A. GENERAL NOTES

1. THE NOTES OF THESE DRAWINGS ARE NOT INTENDED TO REPLACE SPECIFICATIONS. SEE SPECIFICATIONS FOR REQUIREMENTS IN ADDITION TO GENERAL NOTES. THE INTENT OF THE SPECIFICATIONS IS TO OUTLINE OR INDICATE ITEMS OF WORK WHICH CANNOT READILY BE SHOWN ON THE CONTRACT DRAWINGS AND FURTHER TO INDICATE THE TYPES AND QUALITIES OF MATERIALS AND WORKMANSHIP. SHOULD THE SPECIFICATIONS AND DRAWINGS DISAGREE IN THEMSELVES, OR WITH EACH OTHER, WRITTEN CLARIFICATIONS SHOULD BE REQUESTED OF THE ARCHITECT/ENGINEER BY THE CONTRACTOR. INCONSISTENCIES BETWEEN THE DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH THE AFFECTED PORTION OF THE WORK. IN THE ABSENCE OF SAME, PROPOSALS SHALL BE BASED ON THE MOST EXPENSIVE COMBINATION OF QUALITY AND QUANTITY OF WORK INDICATED.

2. IF DURING THE PROGRESS OF THE WORK THE CONTRACTOR MAY DISCOVER ANY ERROR, INCONSISTENCY OR OMISSION IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL AT ONCE SO REPORT TO THE ARCHITECT/ENGINEER. EXTRAS WILL NOT BE ALLOWED FOR CORRECTION OF PROBLEMS THAT COULD HAVE BEEN AVOIDED BY CAREFUL REVIEW AND THE MINOR ADJUSTMENT OF SIZE AND/OR LOCATION OF VARIOUS ITEMS FOR PROPER FIT.

3. ANY ITEM NOT SPECIFICALLY LISTED OR SHOWN ON THE CONTRACT DOCUMENTS BUT IS INCIDENTAL TO THE COMPLETION OF THE PROJECT OR PACKAGE WILL BE CONSIDERED AS PART OF THE CONTRACT SCOPE OF WORK.

4. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR LOCATIONS AND DIMENSIONS OF OPENINGS, CHASES, INSERTS, REGLETS, SLEEVES, DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS. ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.

5. THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS. PROVIDE ALL SHORING AND BRACING REQUIRED TO STABILIZE AND PROTECT EXISTING AND ADJACENT STRUCTURES AND SYSTEMS DURING COURSE OF DEMOLITION AND CONSTRUCTION. SUCH MATERIAL SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT. IN THE EVENT THAT THE CONTRACTOR DETERMINES THAT SHEETING OR SHORING IS REQUIRED, THE CONTRACTOR SHALL RETAIN THE SERVICES OF A REGISTERED PROFESSIONAL STRUCTURAL ENGINEER FOR DESIGN AND DOCUMENTATION OF ALL SHEETING AND SHORING REQUIRED FOR THE WORK.

6. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO APPROVAL BY THE ENGINEER.

7. ALL APPLICABLE FEDERAL, STATE AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT.

8. SHOULD THE CONTRACTOR SEEK APPROVAL OF A PRODUCT OTHER THAN THE BRAND OR BRANDS NAMED IN THESE SPECIFICATIONS, IT SHALL FURNISH WRITTEN EVIDENCE THAT SUCH PRODUCT CONFORMS IN ALL RESPECTS TO THE SPECIFIED REQUIREMENTS, AND THAT IT HAS BEEN USED SUCCESSFULLY ELSEWHERE UNDER SIMILAR CONDITIONS. WHERE THE SPECIFIED REQUIREMENTS INVOLVE CONFORMANCE TO RECOGNIZED CODES OR STANDARDS THE CONTRACTOR SHALL FURNISH EVIDENCE OF SUCH CONFORMANCE IN THE FORM OF TEST OR INSPECTION REPORTS, PREPARED BY A RECOGNIZED AGENCY, AND BEARING AN AUTHORIZED SIGNATURE.

9. MANUFACTURERS' STANDARD DATA AND CATALOG CUT SHEETS WILL NOT BE CONSIDERED SUFFICIENT IN THEMSELVES, AND THE ENGINEER OF RECORD WILL NOT BE RESPONSIBLE FOR SEEKING FURTHER DATA FROM THE MANUFACTURER, OR FOR OTHERWISE RESEARCHING THE PRODUCT. FAILURE TO PROVIDE COMPLETE DATA WILL RESULT IN THE REJECTION OF THE ENTIRE PRODUCT.

10. SUBMIT SHOP DRAWINGS IN THE FORM OF ELECTRONIC PHOTO DOCUMENT FILE (PDF). AS A MINIMUM, SUBMIT THE FOLLOWING ITEMS FOR REVIEW:

a. CONCRETE MIX DESIGNS
b. METAL STUD SHOP DRAWINGS
c. STRUCTURAL STEEL SHOP DRAWINGS
d. ENGINEERED LUMBER

B. CONCRETE NOTES

1. ALL CONCRETE WORK SHALL CONFORM TO ACI 318 (LATEST EDITION).

2. MINIMUM CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE:

a. FOUNDATIONS: 3000 PSI
b. SLABS ON GRADE: 4000 PSI
ALL CONCRETE SUBJECT TO FREEZE/THAW CYCLE SHALL BE AIR-ENTRAINED.

3. CONCRETE SHALL NOT BE PLACED IN WATER OR ON FROZEN GROUND.

4. REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60 DEFORMED BARS AND SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH ACI 315, LATEST EDITION. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185 AND BE PROVIDED IN FLAT SHEETS.

5. REINFORCEMENT SHALL BE CONTINUOUS AROUND CORNERS AND AT INTERSECTIONS. PROVIDE CLASS "A" TENSION LAP SPLICES FOR ALL HORIZONTAL WALL REINFORCING UNLESS OTHERWISE SHOWN ON PLAN. PROVIDE CLASS "B" TENSION LAP SPLICES FOR ALL HORIZONTAL GRADE BEAM REINFORCING.

6. CLEARANCES FOR REINFORCEMENT:

a. CONCRETE PLACED DIRECTLY ON EARTH, FOOTINGS: 3"
b. SLABS, FROM TOP UNLESS OTHERWISE NOTED: 1"
c. FORMED SURFACES EXPOSED TO WEATHER OR EARTH:
#5 BAR OR SMALLER: 1-1/2"
#6 BAR OR LARGER: 2"

7. WELDING OF REINFORCEMENT IS NOT PERMITTED.

8. FOR ALL OPENINGS IN CONCRETE WALLS AND SLABS, PROVIDE SUPPLEMENTAL REINFORCING AROUND OPENING AS SHOWN ON THE CONTRACT DOCUMENTS.

9. THE FINISH TOLERANCE OF ALL SLABS SHALL BE IN ACCORDANCE WITH ACI 302 AND THAT SPECIFIED ON THE CONTRACT DOCUMENTS.

10. ANCHOR BOLTS SHALL CONFORM TO ASTM A307 UNLESS NOTED OTHERWISE.

11. LAP ALL BARS MINIMUM 40 DIAMETERS. LAP ALL WWF A MINIMUM OF 6 INCHES. DO NOT LAP HAIRPIN BARS

12. UNLESS OTHERWISE APPROVED ALL REINFORCEMENT SHALL BE BLOCKED INTO POSITION WITH PRECAST CONCRETE BLOCKS HAVING A MINIMUM COMPRESSIVE STRENGTH EQUAL TO THAT OF THE SLAB OR FOUNDATION SYSTEM.

13. PROVIDE FOR ANY DEWATERING AS REQUIRED DURING EXCAVATION AND CONSTRUCTION OF THE FOUNDATION SYSTEM

C. STEEL NOTES

1. STRUCTURAL STEEL FABRICATION, ERECTION, AND CONNECTION DESIGN SHALL CONFORM TO AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS-ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN" LATEST EDITION.

2. ALL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECS:
a. ALL WIDE FLANGE SHAPES A992, GRADE 50.
b. ALL CHANNELS, ANGLES AND PLATES A36.
c. HOLLOW STRUCTURAL SECTIONS ASTM A500, GR.B.
d. STEEL PIPE ASTM A501 OR ASTM A53, TYPE E OR S.

3. FIELD CONNECTIONS SHALL BE BOLTED USING 3/4" DIAMETER (MINIMUM) ASTM A325 HIGH STRENGTH BOLTS (UNO).

4. CONNECTIONS NOT SHOWN ON DRAWINGS SHALL BE DESIGNED BY THE STEEL FABRICATOR. CONNECTIONS SHALL BE DESIGNED IN ACCORDANCE WITH AISC 'SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS' AND 'AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES'. MINIMUM LENGTH OF THE CONNECTION ANGLE SHALL BE AT LEAST ½ THE "T" DIMENSIONS OF THE MEMBER BEING SUPPORTED. BOLTS TO BE AT 3" O.C. VERTICAL.

