VERNON ROAD FIRE STATION

FOR

CITY OF LAGRANGE

LAGRANGE, GEORGIA

(STRUCTURAL)

PROJECT NUMBER 1731

FOR BIDDING AND PERMIT

07 MAY 2018

smith design group | 206 W Haralson Street LaGrange GA 30240 | 706.882.5511 | www.SDGarch.net

INDEX OF SHEETS

ARCHITECT'S STAMP

STATE OF GEORGIA
GORDON M. SMITH, JR.
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REGISTERED ARCHITECT

SIGNATURE REQUIRED

SMITH DESIGN GROUP, INC.

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REVISIONS

	DATE	DESCRIPTION

PROJECT:

VERNON ROAD FIRE STATION

VERNON ROAD
LAGRANGE GEORGIA

TITLE:

INDEX OF SHEETS

MODIFIED DATE:

ISSUED DATE:
FOR BID AND PERMIT
07 MAY 2018

JOB NO:
1731

SHEET:
G-2

SECTION 1 -- GENERAL CONDITIONS AND STATEMENTS

A. THESE NOTES SHALL APPLY UNLESS OTHERWISE INDICATED BY DRAWINGS OR SPECIFICATIONS.

B. STRUCTURAL DRAWINGS INDICATE TYPICAL AND CERTAIN SPECIFIC CONDITIONS ONLY. SHOP DRAWINGS SHALL DETAIL ALL CONDITIONS IN ACCORDANCE WITH SPECIFIED STANDARDS AND THE SPECIFIC REQUIREMENTS OF THIS PROJECT AS INDICATED ON THE DRAWINGS.

C. THE USE OR REPRODUCTIONS OF THESE CONTRACT DRAWINGS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES HIS ACCEPTANCE OF ALL INFORMATION SHOWN HEREON AS CORRECT, AND OBLIGATES HIMSELF TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HEREON.

D. THE STRUCTURE SHOWN ON THESE DRAWINGS IS STRUCTURALLY SOUND ONLY IN ITS COMPLETED FORM. THE CONTRACTOR SHALL TEMPORARILY BRACE ALL EARTH, FORMS, CONCRETE, STEEL, WOOD, MASONRY, TO RESIST GRAVITY, EARTH, WIND, SEISMIC AND CONSTRUCTION LOADS DURING CONSTRUCTION.

E. WHERE A DETAIL, TYPICAL DETAIL, SECTION, TYPICAL SECTION OR AS NOTED IS SHOWN FOR ONE CONDITION, IT SHALL APPLY FOR ALL LIKE OR SIMILAR CONDITIONS UNLESS OTHERWISE NOTED. IF THERE ARE QUESTIONS REGARDING THE APPLICABILITY OF A DETAIL, TYPICAL DETAIL, SECTION, TYPICAL SECTION, OR AN AS NOTED NOTE, CONTACT THE ARCHITECT IN WRITING REQUESTING A CLARIFICATION. THE CONTRACTOR SHALL NOT BE RELIEVED OF THE RESPONSIBILITY OF SUPPLYING AND INSTALLING REQUIRED ITEMS OR PERFORMING OTHER REQUIRED WORK DUE TO NOT UNDERSTANDING THE REQUIRED SCOPE OF WORK OR DUE TO ANY OTHER MISINTERPRETATION OF THE PROJECT DRAWINGS.

F. THESE STRUCTURAL DRAWINGS HAVE BEEN PREPARED IN ACCORDANCE WITH THE 2012 INTERNATIONAL BUILDING CODE, WITH CURRENT GEORGIA AMENDMENTS.

G. DESIGN LOADS:

DESIGN LIVE LOADS:	DESIGN COLLATERAL DEAD LOAD:
ROOF: 20 PSF (REDUCIBLE BASED ON TRIBUTARY AREA PER IBC)	ROOF: 7.0 PSF (METAL BUILDING PLUS STRUCTURE WEIGHT
	ENTRY ROOF: 20 PSF (TOTAL)
FLOOR: 40 PSF+10 PSF PARTITION	FLOOR: 25 PSF

SNOW LOADS:

GROUND SNOW LOAD:	Pg =5 PSF
IMPORTANCE FACTOR:	I =1.20
THERMAL FACTOR:	Ct =1.0
EXPOSURE FACTOR:	Ce =1.0

H. WIND LOADS:

BASE WIND SPEED: Vult=120 MPH Vasd=93 MPH
MEAN ROOF HEIGHT: 22'-0"

EXPOSURE CATEGORY: B
OCCUPANCY CATEGORY: IV
REFER TO PEMB DRAWINGS FOR ADDTIONAL INFORMATION

J. SEISMIC LOAD:

OCCUPANCY CATEGORY = IV
IMPORTANCE FACTOR I = 1.50
SEISMIC RESPONSE ACCELERATION, Sds = 0.160; Sd1 = 0.129
SITE CLASS = D
SEISMIC DESIGN CATEGORY = C
RESPONSE MODIFICATION COEFFICIENT, R = 3

STRUCTURAL STEEL SYSTEM NOT SPECIFICALLY DESIGNED FOR SEISMIC RESISTANCE
EQUIVALENT LATERAL FORCE PROCEDURE

BUILDING SEISMIC BASE SHEAR V=(0.08W)=27.1^{k}

K. DO NOT SCALE FOR DIMENSIONS NOT SHOWN ON DRAWINGS. SEND WRITTEN REQUEST FOR INFORMATION TO THE ARCHITECT FOR DIMENSIONS NOT PROVIDED.

L. THE CONTRACTOR SHALL COMPARE STRUCTURAL SECTIONS WITH ARCHITECTURAL SECTIONS AND REPORT ANY DISCREPANCY TO THE ARCHITECT PRIOR TO FABRICATION OR INSTALLING STRUCTURAL MEMBERS.

M. EXISTING CONDITIONS:

1. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES IN THE AREA OF CONSTRUCTION THAT MIGHT BE AFFECTED BY OR OTHERWISE INTERFERE WITH INSTALLATION OF NEW WORK. THIS INCLUDES THOSE THAT MIGHT BE DAMAGED BY NEW FOUNDATIONS OR OTHER WORK, AND THOSE WHOSE PRESENCE MIGHT LEAD DAMAGE TO THE NEW WORK (SUCH AS DIFFERENTIAL SETTLEMENT, ETC.).

SECTION 2 - SOILS AND SUBSURFACE CONDITION

A. DESIGN SOIL BEARING CAPACITY FOR SPREAD FOOTINGS = 1500 PSF.

B. A REGISTERED GEOTECHNICAL SOILS ENGINEER SHALL VERIFY ALLOWABLE DESIGN SOIL BEARING CAPACITY, SUBGRADE, FILL, AND BACKFILL DESIGN VALUES PRIOR TO CONSTRUCTION OF FOUNDATIONS, SLABS, ETC. IF, AFTER EXCAVATION, THE CONDITION OF THE SOIL INDICATES A SAFE BEARING CAPACITY LESS THAN DESIGN SOIL BEARING CAPACITY OR IF SOIL CONDITIONS VARY, THE STRUCTURAL ENGINEER OF RECORD SHALL BE NOTIFIED AND THE FOOTINGS REVISED IF NECESSARY. ALL FOOTINGS SHALL BEAR ON ORIGINAL UNDISTURBED SOIL OR CONTROLLED FILL. FILL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF THE STANDARD PROCTOR VALUE (98 PERCENT IN TOP 12 INCHES). COLUMN FOOTINGS AND WALL FOOTINGS SHALL BE POURED MONOLITHIC WITH TOPS OF ADJACENT FOOTINGS AT THE SAME ELEVATION. REFER TO GEOTECHNICAL REPORT BY GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS, INC. DATED MARCH 23, 2018 FOR ADDITIONAL INFORMATION.

C. BACKFILLING OF WALLS AND PIERS SHALL BE PLACED SUCH THAT SYMMETRICAL LOADING SHALL BE MAINTAINED ON BOTH SIDES. WHERE DESIGN CONDITIONS REQUIRE BACKFILLING EACH SIDE TO UNEQUAL HEIGHTS, THEN WALLS OR PIERS SHALL BE FIRMLY SHORED IN POSITION, AND SHORES SHALL REMAIN UNTIL FLOORS OR OTHER PERMANENT BRACING ELEMENTS ARE PLACED AND PROPERLY SET TO PROVIDE FULL SUPPORT.

D. PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING AREA, BOTH DURING CONSTRUCTION AND PERMANENTLY.

E. DO NOT ALLOW STORED EXCAVATION MATERIAL TO DISRUPT PROPER DRAINAGE OF AREA.

F. MAINTAIN STABILITY OF EXCAVATIONS UNTIL PROPERLY BACKFILLED. KEEP EXCAVATIONS FREE OF ANY LOOSE MATERIAL. DEWATER EXCAVATIONS AND REMOVE ANY WET MATERIAL PRIOR TO THE PLACING OF CONCRETE WORK.

SECTION 2 - (CONTINUED)

G. HEAVY EQUIPMENT FOR SPREADING AND COMPACTING BACKFILL SHALL NOT BE OPERATED CLOSER TO WALL, GRADE BEAM, ETC., THAN A DISTANCE EQUAL TO THE HEIGHT OF BACKFILL ABOVE TOP OF WALL FOOTING & BOTTOM OF GRADE BEAM, ETC. THE AREA REMAINING HALL BE COMPACTED BY HAND TAMPERS.

H. USE EXCAVATED MATERIAL AS BACKFILL IF ACCEPTABLE TO TESTING AGENCY. IF EXCAVATED BACKFILL MATERIAL IS NOT AVAILABLE, USE SELECT FILL MATERIAL ACCEPTABLE TO TESTING AGENCY.

I. GRADE SHALL BE SUCH THAT THICKNESS OF FOUNDATION, SLAB ON GRADE, ETC., IS NOT REDUCED BY MORE THAN 5% OF THAT SHOWN ON DRAWINGS.

J. POUR A 3" TO 4" MUD MAT OF LEAN CONCRETE IN THE BOTTOM OF A FOOTING EXCAVATIONS THAT WILL BE EXPOSED TO RAIN OR REMAIN OPEN OVERNIGHT.

SECTION 3 - CONCRETE

A. MIX DESIGNS FOR EACH TYPE OF CONCRETE SPECIFIED SHALL BE SUBMITTED FOR APPROVAL. SUBMIT HISTORICAL DATA PER ACI REQUIREMENTS FOR EACH MIX DESIGN. ADMIXTURES, CURING COMPOUNDS AND HARDENERS WHICH ARE INTENDED FOR USE ARE TO BE SUBMITTED FOR APPROVAL. USE OF ADMIXTURES CONTAINING CHLORIDES SHALL NOT BE PERMITTED. ALL CONCRETE PERMANENTLY EXPOSED TO FREEZING WEATHER SHALL BE AIR-ENTRAINED (5%± AIR CONTENT).

B. CONCRETE SHALL HAVE THE FOLLOWING 28-DAY COMPRESSIVE STRENGTH:

NORMAL WEIGHT CONCRETE (145-150 LB/CF, WITH 3"-5" SLUMP):
BUILDING FOOTINGS 3,000 PSI
BUILDING FLOOR SLABS ON GRADE 3,000 PSI

C. TESTING LABORATORY SHALL SAMPLE AND TEST CONCRETE AS FOLLOWS:
1. SAMPLING:
   a. GENERAL: IN ACCORDANCE WITH ASTM C172 AND ASTM C31.
   b. NO.: (4) CYLINDERS FOR EACH 75 CUBIC YARDS, 5000 SQUARE FEET OF SURFACE AREA, OR EACH PLACEMENT OF EACH MIX DESIGN OF CONCRETE PLACED IN ANY ONE DAY.
   c. DESIGNATION: LABEL EACH CYLINDER IN EACH SET OF (4) CYLINDERS WITH AN ALPHA-NUMERIC DESIGNATION, E.G., THE FIRST SET SHALL BE NUMBERED 1A, 1B, 1C, AND 1D.
2. TESTING:
   a. SLUMP: IN ACCORDANCE WITH ASTM C 143, TO BE TAKEN WHEN EACH SET OF CYLINDERS IS PREPARED.
   b. AIR CONTENT: TEST EACH TIME A SET OF CYLINDERS IS PREPARED, IN ACCORDANCE WITH ASTM C231 OR ASTM C173.
   c. COMPRESSIVE STRENGTH: IN ACCORDANCE WITH ASTM C31 AND ASTM C39, BREAK ONE CYLINDER AT (7) DAYS, (2) AT (28) DAYS, AND HOLD (1) IN RESERVE. EACH PAIR OF BREAKS FROM EACH SET OF CYLINDERS WILL BE CONSIDERED ONE TEST.
3. TEST REPORTS SHALL BE AVAILABLE AT JOBSITE. ONE COPY SHALL BE SENT DIRECTLY TO THE STRUCTURAL ENGINEER AT THE ADDRESS SHOWN ON THIS SHEET.

D. CONCRETE WORK SHALL CONFORM TO ACI 318 (STRUCTURAL CONCRETE) AND THE FOLLOWING:
1. DETAILS AND DETAILING OF CONCRETE REINFORCEMENT SHALL COMPLY WITH ACI 315 AND THE CRSI "MANUAL OF STANDARD PRACTICE". ALL CONCRETE WORK SHALL CONFORM TO ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", UNLESS MORE STRINGENT CRITERIA ARE APPLIED IN THESE DOCUMENTS. CONCRETE SHALL BE MIXED IN ACCORDANCE WITH ASTM C94. CEMENT SHALL COMPLY WITH ASTM C150. AGGREGATES SHALL COMPLY WITH ASTM C33, CONCRETE FOR INTERIOR SLABS SHALL HAVE COARSE AGGREGATES GRADED SUCH THAT NOT MORE THAN 18% NOR LESS THAN 8% OF THE TOTAL AGGREGATE IS RETAINED ON THE $\frac{3}{8}$", $\frac{1}{2}$", $\frac{3}{4}$", AND #4 SIEVES. AGGREGATE USED IN FLOOR SLABS 8" OR GREATER IN THICKNESS SHALL BE #467 STONE, LIMESTONE, OR GRANITE. SHEET MATERIALS FOR CURING CONCRETE SHALL COMPLY WITH ASTM C171, AND LIQUID MEMBRANE-FORMING COMPOUNDS FOR CURING CONCRETE SHALL COMPLY WITH ASTM C309. CONCRETE CURING SHALL BE IN ACCORDANCE WITH ACI-302. MEMBRANE CURING SHALL BE COMPATIBLE WITH FINAL SEALER OR FLOOR FINISH. AIR ENTRAINING ADMIXTURES FOR CONCRETE SHALL COMPLY WITH ASTM C260. CHEMICAL ADMIXTURES SHALL COMPLY WITH ASTM C494. FLY ASH, MAY BE USED TO REPLACE UP TO 25% OF CEMENT. APPLY FINAL SEALER OR FLOOR FINISH AFTER THOROUGH CLEANING.
2. CONSTRUCTION TOLERANCES SHALL BE IN ACCORDANCE WITH ACI 301.

