#### **ADDENDUM NO. 02**

## SUWANNEE PRIMARY SCHOOL ADDITIONS & REMODELING for the SCHOOL BOARD OF SUWANNEE COUNTY

A/E# 2013.46B

DATE:

March 13, 2014

TO:

**All Interested Contractors** 

FROM:

Architects RZK, Inc.

#### 2.0 00 21 13 INSTRUCTIONS TO BIDDERS

We received a spread sheet with Bid RIFs and have attached it herewith. The replies thereon shall be as binding as if in the specifications.

#### 2.1 00 52 00 AGREEMENT BETWEEN OWNER AND CONTRACTOR

Under "PROVISIONS", on page 00 52 00-1, insert the following values in lieu of that presently scheduled for this project:

"\$5.000.00 per calendar day for each day this project fails to achieve substantial completion".

#### 2.2 01 50 00 TEMPORARY FALILITIES

Insert this section (3 pages) to become a part of the specifications manual.

#### 2.3 04 22 00 CONCRETE UNIT MASONRY

Replace this section with the revised version attached herewith.

#### 2.4 07 20 60 CONCRETE MASONRY – CELL FOAM INSULATION

Insert that Core Foam Masonry Insulation by Southern Foam Insulation, Inc. is acceptable as an equal product for this bid.

#### 2.5 DRAWINGS COVER, A-0.1, A-1.1, A-1.2, A-5.0, A-6.0 & A-10.0

Portions of these drawings have been revised and they are attached herewith.

#### 2.6 DRAWING S-2.1

Wall footing WF2.5 applies at the entry door to room 127E in the same manner as that across the corridor.

#### 2.7 DRAWING S-3.3

The new canopy soffit and "false" beam are to be constructed as shown on drawing A-5.0 and the contractor shall adjust the framing shown on S-3.3 accordingly.

Please enter the appropriate addendum number on the proposal form to be submitted.

ARCHITECTS RZK, INC.

John C. Zwick, Architect, LEED AP

attachments:

Bid RFIs Spread Sheets

Specifications Sections 01 50 00 & 04 22 00

Drawings COVER, A-0.1, A-1.1, A-1.2, A-5.0, A-6.0 & A-10.0

#### **SUWANNEE PRIMARY SCHOOL**

#### BID RFI A/E RESPONSES

		, = 1.15. 5.13. 5
Contractor	r: Contractors' RFI questions	A/E Responses
1	Will existing building electrical power be used during construction at no cost to the contractor? Please confirm	Refer to specifications section 01 50 00 TEMPORARY FACILITIES included in Addendum #02
2	Will the contractor be required to provide temp toilet facilities? Please confirm	Refer to specifications section 01 50 00 TEMPORARY FACILITIES included in Addendum #02
3	Will the contractor require an onsite trailer for meetings, ect.? Please confirm	Refer to specifications section 01 50 00 TEMPORARY FACILITIES included in Addendum #02
4	Will there be fire supression / protection piping systems modifications required?	The building does not have a fire sprinkler system and adding one is NOT required by code.
5	Will fire supression / protection piping be required under the canopy for the new main entrance? (Alternate 1)	Same as #4 above
6	Will there be lightning protection system required at new roof areas? Please provide a design / drawings.	The building does not currently have a lightning protection system and one is not anticipated for the minor additions & remodeling effort.
7	Will the owner be removing all interior items prior to demolition or will the contractor be removing and storing some items?	The owner will be removing / relocation not fixed items such as furniture, books, etc. but nothing that is fixed like walls, ceilings and casework
8	Please provide a list of possible owner salvage items per 024116-4 3.2.E	The owner has nothing to be salvaged which they intend to retain.
9	Section 024116 2.1.A and 3.7.B refer to Div 31 specification will this be	
10	Please provide a list of surveys required per 024116 3.4.B or a dollar value allowance to be included by all bidders.	Intent of this language is for the contractor to perform a visual inspection of the existing conditions to identify any unforseen hazardous conditions.
11	04 21 13 - 11 Please provide the brick type, manufacturer and color to be provided for the brick work on the project.	That is not possible as the owner has no records of what was installed and we hope to find a match during. The bid contractor should encourage the smasonry subcontractor to visit the site and appraise them if they know of a match and can provide same. If the contractor can locate an exact match (or not) we encourage them to indicate same as a supplement to their bid.
12	04 22 00 1.6.B LEED product certificate required? Please confirm / clarify this is not a LEED project.	Any reference to this project being LEED is to be ignored.
13	What type material is to be used for masonry in wall flashing? Please specifiy	, , , , , , , , , , , , , , , , , , , ,
14	Please provide engineered connection details for the re-installation of precast fascia panels.	Section 9 on S-3.2 depicts the required connection of the panel to the new CMU walls.
15	Will the owner provide the engineering work required for the precast panel re-connection to the structure? Please clarify	Section 9 on S-3.2 depicts the required connection of the panel to the new CMU walls.
16	·	HAZMAT survey is being contracted for presently and will likely not be in before the bids are due but will be available thereafter.

#### **SUWANNEE PRIMARY SCHOOL**

#### BID RFI A/E RESPONSES

	BID KITA	y E NESFONSES
17	Should hazardous material be discovered during demolition phase of work will the project duration be extended or accellerated to accomplish a HAZMAT survey and mitigation procedures? Please clarify	Unfortunately, the project duration CANNOT be extended. If the HAZMAT survey being conducted indicates any problem areas the owner will have the materials abated, if
	nazivial survey and midgation procedures: Please claimy	possible, in a manner not to impede the process by the successful bid contractor. We expect to have the survey in hand before we select the successful bidder so, we can review
		it with the lowest bidders to confirm who has the most responsible approach to what can
		be done to maintain the schedule including, but not limited to, having the owner's abatement team expedite their effort
18	Ref E5.2 / 5 Note 1 Will wiring be provided by the owner? Or is the contractor to provide. Please clarify	Conduit and back box are to be provided by the contractor. Voice and Data wiring to be provided by the owner.
19	Ref HVAC - Will duct cleaning be required of any of the existing system duct work?	The contractor shall protect all new and existing ducts to remain that feed the work areas. If they are discovered to be unprotected the contractor will be required to clean the entire duct; otherwise, there is not duct cleaning required.
20	Will the owner provide temporary partitions and temp doors between the school and the renovation / work areas?	No, the contractor will be required to provide construction barriers where shwon on sheet A-0.0.
21	Will the school building be occupied during the remodeling?	Yes, but in areas away from the construction. Proper badging, etc. will need to be maintained to comply with the Jessica Lundsford Act
22	Will the carpet material be provided by the owner? (contract / program purchase) Please advise	At this time it is not certain. The contractor is to bid the specified carpet, including sales tax, and the owner may elect to purchase the material only.
23	Ref: S2.1 note 1 - Refers to lightweight concrete over metal deck and	
	specifications refer to tapered insulation. Please clarify roof system.	Note 1 on S-2.1 is to be modified to eliminate any reference to lightweight concrete and the decking shall be VULCRAFT Type 'B' or equal.
24	The specifications call for G-60 roof decking and the drawings call for G-90. Please clarify	Eliminate any references to G-90 roof decking.
25	Ref A-0.1 Corridor 135 slab demo for new wall is not shown.	Refer to revised sheet A-0.1 where the demolition is now shown.
26	What is the existing fire alarm system?	The existing Fire Alarm Control Panel is "Simplex 4010".
27	Specifications section 05 12 00 indicates that the steel is to be erected by AISC erectors. Can this be eliminated due to the size of the job?	Yes.
28	Slab areas at the north and south entry doors to Media Center 127 are shown on A-0.1 to be removed but not so on the structural. Which is correct?	A-0.1 is correct because these slabs are enrtywauys and likely are not level. Since those ares become new interior floors they must be removed and level floor slabs installed.

#### SECTION 042200 - CONCRETE UNIT MASONRY

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

#### A. Section Includes:

- 1. Concrete masonry units.
- 2. Mortar and grout.
- 3. Steel reinforcing bars.
- 4. Masonry joint reinforcement.
- 5. Ties and anchors.
- 6. Embedded flashing.
- 7. Miscellaneous masonry accessories.
- 8. Masonry-cell insulation.

#### B. Related Sections:

- 1. Division 03 Section "Cast-in-Place Concrete" for dovetail slots for masonry anchors.
- 2. Division 04 Section "Cast Stone Masonry" for furnishing cast stone trim.
- 3. Division 05 Section "Structural Steel Framing" for installing anchor sections of adjustable masonry anchors for connecting to structural-steel frame.
- 4. Division 07 Section "Water Repellents" for water repellents applied to concrete unit masonry.
- 5. Division 07 Section "Sheet Metal Flashing and Trim" for sheet metal flashing and for furnishing manufactured reglets installed in masonry joints.
- 6. Division 09 Section "Stone Facing" for stone window stools.

#### 1.3 DEFINITIONS

- A. CMU(s): Concrete masonry unit(s).
- B. Reinforced Masonry: Masonry containing reinforcing steel in grouted cells.

#### 1.4 PERFORMANCE REQUIREMENTS

A. Provide structural unit masonry that develops indicated net-area compressive strengths at 28 days.

- 1. Determine net-area compressive strength of masonry from average net-area compressive strengths of masonry units and mortar types (unit-strength method) according to Tables 1 and 2 in ACI 530.1/ASCE 6/TMS 602.
- 2. Determine net-area compressive strength of masonry by testing masonry prisms according to ASTM C 1314.

#### 1.5 PRECONSTRUCTION TESTING

- A. Preconstruction Testing Service: Owner will engage a qualified independent testing agency to perform preconstruction testing indicated below. Retesting of materials that fail to comply with specified requirements shall be done at Contractor's expense.
  - 1. Concrete Masonry Unit Test: For each type of unit required, according to ASTM C 140 for compressive strength.
  - 2. Mortar Test (Property Specification): For each mix required, according to ASTM C 109/C 109M for compressive strength, ASTM C 1506 for water retention, and ASTM C 91 for air content.
  - 3. Mortar Test (Property Specification): For each mix required, according to ASTM C 780 for compressive strength.
  - 4. Grout Test (Compressive Strength): For each mix required, according to ASTM C 1019.
  - 5. Prism Test: For each type of construction required, according to ASTM C 1314.

#### 1.6 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: For the following:
  - 1. Masonry Units: Show sizes, profiles, coursing, and locations of special shapes.
  - 2. Reinforcing Steel: Detail bending and placement of unit masonry reinforcing bars. Comply with ACI 315, "Details and Detailing of Concrete Reinforcement."
  - 3. Fabricated Flashing: Detail corner units, end-dam units, and other special applications.
- C. Samples for Initial Selection:
  - 1. Decorative CMUs, in the form of small-scale units.
  - 2. Pre-faced CMUs.
  - 3. Colored mortar.
  - 4. Weep holes/vents.

