A New Office Building for
Southern Georgia Regional Commission
Valdosta, Georgia 31601

ADDENDUM NO 3
May 17, 2019

Make the following amendments to the Specifications, Drawings and Bidding Documents for the referenced project, dated February 4, 2019, issued by Ellis, Ricket & Associates, Architects, 2200 North Patterson, Valdosta, Georgia 31602

Clarifications

A. Refer to electrical drawing sheet E1.01 for location of transformer and pad. Both items to be provided and installed by Colquitt EMC.
B. The contractor is only responsible for NPDES monitoring **daily** inspections. The owner will complete the NOI and obtain the NPDES and LDP permits, and provide rainfall monitoring and weekly inspections, but the contractor will be responsible for providing a certified Level 1A "blue card" holder to conduct and maintain the required daily inspection reports for the project. The contractor is responsible for addressing any deficiencies documented in the inspection reports within the time frames outlined in the general NPDES permit.
C. Exterior HM-2 metal doors are to be 14 gage, tubular stile and rail style doors. All other Hollow Metal doors to be as originally specified.
D. Refer to sheet M2.01 for layout of exterior mechanical equipment pad. Actual size of pad to be coordinated with mechanical equipment submittals. See note on detail 6/M5.01.
E. Refer to detail 6/M5.01 for all **exterior** mechanical equipment pad details.
F. Refer to detail 15/S301 for **interior** mechanical equipment housekeeping pad details.
G. Locations of footing steps are to be coordinated with plumbing.
H. All gravity sewer pipe listed on civil drawings to be SDR 26 to meet City of Valdosta standards.
I. Existing manhole located across existing paved street to be lined per City of Valdosta requirements after connections are made.
J. General Contractor to be responsible for all tap fees, permit fees, and temporary utilities throughout length of construction.
K. For specification section 07 4243, manufacturers that meet the performance and product requirements of section will be allowed.
L. Exterior and Interior signage graphics indicated in rendering on Sheet X1.01 are for rendering purposes only. These graphics/signage will not be included in project scope.
M. Restrooms 123/124 and 156A/157A are scheduled to receive floor and wall tile. Wall tile to be installed at wet wall locations only and finished with bullnose trim. Where floor and wall tile meet, no bullnose base required. All other base conditions will receive the bullnose trim as scheduled.

Revisions to Specifications

1. **Section 00 2100 – Instructions to Bidders;**
   A. Add section in its entirety.

2. **Section 04 2113 – Brick Masonry;**
   A. Paragraph 2.05.A: Delete paragraph in its entirety.

3. **Section 04 2150 – Reinforced Masonry;**
   A. Delete section in its entirety and replace with new attached section 04 2200.

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4. **Section 04 2200 – Concrete Unit Masonry;**

   A. Add section in its entirety.

5. **Section 07 4243 – Aluminum Composite Panel System;**

   A. Delete paragraph 2.01.A in its entirety.

6. **Section 08 1113 – Hollow Metal Doors and Frames;**

   A. Paragraph 2.03.C: Add the following:

   "2. All HM-2 doors to be 14 gage tubular stile and rail style doors.
   a. Ceco Door; Thrulite series
   b. Steelcraft; A-14 series
   c. or approved equal.

7. **Section 08 7100 – Door Hardware;**

   A. Paragraph 3.07: Delete Hardware Set No. 1, and replace with new Hardware Set No. 1:

Hardware Set No. 1:
Door: 158

2	Continuous Hinge	SL-11HD 83"	CL	SP
1	Deadlock	MS1850	628	ADAM
2	Mortise Cylinder	1E-76 STD	626	BE
2	Push Pull Bar Set	BF15747 33"	US32D	RO
2	Door Closer	CLD-4550 CS P45-180 P45HD-110 SN	689	SD

NOTE: Sweeps, flushbolts, threshold and weatherstripping by Aluminum door supplier.

   B. Paragraph 3.07: Add the following hardware sets:

Hardware Set No. 1.1:
Door: 122a

1	Continuous Hinge	SL-11HD 83"	CL	SP
1	Deadlock	MS1850	628	ADAM
2	Mortise Cylinder	1E-76 STD	626	BE
1	Push Pull Bar Set	BF15747 33"	US32D	RO
1	Door Closer	CLD-4550 CS P45-180 P45HD-110 SN	689	SD

NOTE: Sweep, threshold and weatherstripping by Aluminum door supplier.