E. CONSTRUCTION AND/OR CONTROL JOINTS SHALL BE PROVIDED IN SLABS ON GRADE AS SHOWN ON THE PLANS. ASPECT RATIO (LONGSIDE TO SHORTSIDE OF CONCRETE AREA) SHALL NOT EXCEED 1.5. NO EMBEDDED ANGLES OR OTHER FIXED METAL ITEMS SHALL EXTEND THROUGH JOINTS, UNLESS OTHERWISE NOTED. EMBEDDED ANGLES AND OTHER FIXED METAL ITEMS SHALL BE CONTINUOUS BETWEEN CONCRETE JOINTS, UNLESS OTHERWISE NOTED. CONTROL JOINTS IN WALLS SHALL MATCH CONTROL JOINTS IN SLABS ON GRADE. SAWN JOINTS SHALL MADE USING THE SOFF-CUT METHOD.

F. HORIZONTAL CONSTRUCTION JOINTS SHALL NOT BE PERMITTED UNLESS SPECIFICALLY DETAILED ON STRUCTURAL DRAWINGS.

G. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND VENDOR'S DRAWINGS FOR SLEEVES, EMBEDDED ITEMS, ACCESORIES, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND PLACING ALL SLEEVES, EMBEDDED ITEMS, ACCESORIES, ETC.

H. UNLESS SHOWN ON STRUCTURAL DRAWINGS NO OPENINGS IN SLABS OR WALLS LARGER THAN 12"x12" SHALL NOT BE CONSTRUCTED UNLESS SPECIFICALLY NOTED ON STRUCTURAL DRAWINGS. DO NOT PLACE PIPES OR SLEEVES THROUGH FOOTINGS UNLESS SPECIFICALLY NOTED ON STRUCTURAL DRAWINGS. PIPES, DUCTS, AND SLEEVES SHALL NOT EXCEED 1/3 SLAB OR WALL THICKNESS UNLESS SPECIFICALLY NOTED ON STRUCTURAL DRAWINGS. APPROVALS MUST BE OBTAINED FROM THE STRUCTURAL ENGINEER PRIOR TO FABRICATION OF STEEL AND PLACEMENT OF CONCRETE.

I. REFER ARCHITECTURAL DRAWINGS CHAMFERS, REVEALS, FINISHES, AND LOCATIONS OF SLAB DEPRESSIONS.

J. REINFORCING BARS SHALL CONFORM WITH ASTM A615 - GRADE 60, UNLESS NOTED OTHERWISE. REINFORCEMENT TO BE WELDED SHALL CONFORM WITH ASTM A706.

K. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185 AND SHALL BE SUPPLIED IN SHEETS (NOT ROLLS). MINIMUM LAP LENGTH AT ENDS AND SIDES SHALL BE 8".

L. DEFORMED BAR ANCHORS (D.B.A'S.) SHALL CONFORM TO ASTM A496. D.B.A'S. SHALL BE AUTOMATICALLY END WELDED USING MANUFACTURER'S RECOMMENDED PROCEDURES, EQUIPMENT, FLUX, AND FERRULES, U.N.O. D.B.A'S. SHALL BE NELSON FLUXED D.B.A'S. OR APPROVED ALTERNATE.

SECTION 3 - (CONTINUED)

M. ALL REINFORCEMENT AND EMBEDS SHALL BE SECURELY PLACED PRIOR TO PLACEMENT OF CONCRETE. CHAIRS, BOLSTERS, AND OTHER PREFABRICATED ACCESSORIES SHALL COMPLY WITH CRSI "MANUAL OF STANDARD PRACTICE", CLASS 1 AT EXPOSED SURFACES, AND CLASS 2 AT UNEXPOSED. LEGS OF ALL ACCESSORIES USED IN EXPOSED CONCRETE SHALL BE SOLID PLASTIC OR PLASTIC COATED.

N. REINFORCING STEEL COVERAGE SHALL BE AS FOLLOWS:

CAST IN PLACE CONCRETE	- NON PRESTRESSED
PIERS	- 2" TO TIES
WALLS	- 2" NOT EXPOSED TO EARTH AND WEATHER*
FOOTINGS	- 3" SIDES AND BOTTOM, 2" TOP

* IF WALLS OR SLABS, ARE EXPOSED TO WEATHER OR IN CONTACT WITH GROUND, PROVIDE 2" COVER TO REINFORCING BARS. IF CONCRETE IS CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH PROVIDE 3" COVER TO REINFORCING BARS.

O. CONTINUOUS BARS LOCATED IN TURNED DOWN SLABS, THICKENED SLABS, AND CONTINUOUS STRIP FOOTINGS SHALL HAVE 42 BAR DIAMETER LAP SPLICES. SPLICES IN REINFORCEMENT SHALL BE MADE ONLY AS PERMITTED ON DESIGN DRAWINGS, SPECIFICATIONS, OR AS AUTHORIZED BY THE ENGINEER. PROVIDE CORNER BARS AT ALL WALLS, FOOTINGS, AND GRADE BEAMS. BARS SHALL BE THE SAME SIZE AND SPACING AS THE HORIZONTAL REINFORCING. INTERSECTING WALLS OR GRADE BEAMS SHALL BE DOWELED TOGETHER IN THE SAME MANINER. PROVIDE TWO NO. 4 TOP DIAGONAL BARS 4'-0" LONG AT ALL REENTRANT CORNERS IN ALL SLABS ON GRADE.

P. SUBMIT COMPLETE SHOP DRAWINGS OF ALL MATERIALS PROVIDED UNDER THIS SECTION. REINFORCING SHOP DRAWINGS SHALL INCLUDE SECTIONS AND ELEVATIONS (WRITTEN DESCRIPTION IS NOT ACCEPTABLE). STEEL PRODUCER'S CERTIFICATES OF MILL ANALYSIS, TENSILE, AND BEND TESTS FOR REINFORCING STEEL SHALL ACCOMPANY THE SHOP DRAWINGS.

Q. CONCRETE FINISHES:
1. FLOORS: HARD SMOOTH STEEL TROWEL.
2. SIDEWALKS: BROOM FINISH, PERPENDICULAR TO TRAFFIC

R. FLOOR FLATNESS AND LEVELNESS.
1. SPECIFIED OVERALL VALUE:
   a. FLATNESS: Ff = 20
   b. LEVELNESS: Fl = 20
2. MINIMUM LOCAL VALUE:
   a. FLATNESS: Ff = 15
   b. LEVELNESS: Fl = 15
3. NO POINT ON THE FLOOR SHALL BE MORE THAN $\frac{3}{4}$" FROM SPECIFIED ELEVATION.
4. ANY SECTION OF FLOOR (BOUNDED BY CONTROL OR CONSTRUCTION JOINTS) NOT MEETING THESE REQUIREMENTS SHALL BE REPLACED.

S. TAKE PRECAUTIONS TO PREVENT HIGH TEMPERATURES IN FRESH CONCRETE DURING HOT WEATHER PER ACI-305. COLD WEATHER PLACEMENT SHALL BE PER ACI-306.

SECTION 4 - MASONRY

A. U.N.O. HOLLOW LOAD BEARING MASONRY UNITS SHALL CONFORM TO ASTM C90, LIGHTWEIGHT, WITH A MINIMUM COMPRESSIVE STRENGTH OF 1900 PSI (f'm = 1500 PSI) ON THE NET AREA, SUBMIT RESULTS OF TESTS CONDUCTED IN ACCORDANCE WITH ASTM C140 FOR APPROVAL FOR THE CMU TO BE USED.

B. MORTAR SHALL CONFORM TO ASTM C270 CEMENT-LIME TYPE M OR S.

C. COURSE MASONRY GROUT SHALL CONFORM TO ASTM C476 WITH MAXIMUM AGGREGATE SIZE OF 3/8". MINIMUM COMPRESSIVE STRENGTH SHALL BE 2000 PSI AT 28 DAYS, U.N.O. PROVIDE CLEAN OUT OPENINGS WHERE GROUT LIFT EXCEEDS 4'-0.

D. CONCRETE MASONRY QUALITY CONTROL:
1. WORK IN PROGRESS SHALL BE INSPECTED FORCONFORMANCE WITH SPECIFIED MATERIALS AND THAT WORKMANSHIP AND CONSTRUCTION IS IN COMPLIANCE WITH PLANS, SPECIFICATIONS AND INDUSTRY STANDARDS.
2. WORK SHALL BE SAMPLED AND TESTED.
   MORTAR: 2x4 CYLINDERS OR 2" CUBES PER ASTM C780.
   a. (1) TEST OF (3) CYLINDERS OR CUBES PRIOR TO CONSTRUCTION, (1) TEST OF (3) CYLINDERS OR CUBES ON EACH OF THE FIRST (3) DAYS OF CONSTRUCTION AND (1) TEST OF (3) CYLINDERS OR CUBES FOR EACH 5000 SQ. FT. OF WALL AREA OR PER WEEK WHICHEVER OCCURS FIRST.
   b. GROUT: TEST SAMPLE CUBE CAST BETWEEN BLOCK UNITS (SEE ASTM C1019) CAP PER ASTM C617 AND TEST PER ASTM C39. TAKE (2) SPECIMENS PER TEST EACH (30) CUBIC YARDS OF GROUT OR FRACTION THEREOF PLACED EACH DAY AND WHEN MIX PROPORTIONS ARE CHANGED.

E. REINFORCEMENT IN MASONRY WALLS SHALL HAVE THE FOLLOWING LAP SPLICES, U.N.O:
#4 BAR VERTICAL REINFORCING IN 8" CMU WALLS - 36"
#5 BAR VERTICAL REINFORCING IN 8" CMU WALLS - 45"
#6 BAR VERTICAL REINFORCING IN 8" CMU WALLS - 54"

CONTINUOUS REINFORCING IN BOND BEAMS - (78) BAR DIA.

F. PROVIDE 8 GA. GALVANIZED LADDER TYPE HORIZONTAL JOINT REINFORCEMENTAT 16" o.c. VERTICALLY FOR FULL WALL HEIGHT, TYPICAL, U.N.O. LAP 6" MINIMUM AND PROVIDE PREFAB CORNERS AND TEES. SEE ARCHITECTURAL FOR BRICK TIES FABRICATED INTEGRAL WITH JOINT REINFORCING, IF REQUIRED.

G. PROVIDE HORIZONTAL 8" DEEP, U.N.O., CMU BOND BEAM WITH (2) #5 CONT. GROUTED SOLID AT THE TOP OF ALL CMU WALLS. PROVIDE (2) #5 CORNER BARS WITH 3'-6" LEGS LAPPED WITH CONT. REINF. AT CORNERS AND TEES. SEE PLAN AND SECTIONS FOR ADDITIONAL REQUIREMENTS.

H. WALL CONSTRUCTION JOINTS SHALL BE SPACED 24'-0" o.c. MAX. WITH TYPICAL VERTICAL REINF. AT EACH SIDE OF JOINT. HORIZONTAL JOINT REINF. SHALL TERMINATE 2" FROM EACH SIDE OF JOINT. BOND BEAM REINFORCEMENT SHALL BE CONTINUOUS THROUGH WALL C.J. DO NOT PROVIDE JOINTS THROUGH SPAN OF LINTEL.

I. ALL MASONRY SHALL BE LAID IN RUNNING BOND.

J. AT ALL CMU WALLS IN ADDITION TO TYPICAL REINFORCING BARS NOTED ON PLANS, PROVIDE (1) REINFORCING BAR IN EACH OF FIRST TWO CELLS ((2) BARS TOTAL), GROUTED SOLID, AT ENDS OF WALLS, CORNERS, TEES, EACH SIDE OF WALL CONTROL JOINTS AND EXPANSION JOINTS, AND AT EACH SIDE OF OPENINGS U.N.O. REINFORCED CELL SHALL BE FULL HEIGHT OF WALL. SEE PLANS FOR SPECIFIC REINFORCING BAR SIZES AND TYPICAL BAR SPACING FOR AT INDIVIDUAL WALLS.

K. PROVIDE HB-200A/DA-213 ADJUSTABLE VENEER ANCHORS, AS MANUFACTURED BY HOHMANN AND BARNARD INC., OR APPROVED ALTERNATE, AT 16"o.c. VERTICALLY AND HORIZONTALLY.

