CODE INFORMATION:

BUILDING CODE:

MA STATE BUILDING CODE, 9th EDITION 2015 IRC w/ MA AMENDMENTS

USE GROUP: R3 - SINGLE FAMILY HOME
CONSTRUCTION TYPE: V-B (UNPROTECTED WOOD FRAME)

FLOOR LOADS:

DESIGN LIVE LOADS AS PER TABLE (R)301.5:

COMMON AREAS (OTHER THAN SLEEPING): 40 PSF SLEEPING AREAS: 30 PSF RESIDENTIAL ATTICS w/ FIXED STAIRS: 30 PSF RESIDENTIAL ATTICS(STORAGE): 20 PSF RESIDENTIAL ATTICS(NO STORAGE): 10 PSF DECKS: 40 PSF

SNOW LOADING:

GROUND SNOW LOAD PER TABLE (R)301.2(4): GROUND SNOW LOAD, Pg = 40 PSF

WIND LOADING:

WIND LOAD PER TABLE (R)301.2(4):

BASIC WIND SPEED (ULTIMATE), Vult = 128 PSF

BASIC WIND SPEED (ALLOWABLE), Vasd = 100 PSF

(WIND SPEED CONVERSION PER TABLE (R)301.2.1.3)

NOTES:

- NO WORK SHALL COMMENCE UNTIL A BUILDING PERMIT HAS BEEN OBTAINED.
 THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND APPROVALS
 REQUIRED BY THE LOCAL ZONING AND BUILDING DEPARTMENTS AND ANY OTHER
 GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK.
- 3. ALL WORK SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS STATE BUILDING CODE, 9th EDITION.
- 4. DRAWINGS ARE NOT TO BE SCALED. ALL WORK SHALL BE LAID OUT BY DIMENSIONS. ANY DEVIATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGNER IMMEDIATELY. ALL DEVIATIONS SHALL BE CORRECTED BY CONTRACTOR BEFORE HE BEGINS HIS PORTION OF THE WORK.
- 5. DRAWINGS ARE THE PROPERTY OF THE DESIGNER AND SHALL NOT BE COPIED OR DUPLICATED IN ANY MANNER.
- 6. CONSTRUCTION SHALL BE PERFORMED IN SUCH A MANNER AS TO PROTECT WORKMEN
- AND GENERAL PUBLIC FROM INJURY & ADJACENT PROPERTY FROM DAMAGE.
 7. THE DRAWINGS ARE PREPARED FOR THE PURPOSE OF PERMIT APPLICATION ONLY.
- 8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER IN CASE OF ANY OR ALL DEVIATIONS FOR THESE DRAWINGS. THE ENGINEER SHALL BE HELD HARMLESS AS A RESULT OF ANY UNAUTHORIZED CHANGES TO THESE PLANS.

 ADDITIONAL FEES MAY OCCUR FOR "AS—BUILT" DOCUMENTATION DUE TO CIRCUMSTANCES BEYOND THE ENGINEERS CONTROL, OR OWNER / CONTRACTOR CHANGES TO THESE DRAWINGS.

GENERAL CONSTRUCTION NOTES

- 1. ALL DIMENSIONS ARE CALCULATED FROM OUTSIDE FACE OF EXTERIOR WALLS TO THE CENTERLINE OF INTERIOR STUD WALLS UNLESS OTHERWISE NOTED. STUD WALLS NOT DIMENSIONED ARE TYPICALLY 2×6 (5 1/2") FOR BOTH INTERIOR AND EXTERIOR WALLS.
- 2. THE PROJECT IS A NEW STRUCTURE. EXACT DIMENSIONS, ELEVATIONS, TIE—IN POINTS, ROOF SLOPES, BEARING POINT LOCATIONS ARE REPRESENTED AS ACCURATE AS KNOWN AT THE TIME OF THE DRAWING SET CREATION. FIELD VERIFICATION OF ALL ELEMENTS IS REQUIRED BY THE CONTRACTOR AND IF INCONSISTENCIES OCCUR, NOTIFY THE ENGINEER FOR DIRECTION. THE ENGINEER IS NOT RESPONSIBLE FOR CHANGES TO THE PLANS WITHOUT DIRECTION.
- 3. WINDOWS APPEARING ON THE FLOOR PLANS AND EXTERIOR ELEVATIONS ARE TO BE CONFIRMED BY THE OWNER.
- 4. THE WINDOW FINAL SILL HEIGHT AT THE FIRST FLOOR IS 24" ABOVE FINISH FLOOR UNLESS NOTED OTHERWISE.
- 5. GENERAL CONTRACTOR TO REVIEW ALL BUILT IN REQUIREMENTS WITH THE OWNER INCLUDING SHELVING, CLOSETS, PANTRY, ETC., IF APPLICABLE.
- 6. ALL REQUIREMENTS FOR SECURITY SYSTEMS, CENTRAL VACUUM, AND ANY AUDIO, COMPUTER OR CABLE TELEVISION SYSTEMS TO BE COORDINATED WITH OWNER.
- 7. ALL PERMITS AND VARIANCES, IF NECESSARY, ARE THE RESPONSIBILITY OF THE OWNER AND GENERAL CONTRACTOR PRIOR TO START OF CONST.
- 8. ALL FINISH COLORS TO BE THE RESPONSIBILITY OF THE OWNER.