Hardware Set No. 1.2:

Doors: 155d, 155e

1	Continuous Hinge	SL-11HD 83"	CL	SP
1	Exit Device	2403 X 2003C	630	PR
1	Rim Cylinder	12E-72 STD	626	BE
1	Door Closer	CLD-4550 CS SN	689	SD

NOTE: Sweep, threshold and weatherstripping by Aluminum door supplier.

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Revisions to Drawings

1. **Sheet C-3;**

   A. Add attached sidewalk detail to this sheet.

2. **Sheet C-4;**

   A. At Utility Construction Note 6, change “SDR 35” to “SDR 26”.

3. **Sheet A3.02;**

   A. At Door Schedule, change the following Door Hardware Set Numbers.
      a.1 Door 122a: Change “1” to “1.1”
      b.1 Doors 155d and 155e: Change “1” to “1.2”

   B. At Door Schedule, change Door 163 frame elevation from “HMF-4” to “HMF-4.1”.

   C. Insert elevation of door frame HMF-4.1, as shown on attached sketch ADD-3.1, dated 05-17-19.

4. **Sheet A7.02;**

   A. Add attached bollard detail 14/A7.02 (ADD-3.2, dated 05-17-19) to this sheet.

END OF ADDENDUM NO. 3

1.01 PROJECT NAME AND LOCATION:

A. Project Name: A New Office Building for Southern Georgia Regional Commission.
B. Location: Valdosta, Georgia 31601.

1.02 BIDDING DOCUMENTS

A. Bidding Documents may be examined, by appointment, at the office of Ellis, Ricket and Associates, Architects, 2200 N. Patterson Street, Valdosta, Georgia 31602. Bidders may obtain Bidding Documents from Printlife Printing and Supplies, LLC, located at 1006 Williams Street, Valdosta, Georgia 31601 or by downloading from owner's website at www.sgrc.us/rfps.html.

1.03 DOCUMENT INCLUDES

A. Invitation
   1. Bid Submission
   2. Work Identified in the Contract Documents

B. Bid Documents and Contract Documents
   1. Contract Documents Identification
   2. Availability
   3. Examination
   4. Inquiries/Addenda
   5. Product/Assembly/System Substitutions

C. Site Assessment
   1. Pre-bid Conference

D. Bid Submission
   1. Bid Depository
   2. Submission Procedure

E. Bid Enclosures/Requirements
   1. Security Deposit
   2. Performance Assurance
   3. Bid Form Requirements
   4. Bid Form Signature

F. Offer Acceptance/Rejection
   1. Duration of Offer
   2. Acceptance of Offer

1.04 RELATED DOCUMENTS

A. Document 00 4100 - Bid Form.

B. Document 00 7000 - General Conditions:

INVITATION
2.01 BID INVITATION

A. Sealed proposals from qualified Contractors will be received by the Owner, Southern Georgia Regional Commission, in the Meeting Room, located at 327 West Savannah Avenue, Valdosta, Georgia until **2:00 PM** at the time legally prevailing in Valdosta, Georgia on **May 21, 2019** for the "**New Office Building for Southern Georgia Regional Commission"**. At the time and place noted above, the proposals will be publicly opened and read.

2.02 BID SUBMISSION

A. Submit Bid Form before the time and date above. Late submissions will not be considered. Submit bids in sealed and labeled envelopes with the project name and bidder's name on the

outside of the envelope. Mark the envelope: **'Bid Enclosed - Do Not Open'**.

Submit Bid To:

Name: Chris Strom
Firm: Southern Georgia Regional Commission
Address: 327 West Savannah Avenue
City, State, ZIP: Valdosta, Georgia 31601

B. Bids in order to be considered must be accompanied by a bid bond payable to the Owner in an amount not less than 5% of the Base Bid. This bid security shall become payable to the Owner only if the bidder to whom award is made should fail to execute contract with the Owner and furnish bonds in accordance with the terms of his proposal within ten (l0) days after notification of award. No bid may be withdrawn for a period of thirty-five (35) days after date of opening. The contract, if awarded, will be on a lump sum basis. Facsimiles of Bid Bond and Bid Form will not be accepted.

C. Bidders are required to state the number of days required to achieve Substantial Completion of the Work. Consideration will be given to the stated time of completion when reviewing Bids submitted.

D. Bids submitted after the above time shall be returned to the bidder unopened.

E. Bids will be opened publicly immediately after the time for receipt of bids. Bidders may be present during bid opening.