(GENERAL NOTES CONTINUE ON SHEET S0-2

ABBREVIATIONS

A.B.	ANCHOR BOLT	LB. OR #	POUND
ADJ.	ADJACENT	LG.	LONG
AL.	ALUMINUM	LLH	LONG LEG HORIZONTAL
ALT.	ALTERNATE	LLV.	LONG LEG VERTICAL
&	AND	LIN.	LINEAR OR LINEAL
APPROX.	APPROXIMATE	L.P.	LOW POINT
APPVD.	APPROVED	LGTH.	LENGTH
ASPH.	ASPHALT	LIN. FT.	LINEAR FEET
@	AT		
AVG.	AVERAGE	MAX.	MAXIMUM
		MB	METAL BUILDING
BLDG.	BUILDING	MH.	MANHOLE
B. OR BOT	BOTTOM	MACH. RM.	MACHINE ROOM
B/	BOTTOM OF	MSRY. OPNG.	MASONRY OPENING
B/S	BOTTOM OF STEEL	MET.	METAL
BRG.	BEARING	MEZZ.	MEZZANINE
BLK.	BLOCK	MK.	MARK
BM.	BEAM	MFGR.	MANUFACTURER
B.M.	BENCH MARK	MIN.	MINIMUM
BRIDG.	BRIDGING	MISC.	MISCELLANEOUS
BTW. OR BETW.	BETWEEN		
		N.I.C.	NOT IN CONTRACT
C.G.	CENTER OF GRAVITY (PT TENDONS)	N.S. OR NS	NEAR SIDE
		N.T.S. OR NTS	NOT TO SCALE
C.I.	CAST IRON	NOM.	NOMINAL
C.L.	CENTER LINE	NO.	NUMBER
CHG.	CHANGE	#	NUMBER (REBAR SIZE)
CIR.	CIRCLE, CIRCULAR		
CL. OR CLR.	CLEAR OR CLEARANCE	O.H.	OPPOSITE HAND
CONN.	CONNECTION	o.c.	ON CENTER
C.M.U. OR CMU	CONCRETE MASONRY UNIT	O.D.	OUTSIDE DIAMETER
CONST.	CONSTRUCTION	O.F.	OUTSIDE FACE
CONT.	CONTINUOUS, CONTINUED	OPNG.	OPENING
C.J.	CONSTRUCTION JOINT OR CONTROL JOINT	OPP.	OPPOSITE
		PAF	POWDER ACTUATED FASTENERS
CONC.	CONCRETE	P.L.F. OR PLF	POUNDS PER LINEAR FOOT
COL.	COLUMN	P.C.F. OR PCF	POUNDS PER CUBIC FOOT
CSK.	COUNTERSUNK	P.C.I. OR PCI	POUNDS PER CUBIC INCH
CTR.	CENTERS	P.J.F.	PREMOLDED JOINT FILLER
		P.S.F. OR PSF	POUNDS PER SQUARE FOOT
D.B.C.	DIAMETER BOLT CIRCLE	P.S.I. OR PSI	POUNDS PER SQUARE INCH
DEG. OR °	DEGREE	P.T.	POST TENSIONED
DET.	DETAIL	PART.	PARTITION
DIAG.	DIAGONAL	PRES.	PRESSURE
dia. OR ø	DIAMETER	PROJ.	PROJECTION
DN.	DOWN	PT.	POINT
DIM.	DIMENSION	P.E.J. OR PEJ	PREMOLDED EXPANSION JOINT
DWG.	DRAWING	PEMB	PREENGINEERED METAL BUILDING
DBL. OR DBLE.	DOUBLE		
D.B.A. OR DBA	DEFORMED BAR ANCHOR	R OR RAD.	RADIUS
DBE	DECK BEARING ELEVATIONS	R.D.	ROOF DRAIN
E.E OR EE	EACH END	REV.	REVISION
EA.	EACH	RM.	ROOM
E.F. OR EF	EACH FACE	REF.	REFERENCE
E.J.	EXPANSION JOINT	REINF.	REINFORCING OR REINFORCEMENT
E.S. OR ES	EACH SIDE	REQ'D.	REQUIRED
E.W. OR EW	EACH WAY	RECT.	RECTANGULAR
EL.	ELEVATION	R.O.	ROOM OPENING
ELEC.	ELECTRICAL	SHT.	SHEET
EMBED.	EMBEDMENT	SIM.	SIMILAR
= OR EQ.	EQUAL	SECT.	SECTION
EQUIP.	EQUIPMENT	SCHED.	SCHEDULE
EST.	ESTIMATE	SLH	SHORT LEG HORIZONTAL
EX. GR.	EXISTING GRADE	SLV	SHORT LEG VERTICAL
EXIST.	EXISTING	SLV.	SLEEVE
EXP.	EXPANSION	SPA.	SPACING OR SPACES
EXT.	EXTENDED	SPEC.	SPECIFICATION
EXIST.	EXISTING	SQ.	SQUARE
E.O.S.	EDGE OF SLAB	SQ.FT. OR SF	SQUARE FOOT
F.D.	FLOOR DRAIN	S.S.	STAINLESS STEEL
F.F.	FINISH FLOOR	STD.	STANDARD
F/	FACE OF	STIFF.	STIFFENER
F TO F	FACE TO FACE	STL.	STEEL
FIN.	FINISH	STRUCT.	STRUCTURAL
FLR.	FLOOR	SUSP.	SUSPENDED
FT. OR ()'	FEET OR FOOT	SYM.	SYMMETRICAL
F.S.	FAR SIDE		
FTG.	FOOTING	T/	TOP OF
FDN.	FOUNDATION	T/BM	TOP OF BEAM
FUT.	FUTURE	T/COL	TOP OF COLUMN
Fy OR fy	YIELD STRENGTH	T/FTG	TOP OF FOOTING
f'c	28 DAY CONCRETE COMPRESSIVE STRENGTH	T/SLAB	TOP OF SLAB
		T/S	TOP OF STEEL
GA.	GAUGE OR GAGE	T.R.C.	TOP OF ROUGH CONCRETE
GALV.	GALVANIZED	TAN.	TANGENT
GEN.	GENERAL	THD.	THREAD
GR.	GRADE	THK.	THICK
H.P.	HIGH POINT	TRD.	TREAD
H.S.	HEADED STUD ANCHOR	T/WALL	TOP OF WALL
HGT.	HEIGHT	T	TOP
HK.	HOOK	TEMP.	TEMPORARY
HORZ.	HORIZONTAL	THRU	THROUGH
		TS	TUBE STEEL
IN. OR ()"	INCH OR INCHES	T.O.S.	TOP OF SLAB
INCL.	INCLUSIVE OR INCLUDING	TYP.	TYPICAL
I.D.	INSIDE DIAMETER		
INSUL.	INSULATION	UNO OR U.N.O.	UNLESS NOTED OTHERWISE
INT.	INTERIOR		
INV.	INVERT	VERT.	VERTICAL
		VOL.	VOLUME
JST.	JOIST		
JT.	JOINT	WD.	WOOD
J.G.	JOIST GIRDER	WPFG.	WATERPROOFING OR WATERPROOF
K.	KIPS (1000 POUNDS)	WT.	WEIGHT
K.S.I. OR KSI	KIPS PER SQUARE INCH	W/O	WITHOUT
K.S.F. OR KSF	KIPS PER SQUARE FOOT	W/	WITH
		WWF	WELDED WIRE FABRIC

LEGEND

ITEM	SYMBOL	ITEM	SYMBOL
CONCRETE		TOP OF FOOTING ELEVATION	-1'-8
GROUT		SPOT ELEVATION TOP OF CONCRETE	+0'-0"
EARTH		STEP IN FTG. OR GRADE BM. TO CLG. PLUMB.	8"
CONCRETE BLOCK (CMU)		℄ BEAM SPLICE	
BRICK		AND	&
SECTION INDICATOR	1 / S3.1	PLATE	PL
DETAIL INDICATOR	2 / S3.4	CENTERLINE	℄
		NUMBER (PRECEEDING)	#, NO.
		PLUS OR TENSION	+
		MINUS OR COMPRESSION	-
		POUNDS (FOLLOWING)	#
COLUMN TYPE , PIER TYPE FOOTING TYPE TOP OF FOOTING ELEVATION	C1 P1 / F1 / -2'-0	STEP IN STRUCTURE OR DEPRESSED SLAB	OR 1"
		TOP OF STEEL ELEVATION	T/S EL. +20'-8" OR (+20'-0")

SBFA JOB # 18034.01
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REVISIONS

	DATE	DESCRIPTION

PROJECT:
VERNON ROAD FIRE STATION
VERNON ROAD
LAGRANGE GEORGIA

TITLE:
GENERAL NOTES, LEGEND, AND ABBREVIATIONS

MODIFIED DATE:

JOB NO: 1731

ISSUED DATE: FOR BID AND PERMIT
7 MAY 2018

SHEET: S0-1

SECTION 5A – STRUCTURAL STEEL (NON PEMB)

A. STRUCTURAL STEEL DETAILING, FABRICATION, AND ERECTION SHALL BE IN ACCORDANCE WITH THE "MANUAL OF STEEL CONSTRUCTION" OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION AND SHALL CONFORM TO THE LATEST OSHA REQUIREMENTS. SHOP DRAWINGS SHALL GIVE COMPLETE WELDING INFORMATION, BOTH SHOP AND FIELD, USING AWS SYMBOLS.

B. MATERIALS REQUIREMENTS, U.N.O.:
1. WELDING ELECTRODES SHALL CONFORM TO AWS A5.1 OR A5.5 E–70XX. (LOW – HYDROGEN FOR SMAW WELDING) ALL WELDING PROCEDURES SHALL BE LOW–HYDROGEN PROCESSES. ELECTRODES SHALL BE STORED AFTER OPENING TO MAINTAIN HYDROGEN CONTENTS.
2. BOLTS ARE TO BE 3/4" DIAMETER HIGH STRENGTH BOLTS CONFORMING TO ASTM A–325, U.N.O.
3. STRUCTURAL STEEL W–SHAPES SHALL BE ASTM A–992 GRADE 50. MISCELLANEOUS SHAPES (CHANNELS AND ANGLES) MAY CONFORM TO ASTM A–36 IN LIEU OF ASTM A–992 GRADE 50. TUBE STEEL MEMBERS SHALL CONFORM TO ASTM A–500B. PIPES TO BE ASTM A–53.
4. COMPRESSIBLE–WASHER–TYPE DIRECT TENSION INDICATOR DEVICES (DTI'S) SHALL CONFORM TO ASTM F959, AND SHALL BE BY J&M TURNER, INC., OR APPROVED EQUIVALENT. TWIST–OFF– TYPE TENSION CONTROL BOLTS (TCB'S) SHALL CONFORM TO ASTM F1852.
5. ANCHOR RODS SHALL CONFORM TO ASTM A36.
6. GROUT BELOW BASE PLATES SHALL BE NONSHRINK, HIGH STRENGTH, NONMETALLIC GROUT, WITH A MINIMUM (28) DAY COMPRESSIVE STRENGTH OF 6000 PSI.
7. SHEAR STUDS SHALL CONFORM TO ASTM A108 FOR LOW CARBON STEEL WITH A MINIMUM YIELD STRENGTH OF 50,000 PSI.

C. IN GENERAL, CONNECTIONS SHALL BE FIELD BOLTED. ALL BOLTS DESIGNATED "SLIP CRITICAL" OR "FULLY TIGHTENED" SHALL BE TIGHTENED TO THE MINIMUM PRETENSION VALUE SHOWN IN TABLE J3.1 OF THE AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS. IN ADDITION, CONNECTIONS DESIGNATED "SLIP CRITICAL" SHALL HAVE PROPERLY PREPARED FAYING SURFACES TO MEET CLASS A SURFACE CONDITION, U.N.O. "SLIP CRITICAL" CONNECTIONS SHALL INCLUDE ALL BOLTS IN MOMENT CONNECTIONS. "FULLY TIGHTENED" CONNECTIONS SHALL INCLUDE ALL BOLTS LOADED IN DIRECT TENSION (SUCH AS HANGERS), BRACED FRAME CONNECTIONS, AND MEMBERS THAT ARE PART OF THE MAIN LATERAL RESISTING SYSTEM. DIRECT TENSION INDICATOR (DTI) WASHERS OR TENSION CONTROL BOLTS (TCB'S) SHALL BE USED AT THESE CONDITIONS. ALL OTHER BOLTS SHALL BE, AT MINIMUM, SNUG TIGHT. WELDED CONNECTIONS SHALL BE MADE WITH E70 ELECTRODES, UNLESS OTHERWISE RECOMMENDED BY AWS.

D. STEEL QUALITY CONTROL:
1. WELDER QUALIFICATIONS: QUALIFY WELDING PROCESSES AND WELDING OPERATORS IN ACCORDANCE WITH AWS STANDARD QUALIFICATION PROCEDURE". OPERATORS SHALL CARRY PROOF OF QUALIFICATIONS ON THEIR PERSONS.
2. TEST REPORTS: COPIES OF STEEL PRODUCER'S REPORT OF MILL ANALYSIS AND TENSILE AND BEND TESTS FOR STRUCTURAL STEEL MADE NO MORE THAN (60) DAYS BEFORE SHIPMENT.
3. CERTIFICATES: TESTING LABORATORY'S CERTIFICATE THAT STRUCTURAL STEEL HAS BEEN FURNISHED AND INSTALLED IN ACCORDANCE WITH CONTRACT DOCUMENTS. TESTING LABORATORY SHALL INSPECT CONNECTIONS IN ACCORDANCE WITH REFERENCES AS FOLLOWS. COPIES OF TEST RESULTS AND INSPECTION REPORTS SHALL BE SENT DIRECTLY TO THE ENGINEER.
   a. WELDED CONNECTIONS SHALL CONFORM TO AWS D1.1. TESTING AGENCY SHALL INSPECT ALL COMPLETE PENETRATION WELDS AND ALL BUTT WELDS MADE BY FABRICATOR. PERFORM ULTRASONIC OR RADIOGRAPHIC INSPECTIONS OF ALL FULL PENETRATION WELDS MADE IN THE FIELD. IF THE FABRICATOR USES THE FULL VALUE FOR FILLET WELDS, AS SPECIFIED IN THE REFERENCES, INSPECT 15% OF THESE WELDS. VISUALLY INSPECT ALL (100%) FIELD WELDS.
   b. BOLTED CONNECTORS: INSPECT AT LEAST 10% OF ALL "SLIP CRITICAL" OR "FULLY TIGHTENED" HIGH STRENGTH BOLTS WHICH ARE WELL SCATTERED THROUGHOUT THE STRUCTURE. IF LESS THAN 95% OF THE TESTED BOLTS MEET DESIGN TENSION OR IF ANY BOLT IS LESS THAN 85% OF DESIGN TENSION, THEN ALL BOLTS SHALL BE REWORKED. INSPECT 50% OF ALL REWORKED BOLTS, REPEAT THIS PROCESS UNTIL THE ABOVE REQUIREMENTS ARE MET. DIRECT TENSION INDICATORS OR TENSION CONTROL BOLTS MAY BE USED TO TEST 100% OF ALL "SLIP CRITICAL" OR "FULLY TIGHTENED" HIGH STRENGTH BOLTS.

E. A PRE–STEEL ERECTION CONFERENCE SHALL BE HELD BY THE CONTRACTOR WITH SUBCONTRACTORS, AND TESTING LAB PERSONNEL. ARCHITECT AS WELL AS ENGINEER SHALL BE INVITED BUT SHALL NOT BE REQUIRED TO ATTEND. CONFERENCE SHALL BE HELD WELL IN ADVANCE OF CONSTRUCTION TO INSURE PROPER INTERPRETATION OF DESIGN INTENT. SUBMIT QUESTIONS RESULTING FROM CONFERENCE IN WRITING TO ENGINEER. STEEL ERECTOR SHALL FIELD VERIFY CORRECTNESS OF FOUNDATION, ANCHOR BOLTS, OR OTHER EXISTING WORK AFFECTING THE STEEL BEFORE STARTING ERECTION.

F. SUBMIT SHOP DRAWINGS FOR FABRICATION AND ERECTION OF ALL STEEL MEMBERS IN ACCORDANCE WITH AISC STANDARDS NOTED ABOVE.

G. FABRICATOR SHALL DESIGN ALL CONNECTIONS NOT SPECIFICALLY DETAILED ON DRAWINGS. REGARDLESS OF PROVISION TO THE CONTRARY IN THE AISC CODE OF STANDARD PRACTICE FOR BUILDINGS AND BRIDGES, ALL CONNECTIONS DESIGNED BY FABRICATOR SHALL BE HIS RESPONSIBILITY AND REVIEW OF SHOP DRAWINGS BY THE ENGINEER SHALL NOT RELIEVE FABRICATOR OF THIS RESPONSIBILITY.

