# ADDITION AND ALTERATION TO ONE FAMILY HOUSE

# 303 GROVE AVENUE, METUCHEN, NJ 08840

## **GENERAL NOTES**

#### CONSTRUCTION NOTES:

#### CONCRETE AND MASONRY

1. THE BEARING STRENGTH OF THE POURED CONCRETE FOR FOUNDATIONS MUST BE A MINIMUM OF 4,000 PSI. THE BEARING STRENGTH FOR SIDEWALKS AND CONCRETE SLABS MUST BE A MINIMUM OF 3,200 PSI. CSI DIV. 03 CONCRETE.

2. CONCRETE DESIGN MEETS AMERICAN CONCRETE INSTITUTE (ACI) CODE.

3. CONCRETE SHALL CONSIST OF CEMENT, WATER, AND AGGREGATE.

4. MASONRY IS TO MEET ANSI A41.1 REQUIREMENTS.

5. BRICK MUST MEET ASTM C62 USE GRADE SW (SEVERE WEATHERING) AND USE. STANDARD MODULAR SIZE BRICK UNLESS OTHERWISE SPECIFIED. "N" NORMAL GROUT IS TO USED.

6. BLOCK IS TO BE GRADE "N" NORMAL AND MORTAR IS TO BE "N" NORMAL MEETING ASTM C90 LOADBEARING BLOCK.

7. UNREINFORCED LENGTH AND HEIGHTS SHOULD NOT EXCEED ANSI A41.1 STANDARDS.

8. THE CONCRETE CONTRACTOR MUST VERIFY PROPER CONCRETE PSI AT TIME OF POUR.

#### **METAL AND STEEL:**

1. THE STEEL USED SHOULD BE ASTM 36 ALL-PURPOSE CARBON GRADE STEEL. CSI DIV 05 METALS.

2. STEEL SHAPES AND CONNECTIONS ARE TO MEET AISC STANDARDS. PROVIDE WELDED WEB STIFFENERS FOR ALL STEEL SHAPES.

3. METAL STUD WALLS SPACED AT 12" O.C. AND 16" O.C. ARE TO HAVE HORIZONTAL REINFORCING EVERY 4'-0" O.C. VERTICALLY AND BRACING AT THE CORNERS.

4. METAL STUD WALLS ARE NOT TO EXCEED THE MAXIMUM HEIGHT ALLOWED ACCORDING TO THE MANUFACTURER'S SPECS.

5. WELDING IS TO MEET AWS D1.1-80 AND THE AISC SPECIFICATIONS. PROVIDE CONTINUOUS ALL AROUND WELDING AT CONNECTIONS

1. STRUCTURAL WOOD MEMBERS ARE TO BE DOUGLAS-FIR MIN 1,250 PSI STRUCTURAL GRADE LUMBER. KILN DRIED AND GRADE STAMPED. CSI DIVISION 06 WOOD . PLASTICS. AND COMPOSITES.

INSTL INSTALL

MET

NTS

OC

OD

 $\mathsf{PL}$ 

PT

STD

TEL

UND

WD

JUNCTION BOX

NOT TO SCALE

ON CENTER

MASONRY OPENING

OUTSIDE DIAMETER

STAINLESS STEEL

LAMINATE

METAL

PLATE

PAINT

**RADIUS** 

STANDARD

TELEPHONE

**VOLTAGE** 

UNDER

WALL

WOOD

LIVE LOAD

**ABBREVIATIONS** 

ABOVE

ADDITION

ADHESIVE

**BOARD** 

BUILDING

CEILING

CONST CONSTRUCTION

DEGREE

EQUIPMENT

FLOOR DRAIN

**HOLLOW METAL** 

EXP JT EXPANSION JOINT

FOOTING

GYPSUM

**HEIGHT** 

GAGE

DOOR

CENTER LINE

2. WOOD STUD WALLS SPACED 12" O.C. AND 16" O.C. ARE TO HAVE HORIZONTAL BRACING 4'-0" VERTICALLY.

3. ROOF RAFTERS SPACED 12" O.C. & 16" O.C. ARE TO HAVE BRACING AT A 45 DEG ANGLE SPACED EVERY 6'-0" O.C.

4. CEILING AND ROOF JOISTS SPACED 12" O.C. AND 16" O.C. ARE TO HAVE DIAGONAL BRACING EVERY 4'-0" O.C.

5. WOOD FLOOR & WALLS MUST HAVE FIREBLOCKING AT EACH FLOOR LEVEL AND BETWEEN DIFFERENT SPACE USES.

6. WINDOW AND DOOR HEADERS FOR BEARING WALLS ARE (2) 2 X 6'S AND FOR NON-BEARING WALLS ARE (2) 2X4'S.

7. PLYWOOD SHEATHING IS TO BE HEM-FIR CDX FOR EXTERIOR WALLS AND HEM-FIR APA FOR ROOF SHEATHING. 3/4" HEM-FIR IS TO BE USED FOR FLOORING.