5. ALL WELDING SHALL CONFORM TO AWS D1.1-LATEST EDITION. ELECTRODES SHALL BE E70XX.

6. ALL ALUMINUM AND STEEL MEMBERS TO BE TREATED OR PROPERLY SEPARATED TO PREVENT GALVANIC AND CORROSIVE EFFECTS.

7. SUBMIT ALL STEEL SHOP DRAWINGS FOR APPROVAL PRIOR TO ANY FABRICATION.

8. STEEL FABRICATOR IS SOLELY RESPONSIBLE FOR SURVEYING AND VERIFICATION OF EXISTING CONDITIONS INCLUDING, BUT NOT LIMITED TO, THE LOCATION, ELEVATION, DIMENSIONS OF EXISTING WALLS, FRAMING, ETC.

9. THERE SHALL BE NO FIELD CUTTING OF STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES WITHOUT THE PRIOR APPROVAL OF THE DESIGN PROFESSIONAL.

10. ALL STEEL NOT RECEIVING FIREPROOFING SHALL BE PAINTED WITH THE FABRICATOR'S RUST INHIBITIVE PRIMER. OMIT PAINT ON FAYING SURFACES OF SLIP-CRITICAL CONNECTIONS.

11. ALL STEEL EXPOSED TO WEATHER SHALL BE PAINTED WITH RUST INHIBITIVE PRIMER AND TOP COATED OR HOT DIPPED GALVANIZED AS INDICATED ON THE DRAWINGS OR DIRECTED BY THE ARCHITECT.

12. NON-SHRINK GROUT FOR COLUMN BASE PLATES SHALL BE PREMIXED, NONMETALLIC GROUT COMPLYING WITH ASTM C-1107.

D. MASONRY NOTES

1. ALL MASONRY CONSTRUCTION SHALL CONFORM TO ACI 530.1 SPECIFICATION FOR MASONRY STRUCTURES (LATEST EDITION).

2. ALL CONCRETE MASONRY UNITS SHALL BE ASTM C90, GRADE N, TYPE 1 STANDARD WEIGHT BLOCKS INCLUDING STRETCHERS AND CORNER BLOCKS. SPECIFIED COMPRESSIVE STRENGTH OF MASONRY, f'm, SHALL BE A MINIMUM OF 1500. PSI, AS DETERMINED BY THE UNIT STRENGTH METHOD OR BY PRISM TESTS.

3. MORTAR SHALL CONFORM TO ASTM SPECIFICATION C270, TYPE S. OWNER'S TESTING AGENCY SHALL VERIFY STRENGTH FROM FIELD-OBTAINED TEST CUBES.

4. WHERE INDICATED, GROUT CORES SOLID WITH A HIGH SLUMP MIX IN ACCORDANCE WITH ASTM SPECIFICATION C476 HAVING A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2000 PSI. OWNER'S TESTING AGENCY SHALL VERIFY STRENGTH FROM FIELD-OBTAINED TEST CUBES.

5. PROVIDE VERTICAL REINFORCING IN GROUTED CELLS AS INDICATED. REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60. VERTICAL REINFORCING SHALL BE LAPPED 24 INCHES MINIMUM.

6. HORIZONTAL WALL REINFORCING SHALL BE DUR-O-WAL TRUSS DESIGN WITH 3/16" SIDE RODS AND 9 GAGE CROSS TIES. REINFORCING SHALL BE PLACED IN MASONRY WALLS AT 16" O.C., MAXIMUM. SPACE HORIZONTAL JOINT REINFORCEMENT AT 8" ON CENTER IN ALL PARAPETS. USE SHOP FABRICATED SPECIAL PIECES AT ALL CORNERS AND TEES.

7. CMU PLACED BELOW GRADE SHALL BE GROUTED SOLID.

8. CONCRETE MASONRY UNITS SHALL BE LAID IN RUNNING BOND UNLESS NOTED OTHERWISE ON THE ARCHITECTURAL DRAWINGS. BOND CORNERS AND INTERSECTIONS OF LOAD BEARING WALLS.

9. ALL LOAD BEARING CMU WALLS SHALL CONTAIN JOINTS WHICH ARE FULLY BEDDED.

10. FILL ALL BOND BEAMS WITH 3000 PSI CONCRETE USING 3/8" MAXIMUM AGGREGATE SIZE.

11. PROVIDE TEMPORARY BRACING OF MASONRY WALLS TO WITHSTAND LATERAL LOADS DURING CONSTRUCTION.

12. MASONRY WALLS WHICH SUPPORT STRUCTURAL MEMBERS SHALL HAVE CELLS GROUTED SOLID FULL HEIGHT UNDER BEARING WITH 1-#5 BAR MINIMUM VERTICAL IN EACH CELL OR AS INDICATED.

13. SEE ARCHITECTURAL DRAWINGS FOR CONTROL JOINTS/LOCATIONS.

14. LOCATION OF LINTELS AT MASONRY OPENINGS SHALL BE COORDINATED WITH THE ARCHITECTURAL AND MECHANICAL DRAWINGS.

15. UNLESS OTHERWISE NOTED, PROVIDE THE FOLLOWING LINTELS FOR EACH 4 INCH THICKNESS OF MASONRY WALL WITH 8 INCHES OF BEARING AT EACH END. FOR UNEQUAL LEG ANGLES, ORIENT THE LONG LEGS VERTICAL: GALVANIZE ALL LINTELS EXPOSED TO THE WEATHER.
OPENINGS UP TO 4'------ L3½x3½x$\frac{5}{16}$
OPENINGS 4' TO 6'------- L4x3½x$\frac{5}{16}$
OPENINGS 6' TO 8'------- L5x3½x$\frac{5}{16}$

16. PROVIDE REBAR DOWELS FROM THE FOUNDATIONS TO MATCH VERTICAL REINFORCING SIZE AND SPACING. DOWELS SHALL HAVE STANDARD 90 DEGREE HOOKS AND LAP WITH THE FIRST LIFT OF REINFORCING. STANDARD LAP LENGTH OF GRADE 60 MASONRY REINFORCING BARS SHALL BE 48 BAR DIAMETERS.

E. LIGHT-GAGE STEEL NOTES

1. ALL COLD FORMED STEEL FRAMING INDICATED ON THE DESIGN DOCUMENTS IS FOR BID PURPOSES ONLY. THE STUD FRAMING SUBCONTRACTOR SHALL RETAIN THE SERVICES OF A LICENSED PROFESSIONAL ENGINEER TO DESIGN ALL COLD FORMED FRAMING IN ACCORDANCE WITH THE INDICATED DESIGN LOADS AND CRITERIA.

THE ENGINEER SHALL PROVIDE SIGNED AND SEALED CALCULATIONS AND SHOP DRAWINGS. THE STUD FRAMING SUBCONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS MEETING THE PROJECT SPECIFICATIONS AND THE REQUIREMENTS OF THE DESIGN DOCUMENTS.

2. SHOP DRAWINGS SHALL ILLUSTRATE THE DESIGN OF THE STEEL STUD WALL FRAMING AND SHOW ALL STEEL STUD WALL FRAMING CONNECTIONS, SHEATHING ATTACHMENTS, STIFFENERS, ALL WALL OPENINGS, BUILT-UP HEADER AND POST LOCATIONS, AS WELL AS ALL PERMANENT AND TEMPORARY WALL BRACING AND THEIR LOCATIONS.

3. MANUAL CALCULATIONS SHALL BE PERFORMED AND SUBMITTED TO AUGMENT AND VERIFY ANY COMPUTER GENERATED CALCULATIONS. ONE MANUAL CALCULATION FOR EACH TYPE OF COMPUTER GENERATED CALCULATION WILL BE REQUIRED. SUBMITTALS SHALL BE REJECTED IF MANUAL CLACULATIONS ARE NOT SUBMITTED AND SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER.

E. LIGHT-GAGE STEEL NOTES (CONT.)

4. ALL LIGHT GAGE MEMBERS, GALVANIZED STUDS, JOISTS, AND ACCESSORIES SHALL BE DESIGNED AND FORMED IN ACCORDANCE WITH AISI, "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS", LATEST EDITION.

5. THE EXTENT OF THE WORK FOR THE METAL STUD WALL SYSTEM IS DETAILED ON THE ARCHITECTURAL DRAWINGS. THESE NOTES SHALL BE WORKED IN CONJUNCTION WITH THOSE DRAWINGS AND THE SPECIFICATIONS. INCONSISTENCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.

6. ALL STUDS, JOISTS AND ACCESSORIES SHALL BE OF THE TYPE, SIZE, STEEL THICKNESS AND SPACING SHOWN ON THE PLANS, AS MANUFACTURED BY DIETRICH. EQUIVALENT PRODUCTS BY OTHER MANUFACTURERS MAY BE SUBMITTED WITH ENGINEER'S PRIOR APPROVAL. SUBSTITUTIONS MUST MEET OR EXCEED DIETRICH PROPERTIES. PRODUCTS FAILING TO MEET THESE MINIMUM PROPERTIES WILL BE REJECTED.