#### 1.7 INFORMATIONAL SUBMITTALS

A. List of Materials Used in Constructing Mockups: List generic product names together with manufacturers, manufacturers' product names, model numbers, lot numbers, batch numbers, source of supply, and other information as required to identify materials used. Include mix proportions for mortar and grout and source of aggregates.

- 1. Submittal is for information only. Neither receipt of list nor approval of mockup constitutes approval of deviations from the Contract Documents unless such deviations are specifically brought to the attention of Architect and approved in writing.
- B. Qualification Data: For testing agency.
- C. Material Certificates: For each type and size of the following:
  - 1. Masonry units.
    - a. Include data on material properties, material test reports substantiating compliance with requirements.
    - b. For masonry units used in structural masonry, include data and calculations establishing average net-area compressive strength of units.
  - 2. Cementitious materials. Include brand, type, and name of manufacturer.
  - 3. Pre-blended, dry mortar mixes. Include description of type and proportions of ingredients.
  - 4. Grout mixes. Include description of type and proportions of ingredients.
  - 5. Reinforcing bars.
  - 6. Joint reinforcement.
  - 7. Anchors, ties, and metal accessories.
- D. Mix Designs: For each type of mortar and grout. Include description of type and proportions of ingredients.
  - 1. Include test reports for mortar mixes required to comply with property specification. Test according to ASTM C 109/C 109M for compressive strength, ASTM C 1506 for water retention, and ASTM C 91 for air content.
  - 2. Include test reports, according to ASTM C 1019, for grout mixes required to comply with compressive strength requirement.
- E. Statement of Compressive Strength of Masonry: For each combination of masonry unit type and mortar type, provide statement of average net-area compressive strength of masonry units, mortar type, and resulting net-area compressive strength of masonry determined according to Tables 1 and 2 in ACI 530.1/ASCE 6/TMS 602.
- F. Cold-Weather and Hot-Weather Procedures: Detailed description of methods, materials, and equipment to be used to comply with requirements.

#### 1.8 QUALITY ASSURANCE

- A. Testing Agency Qualifications: Qualified according to ASTM C 1093 for testing indicated.
- B. Source Limitations for Masonry Units: Obtain exposed masonry units of a uniform texture and color, or a uniform blend within the ranges accepted for these characteristics, from single source from single manufacturer for each product required.

- C. Source Limitations for Mortar Materials: Obtain mortar ingredients of a uniform quality, including color for exposed masonry, from single manufacturer for each cementitious component and from single source or producer for each aggregate.
- D. Masonry Standard: Comply with ACI 530.1/ASCE 6/TMS 602 unless modified by requirements in the Contract Documents.
- E. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination."

#### 1.9 DELIVERY, STORAGE, AND HANDLING

- A. Store masonry units on elevated platforms in a dry location. If units are not stored in an enclosed location, cover tops and sides of stacks with waterproof sheeting, securely tied. If units become wet, do not install until they are dry.
- B. Store cementitious materials on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp.
- C. Store aggregates where grading and other required characteristics can be maintained and contamination avoided.
- D. Deliver preblended, dry mortar mix in moisture-resistant containers designed for use with dispensing silos. Store preblended, dry mortar mix in delivery containers on elevated platforms, under cover, and in a dry location or in covered weatherproof dispensing silos.
- E. Store masonry accessories, including metal items, to prevent corrosion and accumulation of dirt and oil.

#### 1.10 PROJECT CONDITIONS

- A. Protection of Masonry: During construction, cover tops of walls, projections, and sills with waterproof sheeting at end of each day's work. Cover partially completed masonry when construction is not in progress.
  - 1. Extend cover a minimum of 24 inches down both sides of walls and hold cover securely in place.
- B. Do not apply uniform floor or roof loads for at least 12 hours and concentrated loads for at least three days after building masonry walls or columns.
- C. Stain Prevention: Prevent grout, mortar, and soil from staining the face of masonry to be left exposed or painted. Immediately remove grout, mortar, and soil that come in contact with such masonry.
  - 1. Protect base of walls from rain-splashed mud and from mortar splatter by spreading coverings on ground and over wall surface.
  - 2. Protect sills, ledges, and projections from mortar droppings.
  - 3. Protect surfaces of window and door frames, as well as similar products with painted and integral finishes, from mortar droppings.

- 4. Turn scaffold boards near the wall on edge at the end of each day to prevent rain from splashing mortar and dirt onto completed masonry.
- D. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602.
  - 1. Cold-Weather Cleaning: Use liquid cleaning methods only when air temperature is 40 deg F and higher and will remain so until masonry has dried, but not less than 7 days after completing cleaning.
- E. Hot-Weather Requirements: Comply with hot-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602.

#### PART 2 - PRODUCTS

#### 2.1 MASONRY UNITS, GENERAL

- A. Defective Units: Referenced masonry unit standards may allow a certain percentage of units to contain chips, cracks, or other defects exceeding limits stated in the standard. Do not use units where such defects will be exposed in the completed Work.
- B. Fire-Resistance Ratings: Where indicated, provide units that comply with requirements for fire-resistance ratings indicated as determined by testing according to ASTM E 119, by equivalent masonry thickness, or by other means, as acceptable to authorities having jurisdiction.

#### 2.2 CONCRETE MASONRY UNITS

- A. Shapes: Provide shapes indicated and as follows, with exposed surfaces matching exposed faces of adjacent units unless otherwise indicated.
  - 1. Provide special shapes for lintels, corners, jambs, sashes, movement joints, headers, bonding, and other special conditions.
  - 2. Provide bullnose units for outside corners unless otherwise indicated.

#### B. CMUs: ASTM C 90.

- 1. Unit Compressive Strength: Provide units with minimum average net-area compressive strength of 2150 psi.
- 2. Density Classification: Normal weight.
- 3. Size (Width): Manufactured to dimensions 3/8 inch less than nominal dimensions.

#### 2.3 CONCRETE AND MASONRY LINTELS

A. General: Provide one of the following:

- B. Concrete Lintels: ASTM C 1623, matching CMUs in color, texture, and density classification; and with reinforcing bars indicated. Provide lintels with net-area compressive strength not less than CMUs.
- C. Concrete Lintels: Precast or formed-in-place concrete lintels complying with requirements in Division 03 Section "Cast-in-Place Concrete," and with reinforcing bars indicated.
- D. Masonry Lintels: Prefabricated or built-in-place masonry lintels made from bond beam CMUs with reinforcing bars placed as indicated and filled with coarse grout. Cure precast lintels before handling and installing. Temporarily support built-in-place lintels until cured.

#### 2.4 MORTAR AND GROUT MATERIALS

- A. Portland Cement: ASTM C 150, Type I or II, except Type III may be used for cold-weather construction. Provide natural color or white cement as required to produce mortar color indicated.
- B. Hydrated Lime: ASTM C 207, Type S.
- C. Portland Cement-Lime Mix: Packaged blend of portland cement and hydrated lime containing no other ingredients.
- D. Masonry Cement: ASTM C 91.
  - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Capital Materials Corporation; Flamingo Color Masonry Cement.
    - b. Cemex S.A.B. de C.V.
    - c. Essroc, Italcementi Group.
    - d. Holcim (US) Inc..
    - e. Lafarge North America Inc..
    - f. Lehigh Cement Company.
    - g. National Cement Company, Inc.; Coosa Masonry Cement.
- E. Mortar Cement: ASTM C 1329.
  - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Lafarge North America Inc..
- F. Aggregate for Mortar: ASTM C 144.
  - 1. For mortar that is exposed to view, use washed aggregate consisting of natural sand or crushed stone.
  - 2. For joints less than 1/4 inch thick, use aggregate graded with 100 percent passing the No. 16 sieve.
  - 3. White-Mortar Aggregates: Natural white sand or crushed white stone.

- 4. Colored-Mortar Aggregates: Natural sand or crushed stone of color necessary to produce required mortar color.
- G. Aggregate for Grout: ASTM C 404.
- H. Cold-Weather Admixture: Nonchloride, noncorrosive, accelerating admixture complying with ASTM C 494/C 494M, Type C, and recommended by manufacturer for use in masonry mortar of composition indicated.
  - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Euclid Chemical Company (The); Accelguard 80.
    - b. Grace Construction Products, W. R. Grace & Co. Conn.; Morset.
    - c. Sonneborn Products, BASF Aktiengesellschaft; Trimix-NCA.
- I. Water: Potable.

#### 2.5 REINFORCEMENT

- A. Uncoated Steel Reinforcing Bars: ASTM A 615/A 615M or ASTM A 996/A 996M, Grade 60.
- B. Masonry Joint Reinforcement, General: ASTM A 951/A 951M.
  - 1. Interior Walls: Hot-dip galvanized, carbon steel.
  - 2. Exterior Walls: Hot-dip galvanized, carbon steel.
  - 3. Wire Size for Side Rods: 0.148-inch diameter.
  - 4. Wire Size for Cross Rods: 0.148-inch diameter.
  - 5. Wire Size for Veneer Ties: 0.148-inch diameter.
  - 6. Spacing of Cross Rods, Tabs, and Cross Ties: Not more than 16 inches o.c.
  - 7. Provide in lengths of not less than 10 feet, with prefabricated corner and tee units.
- C. Masonry Joint Reinforcement for Single-Wythe Masonry: Either ladder or truss type with single pair of side rods.

#### 2.6 TIES AND ANCHORS

- A. Materials: Provide ties and anchors specified in this article that are made from materials that comply with the following unless otherwise indicated.
  - 1. Mill-Galvanized, Carbon-Steel Wire: ASTM A 82/A 82M; with ASTM A 641/A 641M, Class 1 coating.
  - 2. Hot-Dip Galvanized, Carbon-Steel Wire: ASTM A 82/A 82M; with ASTM A 153/A 153M, Class B-2 coating.
  - 3. Stainless-Steel Wire: ASTM A 580/A 580M.
  - 4. Galvanized Steel Sheet: ASTM A 653/A 653M, Commercial Steel, G60 zinc coating.
  - 5. Steel Sheet, Galvanized after Fabrication: ASTM A 1008/A 1008M, Commercial Steel, with ASTM A 153/A 153M, Class B coating.
  - 6. Stainless-Steel Sheet: ASTM A 666.