H. UNLESS OTHERWISE NOTED, ALL BEAM CONNECTIONS SHALL BE STANDARD FRAMED, SEATED END, OR SINGLE–PLATE SHEAR CONNECTIONS AS SHOWN IN THE AISC MANUAL OF STEEL CONSTRUCTION. UNLESS REACTIONS ARE NOTED ON THE DRAWINGS, CONNECTIONS SHALL DEVELOP AT LEAST ONE–HALF OF THE TOTAL UNIFORM LOAD CAPACITY OF THE BEAM. CONNECTIONS SHALL BE DESIGNED AS BEARING–TYPE CONNECTIONS WITH THREADS IN THE SHEAR PLANE, UNLESS OTHERWISE NOTED. IN NO CASE SHALL THE LENGTH OF FRAMED CONNECTIONS BE LESS THAN ONE–HALF THE "T" DISTANCE OF THE BEAM WEB.

I. ALL BRACING CONNECTIONS SHALL DEVELOP EITHER THE FORCE NOTED ON THE DRAWINGS OR THE ALLOWABLE TENSION FORCE IN THE MEMBER IF NOT NOTED ON THE DRAWINGS. BRACING CONNECTIONS SHALL BE DESIGNED AND DETAILED SO THAT ALL FORCE COMPONENTS WILL BE TRANSMITTED DIRECTLY TO THE CENTER OF GRAVITY OF INTERSECTING MEMBERS. WHERE THIS IS NOT POSSIBLE, CONNECTIONS SHALL BE DESIGNED FOR ALL RESULTING ECCENTRICITIES. BOLTED BRACING CONNECTIONS SHALL BE CONNECTED WITH A MINIMUM OF TWO BOLTS. DESIGN OF GUSSET PLATES AT BRACING CONNECTIONS IS THE RESPONSIBLILITY OF THE FABRICATOR. MINIMUM GUSSET PLATE THICKNESS SHALL BE $\frac{1}{2}$", U.N.O.

SECTION 5A – (CONTINUED)

J. MINIMUM WELD SIZE SHALL BE 3/16" UNLESS OTHERWISE NOTED. WHERE NOT NOTED OTHERWISE, WELD SHALL BE ALL AROUND. INCREASE WELD SIZE TO MEET AISC REQUIREMENTS.

K. SINGLE SHEAR PLATES SHALL BE 3/8" MINIMUM THICKNESS.

L. THE GENERAL CONTRACTOR SHALL VERIFY THE REQUIRED CAMBER IN THE FIELD PRIOR TO ERECTION OF EACH MEMBER. ANY MILL CAMBER SHALL BE PLACED UP.

M. SPLICING OF STRUCTURAL STEEL MEMBERS IS PROHIBITED WITHOUT PRIOR APPROVAL OF THE ENGINEER AS TO LOCATION AND TYPE OF SPLICE TO BE MADE. ANY MEMBER HAVING A SPLICE NOT SHOWN AND DETAILED ON SHOP DRAWINGS WILL BE REJECTED.

N. STRUCTURAL STEEL SHALL BE PUNCHED FOR WOOD BLOCKING AND NAILERS IN ACCORDANCE WITH ARCHITECTURAL DETAILS.

O. THIS STRUCTURE DEPENDS ON THE DIAPHRAGM AND BRACING MEMBERS SHOWN. THE CONTRACTOR IS TO PROVIDE LATERAL BRACING IN EACH DIRECTION DURING THE ERECTION PHASE. SUCH BRACING SHALL REMAIN IN PLACE UNTIL ALL DIAPHRAGM AND LATERAL BRACING ELEMENTS ARE IN PLACE IN THEIR ENTIRETY AND HAVE BEEN APPROVED BY THE STRUCTURAL ENGINEER.

P. ALL STRUCTURAL STEEL, EXCEPT FOR GALVANIZED STEEL, STEEL TO RECEIVE SPRAY ON FIREPROOFING, AND THAT IN CONTACT WITH FRESH CONCRETE, SHALL RECEIVE ONE SHOP COAT OF THE FABRICATOR'S STANDARD GRAY PRIMER. ALL BOLTED AND WELDED CONNECTIONS EXCEPT GALVANIZED CONNECTIONS AND THOSE IN CONTACT WITH FRESH CONCRETE SHALL BE PAINTED WITH THE SAME GRAY PRIMER (OR SPECIAL PRIMER IN PROCESS AREAS) FOLLOWING APPROVAL OF THE CONNECTION BY THE TESTING AGENCY. TOUCH UP GALVANIZED CONNECTIONS WITH A ZINC RICH GALVANIZING PAINT. STEEL SHALL BE BARE AT AREAS TO BE FIREPROOFED. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR FINISH PAINT.

Q. NOTHING SHALL BE SUSPENDED FROM ROOF DECK.

R. DETAILING, FABRICATION, AND ERECTION SHALL COMPLY WITH ALL APPLICABLE OSHA REGULATIONS, INCLUDING ADDITIONAL CONNECTORS, PLATES, HOLES, ETC. NOT DEPICTED ON THESE DRAWINGS.

SECTION 5B – PRE–ENGINEERED METAL BUILDING (PEMB)

A. PRE–ENGINEERED METAL BUILDING SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF GEORGIA. COLUMN REACTIONS SHALL BE SUBMITTED WITH ANCHOR BOLT DRAWINGS FOR REVIEW PRIOR TO CONSTRUCTION OF FOUNDATION. IF REACTIONS EXCEED THOSE USED FOR FOUNDATION DESIGN, FOUNDATIONS MUST BE REVISED AS NECESSARY. DESIGN LOADS SHALL BE COMPUTED IN ACCORDANCE WITH SECTION 1 OF THESE NOTES.

B. FURNISH ALL LABOR, MATERIALS AND ENGINEERING SERVICES REQUIRED TO COMPLETE THE METAL BUILDING, ROOF DECK, AND WALL PANELS, INCLUDING ANCHOR BOLTS, COLUMNS, BEAMS, GIRTS, BRACING, MOUNTING ACCESSORIES, ROOF INSULATION, METAL TRIM, FASCIA, GUTTERS, INSULATION, AND OTHER COMPONENTS REQUIRED FOR A COMPLETE JOB.

C. ANCHOR BOLTS, AND ANCHOR BOLT SETTING PLAN AND ANCHOR BOLT TEMPLATES SHALL BE PROVIDED BY THE METAL BUILDING SYSTEM SUPPLIER.

D. THE STAMP OF A REGISTERED ENGINEER IS REQUIRED ON ALL ERECTION DRAWINGS AND DESIGN CALCULATIONS.

E. STRUCTURAL SYSTEMS SHALL BE DESIGNED TO CONFORM TO THE ENGINEERING STANDARDS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION AND THE AMERICAN IRON AND STEEL INSTITUTE AND THE REQUIREMENTS OF THESE DOCUMENTS.

F. CONTRACTOR SHALL PROVIDE ERECTION INFORMATION AND DRAWINGS AS REQUIRED TO DESCRIBE AND DEFINE SYSTEM. DRAWINGS SHALL INCLUDE ANCHOR BOLT SETTING PLAN AND PIECE MARKS ON ALL MAJOR PARTS FOR EASY FIELD INDENTIFICATION.

G. SUBMIT LETTER OF DESIGN CERTIFICATION FOR THE STRUCTURAL FRAMING AND LIGHT GAUGE METAL FRAMING OF THE METAL BUILDING SYSTEM. LETTER OF CERTIFICATION TO BE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER.

H. PRIMARY MEMBERS FABRICATED FROM PLATE, PLATE COILS, STRIP MILL PLATE OR FLAT BAR STOCK SHALL HAVE FLANGES AND WEBS JOINED ON ONE SIDE OF THE WEB BY A CONTINUOUS WELDING PROCESS. MINIMUM YIELD STRENGTH : 50,000 PSI UNLESS OTHERWISE APPROVED.

I. SECONDARY MEMBERS, PURLINS, GIRTS, EAVE STRUTS SHALL BE COLD FORMED FROM STEEL WHICH HAS A MINIMUM YIELD STRENGTH OF 55,000 PSI, UNLESS OTHERWISE APPROVED.

J. TRANSVERSE WIND/SEISMIC FORCES SHALL BE TRANSFERRED TO THE FOUNDATION THROUGH THE USE OF PORTAL FRAMES IN COMBINATION WITH "X" BRACING IN THE PLANE OF THE ROOF. LONGITUDINAL WIND/SEISMIC FORCES SHALL BE TRANSFERRED TO THE FOUNDATION THROUGH THE USE OF PORTAL FRAMES IN COMBINATION WITH "X" BRACING IN THE PLANE OF THE ROOF. SUBMIT ERECTION PLANS WITH BRACING AND FRAME LOCATIONS INDICATED FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OF METAL BUILDING.

K. FOOTINGS HAVE BEEN SIZED BASED ON ESTIMATED COLUMN REACTIONS. PRE–ENGINGINEERED METAL BUILDING SUPPLIER SHALL PROVIDE FINAL COLUMN REACTIONS FOR REVIEW. IF COLUMN REACTIONS ARE DIFFERENT FROM THOSE ORIGINALLY ESTIMATED, FOOTINGS WILL BE REQUIRED TO BE REDESIGNED. CONTRACTOR IS TO INSURE THAT THIS REVIEW PROCESS IS COMPLETE PRIOR TO PLACING FOOTINGS.

L. PEMB FRAMING SHOWN ON THESE DRAWINGS IS CONCEPTUAL. FINAL DESIGN IS THE RESPONSIBILITY OF THE METAL BUILDING DESIGN ENGINEER. COMPLETE DRAWINGS AND CALCULATIONS FOR THE METAL BUILDING SYSTEM SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION.

M. DEFLECTION CRITERIA:
1. BASE BID:
   a. BUILDING FRAMES H/180
   b. GIRTS OR SPANDRELS L/180
2. ADD ALTERNATE No. 1:
   a. BUILDING FRAMES LATERALLY SUPPORTING MASONRY H/360
   b. BUILDING FRAMES AT METAL SIDING H/180
   c. GIRTS OR SPANDRELS LATERALLY SUPPORTING MASONRY L/500
   d. GIRTS OR SPANDRELS LATERALLY SUPPORTING METAL SIDING L/180
3. ADD ALTERNATE No. 2:
   a. BUILDING FRAMES H/300
   b. GIRTS OR SPANDRELS LATERALLY SUPPORTING MASONRY L/500
   c. GIRTS OR SPANDRELS LATERALLY SUPPORTING METAL SIDING L/180

SECTION 5C LIGHT GAUGE STEEL

A. SECTIONS AND DETAILS SHOWN ON THE DRAWINGS ARE FOR CONCEPT ONLY. ACTUAL MEMBER SIZE, SPACING, GAGE, AND CONNECTION DETAILS SHALL BE DESIGNED BY METAL STUD ENGINEER (COMPONENT ENGINEER). METAL STUDS SHALL BE DESIGNED PER "SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STRUCTURAL STEEL MEMBERS" FOR ALL APPLICABLE LOADS.

B. DESIGN OF LIGHT GAGE METAL FRAMING NOT SPECIFICALLY DETAILED ON DRAWINGS SHALL BE PERFORMED BY A LICENSED STRUCTURAL ENGINEER IN THE STATE IN WHICH THE PROJECT WILL BE CONSTRUCTED. DESIGN CALCULATIONS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD FOR APPROVAL PRIOR TO FABRICATION. DESIGN CALCULATIONS SHALL BE SIGNED AND SEALED BY THE DESIGN ENGINEER.

C. COMPLETE SHOP DRAWINGS FOR THE CONSTRUCTION OF LIGHT GAUGE METAL FRAMING SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF GEORGIA AND SHALL BE AVAILABLE AT THE JOB SITE AT TIMES OF INSPECTION. SHOP DRAWINGS SHALL BE SUBMITTED PRIOR TO FABRICATION SHOWING WALL SECTIONS COORDINATED WITH DRAWINGS SHOWING FRAMING, ACCESSORIES, ANCHORAGE AND CONNECTION DETAILS.

D. MATERIAL SPECIFICATIONS FOR LIGHT–GAGE STEEL:
16 GA. OR HEAVIER: ASTM A–446, Fy = 50 KSI MIN.
18 GA. OR LIGHTER: ASTM A–446, Fy = 33 KSI MIN.
GALVANIZING: MINIMUM G–60 COATING

E. CONNECTION MATERIAL GAGE
MATCH STUD GAGE U.N.O. CLIP ANGLES SHALL BE 14 GA. MINIMUM.

F. BUILT–UP MEMBERS
FASTEN TOGETHER WITH 1" LONG STITCH WELDS OR #12 SCREWS AT 12" o.c. MAXIMUM, EACH FLANGE, AND EACH TRACK.

G. PROVIDE BRIDGING AT 4' MAXIMUM VERTICAL SPACING IN WALLS.

H. STUDS SHALL BE INSTALLED TO SEAT SQUARELY (WITHIN 1/16") AGAINST THE WEB PORTION OF THE TOP AND BOTTOM TRACKS. TRACKS SHALL REST ON A CONTINUOUS, UNIFORM BEARING SURFACE.

J. TEMPORARY BRACING SHALL BE PROVIDED AND LEFT IN PLACE UNTIL WORK IS PERMANENTLY STABILIZED.

K. SPLICING OF MEMBERS SPANNING BETWEEN SUPPORTS SHALL NOT BE PERMITTED.

L. VERTICAL ALIGNMENT (PLUMBNESS) OF STUDS SHALL BE WITHIN 1/960TH (1/8" IN 10'–0") OF THE SPAN.

M. HORIZONTAL ALIGNMENT (LEVELNESS) OF WALLS SHALL BE WITHIN 1/960TH (1/8" IN 10'–0") OF THEIR RESPECTIVE LENGTHS. SPACING OF STUDS SHALL NOT BE MORE THAN + 1/8" FROM THE DESIGNED SPACING PROVIDING THAT THE CUMULATIVE ERROR DOES NOT EXCEED THE REQUIREMENTS OF THE FINISHED MATERIALS.

