

TISBURY SCHOOL

TISBURY, MA

SCHOOL BUILDING COMMITTEE MEETING

OCTOBER 19, 2020

AGENDA + PRESENTATION AVAILABLE ONLINE @

www.tisbury-school-project.com

Order of Business:

1. Call to Order + Virtual Meeting Reminders
2. School Building Committee (SBC) Attendance
3. Review and approval of minutes from the September 21,2020 meeting and minutes from October 5, 2020 meeting.
4. Review Schematic Design Cost Estimates and updated draft Project Budget
5. Review of agenda for Joint Meeting with Select Board, Finance Committee, School Committee, and PTO – scheduled for 10/20 @ 5:30pm
6. Public Comments
7. Acknowledgement of upcoming SBC meetings schedule
8. Other topics not reasonably anticipated by the Chair within 48 hours of the meeting

TISBURY SCHOOL | CONSTRUCTION COST ESTIMATE – SCHEMATIC DESIGN

SCHEMATIC DESIGN ESTIMATE COMPARISON	Tappé/PM&C SD Estimate	Daedalus CHA SD Estimate	----- DELTA -----	
DEMOLITION (Existing Building Demo, Abatement)	\$748,176	\$1,501,831	- \$753,655	- 50.18%
SUBSTRUCTURE (Foundations)	\$2,217,721	\$1,514,480	\$703,241	46.43%
SHELL (Exterior Enclosure, Roof)	\$8,511,789	\$8,428,309	\$83,480	0.99%
INTERIORS (Interior, Stairs, Finishes)	\$4,936,384	\$5,775,556	- \$839,172	- 14.53%
SERVICES (Elevator, HVAC, Plumbing, Fire Protection Electrical)	\$8,777,426	\$8,993,398	- \$215,972	- 2.40%
FURNISHINGS & EQUIPMENT (Kitchen, Gym, Audio/Visual Equipment)	\$1,020,040	\$917,216	\$102,824	11.21%
SITWORK (site prep, site improvements, utilities)	\$3,614,306	\$3,253,331	\$360,975	11.10%
MARK UPS (GCs, GRs, Insurance, Bonds, Escalation, Contingencies)	\$11,442,677	\$12,115,552	- \$672,875	- 5.55%
TOTAL CONSTRUCTION COSTS	\$40,520,343	\$41,318,530	- \$798,187	- 1.93%
ADD ALTERNATE: Photovoltaic Rooftop Panels (425 kW)	\$1,632,000	\$1,657,500	- \$25,200	- 1.54%

TISBURY SCHOOL | TOTAL PROJECT BUDGET – SCHEMATIC DESIGN

OPTION	Schematic Design Reno/Add
ADMINISTRATION (Legal, Printing, Advertising, Misc. Project Costs)	\$203,500
OWNERS PROJECT MANAGER (OPM Administration, On-Site Representative)	\$1,312,000
ARCHITECTURE AND DESIGN (Architectural and Engineering Costs, Reimbursable Services)	\$4,345,000
CONSTRUCTION (Demolition, Building Renovation, Sitework)	\$41,150,000
MISC. PROJECT COST (Utility Costs, Permitting, Moving Costs, Testing & Inspections, Temp Fac.)	\$2,900,000
FURNITURE FIXTURES AND EQUIPMENT (Classroom and Other Misc. Furniture, Building Technology)	\$675,000
CONTINGENCY (Owners and Construction Contingency)	\$2,600,000
TOTAL PROJECT	* \$53,185,500

** Total Project Budget estimate does not include Add Alternate cost for PV Panels*

TISBURY SCHOOL | TEMPORARY CLASSROOMS - MODULARS



STAY INFORMED | BUILDING COMMITTEE + TOWN RESOURCES

READ MORE HERE!

Tisbury School Project Website:

www.tisbury-school-project.com

EMAIL US!

