

GENERAL NOTES

- IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF WHATEVER TEMPORARY BRACING, GUYS OR TIE-DOWNS MAY BE NECESSARY.
- DESIGN LIVE LOADS

ROOF	20 PSF
PRIVATE ROOMS	40 PSF
BALCONY	100 PSF
CORRIDORS/LANDINGS	100 PSF
STAIRS	100 PSF
MECH ROOMS	100 PSF
PUBLIC ROOMS	100 PSF
STORAGE ROOMS	100 PSF
SNOW LOAD	30 PSF
- DESIGN WIND LOAD SHALL BE BASED ON THE INTERNATIONAL BUILDING CODE 2006 REQUIREMENTS
 - BASIC WIND SPEED = 90 MPH
 - USE FACTOR = 1.0
 - EXPOSURE "C"
 - COMPONENTS & CLADDING PRESSURES: +2.84 & -3.356 PSF

FOUNDATIONS

- FOUNDATION DESIGN IS BASED ON AN ALLOWABLE SOIL BEARING PRESSURE OF 3000 PSF AS RECOMMENDED IN THE FOUNDATION INVESTIGATION PREPARED BY SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING SERVICES, INC. (PROJECT NO. 13G0138) APRIL 24, 2013.
- PLACE FOOTINGS/SLAB ON COMPACTED SOIL. FOLLOW RECOMMENDATIONS OF SOILS REPORT.

CAST IN PLACE CONCRETE

- ALL CONCRETE SHALL HAVE THE FOLLOWING MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS:

SLAB ON GRADE, FOOTINGS	3000 PSI
REMAINING CONCRETE	4000 PSI
- ALL CONCRETE SHALL HAVE A SLUMP OF 4" PLUS OR MINUS 1", AND HAVE 6% AIR ENTRAINMENT, AND A MAXIMUM WATER/CEMENT RATIO OF 0.58.
- CONCRETE MIX DESIGN SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ACI 301 CHAPTER 3, METHOD 1 OR METHOD 2. SUBMIT BACKUP DATA AS REQUIRED BY CHAPTER 5 SECTION 5.3. OF THE LATEST EDITION OF ACI 318.
- ALL REINFORCING STEEL SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL CONFORMING TO ASTM A-615 GRADE 60.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-105. WUF SHALL BE LAPPED AT LEAST 8" AND CONTAIN AT LEAST ONE CROSS WIRE WITHIN THE 8".
- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH "THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" ACI 318 LATEST EDITION, AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS," ACI 301.
- ALL REINFORCING DETAILS SHALL CONFORM TO "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" ACI 315 LATEST EDITION, UNLESS DETAILED OTHERWISE ON THE STRUCTURAL DRAWINGS.
- CONTRACTOR SHALL REVIEW ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF EMBEDDED ITEMS, SLEEVES, SLAB DEPRESSIONS, SLOPES, ETC. REQUIRED BY OTHER TRADES. THESE ITEMS SHALL BE FURNISHED AND INSTALLED PRIOR TO PLACEMENT OF CONCRETE.
- CONTRACTOR SHALL VERIFY LOCATIONS OF ALL OPENINGS, SLEEVES, ANCHOR BOLTS, INSERTS, ETC., AS REQUIRED BY OTHER TRADES BEFORE CONCRETE IS PLACED.
- WHERE BAR LENGTHS ARE GIVEN ON THE DRAWINGS, THE LENGTH OF ANY HOOK, IF REQUIRED, IS NOT INCLUDED. HOOKS SHALL BE PROVIDED AT DISCONTINUOUS ENDS OF ALL TOP BARS OF BEAMS AND AT SLABS EDGES.
- CONTRACTOR SHALL PROVIDE SPACERS, CHAIRS, BOLSTERS, ETC. NECESSARY TO SUPPORT REINFORCING STEEL. SUPPORT ITEMS WHICH BEAR ON EXPOSED CONCRETE SURFACES SHALL HAVE ENDS WHICH ARE PLASTIC TIPPED OR STAINLESS STEEL.

12. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:

- | | |
|--------|---|
| 3" | CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH. |
| 2" | CONCRETE EXPOSED TO EARTH OR WEATHER, #6 THROUGH #8 BARS. |
| 1 1/2" | CONCRETE EXPOSED TO EARTH OR WEATHER, #5 BAR AND SMALLER. |
| 1 1/2" | CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH EARTH FOR THE PRIMARY REINFORCEMENT, TIES, STIRRUPS, AND SPIRALS IN BEAMS AND COLUMNS. |
| 3/4" | CONCRETE NOT EXPOSED TO WEATHER NOR IN CONTACT WITH EARTH FOR SLABS, WALLS, AND JOISTS, #1 BAR AND SMALLER. |

- HORIZONTAL WALL AND FOOTING BARS SHALL BE BENT 1'-0" AROUND CORNERS OR CORNER BARS WITH 2'-0" LAP SHALL BE PROVIDED.

- HORIZONTAL KEYWAYS IN CONSTRUCTION JOINTS SHALL BE PROVIDED IN BEAMS, SUPPORTED SLABS, AND WALL FOOTINGS WITH A DEPTH OF 1-1/2" AND HEIGHT EQUAL TO ONE-THIRD OF THE MEMBER'S DEPTH. REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS UNLESS OTHERWISE NOTED ON THE DRAWINGS. CONSTRUCTION JOINTS MAY BE USED ONLY AT LOCATIONS SHOWN ON THE DRAWINGS OR AT OTHER LOCATIONS APPROVED BY THE ARCHITECT.

- MINIMUM LAP SPLICES ON ALL REINFORCING BAR SPLICES SHALL BE 48 BAR DIAMETERS TYP. EXCEPT WHERE OTHERWISE NOTED ON THE DRAWINGS. FOR BEAMS AND ELEVATED SLABS, LAP BOTTOM STEEL AT THE SUPPORT AND TOP STEEL OVER THE MIDSPAN, UNLESS OTHERWISE NOTED.

- TESTING LABORATORY SHALL SUBMIT ONE COPY OF ALL CONCRETE TEST REPORTS DIRECTLY TO THE ENGINEER.

MASONRY WALL CONSTRUCTION

- HOLLOW LOAD BEARING UNITS SHALL BE NORMAL WEIGHT, GRADE N, TYPE 2, CONFORMING TO ASTM C90, WITH A MINIMUM NET COMPRESSIVE STRENGTH OF 2000 PSI (f'm = 1500 PSI).
- MORTAR SHALL BE TYPE M OR S, CONFORMING TO ASTM C270.
- COURSE GROUT SHALL CONFORM TO ASTM C476 WITH A MAXIMUM AGGREGATE SIZE OF 3/8" AND A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI.
- VERTICAL REINFORCEMENT SHALL BE AS NOTED ON THE DRAWINGS WITH CELLS FILLED WITH COARSE GROUT.
- VERTICAL REINFORCEMENT SHALL BE HELD IN POSITION AT THE TOP AND BOTTOM AND AT A MAXIMUM SPACING OF 8'-0". REINFORCEMENT SHALL BE PLACED IN THE CENTER OF THE MASONRY CELL TYPICAL UNLESS OTHERWISE NOTED. SEE TYPICAL GROUTING DETAILS FOR ADDITIONAL INFORMATION.
- REINFORCING STEEL SHALL BE LAPPED MINIMUM 30 BAR DIAMETERS WHERE SPLICED AT FOUNDATIONS OR FLOORS, OTHERWISE MINIMUM LAP IS 48 DIAMETERS, UNLESS NOTED OTHERWISE ON THE DRAWINGS.

- HORIZONTAL WALL REINFORCEMENT SHALL BE STANDARD TRUSS TYPE DUR-O-WAL AT 16" O.C., UNLESS SHOWN OTHERWISE ON THE DRAWINGS.
- SPLICED WIRE REINFORCEMENT SHALL BE LAPPED AT LEAST 6" AND CONTAIN AT LEAST ONE CROSS WIRE OF EACH PIECE OF REINFORCEMENT WITHIN THE 6". LAP WITH STANDARD 'T' AND 'L' SHAPED PIECES AT INTERSECTIONS AND CORNERS.
- WHEN A FOUNDATION DOUCEL DOES NOT LINE UP WITH A VERTICAL CORE, IT SHALL NOT BE SLOPED MORE THAN ONE HORIZONTAL IN SIX VERTICALS. DOUELS SHALL BE GROUTED INTO A CORE IN VERTICAL ALIGNMENT, EVEN THOUGH IT IS IN AN ADJACENT CELL TO THE VERTICAL WALL REINFORCEMENT.
- PROVIDE PRECAST CONCRETE LINTELS OVER ALL OPENINGS UNLESS NOTED OTHERWISE ON DRAWINGS. LINTELS SHALL BE OF SUFFICIENT SIZE AND REINFORCEMENT FOR THE GIVEN SPANS AND LOADING CONDITIONS. SUBMIT SHOP DRAWINGS WITH RATED LOAD CAPACITIES TO THE ARCHITECT FOR REVIEW.

- PROVIDE A KNOCK OUT BLOCK OR U-BLOCK REINFORCED WITH 1 #5 CONTINUOUS AT THE SILL OF ALL WINDOW OPENINGS. EXTEND 16" BEYOND EACH SIDE OF THE OPENING TYPICALLY.

STRUCTURAL STEEL

- STRUCTURAL STEEL SHALL CONFORM TO THE AISC "SPECIFICATIONS FOR DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", LATEST EDITION.
- WELDED CONNECTIONS SHALL CONFORM TO THE LATEST REVISED CODE OF THE AMERICAN WELDING SOCIETY, AWS D11.
- BOLTS AND BOLTED CONNECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS" AS APPROVED BY THE COUNCIL ON RIVETED AND BOLTED JOINTS. USE BEARING TYPE BOLTS WITH THREADS ALLOWED ACROSS THE SHEAR PLANE. ANCHOR BOLTS SHALL CONFORM TO ASTM A-36.
- ALL BEAM CONNECTIONS SHALL BE STANDARD DOUBLE ANGLE TYPE UNLESS DETAILED OTHERWISE. FOR DESIGN OF STANDARD CONNECTIONS THE LARGER OF EITHER SHEAR SHOWN ON DRAWING OR 55% OF THE TOTAL LOAD CAPACITY, DERIVED FROM THE UNIFORM LOAD CONSTANT TABLES, PART 2, EIGHTH EDITION OF THE AISC CODE WHICHEVER IS GREATER. IN NO CASE SHALL THE ANGLE SIZE AND MINIMUM NUMBER OF ROWS OF BOLTS FOR THE GIVEN BEAM SIZE BE LESS THAN THAT SHOWN IN TABLE I, PART 4 OF THE SEVENTH EDITION OF THE AISC CODE.
- STRUCTURAL STEEL SHAPES, PLATES, ETC. SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-36, UNLESS NOTED OTHERWISE. STEEL TUBES SHALL BE 46 KSI STEEL CONFORMING TO ASTM A-500.
- IN GENERAL, IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS THAT ALL SHOP CONNECTIONS BE WELDED OR BOLTED AND ALL FIELD CONNECTIONS BE BOLTED EXCEPT WHERE NOTED OTHERWISE.

- VERIFY THE EXACT LOCATION AND SIZE OF ALL ROOF AND FLOOR OPENINGS FOR MECHANICAL EQUIPMENT WITH THE MECHANICAL CONTRACTOR PRIOR TO FABRICATION OF MATERIALS. SEE TYPICAL DETAIL FOR FRAMING AROUND OPENINGS.

- ALL STEEL BEAMS SHALL BE FABRICATED WITH THE NATURAL CAMBER (WITHIN THE MILL TOLERANCE) LOCATED ABOVE THE HORIZONTAL CENTERLINE BETWEEN THE END CONNECTIONS.

- STEEL SHAPES, PLATES, ETC. WHICH ARE EXPOSED TO WEATHER SHALL BE GALVANIZED.

- PROVIDE ONE COAT OF STANDARD SHOP PAINT ON ALL UNGALVANIZED PIECES EXCEPT AT AREAS TO BE FIELD WELDED.

- TOUCH UP FIELD WELDS AND ANY DAMAGED AREAS OF PAINT IN FIELD AFTER WELDING. (USE GALVANIZING PAINT FOR TOUCH UP OF GALVANIZED STEEL).
- HEADED STUDS SHALL BE NELSON TYPE OR EQUAL. WELD HEADED STUDS TO EMBEDDED PLATES TO DEVELOP THE FULL TENSION CAPACITY OF THE STUD.

- ALL WELDS SHALL BE VISUALLY INSPECTED BY AN APPROVED LICENSED TESTING COMPANY. SEE SPECIFICATIONS FOR ADDITIONAL TESTING REQUIREMENTS.

- ALL STEEL TO STEEL CONNECTIONS NOT SHOWN BOLTED SHALL BE WELDED TO DEVELOP FULL SHEAR CAPACITY OF CONNECTING MEMBERS AS PER AISC SPECIFICATIONS. MINIMUM SIZE OF FILLET WELD (UNLESS NOTED OTHERWISE ON DRAWINGS):

MATERIAL THICKNESS OF THICKER PART JOINED	MINIMUM SIZE OF FILLET WELD
TO 1/4" INCLUSIVE	1/8" ALL AROUND
1/4" TO 1/2"	3/16" ALL AROUND
OVER 1/2" TO 3/4"	1/4" ALL AROUND
OVER 3/4" TO 1 1/2"	5/16" ALL AROUND

WOOD CONSTRUCTION

- WOOD CONSTRUCTION SHALL CONFORM TO THE NFPA "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION", LATEST EDITION.
- ALL WALL STUDS AND MISC. WOOD FRAMING SHALL BE NO.2 SOUTHERN YELLOW PINE. STUDS FOR LOAD BEARING WALLS SHALL BE AS FOLLOWS:

FIRST FLOOR	2-2x6 @ 16" O.C. // 10d NAIL @ 10" O.C. (UNO)
SECOND FLOOR	2-2x6 @ 16" O.C. // 10d NAIL @ 10" O.C. (UNO)
THIRD FLOOR	2x6 @ 16" O.C. (UNO)
FORTH FLOOR	2x6 @ 16" O.C. (UNO)
FIFTH FLOOR	2x6 @ 16" O.C. (UNO)

ALL THE EXTERIOR STUD WALL MEMBERS SHALL BE FIRE RETARDANT TREATED, ALL THE INTERIOR STUD SHALL BE REGULAR WOOD STUD.
ALL NON-LOAD BEARING PARTITIONS SHALL CONSIST OF 2x4 OR 2x6 STUDS SPACED AT 16" O.C. DEPENDING ON LOCATION. STUDS DO NOT NEED TO BE DOUBLED AT THE FIRST FLOOR FOR NON-LOAD BEARING PARTITIONS ONLY.

- PLACE A SINGLE PLATE AT THE BOTTOM AND A TRIPLE PLATE AT THE TOP OF ALL STUD WALLS AT FIRST FLOOR. 2x SOLE PLATES AT THE EDGES OF SLABS SHALL BE ATTACHED TO THE SLAB WITH 1/2" DIA. EPOXY ANCHORS, WITH 4" EMBEDMENT, WITH 1 1/2" DIA WASHER, AT 32" ON CENTER, OR 1/2" DIA ANCHORS, WITH 1" EMBEDMENT, WITH 1 1/2" DIA WASHER, AT 32" ON CENTER, AT INTERIOR STUD WALLS PROVIDE EITHER RED HEAD 1516SDC (WITH 2 1/2" LENGTH) POWDER DRIVEN FASTENERS WITH 1 1/2" DIA WASHER AT 8" ON CENTER, OR 1/2" DIA EXPANSION ANCHORS, WITH 4" EMBEDMENT, WITH 1 1/2" DIA WASHER, AT 32" ON CENTER, OR 1/2" DIAMETER ANCHORS WITH 6" EMBEDMENT WITH 1 1/2" WASHER, AT 32" ON CENTER, ALL OTHER SUBSTITUTIONS MUST BE APPROVED BY ARCHITECT PRIOR TO INSTALLATION.

- ALL WOOD IN CONTACT WITH CONCRETE OR EXPOSED TO WEATHER SHALL BE PRESSURE TREATED. PROVIDE GALVANIZED NAILS AND FASTENERS IN PRESSURE TREATED LUMBER.

- STUDS SHALL BE TRIPLED AT ALL ANGLES, CORNERS AND AROUND ALL OPENINGS.

- WHERE WOOD BEAMS/HEADERS ABOUT WOOD COLUMNS, PROVIDE SIMPSON "H4UC" CONNECTORS WITH ALL NAILS SPECIFIED BY THE MANUFACTURER.

- WALL SHEATHING SHALL BE: (SEE SHEAR WALL SCHEDULE BELOW FOR REQUIREMENTS AT SHEAR WALLS.)

AT INTERIOR BEARING WALLS PROVIDE 1/2" OR 5/8" GYPSUM WALLBOARD (SEE ARCH DRAWINGS FOR LOCATIONS) EACH SIDE OF STUDS, NAILED WITH 6d COOLER NAILS AT 1' O.C. AT ALL SUPPORTS PROVIDE SOLID 2x BLOCKING AT ALL SHEET EDGES. BLOCKING IS NOT REQUIRED AT NON-LOAD BEARING PARTITIONS.

AT EXTERIOR WALLS SHEATH THE INTERIOR FACE OF WALLS WITH GYPSUM WALLBOARD AS NOTED ABOVE FOR INTERIOR WALLS. SHEATH THE EXTERIOR FACE OF WALLS WITH 1/2" C-DX PLYWOOD WITH FIRE RETARDANT TREATED, NAILED WITH 8d NAILS AT 6" O.C. AT ALL EDGE AND INTERMEDIATE SUPPORTS. PROVIDE SOLID DOUBLE 2x BLOCKING AT ALL SHEET EDGES. LAY UP ALL EXTERIOR WALL SHEATHING PER SHEARWALL SCHEDULE NOTE 5.

- FLOOR SHEATHING IS 3/4" TONGUE AND GROOVE C-C PLYWOOD, OR 3/4" OSB, GLUED AND NAILED WITH 10d NAILS AT 6" O.C. AT SUPPORTED EDGES, AND 10d NAILS AT 12" O.C. AT INTERMEDIATE SUPPORTS. ALL SHEATHING AT BALCONY SHALL BE PRESSURE TREATED. PROVIDE GALVANIZED NAILS AND FASTENERS IN PRESSURE TREATED LUMBER.

- ROOF SHEATHING SHALL BE 5/8" CDX PLYWOOD, NAILED TO TRUSSES BELOW SEE ROOF SHEATHING NAILING SCHEDULE FOR NAIL PATTERN. PROVIDE ONE PLYWOOD CLIP PER SPAN BETWEEN SHEET EDGES FOR 24" SPAN. PROVIDE TWO PLYWOOD CLIP PER SPAN BETWEEN SHEET EDGES FOR 48" SPAN. PROVIDE SOLID 2x BLOCKING BETWEEN SUPPORTS AT ALL HIPS, RIDGES, VALLEYS, AND CHANGES IN ROOF SLOPE.

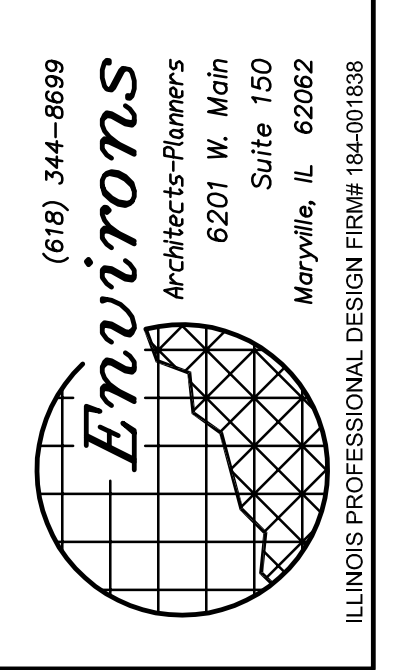
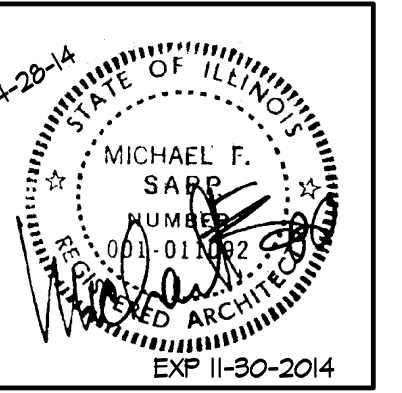
- ALL LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED GRADING AGENCY.

- NAILING SCHEDULE:

CONNECTION	COMMON NAIL	NUMBER OR SPACING
SOLE PLATE TO TRUSS OR BLOCKING	16d	8" O.C.
STUD TO SOLE PLATE, TOE NAIL	8d	4
DOUBLE STUDS, FACE NAIL	16d	12" O.C.
DOUBLE TOP PLATES, FACE NAIL	16d	12" O.C.
TOP PLATES LAPS AND INTERSECTIONS	16d	3
TRUSSES, LAPS OVER WALLS, FACE NAIL	16d	4
BUILT-UP CORNER STUDS	16d	12" O.C.
STUDS TO SOLE PLATE, END NAIL	16d	2

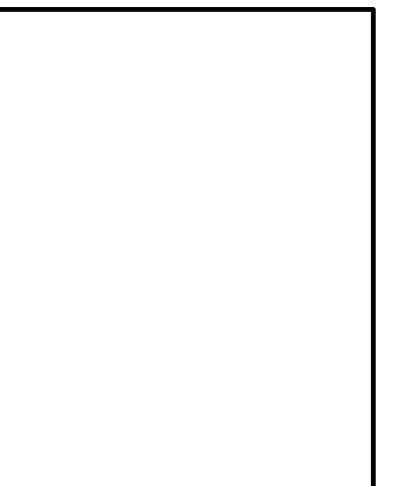
- WHERE NAILING INTO PRESSURE TREATED WOOD, NAILS MUST BE HOT DIPPED GALVANIZED TO AVOID CORROSION.

WATERPROOFING FOR THIS BUILDING IS THE SOLE RESPONSIBILITY OF THE BUILDER/CONTRACTOR/ARCHITECT, HENCE NO DETAILS OF FLASHING, FLOOR SLOPE AND STEP, NOR ANY OTHER WATERPROOFING MEASURES HAVE BEEN INCLUDED IN OUR DRAWINGS. IF SLOPE AND FLOOR STEPS ARE SHOWN ON OUR DRAWINGS, THEY SHALL BE USED ONLY AS A REFERENCE. FLOOR SLOPE AND STEPS SHALL FOLLOW ARCHITECTURAL DRAWINGS.



JOB NO.
13022


DATE:
DECEMBER 11, 2013
REVISED:
FEBRUARY 20, 2014
PRECAST OPTION
APRIL 28, 2014




A NEW APARTMENT BUILDING 'C':
CARDINAL SQUARE APARTMENTS
McKINLEY + ANTHONY AVE. MUNDELEIN, ILLINOIS
STRUCTURAL NOTES

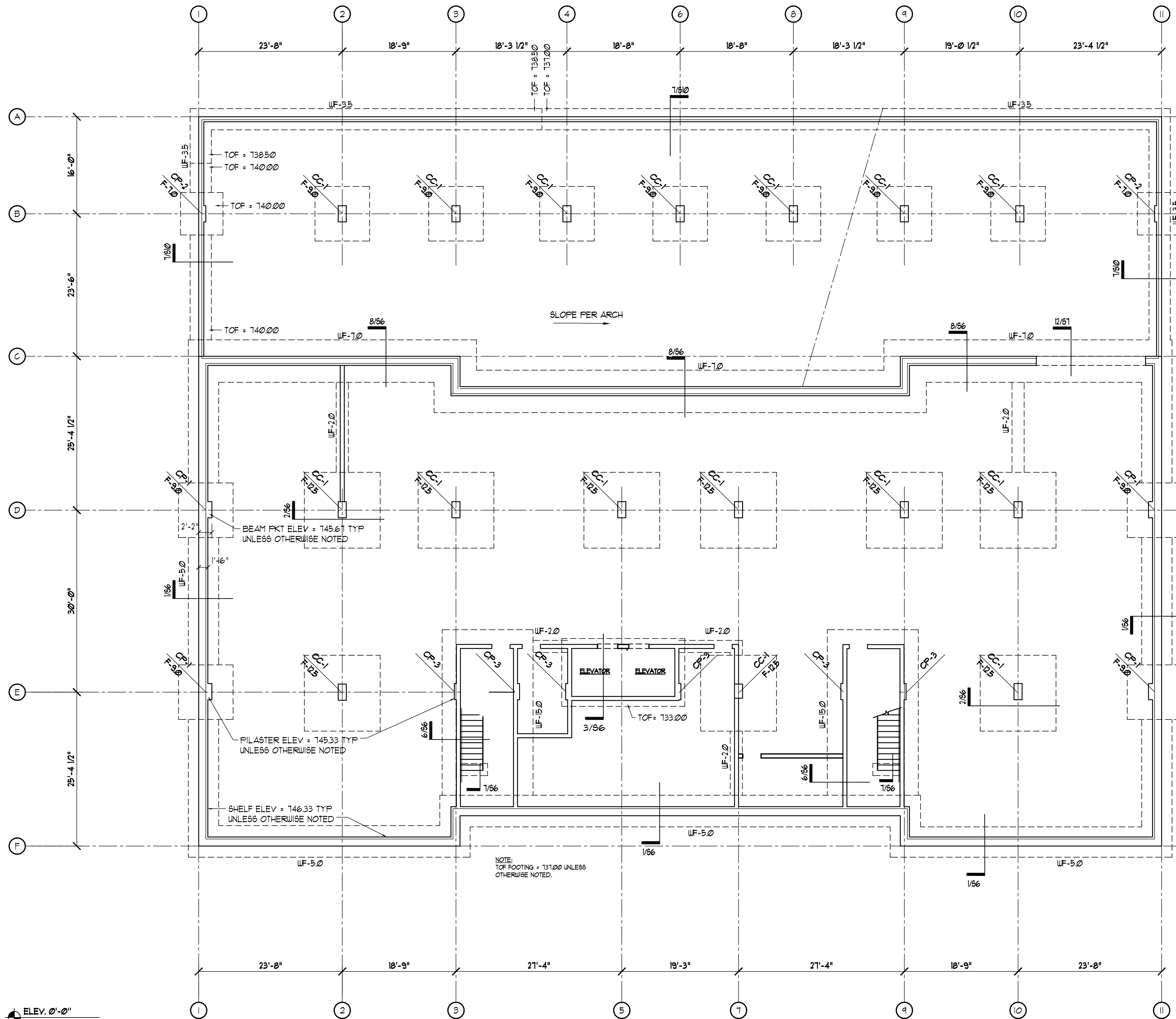
SHEET
50
OF 13

PLAN NOTES:

- 1 SEE SHEET 90 FOR GENERAL NOTES.
- 2 DO NOT SCALE DRAWINGS. SEE ARCH'L. DRAWINGS FOR ADDITIONAL DIMENSIONS NOT SHOWN. VERIFY ALL DIMENSIONS WITH ARCH'L. DRAWINGS PRIOR TO START OF CONSTRUCTION. IF DISCREPANCIES SHOULD OCCUR - CONTACT THE ARCHITECT IN WRITING FOR CLARIFICATION BEFORE PROCEEDING.
- 3 PROVIDE CORNER BARS WHERE ALL FOOTINGS AND / OR TURN DOWN SLAB EDGES CHANGE DIRECTION AND AT FOOTINGS AND / OR TURN DOWN SLAB EDGE INTERSECTIONS. SEE DETAIL SHEET FOR FURTHER INFORMATION.
- 4  INDICATES 10" CONCRETE BEARING WALLS REINFORCED WITH #5 @ 12" O.C. EA FACE VERTICALLY AND #4 @ 12" O.C. HORIZONTALLY EA FACE OF WALL, PLACE (6) ADDITIONAL #5 VERTICALLY AT EACH WALL END AND EA SIDE OF OPENING.

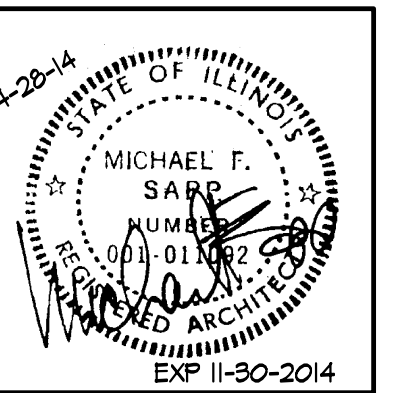
 INDICATES 8" CAST-IN-PLACE WALL REINFORCED WITH #4 @ 12" O.C. VERTICALLY AND #4 @ 12" O.C. HORIZONTALLY AT CENTER OF WALL, PLACE (3) ADDITIONAL #5 VERTICALLY AT EACH WALL END AND EA SIDE OF OPENING.
- 5 SEE ARCH'L. DRAWINGS FOR LOCATION / LIMITS AND CONSTRUCTION INFORMATION OF INTERIOR NON-BEARING PARTITION WALLS NOT SHOWN ON PLAN. (SEE 50 FOR ADDITIONAL WALL FRAMING INFORMATION)
- 6 STEEL STAIR. SEE ARCH'L. DRAWINGS FOR STAIR CONSTRUCTION INFORMATION AND GEOMETRY. FOR ATTACHMENT / SUPPORT THERE OF, COORDINATE WITH STEEL STAIR MANUFACTURER / SUPPLIER'S APPROVED SHOP DRAWINGS.
- 7 FIRST FLOOR CONSTRUCTION: 4" (TOTAL) CONCRETE SLAB REINFORCED WITH 6x6-W2.W2.1 W.W.F. OVER 6 MIL VAPOR BARRIER ON COMPACTED SUBGRADE. COORDINATE ANY AND ALL SLAB SLOPES, DEPRESSIONS AND LIMITS THERE OF WITH ARCH'L. DRAWINGS (FOR ACTUAL TOP OF SLAB ELEVATIONS, SEE ARCH'L. AND / OR CIVIL DRAWINGS)
- 8 THE MAXIMUM SPACING OF SLAB CONTROL JOINTS FOR ENCLOSED / INTERIOR AREAS SHALL NOT EXCEED 20' +/- O.C (EACH WAY) AND FOR OUTSIDE / EXTERIOR AREAS SHALL NOT EXCEED 10' +/- O.C. C.G. SHALL SUBMIT PROPOSED CONTROL JOINTS LOCATION.
- 9 COORDINATE SLAB RECESSES, SLOPES AND ELEVATIONS W/ ARCHITECTURAL DRAWINGS
- 10 CC-1: PRE-CAST CONCRETE COLUMN - DESIGN BY OTHERS
 CP-1: 26x32 CONC PILASTER W/ (10) #1 VERT. AND #3 TIES AT 10" O.C.
 CP-2: 14x32 CONC PILASTER W/ (8) #1 VERT. AND #3 TIES AT 10" O.C.
 CP-3: 12x32 CONC PILASTER W/ (8) #1 VERT. AND #3 TIES AT 10" O.C.
 CP-4: 18x32 CONC PILASTER W/ (8) #1 VERT. AND #3 TIES AT 10" O.C.
- 11 COORDINATE STEP FOOTING LOCATION W/ ARCHITECTURAL DRAWINGS STEP FOOTING DETAIL SEE 9/66.

FOOTING SCHEDULE		
MARK	SIZE	REINFORCEMENT BOTTOM
	WIDTH x LENGTH x DEPTH	
UF-2.0	2'-0" x CONT x 1'-0"	(3) #5 CONT. LONG WAY #5 @ 48" O.C. SHORT WAY
UF-3.5	3'-6" x CONT x 1'-0"	(4) #5 CONT. LONG WAY #5 @ 16" O.C. SHORT WAY
UF-5.0	5'-0" x CONT x 1'-0"	(5) #5 CONT. LONG WAY #5 @ 8" O.C. SHORT WAY
UF-1.0	1'-0" x CONT x 1'-2"	(7) #5 CONT. LONG WAY #5 @ 6" O.C. SHORT WAY
UF-15.0	15'-0" x CONT x 1'-2"	(15) #5 CONT. LONG WAY #5 @ 6" O.C. SHORT WAY
F-1.0	1'-0" x 1'-0" x 1'-8"	(8) #1 EACH WAY
F-9.0	9'-0" x 9'-0" x 1'-8"	(10) #1 EACH WAY
F-12.5	12'-6" x 12'-6" x 2'-4"	(14) #1 EACH WAY



FOUNDATION PLAN
SCALE: 1/8" = 1'-0"

ELEV. 0'-0"
T/CONC. SLAB
PER PLAN AND SECTION
T/FOOTINGS



Environ
Architects-Planners
6201 W. Main
Suite 150
Mareville, IL 62062
ILLINOIS PROFESSIONAL DESIGN FIRM 984-001838

JOB NO.
13022
DATE:
DECEMBER 11, 2013
REVISED:
FEBRUARY 20, 2014
APRIL 28, 2014
PRECAST OPTION



SHRINAY
SHRINAY CORPORATION
WWW.SHRINAY.COM
TEL - 847-754-1064

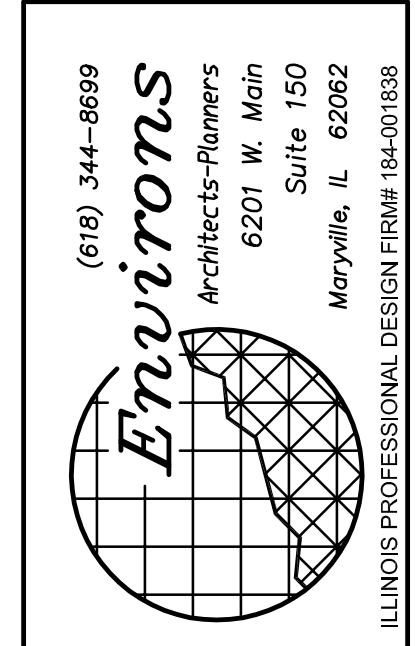
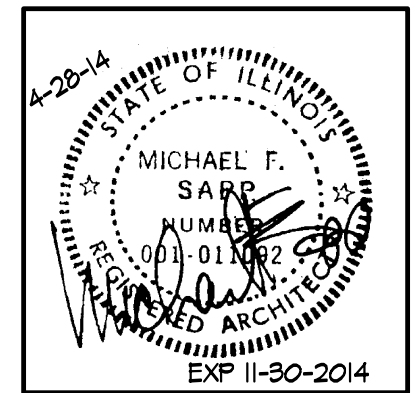
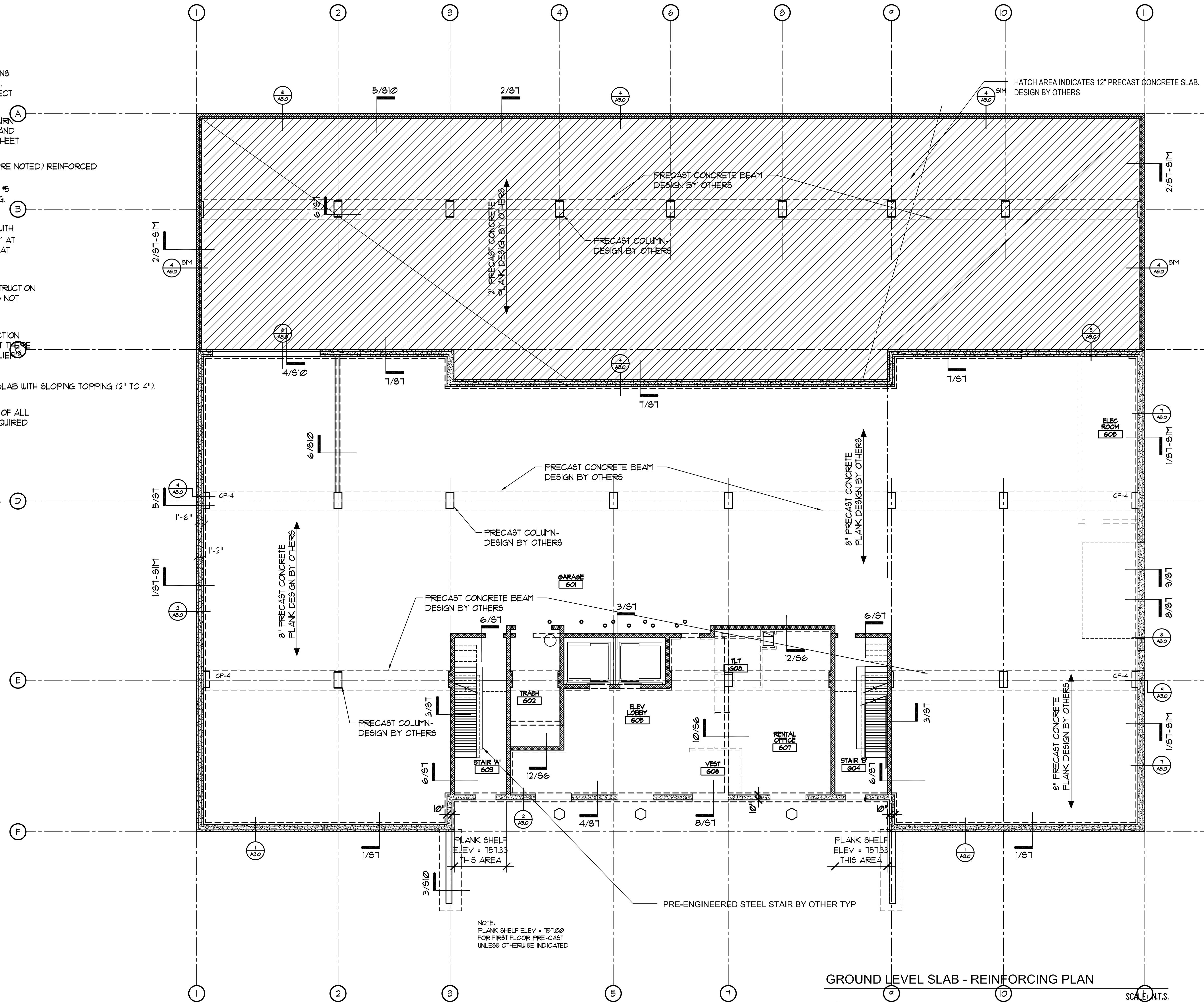
A NEW APARTMENT BUILDING 'C':
CARDINAL SQUARE APARTMENTS
McKINLEY + ANTHONY AVE.
MUNDELEIN, ILLINOIS
LOWER LEVEL FOUNDATION PLAN

SHEET
91
OF 13

© 2013 ENVIRON ARCHITECTS-PLANNERS ALL RIGHTS RESERVED.