2.03 INTENT

A. The intent of this Bid request is to obtain an offer to perform work for a Stipulated Sum contract, in accordance with the Contract Documents, to complete the project named: HeritageBank of the South, Valdosta Branch.

2.04 WORK IDENTIFIED IN THE CONTRACT DOCUMENTS

A. Work of this proposed Contract comprises building construction and site development, including general construction, structural, mechanical, electrical, and civil engineer work.

2.05 CONTRACT TIME

A. Identify Contract Time in the Bid Form. The completion date in the Agreement shall be the Contract Time added to the commencement date. The commencement date shall be identified by an official Notice to Proceed letter. Time is of the essence and the Owner may consider the completion date provided by the bidder when reviewing the submitted bids.

B. Clarification of Notice to Proceed and Phases of the Work:
   1. The Notice to Proceed (NTP) date will be provided in accordance with the Agreement following execution of the Agreement Between the Owner and Contractor (The Contract).

BID DOCUMENTS AND CONTRACT DOCUMENTS

3.01 CONTRACT DOCUMENTS IDENTIFICATION

A. The Contract Documents are identified as Project Number 18004, as prepared by Ellis, Ricket and Associates, Architects, and with contents as identified in the Table of Contents.

3.02 AVAILABILITY

A. Bid Documents may be obtained at the office of the Architect located at 2200 North Patterson Street, Valdosta, GA, 31602.

B. Complete sets only of Bid Documents can be obtained by bidders upon receipt of a deposit, by cash or check, in the amount of $200.00 for one set. Documents will be forwarded shipping

charged collect.

C. Deposits will be refunded fully on one set to General Contractors who submit bona fide bids and minus reproduction costs on all other sets if Bid Documents are returned complete, undamaged, unmarked and reusable, within 10 days of bid submission. Failure to comply will result in forfeiture of deposit.

D. Bid Documents are made available only for the purpose of obtaining offers for this project. Their use does not grant a license for other purposes.

E. Construction Documents are made available by the Architect for bidding purposes prior to use of the Documents for construction and execution of the Work by the Contractor, Sub-contractors, Sub-subcontractors and material or equipment suppliers. Use and reproduction of the Construction Documents for the construction or Work is outlined in the General Conditions, AIA Document A201, sub-paragraph 1.6.

F. Construction Documents prepared for this project may not be reproduced in whole or in part for the purpose of bid preparation without the express authorization of the Architect. If the Construction Documents prepared for this project are made available through reproduction or sharing of partial sets of documents for bidding purposes by the document holders then the Owner and Architect shall not be held liable for omission of materials, equipment or Work because of erroneous bid quotes prepared using partial sets of Documents. Bidders using partial sets of Documents for the preparation of bids shall be required to provide all materials, equipment and Work required by the complete sets of Construction Documents.

3.03 EXAMINATION

A. Bid Documents may be viewed at the office of Architect.

B. Upon receipt of Bid Documents verify that documents are complete. Notify Architect should the documents be incomplete.

C. Immediately notify Architect upon finding discrepancies or omissions in the Bid Documents.

3.04 INQUIRIES/ADDENDA

A. Direct questions to Ellis, Ricket & Associates: Steve Hart, telephone - 229 242-3556.

B. Addenda may be issued during the bidding period. All Addenda become part of the Contract Documents. Include resultant costs in the Bid Amount.

C. Verbal answers are not binding on any party.

D. Clarifications requested by bidders must be in writing not less than 3 days (72 hours) before date set for receipt of bids. The reply will be in the form of an Addendum, a copy of which will be forwarded to known recipients.

3.05 PRODUCT/ASSEMBLY/SYSTEM SUBSTITUTIONS

A. When a request to substitute a product is made, Architect may approve the substitution and will issue an Addendum to known bidders. **All requests for substitution must be submitted no less than 10 days prior to bid date. No substitutions will be reviewed 10 days or less before bid date.**

B. In submission of substitutions to products specified, bidders shall include in their bid all changes required in the Work and changes to Contract Time and Contract Sum to accommodate such substitutions. A later claim by the bidder for an addition to the Contract Time or Contract Sum because of changes in work necessitated by use of substitutions shall not be considered.