7. STUDS, TRACK AND BRACING SHALL BE MANUFACTURED PER ASTM SPECIFICATION C-955.

8. ALL GALVANIZED STUDS, JOISTS AND ACCESSORIES 12, 14 AND 16 GAGE SHALL BE FORMED FROM STEEL THAT CONFORMS TO THE REQUIREMENTS OF ASTM A446, GRADE D, WITH A MINIMUM SPECIFIED YIELD STRENGTH OF 50,000 PSI.

9. ALL GALVANIZED STUDS, JOISTS AND ACCESSORIES, 18 GAGE OR LIGHTER, SHALL BE FORMED FROM STEEL THAT CONFORMS TO THE REQUIREMENTS OF ASTM A446, GRADE A, WITH A MINIMUM SPECIFIED YIELD STRENGTH OF 33,000 PSI.

10. ALL MEMBERS AND ACCESSORIES SHALL BE FORMED FROM STEEL HAVING A GALVANIZED COATING MEETING THE REQUIREMENTS OF ASTM A653 WITH A G-60 COATING. EXTERIOR WALL STUDS SHALL HAVE A G-90 COATING.

11. PROVIDE CHANNEL SHAPED STUDS, RUNNERS, TRACKS, BLOCKING, CLIP ANGLES, SHOES, REINFORCEMENTS, FASTENERS AND OTHER ACCESSORIES RECOMMENDED BY THE MANUFACTURER FOR A COMPLETE FRAMING SYSTEM.

12. FRAME ALL OPENINGS LARGER THAN 2' WITH A MINIMUM OF DOUBLE STUDS EACH SIDE OR AS SHOWN ON THE DESIGN DRAWINGS.

13. TRACK SHALL BE ATTACHED TO FOUNDATIONS, WOOD PLATES AND OTHER STRUCTURAL COMPONENTS AS SHOWN ON DRAWINGS. SECURELY ANCHOR STUDS IN TRACK TO FLOOR CONSTRUCTION AND OVERHEAD STRUCTURE. PROVIDE SLIP JOINTS WHERE NON-BEARING VERTICAL STUDS MEET FLOOR OR OVERHEAD FLOOR OR ROOF STRUCTURAL MEMBER. ALLOW 3/4" (MINIMUM) OF VERTICAL DEFLECTION AT SLIP JOINTS.

14. ALL COLD FORM TO COLD FORM STEEL CONNECTIONS SHALL BE MADE WITH NO. 10 TEKS/3 SCREWS OF APPROPRIATE LENGTH UNLESS OTHERWISE SHOWN ON THE PLANS. PENETRATION OF JOINED MATERIAL SHALL NOT BE LESS THAN 3 EXPOSED THREADS.

15. ATTACH SHEATHING AND GYPSUM WALLBOARD TO STUDS AND JOISTS PER MANUFACTURER'S RECOMMENDATIONS UNLESS OTHERWISE SHOWN ON THE PLAN.

16. AXIALLY LOADED STUDS SHALL BE SEATED SQUARELY AGAINST THE WEB OF THE TOP AND BOTTOM TRACK. STUDS SHALL BE PLUMB AND SECURELY ATTACHED TO FLANGES OF THE TOP AND BOTTOM TRACK. TRACK SHALL NOT BE USED TO SUPPORT ANY LOADS UNLESS SPECIFICALLY DESIGNED FOR THE PURPOSE.

17. SPLICES IN AXIALLY LOADED STUDS SHALL NOT BE PERMITTED. ALL AXIALLY LOADED MEMBERS SHALL BE ALIGNED VERTICALLY TO ALLOW FOR FULL TRANSFER OF LOAD TO THE FOUNDATION.

18. INSTALL BUILT-UP HEADERS IN ALL OPENINGS LARGER THAN STUD SPACING. ALL BUILT-UP HEADERS SHALL HAVE WEB STIFFENERS AT BEARING POINTS AND INTERMEDIATE WEB STIFFENERS AT POINTS OF CONCENTRATED LOADS.

19. JOISTS SHALL BE LOCATED DIRECTLY OVER BEARING STUDS AND HAVE THEIR WEB AREA PERPENDICULAR TO THE BEARING SURFACE.

20. HORIZONTAL STUD BRACING SHALL BE 18 GAGE X 2" WIDE STEEL STRAPS OR MANUFACTURERS STANDARD BRIDGING CHANNELS. BRACING SHALL BE CONTINUOUS AND LOCATED AT 4'-0" O.C. MAX. FOR THE FULL HEIGHT OF ALL LOAD BEARING WALLS. SIMILARLY, PROVIDE BRACING FOR NON-LOAD BEARING WALLS UNTIL PERMANENT FACING MATERIAL (GYPSUM SHEATHING OR PLYWOOD) IS INSTALLED. ALL STRAPS SHALL BE SECURELY ANCHORED TO A STRUCTURAL MEMBER AT EACH END CAPABLE OF RESISTING ALL TEMPORARY BRACING FORCES. BRACES ARE TO BE INSTALLED ON BOTH SIDES OF THE WALL UNLESS NOTED OTHERWISE AND ATTACHED TO ALL LOAD BEARING STUDS.

21. PROVIDE BRACING FOR NON-LOAD BEARING WALLS UNTIL PERMANENT FACING MATERIAL (GYPSUM SHEATHING OR PLYWOOD) IS INSTALLED. ALL STRAPS SHALL BE SECURELY ANCHORED TO A STRUCTURAL MEMBER AT EACH END CAPABLE OF RESISTING ALL TEMPORARY BRACING FORCES.

22. AT TRACK BUTT JOINTS, TRACK MUST BE ANCHORED TO A COMMON STRUCTURAL ELEMENT.

23. ALL PERMANENT AND TEMPORARY BRACING, BLOCKING, STRAPPING AND WEB REINFORCEMENT SHALL BE INSTALLED PRIOR TO LOADING OF ANY STRUCTURAL MEMBER.

24. THE EXTERIOR WALL SYSTEM SHALL BE DESIGNED FOR A MAXIMUM ALLOWABLE HORIZONTAL DEFLECTION OF L/600 WHEN BACKING UP BRICK VENEER.

25. PERFORM WELDING OF ALL LIGHT GAGE STEEL FRAMING IN ACCORDANCE WITH AWS D1.3 (SPECIFICATION FOR WELDING SHEET STEEL IN STRUCTURES).

26. CUT ALL LIGHT GAGE STEEL FRAMING MEMBERS WITH SAWS OR SHEARS. FLAME CUTTING IS NOT PERMITTED.

27. THE LIGHT GAUGE STEEL FRAMING SUPPLIER AND ERECTOR SHALL HAVE A MINIMUM 5 YEARS EXPERIENCE IN THE FABRICATION AND ERECTION OF LIGHT GAGE STEEL FRAMING SYSTEMS.

28. ALL HEADERS, LINTELS, BOX BEAMS AND BOX COLUMNS SHALL BE FILLED WITH BATT INSULATION DURING FABRICATION.

F. WOOD NOTES

1. ALL STRUCTURAL TIMBER SHALL BE HEM FIR #2 (MINIMUM) STRESS GRADE LUMBER OR APPROVED EQUAL WITH THE FOLLOWING MINIMUM ALLOWABLE PROPERTIES:
Fb =850 psi Fv =75 psi E =1,300,000 psi

2. ALL STRUCTURAL TIMBER TO BE STAMPED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION'S "CONSTRUCTION MANUAL".

3. ALL GLUED LAMINATED BEAMS SHALL BE SOUTHERN PINE, HEM-FIR OR APPROVED EQUAL CONFORMING TO AITC SPECIFICATION 117-93 "DESIGN STANDARD SPECIFICATION FOR STRUCTURAL GLUED LAMINATED TIMBER OF SOFTWOOD SPECIES". THE MINIMUM ALLOWABLE PROPERTIES FOR GLUED LAMINATED BEAMS ARE AS FOLLOWS:
Fb = 2000 psi TENSION ZONE
Fv = 155 psi E = 1,500,000 psi

4. ALL MICROLLAM (LVL) BEAMS SHALL BE AS ENGINEERED AND MANUFACTURED BY TRUS JOIST MACMILLAN OR APPROVED EQUAL WITH THE FOLLOWING MINIMUM ALLOWABLE PROPERTIES:
Fb =2600 psi Fv =285 psi E =1,900,000 psi

5. ALL PARALLAM (PSL) BEAMS TO BE AS ENGINEERED AND MANUFACTURED BY TRUS JOIST MACMILLAN OR APPROVED EQUAL WITH THE FOLLOWING MINIMUM ALLOWABLE PROPERTIES:
Fb = 2900 psi Fv = 290 psi E = 2,000,000 psi

F. WOOD NOTES (CONT.)

6. ALL TIMBER CONNECTIONS ARE TO BE MADE USING PREFABRICATED CONNECTORS. CONNECTORS NOTED ON DRAWINGS ARE BASED ON "SIMPSON STRONG-TIE." INSTALL ALL SPECIFIED FASTENERS, IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, BEFORE LOADING THE CONNECTION. TOE-NAILING WILL NOT BE PERMITTED. SUBSTITUTES SHALL BE SUBMITTED IN ACCORDANCE WITH THE GENERAL NOTES.