Tisbury School Building Committee:

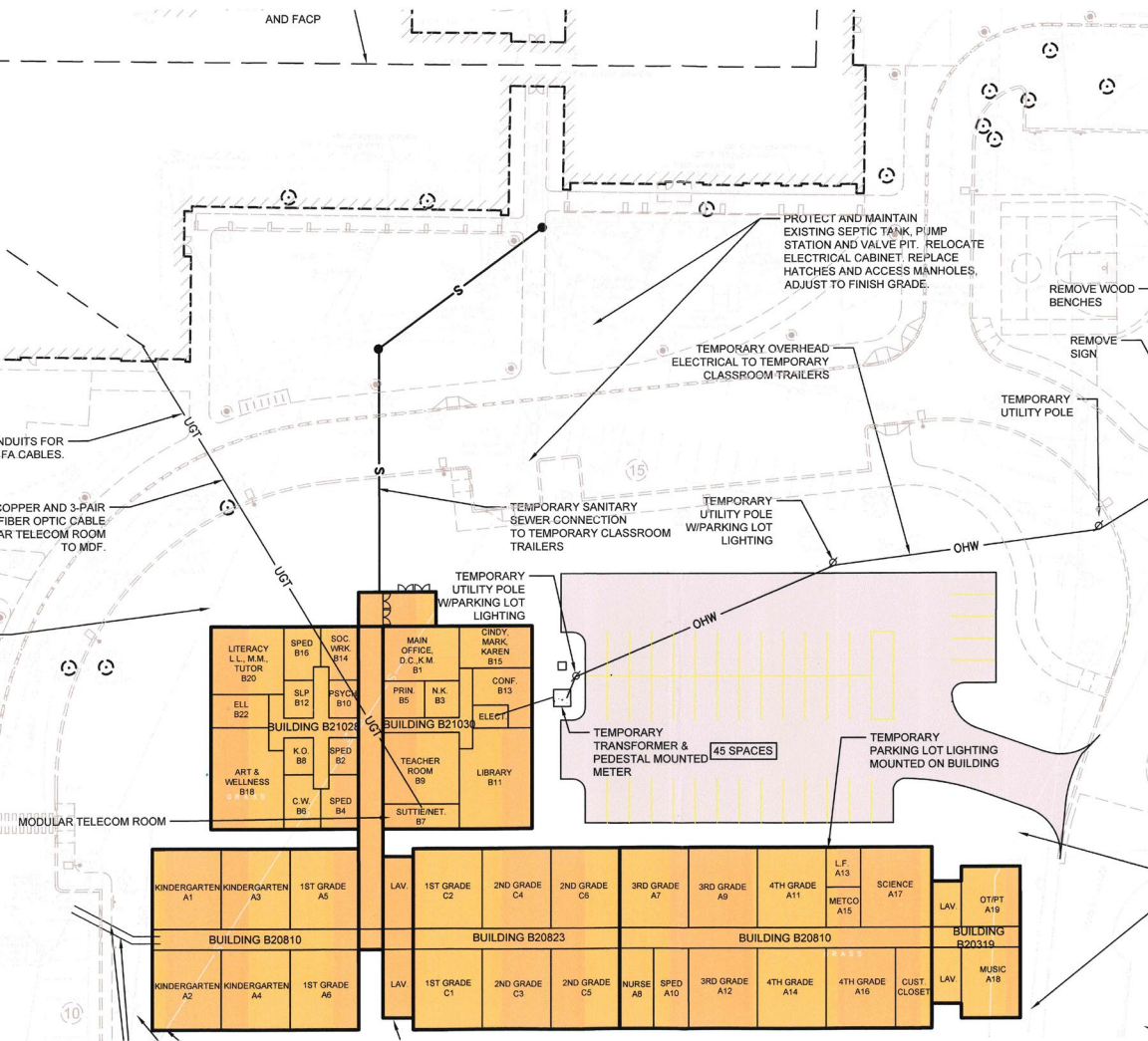
tisburyschoolproject@gmail.com

Sign-up for Town e-Alerts!