C. The submission shall provide sufficient information to determine acceptability of such products.

D. Provide complete information on required revisions to other work to accommodate each proposed substitution.

E. Provide products as specified unless substitutions are submitted in this manner and accepted.

F. See Section 01600 - Product Requirements for additional requirements.

SITE ASSESSMENT

4.01 SITE EXAMINATION

A. Examine the project site before submitting a bid.

4.02 MANDATORY PREBID CONFERENCE

A. There will be a pre-bid conference held on **May 2, 2019 at 10:00 a.m.** in the meeting room of the Owner's current facility, located at 327 West Savannah Avenue, Valdosta, Georgia, 31601. Contractors will have a chance to visit the project immediately after the conference. Attendance at this conference is **MANDATORY** for any Contractor intending to submit a bid on this project. Others may attend if they so desire.

B. All general contract bidders are required to attend. Subcontractors and suppliers are invited to attend.

C. Representatives of the Architect will be in attendance.

D. Information relevant to the Bid Documents will be recorded in an Addendum, issued to Bid Document recipients.

QUALIFICATIONS

5.01 EVIDENCE OF QUALIFICATIONS

A. After receipt of bids, the Apparent Low Bidder may be asked to provide documentation to demonstrate qualification for performing the Work of this Contract. Documentation should include recent similar projects, references and contact information of references. Qualifications may be reviewed prior to contract award.

5.02 SUBCONTRACTORS/SUPPLIERS/OTHERS

A. Owner reserves the right to reject a proposed subcontractor for reasonable cause.

B. Refer to AIA A201 Article 5 of General Conditions.

BID SUBMISSION

6.01 SUBMISSION PROCEDURE

A. Bidders shall be solely responsible for the delivery of their bids in the manner and time prescribed.

B. Submit two copies of the executed offer on the Bid Forms provided, signed and sealed with the required security in a closed opaque envelope, clearly identified with bidder's name, project name and Owner's name on the outside.

C. An abstract summary of submitted bids will be made available to all bidders following bid opening.

6.02 BID INELIGIBILITY

A. Bids that are unsigned, improperly signed or sealed, conditional, illegible, obscure, contain arithmetical errors, erasures, alterations, or irregularities of any kind, will at the discretion of the Owner, be declared unacceptable.

B. Bid Forms, Appendices, and enclosures which are improperly prepared will, at the discretion of Owner, be declared unacceptable.

C. Failure to provide security deposit, bonding or insurance requirements will, at the discretion of Owner, be declared unacceptable.

BID ENCLOSURES/REQUIREMENTS

7.01 SECURITY DEPOSIT

A. Bids shall be accompanied by a security deposit as follows:
   1. Bid Bond of a sum no less than 5 percent of the Bid Amount on AIA A310 Bid Bond Form.

B. Endorse the Bid Bond in the name of the Owner as obligee, signed and sealed by the principal and surety.

C. The security deposit will be returned after delivery to the Owner of the required Performance and Payment Bond(s) by the accepted bidder.

D. Include the cost of bid security in the Bid Amount.

E. If no contract is awarded, all security deposits will be returned.

7.02 PERFORMANCE ASSURANCE

A. Accepted Bidder: Provide a Performance and Payment bond as described in Document 00 7000 - General Conditions.

B. Include the cost of Performance and Payment bonds in the Bid Amount.

7.03 BID FORM REQUIREMENTS

A. Complete all requested information in the Bid Form and Appendices.

7.04 BID FORM SIGNATURE

A. The Bid Form shall be signed by the bidder, as follows:
   1. Sole Proprietorship: Signature of sole proprietor in the presence of a witness who will also sign. Insert the words "Sole Proprietor" under the signature. Affix seal.
   2. Partnership: Signature of all partners in the presence of a witness who will also sign. Insert the word "Partner" under each signature. Affix seal to each signature.
   3. Corporation: Signature of a duly authorized signing officer(s) in their normal signatures. Insert the officer's capacity in which the signing officer acts, under each signature. Affix the corporate seal. If the bid is signed by officials other than the president and secretary of the company, or the president/secretary/treasurer of the company, a copy of the by-law resolution of their board of directors authorizing them to do so, must also be submitted with the Bid Form in the bid envelope.

OFFER ACCEPTANCE/REJECTION

8.01 DURATION OF OFFER

A. Bids shall remain open to acceptance and shall be irrevocable for a period of thirty five (35) days after the bid closing date.

8.02 ACCEPTANCE OF OFFER

A. Owner reserves the right to accept or reject any or all offers.

B. After acceptance by Owner, Architect on behalf of Owner, will issue to the successful bidder, a written Bid Acceptance.