- 7. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.
- 8. Stainless-Steel Bars: ASTM A 276 or ASTM A 666, Type 304.
- B. Adjustable Anchors for Connecting to Structural Steel Framing: Provide anchors that allow vertical or horizontal adjustment but resist tension and compression forces perpendicular to plane of wall.
  - 1. Anchor Section for Welding to Steel Frame: Crimped 1/4-inch- diameter, hot-dip galvanized steel wire.
  - 2. Tie Section: Triangular-shaped wire tie, sized to extend within 1 inch of masonry face, made from 0.187-inch- diameter, hot-dip galvanized steel wire.
- C. Partition Top anchors: 0.105-inch- thick metal plate with 3/8-inch- diameter metal rod 6 inches long welded to plate and with closed-end plastic tube fitted over rod that allows rod to move in and out of tube. Fabricate from steel, hot-dip galvanized after fabrication.

#### 2.7 MISCELLANEOUS ANCHORS

- A. Unit Type Inserts in Concrete: Cast-iron or malleable-iron wedge-type inserts.
- B. Dovetail Slots in Concrete: Furnish dovetail slots with filler strips, of slot size indicated, fabricated from 0.034-inch, galvanized steel sheet.
- C. Anchor Bolts: Headed steel bolts complying with ASTM A 307, Grade A; with ASTM A 563 hex nuts and, where indicated, flat washers; hot-dip galvanized to comply with ASTM A 153/A 153M, Class C; of dimensions indicated.

#### 2.8 EMBEDDED FLASHING MATERIALS

- A. Metal Flashing: Provide metal flashing complying with SMACNA's "Architectural Sheet Metal Manual" and as follows:
  - 1. Stainless Steel: ASTM A 240/A 240M, Type 304, 0.016 inch thick.
  - 2. Copper: ASTM B 370, Temper H00, cold-rolled copper sheet, 16-oz./sq. ft. weight or 0.0216 inch thick or ASTM B 370, Temper H01, high-yield copper sheet, 12-oz./sq. ft. weight or 0.0162 inch thick.
  - 3. Fabricate continuous flashings in sections 96 inches long minimum, but not exceeding 12 feet. Provide splice plates at joints of formed, smooth metal flashing.
  - 4. Fabricate through-wall metal flashing embedded in masonry from stainless steel, with ribs at 3-inch intervals along length of flashing to provide an integral mortar bond.
    - a. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
      - 1) Cheney Flashing Company; Cheney 3-Way Flashing (Sawtooth).
      - 2) Keystone Flashing Company, Inc.; Keystone 3-Way Interlocking Thruwall Flashing.
      - 3) Sandell Manufacturing Co., Inc.; Mechanically Keyed Flashing.

- 5. Metal Drip Edge: Fabricate from stainless steel. Extend at least 3 inches into wall and 1/2 inch out from wall, with outer edge bent down 30 degrees and hemmed.
- 6. Metal Expansion-Joint Strips: Fabricate from copper.
- B. Flexible Flashing: Use the following unless otherwise indicated:
  - 1. Elastomeric Thermoplastic Flashing: Composite flashing product consisting of a polyester-reinforced ethylene interpolymer alloy.
    - a. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
      - 1) DuPont; Thru-Wall Flashing.
      - 2) Hohmann & Barnard, Inc.; Flex-Flash.
      - 3) Hyload, Inc.; Hyload Cloaked Flashing System.
      - 4) Mortar Net USA, Ltd.; Total Flash.
    - b. Monolithic Sheet: Elastomeric thermoplastic flashing, 0.040 inch thick.
    - c. Accessories: Provide preformed corners, end dams, other special shapes, and seaming materials produced by flashing manufacturer.
- C. Application: Unless otherwise indicated, use the following:
  - 1. Where flashing is indicated to be turned down at or beyond the wall face, use metal flashing.
  - 2. Where flashing is fully concealed, use flexible flashing.
- D. Adhesives, Primers, and Seam Tapes for Flashings: Flashing manufacturer's standard products or products recommended by flashing manufacturer for bonding flashing sheets to each other and to substrates.

#### 2.9 MISCELLANEOUS MASONRY ACCESSORIES

- A. Compressible Filler: Premolded filler strips complying with ASTM D 1056, Grade 2A1; compressible up to 35 percent; of width and thickness indicated; formulated from neoprene urethane or PVC.
- B. Preformed Control-Joint Gaskets: Made from styrene-butadiene-rubber compound, complying with ASTM D 2000, Designation M2AA-805 and designed to fit standard sash block and to maintain lateral stability in masonry wall; size and configuration as indicated.
- C. Bond-Breaker Strips: Asphalt-saturated, organic roofing felt complying with ASTM D 226, Type I (No. 15 asphalt felt).
- D. Reinforcing Bar Positioners: Wire units designed to fit into mortar bed joints spanning masonry unit cells and hold reinforcing bars in center of cells. Units are formed from 0.148-inch steel wire, hot-dip galvanized after fabrication. Provide units designed for number of bars indicated.
  - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

- a. Dayton Superior Corporation, Dur-O-Wal Division; D/A 810, D/A 812 or D/A 817.
- b. Heckmann Building Products Inc.; No. 376 Rebar Positioner.
- c. Hohmann & Barnard, Inc.; #RB or #RB-Twin Rebar Positioner.
- d. Wire-Bond; O-Ring or Double O-Ring Rebar Positioner.

#### 2.10 MASONRY-CELL INSULATION

A. Loose-Granular Fill Insulation: Perlite complying with ASTM C 549, Type II (surface treated for water repellency and limited moisture absorption) or Type IV (surface treated for water repellency and to limit dust generation).

#### 2.11 MORTAR AND GROUT MIXES

- A. General: Do not use admixtures, including pigments, air-entraining agents, accelerators, retarders, water-repellent agents, antifreeze compounds, or other admixtures unless otherwise indicated.
  - 1. Do not use calcium chloride in mortar or grout.
  - 2. Use portland cement-lime masonry cement or mortar cement mortar unless otherwise indicated.
  - 3. For exterior masonry, use portland cement-lime masonry cement or mortar cement mortar
  - 4. For reinforced masonry, use portland cement-lime masonry cement or mortar cement mortar.
  - 5. Add cold-weather admixture (if used) at same rate for all mortar that will be exposed to view, regardless of weather conditions, to ensure that mortar color is consistent.
- B. Preblended, Dry Mortar Mix: Furnish dry mortar ingredients in form of a preblended mix. Measure quantities by weight to ensure accurate proportions, and thoroughly blend ingredients before delivering to Project site.
- C. Mortar for Unit Masonry: Comply with ASTM C 270, Proportion Specification. Provide the following types of mortar for applications stated unless another type is indicated or needed to provide required compressive strength of masonry.
  - 1. For masonry below grade or in contact with earth, use Type M.
  - 2. For reinforced masonry, use Type S.
  - 3. For mortar parge coats, use Type S.
  - 4. For exterior, above-grade, load-bearing and non-load-bearing walls and parapet walls; for interior load-bearing walls; for interior non-load-bearing partitions; and for other applications where another type is not indicated, use Type N.
  - 5. For interior non-load-bearing partitions, Type O may be used instead of Type N.
- D. Grout for Unit Masonry: Comply with ASTM C 476.
  - 1. Use grout of type indicated or, if not otherwise indicated, of type (fine or coarse) that will comply with Table 1.15.1 in ACI 530.1/ASCE 6/TMS 602 for dimensions of grout spaces and pour height.

- 2. Proportion grout in accordance with ASTM C 476, Table 1.
- 3. Provide grout with a slump of 8 to 11 inches as measured according to ASTM C 143/C 143M.

#### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
  - 1. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of work.
  - 2. Verify that foundations are within tolerances specified.
  - 3. Verify that reinforcing dowels are properly placed.
- B. Before installation, examine rough-in and built-in construction for piping systems to verify actual locations of piping connections.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 INSTALLATION, GENERAL

- A. Build chases and recesses to accommodate items specified in this and other Sections.
- B. Leave openings for equipment to be installed before completing masonry. After installing equipment, complete masonry to match the construction immediately adjacent to opening.
- C. Use full-size units without cutting if possible. If cutting is required to provide a continuous pattern or to fit adjoining construction, cut units with motor-driven saws; provide clean, sharp, unchipped edges. Allow units to dry before laying unless wetting of units is specified. Install cut units with cut surfaces and, where possible, cut edges concealed.

#### 3.3 TOLERANCES

#### A. Dimensions and Locations of Elements:

- 1. For dimensions in cross section or elevation do not vary by more than plus 1/2 inch or minus 1/4 inch.
- 2. For location of elements in plan do not vary from that indicated by more than plus or minus 1/2 inch.
- 3. For location of elements in elevation do not vary from that indicated by more than plus or minus 1/4 inch in a story height or 1/2 inch total.

#### B. Lines and Levels:

1. For bed joints and top surfaces of bearing walls do not vary from level by more than 1/4 inch in 10 feet, or 1/2 inch maximum.

- 2. For conspicuous horizontal lines, such as lintels, sills, parapets, and reveals, do not vary from level by more than 1/8 inch in 10 feet, 1/4 inch in 20 feet, or 1/2 inch maximum.
- 3. For vertical lines and surfaces do not vary from plumb by more than 1/4 inch in 10 feet, 3/8 inch in 20 feet, or 1/2 inch maximum.
- 4. For conspicuous vertical lines, such as external corners, door jambs, reveals, and expansion and control joints, do not vary from plumb by more than 1/8 inch in 10 feet, 1/4 inch in 20 feet, or 1/2 inch maximum.
- 5. For lines and surfaces do not vary from straight by more than 1/4 inch in 10 feet, 3/8 inch in 20 feet, or 1/2 inch maximum.
- 6. For vertical alignment of exposed head joints, do not vary from plumb by more than 1/4 inch in 10 feet, or 1/2 inch maximum.

#### C. Joints:

- 1. For bed joints, do not vary from thickness indicated by more than plus or minus 1/8 inch, with a maximum thickness limited to 1/2 inch.
- 2. For exposed bed joints, do not vary from bed-joint thickness of adjacent courses by more than 1/8 inch.
- 3. For head and collar joints, do not vary from thickness indicated by more than plus 3/8 inch or minus 1/4 inch.
- 4. For exposed head joints, do not vary from thickness indicated by more than plus or minus 1/8 inch.

#### 3.4 LAYING MASONRY WALLS

- A. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint thicknesses and for accurate location of openings, movement-type joints, returns, and offsets. Avoid using less-than-half-size units, particularly at corners, jambs, and, where possible, at other locations.
- B. Bond Pattern for Exposed Masonry: Unless otherwise indicated, lay exposed masonry in running bond; do not use units with less than nominal 4-inch horizontal face dimensions at corners or jambs.
- C. Lay concealed masonry with all units in a wythe in running bond or bonded by lapping not less than 2 inches. Bond and interlock each course of each wythe at corners. Do not use units with less than nominal 4-inch horizontal face dimensions at corners or jambs.
- D. Stopping and Resuming Work: Stop work by racking back units in each course from those in course below; do not tooth. When resuming work, clean masonry surfaces that are to receive mortar before laying fresh masonry.
- E. Built-in Work: As construction progresses, build in items specified in this and other Sections. Fill in solidly with masonry around built-in items.
- F. Fill space between steel frames and masonry solidly with mortar unless otherwise indicated.
- G. Where built-in items are to be embedded in cores of hollow masonry units, place a layer of metal lath, wire mesh, or plastic mesh in the joint below and rod mortar or grout into core.