N. PROVIDE DEEP TRACK ASSEMBLY AT TOPS OF ALL NON–LOAD BEARING STUD WALLS TO ALLOW FOR MOVEMENT OF STRUCTURE. ARCHITECT SHALL REVIEW IN PLACE METAL STUD CONSTRUCTION PRIOR TO THE INSTALLATION OF GYPSUM WALL BOARD OR SHEATHING.

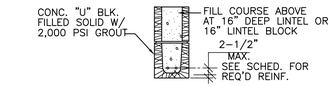
O. DEFLECTION OF LIGHT GAUGE STEEL WALL STUDS AND OTHER MEMBERS LATERALLY SUPPORTING MASONRY SHALL BE LIMITED TO L/600 ALL OTHER LIGHT GAUGE WALL STUDS AND FRAMING SHALL BE LIMITED TO L/360.

P. COMPLETE SHOP DRAWINGS FOR CONSTRUCTION OF EACH BUILDING COMPONENT NOT DESIGNED BY THE DESIGN TEAM–OF–RECORD AND NOT SPECIFIED ON THE PROJECT CONSTRUCTION DOCUMENTS SHALL BE SEALED AND SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF GEORGIA AND SHALL BE AVAILABLE AT THE JOB SITE DURING THE TIMES OF INSPECTION INCLUDING THE FOLLOWING COMPONENTS FOR THIS PROJECT:
1. LIGHT GAUGE STEEL FRAMING
2. PRE–ENGINEERED METAL BUILDING SYSTEM.

SECTION 6 – WOOD

A. GENERAL CONSTRUCTION NOTES:
1. ALL WOOD JOISTS AND BEAMS TO BE #2 SOUTHERN PINE, U.N.O. ALL 2x4 AND 2x6 LOAD BEARING AND EXTERIOR WALL WOOD STUDS ARE TO BE #2 S–P–F. OR SOUTHERN PINE STUD GRADE, OR BETTER.
2. ALL MULTIPLE STUD POSTS, ISOLATED OR WITHIN WALLS, SHALL BE #2 S–P–F. OR SOUTHERN PINE STUD GRADE, OR BETTER.
3. S–P–F (SOUTH) SHALL NOT BE SUBSTITUTED FOR S–P–F.
4. PROVIDE 1/2" DIAMETER x 6" EMBEDMENT HEADED ANCHOR BOLTS TO ALL CONTINUOUS PLATES AT LOAD BEARING AND EXTERIOR WALLS, AT CORNERS, AT EACH SIDE OF EACH OPENING AND AT 48" O.C., UNLESS NOTED AS CLOSER ON DRAWINGS.
5. NAIL MULTIPLE PLY BEAMS AND HEADERS WITH TWO ROWS 16d NAILS AT 12" O.C. TOP AND BOTTOM PER PAIR OF PLYS, U.N.O. SPLICES ARE NOT PERMITTED IN ANY PLY BETWEEN SUPPORTS. SEE DRAWINGS FOR BOLTED MULTIPLE PLY BEAMS AND HEADERS.
6. MULTIPLE STUD POSTS WITH (4) OR MORE STUDS SHALL BE NAILED TOGETHER WITH EACH STUD NAILED TO THE ADJACENT STUD W/(2) ROWS 16d NAILS AT 12"o.c. STAGGERED AT 6"o.c.
7. STUDS OR JOISTS SHALL NOT BE CUT TO INSTALL PLUMBING OR WIRING UNLESS METAL OR WOOD SIDE PIECES ARE PROVIDED TO STRENGTHEN THE MEMBER.
8. ANY WOOD THAT IS TO REMAIN EXPOSED TO WEATHER, OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE–TREATED #2 SOUTHERN PINE.
9. ALL LOAD BEARING WALL STUD SIZES SHALL BE IN ACCORDANCE WITH THE DRAWINGS.
10. TIMBER FASTENING SHALL BE PER IBC "MINIMUM FASTENING SCHEDULE" UNLESS NOTED AS GREATER ON DRAWINGS. CONNECTORS TO BE SIMPSON AS NOTED ON DRAWINGS. WHERE NO HANGER SIZE IS SPECIFIED, PROVIDE HANGER RECOMMENDED BY MANUFACTURER FOR JOIST SIZE SUPPORTED, AS A MINIMUM.
11. USE TYPE, SIZE AND QUANTITY OF FASTENERS IN CONNECTORS SPECIFIED BY CONNECTOR MANUFACTURER. WHERE FASTENER OPTIONS ARE GIVEN BY THE MANUFACTURER, INSTALL TYPE, SIZE AND QUANTITY OF FASTENERS REQUIRED TO ACHIEVE THE MAXIMUM RATED CONNECTOR CAPACITY.
12. BOLTS: BOLTS FOR WOOD CONSTRUCTION SHALL BE ASTM A–307. BOLT HOLES IN WOOD SHALL BE A MINIMUM OF 1/32" TO A MAXIMUM OF 1/16" LARGER THAN THE BOLT DIAMETER. A METAL PLATE, METAL STRAP, OR WASHER NOT LESS THAN A STANDARD CUT WASHER SHALL BE BETWEEN THE WOOD AND THE BOLT HEAD AND BETWEEN THE WOOD AND THE NUT. THE THREADED PORTION OF BOLTS SUBJECT TO WOOD BEARING SHALL BE KEPT TO A PRACTICAL MINIMUM.

CMU LINTEL REINF. SCHEDULE		
OPENING WIDTH	REINF.	REMARKS
UP TO 3'–0"	2#3	
UP TO 4'–8"	2#4	
UP TO 6'–0"	2#5	
UP TO 8'–0"	2#6	
UP TO 12'–0"	2#5	16" DEEP
UP TO 14'–0"	2#8	16" DEEP



PROVIDE 16" MIN. BEARING EACH END.
VERTICAL REINFORCING TO EXTEND THROUGH LINTEL.

CMU LINTEL REINFORCING SCHEDULE — 1 / S0–2
NOT TO SCALE

STEEL BRICK LINTEL SCHEDULE:		
OPENING WIDTH	ANGLE SIZE	REMARKS
UP TO 4'–0"	∠ 3–1/2 X 3–1/2 X 5/16	
UP TO 6'–0"	∠ 4 X 3–1/2 X 5/16	LLV
UP TO 8'–0"	∠ 5 X 3–1/2 X 5/16	LLV
NOTE: PROVIDE 8" MINIMUM BEARING E.E. LINTEL.		

SPECIFIC DETAILS TAKE PRECEDENCE OVER SCHEDULED SIZES.

STEEL ANGLE VENEER LINTEL SCHEDULE — 2 / S0–2
NOT TO SCALE

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REGISTERED PROFESSIONAL ENGINEER · ALLAN THOMAS BRADY · 5/7/18

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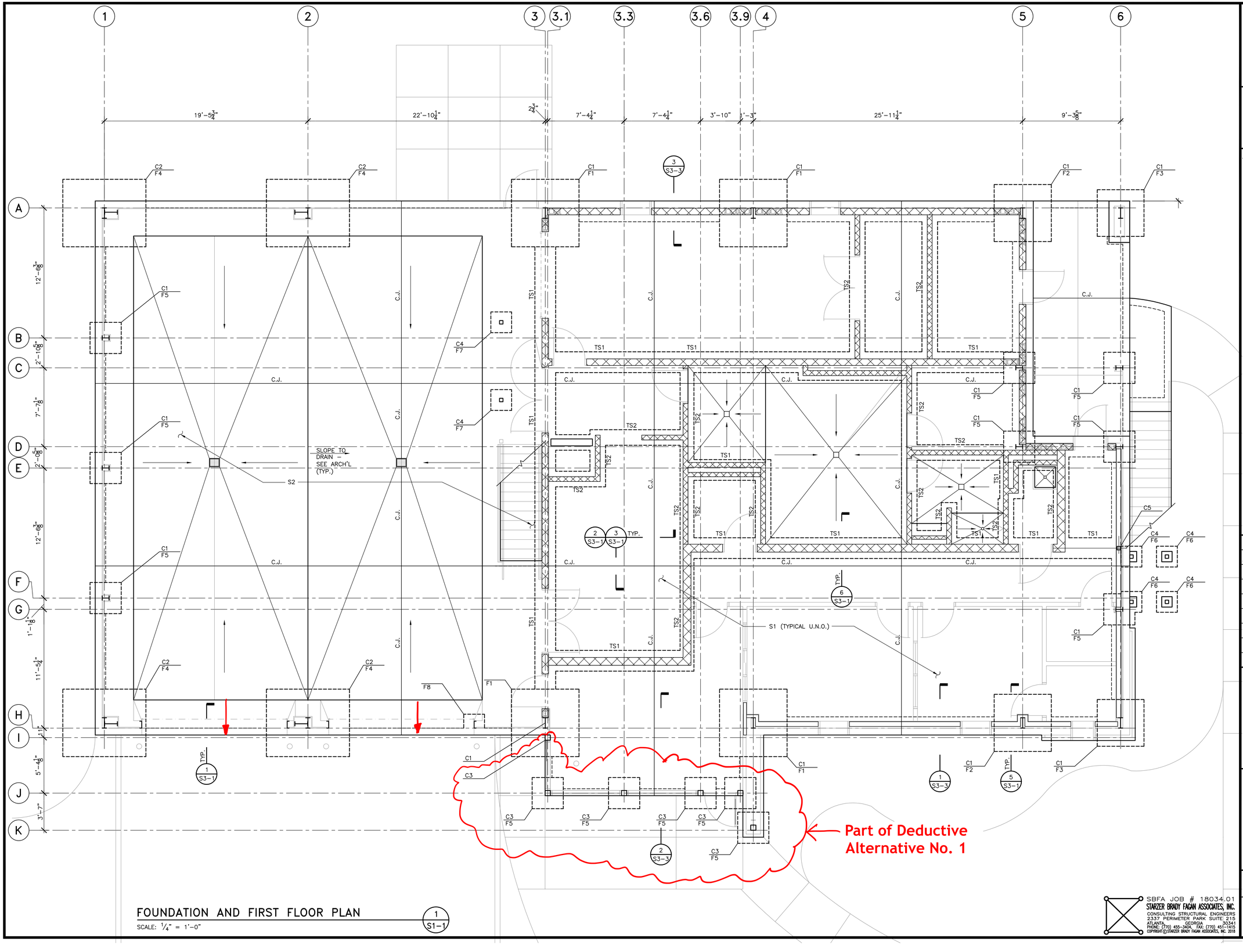
REVISIONS

△	DATE	DESCRIPTION

PROJECT:
VERNON ROAD FIRE STATION
VERNON ROAD
LAGRANGE GEORGIA

TITLE:
GENERAL NOTES (CONTINUED)

MODIFIED DATE:	JOB NO: 1731
ISSUED DATE: FOR BID AND PERMIT 7 MAY 2018	SHEET: S0–2



FOUNDATION AND FIRST FLOOR PLAN — 1 / S1-1

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

ARCHITECT'S STAMP

STATE OF GEORGIA — GORDON M. SMITH, JR. — 7575 — LaGrange, Georgia — REGISTERED ARCHITECT

SIGNATURE REQUIRED

GEORGIA — REGISTERED — No. 17006 — PROFESSIONAL — 5/7/18 — ENGINEER — ALAN THOMAS BRADY

SMITH DESIGN GROUP, INC.

206 WEST HARALSON STREET
LAGRANGE, GEORGIA 30240

706-882-5511 www.SDGarch.net

LEGEND (SHEET S1-1):

C1 PRE-ENGINEERED METAL BUILDING FRAME COLUMN

C2 PRE-ENGINEERED METAL BUILDING FRAME COLUMN WITH PORTAL FRAME COLUMN

C3 HSS 6x6x1/4 WITH 3/4x6"x9"x9" L-SHAPED BASE PLATE WITH (2) 3/4" DIA. ANCHOR BOLTS. TEMPORARILY BRACE COLUMN AS REQUIRED UNTIL FRAMING ABOVE IS IN PLACE.

C4 HSS 4x4x1/4 STAIR POST WITH 5/8"x10"x10" BASE PLATE WITH (4) 5/8" DIA. ANCHOR BOLTS. PROVIDE 6" DEEP LOCKOUT IN SLAB AT INTERIOR STAIR. PROVIDE 12"x12" CONCRETE PIER WITH (4) #6 VERTICAL DOWELS AND #3 AT 12" o.c. TIES AT EXTERIOR STAIR.

C5 HSS 4x4x5/16 IN CENTER OF STUD WALL WITH 9/16x5x10 BASE PLATE ON SLAB WITH (2) 3/4" DIA. ANCHOR BOLTS. PROVIDE 5/8" CAP PLATE AND BEAR BEAM ABOVE ON COLUMN.

F1 6'-6"x6'-6"x1'-6" FOOTING BELOW TURNED DOWN SLAB WITH (6) #6x6'-0" TOP AND BOTTOM E.W.

F2 5'-6"x5'-6"x1'-6" FOOTING BELOW TURNED DOWN SLAB WITH (7) #5x5'-0" TOP AND BOTTOM E.W.

F3 4'-6"x4'-6"x1'-6" FOOTING BELOW TURNED DOWN SLAB WITH (6) #5x4'-0" TOP AND BOTTOM E.W.

F4 8'-0"x6'-6"x1'-6" FOOTING BELOW TURNED DOWN SLAB WITH (6) #6x7'-6" AND (7) #6x6'-0" TOP AND BOTTOM

F5 3'-0"x3'-0"x1'-6" FOOTING BELOW TURNED DOWN SLAB WITH (4) #5x2'-6" TOP AND BOTTOM E.W.

F6 2'-0"x2'-0"x1'-4" FOOTING WITH (4) #4x1'-6" BOTTOM E.W.

F7 2'-0"x2'-0"x1'-4" (BELOW BLOCKOUT) THICKENED SLAB FOOTING WITH (4) #4x1'-6" BOTTOM E.W.

F8 2'-0"x2'-0" THICKENED SLAB MONOLITHIC WITH TURNED DOWN EDGE, WITH (4) #4x1'-6" BOTTOM E.W.

TS1 2'-0" WIDEx1'-4" THICK CONT. THICKENED SLAB FOOTING WITH (2) #5 CONT. TOP AND (1) #4 BOTTOM

TS2 1'-6" WIDEx1'-4" THICK CONT. THICKENED SLAB FOOTING WITH (2) #5 CONT. TOP AND (1) #4 BOTTOM

S1 4" THICK SLAB ON GRADE WITH 6X6 W1.4XW1.4 WWF 1" BELOW TOP OF SLAB, OVER MOISTURE BARRIER (SEE ARCH'L.), OVER PREPARED SUBGRADE (SEE GEOTECHNICAL REPORT)

S2 8" THICK 4000 PSI CONCRETE SLAB ON GRADE AT APPARATUS BAYS WITH #4 AT 14" o.c. CONT. E.W. WITH 2" CLEAR COVER TO TOP OF SLAB, OVER MOISTURE BARRIER (SEE ARCH'L.), OVER PREPARED SUBGRADE (SEE GEOTECHNICAL REPORT)

NOTE: PROVIDE #4 AT 4'-0" MAXIMUM VERTICAL BARS WITH HOOKED DOWELS TO THICKENED SLAB FOOTING AND HOOKS TO BOND BEAM AT TOP OF WALL, AT ALL 8" AND 6" CMU WALLS. SEE GENERAL NOTES FOR ADDITIONAL REQUIREMENTS AND INFORMATION.

