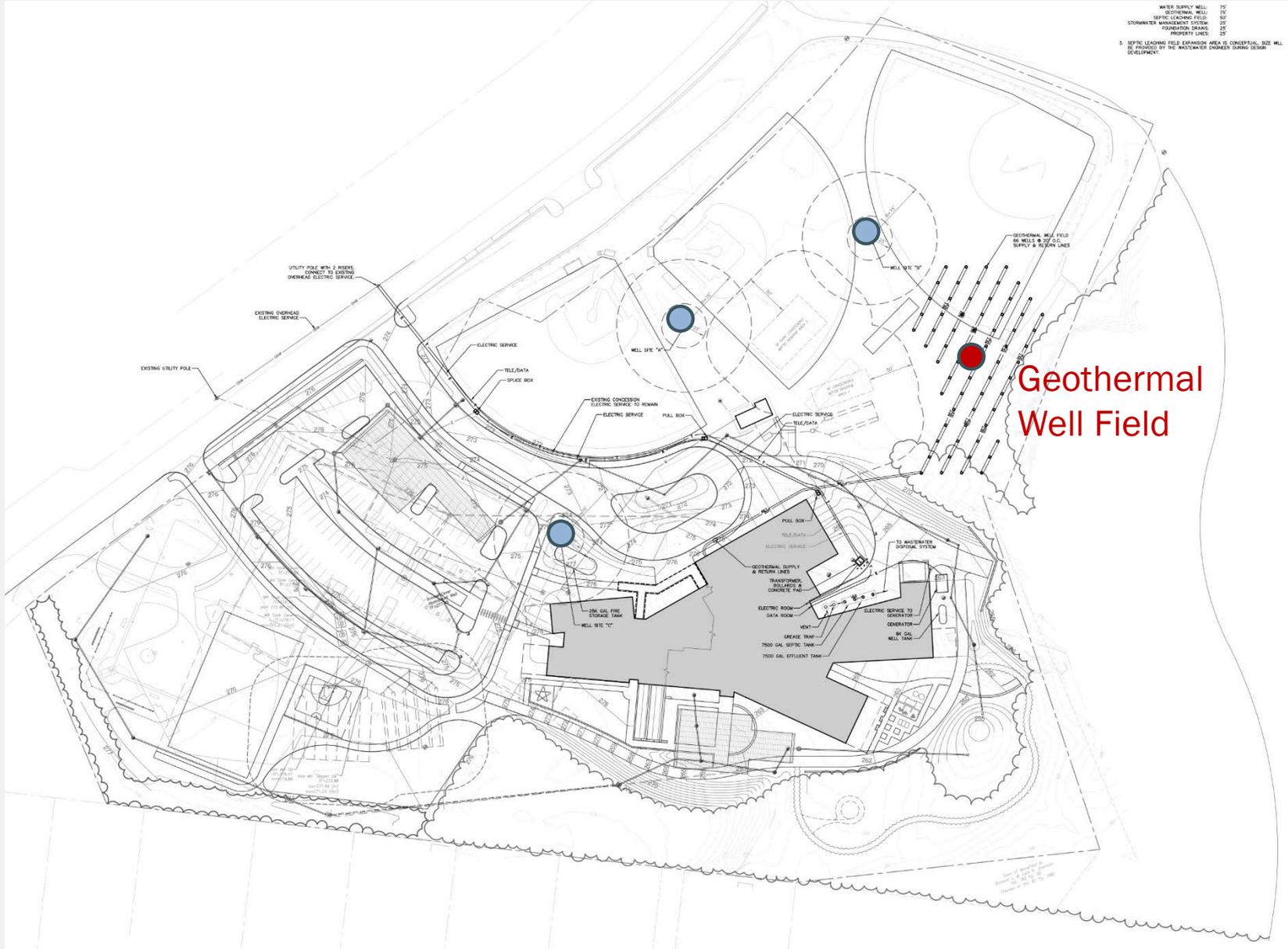
**SCALE**

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**L1.04**

# Site | Well Permit Status

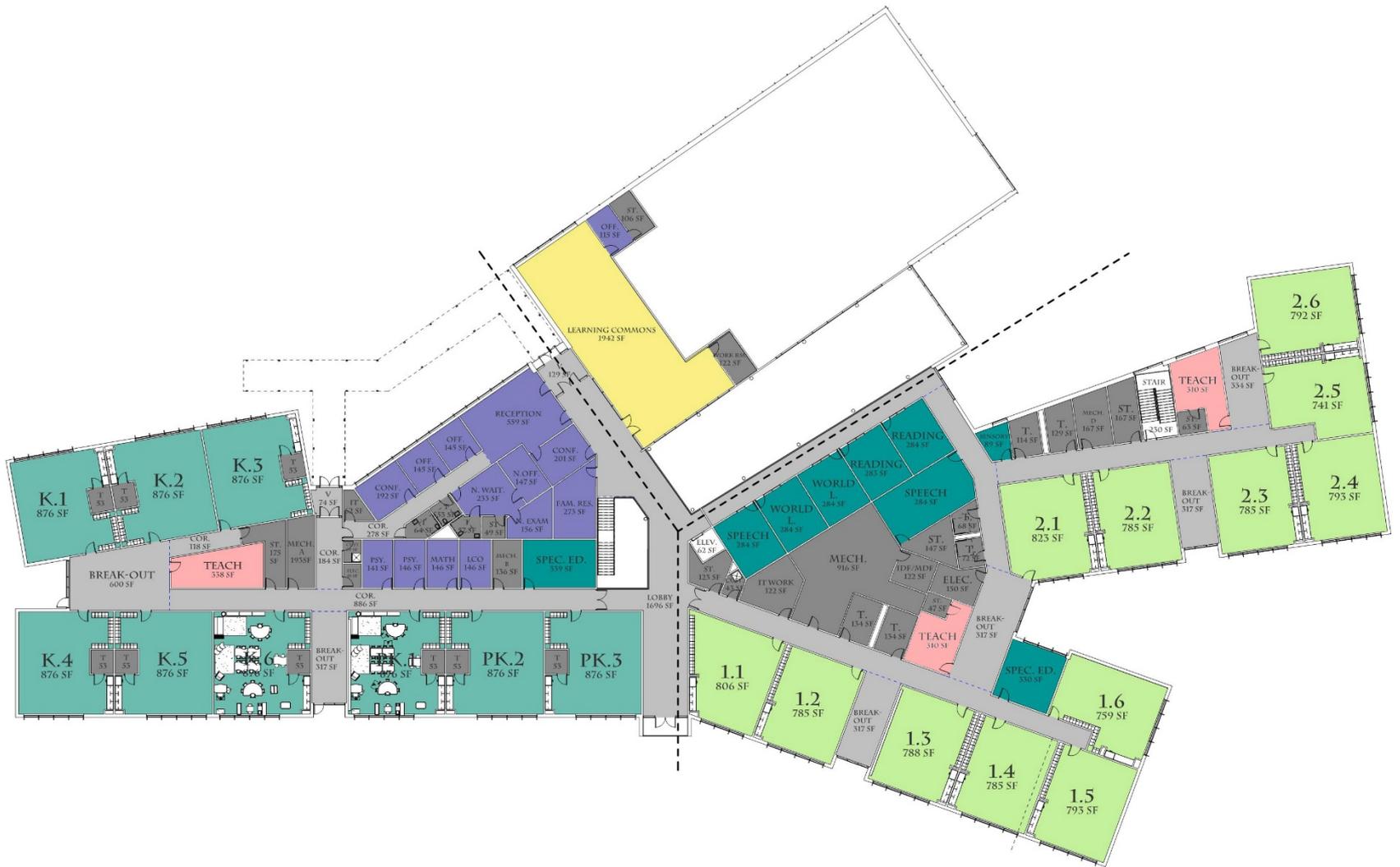




