ADDITIONS AND RENOVATION TO:

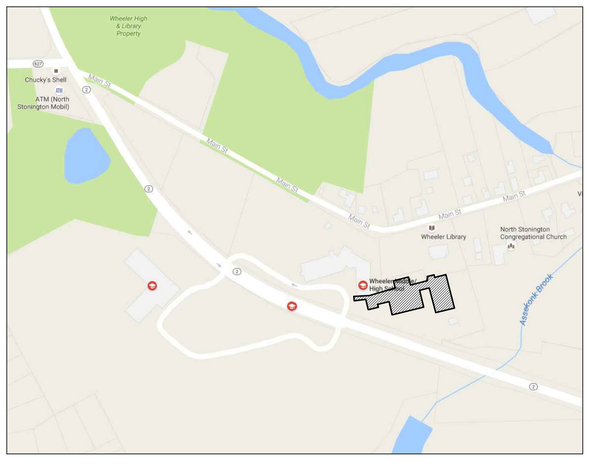
North Stonington High School / Middle School

297 Norwich-Westerly Rd. North Stonington, CT

State Project No.
102-0026-RR

11-22-2022

LOCATION MAP



ARCHITECT:

QA+M architecture
QuisenberryArcariMalik
195 Scott Swamp Road
Farmington, CT 06032

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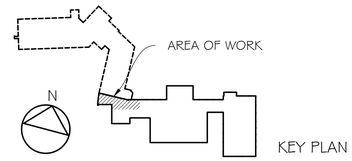
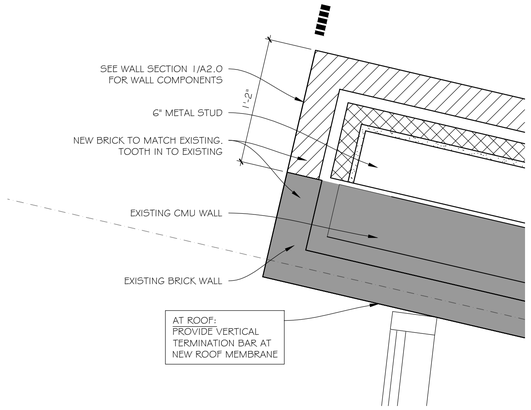
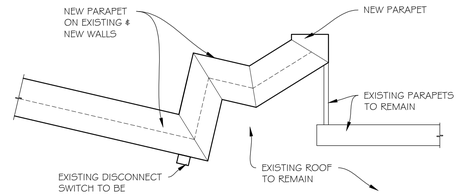
LIST OF DRAWINGS

NORTH STONINGTON BOARD OF EDUCATION
CENTRAL OFFICE (22-103)