REVISIONS

△	DATE	DESCRIPTION

PROJECT:

VERNON ROAD FIRE STATION

VERNON ROAD
LAGRANGE GEORGIA

TITLE:

FOUNDATION AND FIRST FLOOR PLAN

MODIFIED DATE:

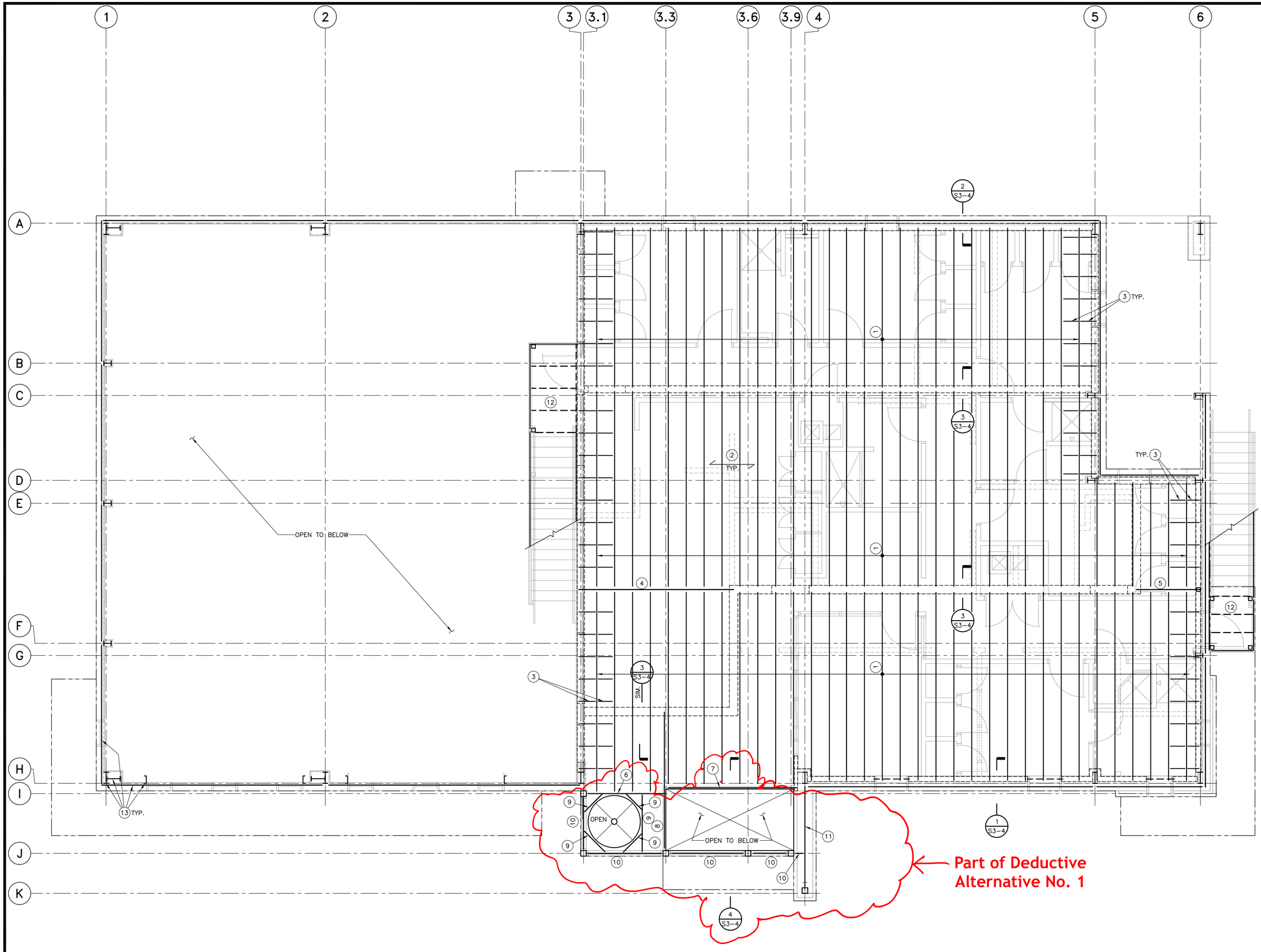
ISSUED DATE:
FOR BID AND PERMIT
7 MAY 2018

JOB NO:
1731

SHEET:
S1-1

SBFA JOB # 18034.01

STADZER BRADY FAGAN ASSOCIATES, INC.
CONSULTING STRUCTURAL ENGINEERS
2337 PERIMETER PARK SUITE 215
ATLANTA, GEORGIA 30341
PHONE: (770) 455-3404 FAX: (770) 451-1415



SECOND FLOOR FRAMING PLAN

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

1 S1-2

ARCHITECT'S STAMP

STATE OF GEORGIA · GORDON M. SMITH · 7575 · REGISTERED ARCHITECT · LaGrange, Georgia

SIGNATURE REQUIRED

GEORGIA · REGISTERED · No. 17008 · PROFESSIONAL · ENGINEER · 5/7/18 · ALAN THOMAS BRADY

SMITH DESIGN GROUP, INC.

206 WEST HARALSON STREET
LAGRANGE, GEORGIA 30240

706-882-5511 www.SDGarch.net

KEYNOTES (SHEET S1-2):

1. 11 7/8" TJI 230 AT 19.2" o.c. (OR EQUIVALENT). BEAR ON 2x PLATES ON CMU WALLS AND STEEL BEAMS, AND PROVIDE HANGERS TO LVL BEAMS.
2. 3/4" PLYWOOD FLOOR DECK- SEE GENERAL NOTES
3. 11 7/8" TJI BLOCKING AT 24" o.c. MAXIMUM IN FIRST TWO JOIST SPACES
4. W8X15 STEEL BEAM WITH TOP/BEAM = +9'-4". PROVIDE (2) 2x PLATES ON TOP FLANGE WITH 1/2" DIA. BOLTS AT 4'-0" o.c. MAXIMUM (STAGGER BOLTS EACH SIDE OF WEB). SEE BEAM BEARING ON CMU DETAILS ON S3-1.
5. W8X10 STEEL BEAM WITH TOP/BEAM = +9'-4". PROVIDE (2) 2x PLATES ON TOP FLANGE WITH 1/2" DIAMETER BOLTS AT 4'-0" o.c. MAXIMUM (STAGGER BOLTS EACH SIDE OF WEB). SEE BEAM BEARING ON CMU DETAILS ON S3-1.
6. (2) 1 3/4"x11 7/8" LVL FLUSH BEAM WITH 1800 LB CAPACITY BEAM HANGER TO SUPPORTING BEAM AND 1/4" WELDED STEEL PLATE BUCKET BRACKET WITH (2) 1/2" DIA. THROUGH BOLTS TO FACE OF STEEL COLUMN
7. (2) 1 3/4"x11 7/8" LVL FLUSH BEAM WITH 4100 LB CAPACITY BEAM HANGER TO SUPPORTING BEAM. BEAR ON DOUBLE STUD IN WALL.
8. (3) 1 3/4"x11 7/8" LVL FLUSH BEAM WITH 1/4" WELDED STEEL PLATE BUCKET BRACKET WITH (2) 1/2" DIA. THROUGH BOLTS TO FACE OF STEEL COLUMN
9. 1 3/4"x11 7/8" LVL WITH HANGERS TO SUPPORTING BEAMS
10. HSS 12x6x1/4 STEEL BEAM WITH TOP/BEAM = +9'-0". SEE S3-1 FOR CONNECTION DETAILS. PROVIDE 1 3/4"x11 7/8" LVL LEDGER WITH (2) ROWS WELDED THREADED STUDS AT 16" o.c. MAX. (STAGGER AT 8" o.c.) WHERE WOOD FRAMING IS SUPPORTED BY BEAM.
11. HSS 12x6x1/4 STEEL BEAM WITH TOP OF BEAM = +9'-0". SEE S3-1 FOR CONNECTION DETAILS. PROVIDE CONNECTION TO FACE OF METAL BUILDING COLUMN.
12. STEEL FRAMED CONCRETE FILLED METAL PAN STAIR AND LANDING, WITH C12x20.7 STRINGERS AND PERIMETER FRAME, AND C8x11.5 LANDING BEAMS. SUPPORT ON STEEL COLUMNS OR BOLT TO CMU AS REQUIRED. PROVIDE ANGLE REINFORCING AT LANDING. SEE BASE ANCHORAGE DETAIL ON S3-1.
13. PRE-ENGINEERED METAL BUILDING FRAME COLUMNS AND GIRTS - BY PEMB MANUFACTURER.

REVISIONS

△	DATE	DESCRIPTION

PROJECT:

VERNON ROAD FIRE STATION

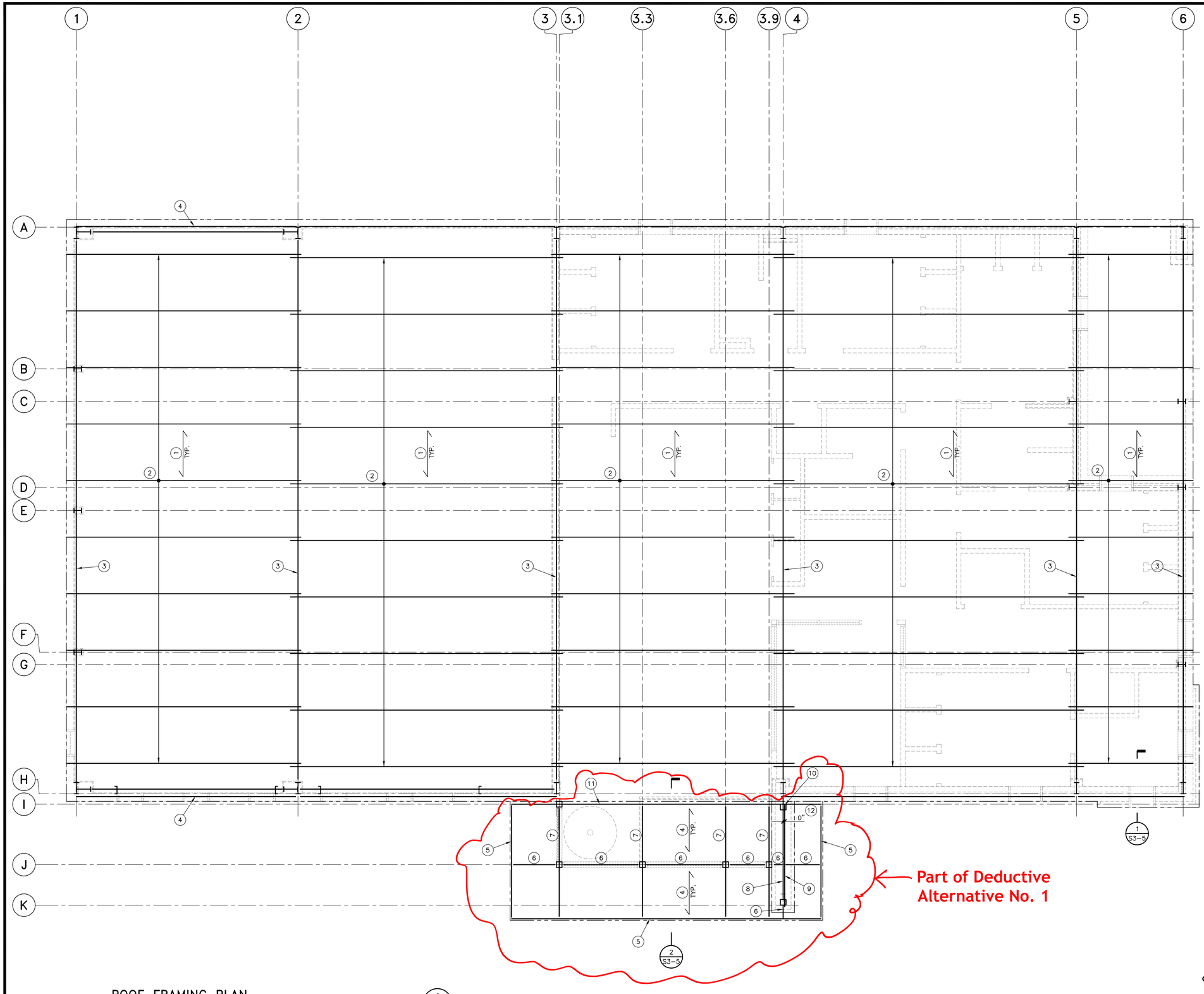
VERNON ROAD
LAGRANGE GEORGIA

TITLE:

SECOND FLOOR FRAMING PLAN

MODIFIED DATE:	JOB NO: 1731
ISSUED DATE: FOR BID AND PERMIT 7 MAY 2018	SHEET: S1-2

SBFA JOB # 18034.01
STARZER BRADY FAGAN ASSOCIATES, INC.
CONSULTING STRUCTURAL ENGINEERS
2337 PERIMETER PARK SUITE 215
ATLANTA, GEORGIA 30341
PHONE: (770) 455-3404, FAX: (770) 451-1415



ROOF FRAMING PLAN

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

1
S1-3

ARCHITECT'S STAMP

STATE OF GEORGIA
GORDON M. SMITH, JR.
7575
LaGrange, Georgia
REGISTERED ARCHITECT

SIGNATURE REQUIRED

GEORGIA REGISTERED PROFESSIONAL ENGINEER
ALAN THOMAS BRADY
No. 17008
5/7/18

SMITH DESIGN GROUP, INC.