- H. Fill cores in hollow CMUs with grout 24 inches under bearing plates, beams, lintels, posts, and similar items unless otherwise indicated.
- I. Build non-load-bearing interior partitions full height of story to underside of solid floor or roof structure above unless otherwise indicated.
  - 1. Install compressible filler in joint between top of partition and underside of structure above
  - 2. Fasten partition top anchors to structure above and build into top of partition. Grout cells of CMUs solidly around plastic tubes of anchors and push tubes down into grout to provide 1/2-inch clearance between end of anchor rod and end of tube. Space anchors 48 inches o.c. unless otherwise indicated.
  - 3. Wedge non-load-bearing partitions against structure above with small pieces of tile, slate, or metal. Fill joint with mortar after dead-load deflection of structure above approaches final position.
  - 4. At fire-rated partitions, treat joint between top of partition and underside of structure above to comply with Division 07 Section "Fire-Resistive Joint Systems."

#### 3.5 MORTAR BEDDING AND JOINTING

- A. Lay hollow CMUs as follows:
  - 1. With face shells fully bedded in mortar and with head joints of depth equal to bed joints.
  - 2. With webs fully bedded in mortar in all courses of piers, columns, and pilasters.
  - 3. With webs fully bedded in mortar in grouted masonry, including starting course on footings.
  - 4. With entire units, including areas under cells, fully bedded in mortar at starting course on footings where cells are not grouted.
- B. Lay solid masonry units with completely filled bed and head joints; butter ends with sufficient mortar to fill head joints and shove into place. Do not deeply furrow bed joints or slush head joints.
- C. Set cast-stone trim units in full bed of mortar with full vertical joints. Fill dowel, anchor, and similar holes.
  - 1. Clean soiled surfaces with fiber brush and soap powder and rinse thoroughly with clear water
  - 2. Allow cleaned surfaces to dry before setting.
  - 3. Wet joint surfaces thoroughly before applying mortar.
- D. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than joint thickness unless otherwise indicated.
- E. Cut joints flush for masonry walls to receive plaster or other direct-applied finishes (other than paint) unless otherwise indicated.

#### 3.6 MASONRY-CELL INSULATION

- A. Pour granular insulation into cavities to fill void spaces. Maintain inspection ports to show presence of insulation at extremities of each pour area. Close the ports after filling has been confirmed. Limit the fall of insulation to one story high, but not more than 20 feet.
- B. Install molded-polystyrene insulation units into masonry unit cells before laying units.

#### 3.7 MASONRY JOINT REINFORCEMENT

- A. General: Install entire length of longitudinal side rods in mortar with a minimum cover of 5/8 inch on exterior side of walls, 1/2 inch elsewhere. Lap reinforcement a minimum of 6 inches.
  - 1. Space reinforcement not more than 16 inches o.c.
  - 2. Space reinforcement not more than 8 inches o.c. in foundation walls and parapet walls.
  - 3. Provide reinforcement not more than 8 inches above and below wall openings and extending 12 inches beyond openings in addition to continuous reinforcement.
- B. Interrupt joint reinforcement at control and expansion joints unless otherwise indicated.
- C. Provide continuity at wall intersections by using prefabricated T-shaped units.
- D. Provide continuity at corners by using prefabricated L-shaped units.
- E. Cut and bend reinforcing units as directed by manufacturer for continuity at corners, returns, offsets, column fireproofing, pipe enclosures, and other special conditions.

#### 3.8 ANCHORING MASONRY TO STRUCTURAL STEEL AND CONCRETE

- A. Anchor masonry to structural steel and concrete where masonry abuts or faces structural steel or concrete to comply with the following:
  - 1. Provide an open space not less than 2 inches wide between masonry and structural steel or concrete unless otherwise indicated. Keep open space free of mortar and other rigid materials
  - 2. Anchor masonry with anchors embedded in masonry joints and attached to structure.
  - 3. Space anchors as indicated, but not more than 24 inches o.c. vertically and 36 inches o.c. horizontally.

#### 3.9 CONTROL AND EXPANSION JOINTS

- A. General: Install control and expansion joint materials in unit masonry as masonry progresses. Do not allow materials to span control and expansion joints without provision to allow for inplane wall or partition movement.
- B. Form control joints in concrete masonry using one of the following methods:

- 1. Fit bond-breaker strips into hollow contour in ends of CMUs on one side of control joint. Fill resultant core with grout and rake out joints in exposed faces for application of sealant.
- 2. Install preformed control-joint gaskets designed to fit standard sash block.
- 3. Install interlocking units designed for control joints. Install bond-breaker strips at joint. Keep head joints free and clear of mortar or rake out joint for application of sealant.
- 4. Install temporary foam-plastic filler in head joints and remove filler when unit masonry is complete for application of sealant.

#### 3.10 LINTELS

- A. Provide concrete or masonry lintels where shown and where openings of more than 12 inches for brick-size units and 24 inches for block-size units are shown without structural steel or other supporting lintels.
- B. Provide minimum bearing of 8 inches at each jamb unless otherwise indicated.

#### 3.11 FLASHING

- A. General: Install embedded flashing in masonry at lintels, ledges, other obstructions to downward flow of water in wall, and where indicated.
- B. Install flashing as follows unless otherwise indicated:
  - 1. Prepare masonry surfaces so they are smooth and free from projections that could puncture flashing. Where flashing is within mortar joint, place through-wall flashing on sloping bed of mortar and cover with mortar. Before covering with mortar, seal penetrations in flashing with adhesive, sealant, or tape as recommended by flashing manufacturer.
  - 2. At lintels, extend flashing a minimum of 6 inches into masonry at each end. At heads and sills, extend flashing 6 inches at ends and turn up not less than 2 inches to form end dams.
  - 3. Interlock end joints of ribbed sheet metal flashing by overlapping ribs not less than 1-1/2 inches or as recommended by flashing manufacturer, and seal lap with elastomeric sealant complying with requirements in Division 07 Section "Joint Sealants" for application indicated.
  - 4. Cut flexible flashing off flush with face of wall after masonry wall construction is completed.
- C. Install single-wythe CMU flashing system in bed joints of CMU walls where indicated to comply with manufacturer's written instructions. Install CMU cell pans with upturned edges located below face shells and webs of CMUs above and with weep spouts aligned with face of wall. Install CMU web covers so that they cover upturned edges of CMU cell pans at CMU webs and extend from face shell.
- D. Install reglets and nailers for flashing and other related construction where they are shown to be built into masonry.

#### 3.12 REINFORCED UNIT MASONRY INSTALLATION

- A. Temporary Formwork and Shores: Construct formwork and shores as needed to support reinforced masonry elements during construction.
  - 1. Construct formwork to provide shape, line, and dimensions of completed masonry as indicated. Make forms sufficiently tight to prevent leakage of mortar and grout. Brace, tie, and support forms to maintain position and shape during construction and curing of reinforced masonry.
  - 2. Do not remove forms and shores until reinforced masonry members have hardened sufficiently to carry their own weight and other loads that may be placed on them during construction.
- B. Placing Reinforcement: Comply with requirements in ACI 530.1/ASCE 6/TMS 602.
- C. Grouting: Do not place grout until entire height of masonry to be grouted has attained enough strength to resist grout pressure.
  - 1. Comply with requirements in ACI 530.1/ASCE 6/TMS 602 for cleanouts and for grout placement, including minimum grout space and maximum pour height.
  - 2. Limit height of vertical grout pours to not more than 60 inches.

#### 3.13 FIELD QUALITY CONTROL

- A. Testing and Inspecting: Owner will engage special inspectors to perform tests and inspections and prepare reports. Allow inspectors access to scaffolding and work areas, as needed to perform tests and inspections. Retesting of materials that fail to meet specified requirements shall be done at Contractor's expense.
- B. Testing Prior to Construction: One set of tests.
- C. Testing Frequency: One set of tests for each 5000 sq. ft. of wall area or portion thereof.
- D. Concrete Masonry Unit Test: For each type of unit provided, according to ASTM C 140 for compressive strength.
- E. Mortar Aggregate Ratio Test (Proportion Specification): For each mix provided, according to ASTM C 780.
- F. Mortar Test (Property Specification): For each mix provided, according to ASTM C 780. Test mortar for compressive strength.
- G. Grout Test (Compressive Strength): For each mix provided, according to ASTM C 1019.

#### 3.14 PARGING

A. Parge exterior faces of below-grade masonry walls, where indicated, in 2 uniform coats to a total thickness of 3/4 inch. Dampen wall before applying first coat and scarify first coat to ensure full bond to subsequent coat.

- B. Use a steel-trowel finish to produce a smooth, flat, dense surface with a maximum surface variation of 1/8 inch per foot. Form a wash at top of parging and a cove at bottom.
- C. Damp-cure parging for at least 24 hours and protect parging until cured.

#### 3.15 REPAIRING, POINTING, AND CLEANING

- A. Remove and replace masonry units that are loose, chipped, broken, stained, or otherwise damaged or that do not match adjoining units. Install new units to match adjoining units; install in fresh mortar, pointed to eliminate evidence of replacement.
- B. Pointing: During the tooling of joints, enlarge voids and holes, except weep holes, and completely fill with mortar. Point up joints, including corners, openings, and adjacent construction, to provide a neat, uniform appearance. Prepare joints for sealant application, where indicated.
- C. In-Progress Cleaning: Clean unit masonry as work progresses by dry brushing to remove mortar fins and smears before tooling joints.
- D. Final Cleaning: After mortar is thoroughly set and cured, clean exposed masonry as follows:
  - 1. Remove large mortar particles by hand with wooden paddles and nonmetallic scrape hoes or chisels.
  - 2. Test cleaning methods on sample wall panel; leave one-half of panel uncleaned for comparison purposes. Obtain Architect's approval of sample cleaning before proceeding with cleaning of masonry.
  - 3. Protect adjacent stone and nonmasonry surfaces from contact with cleaner by covering them with liquid strippable masking agent or polyethylene film and waterproof masking tape.
  - 4. Wet wall surfaces with water before applying cleaners; remove cleaners promptly by rinsing surfaces thoroughly with clear water.
  - 5. Clean concrete masonry by cleaning method indicated in NCMA TEK 8-2A applicable to type of stain on exposed surfaces.