GENERAL FRAMING NOTES

LOCATION	LIVE (PSF)	DEAD (PSF)	DEFLECTION	
COMMON AREAS	40	15	L / 360	
SLEEPING AREAS	30	15	L / 360	
ATTIC (STORAGE)	20	15	L / 240	
ATTIC (NO STORAGE)	10	15	L / 240	
ROOF (SNOW LOAD)	VARIES	15	L / 240	
DECK	40	15	L / 360	
BALCONY	60	15	L / 360	

- 1. ALL FRAMING MATERIAL TO BE MINIMUM #2 OR BETTER KD LUMBER,
- 2. ALL WOOD FRAMING IN CONTACT WITH CONCRETE OR MASONRY TO BE PRESSURE TREATED (PT),
- 3. PROVIDE DOUBLE FLOOR JOISTS UNDER ALL WALLS WHICH RUN PARALLEL TO THE DIRECTION OF THE JOIST SPAN,
- 4. PROVIDE 1"x3" CROSS BRIDGING OR 2"x6" BLOCKING AT THE MIDSPAN OF ALL FLOOR JOISTS.
- 5. FLOOR CONSTRUCTION: 3/4" TONGUE AND GROOVE SUBFLOOR GLUED AND NAILED TO FLOOR FRAMING. FINISH FLOORING TO BE EITHER 3/4" HARDWOOD.
- 6. ALL STUD FRAMED WALLS TO BE FRAMED AT 16" ON CENTER, MAXIMUM,
- 7. ALL ANGLED WALLS ARE TO BE FRAMED AT 45 DEGREES (UNO),
- 8. HEADER SIZE OVER WINDOWS TO BE (3)2"x8" (UNO),
- 9. ALL HEADERS TO BE FREE FROM SPLITS AND CHECKS,
- 10. PROVIDE FULL SOLID BEARING OR STUD BEARING UNDER ALL BEAM BEARING POINTS.
- 11. ALL BEAM AND JOIST INTERSECTIONS TO BE FLUSH FRAMED WITH GALVANIZED JOIST HANGERS AND INSTALLED PER MANUFACTURERS RECOMMENDATIONS,
- 12. ALL BEAMS TO HAVE TRIPLE STUD BEARING UNDER EACH END,
- 13. UNLESS OTHERWISE NOTED, PROVIDE A 2x PLATE BOLTED TO THE TOP FLANGE OF ALL STEEL BEAMS WITH 3/8" DIAMETER GALVANIZED BOLTS STAGGERED AT 24" ON CENTER,
- 14. UNLESS OTHERWISE NOTED, PROVIDE DOUBLE HEADER JOIST AND TRIMMERS AT ALL FLOOR OPENINGS,
- 15. STAIR CONSTRUCTION TO CONSIST OF $3-2"\times12"$ STRINGERS, MINIMUM,
- 16. TEMPORARY GUARDRAILS MUST BE INSTALLED AT ALL FLOOR OPENINGS,
- 17. ALL WALLS OVER 10'-0" HIGH TO BE 2"x6"s AT 16" ON CENTER AND RECEIVE 1 ROW OF 2"x6" BLOCKING AT MID-HEIGHT,
- 18. 2"x6" EXTERIOR WALLS TO BE SHEATHED WITH 1/2" EXTERIOR GRADE PLYWOOD. SHEATHING TO SPAN OVER ALL PLATES AND HEADERS. INSTALL SHEATHING WITH AN 1/8" GAP BETWEEN PANELS AND BLOCK ALL SEAMS BOTH VERTICAL AND HORIZONTAL.
- 19. FLOOR FRAMING LAYOUT IS CONSTRUCTED AS TO PROVIDE BEST POSSIBLE ACCESS TO THE HVAC DUCTS AND UNOBSTRUCTED RUNS FOR THE DUCT WORK,
- 20. PROVIDE BLOCKING AT ALL CABINET LOCATIONS,
- 21. PROVIDE 2"x4" RAFTER TIES AT ALL PLATES WHERE JOIST RUN IS PERPENDICULAR TO RAFTERS.
- 22. HIP VALLEY RAFTERS AND RIDGE BOARDS TO BE ONE SIZE LARGER THAN TYPICAL RAFTERS UNLESS OTHERWISE NOTED ON PLANS,
- 23. PROVIDE 1"x6" COLLAR TIES AT UPPER 1/3 OF VERTICAL DISTANCE BETWEEN RIDGE BOARD AND CEILING JOIST AT 48" ON—CENTER
- BETWEEN RIDGE BOARD AND CEILING JOIST AT 48" ON—CENTER, 24. PROVIDE INSULATION BAFFLES AT EAVE VENTS BETWEEN RAFTERS,
- 25. REQUIRED GUARDRAILS ON BALCONIES, PORCHES, DECKS, AND RAISED FLOOR AREAS, SHALL HAVE A MINIMUM HEIGHT OF 36" MEASURED VERTICALLY FROM THE FINISHED FLOOR.
- 26. ALL HARDWARE AND FLASHING IN CONTACT WITH ACQ TREATED LUMBER MUST BE HOT DIPPED GALVANIZED OR STAINLESS STEEL,
- 27. INSTALL SHEAR WALLS AS SHOWN ON THE FRAMING DRAWINGS (IF REQUIRED).
- 28. IF ON-SITE CONDITIONS DIFFER FROM THOSE SHOWN ON DRAWINGS, CONTRACTOR TO NOTIFY DESIGNER IMMEDIATELY FOR DIRECTION.