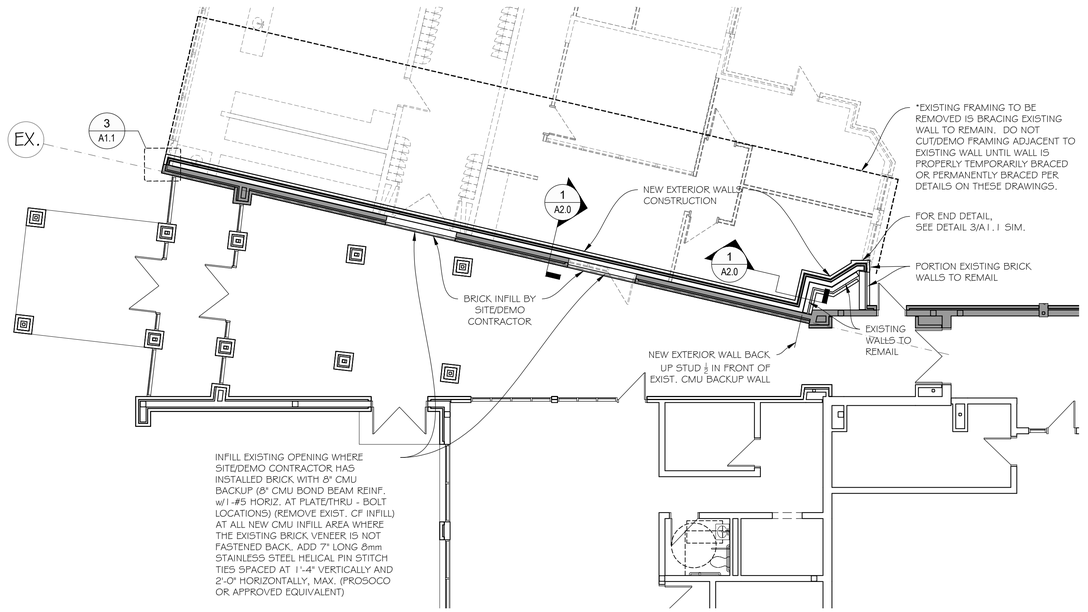




3 PLAN DETAIL
SCALE: 1-1/2" = 1'-0"



2 ROOF PLAN @ NEW ADDITION
SCALE: 1/4" = 1'-0"



1 PARTIAL FLOOR PLAN
SCALE: 1/4 = 1'-0"

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ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

297 Norwich-Westerly Rd. North Stonington, CT

Sheet Description:

PARTIAL PLANS & DETAILS

Issue Dates:

OWNER REVIEW SET
OCTOBER 26, 2022

Revisions:

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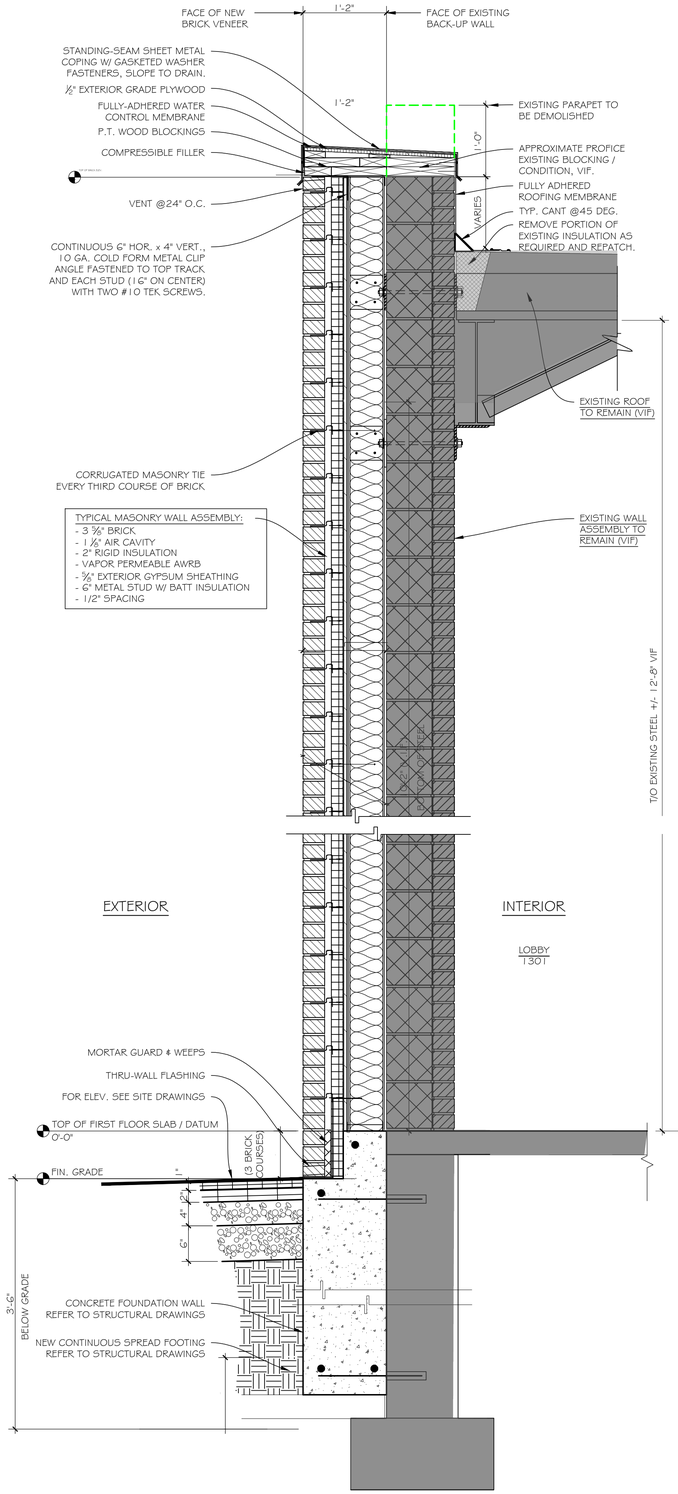