7. PROVIDE MINIMUM CONTINUOUS SOLID BLOCKING OR CROSS-BRIDGING LINES AT 8'-0" O.C. MAXIMUM SPACING FOR ALL WOOD RAFTERS PROVIDE ADDITIONAL X-BRIDGING AS REQUIRED BY FABRICATOR.

8. PROVIDE A MINIMUM OF ONE LINE OF BLOCKING/CROSS-BRIDGING FOR ALL SPANS.

9. PROVIDE STRUCTURAL PLYWOOD SHEATHING OR APPROVED EQUAL AT ALL SIDES OF CORNERS FOR WIND BRACING. CONNECTIONS OF PLYWOOD SHALL COMPLY WITH APA NAILING REQUIREMENTS FOR PLYWOOD SHEAR WALLS.

10. PROVIDE PRESSURE TREATED LUMBER WHERE LUMBER IS IN CONTACT WITH CONCRETE OR OUTSIDE OF BUILDING.

11. PLYWOOD ROOF SHEATHING SHALL BE: 5/8 INCH THICK STRUCTURAL 2 C-D INT-APA PLYWOOD WITH EXTERIOR GLUE. ALL JOINTS SHALL BE STAGGERED. NAILING SHALL COMPLY WITH APA REQUIREMENTS FOR PLYWOOD ROOF DIAPHRAGMS.

G. FOUNDATION NOTES

1. REFER TO FOUNDATION REPORT PREPARED BY UNDERWOOD ENGINEERING DATED 2011.

2. ALLOWABLE SOIL BEARING CAPACITY PER GEOTECHNICAL REPORT: 3000 PSF AFTER SOIL EXCHANGE AND COMPACTION.

3. PREPARE ALL SUBGRADES IN ACCORDANCE WITH GEOTECHNICAL RECOMMENDATIONS. DURING FABRICATION.

H. SPECIAL INSPECTION NOTES

1. THE FOLLOWING SPECIAL INSPECTIONS SHALL BE OBTAINED AND HELD AS RECORD DOCUMENTS:
A. SOIL BEARING CAPACITY
B. CONCRETE MATERIALS
C. REINFORCING STEEL PLACEMENT (PRIOR TO POUR)
D. STEEL ERECTION
E. LIGHT-GAGE (COLD-FORMED) METAL FRAMING

I. DESIGN DATA

1. THIS PROJECT HAS BEEN DESIGNED AND SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH "THE INTERNATIONAL BUILDING CODE, 2009" AND APPLICABLE FEDERAL, AND STATE CODES.

2. THE STRUCTURE HAS BEEN DESIGNED TO RESIST WIND PRESSURES IN ACCORDANCE WITH THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE, 2009. THE FOLLOWING DESIGN DATA APPLIES FOR THE CITY OF CAMDEN.

BASIC WIND SPEED:	90 M.P.H. (3 SEC. GUST)
EXPOSURE:	B
IMPORTANCE FACTOR:	1.00
INTERNAL PRESSURE COEFFICIENT:	0.18 ±

3. THE FOUNDATIONS HAVE BEEN DESIGNED TO RESIST SEISMIC FORCES IN ACCORDANCE WITH THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE, 2006. THE FOLLOWING DESIGN DATA APPLIES:

SEISMIC IMPORTANCE FACTOR:	1.5
SEISMIC USE GROUP:	I
SPECTRAL RESPONSE ACCELERATIONS (S_S):	0.28
(S_1):	0.062
SITE CLASS:	D
SPECTRAL RESPONSE COEFFICIENTS (S_{DS}):	0.300
(S_{D1}):	0.100
SEISMIC DESIGN CATEGORY:	B
SEISMIC RESISTING SYSTEM:	BRACED PANELS
RESPONSE MODIFICATION FACTOR (R):	4
ANALYSIS PROCEDURE:	EQUIVALENT LATERAL FORCE PROCEDURE
SEISMIC BASE SHEAR:	50 KIPS
GROUND SNOW LOAD (P_g):	25 PSF
SNOW IMPORTANCE FACTOR (I_3):	1.0
SNOW EXPOSURE FACTOR (C_E):	1.0
THERMAL FACTOR (C_T):	1.0
FLAT ROOF SNOW LOAD:	21 PSF
FLAT ROOF LIVE LOAD:	30 PSF
SLAB ON GRADE LIVE LOAD:	100 PSF

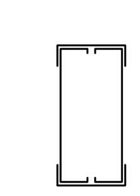
ADD: 1. REVISED BOX HEADER SCHEDULE AND NOTES

BOX HEADER SCHEDULE

SPAN OPENING	COLD-FORMED BOX HEADER
1'-8"	(2)-1 5/8"x 6"x 18ga.
3'-4"	(2)-1 5/8"x 6"x 16ga.
3'-8"	(2)-1 5/8"x 6"x 16ga.
5'-0"	(2)-1 5/8"x 8"x 14ga.
9'-0"	(2)-1 5/8"x 14"x 12ga.

BOX HEADER SCHEDULE NOTES:

1. PROVIDE SINGLE JACK STUDS FOR OPENINGS UP TO AND INCLUDING 3'-8". PROVIDE DOUBLE JACK STUDS FOR OPENINGS LARGER THAN 3'-8".
2. TOP AND BOTTOM TRACK TO BE SAME GAGE AS STUD.
3. LOOSE LINTELS SHALL HAVE 8" MIN. BEARING EACH END.
4. COORDINATE OPENINGS WITH ARCHITECTURAL DRAWINGS.
5. ALL C.F. BOX HEADERS TO BE FABRICATED FROM UNPUNCHED STUDS.



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PHONE (610) 296-5592 FAX (610) 296-9183

SEAL
JAMES S. CARR
REGISTERED ARCHITECT
RA007622X
NOT FOR CONSTRUCTION

DATE

PROJECT ARCH.	JSC
PROJECT MGR.	OGC
DRAWN BY.	OAG
PROJECT NO.	15-001

	DESCRIPTION	DATE
1	BIDDING SET	2015-03-10
2	ADDENDUM - 1	2015-03-17
3	ADDENDUM - 2	2015-03-24
4	ADDENDUM - 3	2015-04-15

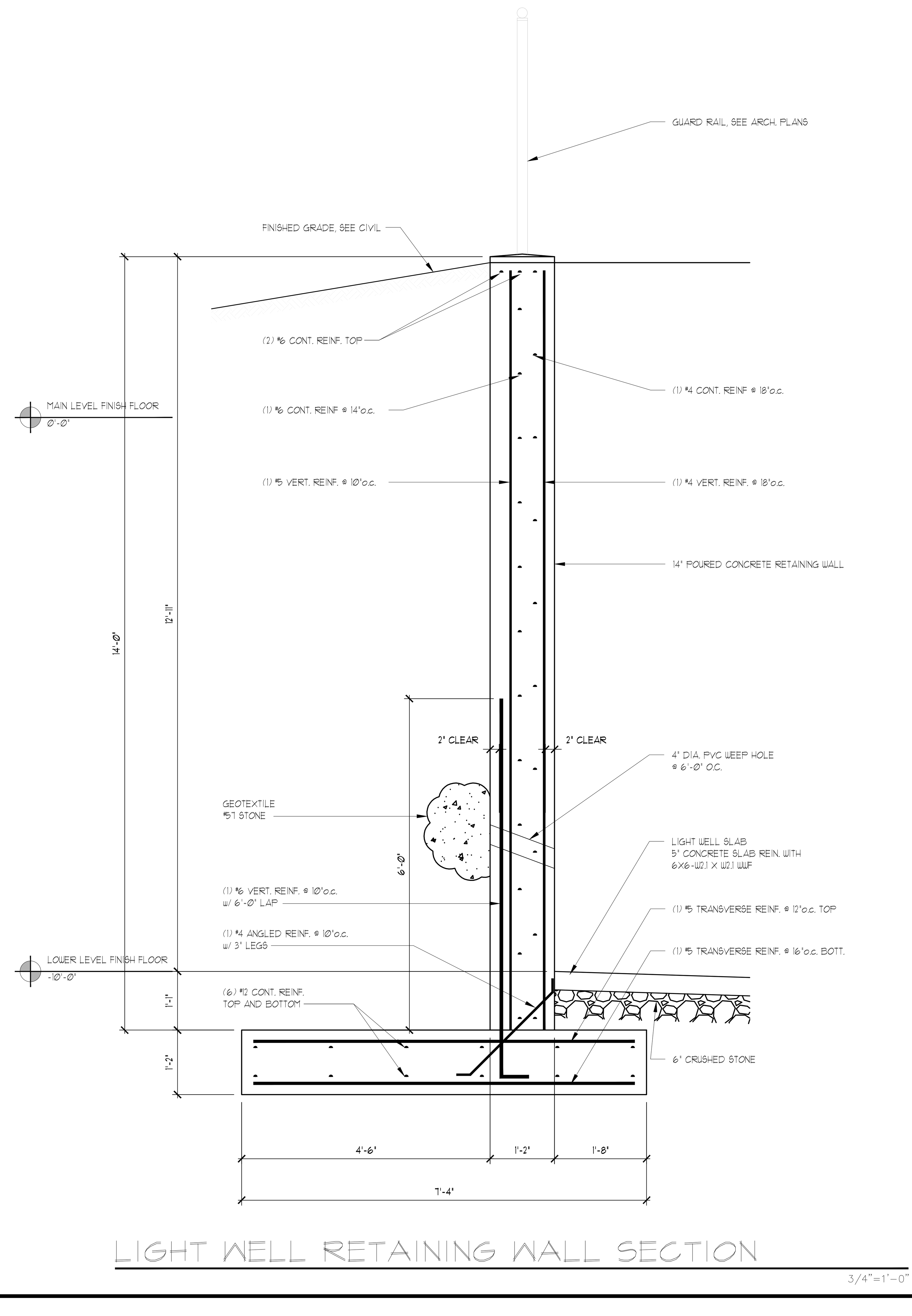
ALTERATIONS AND ADDITIONS TO
COVENANT PRESBYTERIAN CHURCH
400 LANCASTER AVENUE, MALVERN, PA 19355