GENERAL FLOOR PLAN NOTES

- 1. DO NOT SCALE DRAWINGS. FOLLOW DRAWING DIMENSIONS ONLY. DIMENSION IS NOT CALLED OUT, VERIFY DIMENSIONS WITH ENGINEER.
- 2. ALL DIMENSIONS ARE CALCULATED FROM OUTSIDE FACE OF EXTERIOR WALLS TO THE CENTERLINE OF INTERIOR STUD WALLS (UNO). STUD WALLS NOT DIMENSIONED ARE TYPICALLY 2x6 FOR EXTERIOR WALLS AND 2x4 FOR INTERIOR WALLS (UNO).
- 3. ALL INTERIOR WALLS ARE TO BE COVERED WITH 1/2" GYPSUM BOARD, METAL CORNER REINFORCING, TAPE SEAMS AND PLASTER SKIMCOAT.
- 4. ALL WALLS IN THE GARAGE TO HAVE A LAYRER OF 5/8", TYPE "X" FIRE RATED GYPSUM BOARD (UNO).
- 5. ALL BATH AND TOILET AREA WALLS AND CEILINGS ADJACENT TO WET AREAS TO HAVE WATER RESISTANT GYPSUM BOARD.
- 6. BEDROOM WINDOWS TO HAVE A MINIMUM NET CLEAR OPENING OF 3.38 SQFT., A MINIMUM NET CLEAR OPENING OF 20" WIDE x 24" HIGH IN EITHER DIRECTION, AND HAVE A MAXIMUM FINISHED SILL HEIGHT OF 44" FROM FINISHED FLOOR.
- 7. ALL GLASS LOCATED WITHIN 18" OF FLOOR OR 24" OF A DOOR SWING MUST BE TEMPERED GLASS.
- 8. BATHROOMS AND UTILITY ROOMS TO BE VENTED TO THE OUTSIDE WITH A MINIMUM OF 50 CFM FAN. RANGE HOODS TO BE VENTED TO THE OUTSIDE.
- 9. SUBCONTRACTOR TO FIELD VERIFY ALL CABINET DIMENSIONS BEFORE FABRICATION.

GENERAL FOUNDATION NOTES

- 1. ALL CONCRETE WORK SHALL CONFORM WITH THE LATEST REQUIREMENTS OF THE AMERICAN CONCRETE INSTITUTE (ACI).
- 2. THE MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT THE END OF 28 DAYS SHALL BE 4000 PSI.
- 3. ALL SLABS TO BE PLACED ON A 6 MIL VAPOR BARRIER OVER 6" OF COMPACTED GRAVEL.
- 4. PROVIDE A 1/2" EXPANSION JOINT MATERIAL BETWEEN ALL CONCRETE SLABS ON ABUTTING CONCRETE OR MASONRY WALLS OCCURRING IN EXTERIOR OR UNHEATED AREAS.
- 5. PROVIDE DEEP SCORE CONTROL JOINTS AT MID POINTS OF ALL SLABS, BOTH DIRECTIONS.

STRUCTURAL PLANS:

- S1 STRUCTURAL COVER PAGE & GENERAL NOTES
- S2 FOUNDATION PLAN
- S3 FIRST FLOOR FRAMING PLAN
- S4 SECOND FLOOR FRAMING PLAN
- S5 ROOF FRAMING PLAN
- S6 CROSS SECTION
- S7 FOUNDATION ELEVATIONS
- S8 FOUNDATION ELEVATIONS & DETAILS

1 8/28/2018 CMK FOR SUBMISSION, SHEET S7 & S8

0 8/21/2018 CMK FOR SUBMISSION, SHEET S6

A 6/6/2018 CMK CLIENT REVIEW

REV. NO DATE CHKD

REMARKS



CM KIRBY ENGINEERING, PLLC
P.O. BOX 29 I

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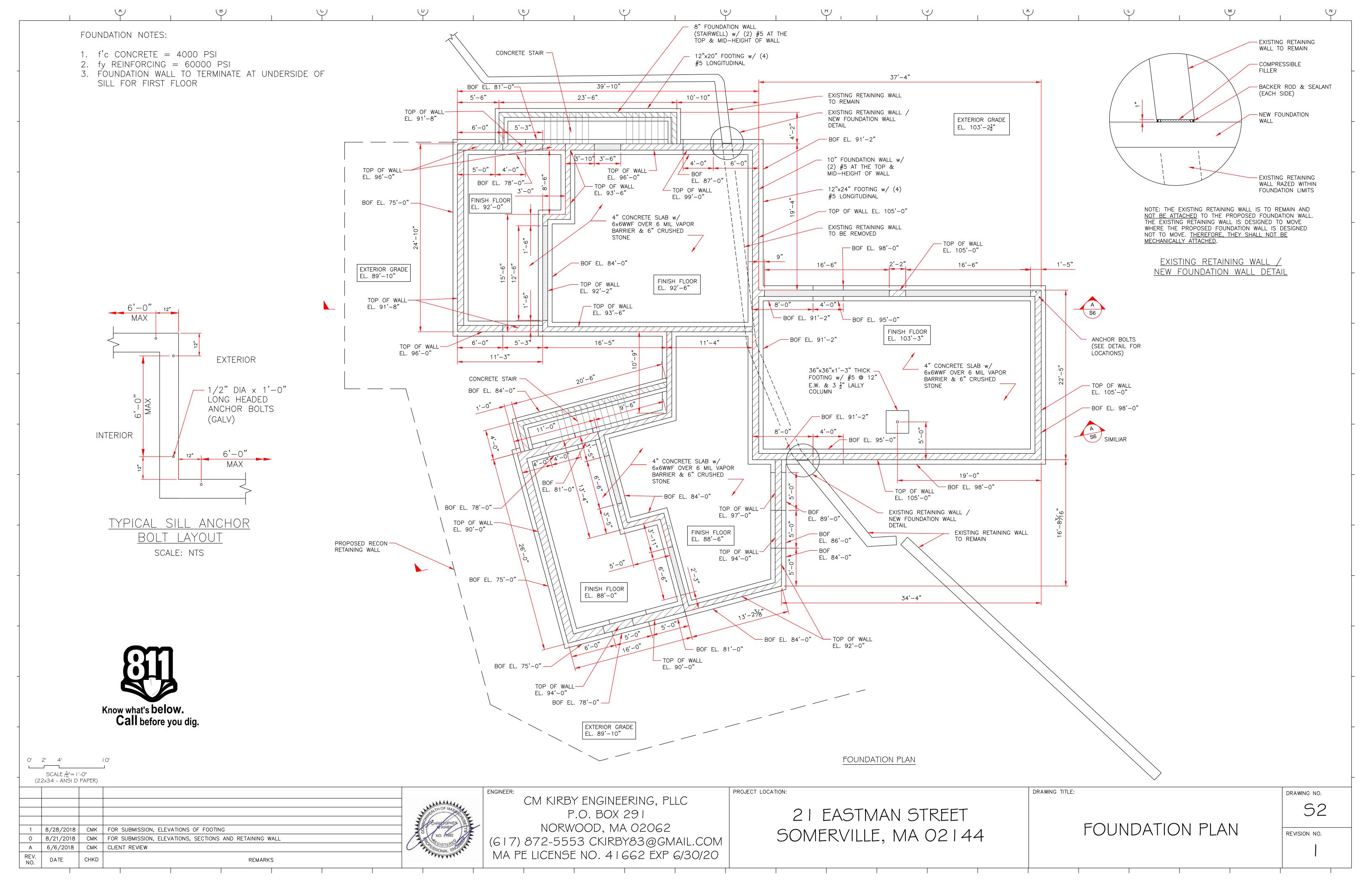
PROJECT LOCATION:

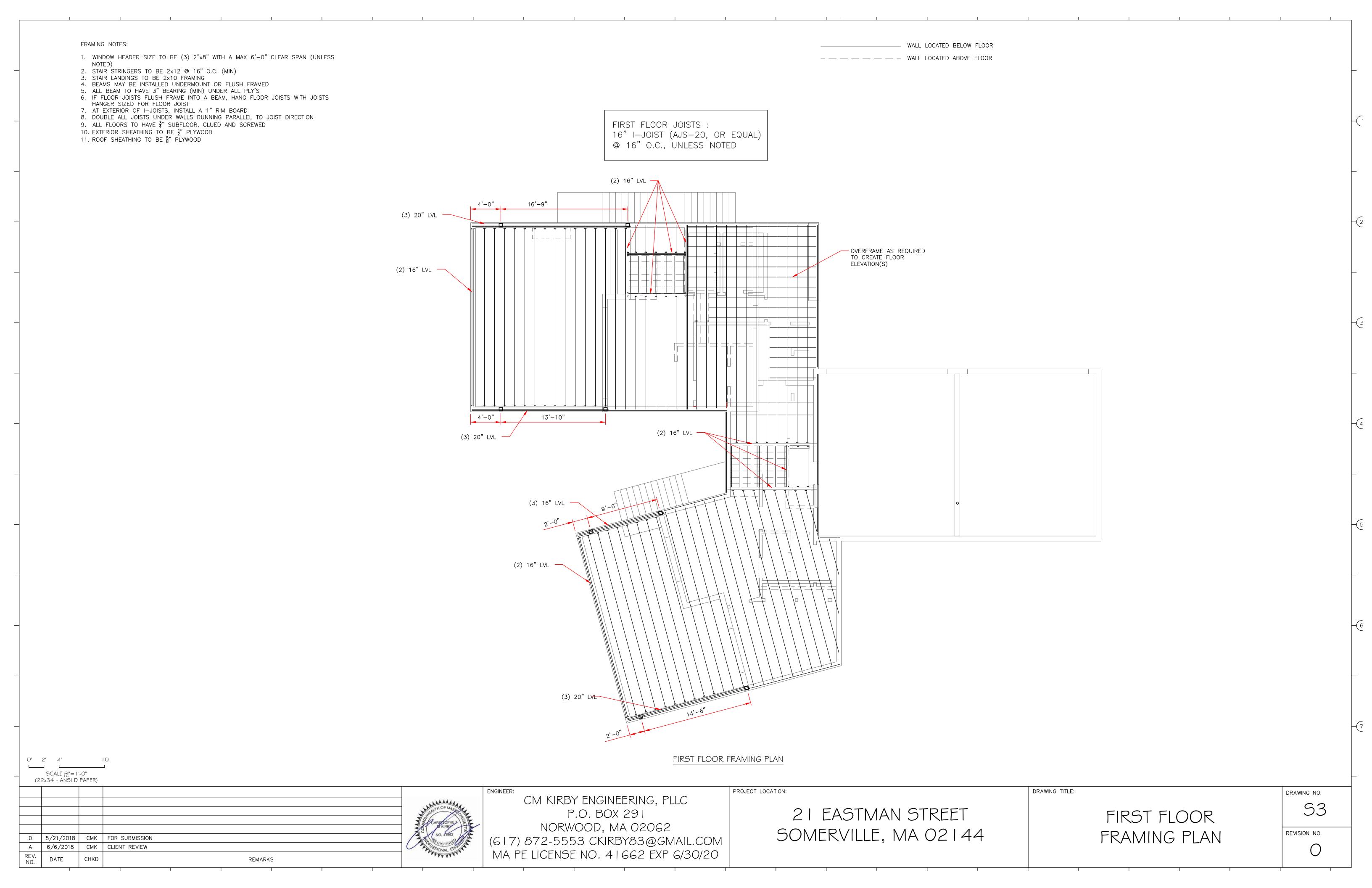
2 I EASTMAN STREET SOMERVILLE, MA 02 I 44 DRAWING TITLE:

STRUCTURAL COVER PAGE \$ GENERAL NOTES SI

DRAWING NO.