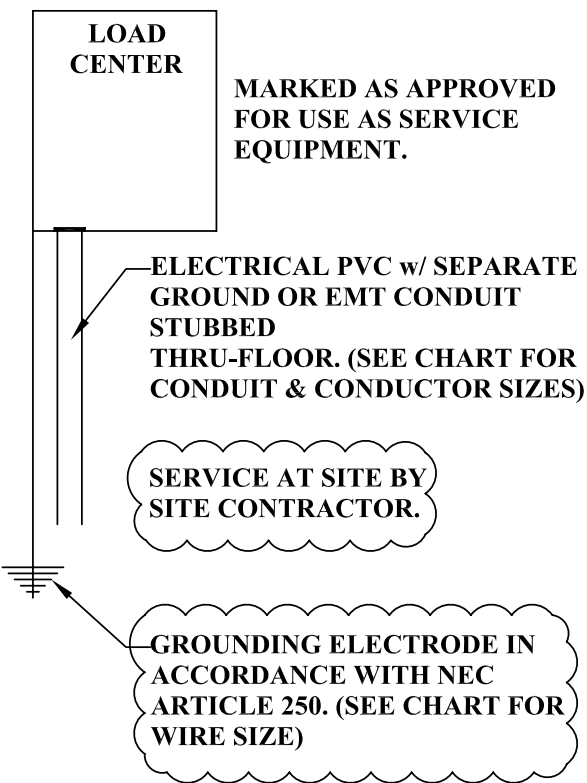
Town of Tisbury Website:

www.tisbury.ma.gov

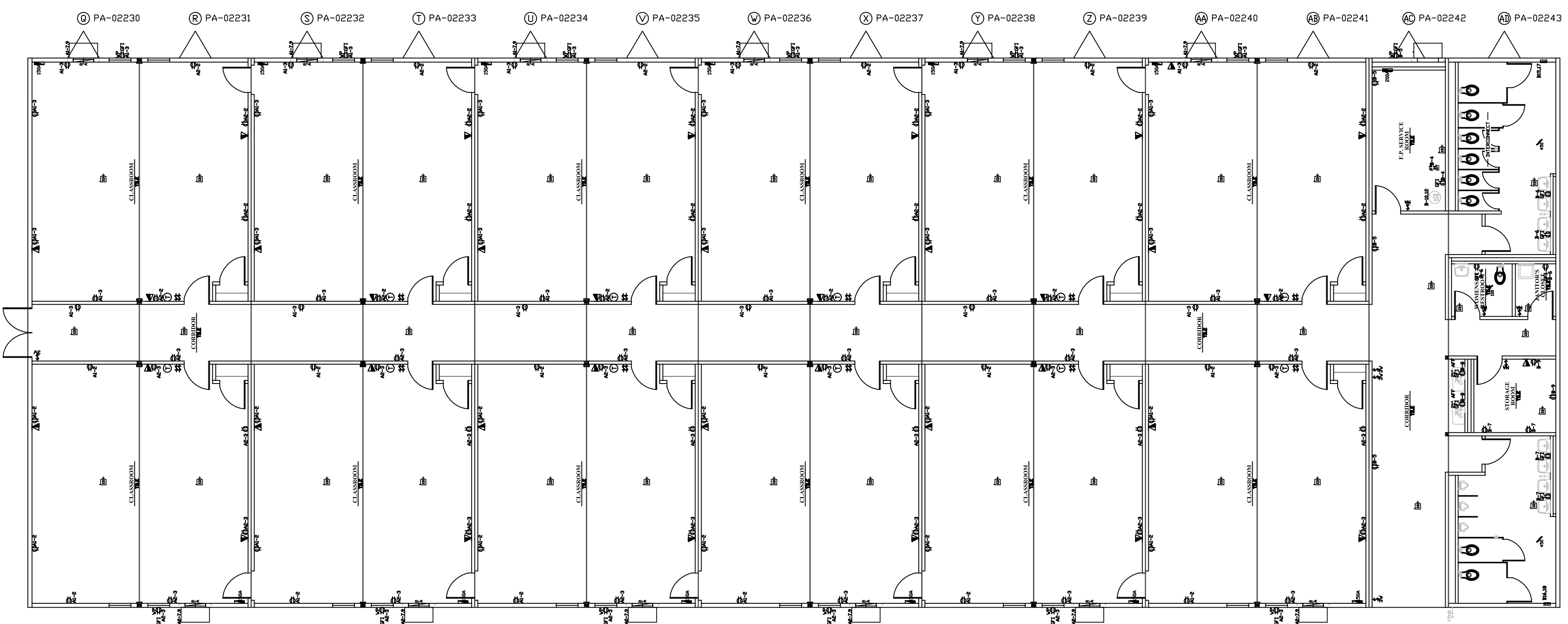
TEMPORARY CLASSROOMS | LINCOLN SCHOOL MODULARS