#### 3.16 MASONRY WASTE DISPOSAL

- A. Salvageable Materials: Unless otherwise indicated, excess masonry materials are Contractor's property. At completion of unit masonry work, remove from Project site.
- B. Waste Disposal as Fill Material: Dispose of clean masonry waste, including excess or soil-contaminated sand, waste mortar, and broken masonry units, by crushing and mixing with fill material as fill is placed.
  - 1. Crush masonry waste to less than 4 inches in each dimension.
  - 2. Mix masonry waste with at least two parts of specified fill material for each part of masonry waste. Fill material is specified in Division 31 Section "Earth Moving."
  - 3. Do not dispose of masonry waste as fill within 18 inches of finished grade.

C.	Excess Masonry Waste: Remove excess clean masonry waste that cannot be used as fill, as described above, and other masonry waste, and legally dispose of off Owner's property.
END OF	SECTION 042200

#### **SECTION 01 50 00 - TEMPORARY FACILITIES**

#### PART 1 - GENERAL

#### **DESCRIPTION OF REQUIREMENTS:**

Definitions: Nothing in this section is intended to limit types and amounts of temporary work required, and any omission from this section will be recognized as an indication by Architect or Engineer that such temporary activity is not required for successful completion of the work and compliance with requirements of contract documents. Provisions of this section are applicable to, but not by way of limitation, utility services, construction facilities, security/protection provisions, and support facilities.

Use Charges: No cost or usage charges for temporary services or facilities are chargeable to the Owner or Architect/Engineer. Cost or use charges for temporary services or facilities will not be accepted as a basis of claims for a change-order extra.

#### JOB CONDITIONS:

Conditions of Use: Install, operate, maintain and protect temporary facilities in a manner and at locations which will be safe, non-hazardous, sanitary and protective of persons and property, and free of deleterious effects.

#### PARTS 2 AND 3 - PRODUCTS AND EXECUTION

#### **TEMPORARY UTILITY SERVICES:**

The types of services required include, but not by way of limitation, water, sewerage, surface drainage, electrical power and telephones. Where possible and reasonable, contractor shall connect to existing franchised utilities for required services; and comply with service companies' recommendations on materials and methods, or engage service companies to install services. Locate and relocate services (as necessary) to minimize interference with construction operations with minimum 14 days notice to Owner and affected utility company. If service from utility company(ies) is unavailable, contractor shall provide well(s), portable generator or other similar methods for temporary utilities.

Potable Water: Contractor may use owner's water service provided it is not abused or wasted.

Temporary Power: Contractor may use owner's electric service provided it is not abused or wasted.

#### TEMPORARY CONSTRUCTION FACILITIES:

<u>The types</u> of temporary construction facilities required may include, but not by way of limitation, water distribution, enclosure of work, heat, ventilation, electrical power distribution, lighting, hoisting facilities, stairs, ladders, and access roads. Provide facilities reasonably required to perform construction operations properly and adequately.

Enclosure: Provide temporary enclosure where reasonably required to ensure adequate workmanship and protection from weather and unsatisfactory ambient conditions for the work, including enclosure where temporary heat is used. Provide fire-retardant treated lumber and plywood. Provide tarpaulins with UL label and flame spread of 15 or less; provide translucent type (nylon reinforced polyethylene) where day-lighting of enclosed space would be beneficial for workmanship, and reduce use of temporary lighting.

<u>Lighting:</u> Provide sufficient temporary lighting to ensure proper workmanship everywhere; by combined use of daylight, general lighting, and portable plug-in task lighting.

Provide uniformly spaced general lighting equivalent to not less than one 200-watt incandescent lamp per 1000 sq. ft. of floor area, and one 100-watt lamp per 50' of corridor and per flight of stairs.

<u>Access Provisions:</u> Provide ramps, stairs, ladders and similar temporary access elements as reasonably required to perform the work and facilitate its inspection during installation.

#### SECURITY/PROTECTION PROVISIONS:

The types of temporary security and protection provisions required may include, but not by way of limitation, fire protection, barricades, warning signs/lights, site enclosure fence, sidewalk bridges, building enclosure/lockup, personnel security program (theft prevention), environmental protection, and similar provisions intended to minimize property losses, personal injuries and claims for damages at project site. Provide security/protection services and systems in coordination with activities and in a manner to achieve 24-hour, 7-day-per-week effectiveness.

Fire Extinguishers: Provide types, sizes, numbers and locations as would be reasonably effective in extinguishing fires during early stages, by personnel at project site. Provide Type A extinguishers at locations of low-potential for either electrical or grease-oil-flammable liquids fires; provide Type ABC dry chemical extinguishers at other locations; comply with recommendations of NFPA No. 10. Post warning and quick-instructions at each extinguisher location, and instruct personnel at project site, at time of their first arrival, on proper use of extinguishers and other available facilities at project site. Post local fire department call number on each telephone instrument at project site.

Building Enclosure and Lockup: At earliest possible date, secure building against unauthorized entrance at times when personnel are not working. Provide secure temporary enclosures at ground floor and other locations of possible entry, with locked entrances.

Hurricane & Tropical Storm Preparedness: When there is news of a tropical storm or hurricane approaching and forecasted to affect the project area, the Contractor shall pick up all materials, scaffolding, equipment, etc. which are in place or attached to the structure but not in final position. He shall secure doors, windows and other openings in as much as is practical to close-in the project structure. The Contractor shall secure all equipment, materials and construction trailer(s) to remain at the site with locks, hold-down straps and ropes to prevent their movement as much as is possible. Prior to leaving the site, the Contractor shall take several photographs showing the entire project and site; and, upon return to the site, the Contractor shall immediately take several photographs showing the entire project and site. Copies of these photographs shall be immediately made available to the Owner upon request.

#### TEMPORARY SUPPORT FACILITIES:

The types of temporary support facilities required include, but not by way of limitation, field offices, storage sheds, fabrication sheds, sanitary facilities, drinking water, as may be reasonably required for proficient performance of the work and accommodation of personnel at the site including Owner's and Architect's/Engineer's personnel. Discontinue and remove temporary support facilities, and make incidental similar use of permanent work of the project, only when and in manner authorized by Architect/ Engineer; and, if not otherwise indicated, immediately before time of substantial completion. Locate temporary support facilities for convenience of users, and for minimum interference with construction activities.

Contractor's Field Office: Provide adequate office space for Contractor's field office functions. Include a telephone with recorder, a FAX machine (or computer with active email service), toilet,

and an air-conditioned conference room of sufficient size for meetings with Owner's representatives.

Contractor's superintendent shall have a cell phone(s) at all times from job start and during the closeout period until final payment is made.

Sanitary Facilities: Provide toilet facilities acceptable to governing authorities, adequate for use of personnel at project site.

Drinking Water: Provide drinking water.

Project Identification Sign: Provide project identification sign including owner, GC, architect, name and contact information. Engage an experienced sign painter to paint graphics on sign as indicated. Colors per the Architect.

END OF SECTION 01 50 00

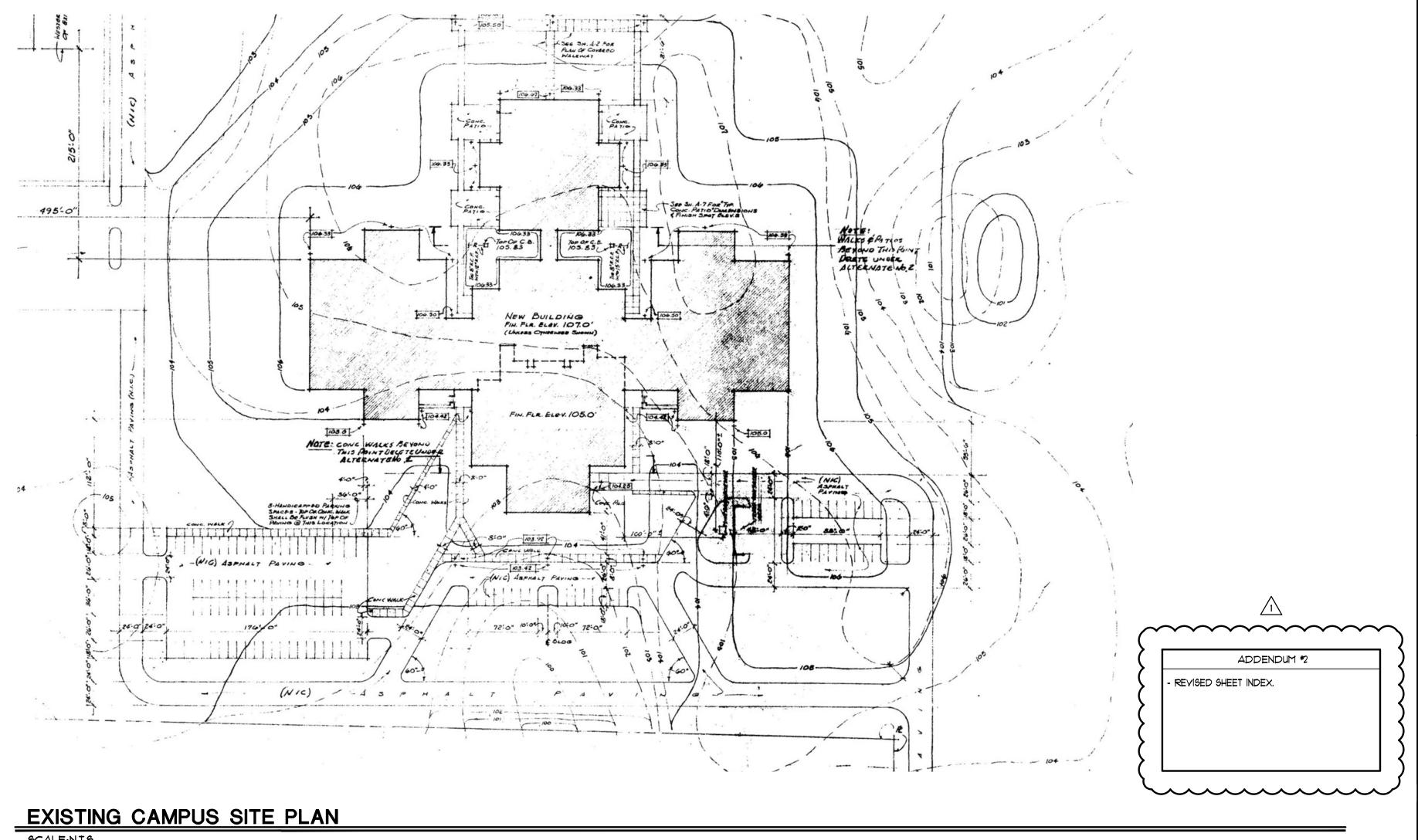
	ABBREVIATIONS
AFF A/C ALT AL, ALUM AB ∠	ABOVE FINISHED FLOOR AIR CONDITIONING ALTERNATE ALUMINUM ANCHOR BOLT ANGLE
BD BOT BRG BLDG BUR	BOARD BOTTOM BEARING BUILDING BUILT UP ROOFING
CLG CT CCTY CLO COL CMU CJ	CEILING CERAMIC TILE CLOSED CIRCUIT TELEVISION CLOSET COLUMN CONCRETE MASONRY UNIT CONTROL JOINT
DEMO DIA. DIM DIM DIS DIM DIM DIM DIM	DEMOLISH, DEMOLITION DIAMETER DIMENSION DOOR DOUBLE DOWN DOWNSPOUT DRINKING FOUNTAIN DISHWASHER DRAWING
(E) EA ELEC EWC EWH ELEY EQ EJ	EXISTING EACH ELECTRIC (AL) ELECTRIC WATER COOLER ELECTRIC WATER HEATER ELEVATION EQUAL EXPANSION JOINT
FFE FA FE FEC FH FL FD	FINISH FLOOR ELEVATION FIRE ALARM FIRE EXTINGUISHER FIRE EXTINGUISHER CABINET FIRE HYDRANT FLOOR (ING) FLOOR DRAIN
GA GALV GL GB GWB	GAGE, GAUGE GALYANIZED GLASS, GLAZING GRAB BAR GYPSUM WALLBOARD
HYAC HT HC HM HB HR	HEATING / VENTILATING / AIR COND. HEIGHT HOLLOW CORE HOLLOW METAL HOSE BIBB HOUR
IN ID INV	INCH INSIDE DIAMETER INVERT
JT  LAV LLV LLH	JOINT  LAVATORY  LONG LEG VERTICAL  LONG LEG HORIZONTAL
MH MER MO MAX MECH MTL MIN MISC	MANHOLE MANUFACTURE (ER) MASONRY OPENING MAXIMUM MECHANIC (AL) METAL MINIMUM MISCELLANEOUS
NRC NOM N NIC NTS NO.	NOISE REDUCTION COEFFICIENT NOMINAL NORTH NOT IN CONTRACT NOT TO SCALE NUMBER
0.C. OD	ON CENTER (6) OUTSIDE DIAMETER
PTD PL PYC PSI PT PL	PAPER TOWEL DISPENSER PLATE POLYVINYL CHLORIDE POUNDS PER SQUARE INCH PRESSURE TREATED PROPERTY LINE
R REF REF REG'D REA RED RED RED RED RED RED RED RED RED RED	RADIUS REFERENCE REFRIGERATOR REINFORCED CONCRETE PIPE REQUIRED RETURN AIR REVISION (S), REVISED ROOF DRAIN ROOM ROUGH OPENING
SHT SIM SC STC SPEC SPKR SQ SS STD STD STL STO	SHEET SIMILAR SOLID CORE SOUND TRANSMITTANCE COEFFICIENT SPECIFICATION (S) SPRINKLER SQUARE STAINLESS STEEL STANDARD STEEL STORAGE
THR TPD TB	THRESHOLD TOILET PAPER DISPENSER TOWEL BAR TYPICAL
UC UL UR UON	UNDERCUT UNDERWRITER'S LABORATORY URINAL UNLESS OTHERWISE NOTED
VERT VCT VOL	VERTICAL VINYL COMPOSITION TILE VOLUME
WC WH WWF W/ W/O WD	WATER CLOSET WATER HEATER WELDED WIRE FABRIC WITH WITHOUT WOOD
WD YD	YARD