PLAN NOTES:

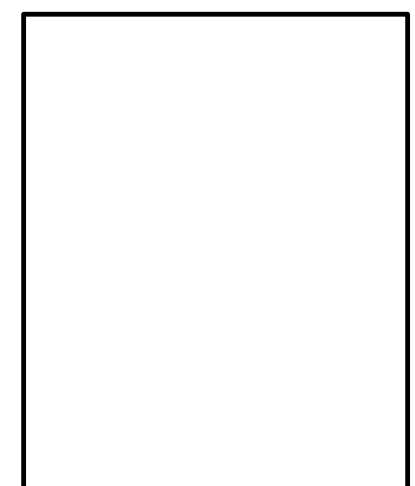
- 1 SEE SHEET S0 FOR GENERAL NOTES.
- 2 DO NOT SCALE DRAWINGS. SEE ARCH'L. DRAWINGS FOR ADDITIONAL DIMENSIONS NOT SHOWN. VERIFY ALL DIMENSIONS WITH ARCH'L. DRAWINGS PRIOR TO START OF CONSTRUCTION. IF DISCREPANCIES SHOULD OCCUR - CONTACT THE ARCHITECT IN WRITING FOR CLARIFICATION BEFORE PROCEEDING.
- 3 PROVIDE CORNER BARS WHERE ALL FOOTINGS AND / OR TURN DOWN SLAB EDGES CHANGE DIRECTION AND AT FOOTINGS AND / OR TURN DOWN SLAB EDGE INTERSECTIONS. SEE DETAIL SHEET FOR FURTHER INFORMATION.
- 4  INDICATES 1'-2" CONCRETE BEARING WALLS (10' WHERE NOTED) REINFORCED WITH #5 @ 12" O.C. EA FACE VERTICALLY AND #4 @ 12" O.C. HORIZONTALLY EA FACE OF WALL, PLACE (6) ADDITIONAL #5 VERTICALLY AT EACH WALL END AND EA SIDE OF OPENING.
- 5  INDICATES 8" CAST-IN-PLACE WALL REINFORCED WITH #4 @ 12" O.C. VERTICALLY AND #4 @ 12" O.C. HORIZONTALLY AT CENTER OF WALL, PLACE (3) ADDITIONAL #5 VERTICALLY AT EACH WALL END AND EA SIDE OF OPENING.
- 6 SEE ARCH'L. DRAWINGS FOR LOCATION / LIMITS AND CONSTRUCTION INFORMATION OF INTERIOR NON-BEARING PARTITION WALLS NOT SHOWN ON PLAN. (SEE S0 FOR ADDITIONAL WALL FRAMING INFORMATION)
- 7 STEEL STAIR: SEE ARCH'L. DRAWINGS FOR STAIR CONSTRUCTION INFORMATION AND GEOMETRY. FOR ATTACHMENT / SUPPORT THERE OF, COORDINATE WITH STEEL STAIR MANUFACTURER / SUPPLIER'S APPROVED SHOP DRAWINGS.
- 8 GROUND FLOOR CONSTRUCTION: 8" PRE-CAST CONCRETE SLAB WITH SLOPING TOPPING (2" TO 4").
- 9 CONTRACTOR SHALL VERIFY LOCATIONS AND DIMENSIONS OF ALL OPENINGS, SLEEVES, ANCHOR BOLTS, INSERTS, ETC., AS REQUIRED BY OTHER TRADES BEFORE CONCRETE IS PLACED.
- 10 PROVIDE L 4x4x1/4 STEEL FOR BRICK VENEER OPENING WITH 4" BEARING MINIMUM, AND ATTACHED L4x4x1/4 TO CONCRETE WALL WITH 1/2 DIA x 5" EMBED EPOXY BLOT @ 32" O.C. UNO.
- 11 COORDINATE SLAB RECESSES, SLOPES AND ELEVATIONS W/ ARCHITECTURAL DRAWINGS



JOB NO.
13022

DATE:
DECEMBER 11, 2013

REVISED:
FEBRUARY 20, 2014
APRIL 28, 2014



SHRINAY

SHRINAY CORPORATION
WWW.SHRINAY.COM
TEL - 847-754-1064

A NEW APARTMENT BUILDING 'C':
CARDINAL SQUARE APARTMENTS
MCKINLEY + ANTHONY AVE. MUNDELEIN, ILLINOIS

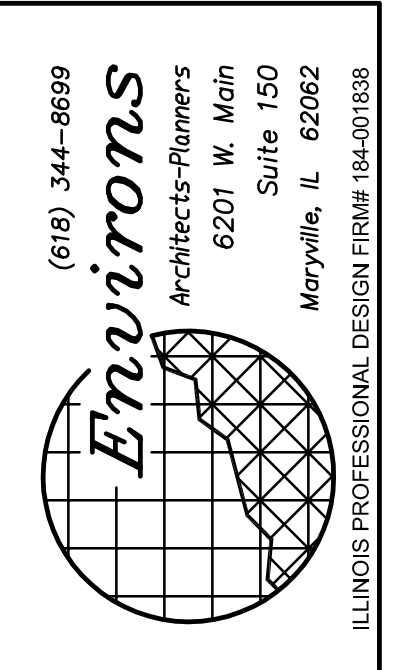
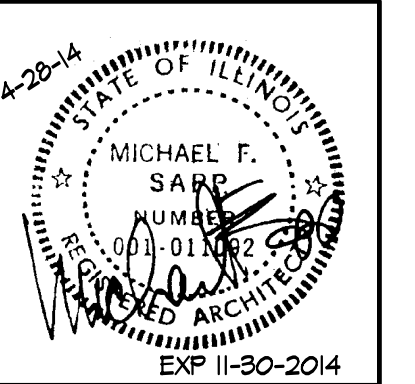
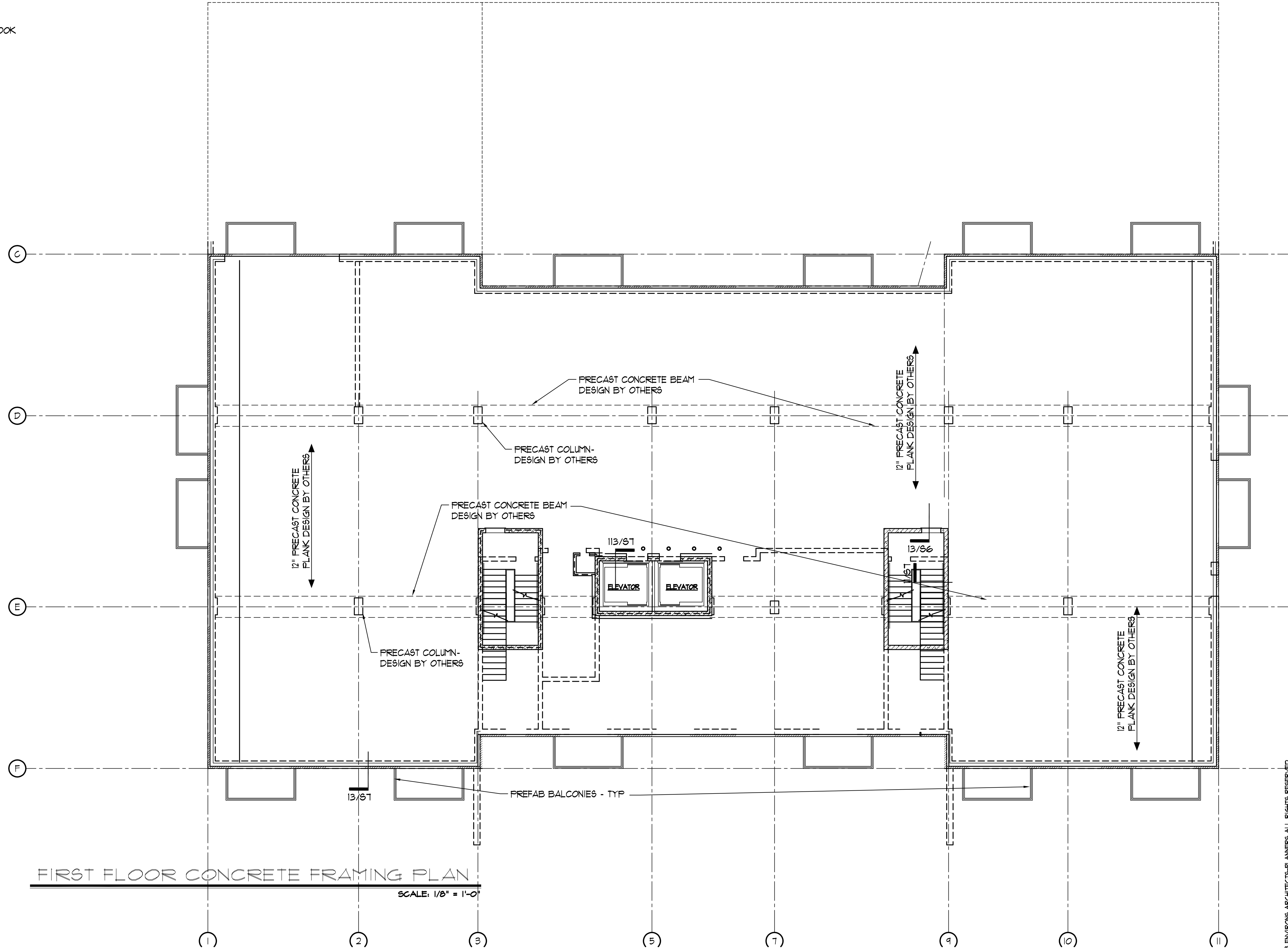
GROUND FLOOR FRAMING PLAN

SHEET
S2.1
OF 13

© 2013 ENVIRON ARCHITECTS-PLANNERS ALL RIGHTS RESERVED.

PLAN NOTES:

- 1 SEE SHEET 50 FOR GENERAL NOTES.
- 2 DO NOT SCALE DRAWINGS. SEE ARCH'L. DRAWINGS FOR ADDITIONAL DIMENSIONS NOT SHOWN. VERIFY ALL DIMENSIONS WITH ARCH'L. DRAWINGS PRIOR TO START OF CONSTRUCTION. IF DISCREPANCIES SHOULD OCCUR - CONTACT THE ARCHITECT IN WRITING FOR CLARIFICATION BEFORE PROCEEDING.
- 3 ~~INDICATES~~ INDICATES 8" MASONRY BEARING WALLS REINFORCED WITH (1)-#5 BARS (VERT.) AND MATCHING DOUCEL AT FOOTING, IN SOLID CONC. FILLED CELLS AT ALL CORNERS, INTERSECTIONS, ADJACENT MASONRY OPENINGS, ENDS OF WALLS AND BETWEEN AT 16" OC (MAX.) SEE PLAN FOR ADDITIONAL LOCATIONS. EXTEND VERTICAL REINFORCING BARS THRU ALL LEVELS TO UPPER MOST TIE BEAM & TERMINATE BARS W/ HOOK. ADDITIONAL GROUT REQUIREMENTS:
- 4 SEE ARCH'L. DRAWINGS FOR LOCATION / LIMITS AND CONSTRUCTION INFORMATION OF INTERIOR NON-BEARING PARTITION WALLS NOT SHOWN ON PLAN. (SEE 50 FOR ADDITIONAL WALL FRAMING INFORMATION)
- 5 PRECAST CONCRETE SLAB THICKNESS IS 12" WITH 4" TOPPING SLAB.
- 6 SEE DETAILS FOR REINFORCING AT SLAB OPENINGS.
- 7 WALL OPENINGS FOR MEP CHASES SHALL BE NO MORE THAN 3'-0" WIDE.
- 8 COORDINATE SLAB RECESSES, SLOPES AND ELEVATIONS W/ ARCHITECTURAL DRAWINGS



JOB NO.
13022

DATE:
DECEMBER 11, 2013
REVISED:
▲ FEBRUARY 20, 2014
PRECAST OPTION
APRIL 28, 2014



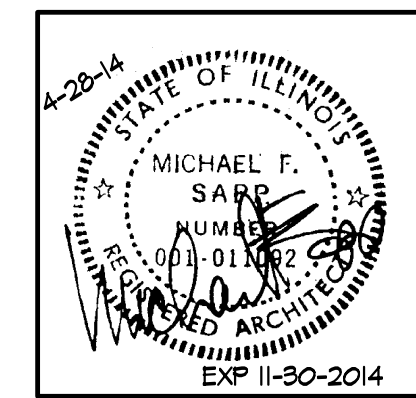
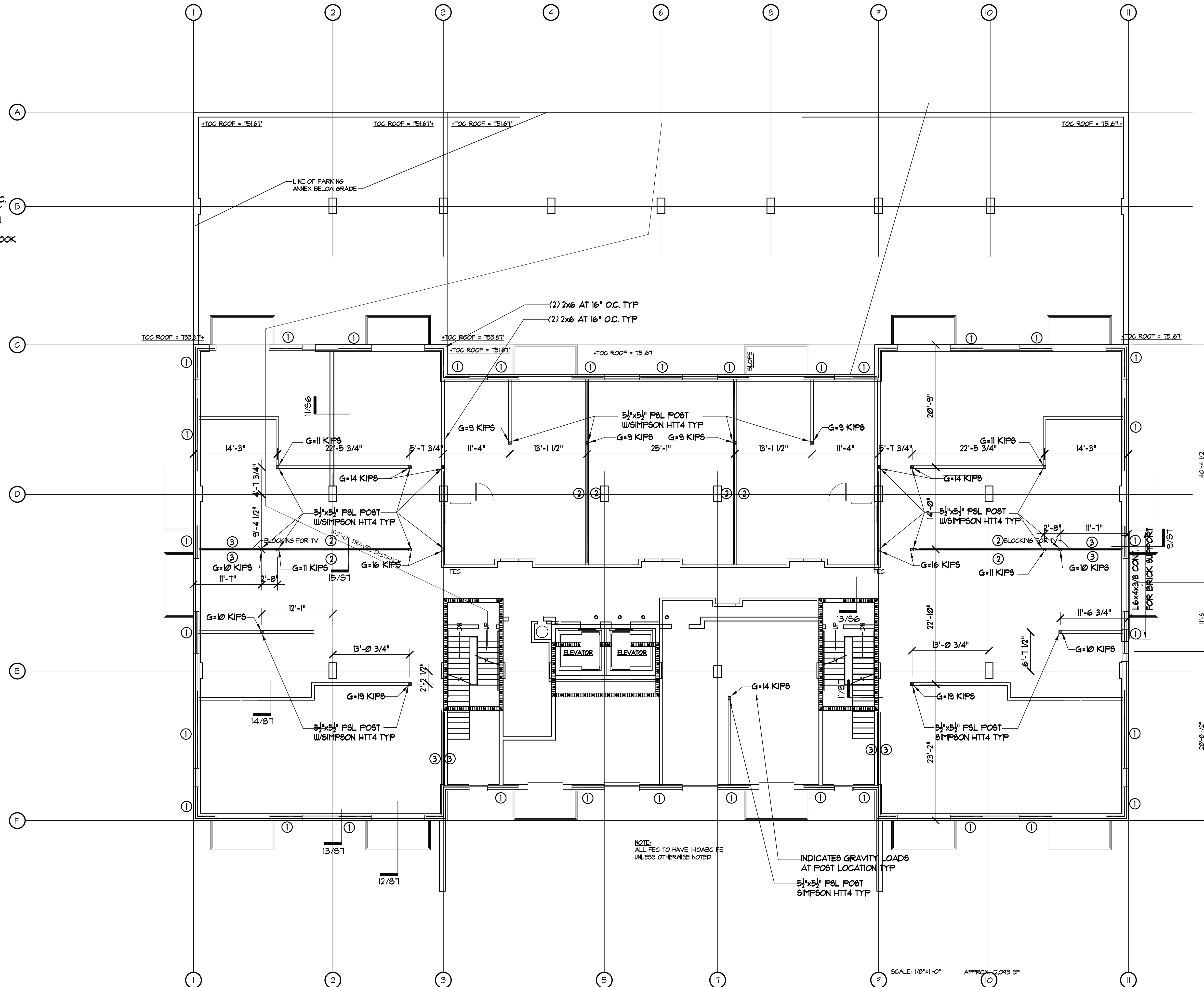
A NEW APARTMENT BUILDING 'C':
CARDINAL SQUARE APARTMENTS
McKINLEY + ANTHONY AVE. MUDELEIN, ILLINOIS
FIRST FLOOR CONCRETE FRAMING PLAN

SHEET
S3.1
OF 13

© 2013 ENVIRON ARCHITECTS-PLANNERS ALL RIGHTS RESERVED

PLAN NOTES:

- 1 SEE SHEET 90 FOR GENERAL NOTES.
- 2 DO NOT SCALE DRAWINGS. SEE ARCH'L. DRAWINGS FOR ADDITIONAL DIMENSIONS NOT SHOWN. VERIFY ALL DIMENSIONS WITH ARCH'L. DRAWINGS PRIOR TO START OF CONSTRUCTION. IF DISCREPANCIES SHOULD OCCUR - CONTACT THE ARCHITECT IN WRITING FOR CLARIFICATION BEFORE PROCEEDING.
- 3 [REINFORCED MASONRY] INDICATES 8" MASONRY BEARING WALLS REINFORCED WITH (1)-#5 BARS (VERT.) AND MATCHING DOUEL AT FOOTING, IN SOLID CONC. FILLED CELLS AT ALL CORNERS, INTERSECTIONS, ADJACENT MASONRY OPENINGS ENDS OF WALLS AND BETWEEN AT 16" OC (MAX.) SEE PLAN FOR ADDITIONAL LOCATIONS. EXTEND VERTICAL REINFORCING BARS THRU ALL LEVELS TO UPPER MOST TIE BEAM & TERMINATE BARS W/ HOOK. ADDITIONAL GROUT REQUIREMENTS.
- 4 SEE ARCH'L. DRAWINGS FOR LOCATION / LIMITS AND CONSTRUCTION INFORMATION OF INTERIOR NON-BEARING PARTITION WALLS NOT SHOWN ON PLAN. (SEE 90 FOR ADDITIONAL WALL FRAMING INFORMATION)
- 5 STEEL STAIR: SEE ARCH'L. DRAWINGS FOR STAIR CONSTRUCTION INFORMATION AND GEOMETRY. FOR ATTACHMENT / SUPPORT THERE OF, COORDINATE WITH STEEL STAIR MANUFACTURER / SUPPLIER'S APPROVED SHOP DRAWINGS.
- 6 ○ INDICATES WOOD STUD SHEAR WALL TYPE, AND SHADING INDICATES EXTENT OF SHEAR WALL. SEE THE SHEAR WALL SCHEDULE ON SHEET 910 FOR SHEAR WALL INFORMATION.
- 7 ALL THE EXTERIOR WALL MEMBER SHALL BE FIRE RETARDANT TREATED, ALL THE INTERIOR WALL MEMBER SHALL BE REGULAR WOOD.
- 8 PROVIDE L 4x4x1/4 STEEL FOR BRICK VENEER OPENING WITH 4" BEARING MINIMUM, AND ATTACH L4x4x1/4 TO HEADER AND WOOD STUDS BEHIND WITH 1/2 DIA x 5" LG LAG SCREWS @ 32" OC. UN.O.
- 9 NAILED ALL MULTI-MEMBER STUDS TOGETHER WITH 16d NAILS AT 12" OC. STAGGERED.

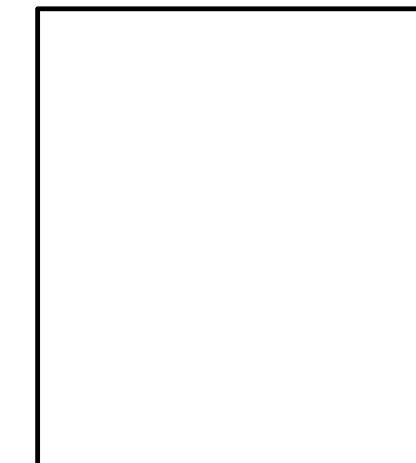


Environ
 (618) 344-8899
 Architects-Planners
 6201 W. Main
 Suite 150
 Maryville, IL 62062
 ILLINOIS PROFESSIONAL DESIGN FIRM 184-001638

JOB NO.
13022

DATE:
DECEMBER 11, 2013

REVISED:
▲ FEBRUARY 20, 2014
PRECAST OPTION
APRIL 28, 2014



SHRINAY
 SHRINAY CORPORATION
 WWW.SHRINAY.COM
 TEL - 847-754-1064



A NEW APARTMENT BUILDING 'C':
CARDINAL SQUARE APARTMENTS
 MCKINLEY + ANTHONY AVE.
 MUNDELEIN, ILLINOIS
FIRST (PODIUM) FLOOR FRAMING PLAN

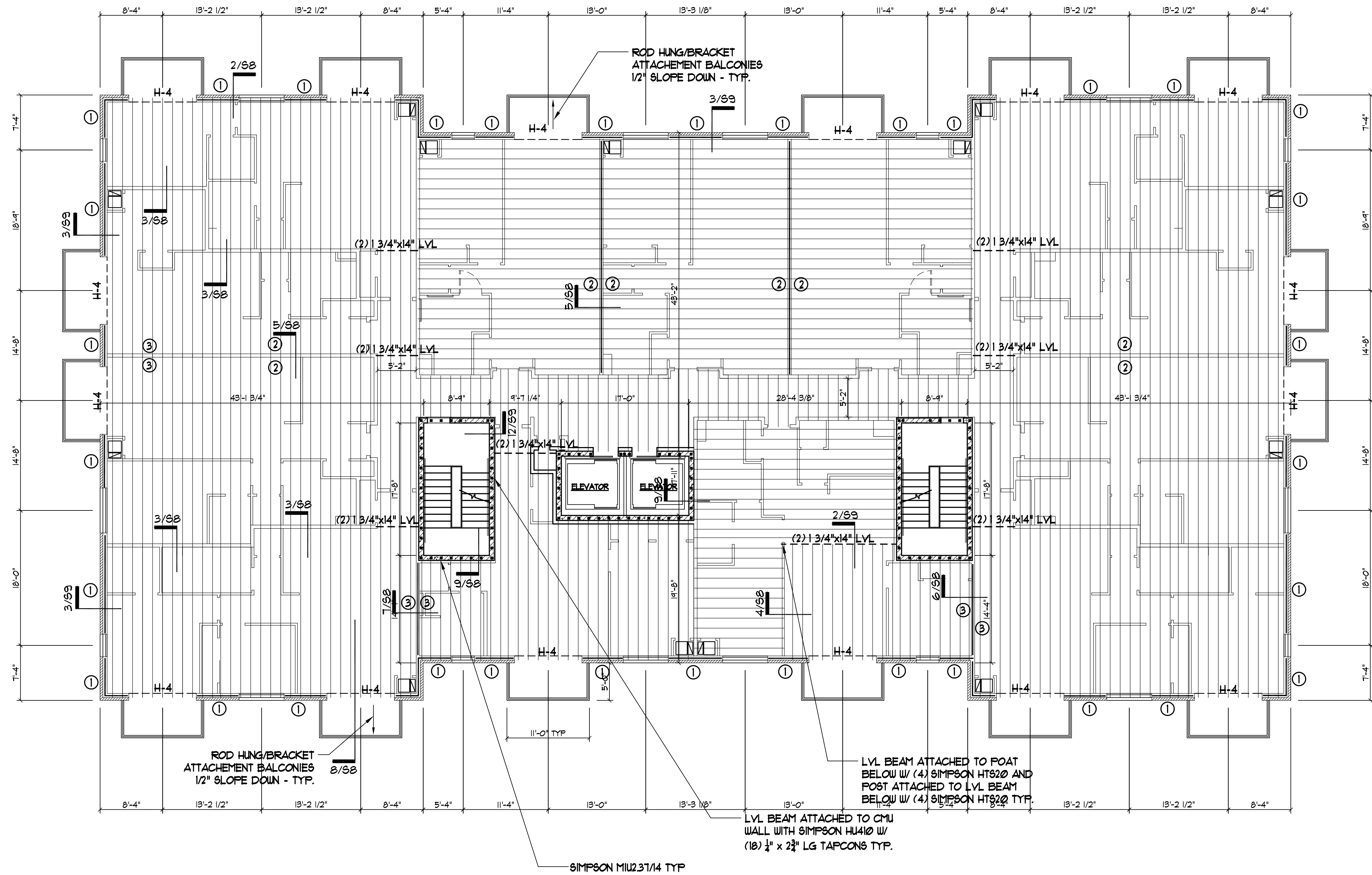
SHEET
93.1
 OF 13

FIRST (PODIUM) FLOOR FRAMING PLAN II
 SCALE: 1/8" = 1'-0"

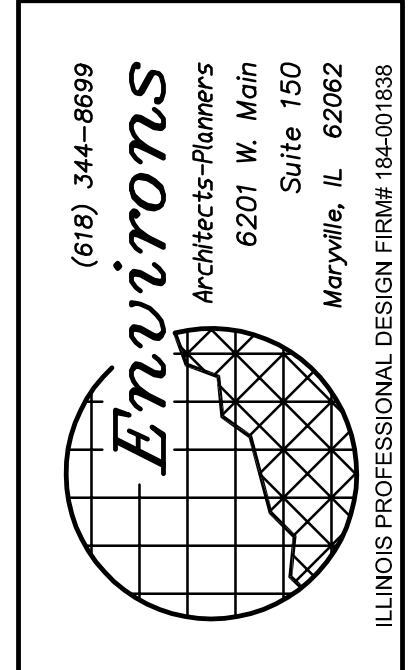
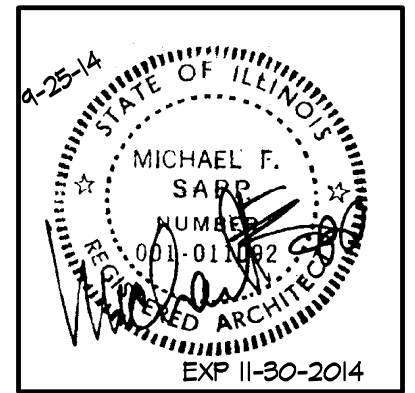
© 2013 ENVIRON ARCHITECTS-PLANNERS ALL RIGHTS RESERVED.

PLAN NOTES:

- 1 SEE SHEET S0 FOR GENERAL NOTES.
- 2 DO NOT SCALE DRAWINGS. SEE ARCH'L. DRAWINGS FOR ADDITIONAL DIMENSIONS NOT SHOWN, VERIFY ALL DIMENSIONS WITH ARCH'L. DRAWINGS PRIOR TO START OF CONSTRUCTION. IF DISCREPANCIES SHOULD OCCUR - CONTACT THE ARCHITECT IN WRITING FOR CLARIFICATION BEFORE PROCEEDING.
- 3  INDICATES 8" MASONRY BEARING WALLS REINFORCED WITH (1)-#5 BARS (VERT.) AND MATCHING DOUCEL AT FOOTING, IN SOLID CONC. FILLED CELLS AT ALL CORNERS, INTERSECTIONS, ADJACENT MASONRY OPENINGS ENDS OF WALLS AND BETWEEN AT 16" O.C. (MAX) SEE PLAN FOR ADDITIONAL LOCATIONS. EXTEND VERTICAL REINFORCING BARS THRU ALL LEVELS TO UPPER MOST TIE BEAM & TERMINATE BARS W/ HOOK ADDITIONAL GROUT REQUIREMENTS.
- 4 SEE ARCH'L. DRAWINGS FOR LOCATION / LIMITS AND CONSTRUCTION INFORMATION OF INTERIOR NON-BEARING PARTITION WALLS NOT SHOWN ON PLAN. (SEE S0 FOR ADDITIONAL WALL FRAMING INFORMATION)
- 5 PROVIDE WOOD HEADER OVER ALL OPENINGS IN WOOD WALLS (COORD. EXACT SIZE, LOCATION AND ELEVATIONS WITH ARCH'L. DRAWINGS) IF NO HEADER TYPE HAS BEEN CALL-OUT ON PLAN, PROVIDE WOOD HEADER BASED ON HEADER SCHEDULE SHOWN ON S10 SHEET.
- 6 STEEL STAIR: SEE ARCH'L. DRAWINGS FOR STAIR CONSTRUCTION INFORMATION AND GEOMETRY. FOR ATTACHMENT / SUPPORT THERE OF, COORDINATE WITH STEEL STAIR MANUFACTURER / SUPPLIER'S APPROVED SHOP DRAWINGS.
- 7 PROVIDE MASONRY LINTEL OVER ALL OPENINGS IN MASONRY WALL (COORD. EXACT SIZE, LOCATION AND ELEVATIONS WITH ARCH'L. DRAWINGS) IF NO LINTEL TYPE HAS BEEN CALL-OUT ON PLAN, PROVIDE MASONRY LINTEL TYPE: #F16-1B/IT, SEE "LINTEL SCHEDULE" (ON S9 SHEET)
- 8 PROVIDE DOUBLE KNOCK OUT BOND BEAM WITH (1) #5 CONT. GROUT SOLID AT FLOOR AND ROOF LEVEL, UNO.
- 9 PROVIDE 14" DEEP TJI 560 JOISTS AT 16" O.C.
- 10 PROVIDE DOUBLE FIRE RETARDANT 2x8 AT 16" O.C. AT BALCONY.
- 11 COORDINATE LOCATION OF FLOOR TRUSSES W/ MECH AND LOCATION OF EXHAUST FAN.
- 12 THE REQUIRED NUMBER OF FASTENERS FOR CONNECTORS SUCH AS NAILS TO WOOD MEMBERS, SEE SIMPSON CATALOG.
- 13  INDICATES WOOD STUD SHEAR WALL TYPE, AND SHADING INDICATES EXTENT OF SHEAR WALL. SEE THE SHEAR WALL SCHEDULE ON SHEET S10 FOR SHEAR WALL INFORMATION.
- 14 - - - INDICATES (2) 1 3/4"x14" LVL BEAM.
- 15 ALL THE EXTERIOR WALL MEMBERS SHALL BE FIRE RETARDANT TREATED, ALL THE INTERIOR WALL MEMBERS SHALL BE REGULAR WOOD.
- 16 ALL THE EXTERIOR TJI BLOCKING SHALL BE FIRE RETARDANT TREATED
- 17 PROVIDE L 4x4x1/4 STEEL FOR BRICK VENEER OPENING WITH 4" BEARING MINIMUM, AND ATTACHED L 4x4x1/4 TO HEADER AND WOOD STUDS BEHIND WITH 1/2 DIA x 5" LG LAG SCREWS @ 32" O.C. UNO.
- 18 NAILED ALL MULTI-MEMBER STUDS TOGETHER WITH 16d NAILS AT 12" O.C. STAGGERED.
- 19 VERIFY ALL STEPS, SLOPES AND SLAB DEPRESSIONS WITH ARCH'L. DRAWINGS PRIOR TO START OF CONSTRUCTION. IF DISCREPANCIES SHOULD OCCUR - CONTACT THE ARCHITECT IN WRITING FOR CLARIFICATION BEFORE PROCEEDING.

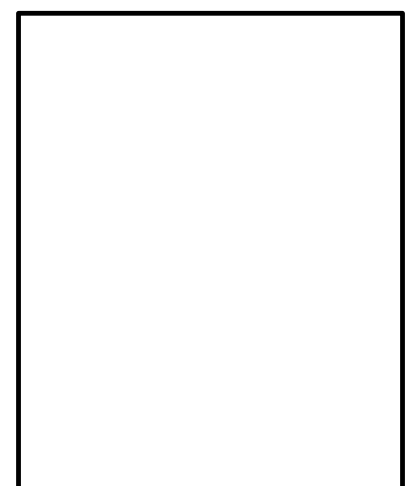


SECOND TO FIFTH FLOOR FRAMING PLAN
SCALE: 1/8" = 1'-0"



JOB NO.
13022

DATE:
DECEMBER 11, 2013
REVISED:
▲ FEBRUARY 20, 2014
▲ PRECAST OPTION APRIL 28, 2014
▲ SEPTEMBER 25, 2014 PERMIT REVIEW





SHRINAY CORPORATION
WWW.SHRINAY.COM
TEL - 847-754-1064

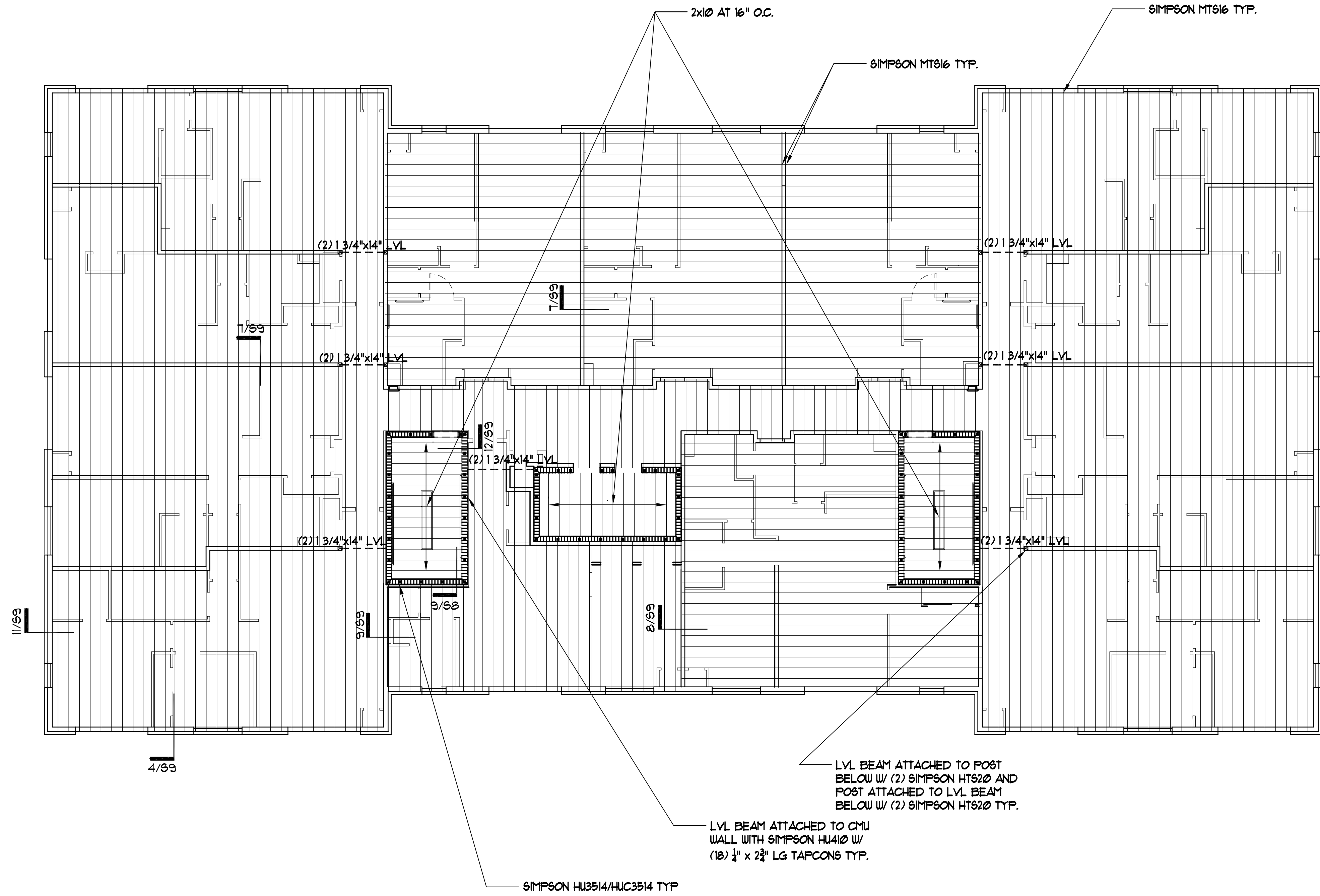
A NEW APARTMENT BUILDING 'C':
CARDINAL SQUARE APARTMENTS
McKINLEY + ANTHONY AVE.
MUNDELEIN, ILLINOIS
TYPICAL UPPER FLOOR FRAMING PLAN

SHEET
S4
OF 13

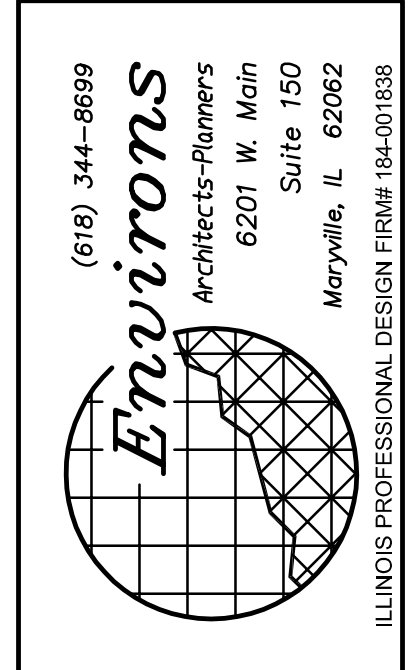
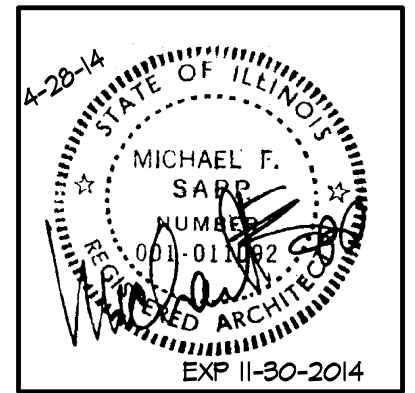
© 2013 ENVIRON ARCHITECTS-PLANNERS ALL RIGHTS RESERVED.