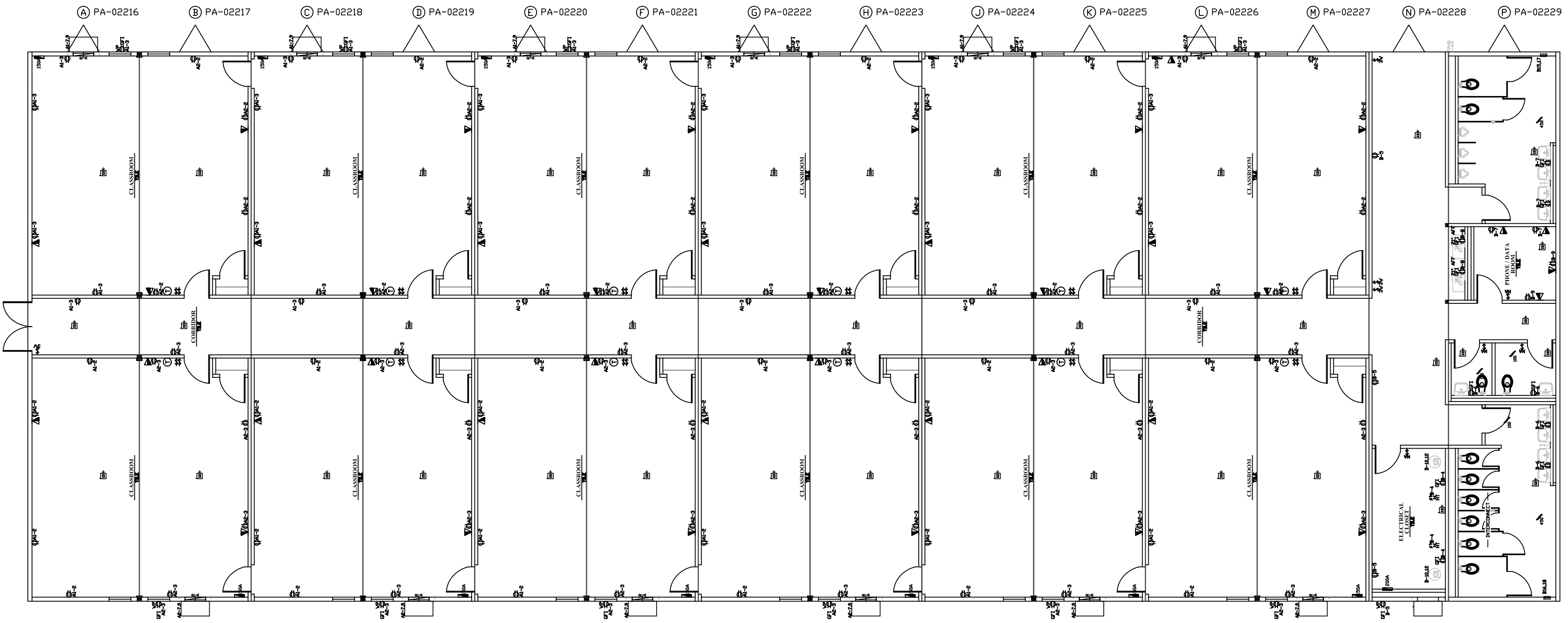
- Buildings are all electric with individually heated units
- Temporary transformer to be installed
- Temporary septic, gas, water, and telecom to be connected to existing onsite systems
- Fully equipped with fire protection
- Lincoln plan includes a temporary Parking Lot and parking lot lighting