1 NEW WALL AT EXISTING WALL
SCALE: 1" = 1'-0"

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ADDITIONS AND RENOVATIONS TO:

North Stonington High School / Middle School

297 Norwich-Westerly Rd. North Stonington, CT

Sheet Description:

BUILDING SECTIONS

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OWNER REVIEW SET
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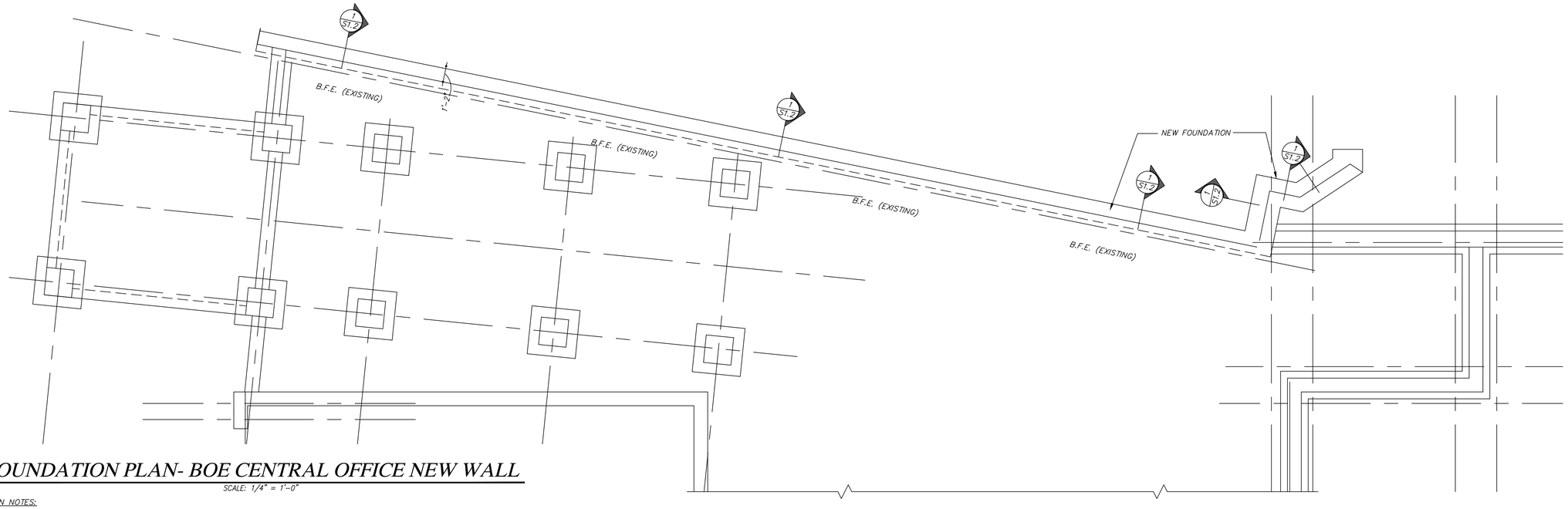

FOUNDATION PLAN- BOE CENTRAL OFFICE NEW WALL

SCALE: 1/4" = 1'-0"

PLAN NOTES:

1. FLOOR SLAB TO BE 4" CONCRETE SLAB, REINF. WITH 6x6– W2.1 x W2.1 CAST ON MINIMUM 10 MIL VAPOR RETARDER (CONT. SEAL ALL JOINTS) ON MINIMUM 4" LAYER OF 3/8" CRUSHED STONE OVER MINIMUM 18" LAYER OF COMPACTED CONTROLLED FILL.
2. COORDINATE SLAB WITH MECHANICAL DRAWINGS FOR UNDERGROUND CONDUITS, UTILITIES AND MECHANICAL DUCTWORK. LOWER BOTTOM OF FOUNDATION WALL FOOTING ELEVATION AS REQUIRED TO ALLOW UTILITIES, PIPING, ETC. TO PENETRATE WALL AS REQUIRED.
3. IF THE FOUNDATIONS ON SOIL ARE PLACED IN FROST PERIODS OR IF PLACED OVER WET SUBGRADE, THERE SHALL BE A MINIMUM 6" LAYER OF 3/8" CRUSHED STONE BENEATH FOOTINGS FALLING ON NATURAL SOILS, ON ROCK, AND AS AN INITIAL LAYER BENEATH CONTROLLED FILLS.
4. FOR SITE PREPARATION, COMPACTION, FILL THICKNESS AND GRADATION REFER TO GEOTECHNICAL REPORT PREPARED BY DR. CLARENCE WELTI, P.E., DATED FEBRUARY 13, 2017.
5. TOP OF SLAB TO BE AT ELEVATION 0'–0" , UNLESS OTHERWISE NOTED. (ACTUAL ELEVATION XXX'–0" = 0'–0")
6. TOP OF WALL TO BE AT ELEVATION 0'–0", UNLESS OTHERWISE NOTED THUS T.W.E.....
7. BOTTOM OF FOOTING TO BE A MINIMUM 3'–6" BELOW FINISH GRADE, UNLESS OTHERWISE NOTED THUS B.F.E.....
8. VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS IN THE FIELD PRIOR TO STARTING FABRICATION AND INSTALLATION OF ANY NEW MATERIALS. NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES FOR POSSIBLE FURTHER INSTRUCTIONS AS MAY BE REQUIRED.

I. CONCRETE MASONRY:

1. ALL MASONRY SHALL CONFORM TO AND BE ERECTED IN ACCORDANCE WITH THE AMERICAN STANDARD BUILDING CODE REQUIREMENTS FOR MASONRY AND THE NATIONAL CONCRETE MASONRY ASSOCIATION FOR THE DESIGN AND CONSTRUCTION OF LOAD BEARING MASONRY.
2. ALL MASONRY WALLS ARE TO BE CONSTRUCTED OF CONCRETE MASONRY WITH COMPRESSIVE STRENGTH f'm = 1900 PSI. THE GENERAL CONTRACTOR IS RESPONSIBLE TO ASSURE MASONRY STRENGTH AS SPECIFIED.
3. TYPE "S" MORTAR SHALL BE USED IN ALL CMU MASONRY, TYPE 'N' MORTAR FOR BRICK VENEER..
4. DUR–O–WALL TYPE JOINT REINFORCING SHALL BE INSTALLED IN ALTERNATE COURSES OF MASONRY.
5. PROVIDE REINFORCED BOND BEAMS REINFORCED AS CALLED FOR ON THE DRAWINGS.
6. GROUT FOR BOND BEAMS SHALL DEVELOP A MIN. COMPRESSIVE STRENGTH OF 3,000 P.S.I. AT 28 DAYS.
7. ALL REINFORCING BARS USED IN MASONRY SHALL BE GRADE 60 CONFORMING TO ASTM A–615. ALL LAP SPLICES SHALL BE A MIN. 48 BAR DIAMETERS.
8. MASONRY CONSTRUCTION AND MATERIALS SHALL CONFORM TO ALL REQUIREMENTS OF "SPECIFICATIONS FOR MASONRY STRUCTURES (ACI 530.1/ASCE 6–95)" PUBLISHED BY THE AMERICAN CONCRETE INSTITUTE, EXCEPT AS MODIFIED BY THE REQUIREMENTS OF THE CONTRACT DRAWINGS.
9. ALL BLOCK CORES CONTAINING REINFORCEMENT SHALL BE GROUTED SOLID.
10. TOOTH–IN OR TIE NEW CMU MASONRY TO EXISTING AT ALL ADJACENT ADJOINING LOCATIONS.
11. STEEL LADDER–TYPE REINFORCEMENT FOR USE IN HORIZONTAL BED JOINTS OF ALL WALL UNITS SHALL BE PREFABRICATED FROM COLD DRAWN STEEL WIRE CONFORMING TO ASTM SPECIFICATION A–82 AND SHALL CONSIST OF TWO 3/16" DIAMETER DEFORMED LONGITUDINAL SIDE RODS WELDED AT 16" INTERVALS TO A CONTINUOUS DIAGONAL CROSS ROD FORMING A TRUSS DESIGN.
13. CUT TO CUT SPACING OF SIDE RODS SHALL BE APPROXIMATELY 2" LESS THAN THE NOMINAL THICKNESS OF THE WALL OR WYTHE.
14. CROSS RODS SHALL NOT BE LESS THAN No. 9 GAUGE.
15. PREFABRICATED OR JOB FABRICATED CORNER AND TEE SECTIONS SHALL BE USED TO FORM CONTINUOUS REINFORCEMENT AROUND CORNERS.
16. HORIZONTAL LADDER–TYPE WALL REINFORCEMENT SHALL BE USED IN BED JOINTS 16" o/c VERT. IN ALL NEW MASONRY WALLS.