206 WEST HARALSON STREET
LAGRANGE, GEORGIA 30240

706-882-5511 www.SDGarch.net

KEYNOTES (SHEET S1-3):

1 METAL BUILDING ROOF BY PRE ENGINEERED METAL BUILDING MANUFACTURER
2 8" DEEP Z-PURLINS AT 5'-0"+/- o.c. BY PRE ENGINEERED METAL BUILDING MANUFACTURER
3 SINGLE SLOPE METAL BUILDING FRAME BEAM BY PRE ENGINEERED METAL BUILDING MANUFACTURER
4 1 1/2" DEEP 22 GAUGE WIDE RIB PAINTED ROOF DECK. FASTEN TO PERIMETER AND SUPPORTS WITH PUDDLE WELDS AT 6' o.c.
5 HSS 12x6x1/4 CONTINUOUS BEAM. MITER AND WELD AT CORNERS. SEE DETAILS ON S3-1 FOR CONNECTIONS TO COLUMNS. TOP OF STEEL = +20'-2".
6 HSS 12x6x1/4 BEAM BETWEEN AND WELDED TO CROSS BEAMS (SIMILAR WHERE WELDED TO FACE OF COLUMN). TOP OF STEEL = +20'-2".
7 HSS 12x6x1/4 BEAM CANTILEVERED OVER COLUMN. SEE DETAILS ON S3-1 FOR CONNECTIONS. TOP OF STEEL = +20'-2".
8 HSS 12x6x1/4 LOW BEAM BETWEEN COLUMNS. SEE DETAILS ON S3-1 FOR CONNECTIONS - PROVIDE CONNECTION TO METAL BUILDING COLUMN. TOP OF STEEL = +20'-2".
9 HSS 12x6x1/4 HIGH BEAM OVER COLUMNS. SEE DETAILS ON S3-1 FOR CONNECTIONS.
10 HSS 6x6x1/4 POST UP FROM LOW BEAM TO HIGH BEAM. SEE DETAILS ON S3-1 FOR CONNECTIONS.
11 HSS 12x6x1/4 BEAM OVER COLUMN AND WELDED TO LOW BEAM AT LINE 4. TOP OF STEEL = +20'-2".
12 HSS 12x6x1/4 BEAM - WELD TO FACE OF COLUMN PER DETAILS ON S3-1. TOP OF STEEL = +20'-2".

NOTE:
PROVIDE PEMB ROOF PERIMETER MEMBERS CAPABLE OF RESISTING 320 PLF WORKING HORIZONTAL WIND LOAD (FROM POSITIVE OR NEGATIVE PRESSURE) FROM TOP OF WALL STUD CONNECTIONS AT MASONRY VENEER EXTERIOR WALLS. SEE ARCHITECTURAL DRAWINGS FOR ADD ALTERNATE OPTIONS AND EXTENTS.

REVISIONS

△	DATE	DESCRIPTION

PROJECT:

VERNON ROAD FIRE STATION

VERNON ROAD
LAGRANGE GEORGIA

TITLE:

ROOF FRAMING PLAN

MODIFIED DATE:

ISSUED DATE:
FOR BID AND PERMIT
7 MAY 2018

JOB NO:
1731

SHEET:
S1-3

SBFA JOB # 18034.01
STARZER BRADY FAGAN ASSOCIATES, INC.
CONSULTING STRUCTURAL ENGINEERS
2337 PERIMETER PARK SUITE 215
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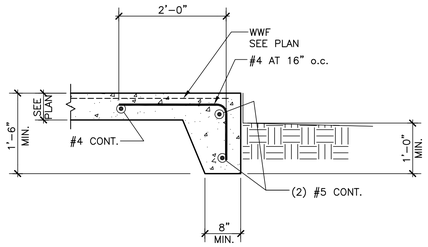
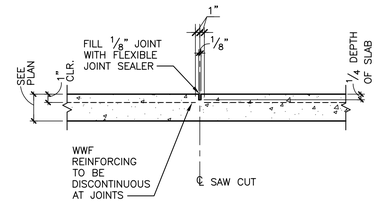


TYPICAL TURNED DOWN SLAB EDGE (1 / S3-1)

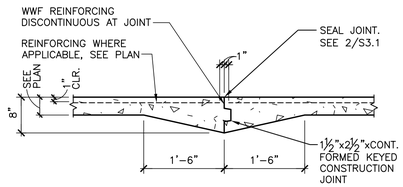
SCALE: 3/4" = 1'-0"



NOTE:
SLAB SHALL BE SAWN AS SOON AS THE CONCRETE WILL SAFELY SUPPORT MEN AND EQUIPMENT.

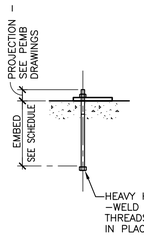
TYP. CONTROL JOINT SLABS ON GRADE (2 / S3-1)

NOT TO SCALE



TYPICAL CONSTRUCTION JOINT SLABS ON GRADE (3 / S3-1)

NOT TO SCALE

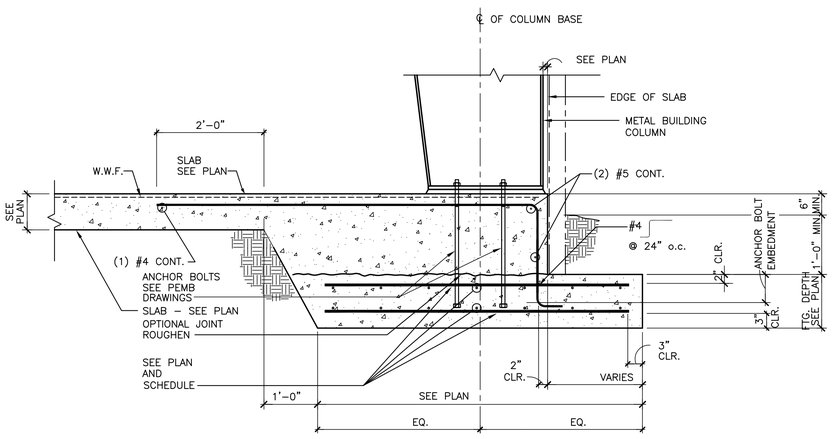


EMBEDMENT SCHEDULE	
ANCHOR BOLT DIAMETER (db)	MINIMUM EMBEDMENT
5/8"	0'-8"
3/4"	1'-0"
1"	1'-4"

NOTES:
1. FOR METAL BUILDING COLUMNS QUANTITY AND DIAMETER SHALL BE AS SPECIFIED BY METAL BUILDING MANUFACTURER.
2. THICKEN FOOTING 3" MINIMUM BEYOND ANCHOR BOLTS ON ALL SIDES, TO PROVIDE MINIMUM 3" COVER BELOW ANCHOR BOLTS, IF REQUIRED.

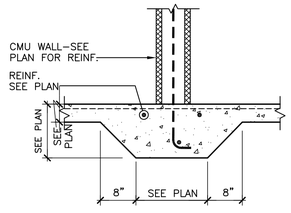
TYP. ANCHOR BOLT EMBEDMENT SCHEDULE (4 / S3-1)

NOT TO SCALE



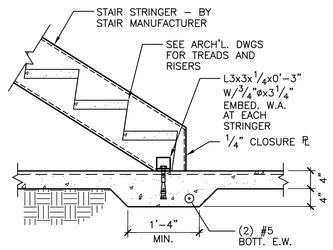
TYPICAL METAL BUILDING COLUMN BASE AND FOOTING (5 / S3-1)

NOT TO SCALE



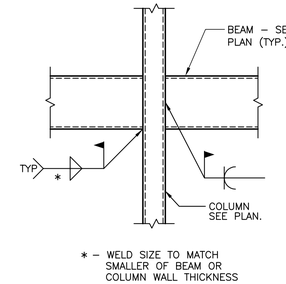
TYP. THICKENED SLAB AT INTERIOR WALLS (6 / S3-1)

NOT TO SCALE



TYPICAL STAIR BASE ANCHORAGE (7 / S3-1)

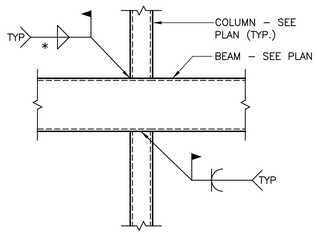
NOT TO SCALE (SIMILAR AT 8" SLAB AND TURNED DOWN SLAB)



* – WELD SIZE TO MATCH SMALLER OF BEAM OR COLUMN WALL THICKNESS

TYPICAL TUBE BEAM TO COLUMN CONNECTION (BEAM TO FACE OF COLUMN) (8 / S3-1)

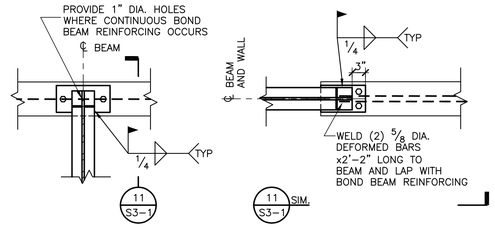
NOT TO SCALE



* – WELD SIZE TO MATCH SMALLER OF BEAM OR COLUMN WALL THICKNESS

TYPICAL TUBE BEAM TO COLUMN CONNECTION (BEAM TO FACE OF COLUMN) (9 / S3-1)

NOT TO SCALE

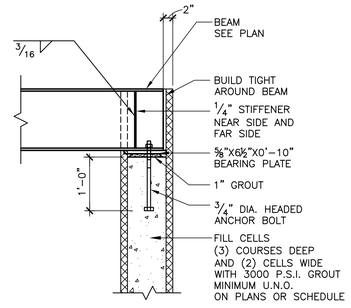


BEAM BEARING PERPENDICULAR TO WALL

BEAM BEARING PARALLEL TO WALL

TYP. BEAM BEARING ON CMU WALL IN PLAN VIEW (10 / S3-1)

NOT TO SCALE



TYPICAL BEAM BEARING PERPENDICULAR ON CMU WALL (11 / S3-1)

NOT TO SCALE

ARCHITECT'S STAMP

STATE OF GEORGIA · GORDON M. SMITH · 7575 · REGISTERED ARCHITECT · LaGrange, Georgia

SIGNATURE REQUIRED

GEORGIA · REGISTERED · 17008 · PROFESSIONAL · 5/7/18 · ENGINEER · ALAN THOMAS BRADY

SMITH DESIGN GROUP, INC.
206 WEST HARALSON STREET
LAGRANGE, GEORGIA 30240
706-882-5511 www.SDGarch.net

REVISIONS		
△	DATE	DESCRIPTION

PROJECT:

VERNON ROAD FIRE STATION

VERNON ROAD
LAGRANGE GEORGIA

TITLE:

SECTIONS AND DETAILS

MODIFIED DATE:

ISSUED DATE:
FOR BID AND PERMIT
7 MAY 2018

JOB NO:
1731

SHEET:
S3-1

SBFA JOB # 18034.01
STARZER BRADY FAGAN ASSOCIATES, INC.
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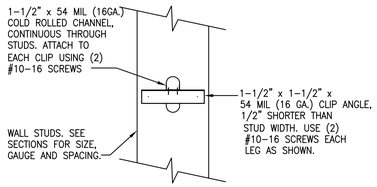
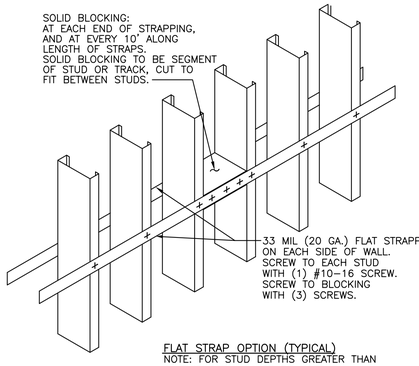
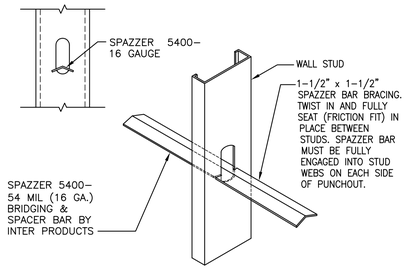


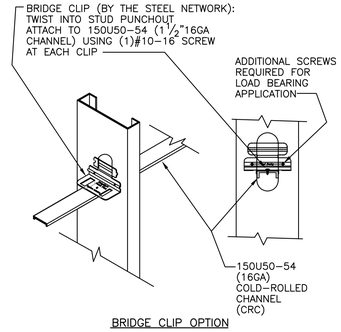
CLIP AND CHANNEL OPTION



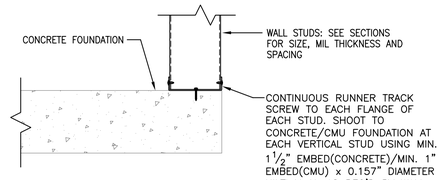
FLAT STRAP OPTION (TYPICAL)
NOTE: FOR STUD DEPTHS GREATER THAN 6" THIS DETAIL MUST BE USED



USING SPAZZER BAR



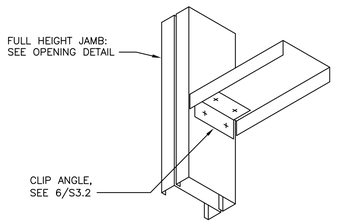
BRIDGE CLIP OPTION



FOUR OPTIONS FOR WALL STUD LATERAL BRACING

NOT TO SCALE

1 / S3-2



SEE 8/S3-2 FOR NUMBER OF MEMBERS REQUIRED AT HEAD AND SILL. SEE DETAILS THIS SHEET FOR CONFIGURATION AND ATTACHMENT OF BUILT-UP MEMBERS.

TYPICAL CONNECTION SILL TO JAMB (HEAD SIMILAR)

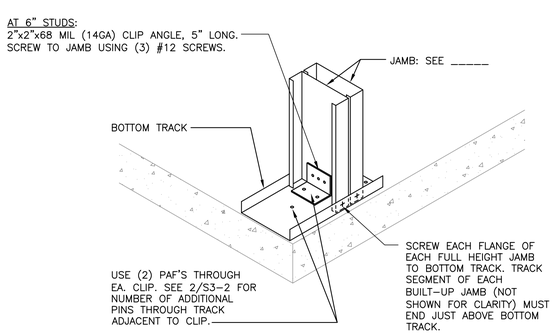
NOT TO SCALE

3 / S3-2

CLIPS AT (3) STUD JAMB

NOT TO SCALE

7 / S3-2



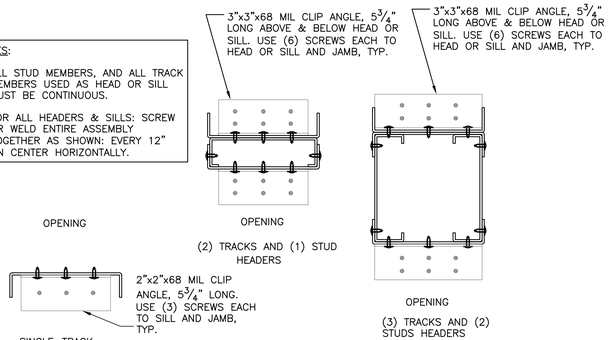
JAMB TO SLAB AT OPENINGS

NOT TO SCALE

4 / S3-2

NOTES:

1. ALL STUD MEMBERS, AND ALL TRACK MEMBERS USED AS HEAD OR SILL MUST BE CONTINUOUS.
2. FOR ALL HEADERS & SILLS: SCREW OR WELD ENTIRE ASSEMBLY TOGETHER AS SHOWN: EVERY 12" ON CENTER HORIZONTALLY.