CONDUIT & CONDUCTOR CHART				
LOAD CENTER RATING	CONDUCTOR SIZE (AWG OR KCMIL) THRU OR THWN	PVC CONDUIT / GROUND	EMT CONDUIT	GROUNDING ELECTRODE CONDUCTOR SIZE
60 AMP, 1 PHASE	(3) #6	1" #8	1"	#8
100 AMP, 1 PHASE	(3) #3	1 1/2" #8	1 1/2"	#8
100 AMP, 3 PHASE	(4) #3	1 1/2" #8	1 1/2"	#8
125 AMP, 1 PHASE	(3) #1	1 1/2" #6	1 1/2"	#8
125 AMP, 3 PHASE	(4) #1	1 1/2" #6	1 1/2"	#8
150 AMP, 1 PHASE	(3) #1/0	1 1/2" #6	1 1/2"	#6
150 AMP, 3 PHASE	(4) #1/0	2" #6	1 1/2"	#6
200 AMP, 1 PHASE	(3) #3/0	2" #6	1 1/2"	#4
200 AMP, 3 PHASE	(4) #3/0	2" #6	2"	#4
225 AMP, 1 PHASE	(3) #4/0	2" #4	2"	#2
225 AMP, 3 PHASE	(4) #4/0	2" #4	2"	#2
250 AMP, 1 PHASE	(3) #250	2" #4	2"	#2
250 AMP, 3 PHASE	(4) #250	2 1/2" #4	2"	#2
300 AMP, 1 PHASE	(3) #250	2 1/2" #4	2 1/2"	#2
300 AMP, 3 PHASE	(4) #250	3" #4	2 1/2"	#2
400 AMP, 1 PHASE	(2) SETS OF (3) #2/0	(2) 2" #3	(2) 1 1/2"	#1/0
400 AMP, 3 PHASE	(2) SETS OF (4) #2/0	(2) 2" #3	(2) 2"	#1/0
600 AMP, 1 PHASE	(2) SETS OF (3) #500 KCM	(2) 2 1/2" #1	(2) 2 1/2"	#2/0
600 AMP, 3 PHASE	(2) SETS OF (4) #500 KCM	(2) 3" #1	(2) 2 1/2"	#2/0
800 AMP, 1 PHASE	(2) SETS OF (3) #500 KCM	(2) 2 1/2" #1/2	(2) 2 1/2"	#3/0
800 AMP, 3 PHASE	(2) SETS OF (4) #500 KCM	(2) 3" #1/2	(2) 2 1/2"	#3/0
1,000 AMP, 1 PHASE	(2) SETS OF (3) #600 KCM	(2) 2 1/2" #2/0	(2) 2 1/2"	#3/0
1,000 AMP, 3 PHASE	(2) SETS OF (4) #600 KCM	(2) 3" #2/0	(2) 2 1/2"	#3/0