## SUWANNEE COUNTY SCHOOL BOARD SUWANNEE PRIMARY SCHOOL ADDITIONS AND REMODELING

1625 WALKER AVE., SW

LIVE OAK, FLORIDA

# CONSTRUCTION DOCUMENTS FOR BID/PERMIT



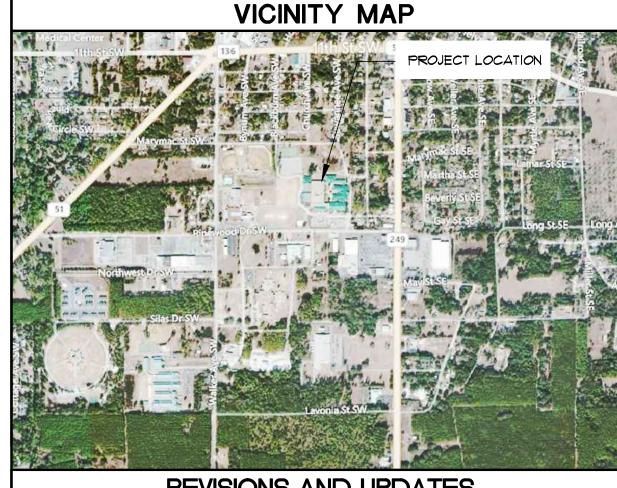
NEW ENLARGED FLOOR PLAN NEW ENLARGED REFLECTED CEILING PLAN BUILDING SECTIONS WALL SECTIONS INTERIOR ELEVATIONS DOOR AND WIN. SCHEDULES AND TYPES DOOR AND WINDOW DETAILS CARPENTRY DETAILS GENERAL NOTES AND DETAILS GENERAL NOTES FOUNDATION AND FRAMING ZONE A FOUNDATION AND FRAMING ZONE B SECTIONS AND DETAILS SECTIONS AND DETAILS PLUMBING LEGENDS AND NOTES PLUMBING ENLARGED PLANS PLUMBING ISOMETRIC PLANS MECHANICAL LEGENDS, ABBR'S, AND NOTES MECHANICAL ENLARGED DEMOLITION PLANS MECHANICAL FLOOR PLANS MECHANICAL DETAILS MECHANICAL SCHEDULES ELECTRICAL LEGEND AND NOTES ELECTRICAL OVERALL PLAN ELECTRICAL DEMOLITION PLAN LIGHTING PLANS

**DRAWING LIST** 

ENLARGED LIFE SAFETY PLAN CONSTRUCTION SEQUENCE PLAN ENLARGED DEMOLITION PLAN

LIFE SAFETY PLAN

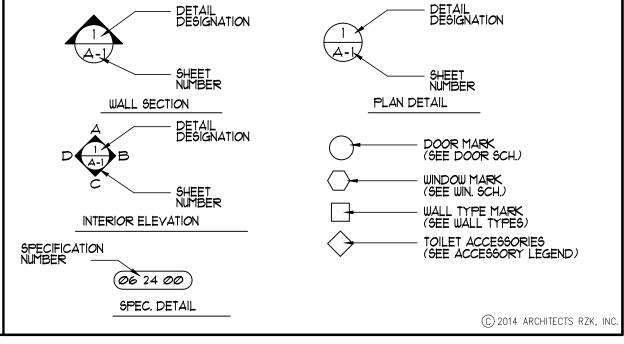
NEW FLOOR PLAN



REVISIONS AND UPDATES ADDENDUM #2 *0*2/14/14 CONSTRUCTION DOCUMENTS FOR BID/PERMIT

### SYMBOLS LIST GENERAL NOTES

- ALL GRAPHIC SCALES INDICATED ON THE DRAWINGS ARE FOR 24"X36" PAGE SIZE ONLY. TO THE BEST OF OUR KNOWLEDGE THESE DOCUMENTS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE APPLICABLE FIRE SAFETY STANDARDS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE AND 633 FLORIDA STATUTES.
- DETAILS SHALL APPLY TO ALL SIMILAR CONDITIONS UNLESS A DIFFERENT DETAIL IS
  - ALL PLANS OF EXISTING CONDITIONS ARE BASED UPON THE ORIGINAL DESIGN DRAWINGS DATED 1974 BY ZEB LACKEY AND ASSOCIATES ARCHITECTS. EXISTING FEATURES MAY DIFFER, ESPECIALLY OUTSIDE OF THE AREAS OF MAJOR WORK.