SECTION AT TYPICAL HEAD AND SILL

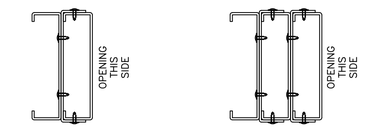
NOT TO SCALE

5 / S3-2

SECTION DETAIL: TRACK TO SLAB

NOT TO SCALE

2 / S3-2



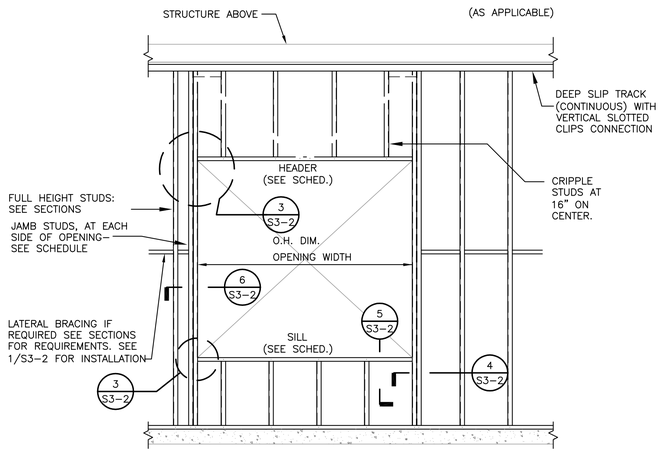
(2) STUDS WITH (1) TRACK. (3) STUDS WITH (2) TRACKS.

FOR ALL JAMBS: SCREW OR WELD ENTIRE ASSEMBLY TOGETHER AS SHOWN: EVERY 12" ON CENTER VERTICALLY.
STUDS AND TRACKS PER OPENING DETAIL 8/S3-2. SEE DETAIL 4/S3-2
FOR CONNECTION TO SLAB AT BASE. DO NOT SPLICE TRACKS IN MIDDLE ⅓ OF SPAN.

JAMB CONFIGURATION

NOT TO SCALE

6 / S3-2



TYPICAL OPENING AT WINDOW (SIM.@ DOORS)

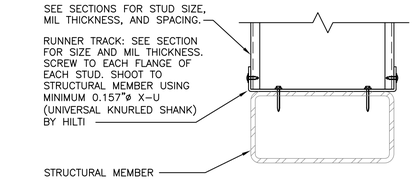
NOT TO SCALE

8 / S3-2

JAMBS:
UP TO 4'-0" OPENING WIDTH- (2) STUDS WITH (1) TRACK.
UP TO 6'-8" OPENING WIDTH- (3) STUDS WITH (2) TRACKS.

HEADER:
UP TO 4'-0" OPENING WIDTH- (2) TRUCKS AND (1) STUD.
UP TO 6'-8" OPENING WIDTH- (3) TRACKS AND (2) STUDS.

SILL:
UP TO 4'-0" OPENING WIDTH- SINGLE TRACK.
UP TO 6'-8" OPENING WIDTH- (2) TRACKS AND (1) STUD.



SECTION DETAIL: TRACK TO STRUCTURAL STEEL

NOT TO SCALE

9 / S3-2

ARCHITECT'S STAMP

STATE OF GEORGIA · GORDON M. SMITH · 7575 · REGISTERED ARCHITECT · LaGrange, Georgia · SIGNATURE REQUIRED

REGISTERED PROFESSIONAL ENGINEER · ALAN THOMAS BRADY · 5/7/18

SMITH DESIGN GROUP, INC.
206 WEST HARALSON STREET
LAGRANGE, GEORGIA 30240
706-882-5511 www.SDGarch.net

REVISIONS

△	DATE	DESCRIPTION

PROJECT:

VERNON ROAD FIRE STATION

VERNON ROAD
LAGRANGE GEORGIA

TITLE:

SECTIONS AND DETAILS

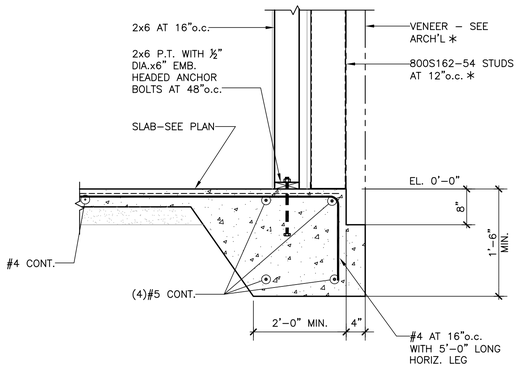
MODIFIED DATE:

ISSUED DATE:
FOR BID AND PERMIT
7 MAY 2018

JOB NO:
1731

SHEET:
S3-2

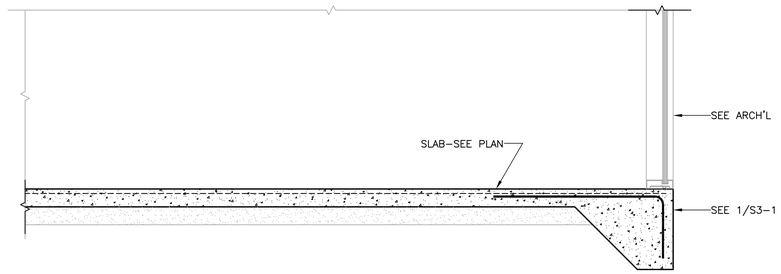
SBFA JOB # 18034.01
STARZER BRADY FAGAN ASSOCIATES, INC.
CONSULTING STRUCTURAL ENGINEERS
2337 PERIMETER PARK SUITE 215
ATLANTA GEORGIA 30341
PHONE: (770) 455-3404 FAX: (770) 457-1415



SECTION

SCALE: ¾" = 1'–0"

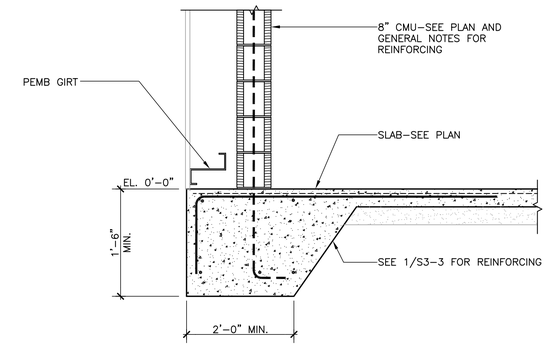
1 S3–3



SECTION

SCALE: ¾" = 1'–0"

2 S3–3



SECTION

SCALE: ¾" = 1'–0"

3 S3–3

∗ FULL HEIGHT METAL STUDS AS SHOWN REQUIRED AT FULL HEIGHT VENEER ONLY (ADD ALTERNATES 1 AND 2 – SEE ARCH'L). PROVIDE PEMB GIRTS AND 600S162–43 STUDS AT 16"o.c. BEHIND LOW VENEER ONLY FOR BASE BID AND ALTERNATE 1, WHERE APPLICABLE.

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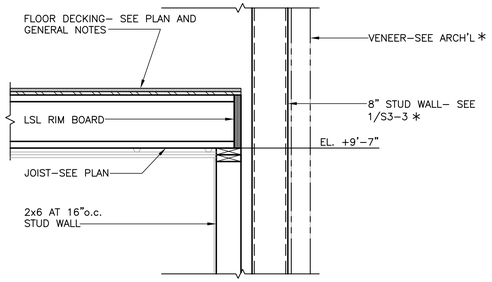
JOB NO: 1731

ISSUED DATE: FOR BID AND PERMIT 7 MAY 2018

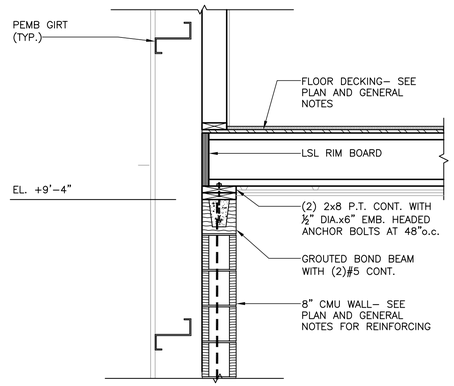
SHEET: **S3-3**



SECTION 1 S3-4

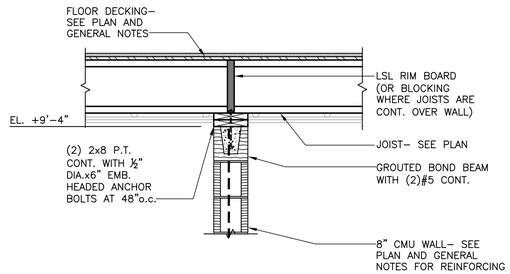
SCALE: 3/4" = 1'–0"

* SEE 1/S3–3 FOR NOTES REGARDING METAL STUDS VS. GIRTS FOR BASE BID AND ADD ALTERNATES



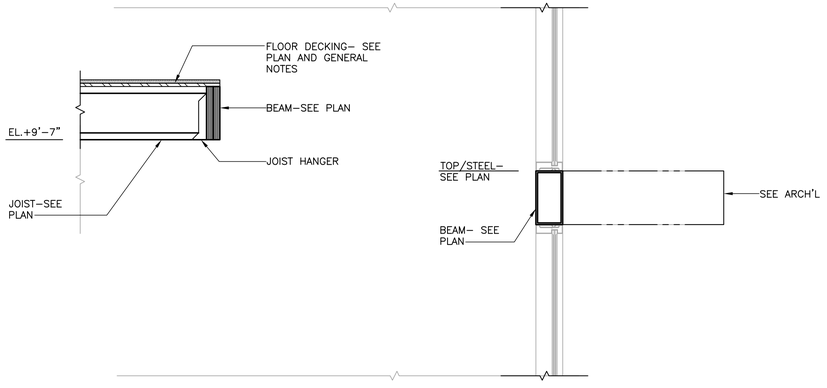
SECTION 2 S3-4

SCALE: 3/4" = 1'–0"



SECTION 3 S3-4

SCALE: 3/4" = 1'–0"



SECTION 4 S3-4

SCALE: 3/4" = 1'–0"

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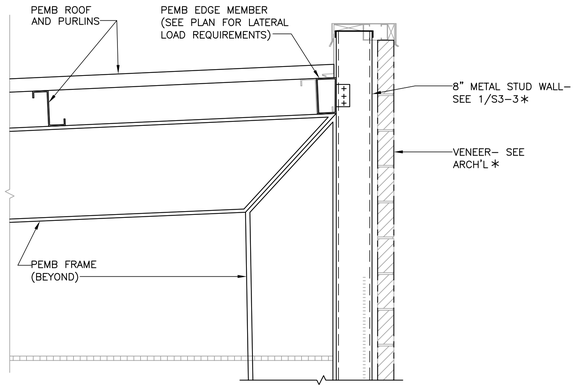
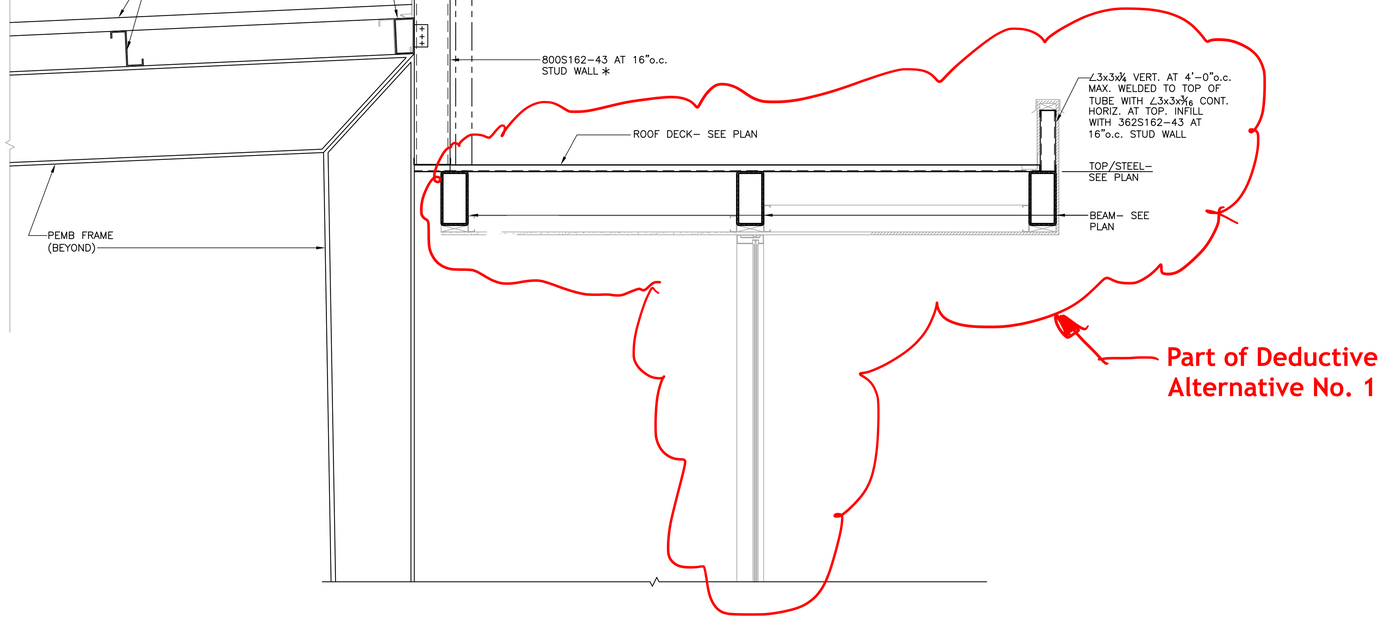


SECTION

SCALE: 3/4" = 1'–0"

1 / S3–5

* –SEE 1/S3–3 FOR NOTES REGARDING METAL STUDS VS. GIRTS FOR BASE BID AND ADD ALTERNATES



SECTION

SCALE: 3/4" = 1'–0"

2 / S3–5

* –SEE 1/S3–3 FOR NOTES REGARDING METAL STUDS VS. GIRTS FOR BASE BID AND ADD ALTERNATES

2 Story Entry Tower and Wing Wall are included in Base Bid and Add. Alternative No. 1 and 2

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