ELECTRICAL PLAN



WIRING SIZES

15 AMP CIRCUITS #12 COPPER**
 20 AMP CIRCUITS #12 COPPER**
 25 AMP CIRCUITS #10 COPPER**
 30 AMP CIRCUITS #10 COPPER**
 40 AMP CIRCUITS #8 COPPER** OR **
 45 AMP CIRCUITS #6 COPPER**
 45 AMP CIRCUITS #8 COPPER**
 50 AMP CIRCUITS #8 COPPER**
 50 AMP CIRCUITS #6 COPPER**
 60 AMP CIRCUITS #6 COPPER** OR **
 90 AMP CIRCUITS #4 COPPER**
 90 AMP CIRCUITS #3 COPPER**
 110 AMP CIRCUITS #2 COPPER**
 110 AMP CIRCUITS #1 COPPER**

* 75°C. MIN. TEMPERATURE RATING WITH EQUIPMENT TERMINATIONS LISTED AND IDENTIFIED FOR 75°C. TYPE THW, THWN, THHN WIRE OR MC CABLE.
 ** TYPE NM OR SE CABLE (FROM 60" COLUMN TABLE 310-16).

- NOTES:**
1. DEVICE HEIGHTS: SWITCH HEIGHTS ARE NOTED FROM FINISHED FLOOR TO BOTTOM OF BOX (UNLESS NOTED), RECEPT HEIGHTS ARE NOTED FROM FINISHED FLOOR TO CENTER OF BOX (UNLESS NOTED), JUNCTION BOX'S @ 18" AFF ARE FROM FINISHED FLOOR TO CENTER OF BOX (UNLESS NOTED), ALL OTHER DEVICE HEIGHTS ARE NOTED FROM FINISHED FLOOR TO BOTTOM OF BOX. (UNLESS NOTED).
 2. EXIT AND EMERGENCY LIGHTS WIRED TO LOCAL LIGHT CIRCUIT UNSWITCHED.
 3. BATTERY PACKS TO BE CONNECTED BY SITE CONTRACTOR.
 4. * = DENOTES SUSPENDED CEILING TILES AND/OR DIFFUSERS SHIPPED LOOSE AND INSTALLED AT SITE BY OTHERS. TROFFER LIGHTS TO BE STRAPPED TO SUB-CEILING, UNLESS NOTED.
 5. WIRE "BETWEEN" SUSPENDED CEILING AND GYPSUM SUB-CEILING TO BE IN EMT, MC CABLE OR FLEXIBLE CONDUIT (GREENFIELD), 4'-0" MAX).

SYMBOL	DESCRIPTION
(Circled X)	OCCUPANCY SENSOR, CEILING MOUNTED
(PS)	J-BOX w/ CONDUIT FOR FIRE ALARM
(SD)	PULL STATION, 42" AFF (UNLESS NOTED)
(SD)	J-BOX w/ CONDUIT FOR SMOKE DETECTOR (CEILING MOUNTED)
(HT)	20 AMP, HEAT TAPE RECEPT, 36" FROM EDGE OF BUILDING (BELOW FLOOR)
(3W)	15 AMP, SWITCH, 3-WAY 42" AFF (UNLESS NOTED)
(Fan)	CEILING EXHAUST FAN (CFM AS NOTED)
(D)	20 AMP, DIMMER SWITCH 42" AFF (UNLESS NOTED)
(EMER)	DOUBLE HEAD EMERGENCY LIGHT w/ BATTERY PACK, 88" A.F.F.
(VWP)	VANDAL RESISTANT EXT. INCANDESCENT LIGHT w/ PHOTO CELL, WP, 80" A.F.F.
(WP)	SINGLE HEAD REMOTE EMERGENCY LIGHT WEATHERPROOF, 80" AFF
(EXIT)	DUAL HEAD EMERGENCY LIGHT w/ LIGHTED EXIT SIGN & BATTERY PACK, 88" A.F.F.
(M)	20 AMP, MOTION ACTIVATED SWITCH 42" AFF (UNLESS NOTED)
(GFI)	20 AMP, DUPLEX GFI RECEPT 42" AFF (UNLESS NOTED)
(GFI WP)	OCCUPANCY SENSOR, WALL MOUNTED 90" AFF (UNLESS NOTED)
(GFI WP)	20 AMP, DUPLEX GFI RECEPT WEATHERPROOF, 6" A.F.F. (UNLESS NOTED)
(GFI)	20 AMP, DUPLEX RECEPT 18" A.F.F. (UNLESS NOTED)
(2x2)	2'x2' U-TUBE FLUORESCENT TROFFER LIGHT w/ DIFFUSER
(2x4)	2'x4' (3) TUBE FLUORESCENT TROFFER LIGHT w/ DIFFUSER
(Load Center)	LOAD CENTER