REVISION NO.





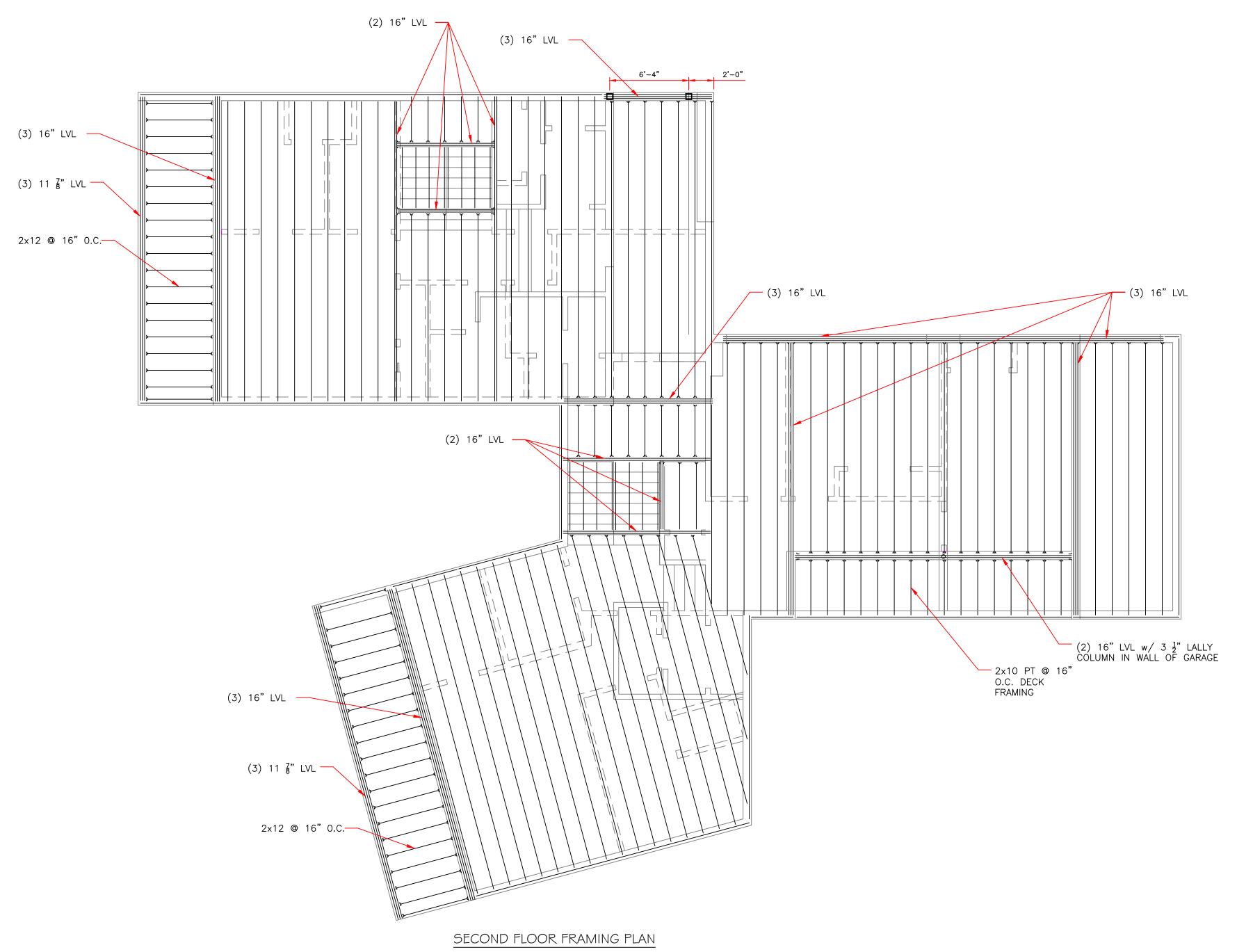
FRAMING NOTES:

- 1. WINDOW HEADER SIZE TO BE (3) 2"x8" WITH A MAX 6'-0" CLEAR SPAN (UNLESS
- 2. STAIR STRINGERS TO BE 2x12 @ 16" O.C. (MIN)
- 3. STAIR LANDINGS TO BE 2x10 FRAMING
 4. BEAMS MAY BE INSTALLED UNDERMOUNT OR FLUSH FRAMED 5. ALL BEAM TO HAVE 3" BEARING (MIN) UNDER ALL PLY'S
- 6. IF FLOOR JOISTS FLUSH FRAME INTO A BEAM, HANG FLOOR JOISTS WITH JOISTS
- HANGER SIZED FOR FLOOR JOIST
- 7. AT EXTERIOR OF I-JOISTS, INSTALL A 1" RIM BOARD 8. DOUBLE ALL JOISTS UNDER WALLS RUNNING PARALLEL TO JOIST DIRECTION
- 9. ALL FLOORS TO HAVE 3" SUBFLOOR, GLUED AND SCREWED
- 10. EXTERIOR SHEATHING TO BE $\frac{1}{2}$ " PLYWOOD
- 11. ROOF SHEATHING TO BE §" PLYWOOD

WALL LOCATED BELOW FLOOR ---- --- WALL LOCATED ABOVE FLOOR

SECOND FLOOR JOISTS: 16" I-JOIST (AJS-20, OR EQUAL)

@ 16" O.C., UNLESS NOTED



PROJECT LOCATION:

SCALE $\frac{3}{16}$ = 1'-0" (22x34 - ANSI D PAPER) 0 8/21/2018 CMK FOR SUBMISSION 6/6/2018 CMK CLIENT REVIEW REMARKS

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21 EASTMAN STREET SOMERVILLE, MA 02144 SECOND FLOOR FRAMING PLAN

DRAWING TITLE:

DRAWING NO. 54

REVISION NO.