END OF INSTRUCTIONS TO BIDDERS

PART 1 GENERAL

1.01 SUMMARY

A. Section includes:
   1. Concrete masonry units.
   2. Mortar and grout.
   3. Steel reinforcing bars.
   4. Masonry-joint reinforcement.
   5. Miscellaneous masonry accessories.
   6. Masonry-cell fill.

1.02 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, lap lengths, and placement of unit masonry reinforcing bars. Comply with ACI 315.

1.03 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. Store preblended, dry mortar mix in delivery containers on elevated platforms 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.

1.04 FIELD 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 (600 mm) 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 TMS 602/ACI 530.1/ASCE 6.

1. Cold-Weather Cleaning: Use liquid cleaning methods only when air temperature is 40 deg F (4 deg C) and higher and will remain so until masonry has dried, but not less than seven days after completing cleaning.

E. Hot-Weather Requirements: Comply with hot-weather construction requirements contained in TMS 602/ACI 530.1/ASCE 6.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. 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.

B. 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.

2.02 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 TMS 602/ACI 530.1/ASCE 6.
2. Determine net-area compressive strength of masonry by testing masonry prisms according to ASTM C 1314.

2.03 UNIT MASONRY - GENERAL

A. Masonry Standard: Comply with TMS 602/ACI 530.1/ASCE 6 except as modified by requirements in the Contract Documents.

B. Defective Units: Referenced masonry unit standards may allow a certain percentage of units to contain chips, cracks, or other defects exceeding limits stated. Do not use units where such defects are exposed in the completed Work.

C. Fire-Resistance Ratings: Comply with requirements for fire-resistance-rated assembly designs indicated.

1. Where fire-resistance-rated construction is indicated, units shall be listed and labeled by a qualified testing agency acceptable to design professional.

2.04 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 square-edged units for outside corners unless corner is to be exposed or otherwise indicated on architectural drawings.

B. Integral Water Repellent: Provide units made with integral water repellent for exposed units.

1. Integral Water Repellent: Liquid polymeric, integral water-repellent admixture that does not reduce flexural bond strength. Units made with integral water repellent, when tested according to ASTM E 514/E 514M as a wall assembly made with mortar containing integral water-repellent manufacturer's mortar additive, with test period extended to 24 hours, shall show no visible water or leaks on the back of test specimen.

a. ACM Chemistries.
b. BASF Construction Chemicals.
c. Grace Construction Products.

C. Insulated CMUs: Where indicated, units shall contain rigid, specially shaped, cellular thermal insulation units complying with ASTM C 578, Type I, designed for installing in cores of masonry units.

D. CMUs: ASTM C 90.

1. Unit Compressive Strength: Provide units with minimum average net-area compressive strength of 2000 psi (14 MPa).
2. Density Classification: Lightweight unless otherwise indicated.
3. Size (Width): Manufactured to dimensions 3/8 inch (10 mm) less-than-nominal dimensions.
4. Exposed Faces: Provide color and texture matching the range represented by Architect's sample.
5. Faces To Receive Plaster: Where units are indicated to receive a direct application of plaster, provide textured-face units made with gap-graded aggregates.

2.05 MORTAR AND GROUT MATERIALS

A. Portland Cement: ASTM C 150/C 150M, Type I or II, except Type III may be used for coldweather construction. Provide natural color or white cement as required to produce mortar color indicated.
1. Alkali content shall not be more than 0.1 percent when tested according to ASTM C 114.

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/C 91M.
1. Continental Building Products.
2. Holcim (US) Inc.
3. Lehigh Cement Company

E. 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 (6 mm) thick, use aggregate graded with 100 percent passing the No. 16 (1.18-mm) sieve.

F. Aggregate for Grout: ASTM C 404.

G. 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.

H. Water-Repellent Admixture: Liquid water-repellent mortar admixture intended for use with CMUs containing integral water repellent from same manufacturer.

I. Water: Potable.

2.06 REINFORCEMENT

A. Uncoated Steel Reinforcing Bars: ASTM A 615/A 615M or ASTM A 996/A 996M, Grade 60 (Grade 420).

B. Reinforcing Bar Positioners: Wire units designed to fit into mortar bed joints spanning masonry unit cells and to hold reinforcing bars in center of cells. Units are formed from 0.148-inch (3.77-mm) steel wire, hot-dip galvanized after fabrication. Provide units designed for number of bars indicated.