PLAN NOTES:

- 1 SEE SHEET 90 FOR GENERAL NOTES.
- 2 DO NOT SCALE DRAWINGS. SEE ARCH'L. DRAWINGS FOR ADDITIONAL DIMENSIONS NOT SHOWN, VERIFY ALL DIMENSIONS WITH ARCH'L. DRAWINGS PRIOR TO START OF CONSTRUCTION. IF DISCREPANCIES SHOULD OCCUR - CONTACT THE ARCHITECT IN WRITING FOR CLARIFICATION BEFORE PROCEEDING.
- 3  INDICATES 8" MASONRY BEARING WALLS REINFORCED WITH (1)-#5 BARS (VERT.) AND MATCHING DOUCEL AT FOOTING, IN SOLID CONC. FILLED CELLS AT ALL CORNERS, INTERSECTIONS, ADJACENT MASONRY OPENINGS ENDS OF WALLS AND BETWEEN AT 32" OC (MAX.) SEE PLAN FOR ADDITIONAL LOCATIONS. EXTEND VERTICAL REINFORCING BARS THRU ALL LEVELS TO UPPER MOST TIE BEAM & TERMINATE BARS W/ HOOK ADDITIONAL GROUT REQUIREMENTS.
- 4 SEE ARCH'L. DRAWINGS FOR LOCATION / LIMITS AND CONSTRUCTION INFORMATION OF INTERIOR NON-BEARING PARTITION WALLS NOT SHOWN ON PLAN. (SEE 90 FOR ADDITIONAL WALL FRAMING INFORMATION.)
- 5 PROVIDE WOOD HEADER OVER ALL OPENINGS IN WOOD WALLS (COORD. EXACT SIZE, LOCATION AND ELEVATIONS WITH ARCH'L. DRAWINGS) IF NO HEADER TYPE HAS BEEN CALL-OUT ON PLAN, PROVIDE WOOD HEADER BASED ON HEADER SCHEDULE SHOWN ON 90 SHEET.
- 6 STEEL STAIR: SEE ARCH'L. DRAWINGS FOR STAIR CONSTRUCTION INFORMATION AND GEOMETRY. FOR ATTACHMENT / SUPPORT THERE OF, COORDINATE WITH STEEL STAIR MANUFACTURER / SUPPLIER'S APPROVED SHOP DRAWINGS.
- 7 PROVIDE MASONRY LINTEL OVER ALL OPENINGS IN MASONRY WALL (COORD. EXACT SIZE, LOCATION AND ELEVATIONS WITH ARCH'L. DRAWINGS) IF NO LINTEL TYPE HAS BEEN CALL-OUT ON PLAN, PROVIDE MASONRY LINTEL TYPE: #F16-1B/IT, SEE "LINTEL SCHEDULE" (ON 99 SHEET)
- 8 PROVIDE DOUBLE KNOCK OUT BOND BEAM WITH (1) #5 CONT. GROUT SOLID AT FLOOR AND ROOF LEVEL, UNO.
- 9 PROVIDE 14" DEEP TJI 560 JOISTS AT 16" O.C.
- 10 ELEVATOR HOIST BEAM BY OTHER
- 11 COORDINATE LOCATION OF FLOOR TRUSSES W/ MECH AND LOCATION OF EXHAUST FAN.
- 12 THE REQUIRED NUMBER OF FASTENERS FOR CONNECTORS SUCH AS NAILS TO WOOD MEMBERS, SEE SIMPSON CATALOG.
- 13  INDICATES WOOD STUD SHEAR WALL TYPE, AND SHADING INDICATES EXTENT OF SHEAR WALL. SEE THE SHEAR WALL SCHEDULE ON SHEET 90 FOR SHEAR WALL INFORMATION.
- 14 - - - INDICATES (2) 1 3/4"x14" LVL BEAM.
- 15 ALL THE EXTERIOR WALL MEMBERS SHALL BE FIRE RETARDANT TREATED, ALL THE INTERIOR WALL MEMBERS SHALL BE REGULAR WOOD.
- 16 EXTERIOR WALL TJI BLOCKING SHALL BE FIRE RETARDANT TREATED
- 17 PROVIDE L 4x4x1/4 STEEL FOR BRICK VENEER OPENING WITH 4" BEARING MINIMUM, AND ATTACHED L4x4x1/4 TO HEADER AND WOOD STUDS BEHIND WITH 1/2 DIA x 5" LG LAG SCREWS @ 32" O.C. UNO.

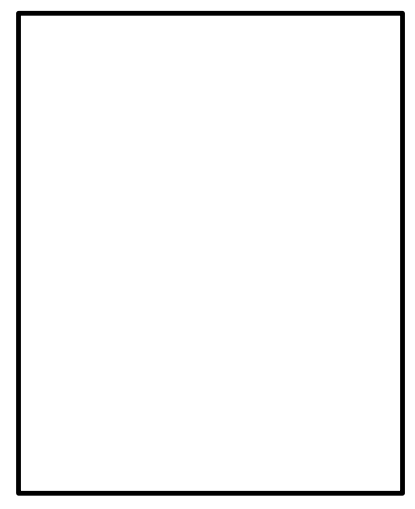


ROOF FRAMING PLAN
SCALE: 1/8" = 1'-0"



JOB NO.
13022

DATE:
DECEMBER 11, 2013
REVISED:
▲ FEBRUARY 20, 2014
PRECAST OPTION
APRIL 28, 2014

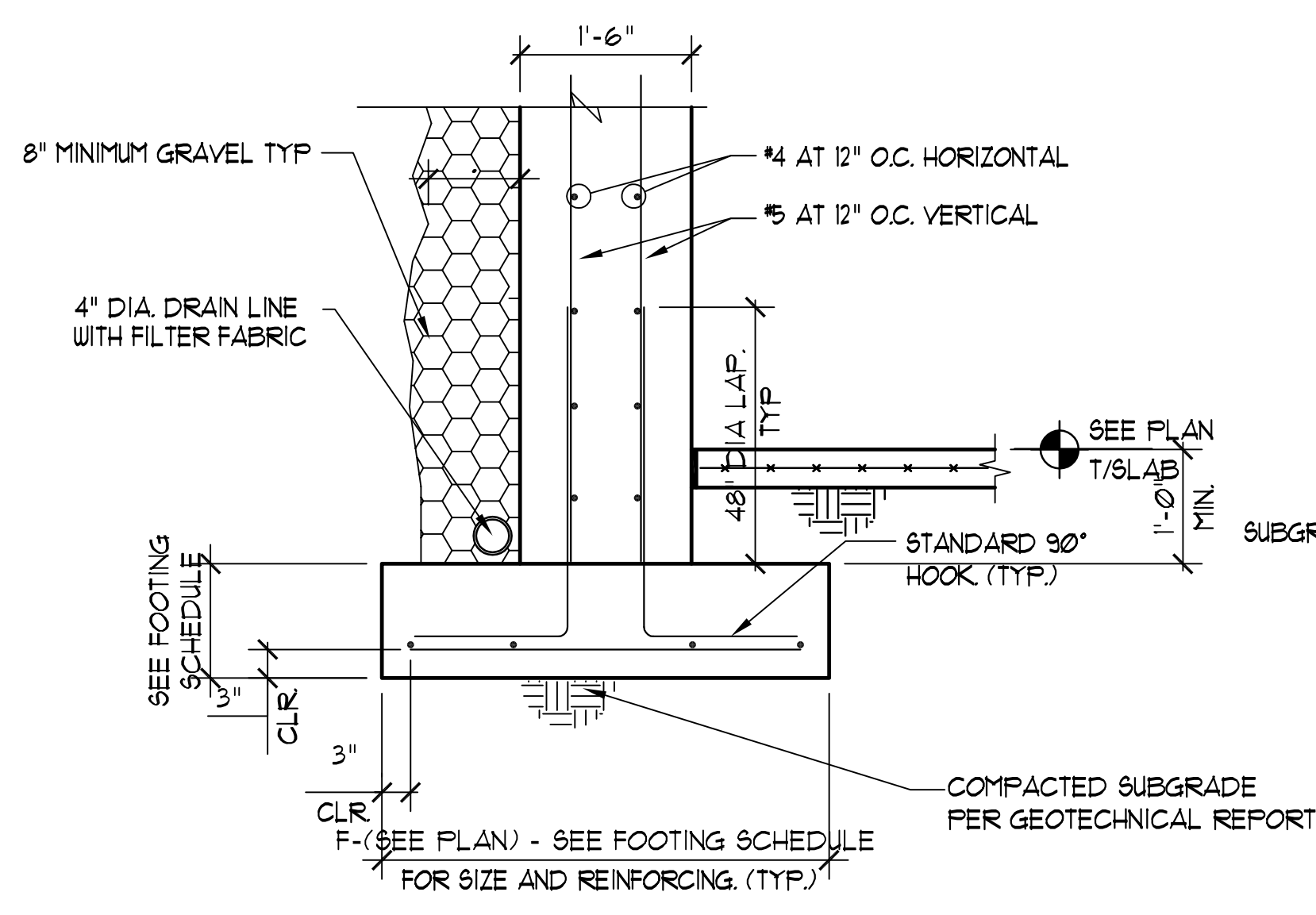


SHRINAY CORPORATION
WWW.SHRINAY.COM
TEL - 847-754-1064

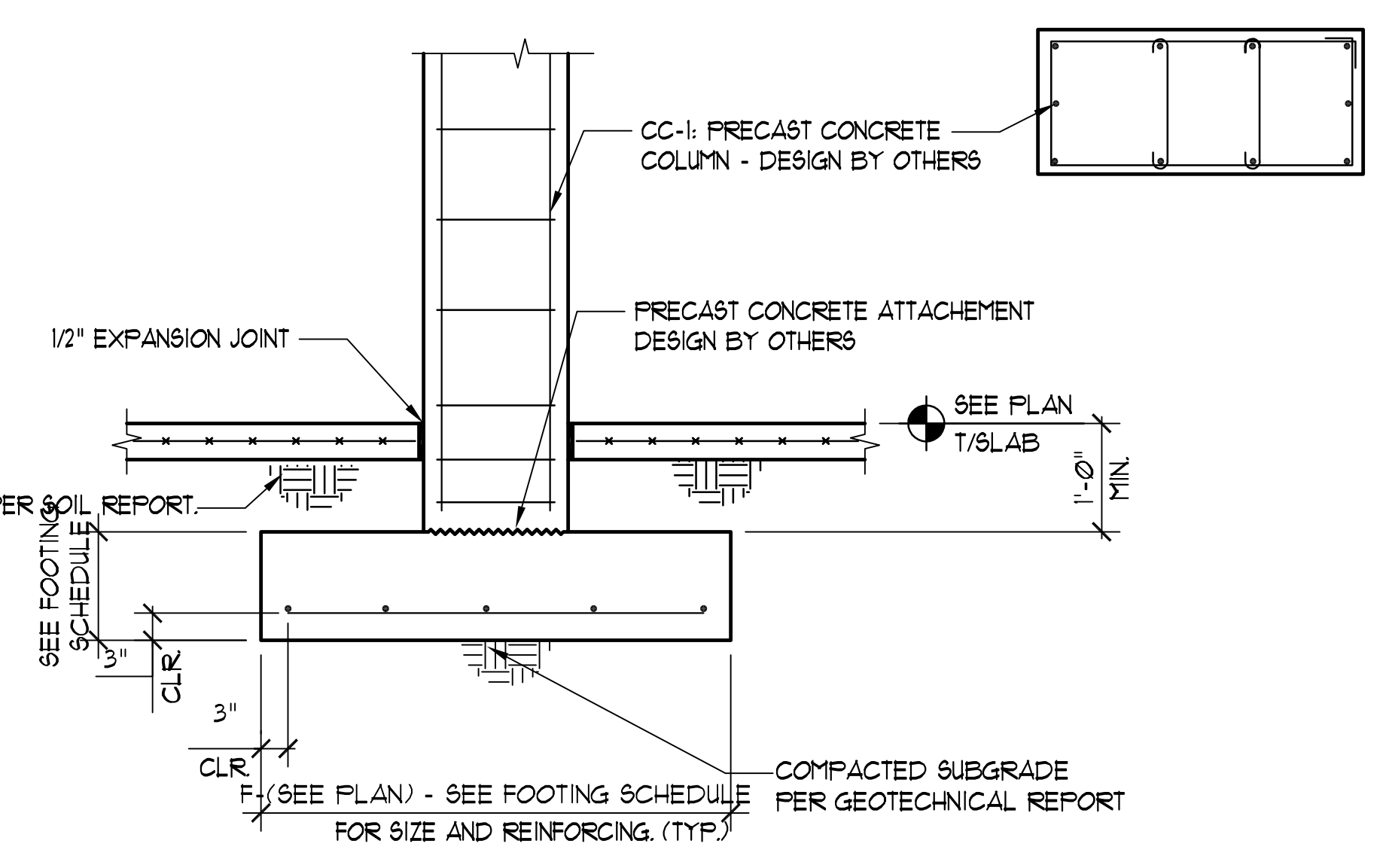
A NEW APARTMENT BUILDING 'C':
CARDINAL SQUARE APARTMENTS
McKINLEY + ANTHONY, AVE.
MUNDELEIN, ILLINOIS
ROOF FRAMING PLAN

SHEET
95
OF 13

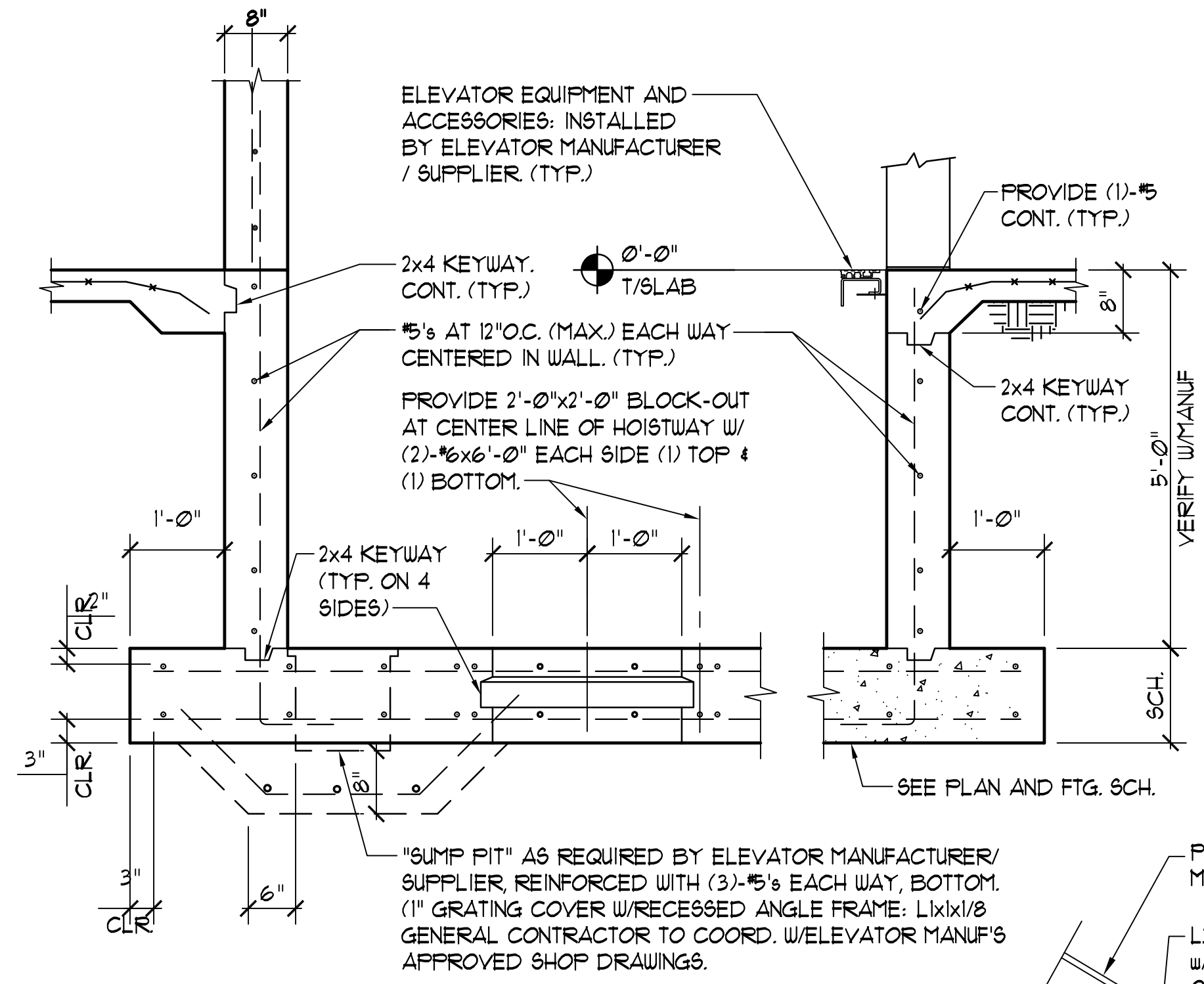
© 2013 ENVIRON ARCHITECTS-PLANNERS ALL RIGHTS RESERVED.



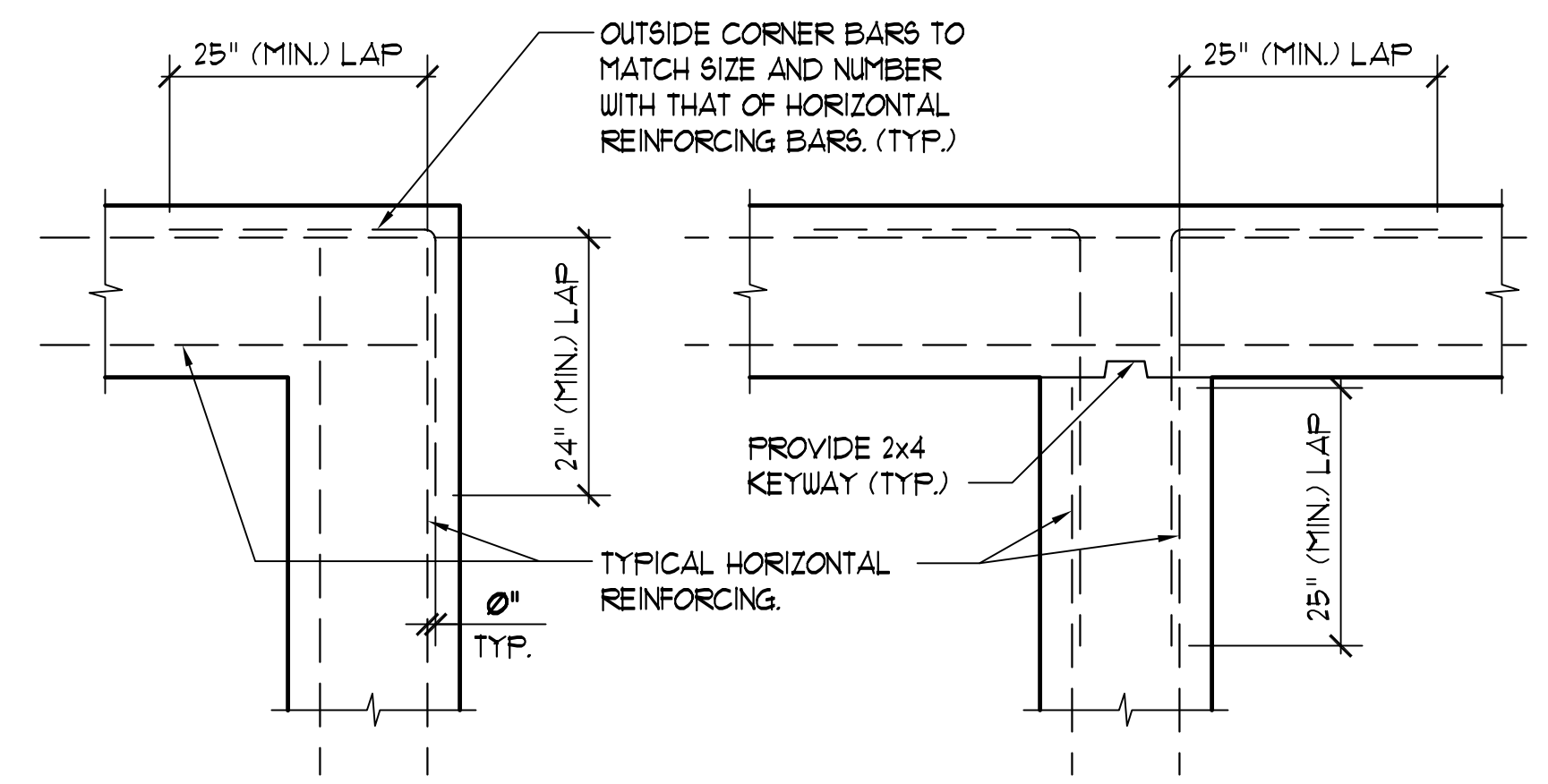
1 SECTION
SCALE 3/4" = 1'-0"



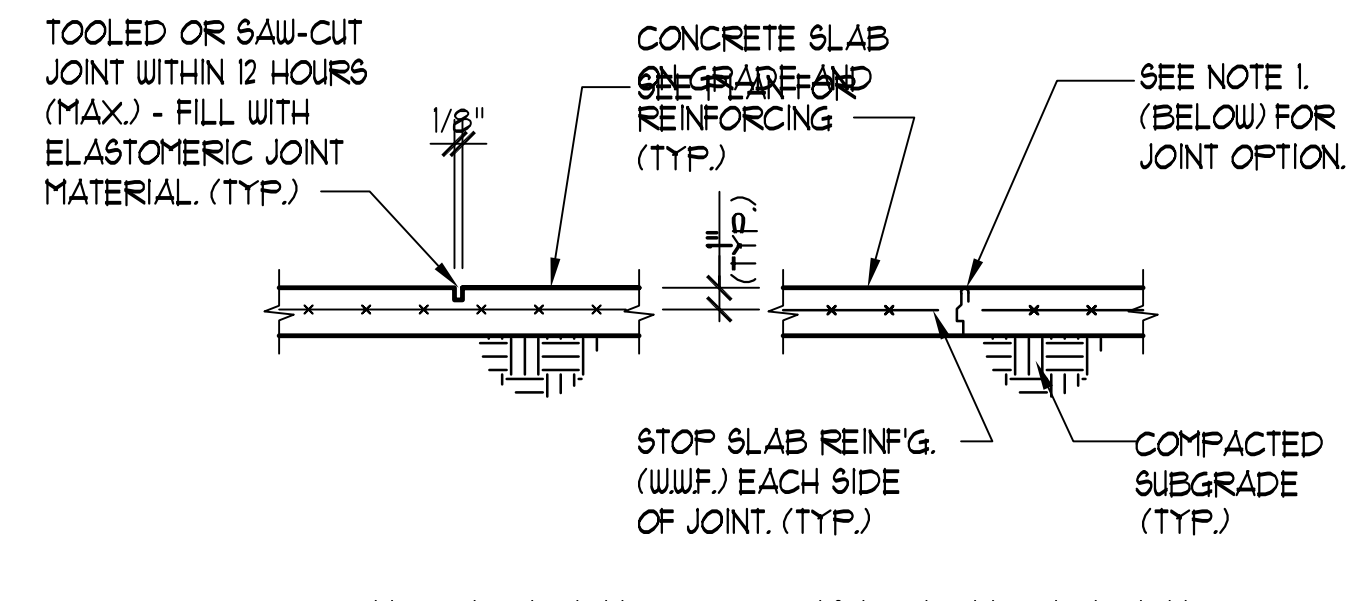
2 CONC. COLUMN DETAIL
SCALE 3/4" = 1'-0"



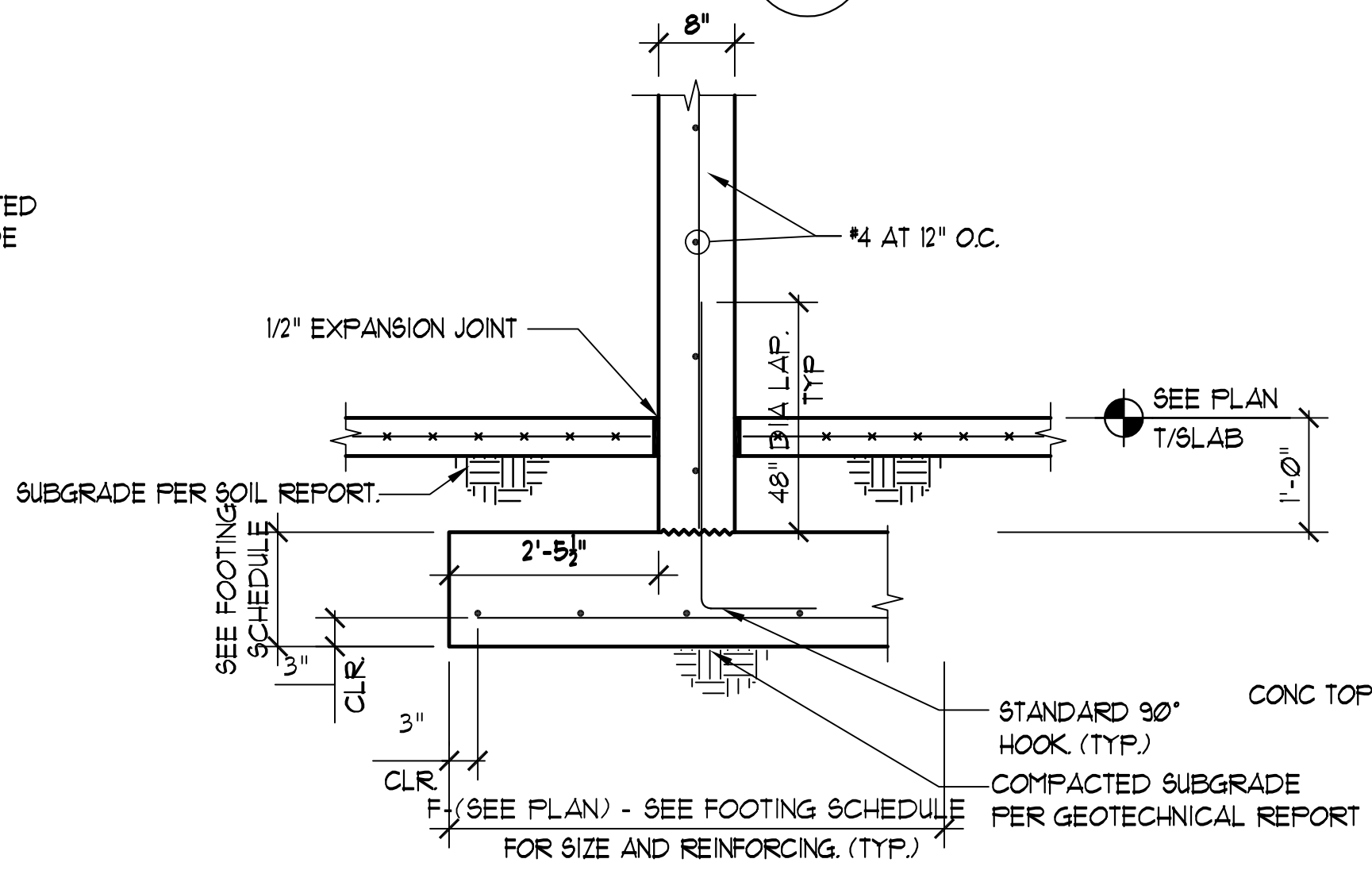
3 ELEVATOR PIT DETAIL
SCALE 3/4" = 1'-0"



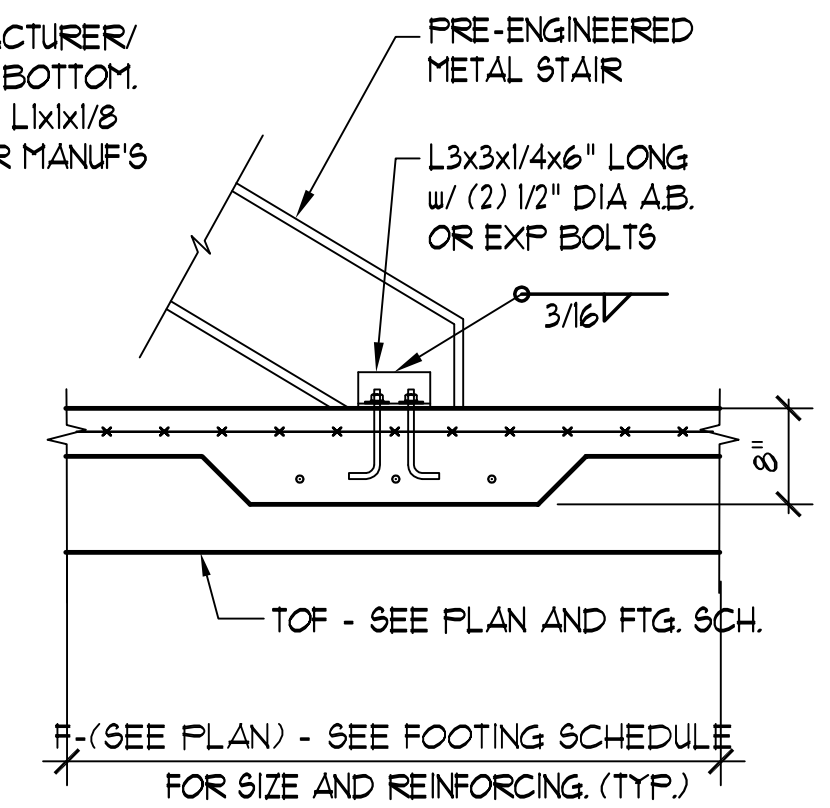
4 HORIZ. REINF'S. AT WALLS AND FTG'S.
SCALE 3/4" = 1'-0"



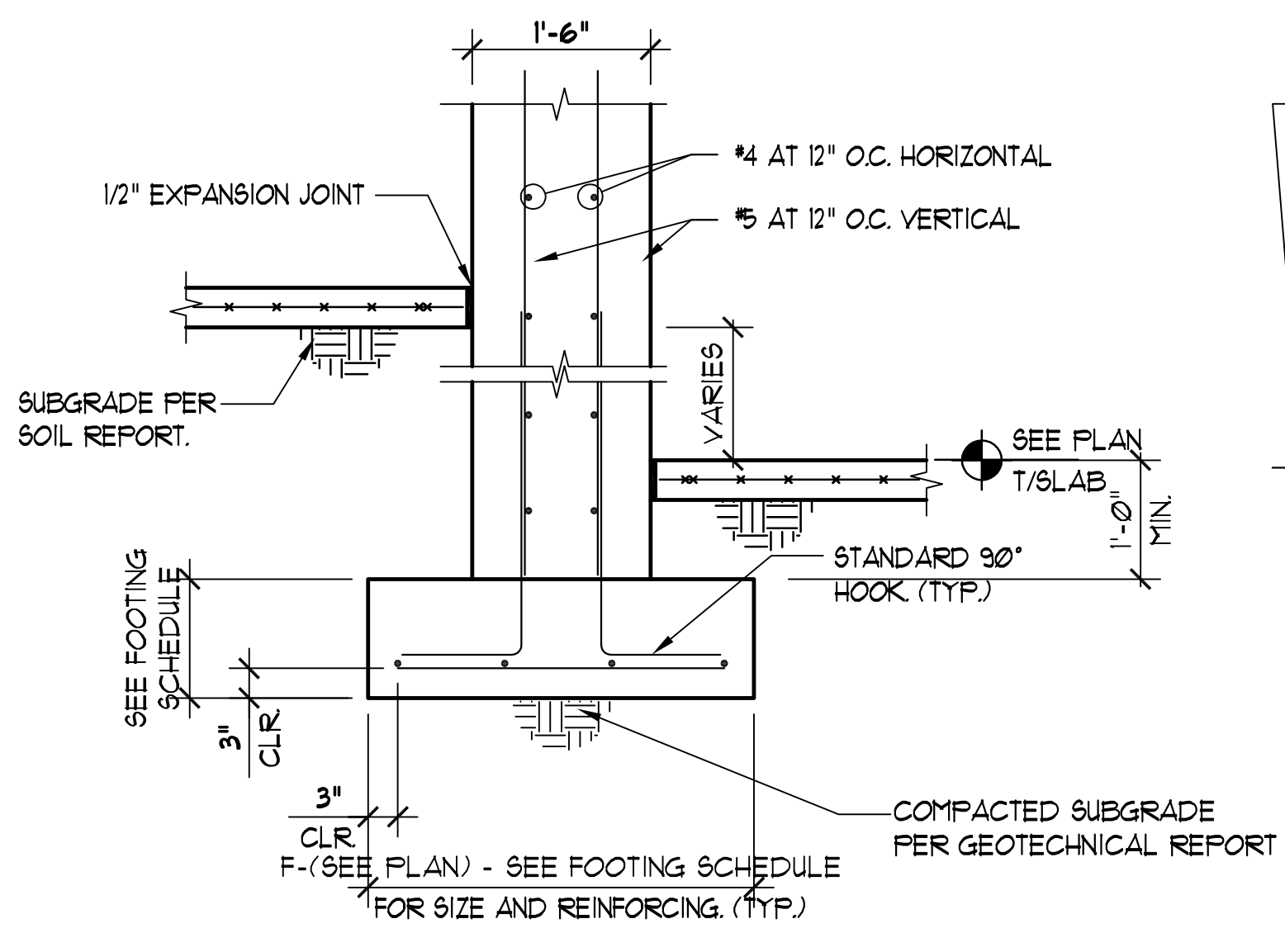
5 TYPICAL CONTROL JOINT DETAIL
SCALE 3/4" = 1'-0"



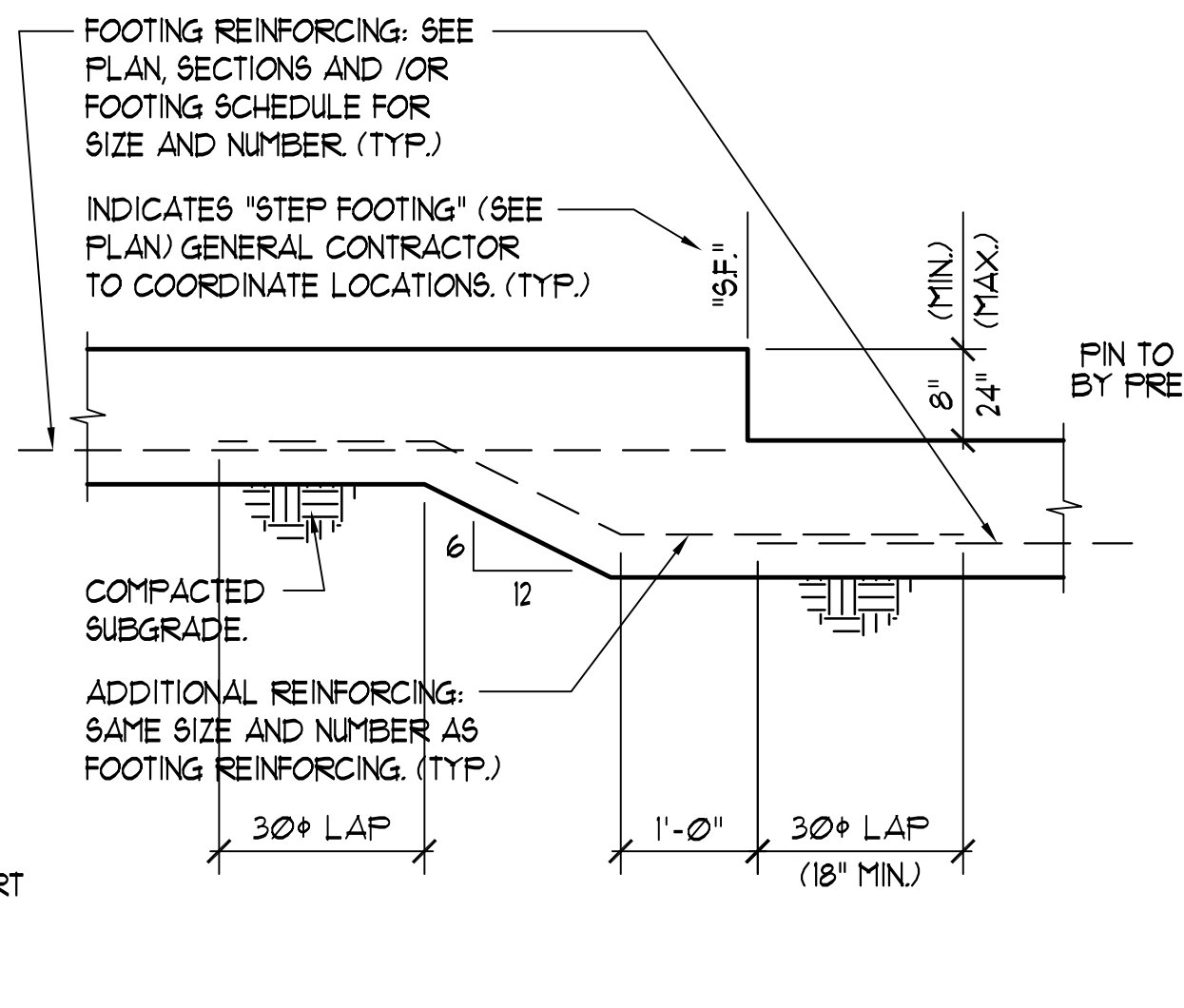
6 SECTION
SCALE 3/4" = 1'-0"



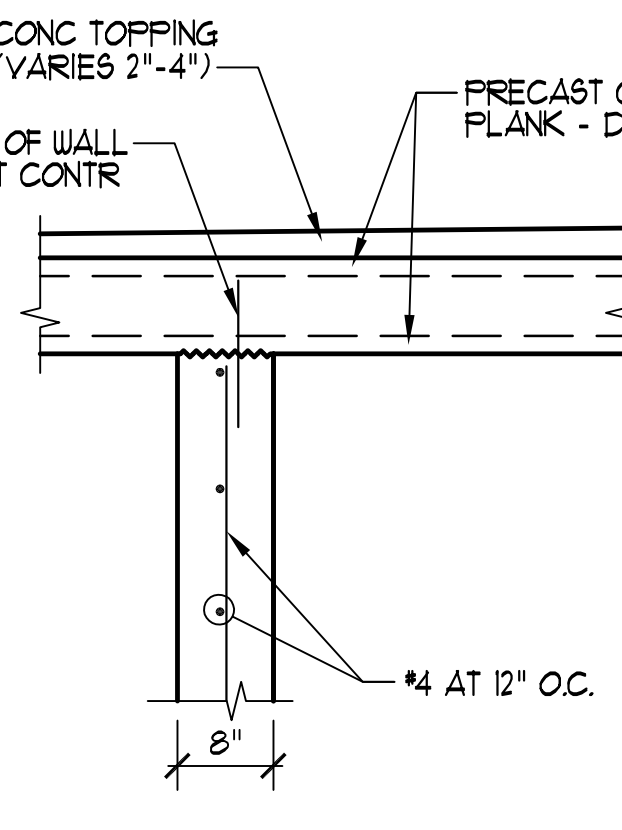
7 SECTION
SCALE 3/4" = 1'-0"