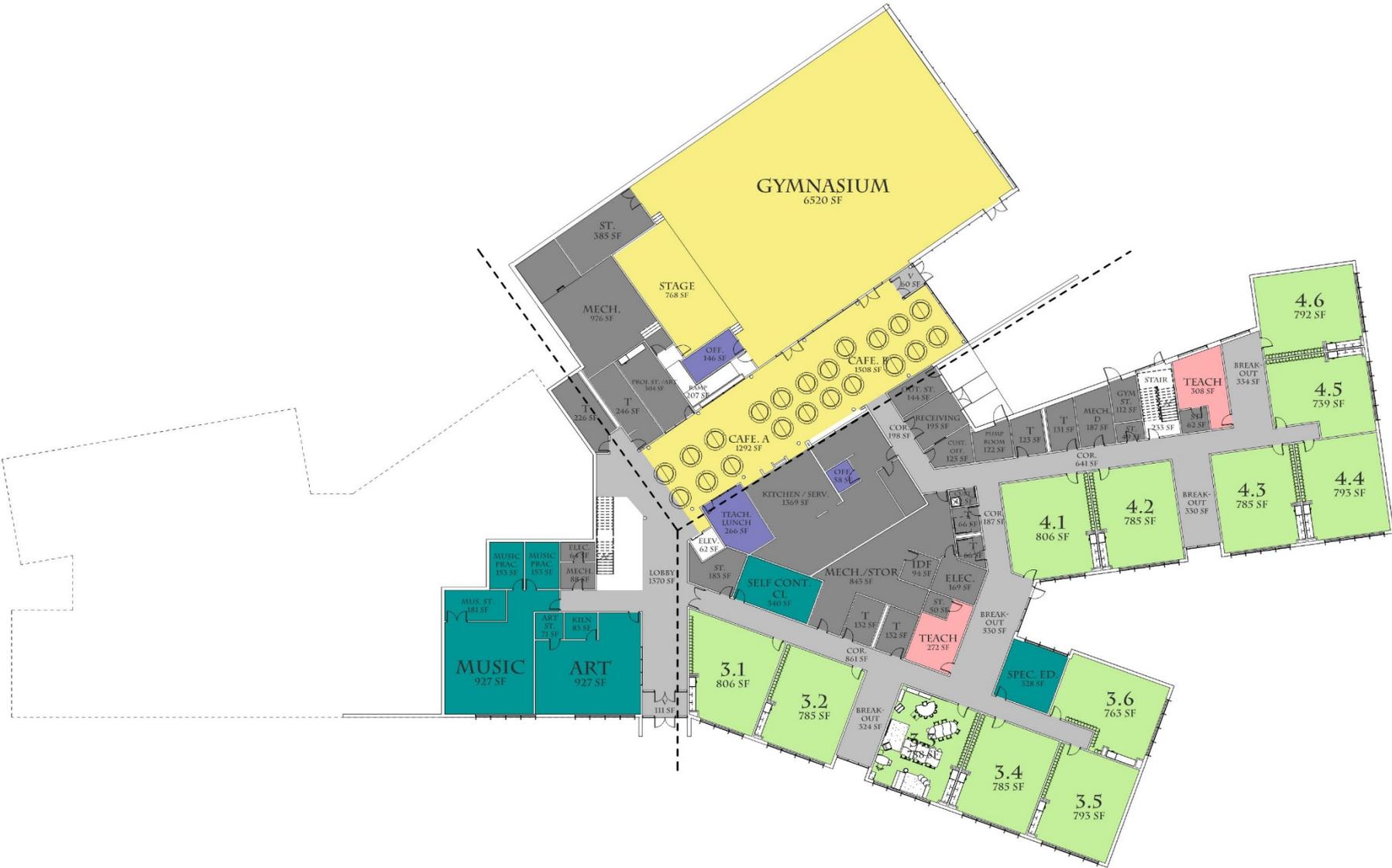




# Floor Plan | Main Level



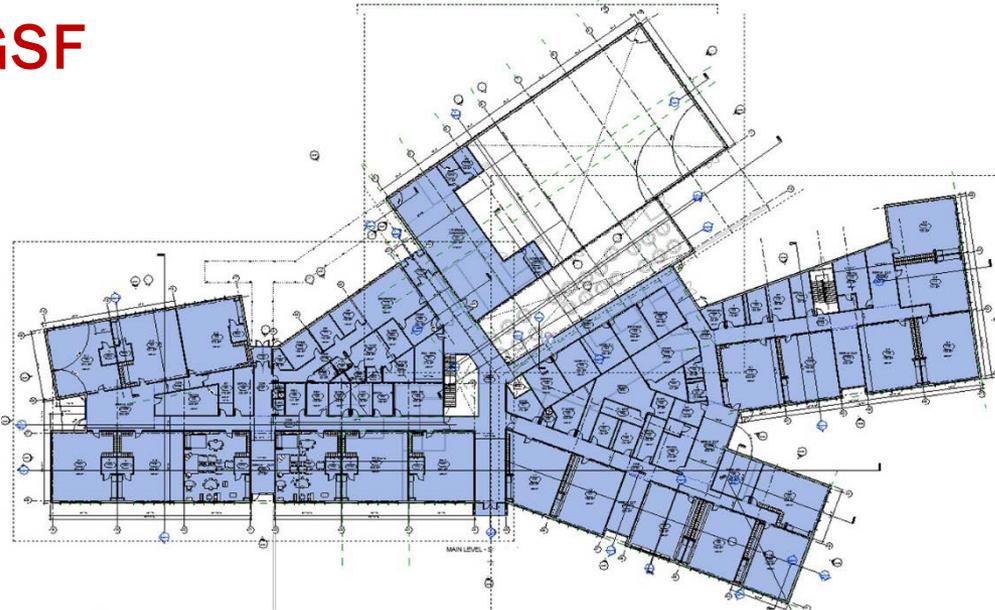
# Floor Plan | Lower Level



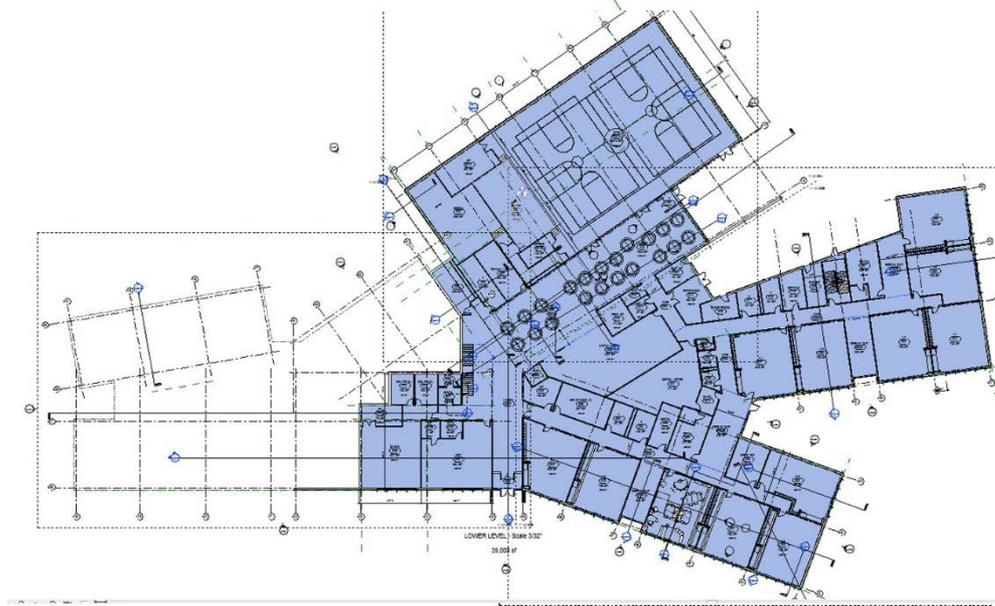
# Floor Areas | State GSF

## Areas in State GSF

Main Level	40,911
Lower Level	37,950
<b>TOTAL</b>	<b>78,861</b>
PROPOSED TARGET (for 600 pupils)	78,250
ED SPECS (May 2019)	73,824