DRAWING LEGEND

ELECTRICAL LOAD CALCULATIONS
PANEL : A (24 pcs)

LOAD	AMP	208 VOLT / 120 VOLT, SINGLE PHASE, 3-WIRE	LOAD	AMP	208 VOLT / 120 VOLT, SINGLE PHASE, 3-WIRE
LOADS SERVED	LOAD	TRIP	LOAD	TRIP	LOADS SERVED
LIGHTS (UNSWITCHED)	160	100	LIGHTS (UNSWITCHED)	160	100
RECEPTS (UNSWITCHED)	100	60	RECEPTS (UNSWITCHED)	100	60
30 AMP 208V W/ 4 BRK	120	75	30 AMP 208V W/ 4 BRK	120	75
WALL HEATER (UNSWITCHED)	100	60	WALL HEATER (UNSWITCHED)	100	60
TOTAL	380	235	TOTAL	380	235
ADDITIONAL LOAD FOR MIN. NEC LIGHTING		317	ADDITIONAL LOAD FOR MIN. NEC LIGHTING		317
CALCULATED LOAD (CONNECTED LOAD)		2384	CALCULATED LOAD (CONNECTED LOAD)		155
TOTAL CALCULATED LOAD		2384	TOTAL CALCULATED LOAD		155

ELECTRICAL LOAD CALCULATIONS
PANEL : B (2 pcs)

LOAD	AMP	208 VOLT / 120 VOLT, SINGLE PHASE, 3-WIRE	LOAD	AMP	208 VOLT / 120 VOLT, SINGLE PHASE, 3-WIRE
LOADS SERVED	LOAD	TRIP	LOAD	TRIP	LOADS SERVED
LIGHTS (UNSWITCHED)	100	60	LIGHTS (UNSWITCHED)	100	60
RECEPTS (UNSWITCHED)	100	60	RECEPTS (UNSWITCHED)	100	60
WATER COOLER (UNSWITCHED)	100	60	WATER COOLER (UNSWITCHED)	100	60
TOTAL	300	180	TOTAL	300	180
ADDITIONAL LOAD FOR MIN. NEC LIGHTING		317	ADDITIONAL LOAD FOR MIN. NEC LIGHTING		317
CALCULATED LOAD (CONNECTED LOAD)		3399	CALCULATED LOAD (CONNECTED LOAD)		163
TOTAL CALCULATED LOAD		3399	TOTAL CALCULATED LOAD		163

PE SEALS:

ALL ITEMS THAT ARE CLOUDED ARE FIELD INSTALLED

Mark Line Industries

Williams Scotsman
 PROJECT NAME: Leominster High School
 PLANT LOCATION: Ephrata, PA

MODEL: (2) 19272
 DATE: 5/4/2011
 DRAWN BY: A. Cynier
 DRAWING SCALE: 1/8"=1'-0"
 QUOTE NO.: QTE0009800-A
 SERIAL NO.:
PA-027716-43
 DRAWING NUMBER:

CORPORATE OFFICE: 51687 C.R. 133, BRISTOL, IN. 46507 — INDIANA PLANT: 51687 C.R. 133, BRISTOL, IN. 46507 — NORTH CAROLINA PLANT: 455 LUCY GARRETT RD, ROXBORO, NC. 27574