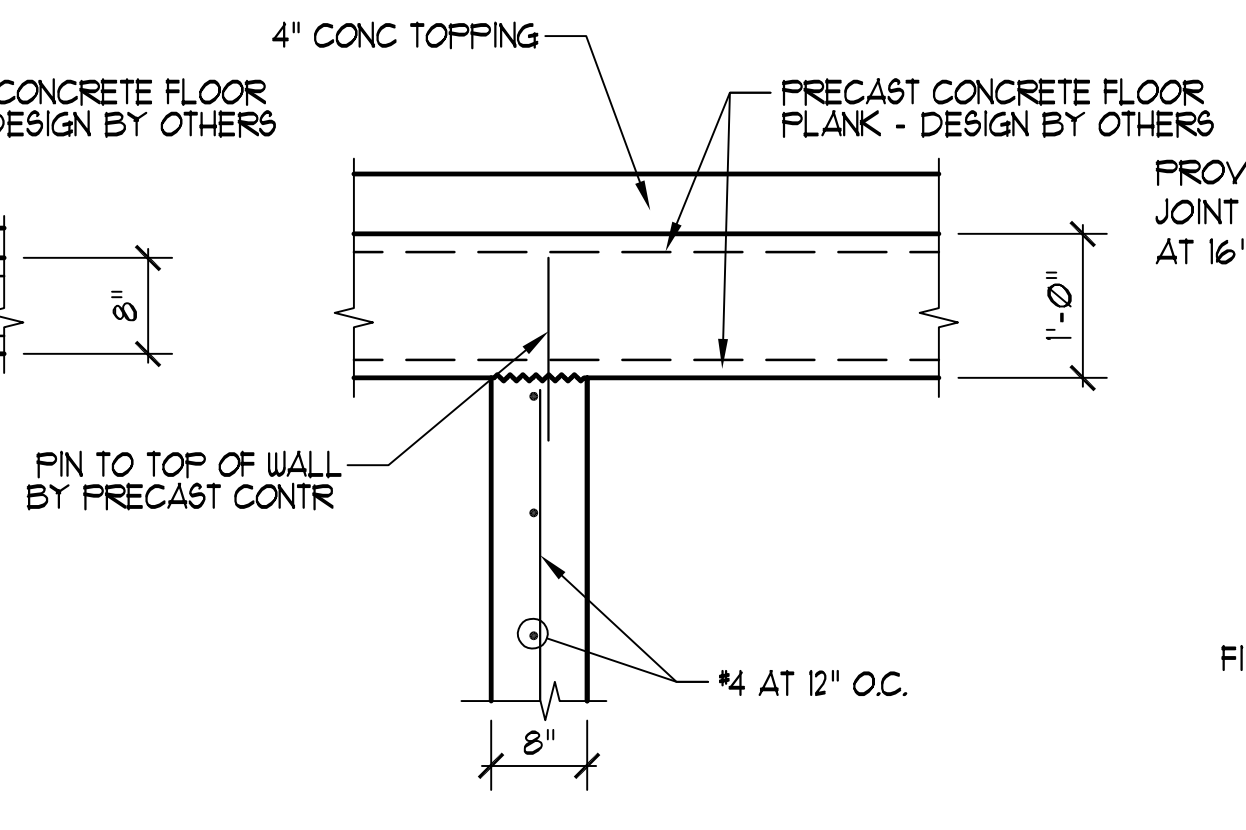
8 SECTION
SCALE 3/4" = 1'-0"



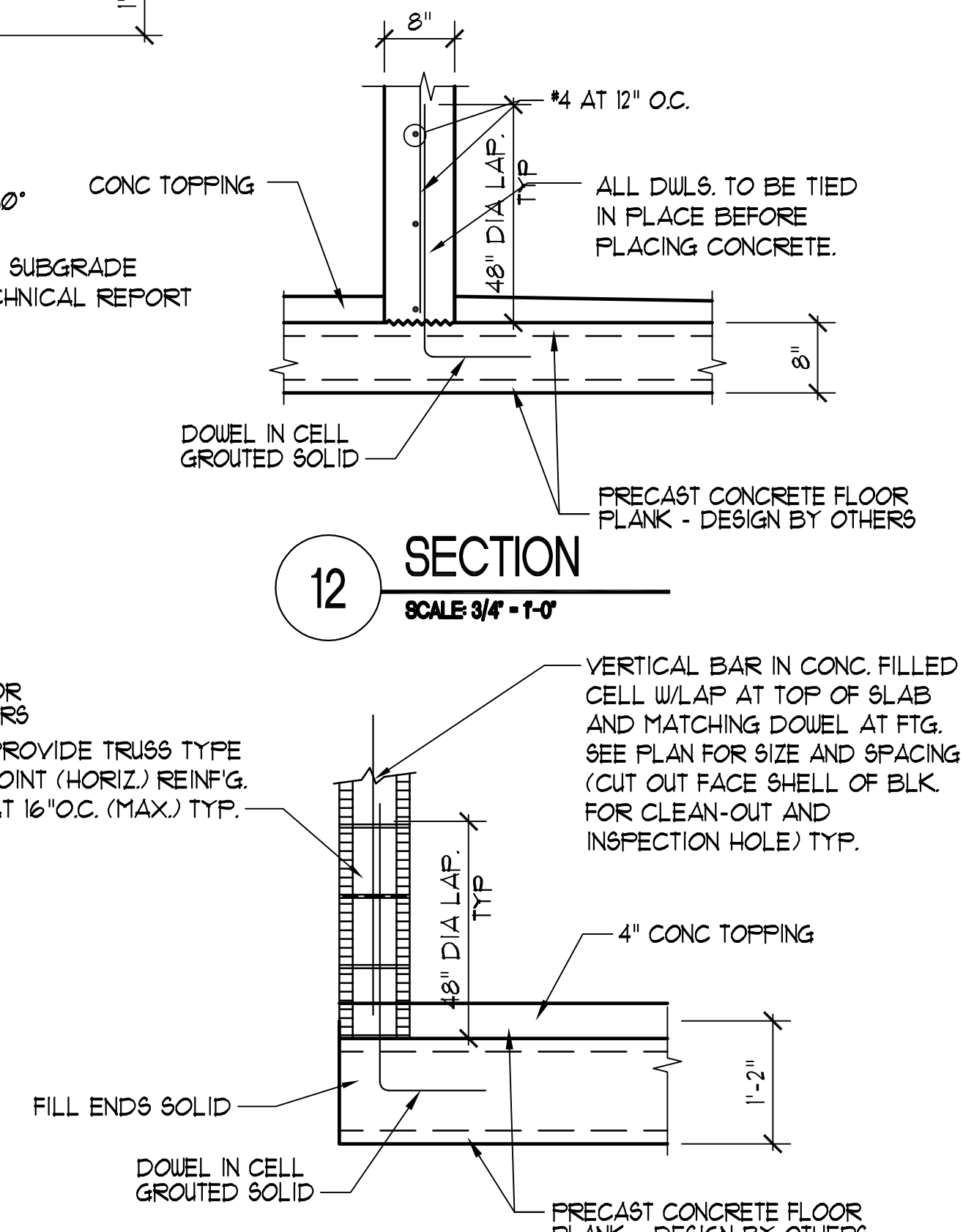
9 STEP FOOTING DETAIL
SCALE 3/4" = 1'-0"



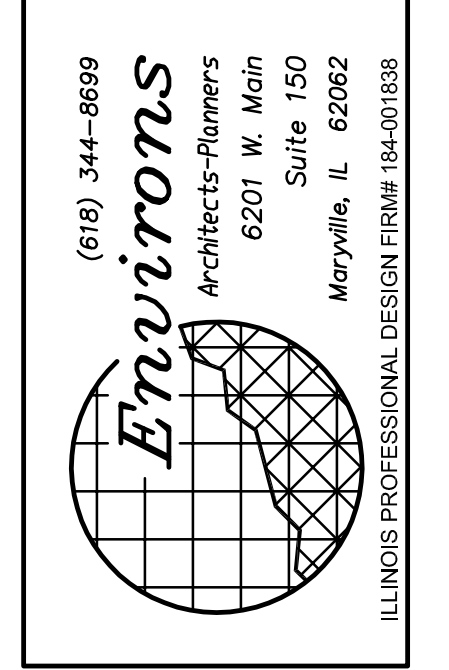
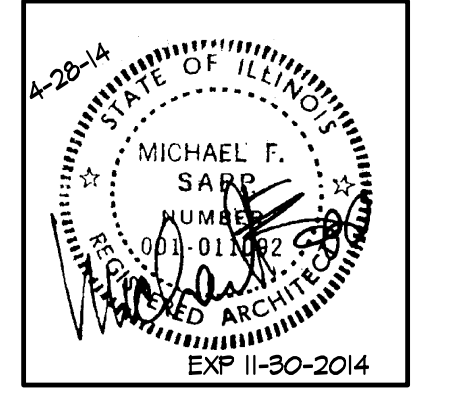
10 SECTION
SCALE 3/4" = 1'-0"



11 SECTION
SCALE 3/4" = 1'-0"



12 SECTION
SCALE 3/4" = 1'-0"



JOB NO.
13022

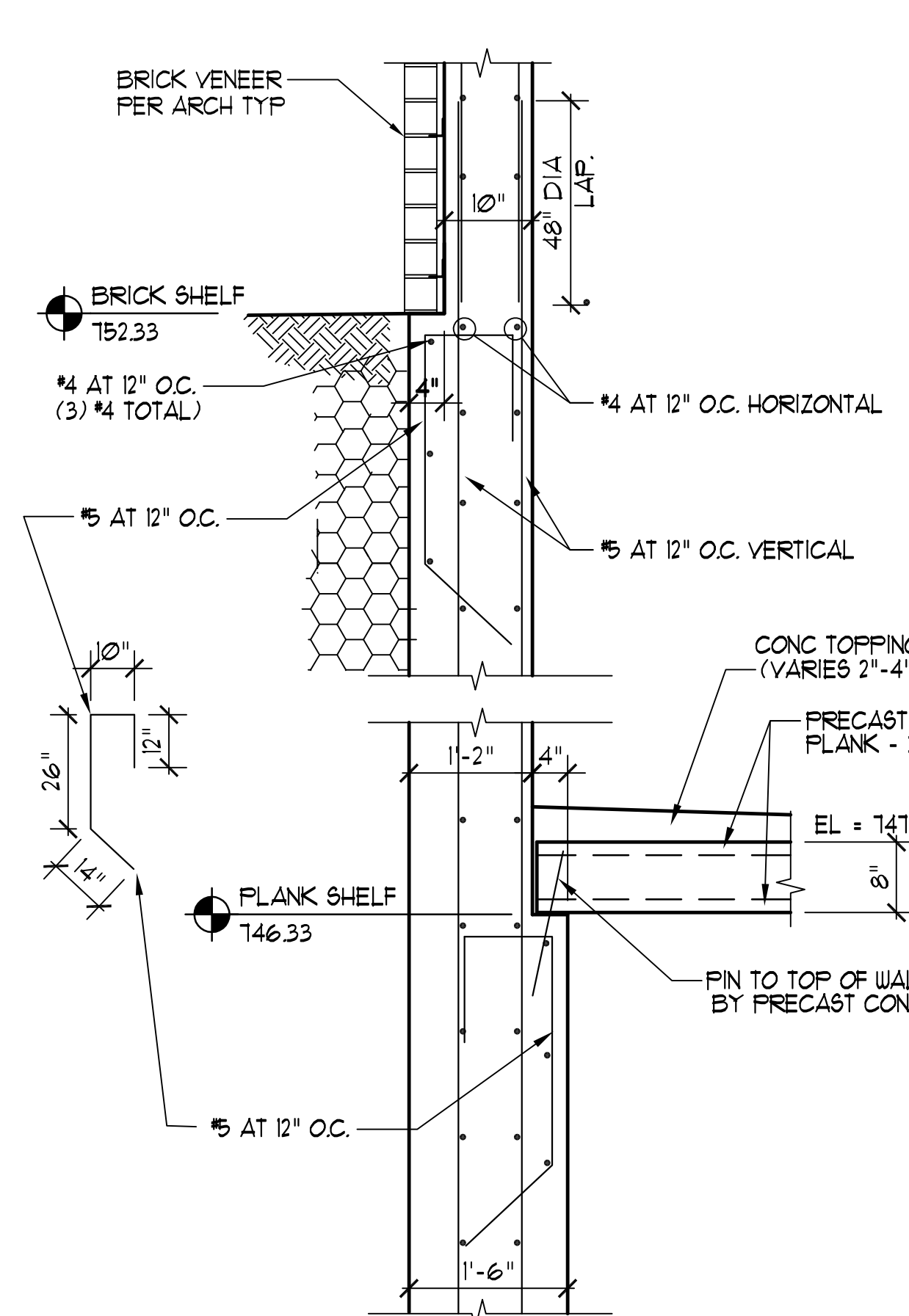
DATE:
DECEMBER 11, 2013
REVISED:
FEBRUARY 20, 2014
PRECAST OPTION
APRIL 28, 2014



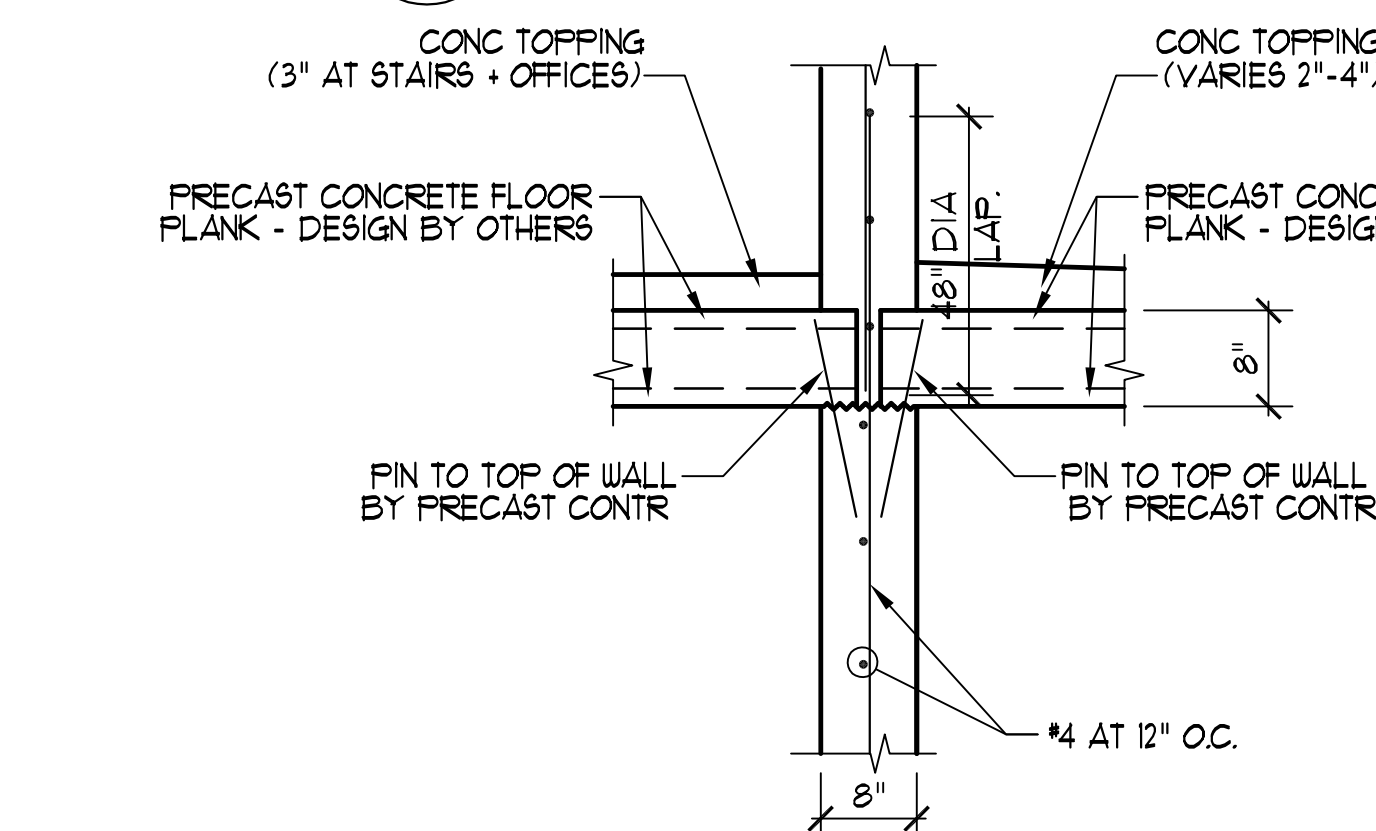
A NEW APARTMENT BUILDING 'C':
CARDINAL SQUARE APARTMENTS
McKINLEY + ANTHONY AVE.
MUNDELEIN, ILLINOIS
FOUNDATION REINFORCING DETAILS

SHEET
56
OF 13

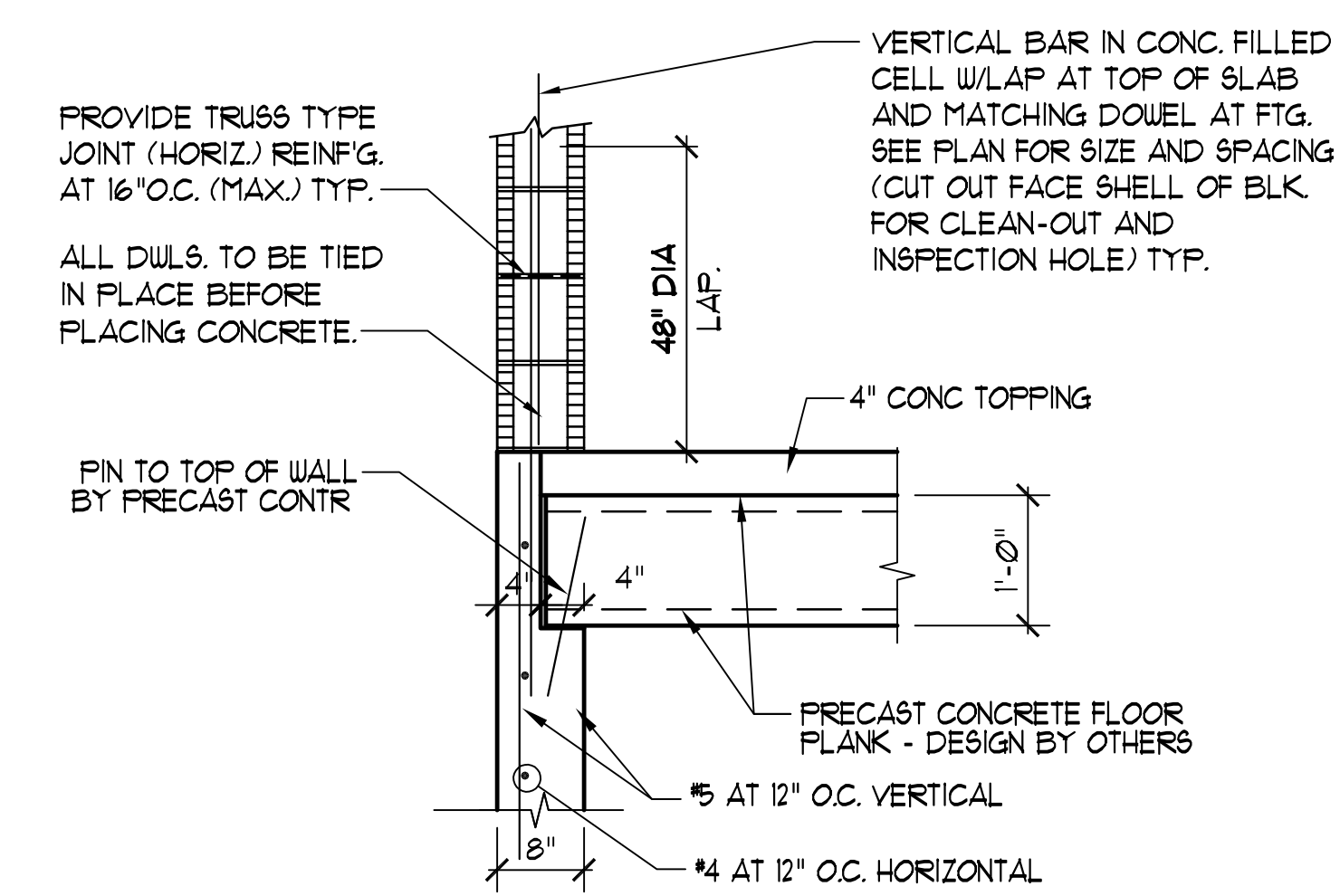
© 2013 ENVIRON ARCHITECTS-PLANNERS ALL RIGHTS RESERVED.



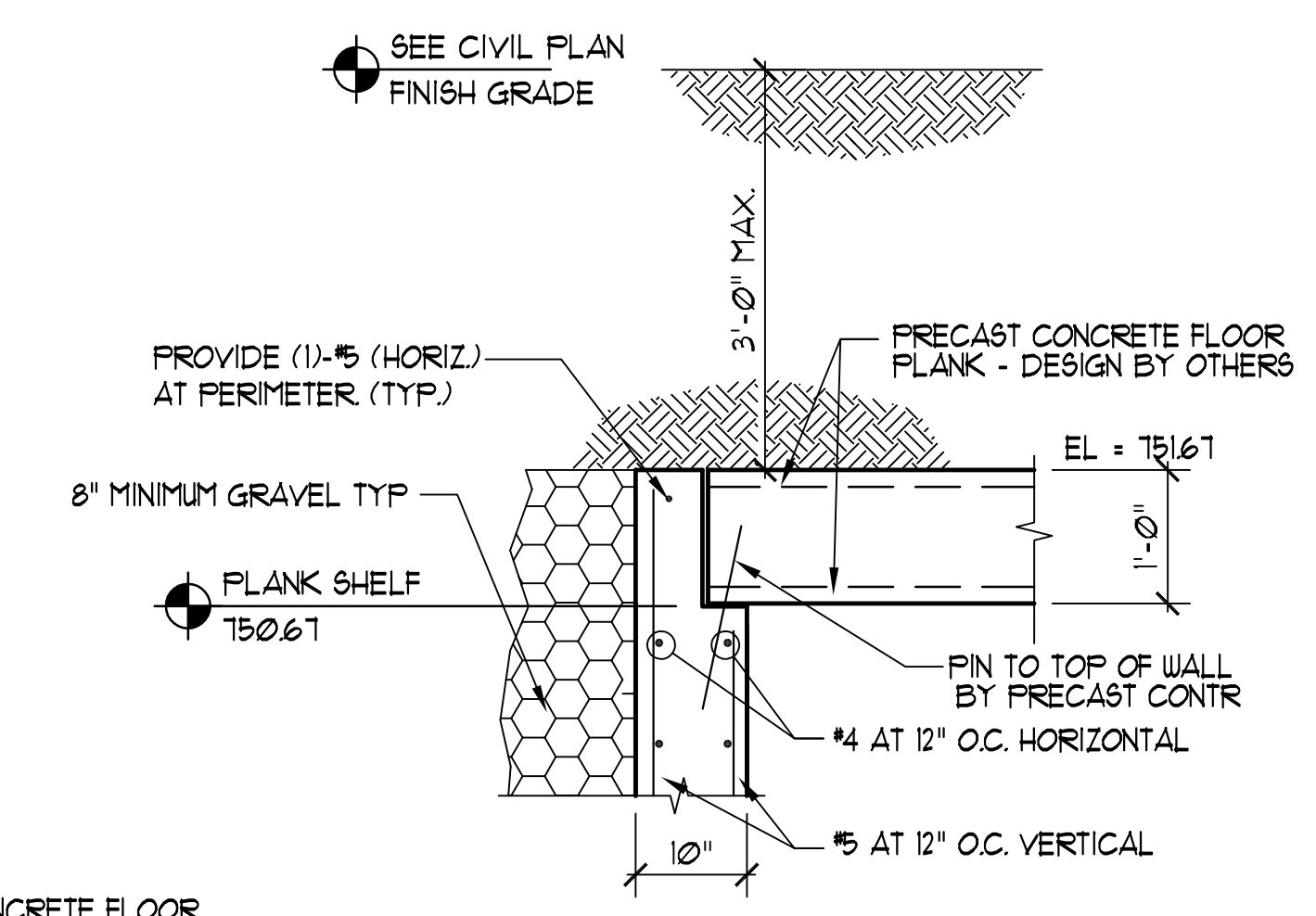
1 SECTION
SCALE 3/4" = 1'-0"



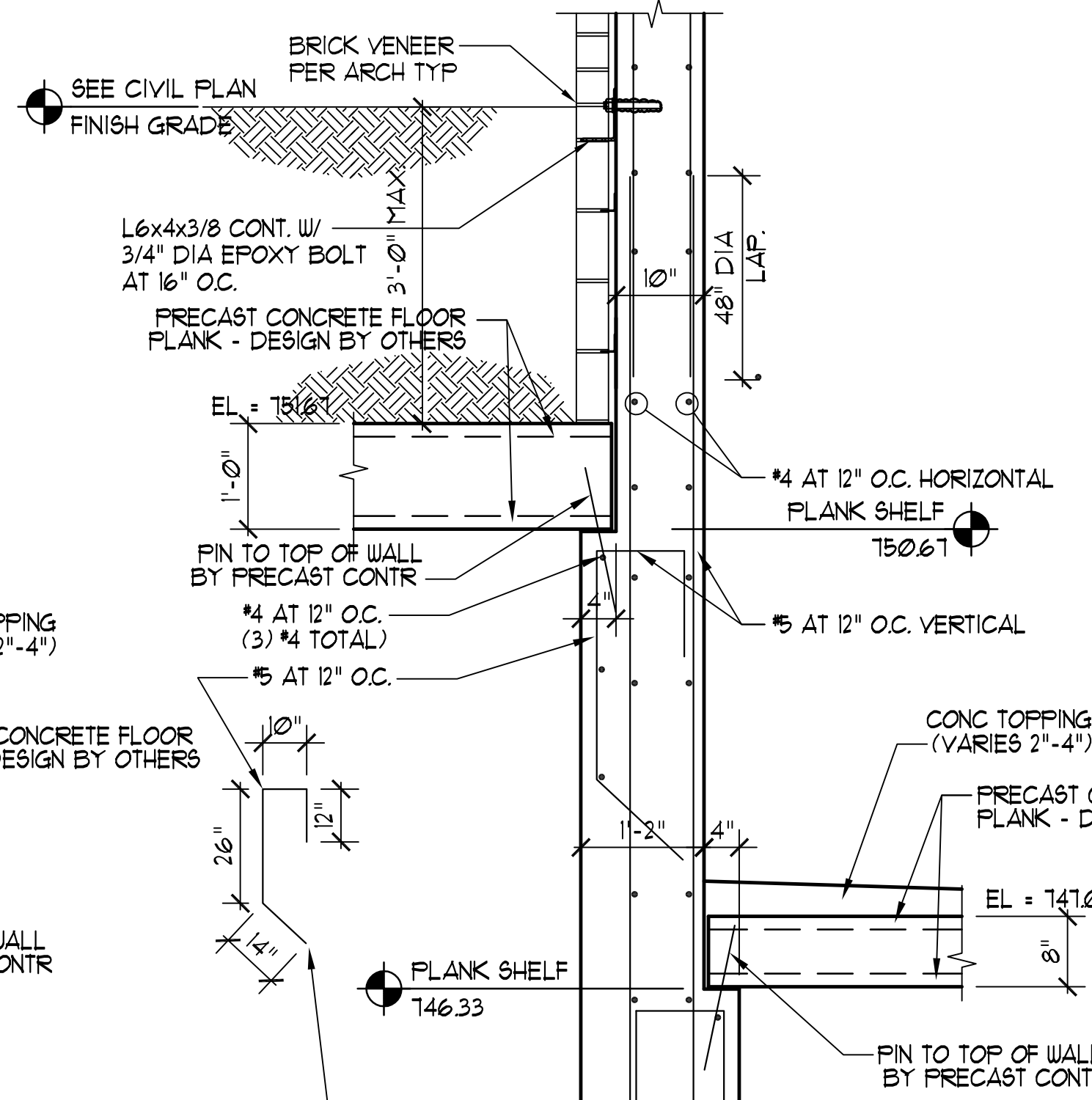
6 SECTION
SCALE 3/4" = 1'-0"



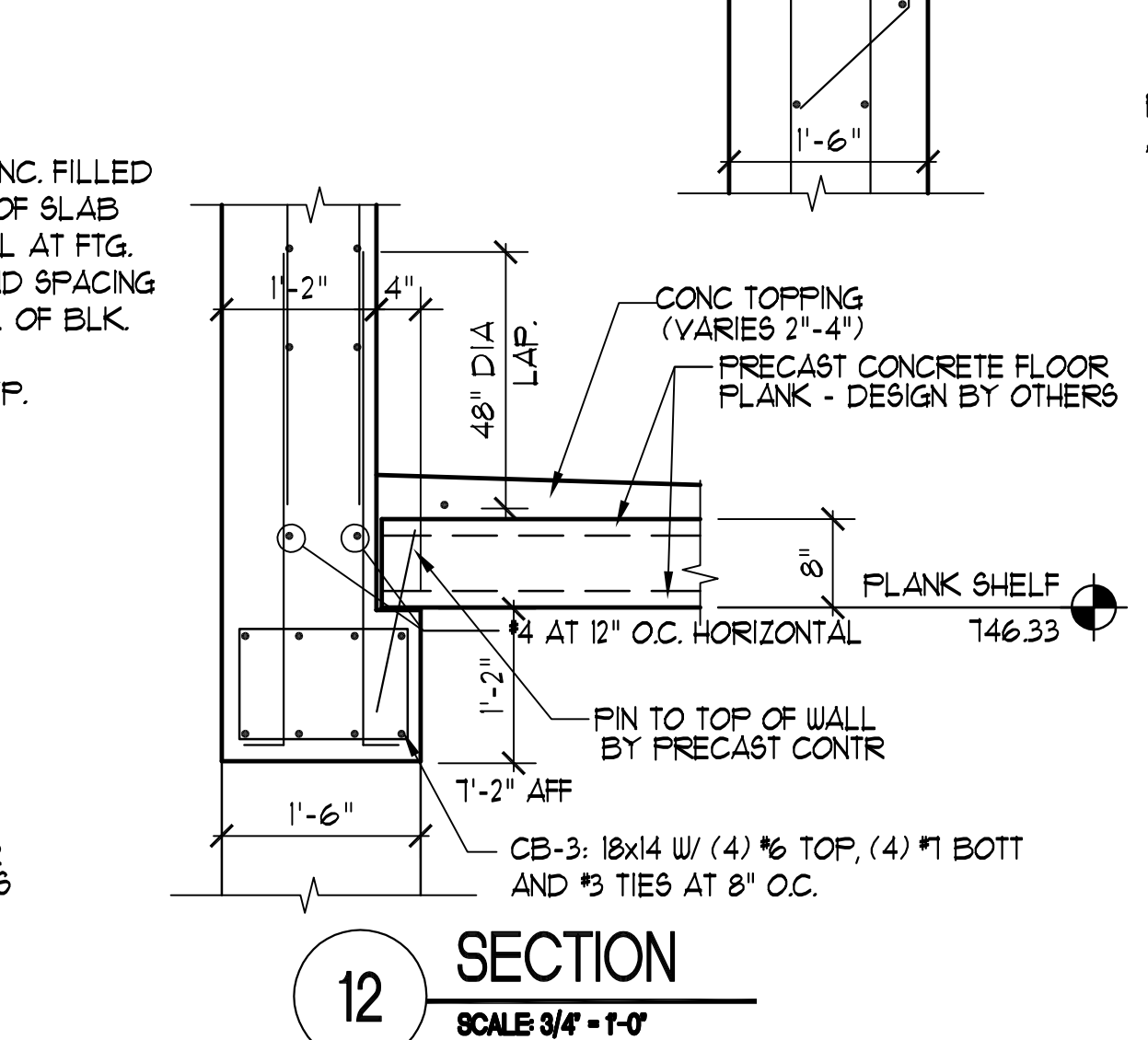
11 SECTION
SCALE 3/4" = 1'-0"



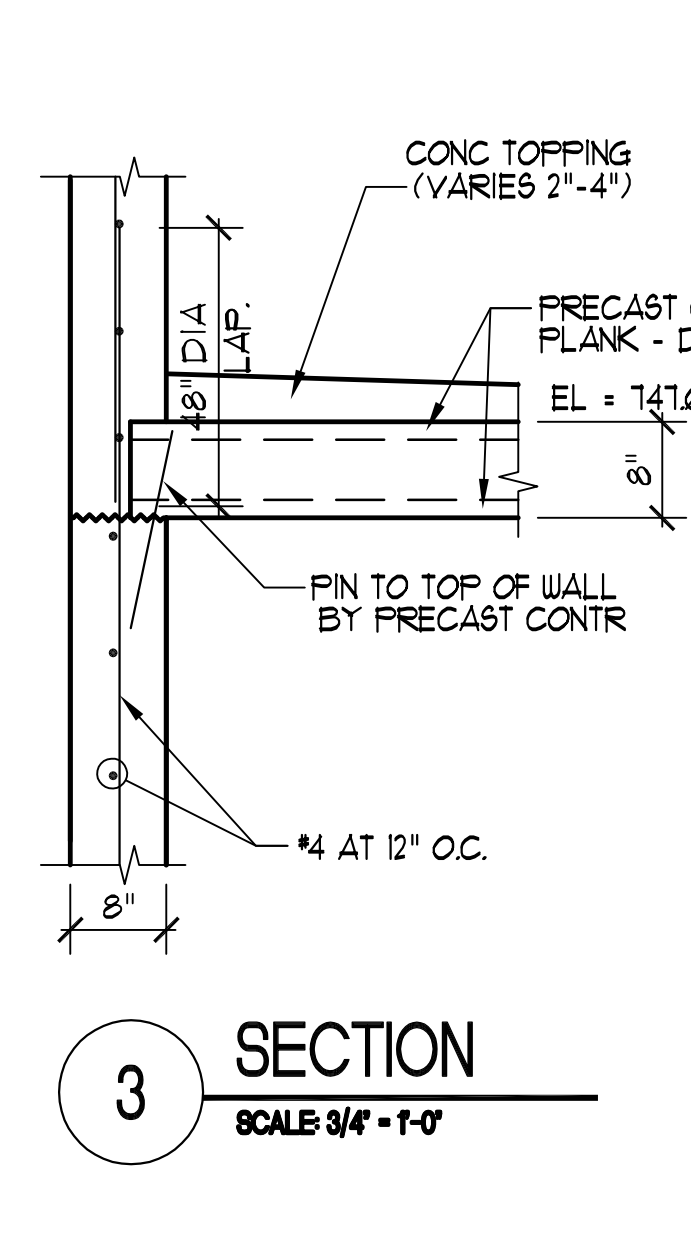
2 SECTION
SCALE 3/4" = 1'-0"



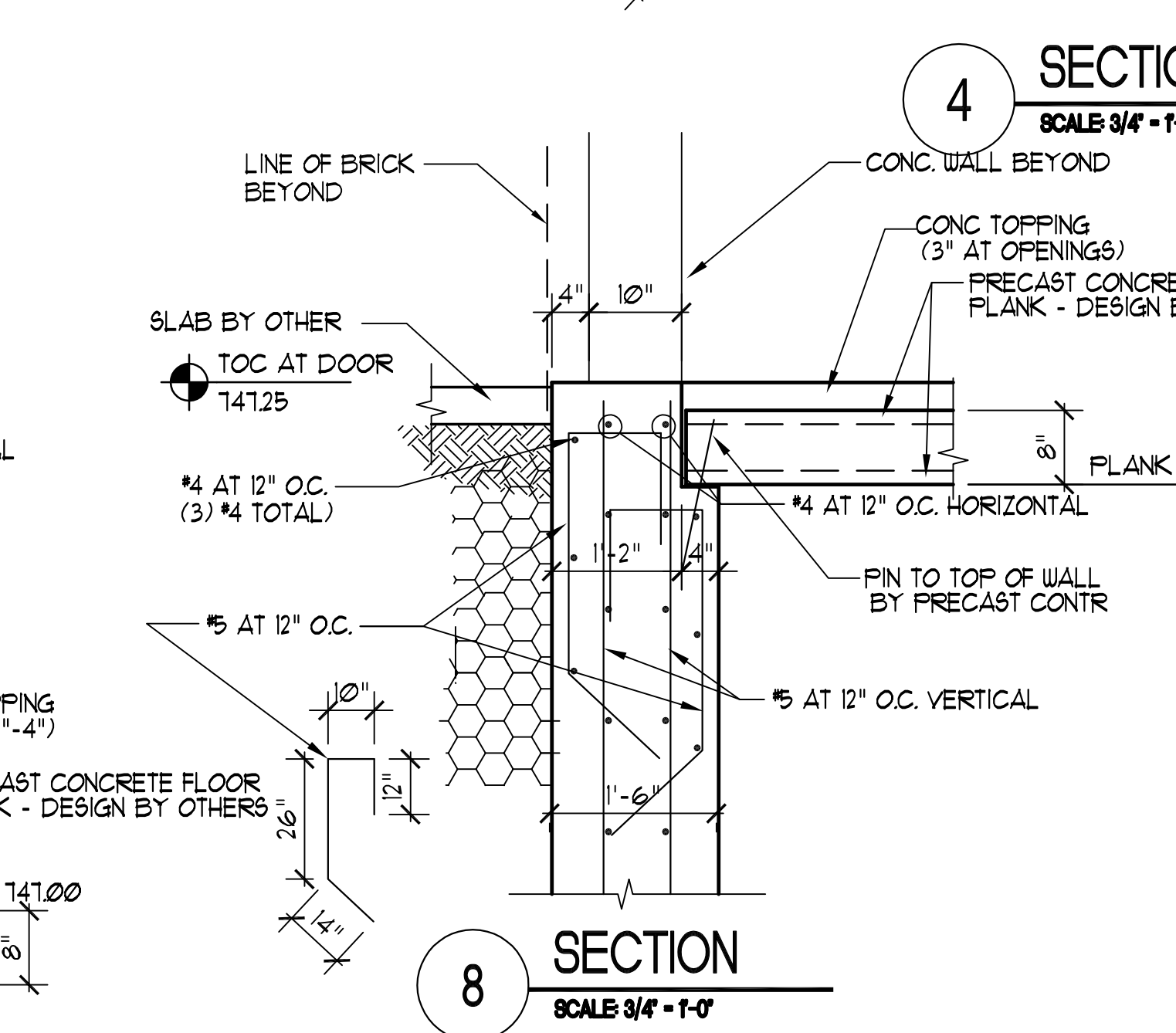
7 SECTION
SCALE 3/4" = 1'-0"