DWG.
S-000

FOOTING SCHEDULE

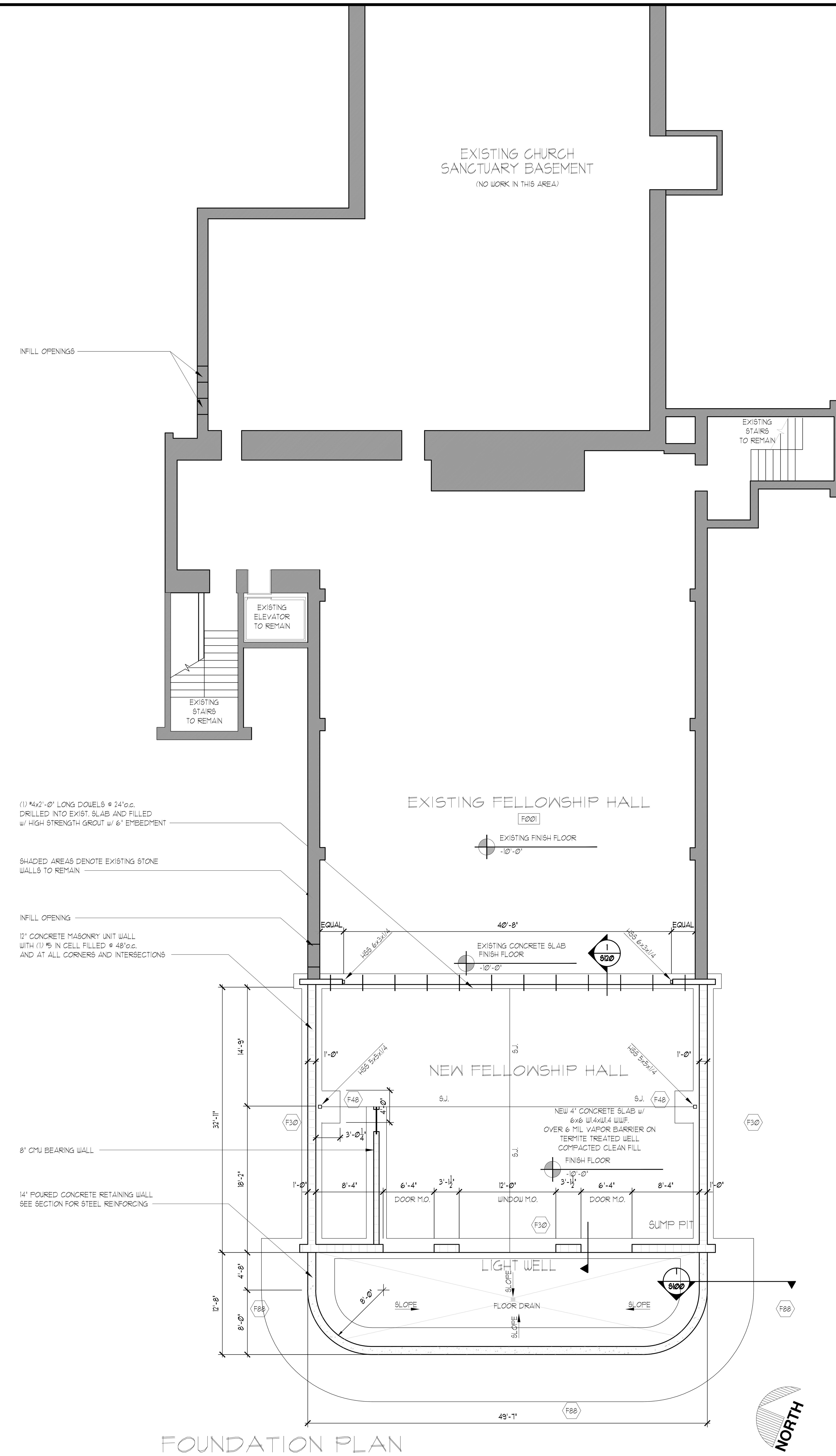
MK	SIZE (W x D)	REINFORCING	REMARKS
F30	30"x12"xCONTINUOUS	(4) #5 CONTINUOUS BOTT. (1) #4 @ 24"o.c. TRANSVERSE	
F48	48"x60"x14" ISOLATED PAD	(5) #5 EACH WAY BOTT.	
F88	88"x14" CONTINUOUS	(6) #12 CONTINUOUS TOP & BOTT. #5 @ 12"o.c. TRANSVERSE TOP #5 @ 16"o.c. TRANSVERSE BOTT	SEE LIGHT WELL RETAINING WALL SECTION FOR REINF. INFORMATION

NOTES:
A SOIL INVESTIGATION IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND OTHER CONTRACTORS AS NECESSARY. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR EXCAVATING AS NECESSARY TO COMPLETE WORK IN ACCORDANCE WITHCONSTRUCTION DOCUMENTS. IF ROCK OR OTHER MATERIALS ARE ENCOUNTERED IT IS THE RESPONSIBILITY TO EXCAVATE THE AREAS AT NO ADDITIONAL COST TO THE OWNER.



LIGHT WELL RETAINING WALL SECTION

3/4"=1'-0"



FOUNDATION PLAN

1/8"=1'-0"

JAMES S. CARR AIA & ASSOCIATES, LLC
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SEAL
NOT FOR CONSTRUCTION
JAMES S. CARR
REGISTERED ARCHITECT
RA007622X