8. ROOFS ARE TO HAVE STRAPS FOR HURRICANE FORCE WINDS.

9. WOOD BASE PLATES SHOULD HAVE CONTINUOUS TERMITE STRIPS ALONG THE FOUNDATION.

#### FINISHES:

1. GYPSUM PRODUCT INSTALLATION MUST CONFORM TO THE ASTM AND GYPSUM ASSOCIATION. CSI DIVISION 09 FINISHES

2. USE TYPE "X" FIRE-RATED ASTM 36 AND GA 216, 600 INSTALLATION STANDARDS. TAPE AND SPACKLE ALL GYPSUM BOARD INSTALLATION FOR FIRERATED WALLS.

3. FOR EXTERIOR APPLICATIONS USE EXTERIOR GYPSUM SHEATHING ASTM STANDARD C1177 AND GA 253 INSTALLATION STANDARDS.

#### PLUMBING:

1. INSTALLATION IS TO MEET DEP STANDARDS, THE NATIONAL PLUMBING CODE, AND ANSI A40.8. CSI DIVISION 22 PLUMBING.

2. DRIP VALVES AND SHUT-OFF VALVES MUST BE INSTALLED AT LOW POINT IN WATER SUPPLY SYSTEM.

3. INSTALL SHOCK ABSORBERS TO PREVENT WATER HAMMER

4. WASTE MAINS ARE TO BE CAST IRON OR EHCI PIPING IN NYC, THEY MAY BE P.V.C. ELSEWHERE.

5. A WASTE CLEAN-OUT MUST BE INSTALLED AT EXTERIOR WALL

SITE CALCULATIONS

USE GROUP = R-5 - ONE FAMILY RESIDENTIAL

ZONING DISTRICT = R-1 RESIDENTIAL DISTRICT

MINIMUM LOT WIDTH REQ. = 75' > 83.30' EXISTING NON-COMPLYING

MAXIMUM 3 STORIES AND 35' HIGH > 2.5 STORIES, 35' HIGH PROPOSED

(CELLAR FLOOR AREA = 42.5' X 26.08' = 838.60 SF EXISTING)

(CELLAR FLOOR AREA = 42.5' X 26.08' = 1,274.64 SF PROPOSED)

CONST CLASS = TYPE 5B WOOD FRAME

BOROUGH OF METUCHEN ZONING CODE

MINIMUM LOT DEPTH REQ. = 100' < 189.02' EXISTING

EAST FRONT YARD 25' REQ. < 32.84' PROPOSED

NORTH FRONT YARD 25' REQ. > 25.41' PROPOSED

SOUTH SIDE YARD 10' MIN REQ. > 10' PROPOSED

REAR YARD 25' MIN REQ. < 50.53' PROPOSED

A. SINGLE FAMILY DETACHED DWELLINGS

(TOTAL CELLAR FLOOR AREA = 2,113.24 SF)

110-64 MAXIMUM BUILDING HEIGHT

303 GROVE AVENUE, METUCHEN, NJ 08840

BLOCK 107 LOT 51

110-64 BULK REQUIREMENTS

<u>110-64 MIN LOT WIDTH</u>

110-64 MIN LOT DEPTH

110-64 REQUIRED YARDS

110-68 PERMITTED USES

HOUSE FLOOR AREA

VOLUME OF ADDITIONS

OFFSTREET PARKING

MINIMUM LOT AREA = 10,000 SF

83.30' X 189.02' = 17,155.82 SF EXISTING

6. FRESH AIR INTAKE MUST BE INSTALLED 6" ABOVE GRADE.

7. AIR VENT STACK MUST PENETRATE ROOF SURFACE.

8. P.V.C. PIPING MAY BE USED UP TO A THREE FAMILY HOUSE, GREATER THAN THREE FAMILIES OR ANY COMMERCIAL BUILDING WILL REQUIRE **ESVP PIPING THROUGHOUT** 