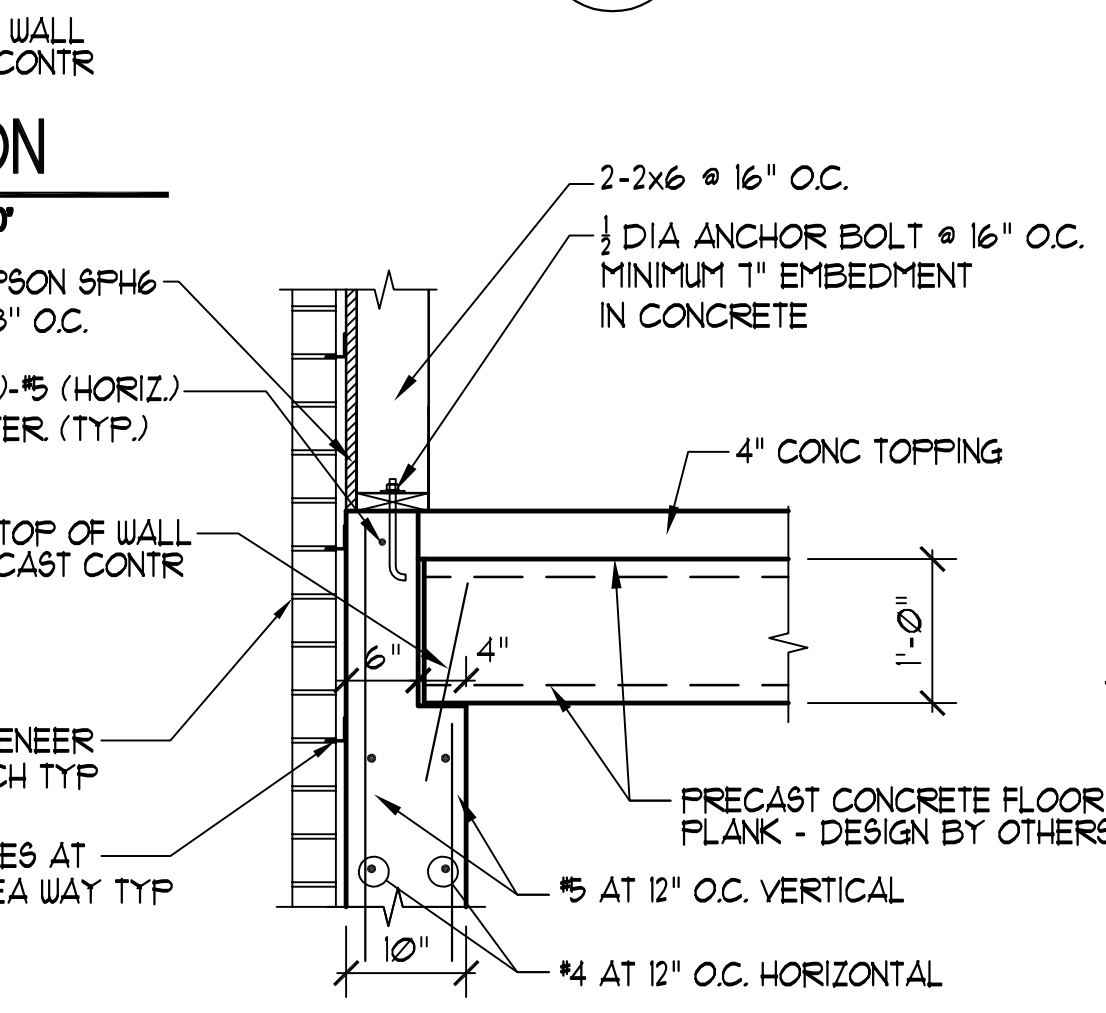
12 SECTION
SCALE 3/4" = 1'-0"



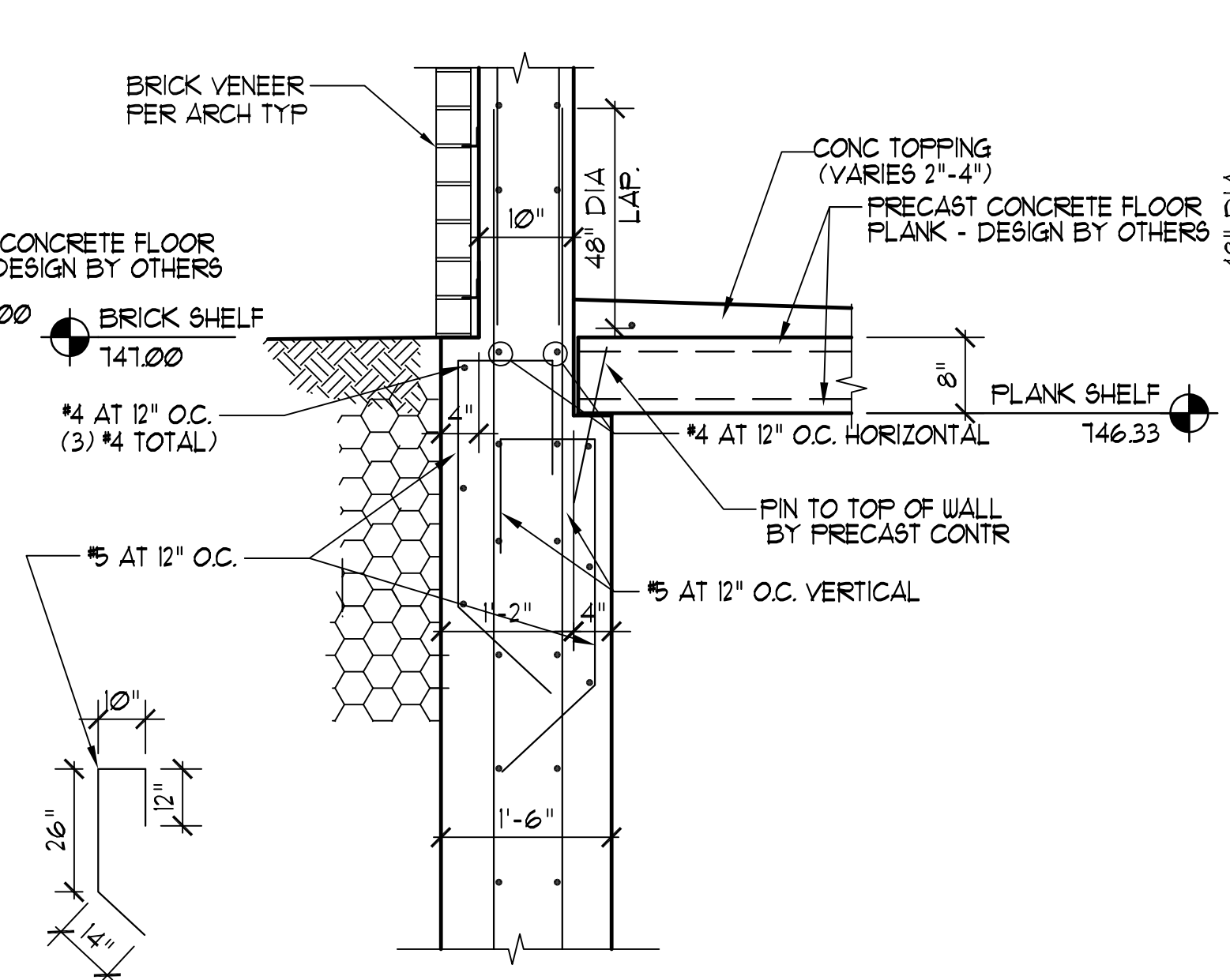
3 SECTION
SCALE 3/4" = 1'-0"



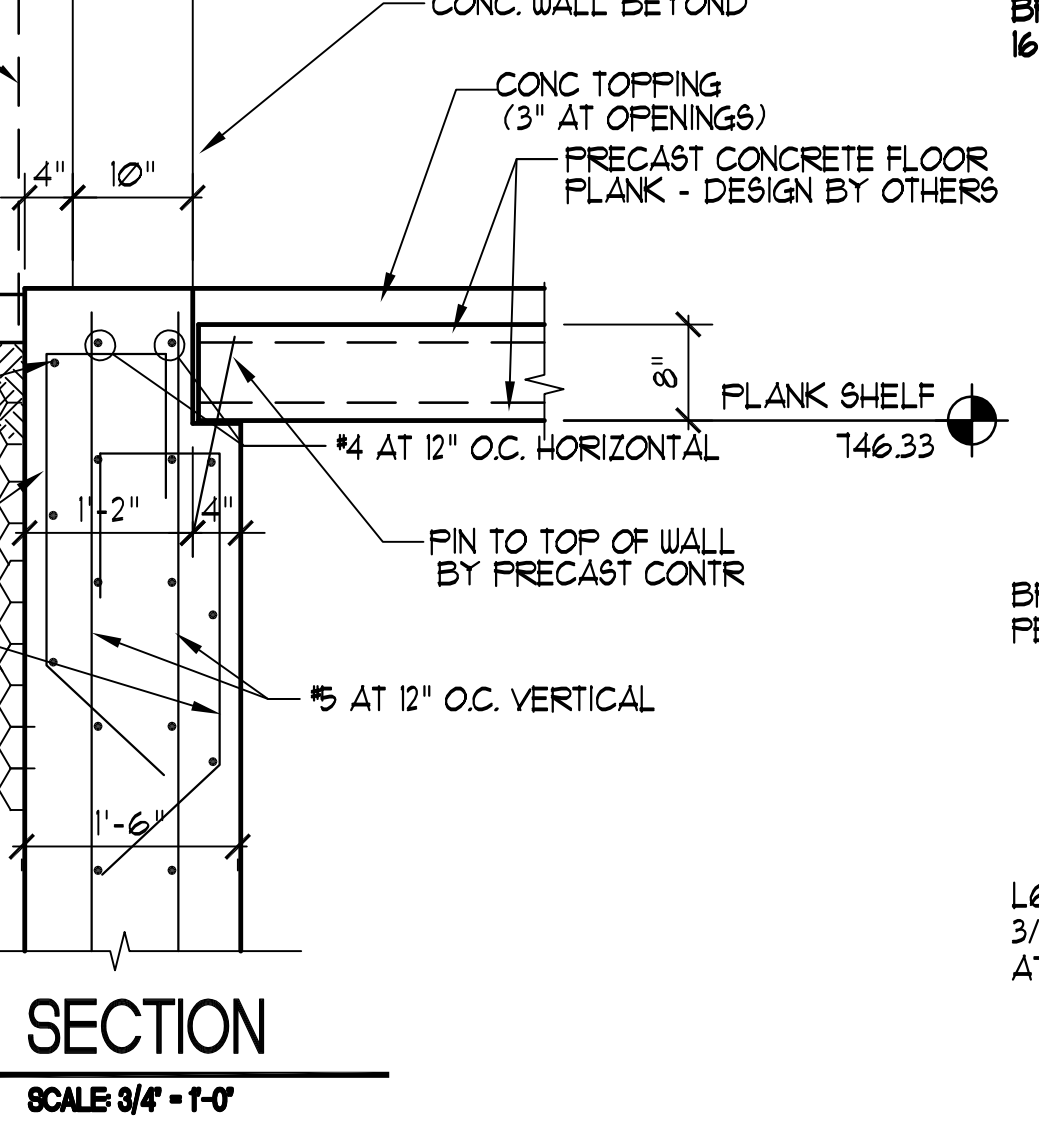
8 SECTION
SCALE 3/4" = 1'-0"



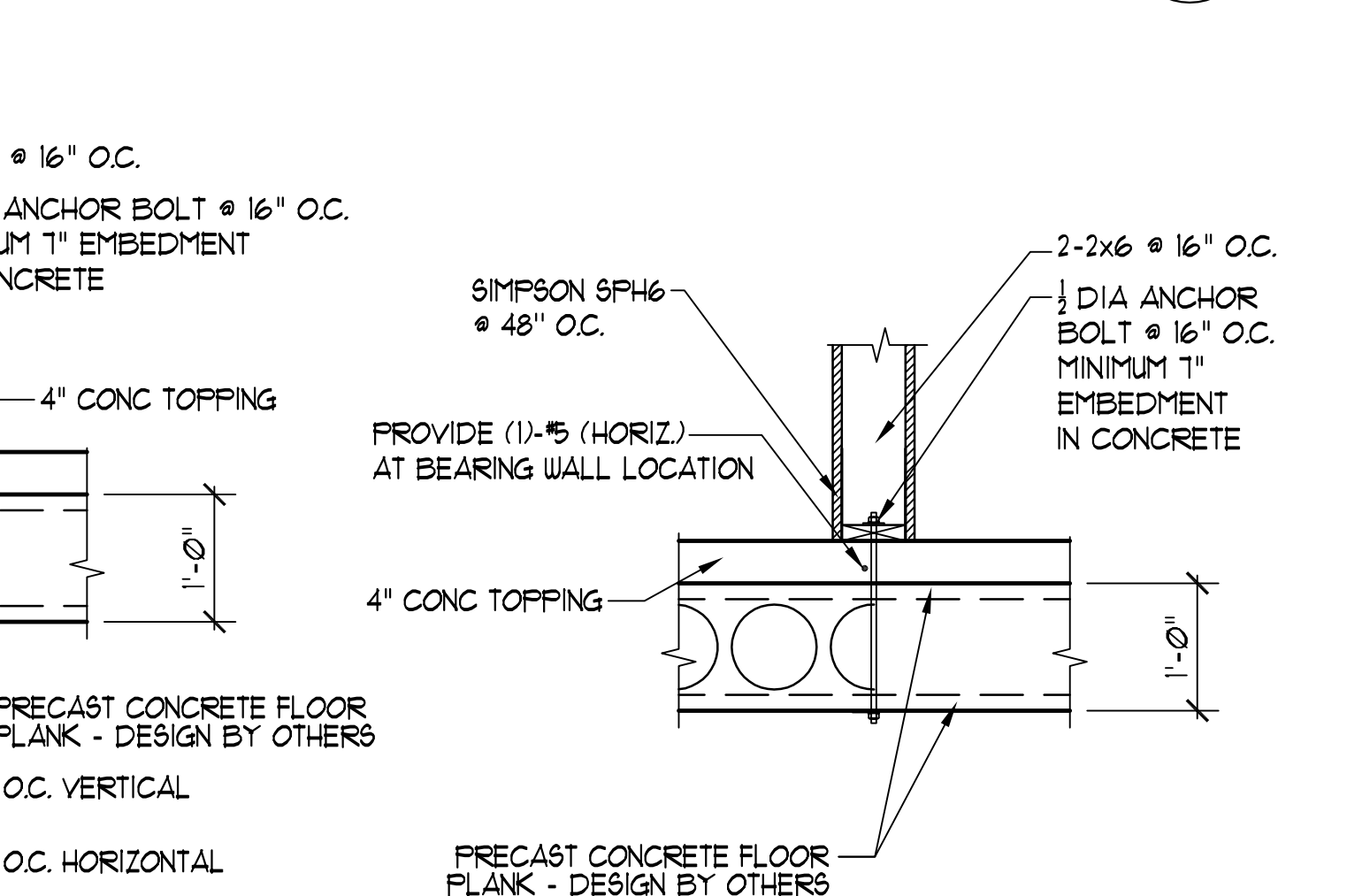
13 SECTION
SCALE 3/4" = 1'-0"



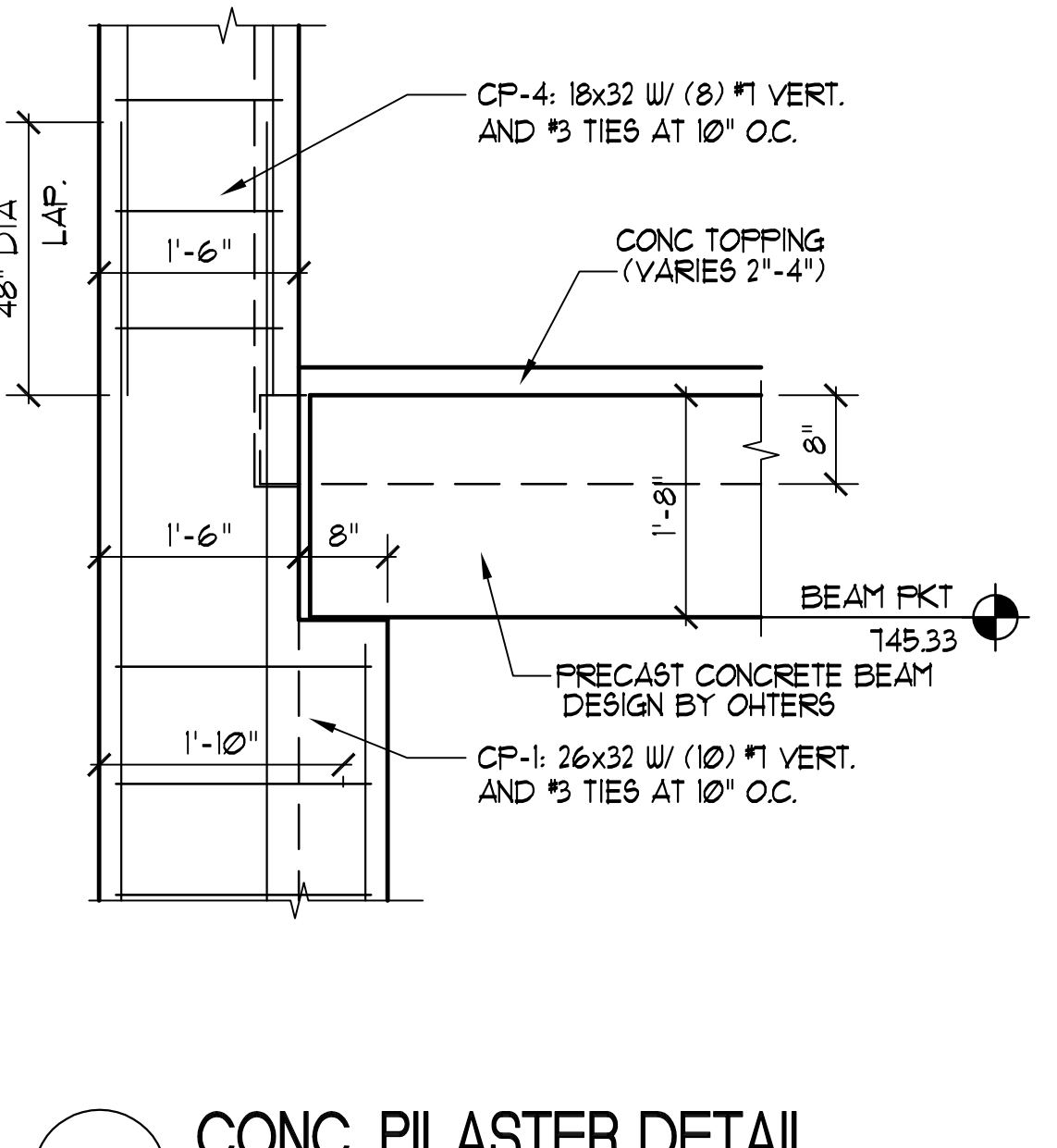
4 SECTION
SCALE 3/4" = 1'-0"



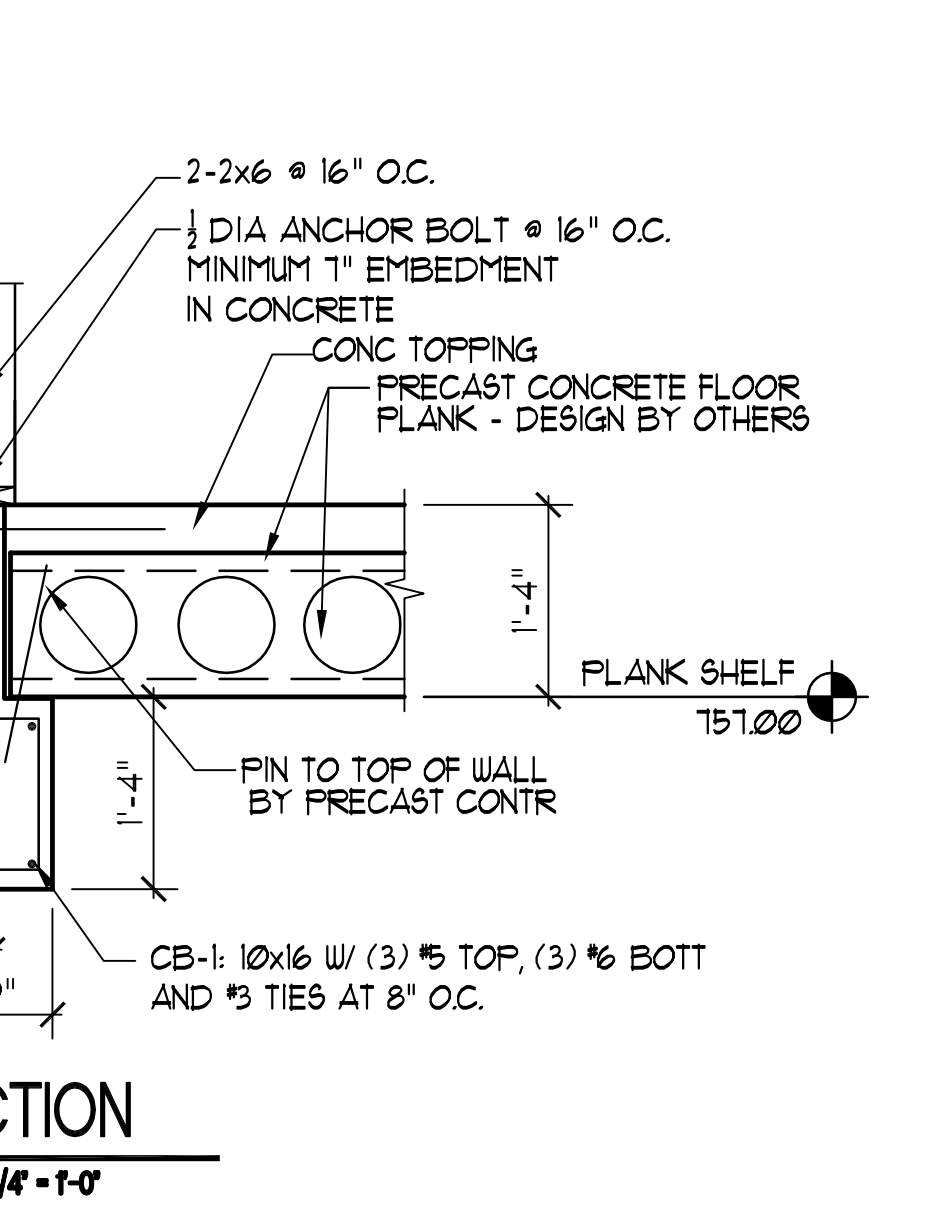
9 SECTION
SCALE 3/4" = 1'-0"



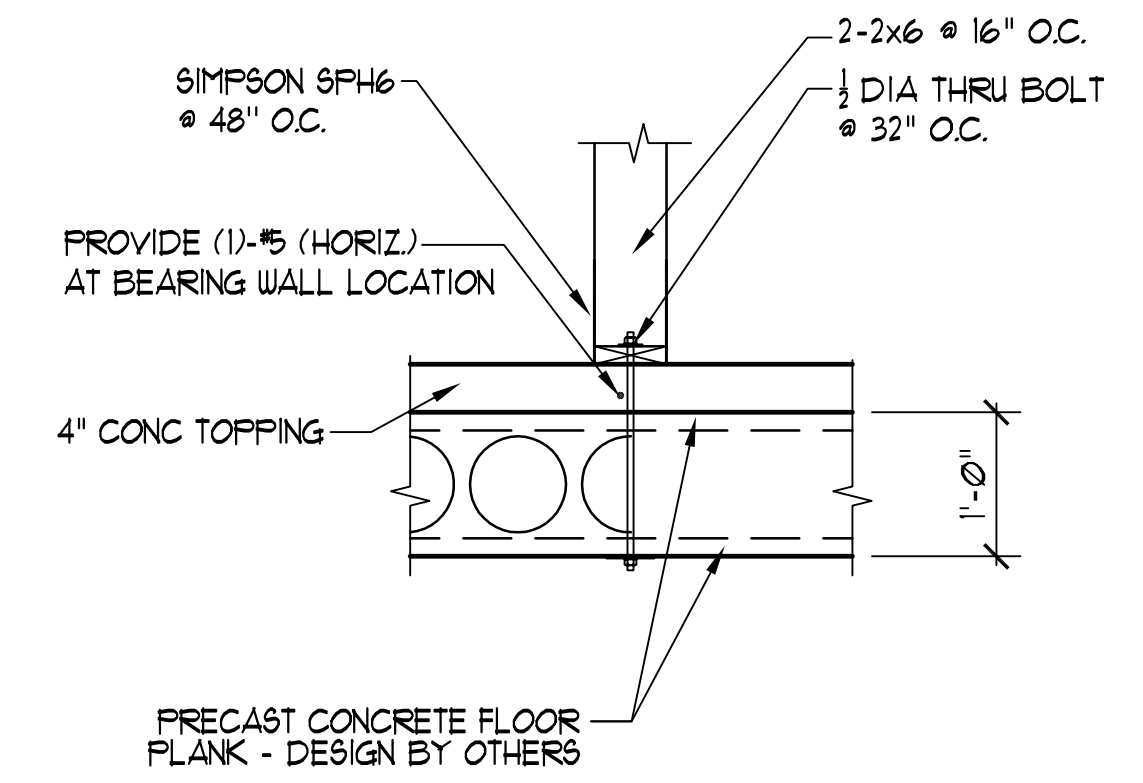
14 SECTION AT SHEAR WALL
SCALE 3/4" = 1'-0"



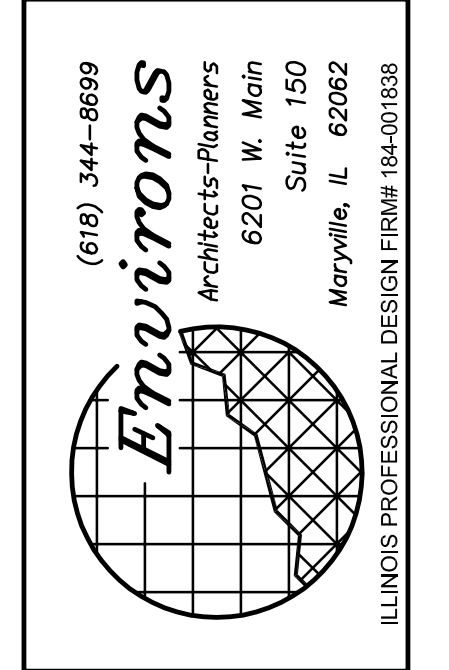
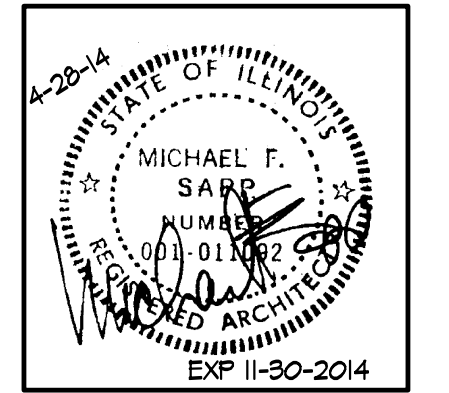
5 CONC. PILASTER DETAIL
SCALE 3/4" = 1'-0"



10 NOT USED
SCALE 3/4" = 1'-0"

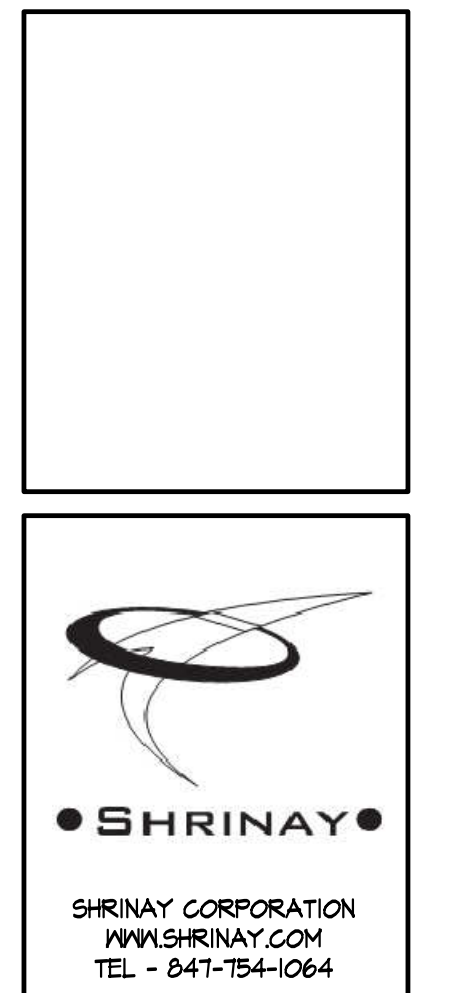


15 SECTION
SCALE 3/4" = 1'-0"

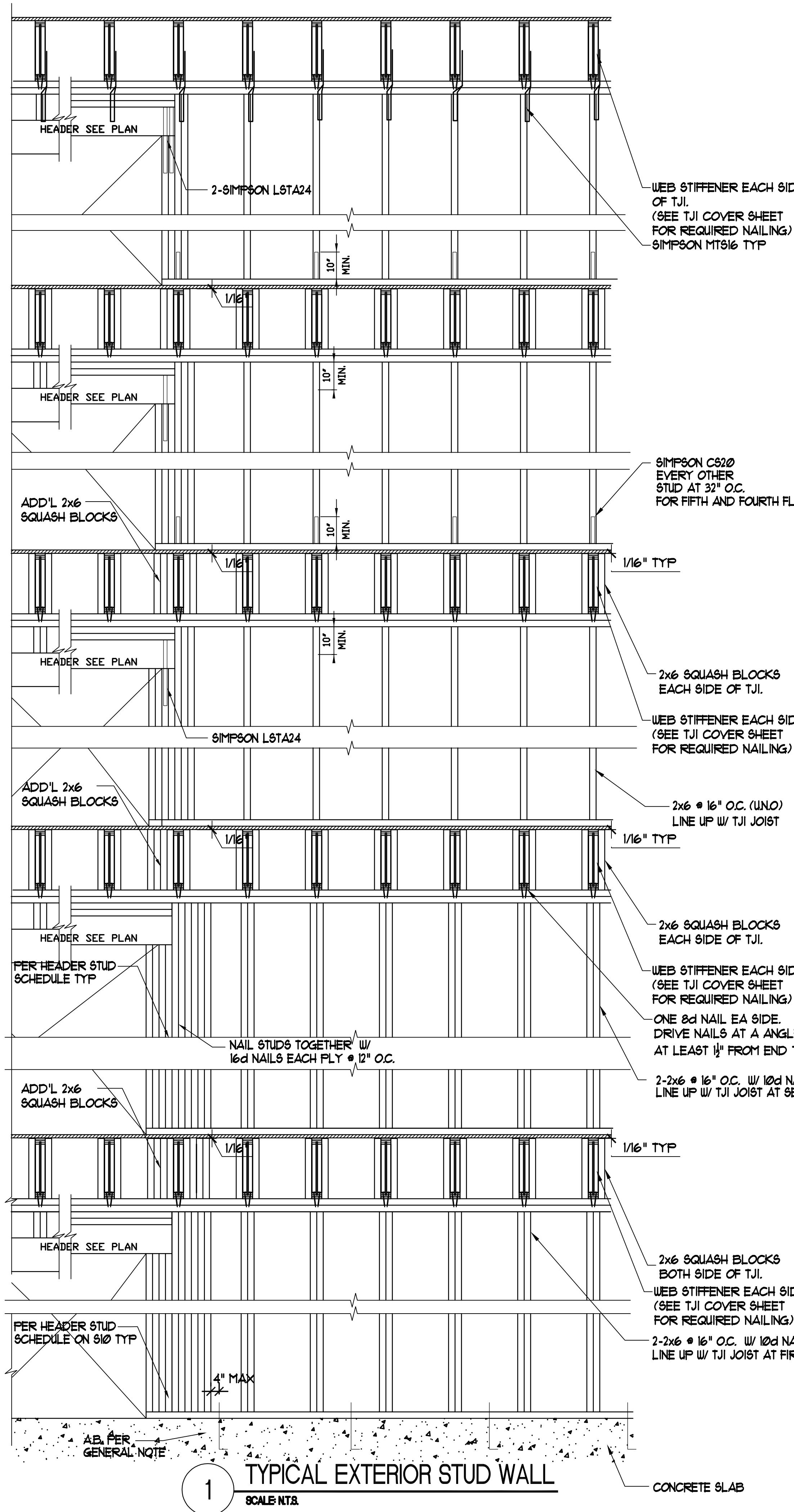


JOB NO.
13022

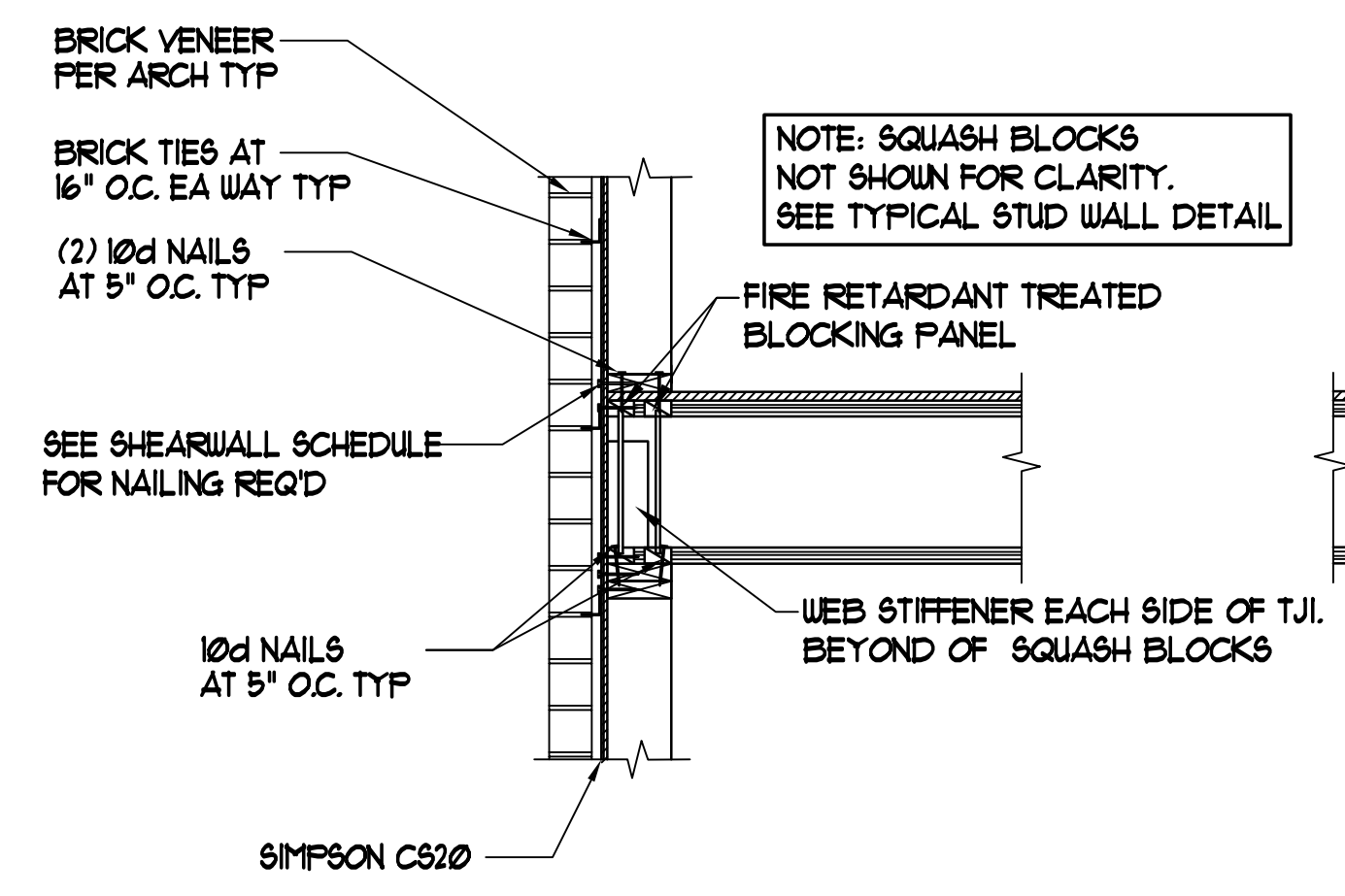
DATE:
DECEMBER 11, 2013
REVISED:
FEBRUARY 20, 2014
PRECAST OPTION
APRIL 28, 2014