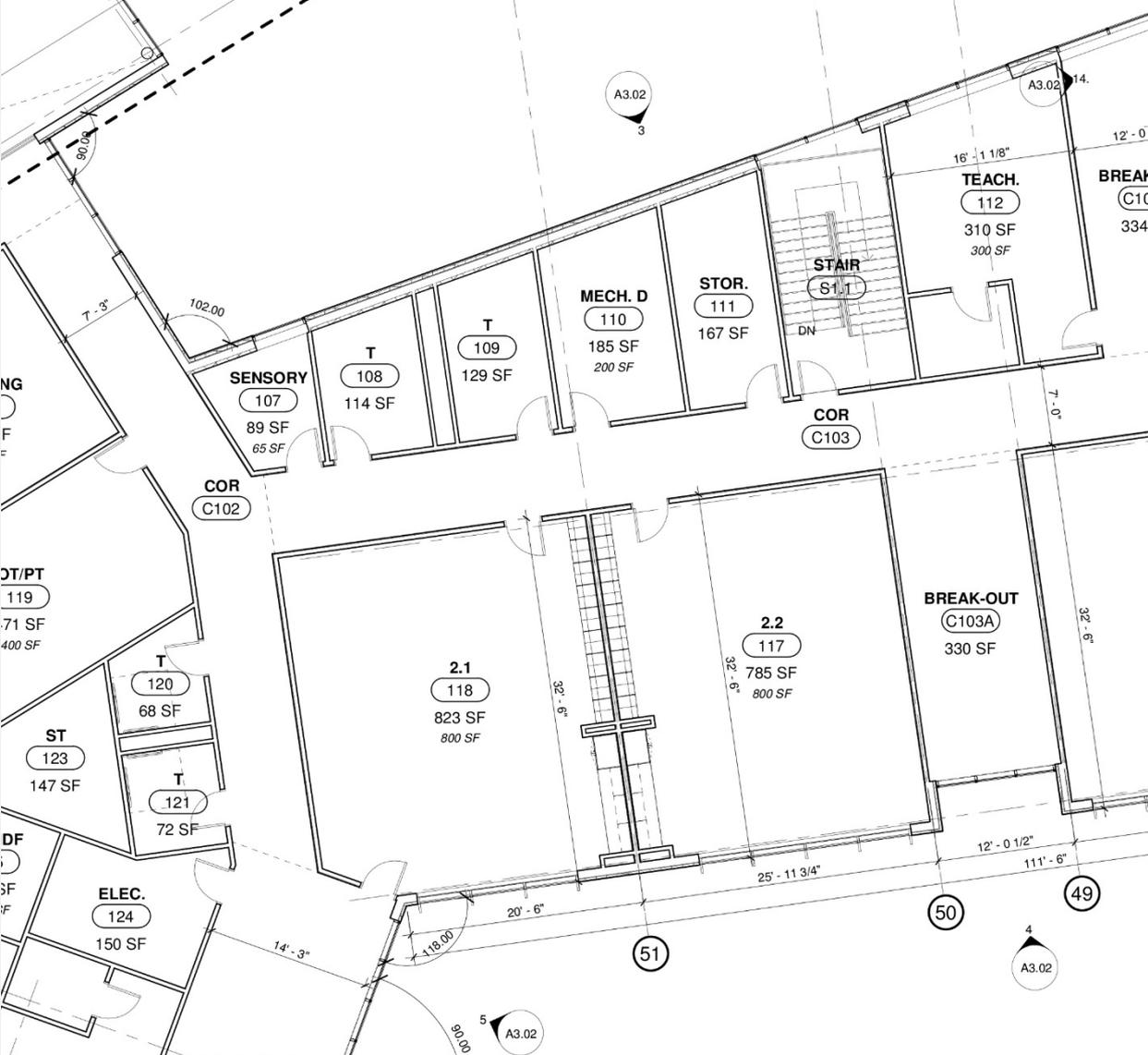
Main Level: 40,911 sf



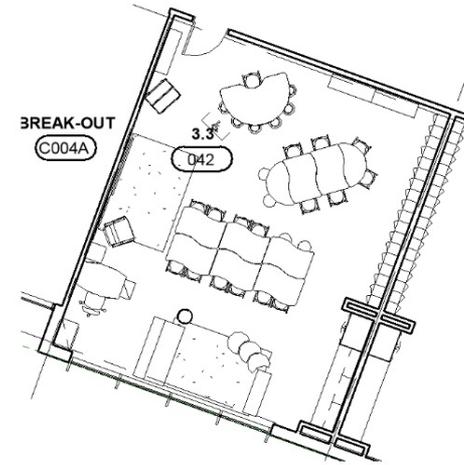
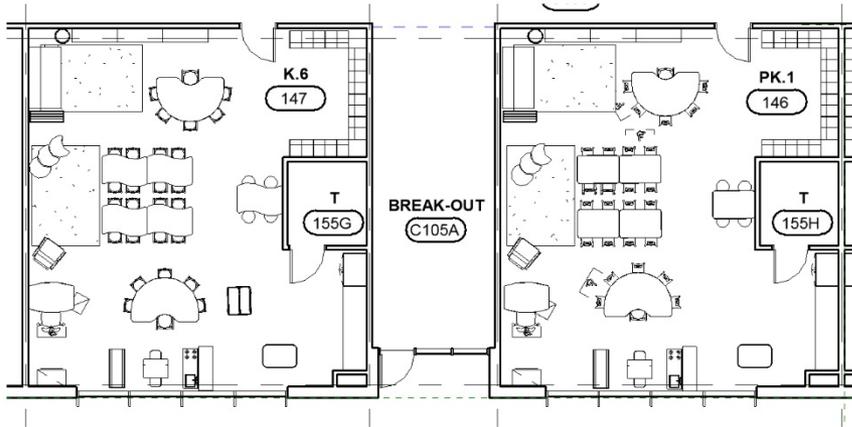
Lower Level: 37,950 sf