FRAMING NOTES: WALL LOCATED BELOW FLOOR 1. WINDOW HEADER SIZE TO BE (3) 2"x8" WITH A MAX 6'-0" CLEAR SPAN (UNLESS 2. STAIR STRINGERS TO BE 2x12 @ 16" O.C. (MIN) 3. STAIR LANDINGS TO BE 2x10 FRAMING
4. BEAMS MAY BE INSTALLED UNDERMOUNT OR FLUSH FRAMED
5. ALL BEAM TO HAVE 3" BEARING (MIN) UNDER ALL PLY'S 6. IF FLOOR JOISTS FLUSH FRAME INTO A BEAM, HANG FLOOR JOISTS WITH JOISTS HANGER SIZED FOR FLOOR JOIST 7. AT EXTERIOR OF I-JOISTS, INSTALL A 1" RIM BOARD 8. DOUBLE ALL JOISTS UNDER WALLS RUNNING PARALLEL TO JOIST DIRECTION ROOF JOISTS : 9. ALL FLOORS TO HAVE 3 SUBFLOOR, GLUED AND SCREWED 10. EXTERIOR SHEATHING TO BE 1" PLYWOOD 16" I-JOIST (AJS-20, OR EQUAL) 11. ROOF SHEATHING TO BE §" PLYWOOD @ 16" O.C., UNLESS NOTED (3) 16" LVL 2x8 PT @ 16" O.C. PERGOLA FRAMING (3) 16" LVL (3) 16" LVL 2x8 PT @ 16" O.C. PERGOLA FRAMING

SCALE 3 = 1'-0"
(22x34 - ANSI D PAPER)

0 8/21/2018 CMK FOR SUBMISSION
A 6/6/2018 CMK CLIENT REVIEW

REMARKS

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2 I EASTMAN STREET SOMERVILLE, MA 02 I 44

ROOF FRAMING PLAN

PROJECT LOCATION:

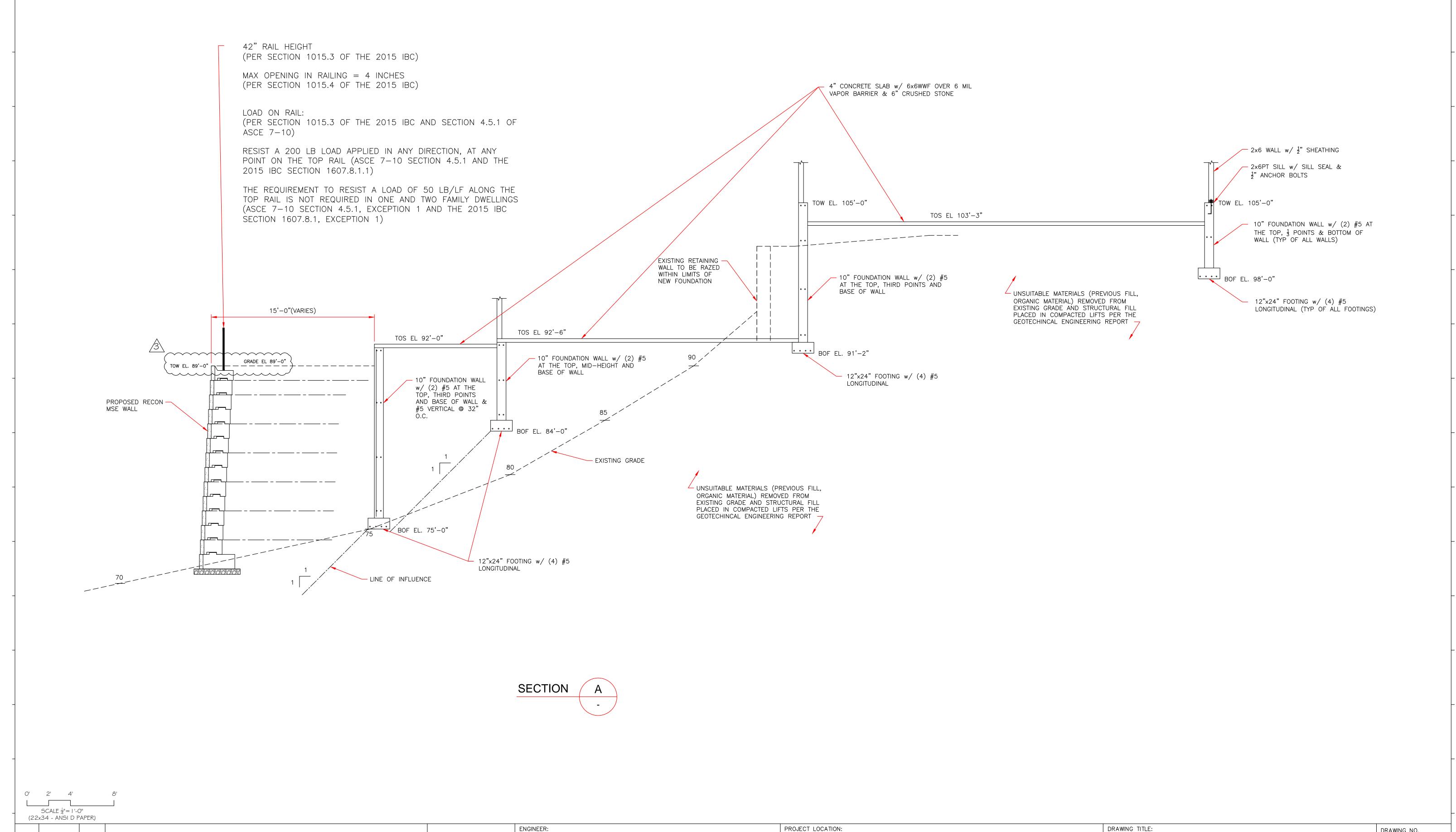
ROOF FRAMING PLAN

DRAWING TITLE:

drawing no. 55

REVISION NO.