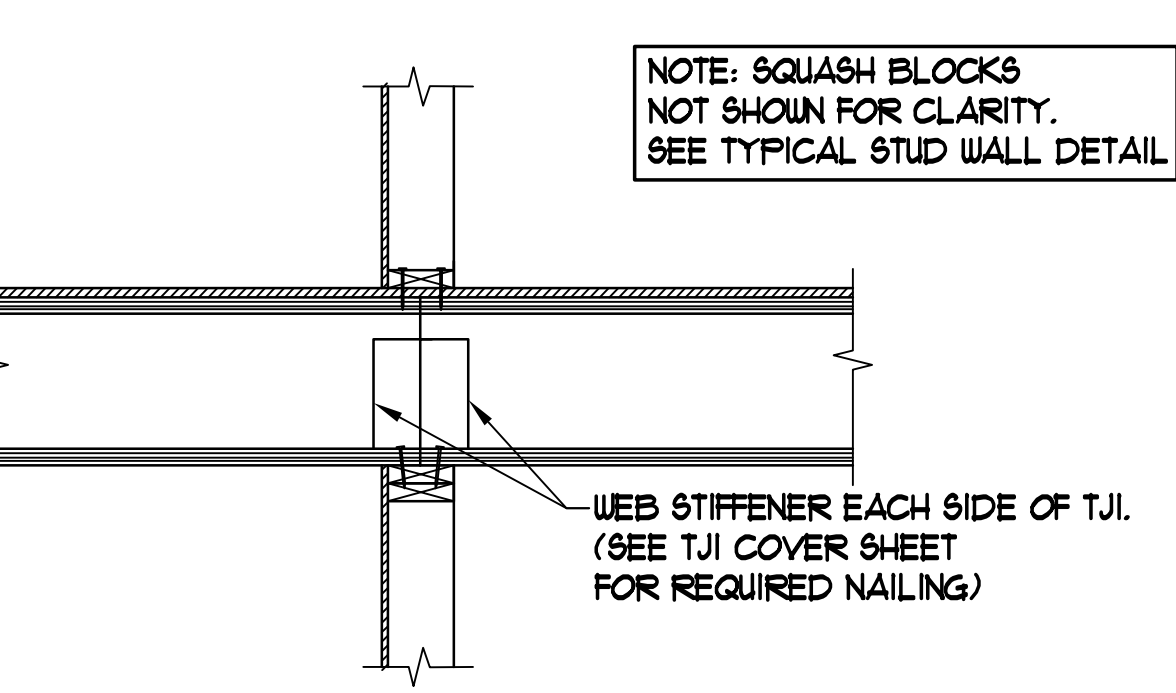
A NEW APARTMENT BUILDING 'C':
CARDINAL SQUARE APARTMENTS
McKINLEY + ANTHONY AVE. MUNDELEIN, ILLINOIS
FIND REINFORCING AND FRAMING DETAILS



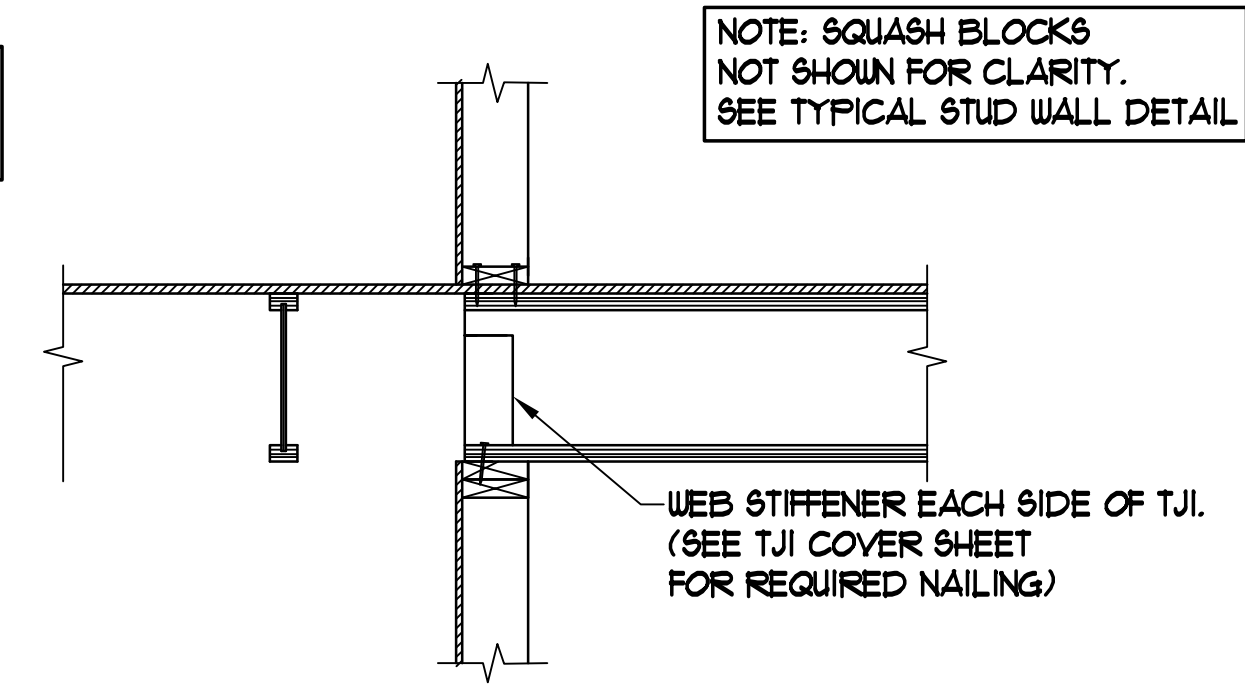
1 TYPICAL EXTERIOR STUD WALL
SCALE: NTS



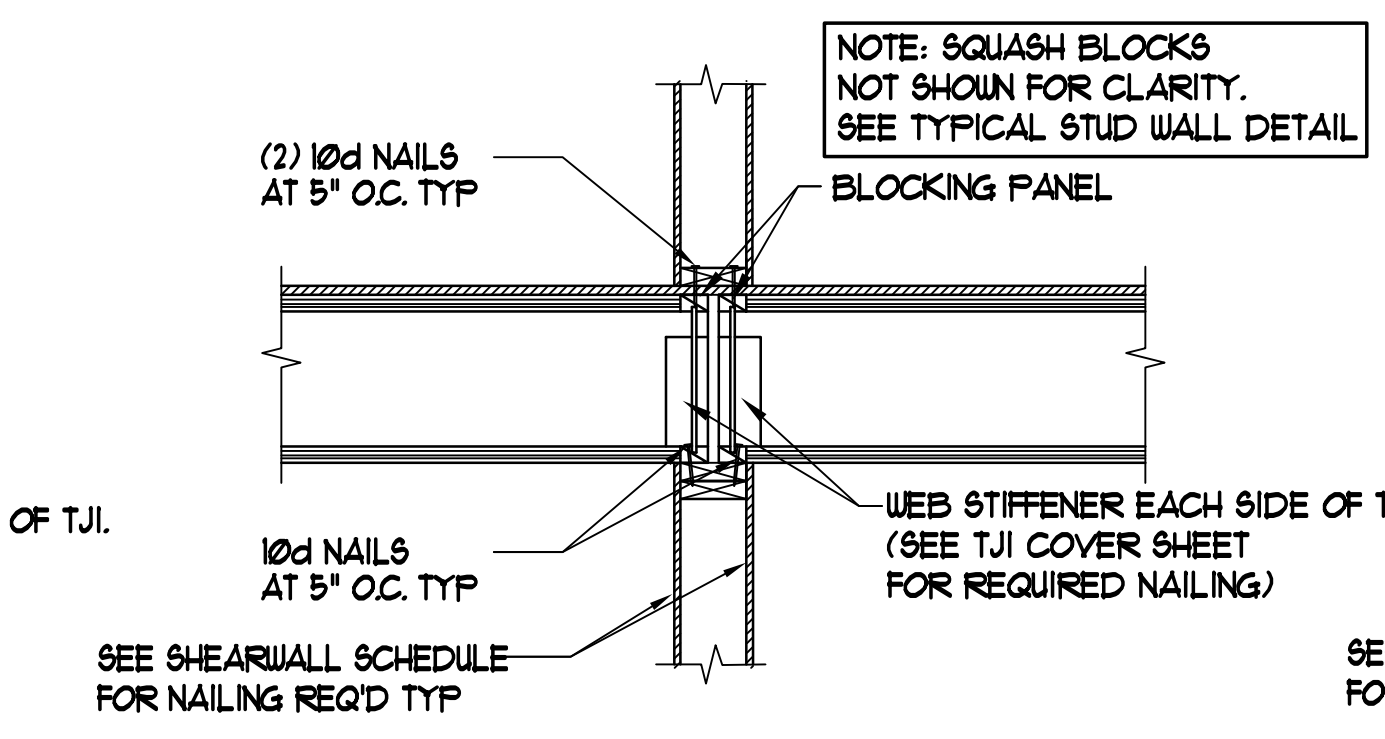
2 TYPICAL TJI EXT. (SHEAR WALL) BEARING AT STUD WALL
SCALE: 3/4" = 1'-0"



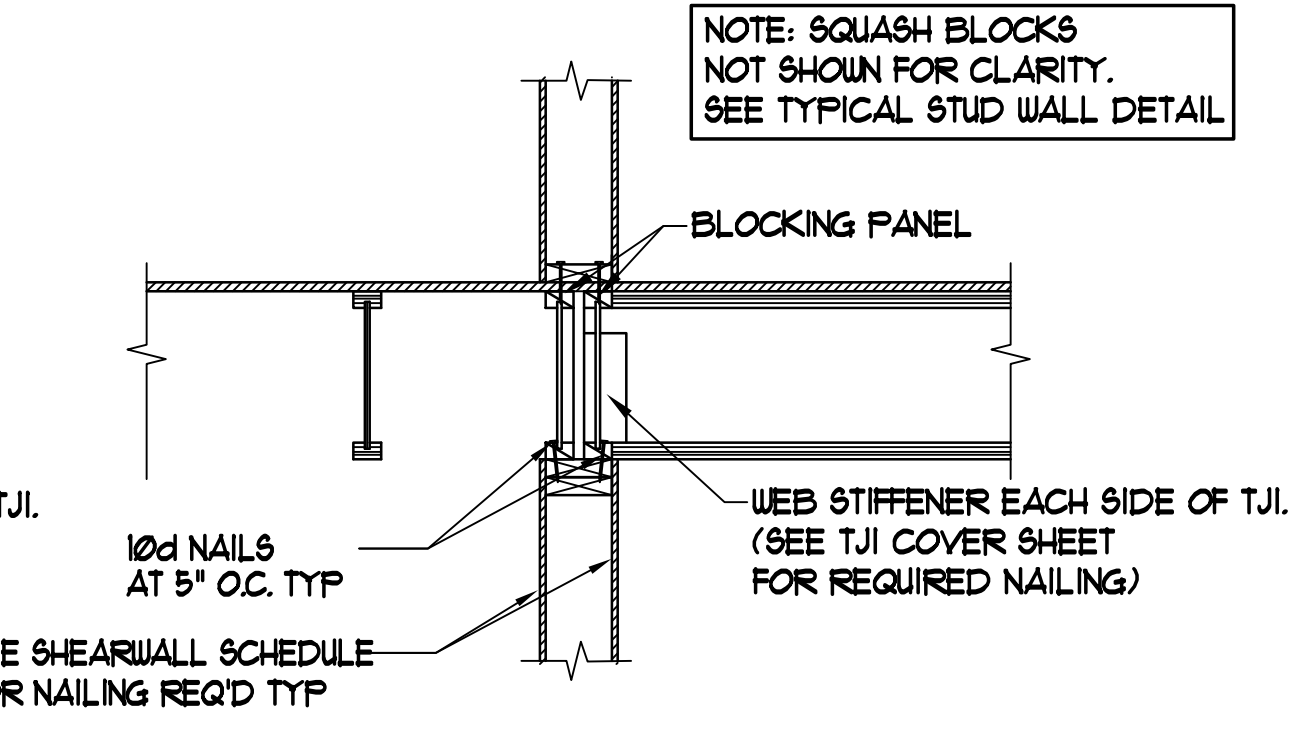
3 TYPICAL TJI INT. BEARING AT STUD WALL
SCALE: 3/4" = 1'-0"



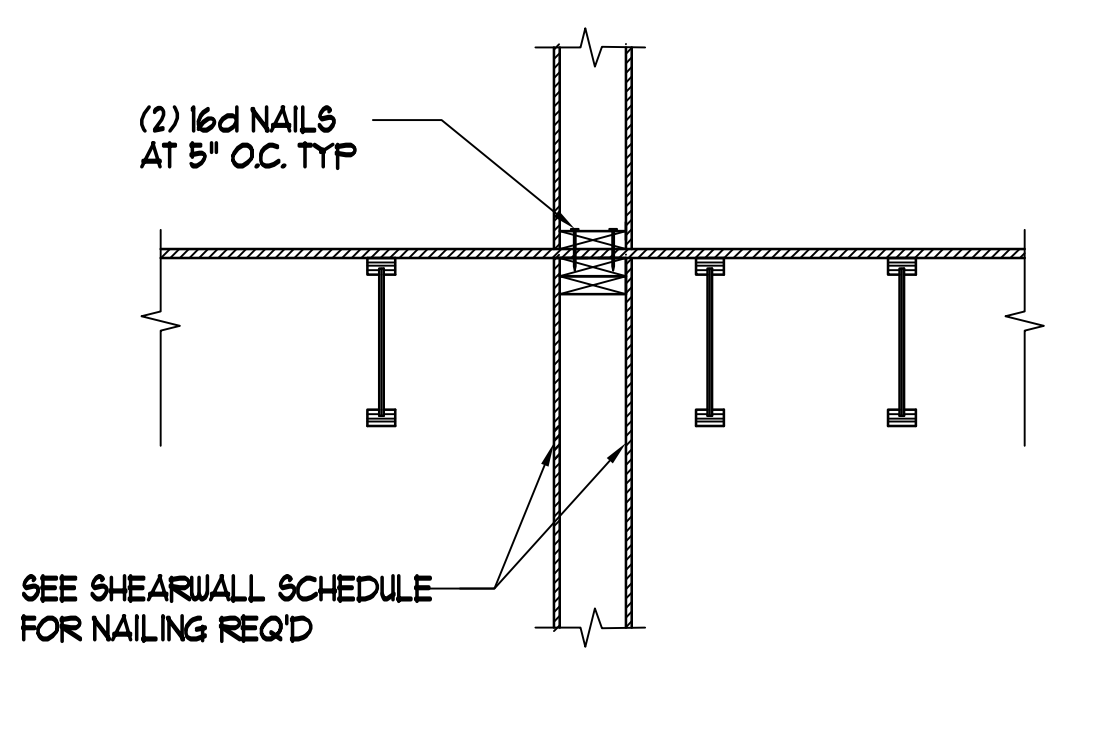
4 TYPICAL TJI INT. BEARING AT STUD WALL
SCALE: 3/4" = 1'-0"



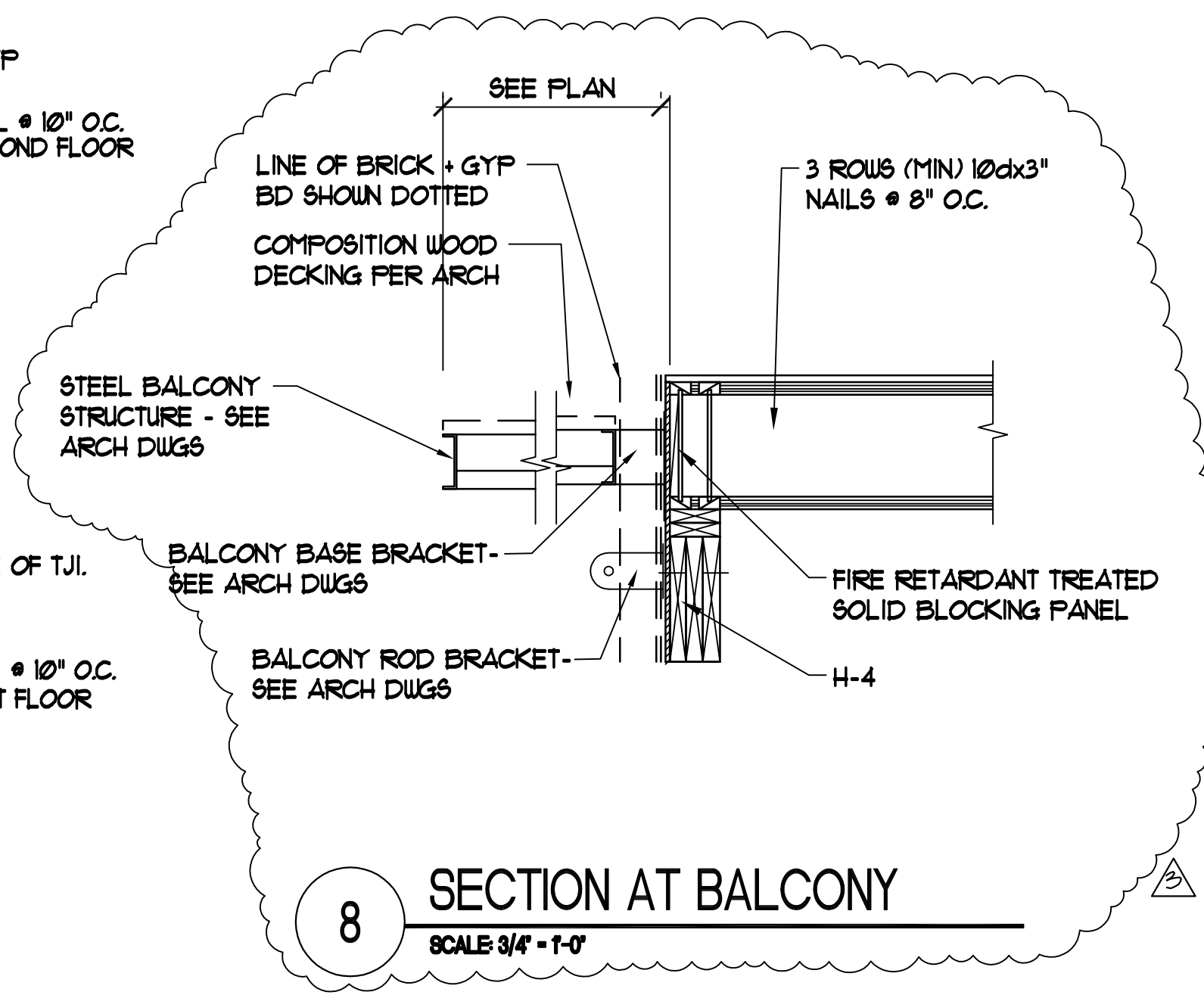
5 TYPICAL TJI INT. (SHEAR WALL) BEARING AT STUD WALL
SCALE: 3/4" = 1'-0"



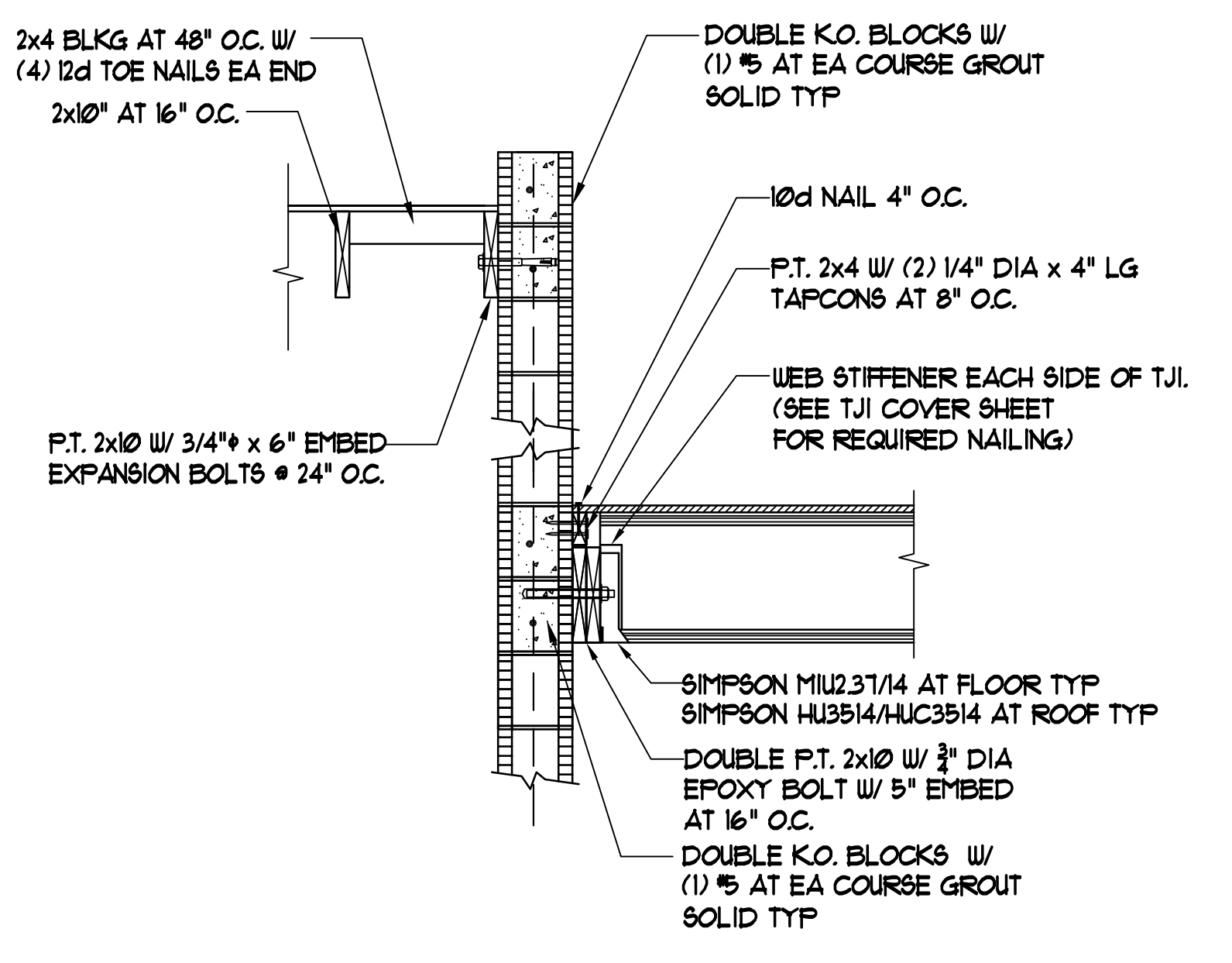
6 TYPICAL TJI INT. (SHEAR WALL) BEARING AT STUD WALL
SCALE: 3/4" = 1'-0"



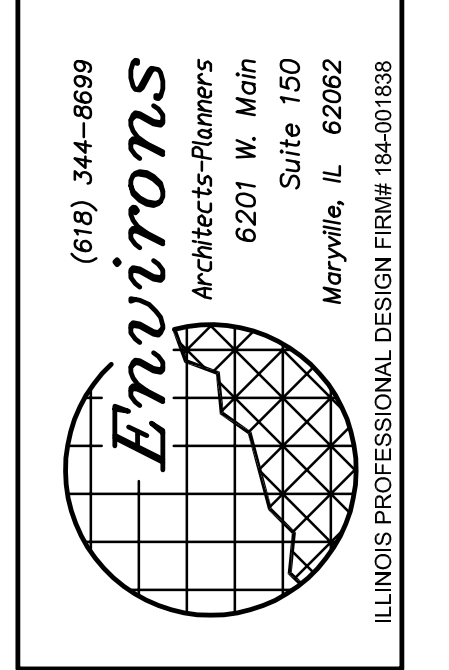
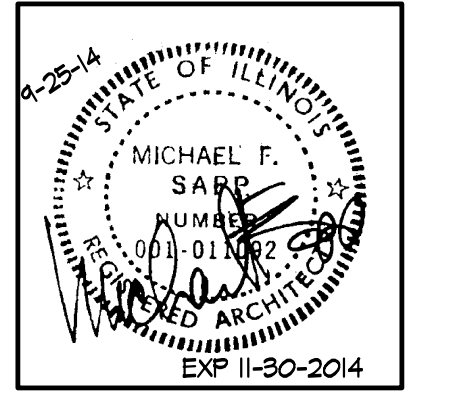
7 SHEAR WALL SECTION
SCALE: 3/4" = 1'-0"



8 SECTION AT BALCONY
SCALE: 3/4" = 1'-0"

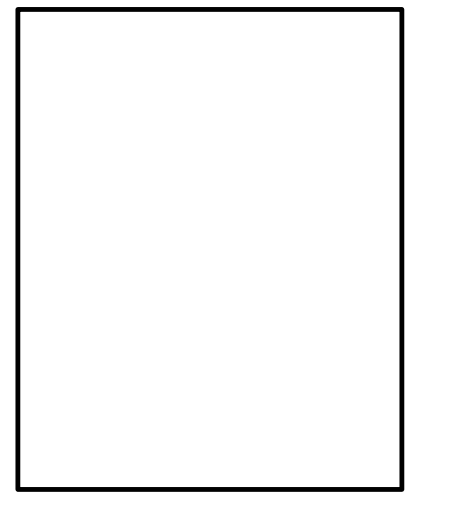


9 TYPICAL TJI INT. BEARING AT CMU WALL
SCALE: 3/4" = 1'-0"



JOB NO.
13022

DATE:
DECEMBER 11, 2013
REVISED:
FEBRUARY 20, 2014
APRIL 28, 2014
SEPTEMBER 25, 2014

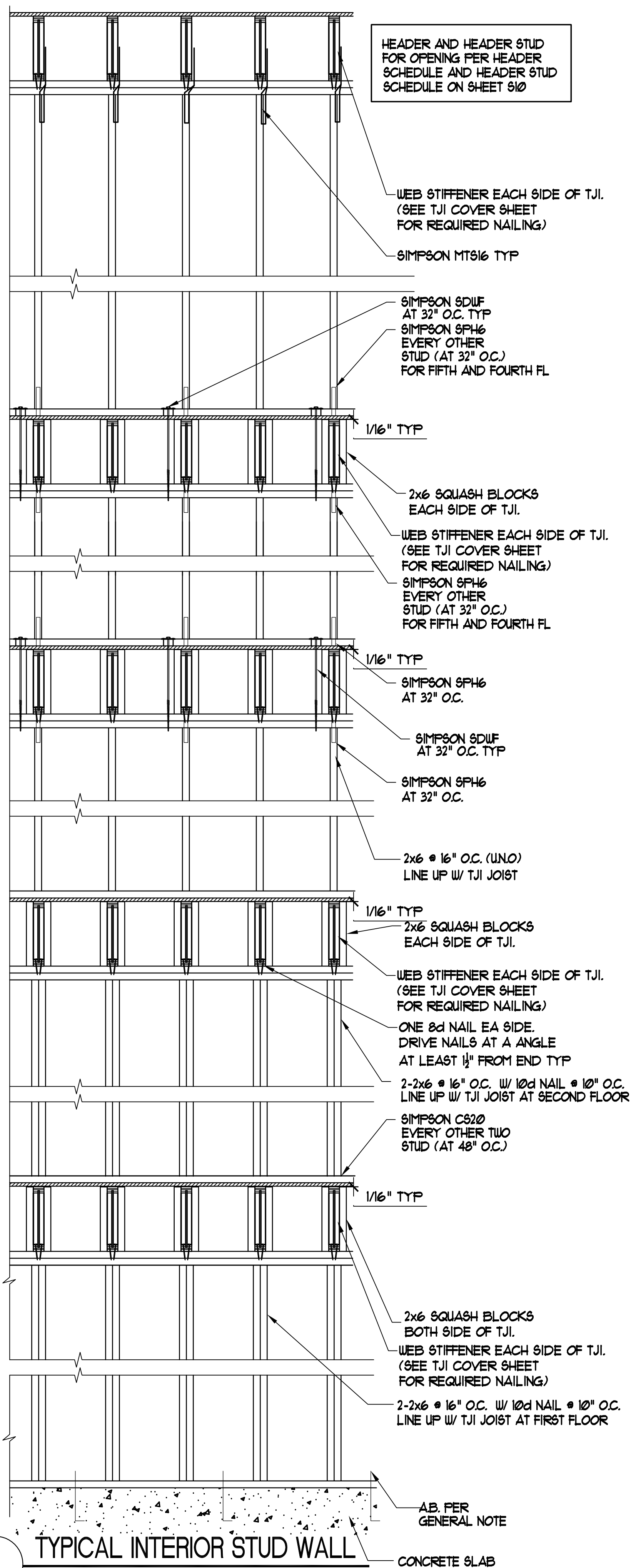


SHRINAY
SHRINAY CORPORATION
WWW.SHRINAY.COM
TEL - 847-154-1064

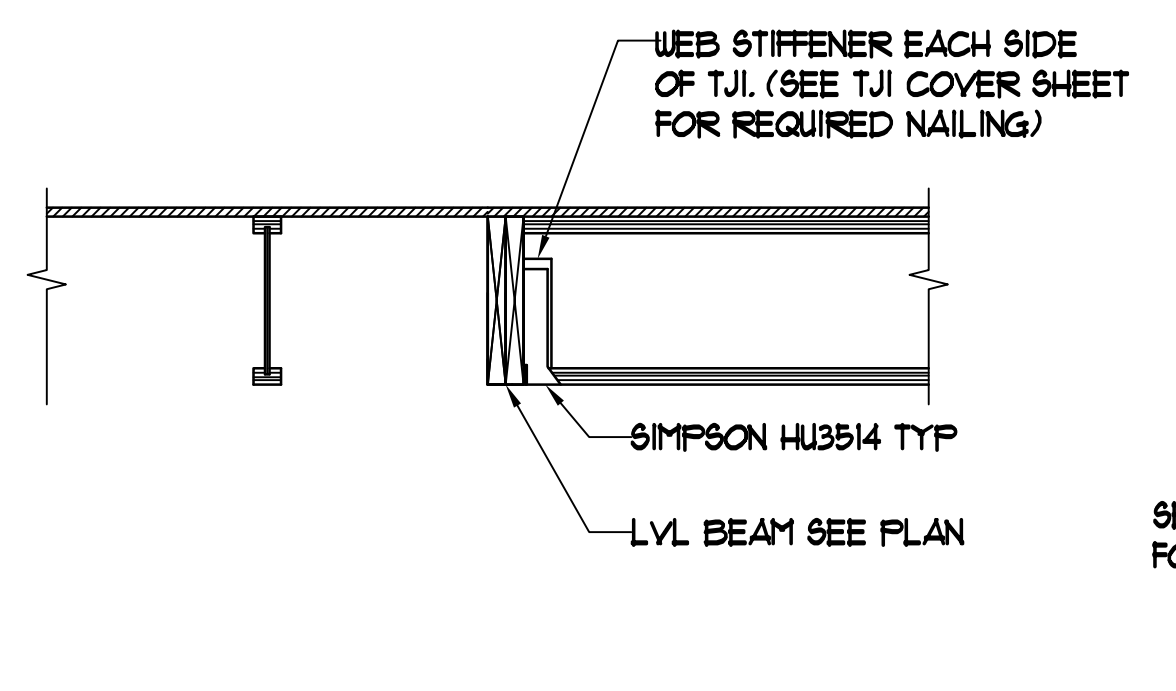
A NEW APARTMENT BUILDING 'C':
CARDINAL SQUARE APARTMENTS
McKINLEY + ANTHONY AVE.
MUNDELEIN, ILLINOIS
UPPER FLOOR FRAMING DETAILS

SHEET
58
OF 13

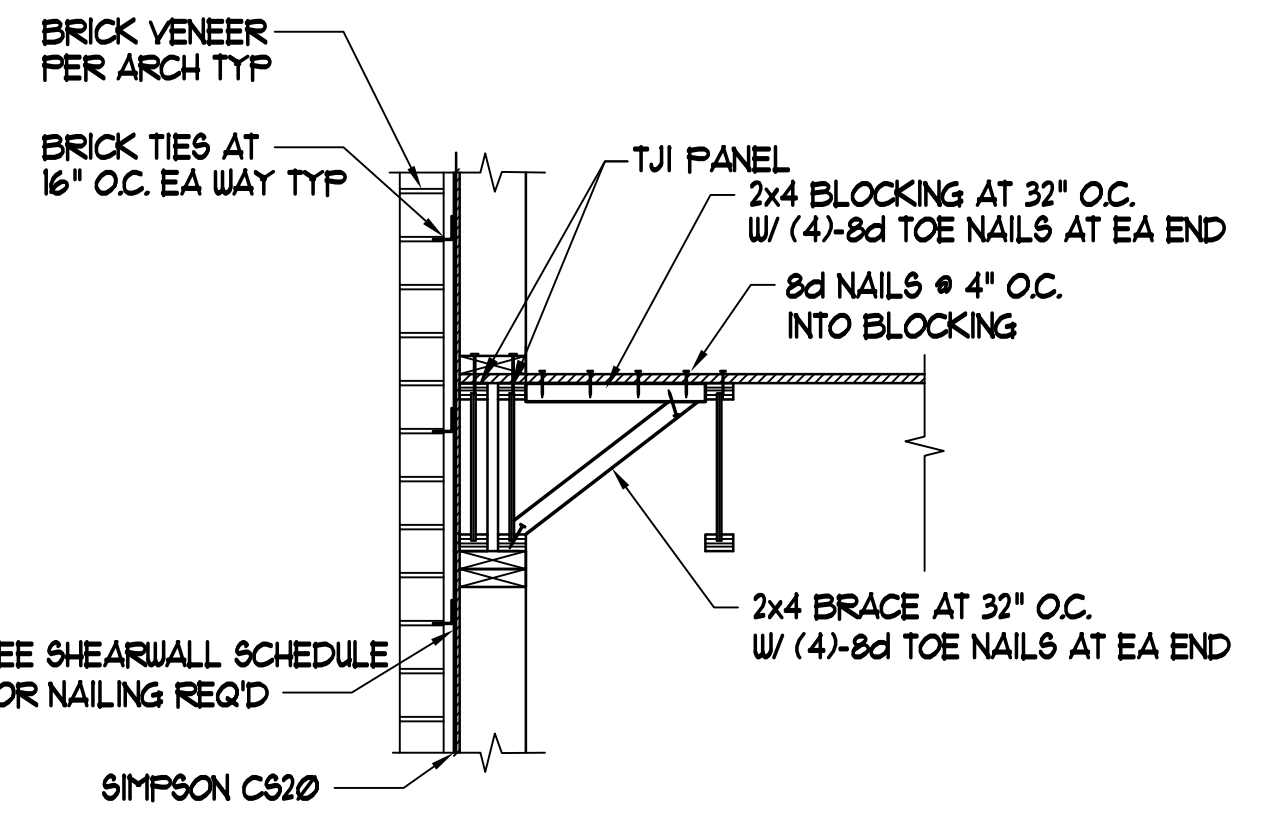
© 2013 ENVIRON ARCHITECTS-PLANNERS ALL RIGHTS RESERVED.