# Floor Plan | Room Areas



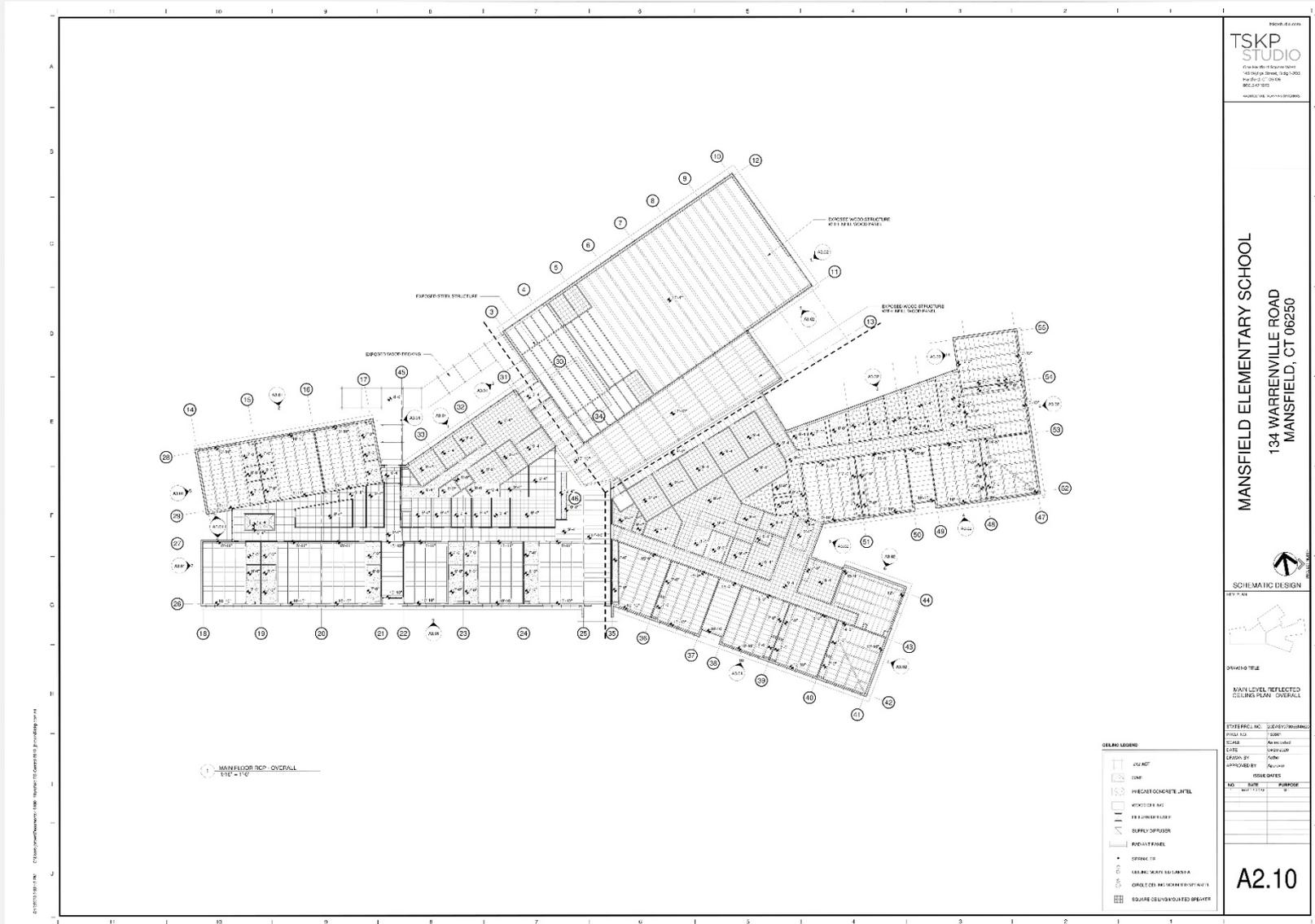
# FFE | Room Layouts



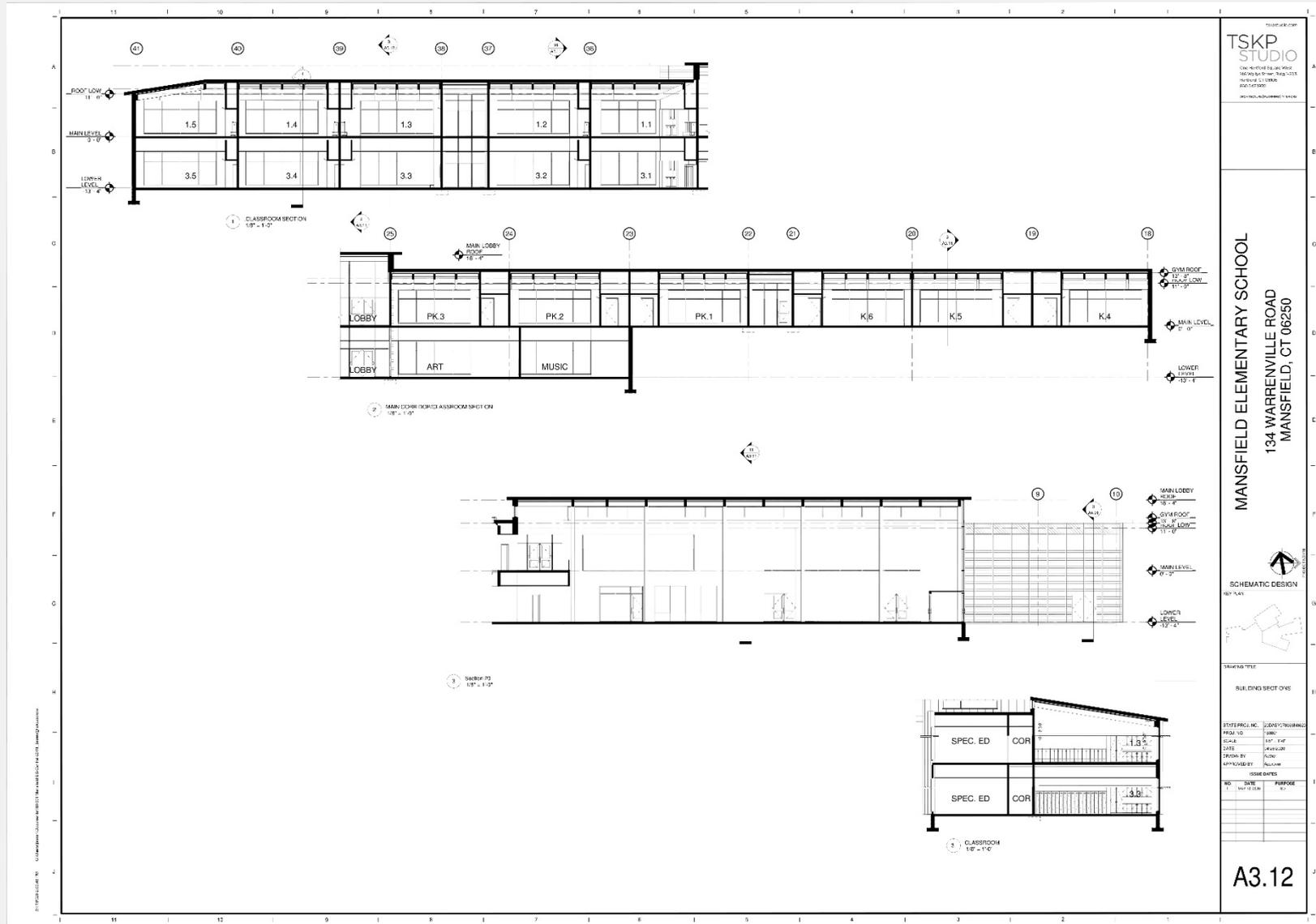