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3 9/10/2018 CMK FOR SUBMISSION, RAIL LOADS 8/28/2018 CMK FOR SUBMISSION, REINFORCEMENT 0 8/21/2018 CMK FOR SUBMISSION REMARKS

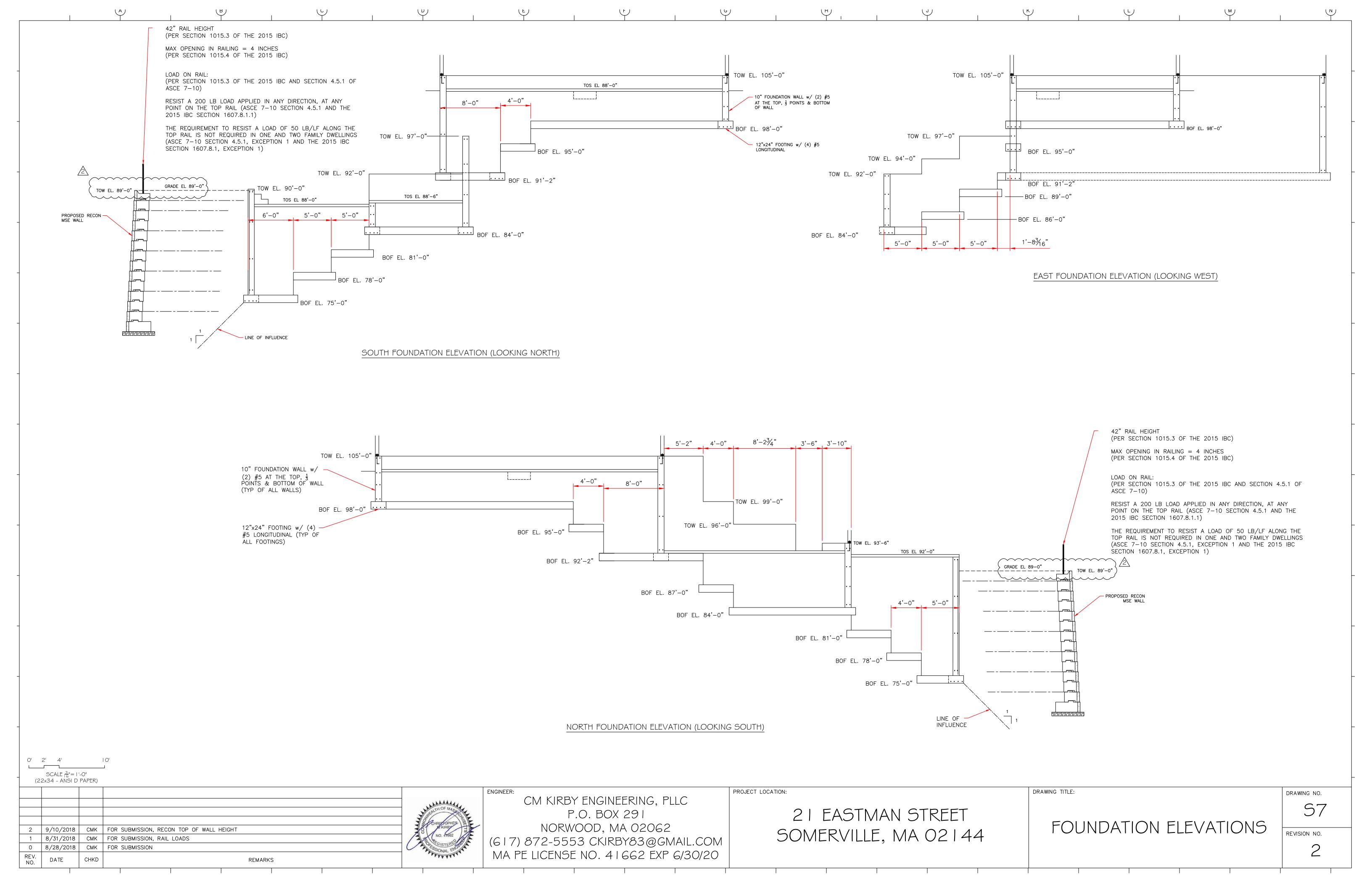
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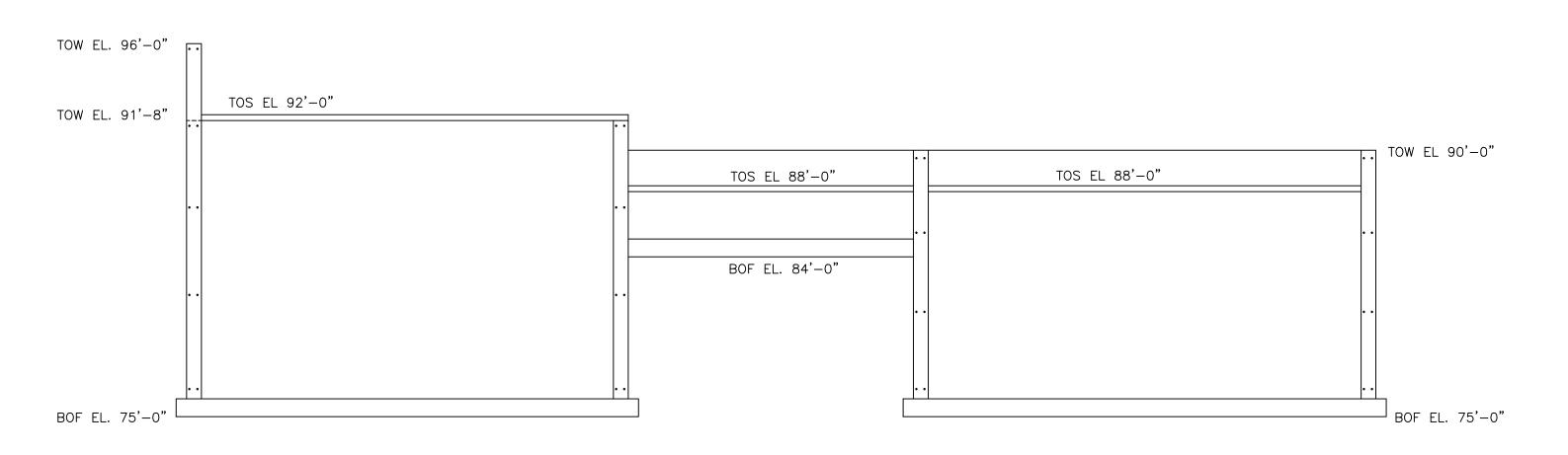
21 EASTMAN STREET SOMERVILLE, MA 02144