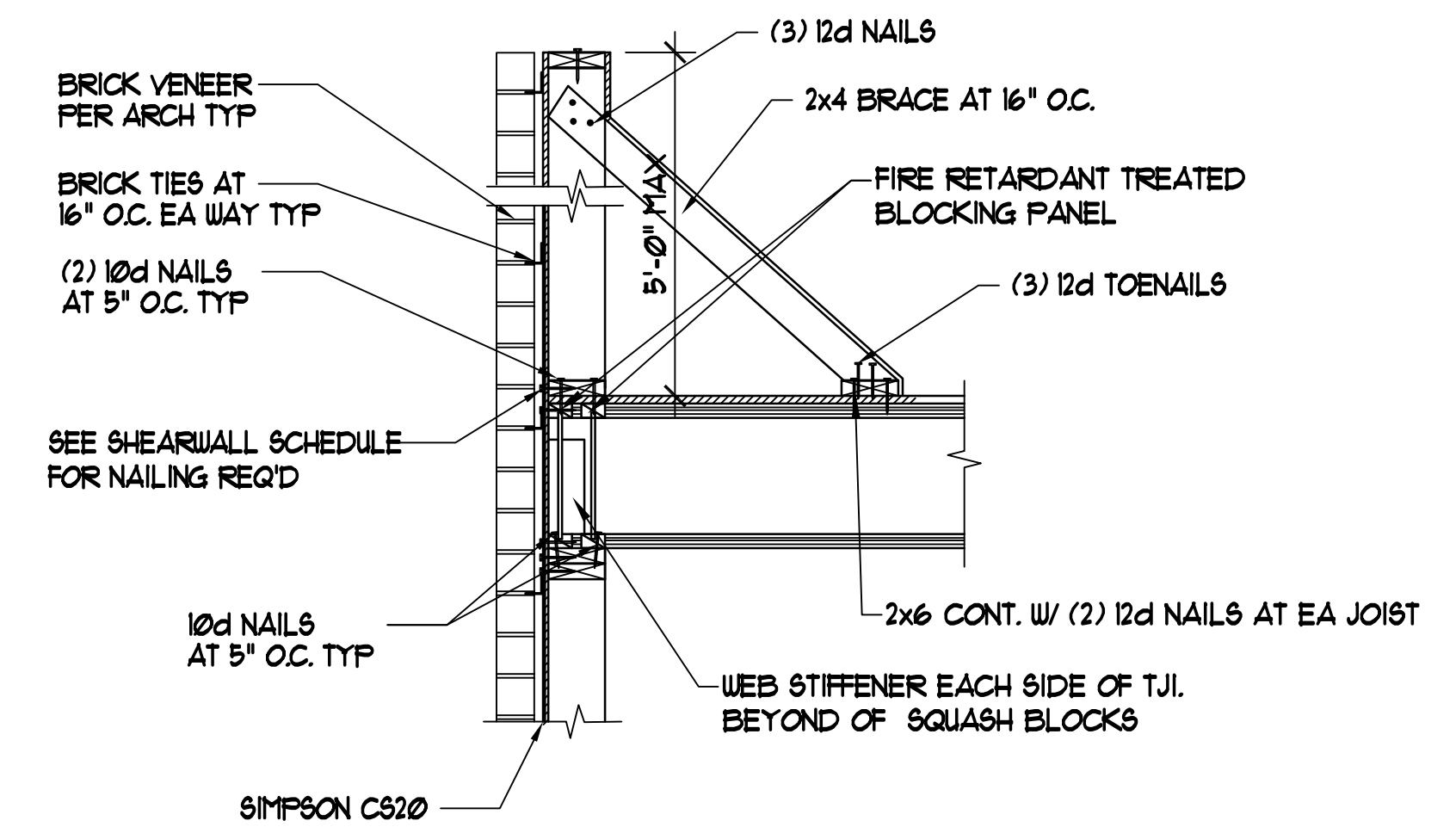
1 TYPICAL INTERIOR STUD WALL SCALE NTS



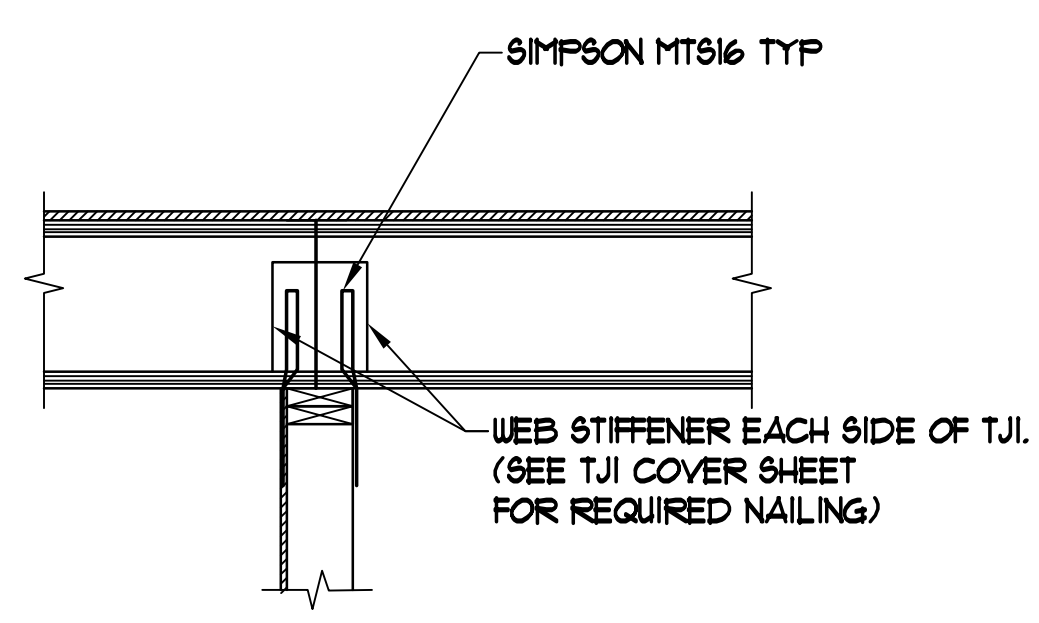
2 SECTION SCALE 3/4" = 1'-0"



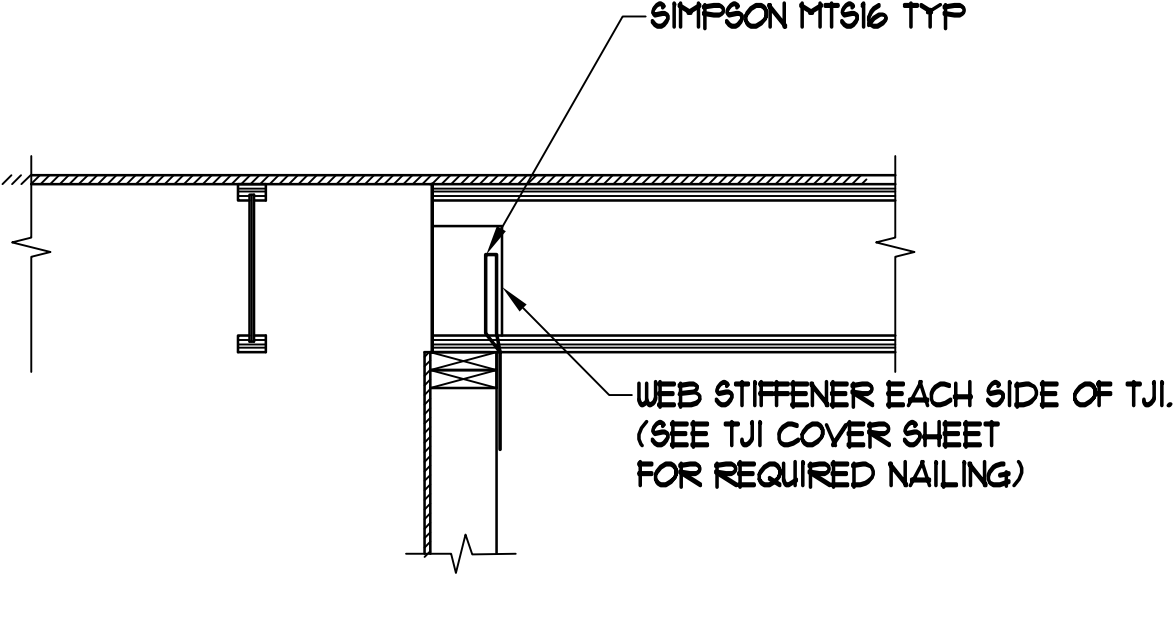
3 SECTION SCALE 3/4" = 1'-0"



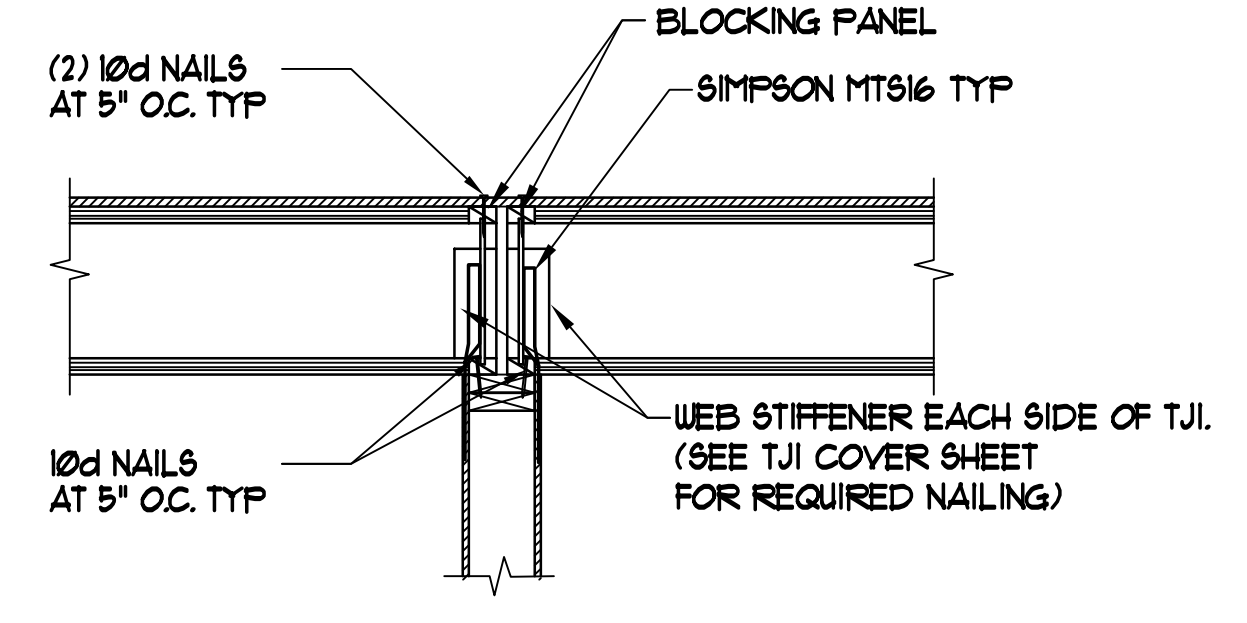
4 SECTION AT ROOF SCALE 3/4" = 1'-0"



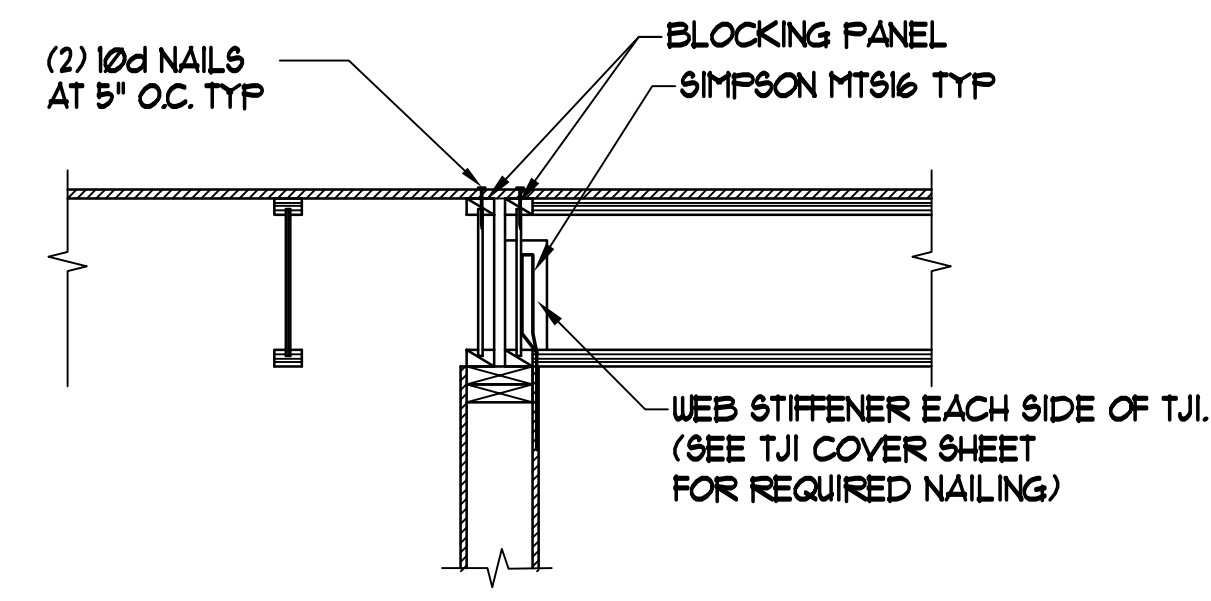
5 SECTION AT ROOF SCALE 3/4" = 1'-0"



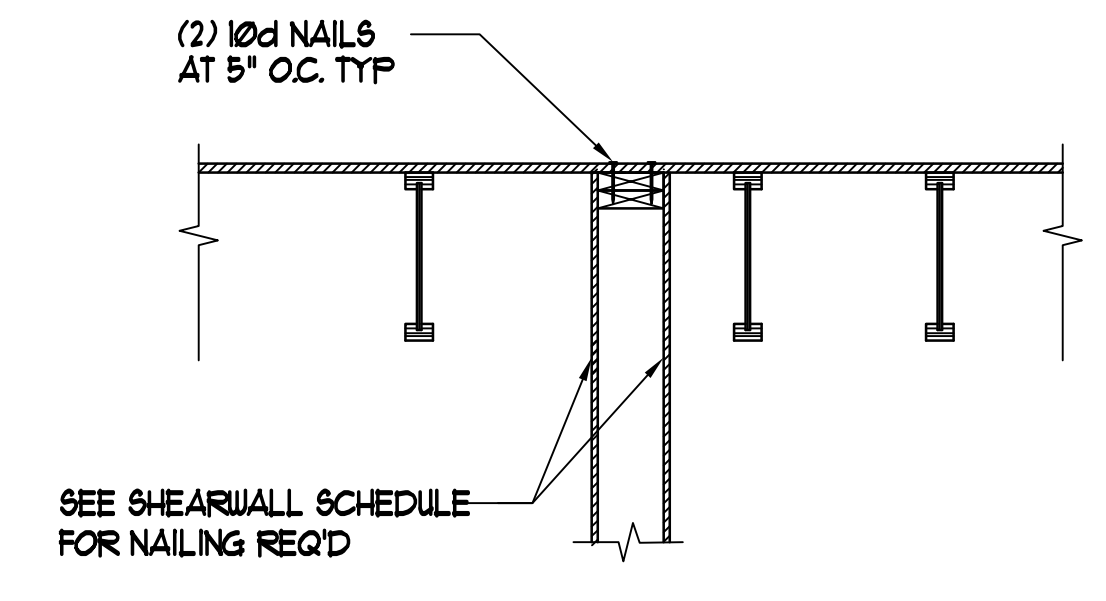
6 SECTION AT ROOF SCALE 3/4" = 1'-0"



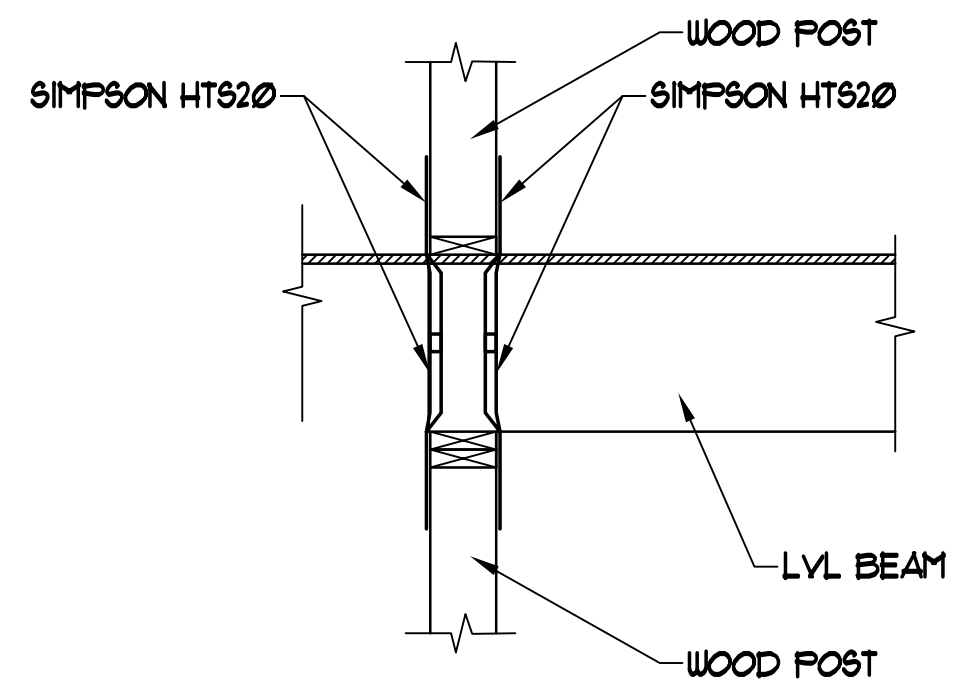
7 SHEAR WALL SECTION AT ROOF SCALE 3/4" = 1'-0"



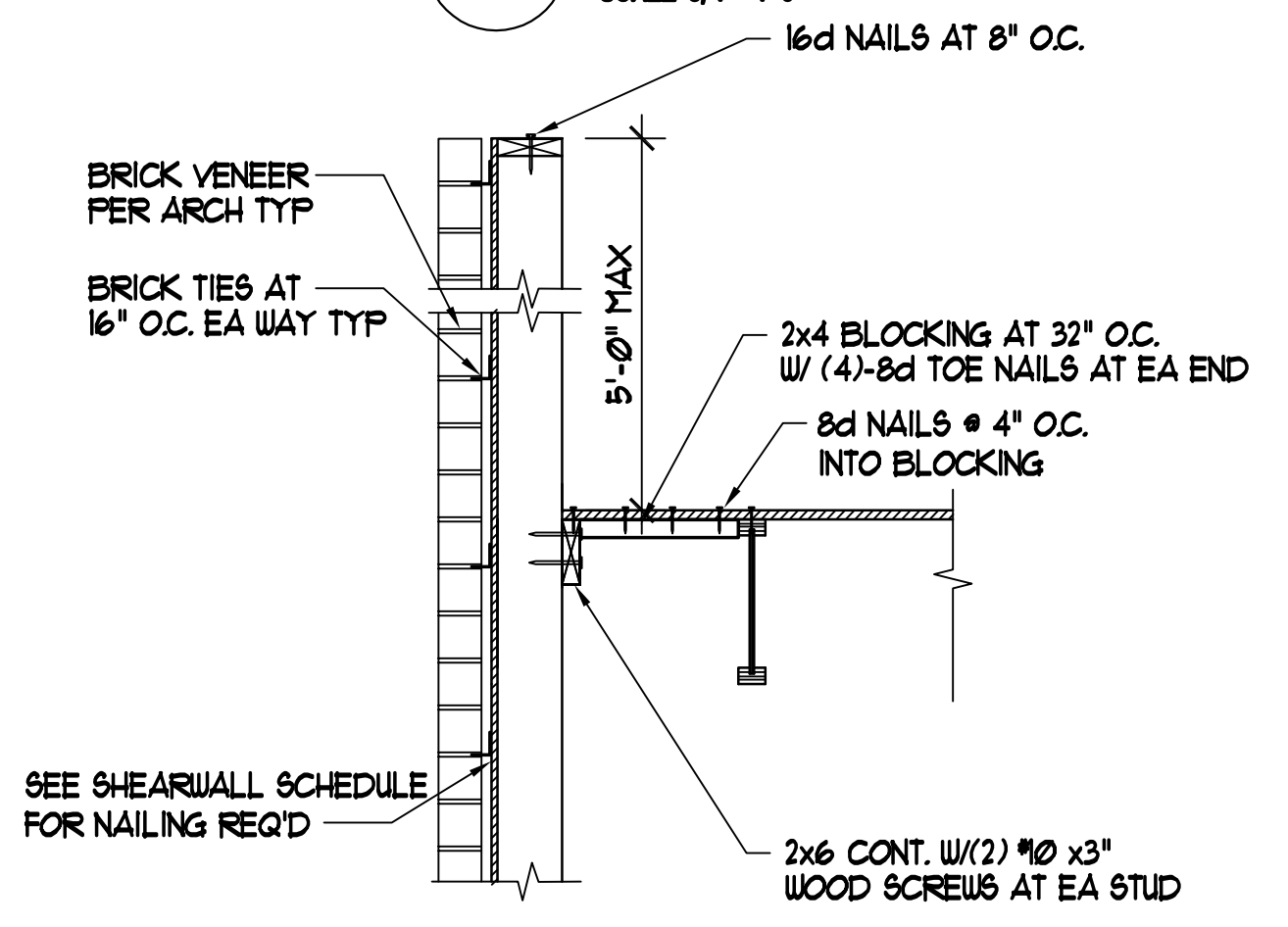
8 SHEAR WALL SECTION AT ROOF SCALE 3/4" = 1'-0"



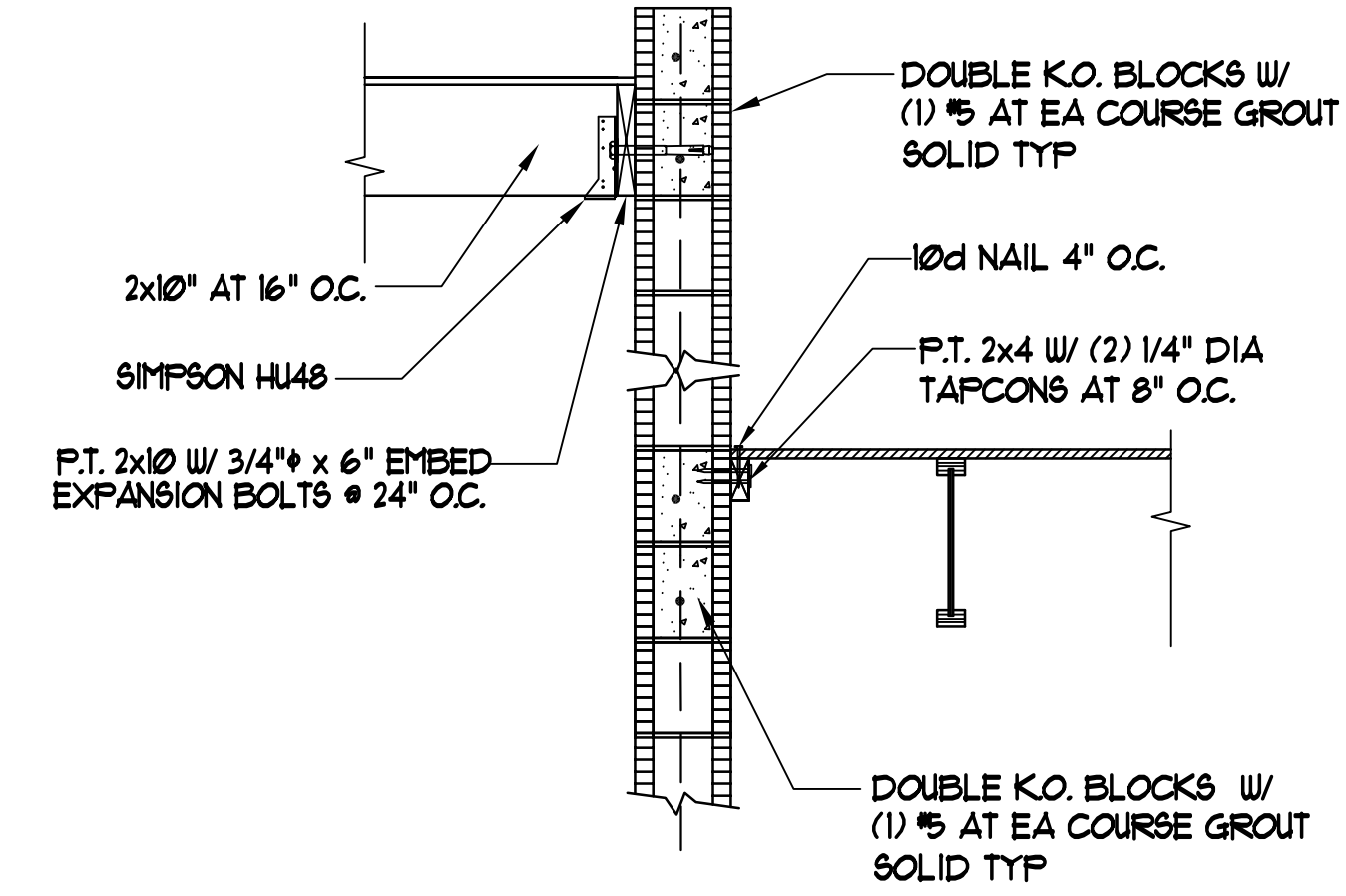
9 SHEAR WALL SECTION AT ROOF SCALE 3/4" = 1'-0"



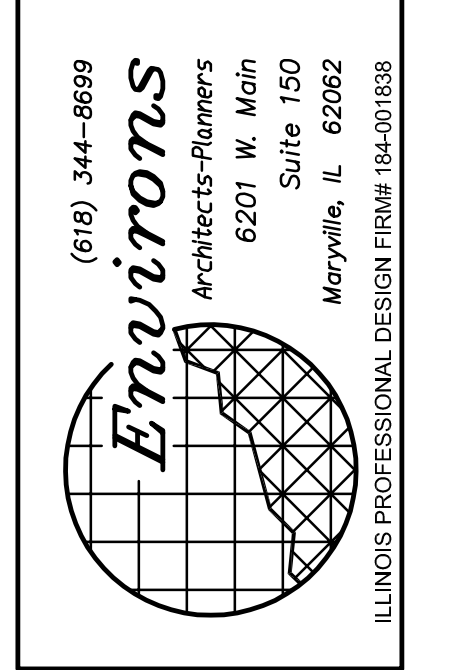
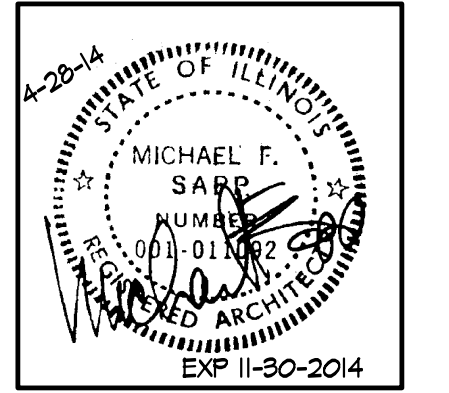
10 TYP POST AT FLOOR LEVEL SCALE 3/4" = 1'-0"



11 SECTION AT ROOF SCALE 3/4" = 1'-0"



12 SECTION SCALE 3/4" = 1'-0"



JOB NO. 13022

DATE: DECEMBER 11, 2013
 REVISED: FEBRUARY 20, 2014
 PRECAST OPTION APRIL 28, 2014



A NEW APARTMENT BUILDING 'C':
CARDINAL SQUARE APARTMENTS
 MCKINLEY + ANTHONY AVE. MUNDELEIN, ILLINOIS
 UPPER FLOOR FRAMING DETAILS

SHEET
50
 OF 13

© 2013 ENVIRON ARCHITECTS-PLANNERS ALL RIGHTS RESERVED.

WOOD SHEARWALL SCHEDULE '3

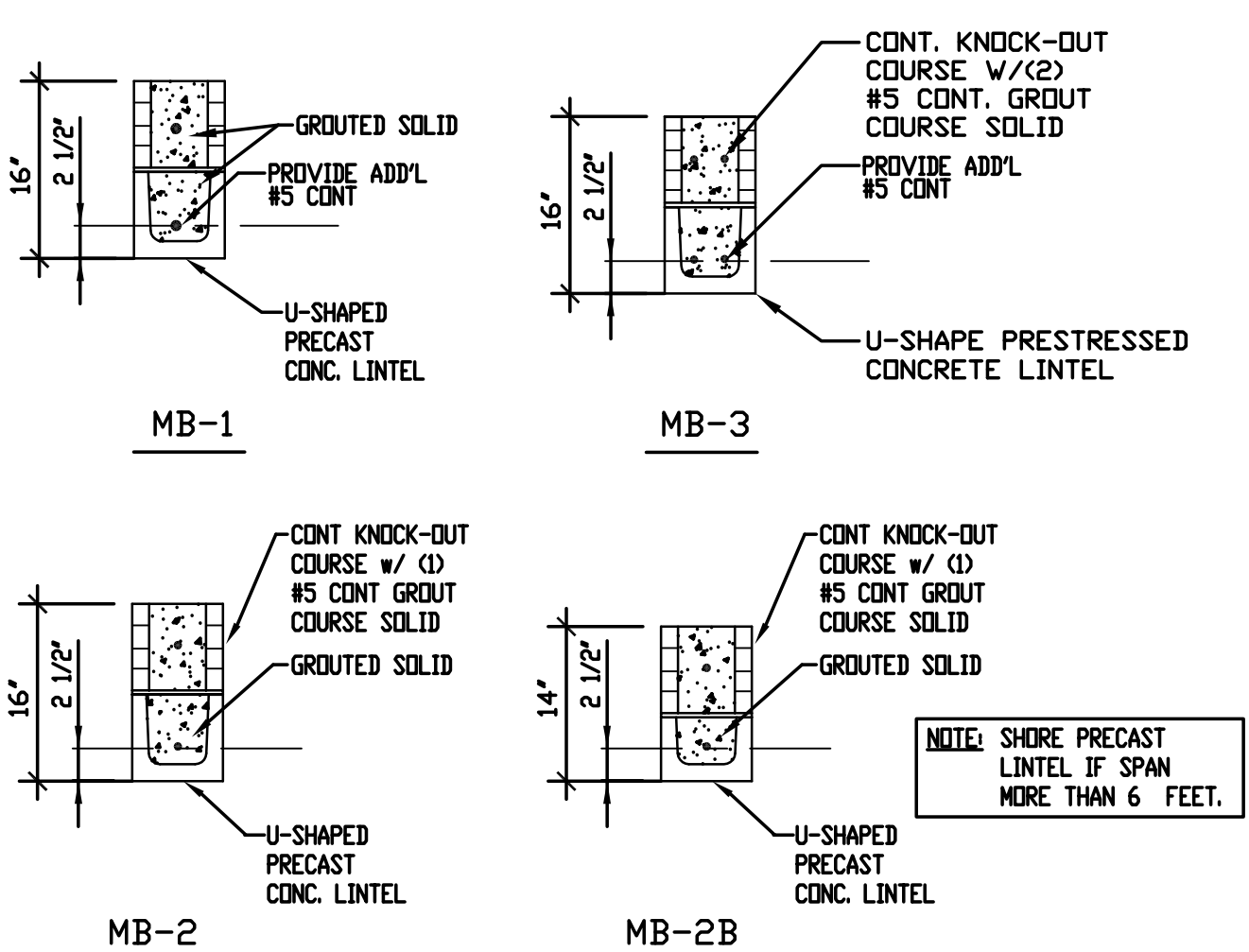
TYPE	SHEATHING					SHEATHING NAILING					FIRST CONN EACH END OF WALL				END SILE PLATE ATTACHMENT	2nd FLOOR CONN EACH END OF WALL			3rd FLOOR CONN EACH END OF WALL			4th FLOOR CONN EACH END OF WALL			5th FLOOR CONN EACH END OF WALL						
	1st-2nd FLR	2nd-ROOF @ 2 STORY	3rd-ROOF @ 3 STORY	4th-ROOF @ 4 STORY	5th-ROOF @ 5 STORY	1st-2nd FLR	2nd-ROOF @ 2 STORY	3rd-ROOF @ 3 STORY	4th-ROOF @ 4 STORY	4th-ROOF @ 4 STORY	5th-ROOF @ 5 STORY	CONNECTOR	FND BOLT-12" EMBED DBL NUT EA END	ATTACH TO STUDS	REIN STUDS AT END OF WALL	1/2" x 7" ANCHOR BOLTS @ 16" O.C.	CONNECTOR	NAILS EACH END OF STRAP AT STUD	REIN STUDS AT END OF WALL	CONNECTOR	NAILS EACH END OF STRAP AT STUD	REIN STUDS AT END OF WALL	CONNECTOR	NAILS EACH END OF STRAP AT STUD	REIN STUDS AT END OF WALL	CONNECTOR	NAILS EACH END OF STRAP AT STUD	REIN STUDS AT END OF WALL	CONNECTOR	NAILS EACH END OF STRAP AT STUD	REIN STUDS AT END OF WALL
1	1/2" C-D PLYWD	1/2" C-D PLYWD	1/2" C-D PLYWD	1/2" C-D PLYWD	1/2" C-D PLYWD	8d NAILS @ 3" O.C.	8d NAILS @ 4" O.C.	8d NAILS @ 4" O.C.	8d NAILS @ 4" O.C.	8d NAILS @ 6" O.C.	8d NAILS @ 6" O.C.	H07B	5/8" DIA	32-16d SINKERS	(4) 2x6 OR VD POST	1/2" x 7" ANCHOR BOLTS @ 16" O.C.	2-C320x42	10-10d	(4) 2x6	C318x42	10-10d	(4) 2x6	C318x42	10-10d	(2) 2x6	C318x42	10-10d	(2) 2x6	C318x42	10-10d	(2) 2x6
2	1/2" C-D PLYWD	1/2" C-D PLYWD	1/2" C-D PLYWD	5/8" GYPSUM WALLBOARD	5/8" GYPSUM WALLBOARD	8d NAILS @ 3" O.C.	8d NAILS @ 4" O.C.	8d NAILS @ 4" O.C.	8d NAILS @ 4" O.C.	6d COOLER NAILS @ 4" O.C.	6d COOLER NAILS @ 7" O.C.	H07B	5/8" DIA	32-16d SINKERS	(4) 2x6 OR VD POST	1/2" x 7" ANCHOR BOLTS @ 16" O.C.	2-C320x42	10-10d	(4) 2x6	C318x42	10-10d	(4) 2x6	C318x42	10-10d	(2) 2x6	C318x42	10-10d	(2) 2x6	C318x42	10-10d	(2) 2x6
3	1/2" C-D PLYWD	1/2" C-D PLYWD	1/2" C-D PLYWD	5/8" GYPSUM WALLBOARD	5/8" GYPSUM WALLBOARD	8d NAILS @ 3" O.C.	8d NAILS @ 4" O.C.	8d NAILS @ 4" O.C.	8d NAILS @ 4" O.C.	6d COOLER NAILS @ 4" O.C.	6d COOLER NAILS @ 7" O.C.	H07B	5/8" DIA	32-16d SINKERS	(4) 2x6 OR VD POST	1/2" x 7" ANCHOR BOLTS @ 16" O.C.	2-C320x42	10-10d	(4) 2x6	C318x42	10-10d	(4) 2x6	C318x42	10-10d	(2) 2x6	C318x42	10-10d	(2) 2x6	C318x42	10-10d	(2) 2x6

- *1 SHEATH EXTERIOR FACE WITH SHEARWALL SCHEDULED, AND THE INTERIOR FACE OF STUDS AS SPECIFIED IN THE GENERAL NOTES FOR INTERIOR WALLS.
- *2 INTERIOR WALL BOTH FACE WITH SHEARWALL SCHEDULED.
- *3 TJI BLOCKING PANEL AT EVERY JOIST BETWEEN FOR SECOND AND THIRD FLOOR. TJI BLOCKING PANEL AT EVERY OTHER JOIST BETWEEN FOR FOURTH AND FIFTH FLOOR.
- *4 NO TJI BLOCKING PANEL FOR SHEAR TYPE (3).

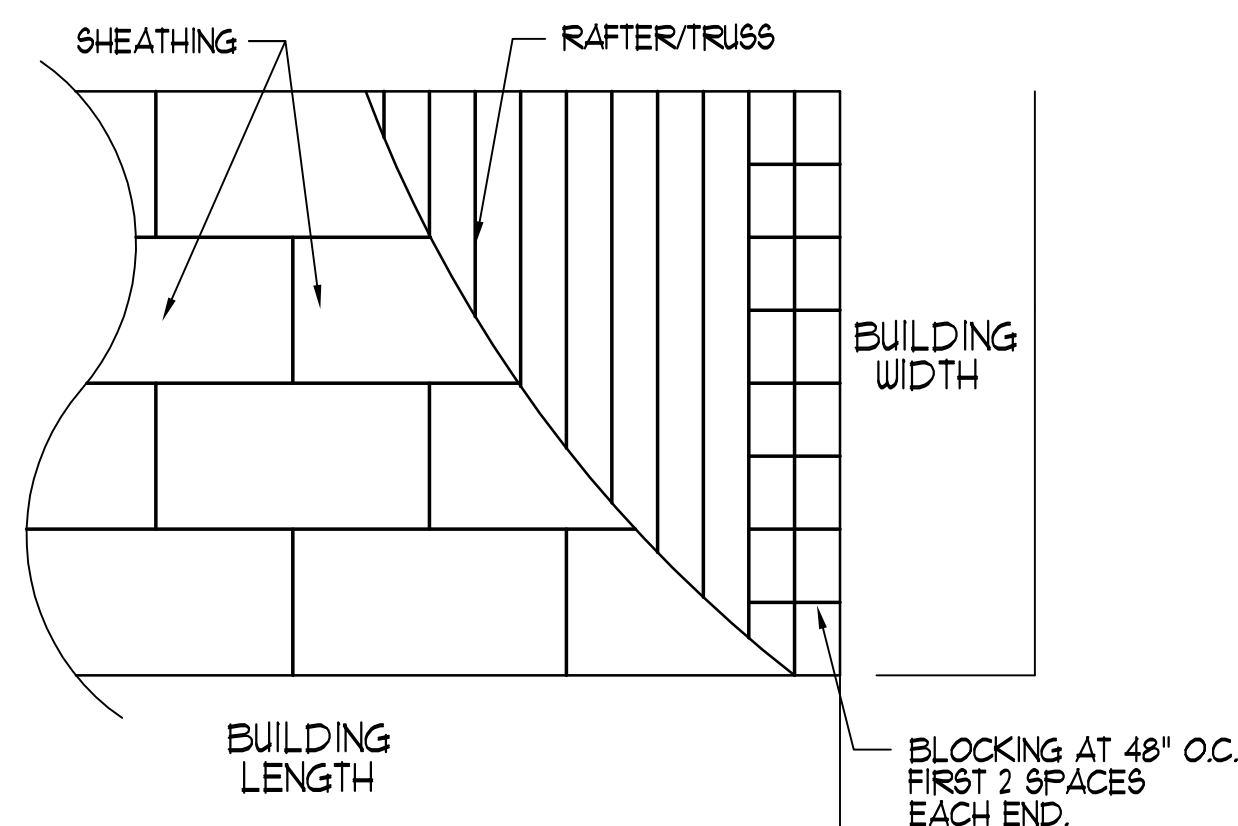
- NOTES:
- 1 ALL HD, HTT, AND C6 FASTENERS ARE AS MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY, INC., OR EQUAL.
 - 2 WHERE SCHEDULED ADDITIONAL STUDS AT THE ENDS OF SHEAR WALLS ARE INTERRUPTED AT TRUSS BEARING, PROVIDE SOLID BLOCKING IN THE TRUSS SPACE TO MATCH THE STUDS SCHEDULED FOR THE LOWER FLOOR.
 - 3 WHERE SCHEDULED SHEATHING CANNOT EXTEND FULL HEIGHT OF WALL, PROVIDE SHEATHING OR BLOCKING BETWEEN FLOOR TRUSSES AT ALL SHEARWALLS.
 - 4 SHEATHING SHALL EXTEND FULL HEIGHT OF SHEARWALLS. STAGGER SHEATHING HORIZONTAL JOINTS SO THEY DO NOT FALL AT HORIZONTAL JOINT BETWEEN DOUBLE TOP PLATES.
 - 5 WHEREVER THE SHEATHING OF A SHEAR WALL IS INTERRUPTED (I.E. BY AN INTERSECTING WALL) IN THE VERTICAL PLANE, THE SCHEDULED "ADD'L STUD AT END OF WALL" AND HOLDDOWN ANCHORS SHALL BE PROVIDED AT THE END OF THE SHEATHING (ONE EACH SIDE OF THE INTERRUPTION). THE QUANTITY OF SHEARWALL CALLOUTS ON THE PLANS MAY NOT ACCURATELY REFLECT THE NUMBER OF HOLDDOWNS REQUIRED BECAUSE OF THIS. THE CONTRACTOR MUST FIRST DETERMINE WHERE THE SHEARWALL SHEATHING WILL BE INTERRUPTED BEFORE DETERMINING THE NUMBER HOLDDOWNS REQUIRED.
 - 6 WHERE BOLTS ARE CALLED OUT FOR HOLDDOWN ANCHORS, THE BOLTS SHALL BE THROUGH BOLTS CONFORMING TO ASTM A307.
 - 7 1/16" O.S.B. MAY BE USED IN LIEU OF THE 1/16" C-DX PLYWOOD SHEATHING.
 - 8 ANCHOR BOLTS SHALL ALL HAVE 3" HOOKS. A36 ALL THREAD RODS, DRILLED AND EPOXY GROUTED INTO FOOTINGS, MAY BE SUBSTITUTED FOR ANCHOR BOLTS CAST IN PLACE. ALL THREAD RODS SHALL HAVE SAME EMBEDMENT DEPTH AS ANCHOR BOLTS.