1. Dur-O-Wal
2. Heckmann Building Products
3. Hohmann & Barnard, Inc.
4. Wier-Bond.

C. Masonry-Joint Reinforcement, General: Ladder type complying with 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 (3.77-mm) diameter.
4. Wire Size for Cross Rods: 0.148-inch (3.77-mm) diameter.
5. Spacing of Cross Rods: Not more than 16 inches (407 mm) o.c.
6. Provide in lengths of not less than 10 feet (3 m), with prefabricated corner and tee units.

2.07 TIES AND ANCHORS

A. General: Ties and anchors shall extend at least 1-1/2 inches (38 mm) into masonry but with at least a 5/8-inch (16-mm) cover on outside face.

B. 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 1064, 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, Type 316.
4. Galvanized-Steel Sheet: ASTM A 653/A 653M, Commercial Steel, G60 (Z180) 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 240/A 240M or ASTM A 666, Type 316.

7. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.

C. 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- (6.35-mm-) diameter, hot-dip galvanized steel wire.
2. Tie Section: Triangular-shaped wire tie made from 0.25-inch- (6.35-mm-) diameter, hotdip galvanized steel wire.

2.08 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. Bond-Breaker Strips: Asphalt-saturated felt complying with ASTM D 226/D 226M, Type I (No. 15 asphalt felt).

2.09 MASONRY –CELL FILL

A. Loose-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).

B. Lightweight-Aggregate Fill: ASTM C 331/C 331M.

2.10 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 mortar unless otherwise indicated.
3. 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 or Property 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 S.
2. For reinforced masonry, use Type S.
3. For exterior, above-grade, load-bearing and nonload-bearing walls and parapet walls; for interior load-bearing walls; for interior nonload-bearing partitions; and for other applications where another type is not indicated, use Type S.

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 TMS 602/ACI 530.1/ASCE 6 for dimensions of grout spaces and pour

height.
2. Proportion grout in accordance with ASTM C 476, Table 1 or paragraph 4.2.2 for specified 28-day compressive strength indicated, but not less than 2500 psi (17.5 MPa).
3. Provide grout with a slump of 8 to 11 inches (200 to 280 mm) as measured according to ASTM C 143/C 143M.

PART 3 EXECUTION

3.01 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 the Work.
2. Verify that foundations are within tolerances specified.
3. Verify that reinforcing dowels are properly placed.
4. Verify that substrates are free of substances that would impair mortar bond.

B. Before installation, examine rough-in and built-in construction for piping systems to verify actual locations of piping.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 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 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.

3.03 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 (12 mm) or minus 1/4 inch (6 mm).
2. For location of elements in plan, do not vary from that indicated by more than plus or minus 1/2 inch (12 mm).
3. For location of elements in elevation, do not vary from that indicated by more than plus or minus 1/4 inch (6 mm) in a story height or 1/2 inch (12 mm) 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 (6 mm in 3 m), or 1/2-inch (12-mm) 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 (3 mm in 3 m), 1/4 inch in 20 feet (6 mm in 6 m), or 1/2-inch (12-mm) maximum.
3. For vertical lines and surfaces do not vary from plumb by more than 1/4 inch in 10 feet (6 mm in 3 m), 3/8 inch in 20 feet (9 mm in 6 m), or 1/2-inch (12-mm) 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 (3 mm in 3 m), 1/4 inch in 20 feet (6 mm in 6 m), or 1/2-inch (12-mm) maximum.

5. For lines and surfaces, do not vary from straight by more than 1/4 inch in 10 feet (6 mm in 3 m), 3/8 inch in 20 feet (9 mm in 6 m), or 1/2-inch (12-mm) maximum.
6. For vertical alignment of exposed head joints, do not vary from plumb by more than 1/4 inch in 10 feet (6 mm in 3 m), or 1/2-inch (12-mm) maximum.
7. For faces of adjacent exposed masonry units, do not vary from flush alignment by more than 1/16 inch (1.5 mm).

C. Joints:

1. For bed joints, do not vary from thickness indicated by more than plus or minus 1/8 inch (3 mm), with a maximum thickness limited to 1/2 inch (12 mm).
2. For exposed bed joints, do not vary from bed-joint thickness of adjacent courses by more than 1/8 inch (3 mm).
3. For head and collar joints, do not vary from thickness indicated by more than plus 3/8 inch (9 mm) or minus 1/4 inch (6 mm).
4. For exposed head joints, do not vary from thickness indicated by more than plus or minus 1/8 inch (3 mm).

3.04 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 (100-mm) 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 4 inches (100 mm). Bond and interlock each course of each wythe at corners. Do not use units with less-than-nominal 4-inch (100-mm) horizontal face dimensions at corners or jambs.