SUWANNEE COUNTY SCHOOL BOARD SUWANNEE PRIMARY SCHOOL ADDITIONS AND REMODELING 1625 WALKER AVE., SW **COVER SHEET** 

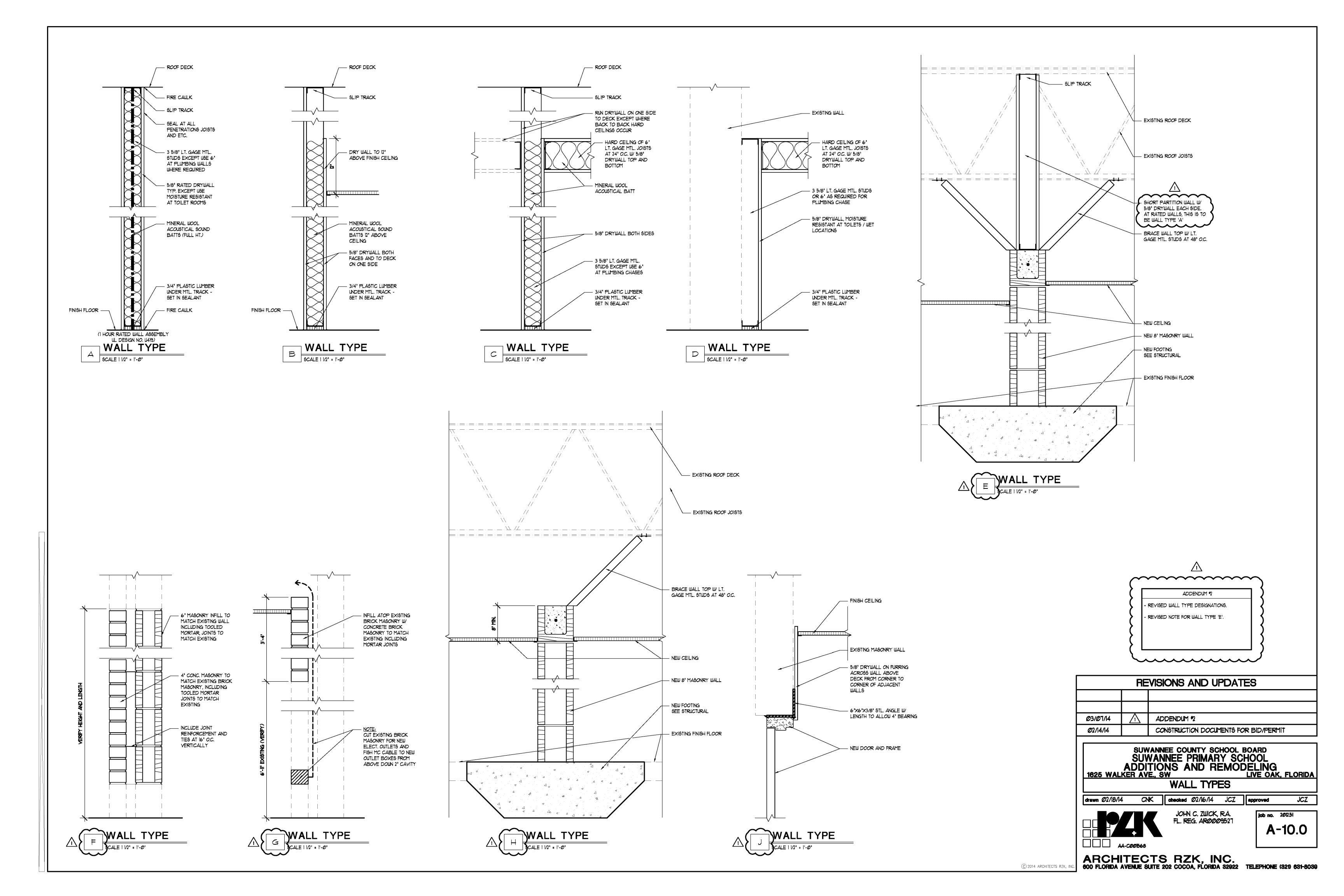
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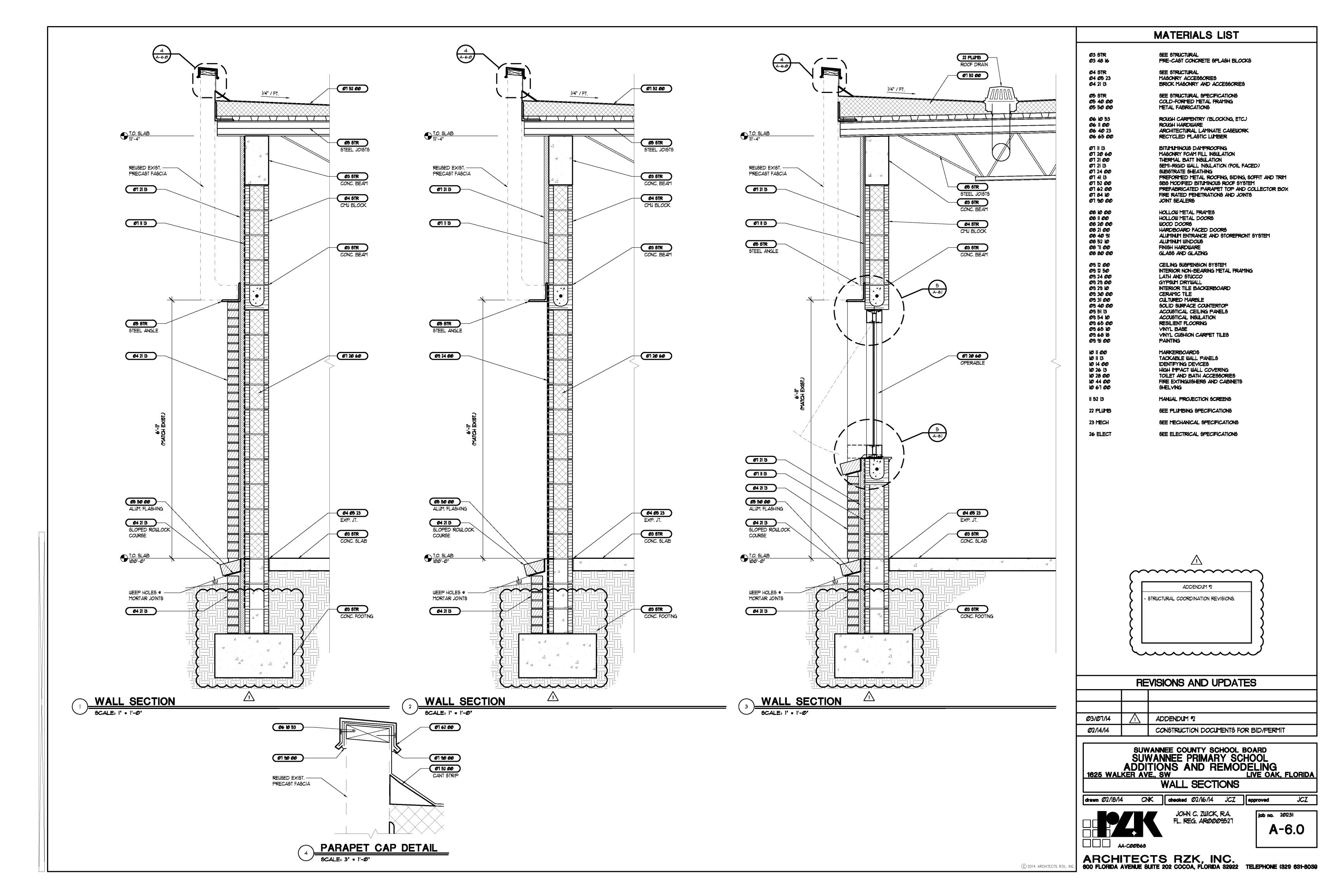