MASONRY LINTEL SCHEDULE (CAST-CRETE LINTEL)			
MARK	LENGTH (L)	CAST-CRETE MARK	REMARK
MB-1	2'-10" < L ≤ 5'-10"	8F16-1B/1T PRECAST	
MB-2	5'-10" < L ≤ 14'-0"	8F16-1B/1T PRECAST	
MB-2B	2'-10" < L ≤ 9'-8"	8F14-1B/1T PRECAST	RECESS LINTEL FOR DOOR OPENING
MB-3	14'-8" < L < 24'-0"	8F16-2B/2T PRESTRESSED	

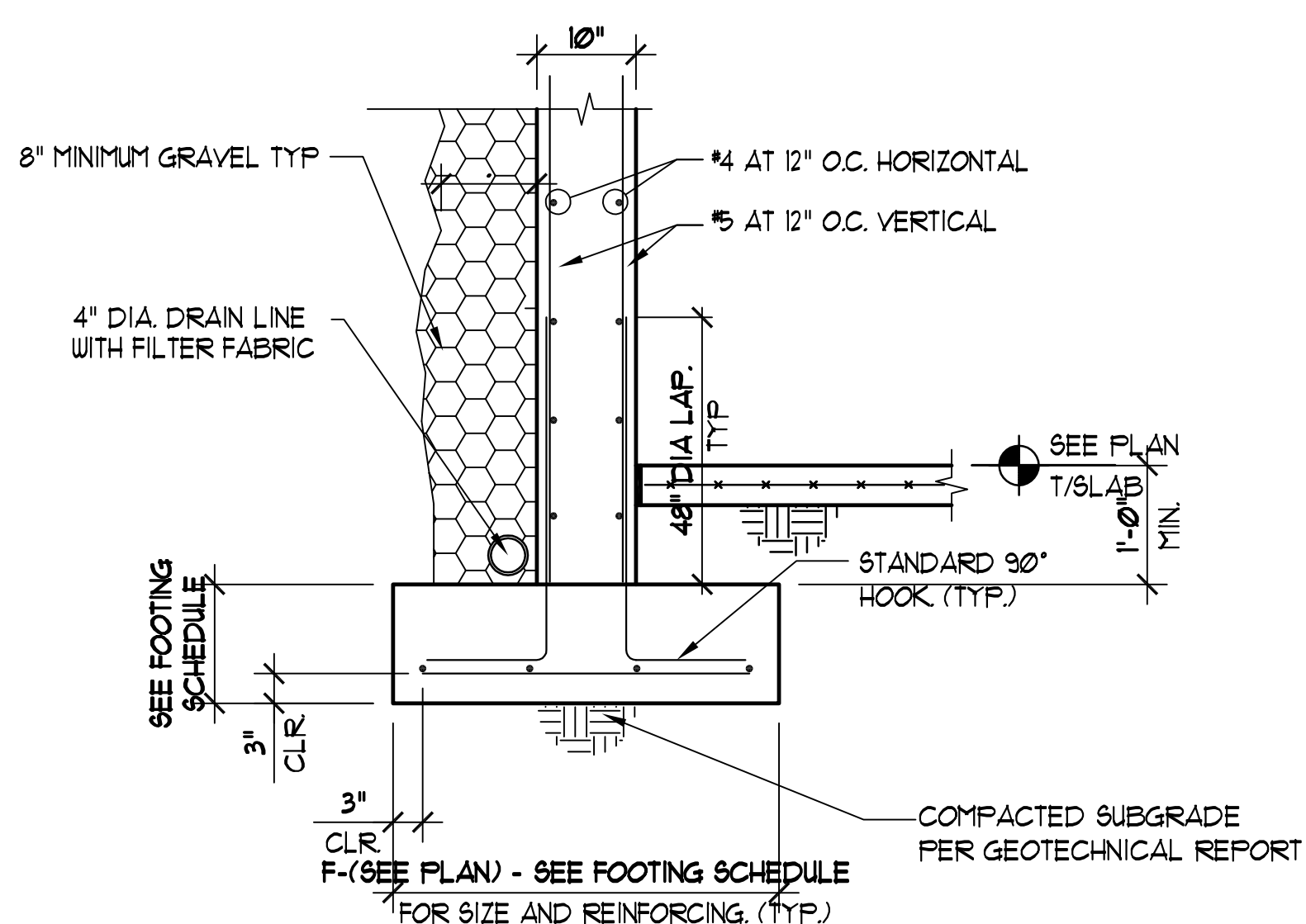
1. PROVIDE MASONRY LINTEL OVER ALL OPENINGS. IF NO LINTEL IS SPECIFIED, PROVIDE MB-2, AND MB-2B FOR DOOR OPENING (EXCEPT GARAGE DOOR).
2. PROVIDE MINIMUM END BEARING OF 8". CUT OUT BOTTOM OF LINTEL AT END TO ALLOW CONTINUATION OF FILLED CELL REINFORCING.
3. MASONRY LINTEL SUBSTITUTIONS MUST BE APPROVED BY ARCH.



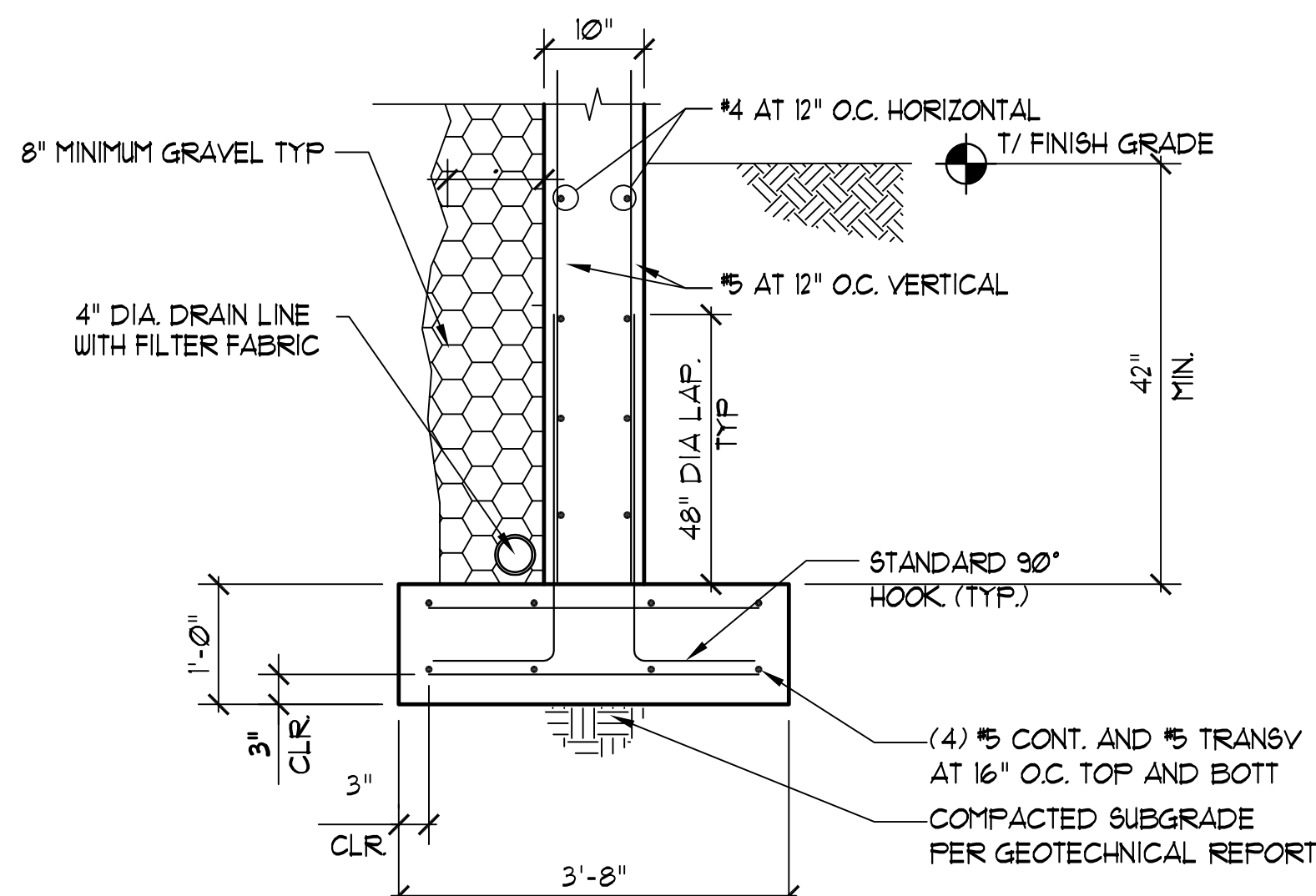
MASONRY LINTEL SCHEDULE



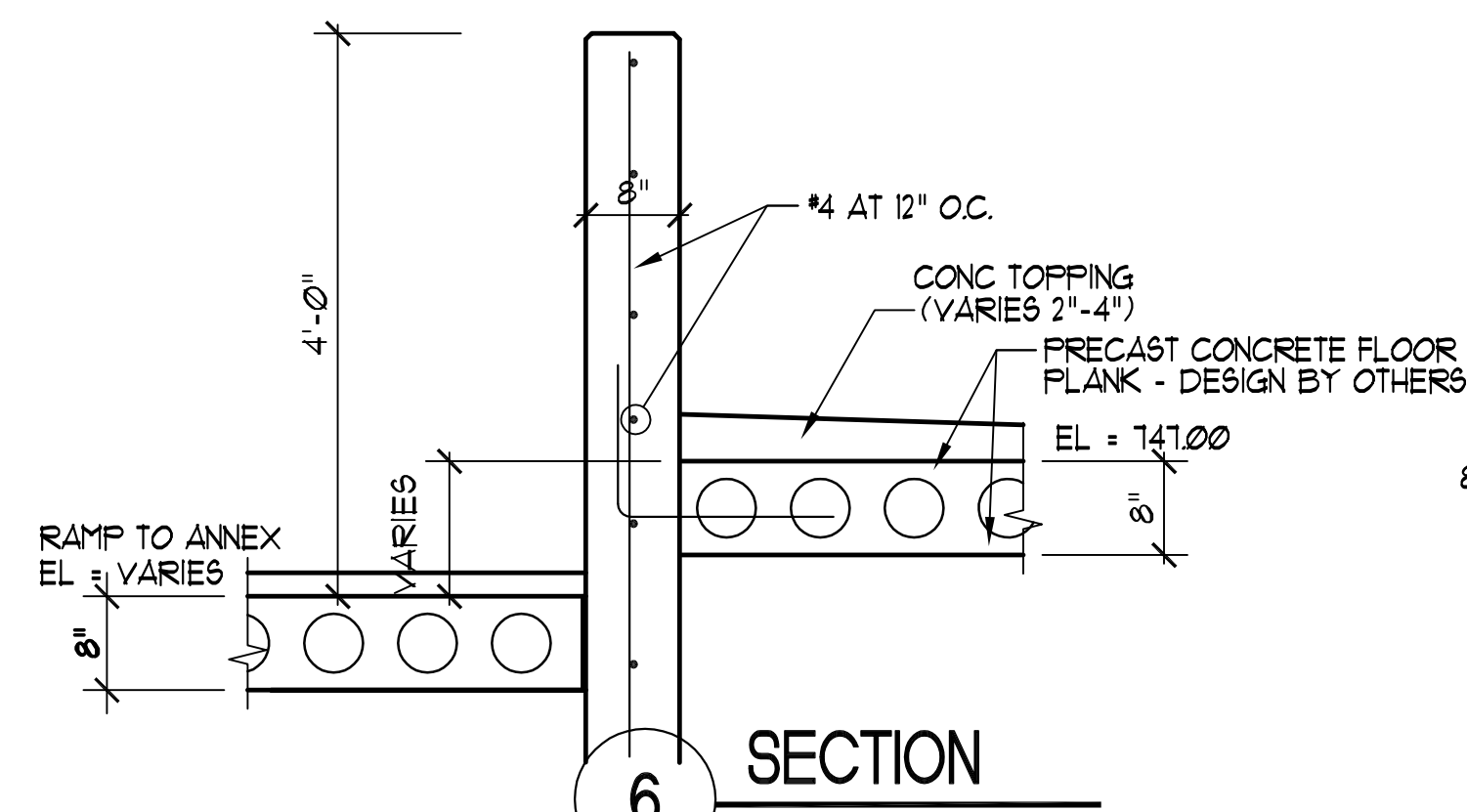
2 ROOF SHEATHING LAYOUT
SCALE: NTA



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



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



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

MINIMUM WALL AND HEADER STUD REQUIREMENTS

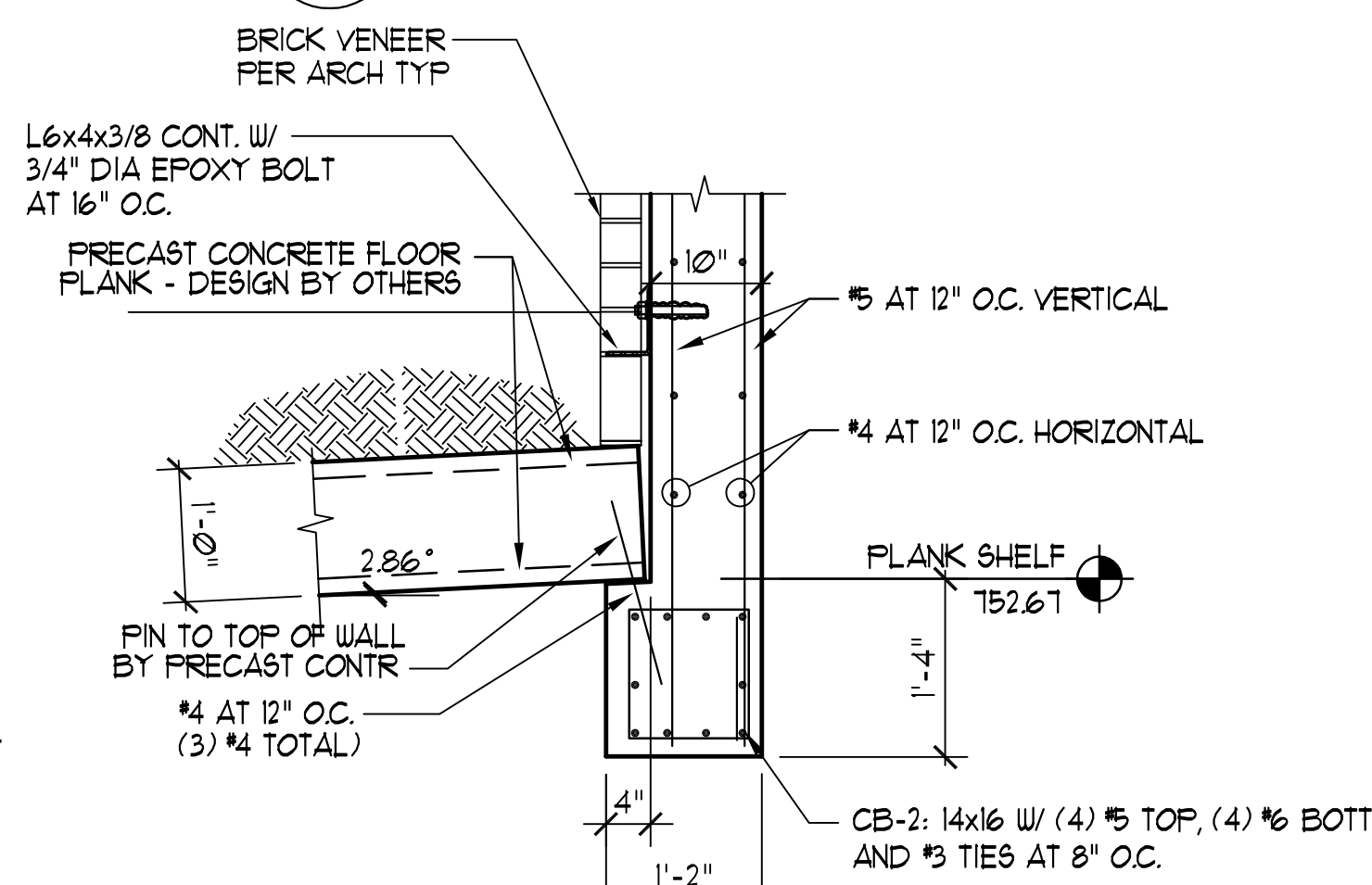
UPLIFT CONNECTION REQUIREMENT AT POINTS 'A' (TOP AND BOTTOM OF HEADER STUDS). UPLIFT CONNECTION IS REQUIRED AT EACH END OF HEADER AND AT BOTTOM OF HEADER STUDS IN ADDITION TO CONNECTORS AT WALL STUDS

MAXIMUM HEADER SPAN (FEET)				
3	6	9	12	
NUMBER OF HEADER STUDS SUPPORTING END OF HEADER				
2	3	4	4	

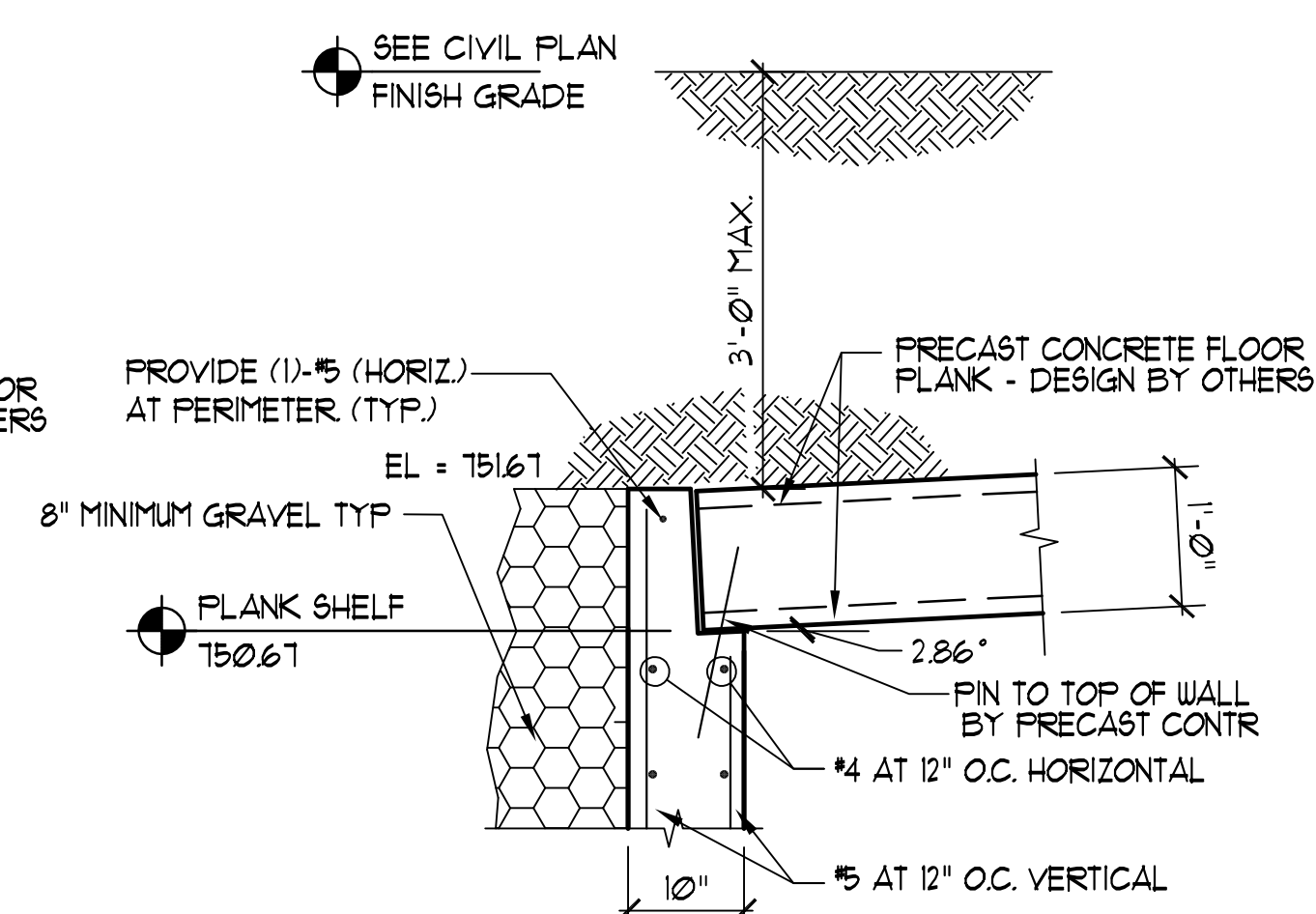
UNSUPPORTED WALL HEIGHT	STUD SPACING	NUMBER OF FULL LENGTH STUDS AT EACH END OF HEADER			
10' OR LESS	DOUBLE STUDS AT 16"	4	4	6	6
	16"	2	2	3	3
GREATER THAN 10'	DOUBLE STUDS AT 16"	4	4	6	8
	16"	2	2	3	3

ALL THE EXTERIOR WALL STUDS SHALL BE FIRE RETARDANT TREATED.

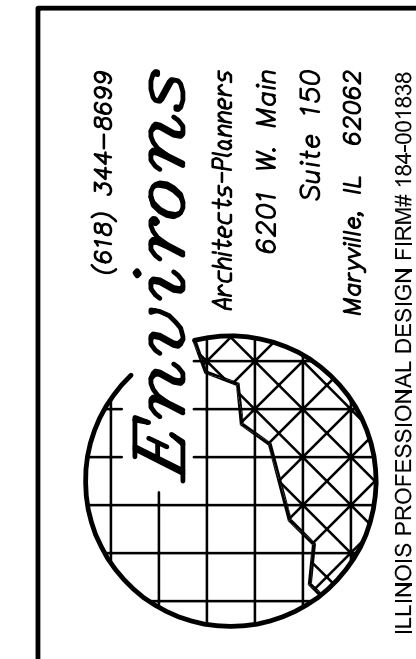
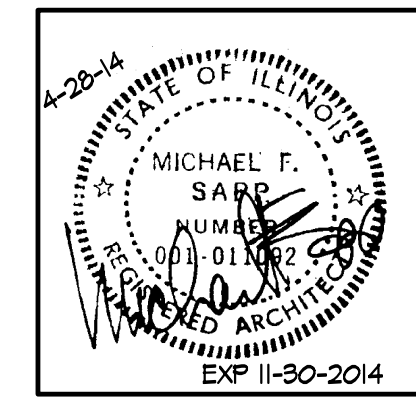
1 HEADER STUD SCHEDULE
SCALE: 3/4" = 1'-0"



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

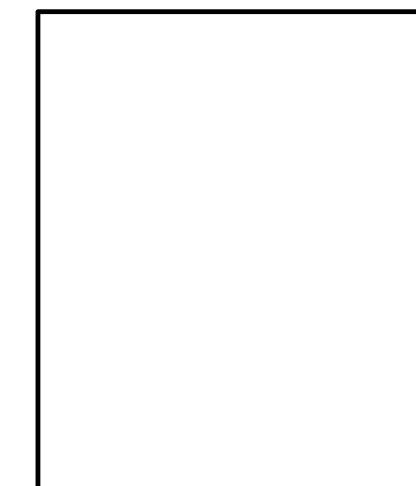


5 SECTION
SCALE: 3/4" = 1'-0"



JOB NO.
13022

DATE:
DECEMBER 11, 2013
REVISED:
FEBRUARY 20, 2014
PRECAST OPTION
APRIL 28, 2014

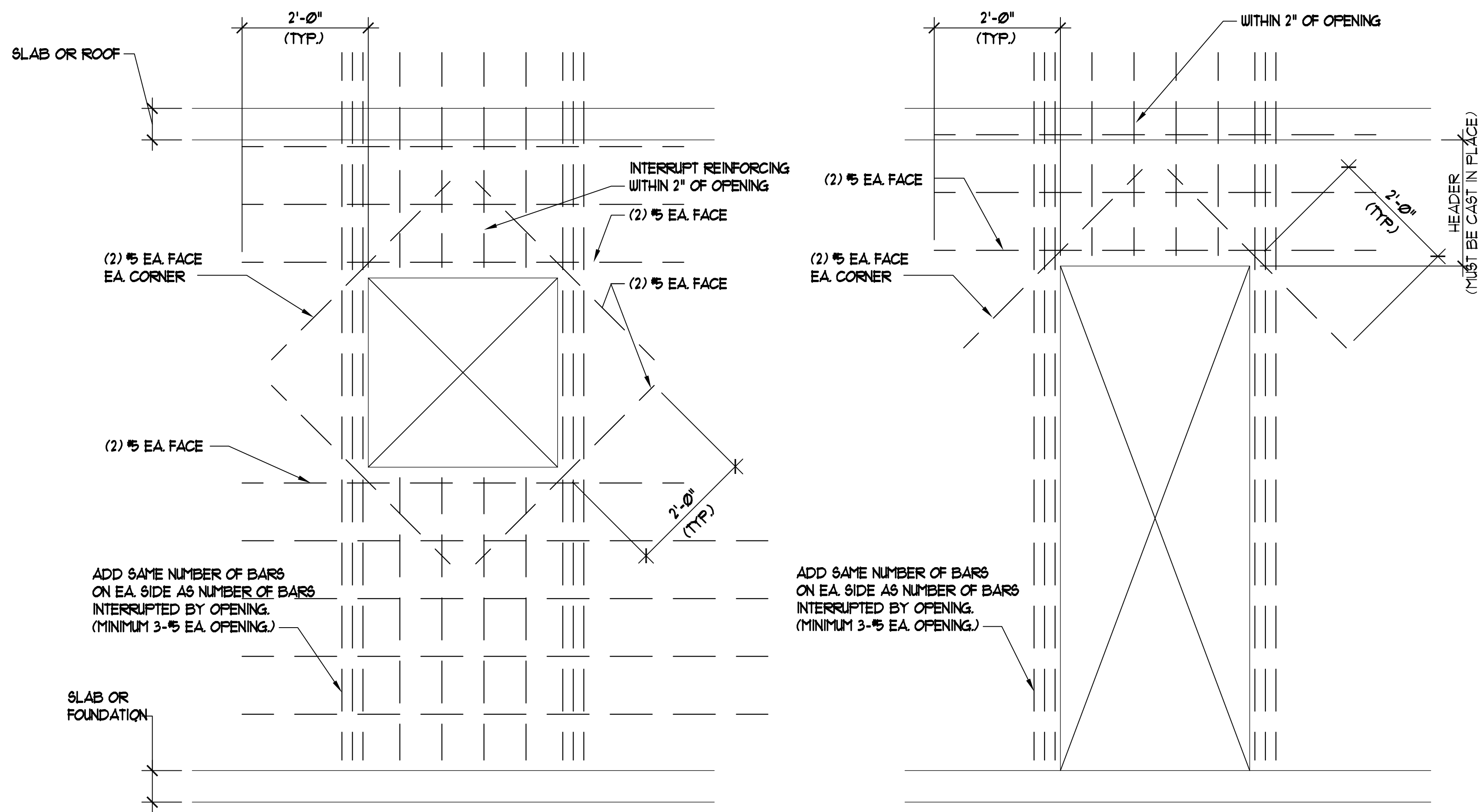


SHRINAY CORPORATION
WWW.SHRINAY.COM
TEL: 847-754-1064

A NEW APARTMENT BUILDING 'C':
CARDINAL SQUARE APARTMENTS
McKINLEY + ANTHONY AVE.
MUNDELEIN, ILLINOIS

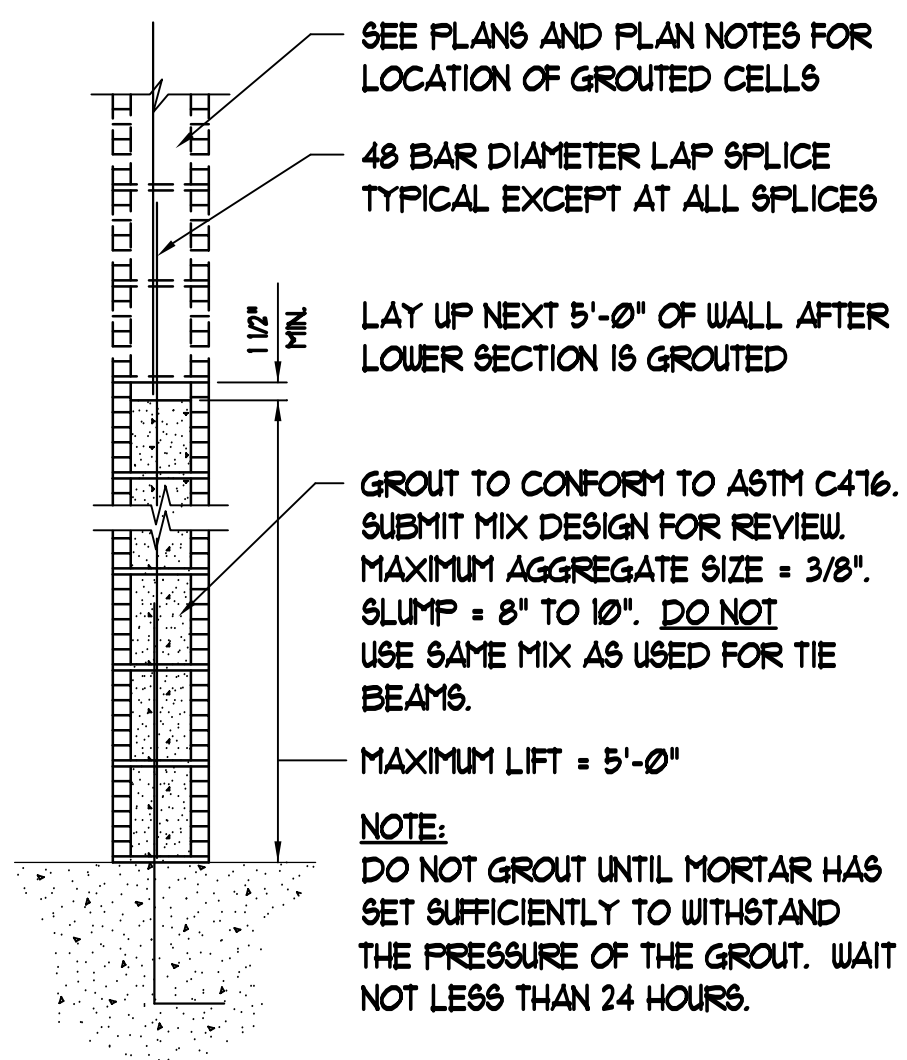
SHEET
510
OF 13

© 2013 ENVIRON ARCHITECTS-PLANNERS ALL RIGHTS RESERVED.



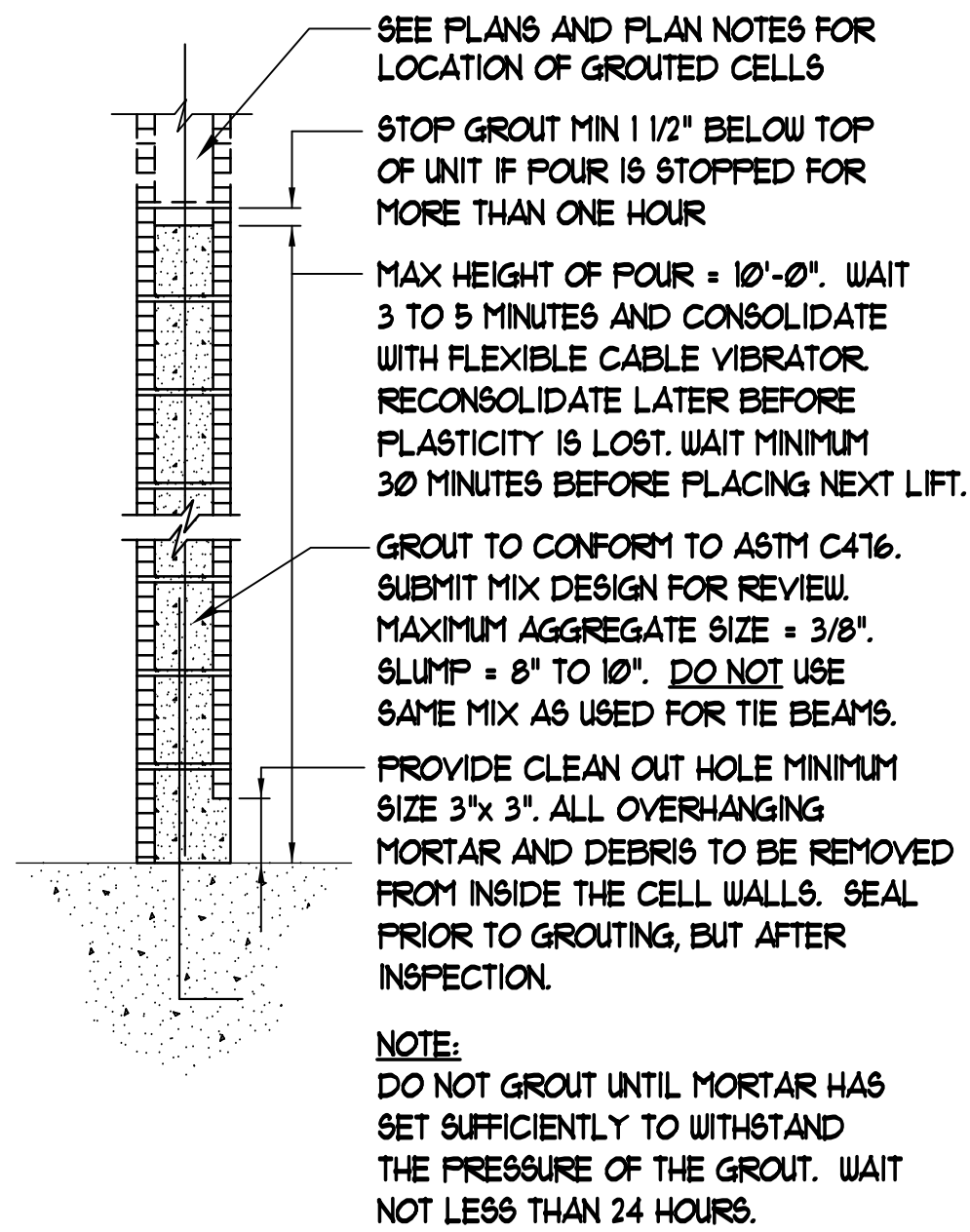
1 TYPICAL WALL OPENING DETAILS
(OPENING LESS THAN 5'-0")

SCALE N.T.S.



3 TYPICAL LOW LIFT
GROUTING SECTION

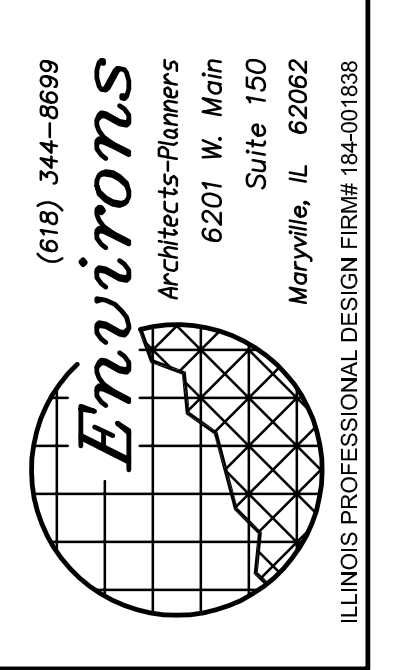
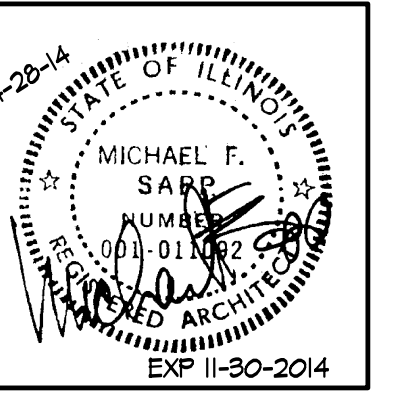
SCALE 3/4" = 1'-0"



4 TYPICAL HIGH LIFT
GROUTING SECTION

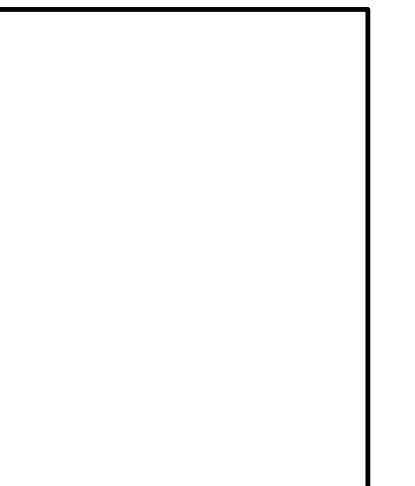
SCALE 3/4" = 1'-0"

2 NOT USED
SCALE 3/4" = 1'-0"



JOB NO.
13022

DATE:
DECEMBER 11, 2013
REVISED:
FEBRUARY 20, 2014
APRIL 28, 2014



A NEW APARTMENT BUILDING 'C':
CARDINAL SQUARE APARTMENTS
McKINLEY + ANTHONY AVE.
MUNDELEIN, ILLINOIS
FRAMING DETAILS

SHEET
S11
OF 13