"STRUCTURAL GENERAL NOTES"

CODES AND STANDARDS:

1. THE FOLLOWING CODES AND STANDARDS, INCLUDING ALL SPECIFICATIONS WITHIN, SHALL APPLY TO THE DESIGN, CONSTRUCTION, QUALITY CONTROL AND SAFETY OF ALL WORK PERFORMED ON THE PROJECT. USE THE LATEST EDITIONS UNLESS NOTED OTHERWISE.
   a. 2022 CONNECTICUT STATE BUILDING CODE
      (1) "2021 INTERNATIONAL BUILDING CODE"
      (2) 2022 CONNECTICUT AMENDMENTS
   b. "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, ACI 318", (LATEST EDITION) AMERICAN CONCRETE INSTITUTE.
   c. HOT WEATHER CONCRETING, ACI 305R AND COLD WEATHER CONCRETING ACI 306R (LATEST EDITION).

DESIGN DATA:

1. GRAVITY – FLOOR LIVE LOADS
   a. FIRST FLOOR CORRIDOR 100 PSF
   b. MECHANICAL ROOMS 80 PSF
2. GRAVITY – SNOW LOADS
   a. GROUND SNOW LOAD (Pg) 30 PSF
   b. SNOW EXPOSURE FACTOR (Ce) 1.0
   c. THERMAL FACTOR (Ct) 1.0
   d. SNOW LOAD IMPORTANCE FACTOR (I) 1.1
   e. FLAT–ROOF SNOW LOAD (Pf) 30 PSF
   f. NEW ROOF FRAMING AND APPROPRIATE PORTIONS OF EXISTING BUILDING ROOF HAVE BEEN DESIGNED/REINFORCED FOR SNOW DRIFT.
3. LATERAL LOADS – WIND
   a. MAIN WIND–FORCE RESISTING SYSTEM:
      (1) NOMINAL DESIGN WIND SPEEDS (V_{ASCE}) = 108 MPH
      (2) ULTIMATE DESIGN WIND SPEEDS (V_{ult}) = 140 MPH
      (3) WIND–BORNE DEBRIS REGIONS: TYPE 'A'
      (4) HURRICANE–PRONE REGIONS: YES
      (5) RISK CATEGORY OF BUILDING: III
      (6) WIND EXPOSURE: C
      (4) VELOCITY PRESSURE EXPOSURE COEFFICIENT (K– 15'): 0.85
      (4) VELOCITY PRESSURE EXPOSURE COEFFICIENT (K– 28'): 0.97
      (5) INTERNAL PRESSURE COEFFICIENT (GC pi)= ±0.18
4. LATERAL LOADS – SEISMIC
   a. SITE CLASSIFICATION: C
   b. RISK CATEGORY OF BUILDING: III
   c. SEISMIC IMPORTANCE FACTOR (Ie): 1.25
   d. SEISMIC DESIGN CATEGORY: B
   e. MAPPED SPECTRAL ACCELARATION FOR SHORT PERIODS (Ss): 0.863
   f. MAPPED SPECTRAL RESPONSE ACCELARATION AT 1 SECOND PERIOD (S1): 0.052

FOUNDATIONS/GEOTECHNICAL REPORT:

1. FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE FEB. 13, 2017 DR. CLARENCE WELTI REPORT (DR. CLARENCE WELTI, P.E., P.C., 227 WILLIAMS STREET, GLASTONBURY, CT.). SEE THAT REPORT FOR ADDITIONAL REQUIREMENTS.
2. ALLOWABLE SOIL BEARING PRESSURE = 4,000 PSF.