# Interior Study | Classroom



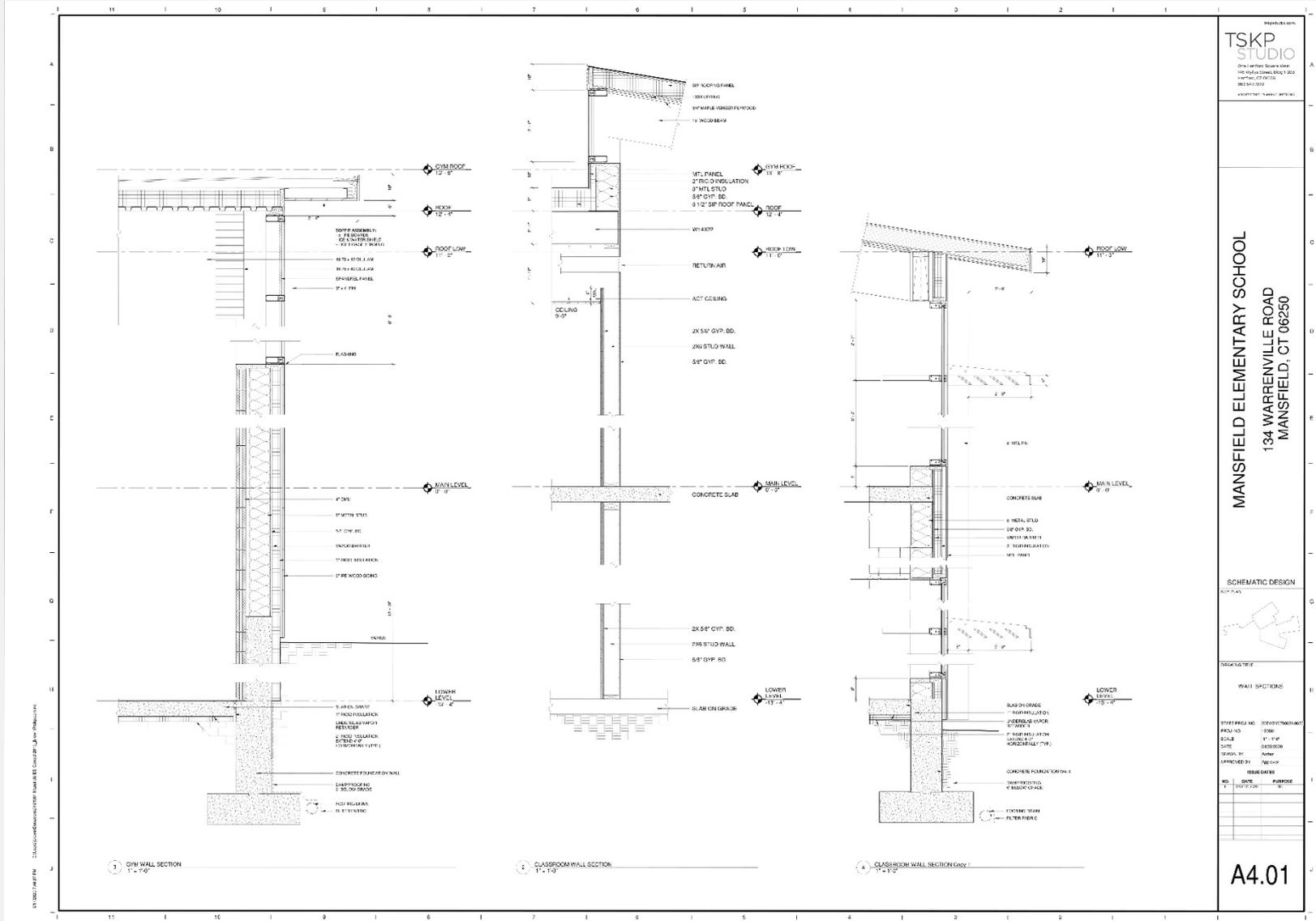
# Interior Study | Wood Structure



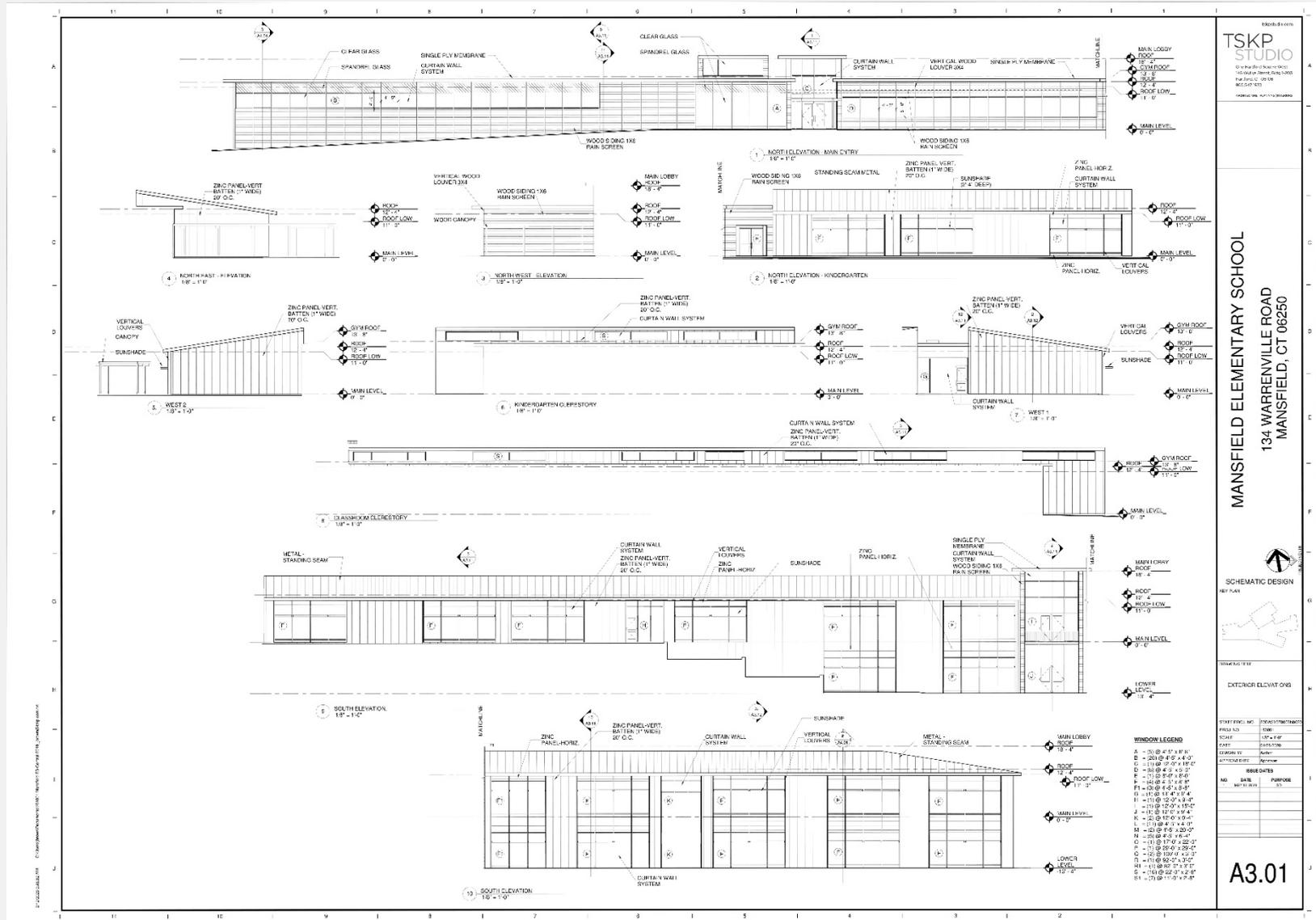