CROSS SECTION

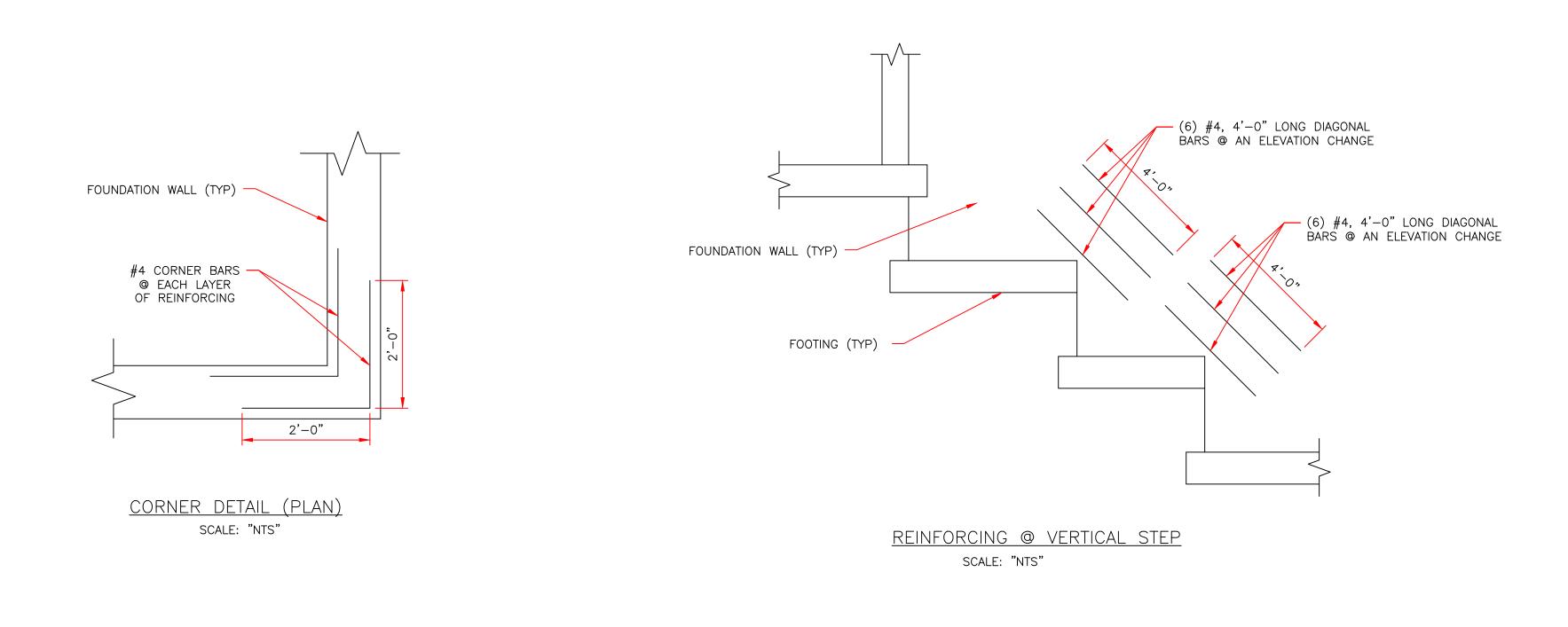
56 REVISION NO.

DRAWING NO.





WEST FOUNDATION ELEVATION (LOOKING EAST)



FOUNDATION NOTES:

DRAWING TITLE:

- 1. f'c CONCRETE = 4000 PSI
- 2. fy REINFORCING = 60000 PSI3. REINFORCING LAP = 40 BAR DIAMETERS

(22	(22x34 - ANSI D PAPER)					
				/		
0	8/28/2018	CMK	FOR SUBMISSION	(

REMARKS



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PROJECT LOCATION:

FOUNDATION ELEVATIONS \$ DETAILS

DRAWING NO. 58

REVISION NO.