MATERIALS:

1. THE FOLLOWING ASTM STANDARDS AND DESIGN STRESSES SHALL BE USED FOR THE APPROPRIATE MATERIALS USED IN CONSTRUCTION OF THIS PROJECT.
2. CEMENT: ASTM C150; TYPE I OR III
3. AGGREGATES: ASTM C33 (NORMAL WEIGHT)
4. CONCRETE: ALL CONCRETE SUBJECT TO EXPOSURE SHALL BE AIR–ENTRAINED 5% +/– 1–1/2% BY VOLUME. AIR–ENTRAINING ADMIXTURE TO COMPLY WITH ASTM C–260

APPLICATION	F'c @ 28 DAYS	WT (PCF)
a. FOUNDATION WALLS/ FOOTINGS	3000	145
b. INTERIOR SLAB–ON–GRADE	3500	145
c. EXTERIOR SLAB–ON–GRADE	4000	145

5. REINFORCEMENT:
   a. DEFORMED REINFORCING BARS ASTM A615, GRADE 60
   b. WELDED WIRE FABRIC (WWF) ASTM A185
6. STEEL:
   a. STRUCTURAL SHAPES & PLATES ASTM A36
   b. GALVANIZED METAL FLOOR DECK ASTM A446

CONSTRUCTION:

1. GENERAL:
   a. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALLOWABLE CONSTRUCTION LOADS AND TO PROVIDE PROPERLY DESIGNED FORMWORK, STAGINGS, BRACING, SHEETING, SHORING, ETC.
   b. IMPLEMENTING JOB SAFETY, CONSTRUCTION PROCEDURES AND TEMPORARY SHORING ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
   c. CONTRACTOR SHALL REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR SIZE AND LOCATIONS OF OPENINGS, SLEEVES, CONCRETE HOUSEKEEPING PADS, INSERTS, AND DEPRESSIONS.
   d. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR DETAILED INFORMATION REGARDING FINISHES, FIREPROOFING, ETC.
2. INSPECTION AND TESTING:
   a. IF REQUIRED BY THE TOWN THE OWNER WILL ENGAGE A TESTING AGENCY AND A SPECIAL INSPECTOR TO PROVIDE SERVICES AS INDICATED ON STATEMENT OF SPECIAL INSPECTIONS.

FOUNDATIONS + STRUCTURAL EARTHWORK:

1. GENERAL:
   a. CONTRACTOR SHALL VERIFY ALL EXISTING FIELD CONDITIONS THAT MAY AFFECT THE INSTALLATION OF THE FOUNDATION SYSTEM AS SHOWN PRIOR TO STARTING WORK.
   b. EXISTING UTILITIES KNOWN TO BE IN THE CONSTRUCTION AREA HAVE BEEN INDICATED. THE SIZE, LOCATION AND DEPTH OF THE UTILITIES ARE NOT KNOWN EXACTLY AND MAY VARY SIGNIFICANTLY FROM THAT INDICATED. OTHER UNKNOWN UTILITIES NOT INDICATED MAY ALSO BE PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES, WHETHER INDICATED OR NOT, WHICH MAY BE AFFECTED BY THE CONSTRUCTION PROCESS.
   c. ALL FOUNDATIONS SHALL BE PLACED ON MINIMUM 6' LAYER OF 3/8' CRUSHED STONE BENEATH FOOTINGS ON THE NATURAL SOILS AND AS INITIAL LAYER BENEATH CONTROLLED FILLS. DETERMINATION OF FINAL BEARING AND FIELD VERIFICATION OF ALLOWABLE BEARING PRESSURE SHALL BE MADE BY AN EXPERIENCED QUALIFIED GEOTECHNICAL ENGINEER PRIOR TO PLACING FOUNDATIONS. THERE SHALL BE A MINIMUM 4' LAYER OF 3/8' CRUSHED STONE DIRECTLY BENEATH THE SLAB ON GRADE.
   d. ALL SHORING, SHEETING, AND DEWATERING SHALL BE THE TOTAL RESPOSIBILITY OF THE CONTRACTOR. SHEETING AND SHORING SHALL BE DESIGNED BY THE CONTRACTOR'S ENGINEER REGISTERED IN THE PROJECT'S JURISDICTION. ALL SUBMITTALS SHALL BEAR CONTRACTOR'S ENGINEERING SEAL AND SIGNATURE.