# Interior Study | Sections



# Interior Study | Classroom



# Exterior Study | Elevations



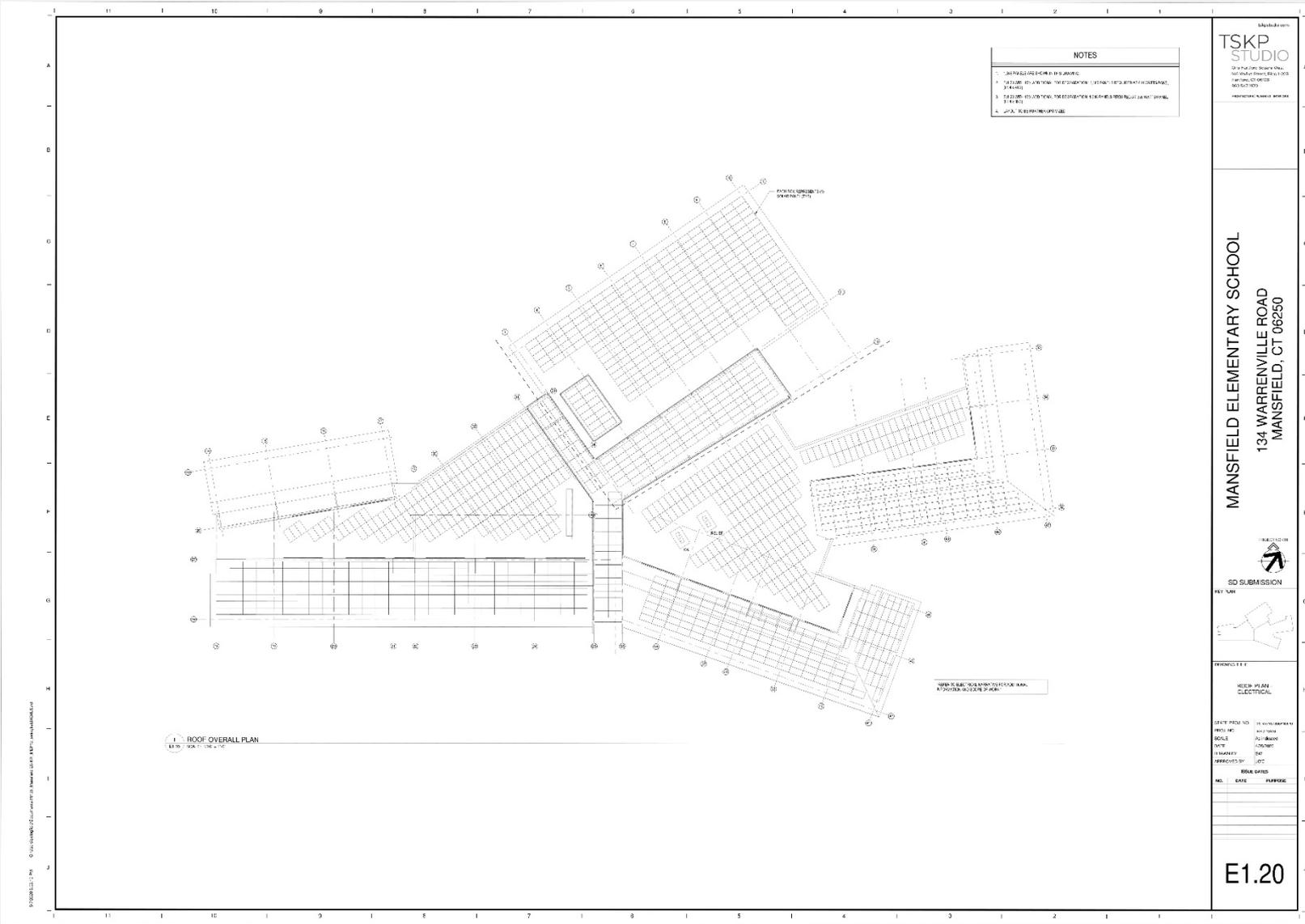
# Exterior Study | Main Entry







# Mechanical Systems | Photovoltaic System



# Exterior Study | South Façade



The End