DATE

PROJECT ARCH.	JSC
PROJECT MGR.	OAG
DRAWN BY	OAG
PROJECT NO.	15-001

DESCRIPTION	DATE
1 BIDDING SET	2015-03-10
2 ADDENDUM - 1	2015-03-17
3 ADDENDUM - 2	2015-03-24
4 ADDENDUM - 3	2015-04-15

ALTERATIONS AND ADDITIONS TO COVENANT PRESBYTERIAN CHURCH

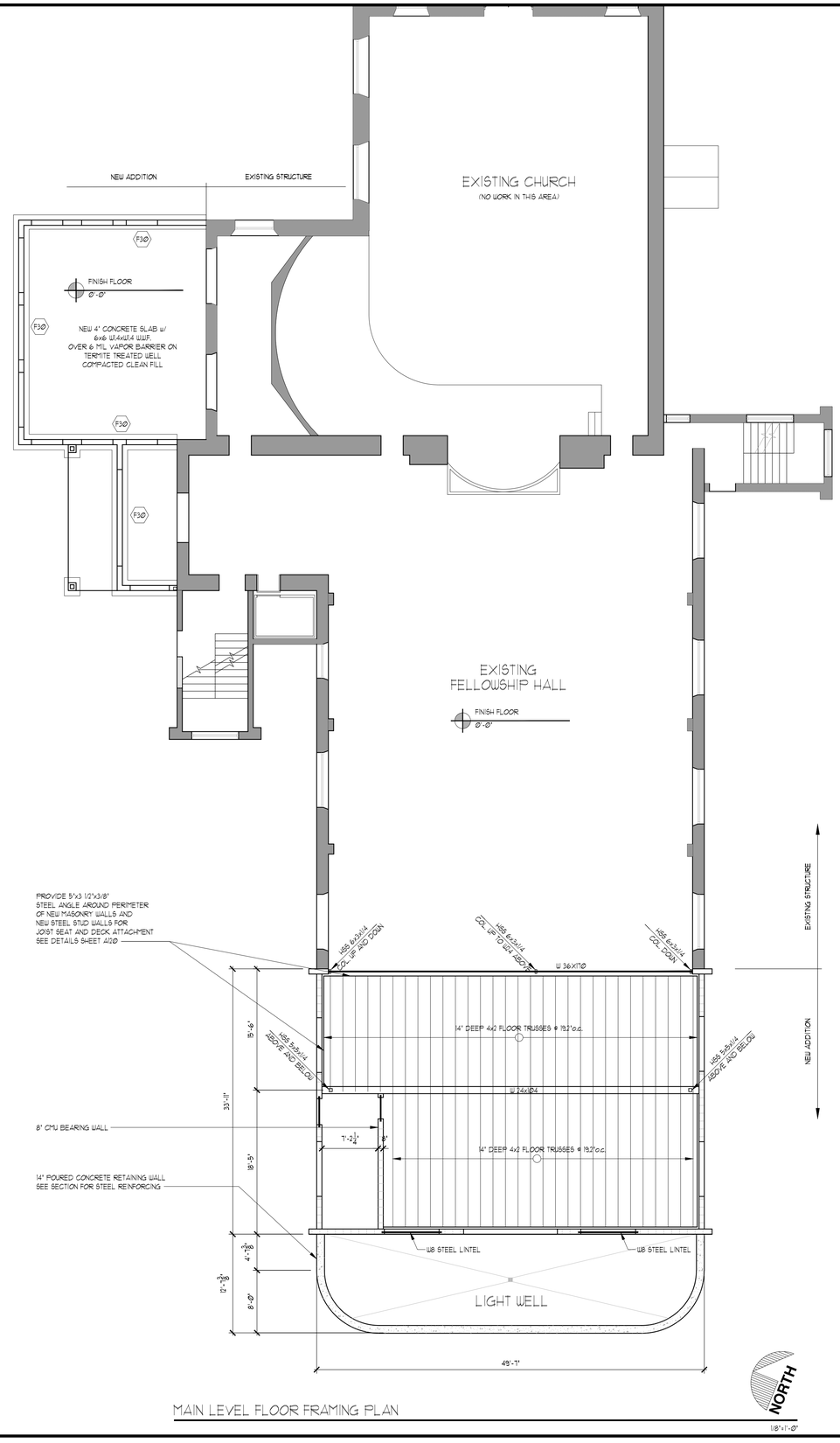
400 LANCASTER AVENUE, MALVERN, PA 19355

DWG.
S-100

FOOTING SCHEDULE

MK	SIZE W x D	REINFORCING	REMARKS
F30	30"x12"xCONTINUOUS	(4) #5 CONTINUOUS BOTT. (1) #4 @ 24"o.c. TRANSVERSE	
F48	48"x60"x14" ISOLATED PAD	(5) #5 EACH WAY BOTT.	
F88	88"x14" CONTINUOUS	(6) #8 CONTINUOUS TOP & BOTT. #5 @ 12"oc. TRANSVERSE TOP #5 @ 16"o.c. TRANSVERSE BOTT	SEE LIGHT WELL RETAINING WALL SECTION FOR REINF. INFORMATION

NOTES:
A SOIL INVESTIGATION IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND OTHER CONTRACTORS AS NECESSARY. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR EXCAVATING AS NECESSARY TO COMPLETE WORK IN ACCORDANCE WITHCONSTRUCTION DOCUMENTS. IF ROCK OR OTHER MATERIALS ARE ENCOUNTERED IT IS THE RESPONSIBILITY TO EXCAVATE THE AREAS AT NO ADDITIONAL COST TO THE OWNER.



MAIN LEVEL FLOOR FRAMING PLAN
1/8"=1'-0"

JAMES S. CARR AIA & ASSOCIATES, LLC
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SEAL
JAMES S. CARR
REGISTERED ARCHITECT
RA007224

CONSTRUCTION FOR

DATE

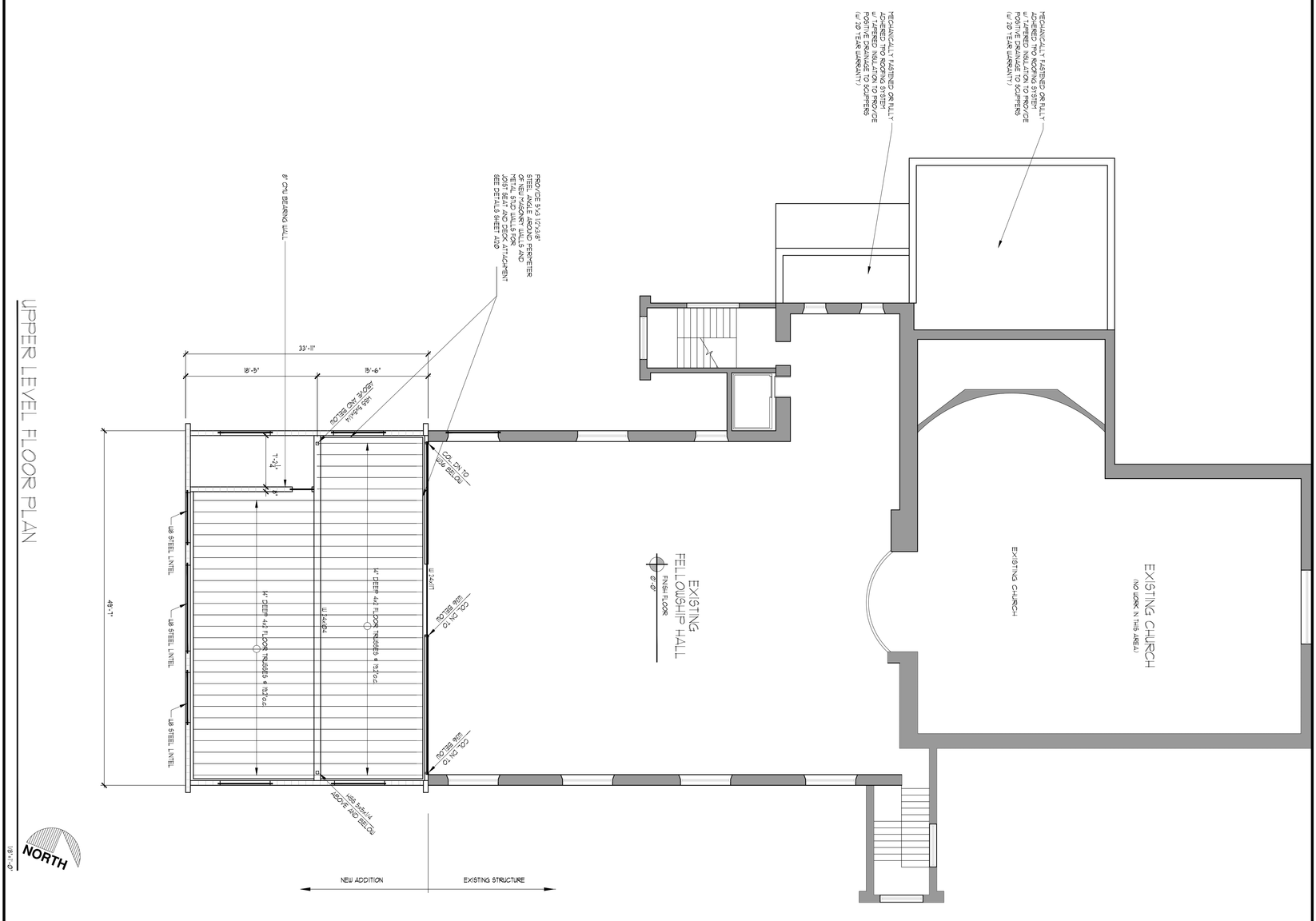
PROJECT ARCH. JSC
DRAWN BY OAG
PROJECT NO. 15-001

DESCRIPTION	DATE
1 ADDENDUM 1	2016-04-11
2 ADDENDUM 2	2016-04-27
3 ADDENDUM 3	2016-05-24
4 ADDENDUM 4	2016-06-03

ALTERATIONS AND ADDITIONS TO COVENANT PRESBYTERIAN CHURCH

400 LANCASTER AVENUE, MALVERN, PA 19355

DWG. S-101



TO THE BEST OF THE ARCHITECTS KNOWLEDGE THE PLANS AND SPECIFICATIONS COMPLY WITHIN THE APPLICABLE BUILDING CODES AND LOCAL MUNICIPAL ORDINANCES.