D. Stopping and Resuming Work: Stop work by stepping back units in each course from those in course below; do not tooth. When resuming work, clean masonry surfaces that are to receive mortar, remove loose masonry units and mortar, and wet brick if required 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 (600 mm) under bearing plates, beams, lintels, posts, and similar items unless otherwise indicated.

I. Build nonload-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.

3.05 MORTAR BEDDING AND JOINTING

A. Lay hollow CMUs as follows:

1. Bed face shells in mortar and make head joints of depth equal to bed joints.
2. Bed webs in mortar in all courses of piers, columns, and pilasters.
3. Bed webs in mortar in grouted masonry, including starting course on footings.
4. Fully bed entire units, including areas under cells, at starting course on footings where cells are not grouted.

B. Lay solid CMUs 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. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than joint thickness unless otherwise indicated.

D. Cut joints flush for masonry walls to receive plaster or other direct-applied finishes (other than paint) unless otherwise indicated.

E. Cut joints flush where indicated to receive waterproofing unless otherwise indicated.

3.06 MASONRY-CELL FILL

A. Pour loose-fill insulation or lightweight-aggregate fill into cavities to fill void spaces. Maintain inspection ports to show presence of fill at extremities of each pour area. Close the ports after filling has been confirmed. Limit the fall of fill to one story high, but not more than 20 feet (6 m).

3.07 MASONRY-JOINT REINFORCEMENT

A. General: Install entire length of longitudinal side rods in mortar with a minimum cover of 5/8 inch (16 mm) on exterior side of walls, 1/2 inch (13 mm) elsewhere. Lap reinforcement a minimum of 6 inches (150 mm).

1. Space reinforcement not more than 16 inches (406 mm) o.c.
2. Space reinforcement not more than 8 inches (203 mm) o.c. in foundation walls and parapet walls.
3. Provide reinforcement not more than 8 inches (203 mm) above and below wall openings and extending 12 inches (305 mm) 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.

3.08 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 1/2 inch (13 mm) 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 (610 mm) o.c. vertically and 36 inches (915 mm) o.c. horizontally.

3.09 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.

3.10 LINTELS

A. Provide masonry lintels where shown and where openings of more than 12 inches (305 mm) for brick-size units and 24 inches (610 mm) for block-size units are shown without structural steel or other supporting lintels.

B. Provide minimum bearing of 8 inches (200 mm) at each jamb unless otherwise indicated.

3.11 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 TMS 602/ACI 530.1/ASCE 6.

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 TMS 602/ACI 530.1/ASCE 6 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 (1520 mm).

3.12 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,

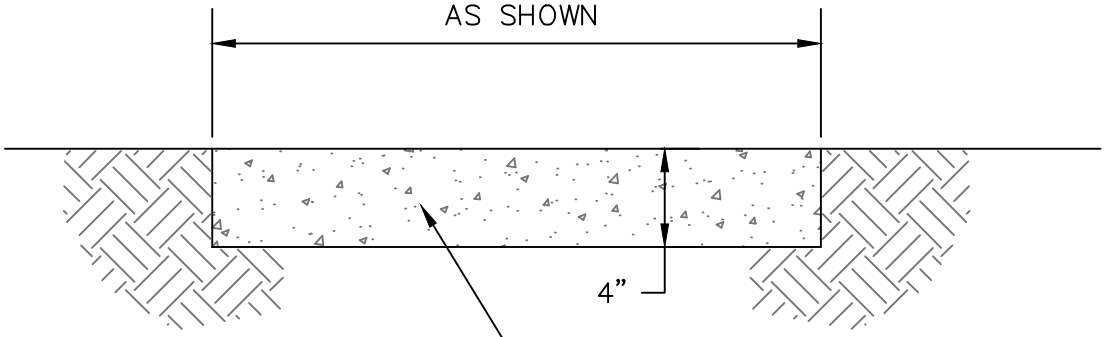
where indicated.

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 applicable cleaning methods indicated in NCMA TEK 8-4A.