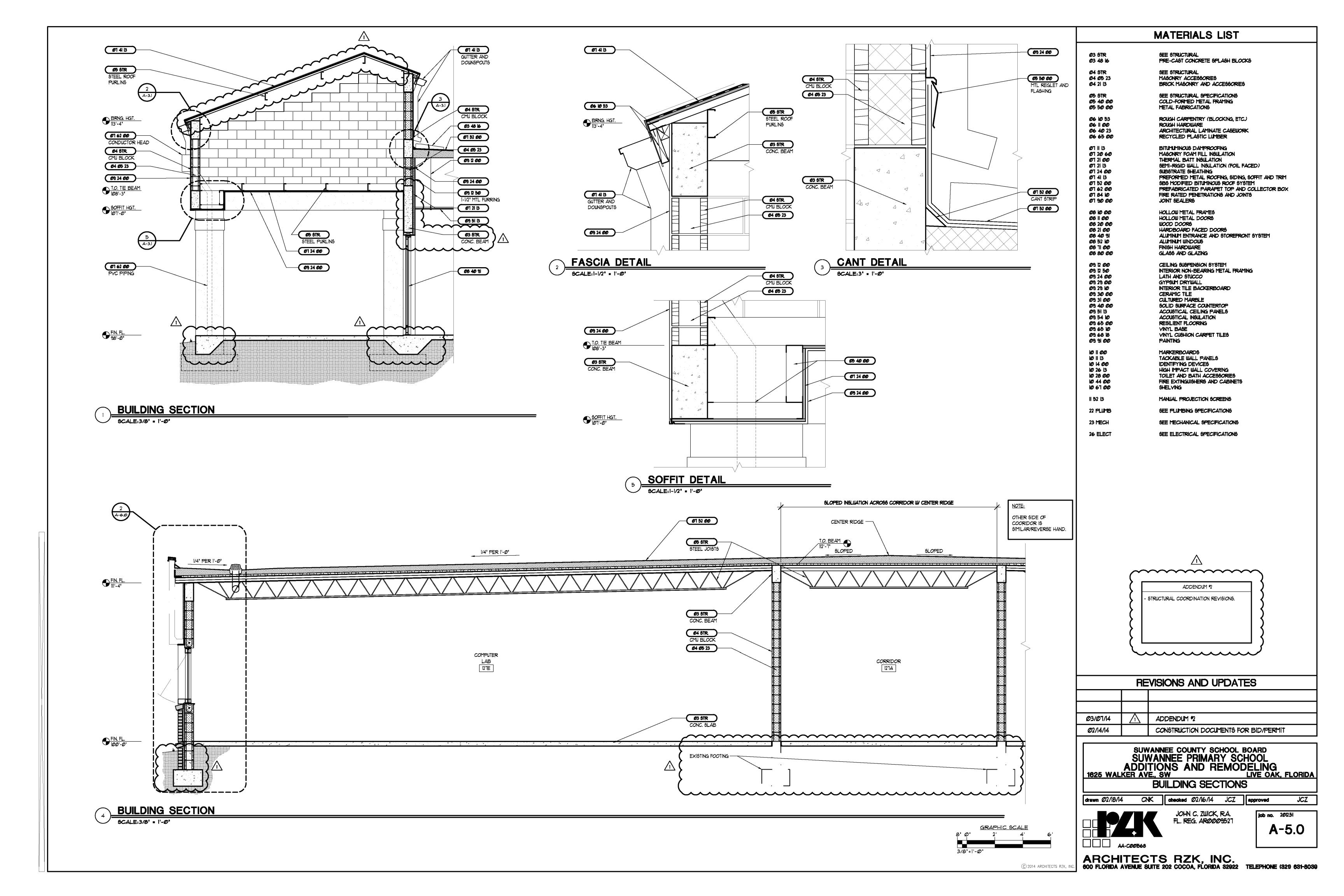
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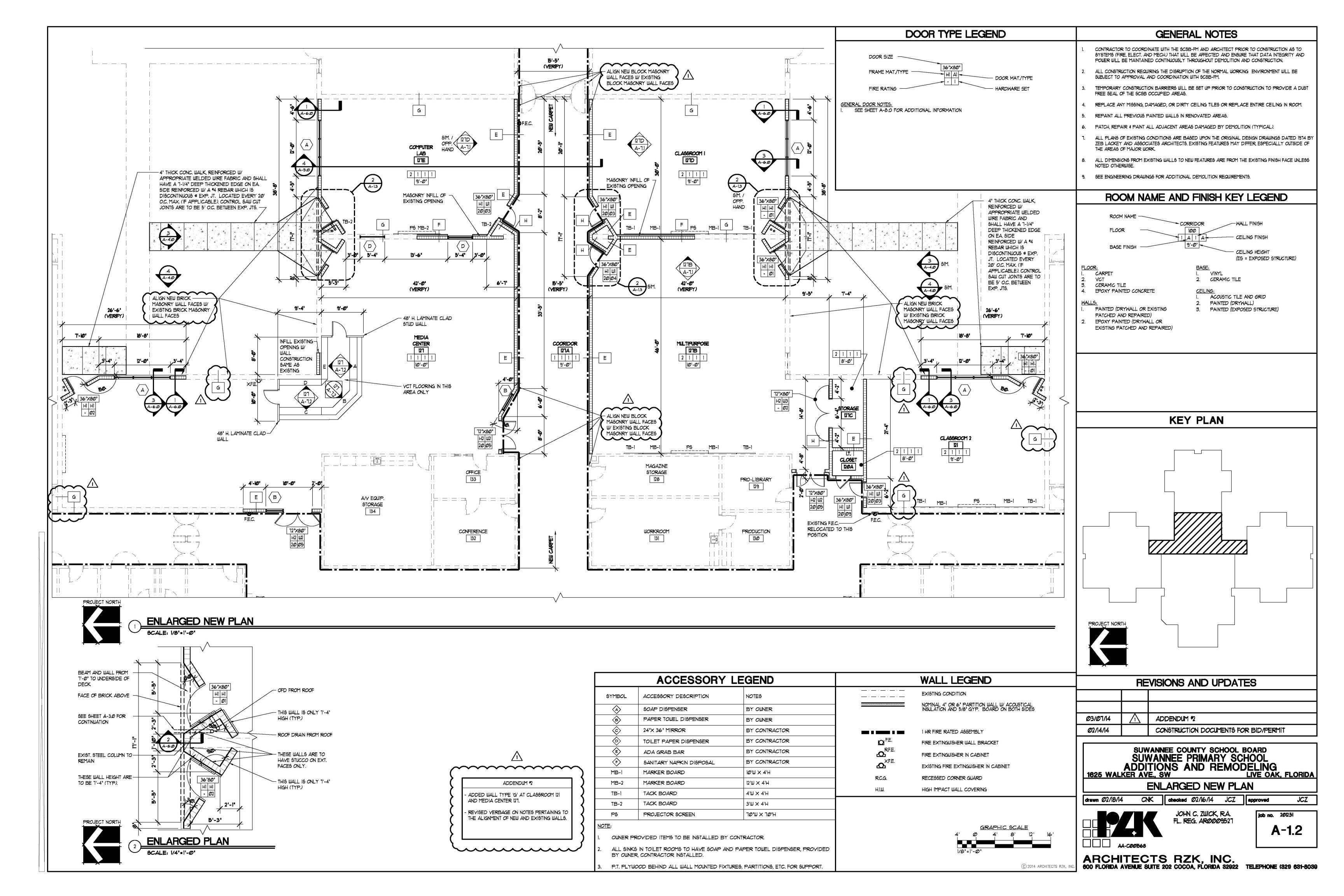
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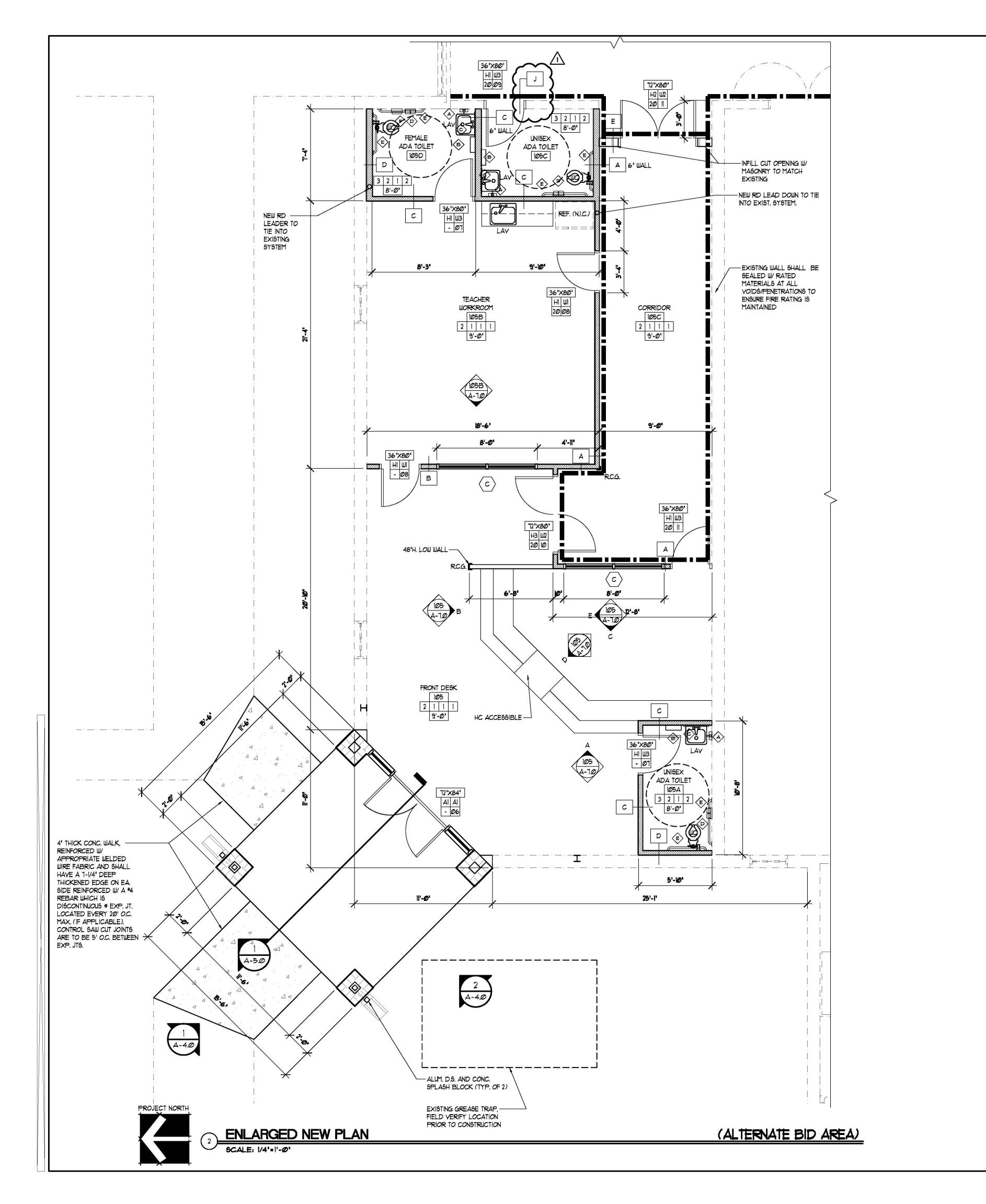
ARCHITECTS RZK, INC.
600 FLORIDA AVENUE SUITE 202 COCOA, FLORIDA 32922 TELEPHONE (321) 631-8039

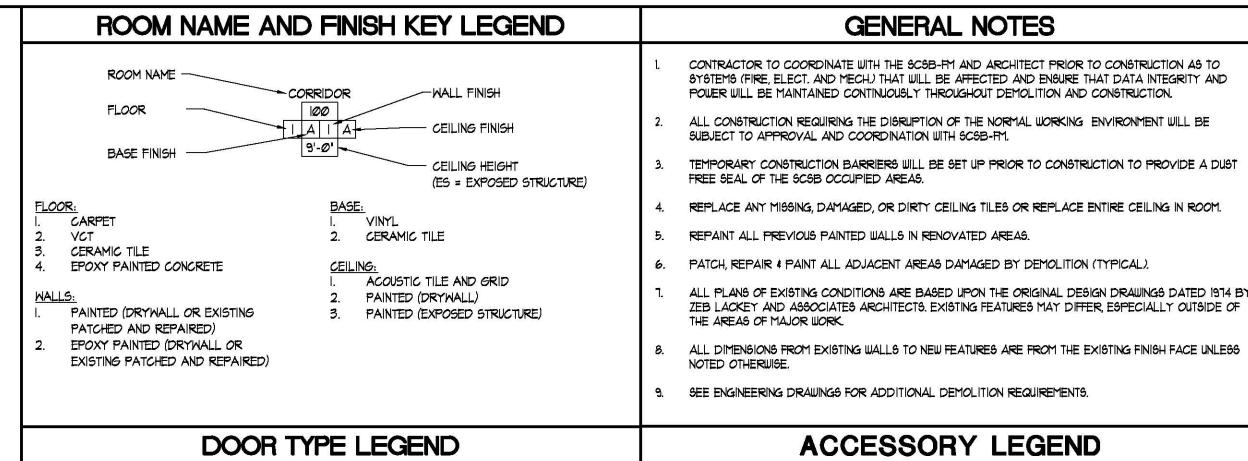












## **ACCESSORY LEGEND**

**GENERAL NOTES** 

#### ACCESSORY DESCRIPTION NOTES BY OWNER SOAP DISPENSER PAPER TOWEL DISPENSER BY OWNER 24"X 36" MIRROR BY CONTRACTOR TOILET PAPER DISPENSER BY CONTRACTOR BY CONTRACTOR ADA GRAB BAR BY CONTRACTOR SANITARY NAPKIN DISPOSAL MB-1 MARKER BOARD 10'W × 4'H MB-2 MARKER BOARD $12'W \times 4'H$ TACK BOARD $4'W \times 4'H$ TB-2 TACK BOARD 3'W × 4'H PROJECTOR SCREEN 70'W X 70'H

### WALL LEGEND

DOOR SIZE

FIRE RATING

.W.I.H

GENERAL DOOR NOTES:

FRAME MAT/TYPE

SEE SHEET A-8.0 FOR ADDITIONAL INFORMATION

NOMINAL 4" OR 6" PARTITION WALL W/ ACOUSTICAL INSULATION AND 5/8" GYP. BOARD ON BOTH SIDES

RECESSED CORNER GUARD

HIGH IMPACT WALL COVERING

ADDENDUM \*2

ADDED WALL TYPE 'J' AT UNISEX ADA TOILET

36'X80'

DOOR MAT./TYPE

HARDWARE SET

NOTE:

I HR FIRE RATED ASSEMBLY FIRE EXTINGUISHER WALL BRACKET RF.E. FIRE EXTINGUISHER IN CABINET EXISTING FIRE EXTINGUISHER IN CABINET

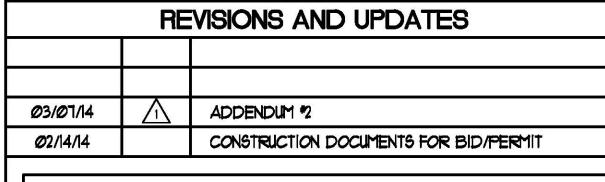
**KEY PLAN** 

P.T. PLYWOOD BEHIND ALL WALL MOUNTED FIXTURES, PARTITIONS, ETC. FOR SUPPORT.

ALL SINKS IN TOILET ROOMS TO HAVE SOAP AND PAPER TOWEL DISPENSER, PROVIDED

OWNER PROVIDED ITEMS TO BE INSTALLED BY CONTRACTOR.

BY OWNER, CONTRACTOR INSTALLED.



SUWANNEE COUNTY SCHOOL BOARD
SUWANNEE PRIMARY SCHOOL
ADDITIONS AND REMODELING
1625 WALKER AVE., SW LIVE OAK, FLORIDA **ENLARGED NEW PLAN** 

checked 02/16/14 JCZ approved



JOHN C. ZWICK, R.A. FL. REG. AR0009527

job no. 2012.51 A-1.1

JCZ

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