DWG. S-102

ALTERATIONS AND ADDITIONS TO COVENANT PRESBYTERIAN CHURCH

400 LANCASTER AVENUE, MALVERN, PA 19355

DATE	
PROJECT ARCH.	JSC
PROJECT MGR.	OGC
DRAWN BY	OAG
PROJECT NO.	15-001

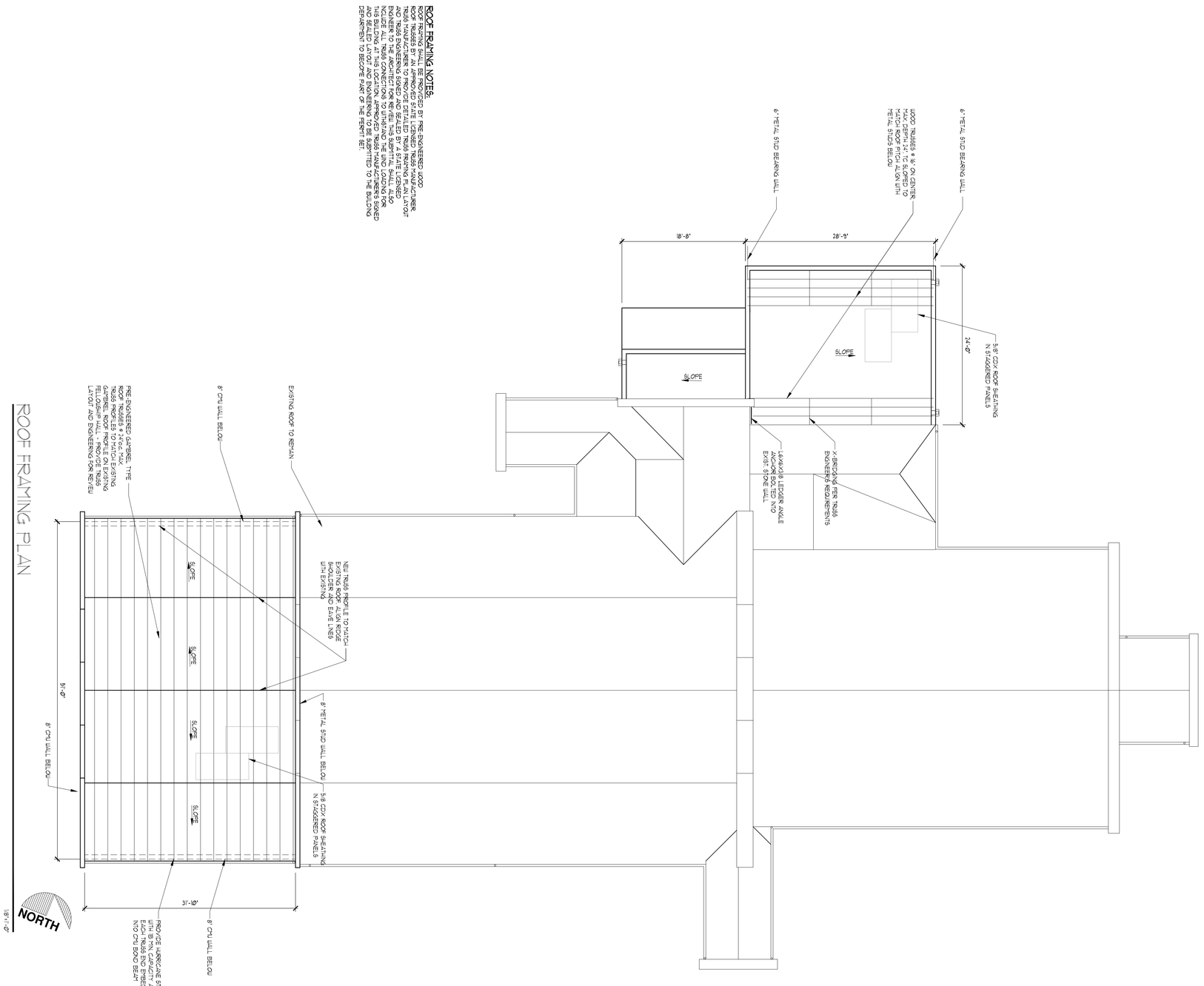
	DESCRIPTION	DATE
1	BIDDING SET	2015-06-10
2	ADDENDUM - 1	2015-06-17
3	ADDENDUM - 2	2015-06-24
4	ADDENDUM - 3	2015-06-26

SEAL

JAMES S. CARR
REGISTERED ARCHITECT
RA007622X

NOT FOR CONSTRUCTION

JAMES S. CARR AIA & ASSOCIATES, LLC
ARCHITECTS AND LAND PLANNERS
11 DALE LANE, MALVERN, PENNSYLVANIA 19355
PHONE (610) 296-5592 FAX (610) 296-9183



TO THE BEST OF THE ARCHITECTS KNOWLEDGE THE PLANS AND SPECIFICATIONS COMPLY WITHIN THE APPLICABLE BUILDING CODES AND LOCAL MUNICIPAL ORDINANCES.

DWG. S-103

ALTERATIONS AND ADDITIONS TO COVENANT PRESBYTERIAN CHURCH

400 LANCASTER AVENUE, MALVERN, PA 19355

DATE	
PROJECT ARCH	JSC
PROJECT MGR.	OGC
DRAWN BY	OAG
PROJECT NO.	15-001

	DESCRIPTION	DATE
1	BIDDING SET	2015-06-10
2	ADDENDUM - 1	2015-06-17
3	ADDENDUM - 2	2015-06-24
4	ADDENDUM - 3	2015-06-26

SEAL
JAMES S. CARR
REGISTERED ARCHITECT
RA007622X
NOT FOR CONSTRUCTION

JAMES S. CARR AIA & ASSOCIATES, LLC
ARCHITECTS AND LAND PLANNERS
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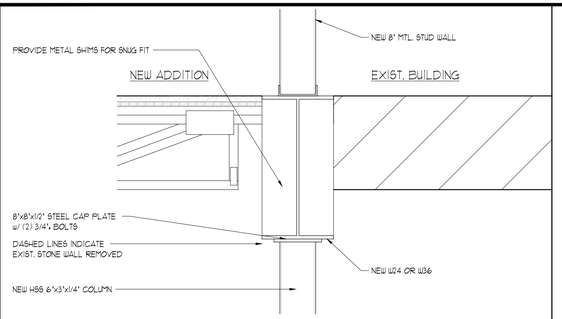
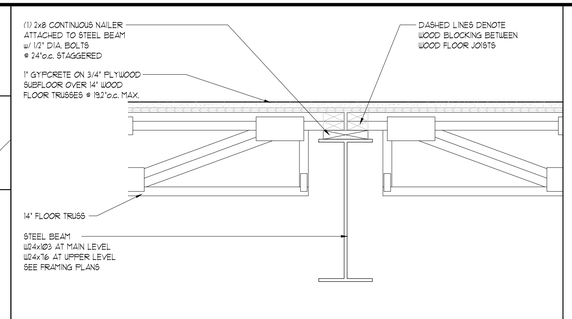


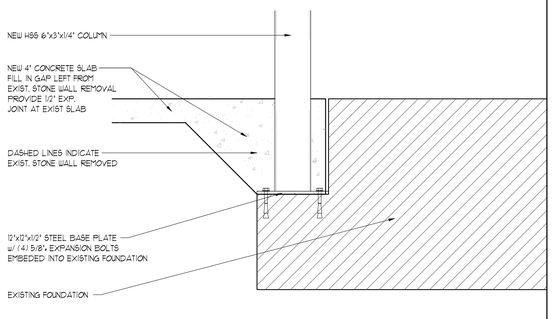
NOTE: CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO INSTALLATION OF NEW MATERIAL

9 S120 COLUMN BEAM CONNECTION
SUPPORT AT STONE WALL REMOVAL
NEW FELLOWSHIP HALL ADDITION
SCALE: 1"=1'-0"



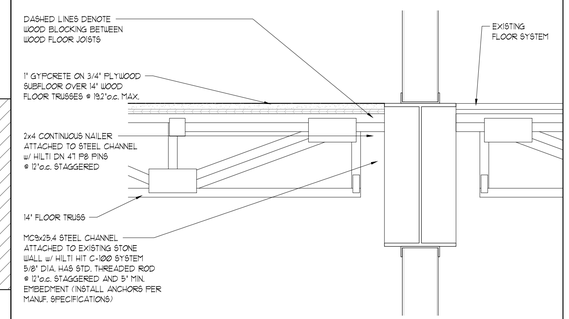
NOTE: PROVIDE WOOD BLOCKING BETWEEN ALL WOOD FLOOR TRUSSES

5 S120 FLOOR TRUSS CONNECTION DETAIL
MAIN AND UPPER LEVEL FLOOR FRAMING AT STEEL BEAM
NEW FELLOWSHIP HALL ADDITION
SCALE: 1"=1'-0"



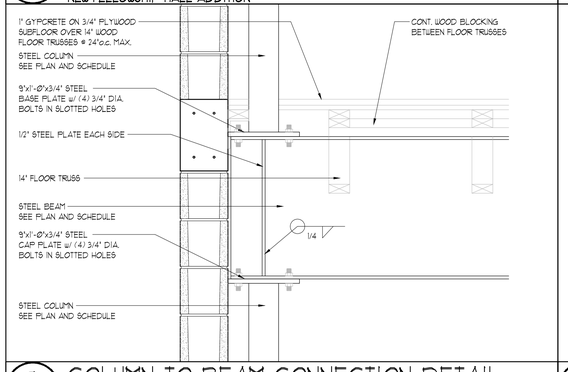
NOTE: CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO INSTALLATION OF NEW MATERIAL