CONCRETE:

1. CAST–IN–PLACE
   a. REINFORCING STEEL CLEAR COVER SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:

NON–POST–TENSIONED CONCRETE:

CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER	
#6 BARS AND LARGER	2"
#5 AND SMALLER	1–1/2"
CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	
SLABS, WALL, JOISTS:	
#11 BARS OR SMALLER	3/4"

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ADDITIONS AND RENOVATIONS TO:
North Stonington High School / Middle School
297 Norwich-Westerly Rd.
North Stonington, CT

Sheet Description:
FOUNDATION PLAN- BOE CENTRAL OFFICE NEW WALL

State Project #:
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Issue Dates:
OWNER REVIEW
OCTOBER 26, 2022

Revisions

11/22/2022	ADDENDUM #1

Project #:
1650

Sheet #:
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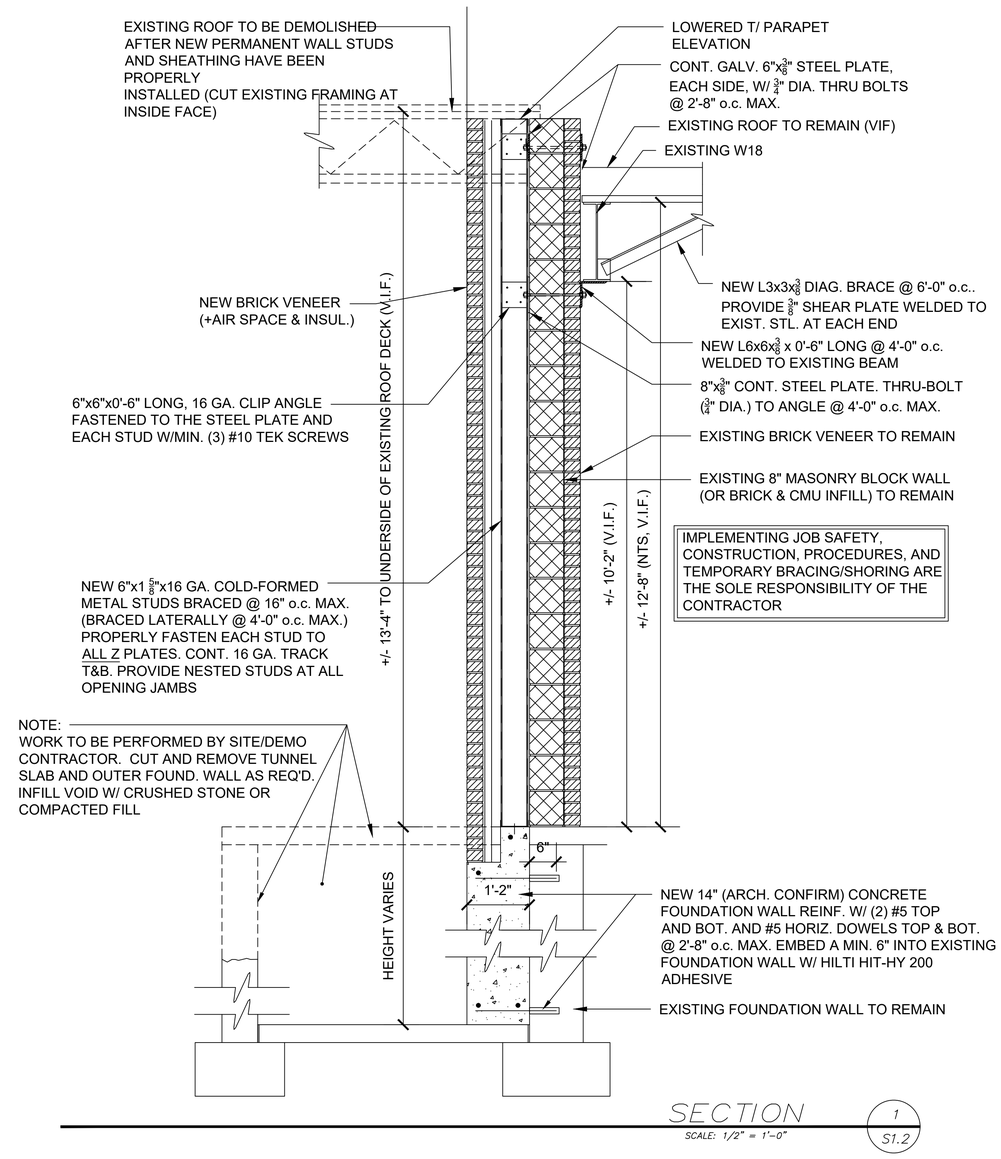
COLD FORMED METAL FRAMING:

1. COLD FORMED METAL FRAMING INCLUDES NEW ROOF TRUSSES, HIP GIRDERS, ROOF RAFTERS, BUILT-UP HEADER BEAMS, STUD WALLS, COORDINATION AT EXTERIOR LADDER CONNECTION POINTS, PUMP HOUSE BEARING WALLS, PRECAST SILL BEARING, MISCELLANEOUS CF FRAMING, TIES AND BRACING FOR BOTH NEW AND EXISTING BUILDINGS.
2. SUBMIT DESIGN CALCULATIONS AND DRAWINGS FOR THE ROOF TRUSSES, RAFTERS AND EXTERIOR STUD BACKUP WALLS BEARING THE SEAL OF PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF CONNECTICUT.
3. ALL 14 & 12 GAGE STUDS TO BE FORMED FROM STEEL CONFORMING TO THE MINIMUM REQUIREMENTS OF ASTM A-653, SQ. GRADE 50, CLASS 1, POSSESING A MINIMUM YIELD OF 50,000 P.S.I.
4. ALL 16 GAGE STUDS TO BE FORMED FROM STEEL CONFORMING TO THE MINIMUM REQUIREMENTS OF ASTM A-653, SQ. GRADE 33, POSSESING A MINIMUM YIELD OF 33,000 P.S.I. OR ASTM A-653, SQ, GRADE 50, CLASS 1, POSSESING A MINIMUM YIELD OF 50,000 P.S.I.
5. ALL 18 & 20 GAGE STUDS TO BE FORMED FROM STEEL CONFORMING TO THE MINIMUM REQUIREMENTS OF ASTM A-653, SQ. GRADE 33, POSSESING A MINIMUM YIELD OF 33,000 P.S.I.
6. GALVANIZED FRAMING PRODUCTS SHALL BE COATED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A-924.
7. PROVIDE SHOP DRAWINGS INDICATING MEMBER SIZES, SPACING, ATTACHMENT AND CONNECTION DETAILS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND INSTALLATION.

DIMENSIONS:

1. THE CONTRACTOR SHALL COORDINATE THE DIMENSIONS AND LOCATIONS OF THE ROOF, FLOOR & WALL OPENINGS SO THE FRAMING PROPERLY FITS THE REQUIREMENTS OF ALL TRADES.
2. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, ELEVATIONS AND CONDITIONS SHOWN ON THE DRAWINGS PRIOR TO ANY FABRICATION AND INSTALLATION OF ANY NEW MATERIALS. IF ANY DISCREPANCIES ARE FOUND BETWEEN ACTUAL CONDITIONS AND THESE DRAWINGS NOTIFY ARCHITECT AND/OR ENGINEER FOR FURTHER INSTRUCTIONS.



SECTION
SCALE: 1/2" = 1'-0"

1
S1.2

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