END OF SECTION

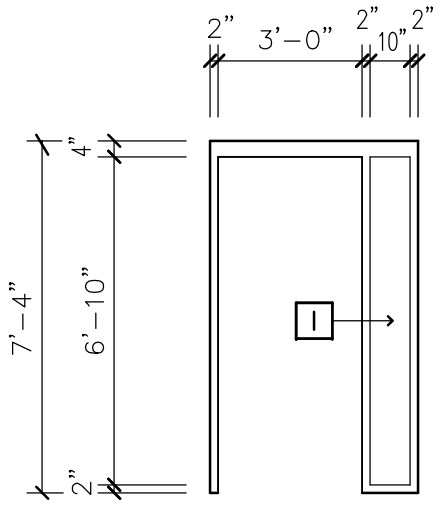


3000 PSI CONCRETE WITH MINIMUM 1.5 LBS/CY POLYPROPYLENE FIBER REINFORCEMENT PER ASTM C1116, SEC 4.1.3.

NOTE: PROVIDE 1” DEEP TOOLED CONTRACTION JOINT EVERY X’ UNLESS NOTED OTHERWISE, WHERE X = WIDTH OF SIDEWALK.

SIDEWALK DETAIL (TYP)

N.T.S.



HMF-4.1

DOOR FRAME ELEVATIONS

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

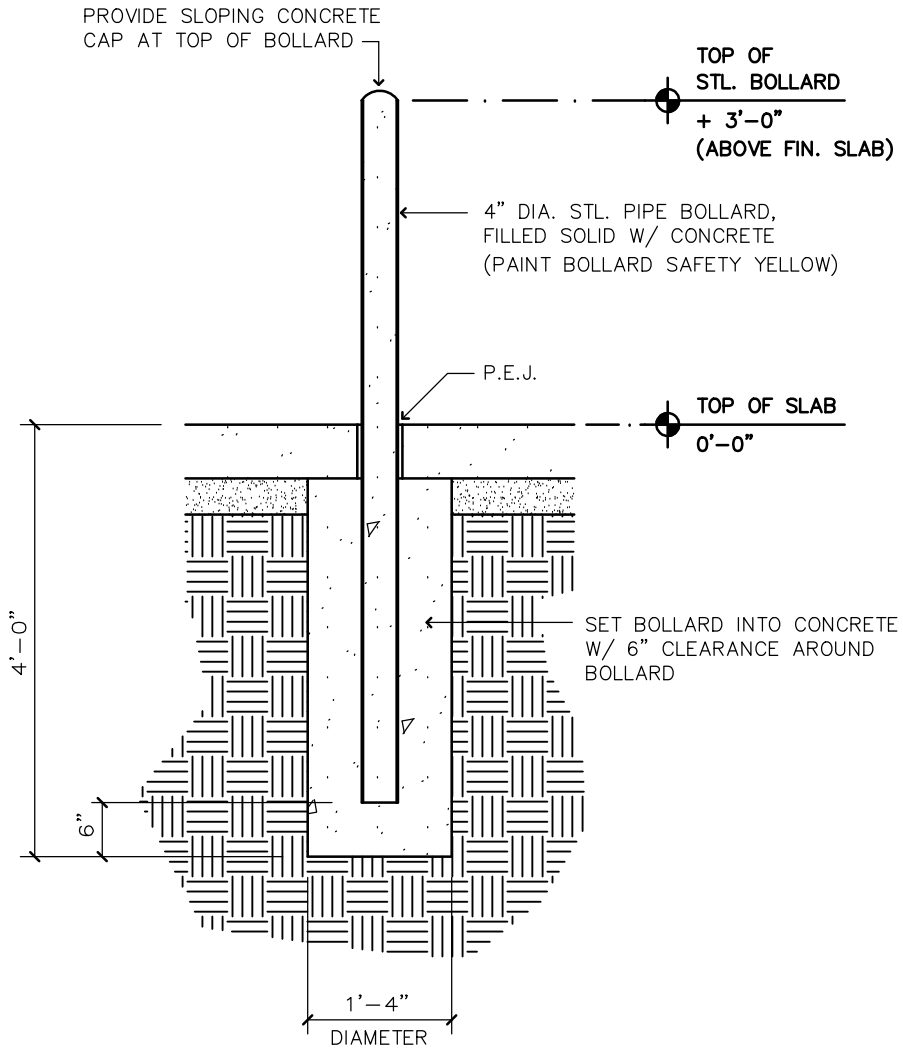
SCALE:

Ellis, Ricket & Associates
Architecture
Interior Design
Land Planners
(229)242-3556 P.O. BOX 3010 VALDOSTA, GEORGIA 31604

DRN SH
CKD SH
JOB # 18004
DATE 05-17-19

SHEET NO.

ADD-3.1



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A7.02

DETAIL @ BOLLARD

NOT TO SCALE

SCALE:

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DATE 05-17-19

SHEET NO.
ADD-3.2