8 S120 COLUMN BASE DETAIL
SUPPORT AT STONE WALL REMOVAL
NEW FELLOWSHIP HALL ADDITION
SCALE: 1"=1'-0"

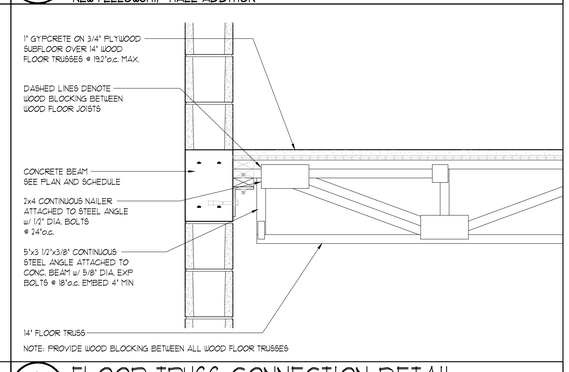


NOTE: PROVIDE WOOD BLOCKING BETWEEN ALL WOOD FLOOR TRUSSES

4 S120 FLOOR TRUSS CONNECTION DETAIL
MAIN AND UPPER LEVEL FLOOR FRAMING AT EXISTING STONE WALL
NEW FELLOWSHIP HALL ADDITION
SCALE: 1"=1'-0"

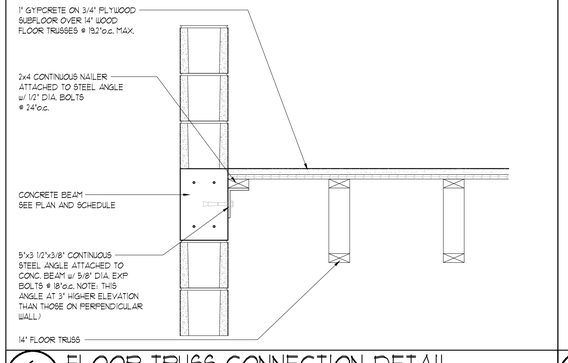


7 S120 COLUMN TO BEAM CONNECTION DETAIL
AT MAIN AND UPPER LEVEL FLOOR FRAMING
NEW FELLOWSHIP HALL ADDITION
SCALE: 1"=1'-0"

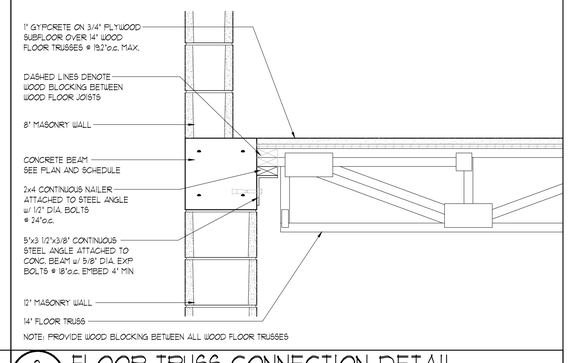


NOTE: PROVIDE WOOD BLOCKING BETWEEN ALL WOOD FLOOR TRUSSES

3 S120 FLOOR TRUSS CONNECTION DETAIL
UPPER LEVEL FLOOR FRAMING AT NEW EXTERIOR WALL
NEW FELLOWSHIP HALL ADDITION
SCALE: 1"=1'-0"

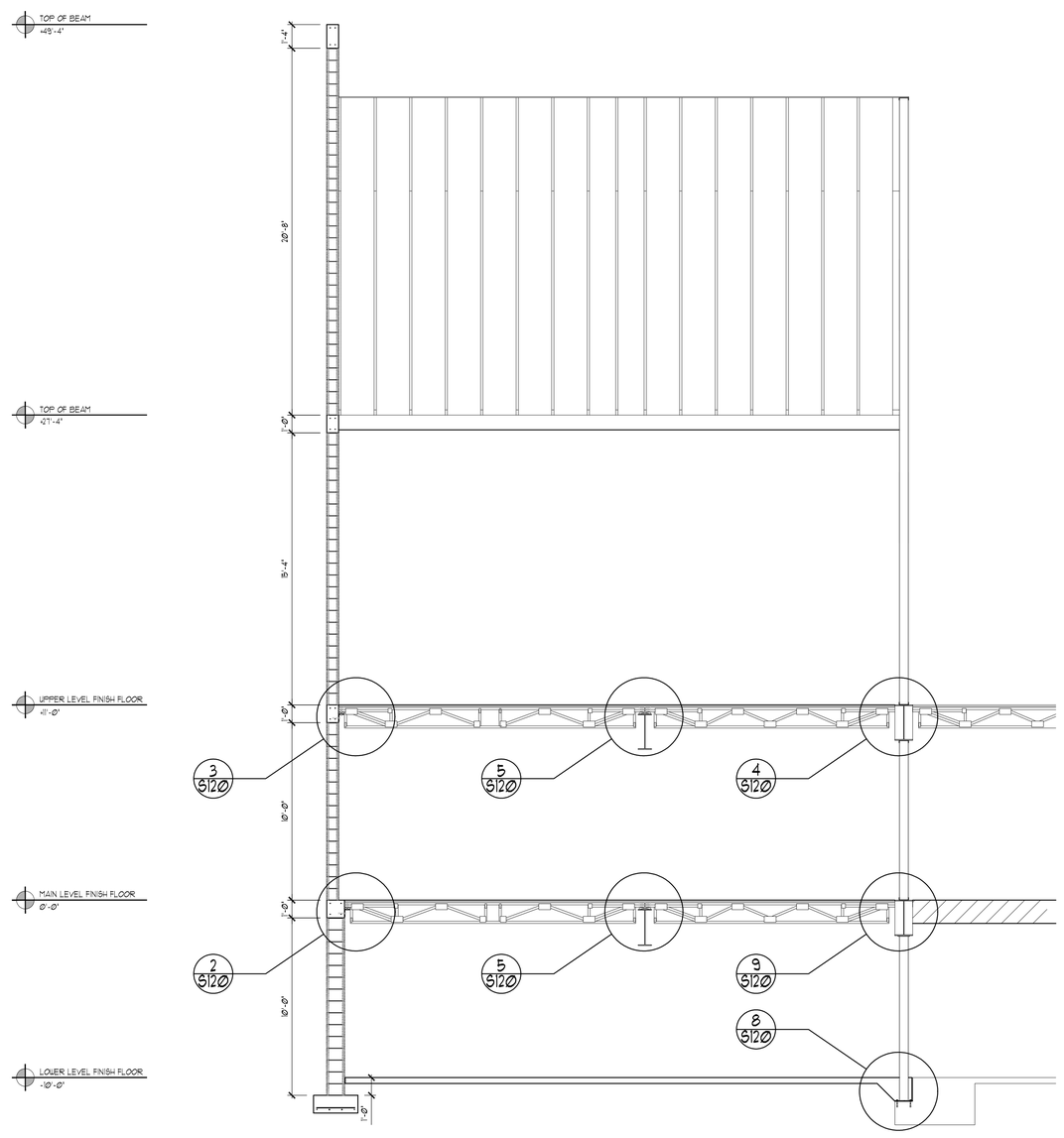


6 S120 FLOOR TRUSS CONNECTION DETAIL
MAIN AND UPPER LEVEL FLOOR DECK AT NEW EXTERIOR WALLS
NEW FELLOWSHIP HALL ADDITION
SCALE: 1"=1'-0"



NOTE: PROVIDE WOOD BLOCKING BETWEEN ALL WOOD FLOOR TRUSSES

2 S120 FLOOR TRUSS CONNECTION DETAIL
MAIN LEVEL FLOOR FRAMING AT NEW EXTERIOR BASEMENT WALL
NEW FELLOWSHIP HALL ADDITION
SCALE: 1"=1'-0"



1 S120 TRANSVERSE SECTION AT MASONRY WALLS
1/4"=1'-0"

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PHONE (610) 296-5592 FAX (610) 296-9183

SEAL
CONSTRUCTION
REGISTERED ARCHITECT
RA007229

DATE

PROJECT ARCH	JSC
DRAWN BY	OAG
CHK'D BY	JSC
PROJECT NO.	15-001

DESCRIPTION	DATE
1 ADDENDUM 1	2016-04-11
2 ADDENDUM 2	2016-05-17
3 ADDENDUM 3	2016-06-24
4 ADDENDUM 4	2016-08-03

ALTERATIONS AND ADDITIONS TO COVENANT PRESBYTERIAN CHURCH
400 LANCASTER AVENUE, MALVERN, PA 19355

DWG. S-120