1. INSTALLATION OF HVAC UNITS AND DUCT WORK IS TO CONFORM WITH THE ASHRAE, CSI DIVISION 23 HVAC.

2. PIPING FOR HOT WATER AND STEAM HEAT SYSTEMS MUST BE PROPERLY FASTENED TO STRUCTURAL MEMBERS ACCORDING TO CODE.

3. DUCT WORK PENETRATIONS THROUGH FIREWALLS AND FLOORS MUST BE PROVIDED WITH FIREDAMPERS.

4. DUCT WORK MUST BE PROPERLY INSULATED AS PER CODE.

5. CHIMNEY FLUES WITHIN 10'-0" OF RIDGE LINE MUST EXTEND 3'-6" ABOVE THE HIGHEST POINT OF THE ROOF

#### **ELECTRICAL**:

1. WIRING METHODS AND MATERIALS MUST COMPLY WITH NATIONAL ELECTRICAL CODE AND STATE CODE. CSI DIVISION 26 ELECTRICAL.

2. MATERIALS MUST MEET UL, NRTL, NEMA, OR NFPA TESTING LABORATORIES SPECIFICATIONS.

3. WIRING MUST BE GROUNDED FOR THE STRUCTURE WITH AN ELECTROPOLE.

4. CIRCUIT LOADS AND WIRING MUST BE VERIFIED BY A LICENSED

5. ELECTRICAL CONTRACTOR MUST PROVIDE ALL ELECTRICAL HARDWARE FOR INSTALLATION.

6. ALL DUPLEX RECEPTACLES ARE TO BE INSTALLED 12" AFF AND FOR H.C. AND ADA LOCATION. THEY MUST BE 18" TO 4'-0" AFF.

7. WIRING MUST HAVE A MAIN SWITCH BOARD AT ELECTRICAL POWER

8. ALL OUTLETS NEAR WATER OUTLETS AND SINKS MUST BE GFI - GROUND FORCE INTERRUPTER.

10. ENERGY EFFICIENT LIGHT BULBS MUST BE USED IN ALL NEW LIGHT FIXTURE INSTALLATIONS

**BUILDING DEPARTMENT NOTES:** 

1. CONSTRUCTION IS IN COMPLIANCE WITH NEW JERSEY BUILDING

2. MATERIALS AND METHODS OF CONSTRUCTION ARE IN COMPLIANCE WITH THE APPLICABLE BUILDING CODE AND NECESSARY FORMS HAVE BEEN SUBMITTED TO THE LOCAL BUILDING DEPARTMENT. SPECIFICATIONS ARE LISTED IN CSI, MASTERFORMAT 2004.

3. THE BUILDING DEPARTMENT MUST BE NOTIFIED 24 HOURS PRIOR TO ALL EXCAVATION WORK INCLUDING DRYWELLS.

4. CONSTRUCTION WILL BE INSPECTED BY A LICENSED PROFESSIONAL AS LISTED BELOW UNDER INSPECTIONS. A CERTIFICATE OF COMPLETED INSPECTION AND REPORT MUST BE SUBMITTED TO THE BUILDING DEPARTMENT.

5. THE BUILDING PERMIT MUST BE POSTED IN A VISIBLE LOCATION TO THE FRONT EXTERIOR OF THE PROPERTY WITH THE OCCUPANCY AND USE

6. THE NEW OCCUPANTS MAY NOT USE THE STRUCTURE UNTIL A CERTIFICATE OF OCCUPANCY HAS BEEN OBTAINED.

#### PROJECT COMPLETION:

2. FINAL INSPECTION

1. FOUNDATION, FRAMING, ETC. SPECIAL INSPECTIONS

3. FINAL PLUMBING INSPECTION

4. FINAL ELECTRICAL INSPECTION

5. FINAL MECHANICAL INSPECTION, ETC.

6. BUILDING DEPARTMENT SIGN-OFF OR

7. CERTIFICATE OF OCCUPANCY

#### **NEW JERSEY BUILDING CODE:**

2018 IBC NJ ED. WITH ADMENTMENTS NEC 2017 NSPC 2018 IMC 2018

9. CIRCUITS IN A ROOM MUST HAVE ONE CIRCUIT BREAKER OUTLET.

**ENERGY CALCULATIONS** 

CONFORMS TO NEW JERSEY STATE ENERGY CODE 2018 IECC

CAVITY CONT. WIN/DR
AREA R-VALUE R-VALUE U-FACTOR SHGC UA

.053

.040

.049

## **PERMITS**

CONSTRUCTION **ELECTRICAL** 

**PLUMBING** 

**MECHANICAL** 

## **INSPECTIONS**

EXCAVATION

DOORS .5 CFM/SF REQ. => .5 CFM/SF SPECIFIED

MAXIMUM UA ALLOWED 526 > 521 PROVIDED COMPLIANCE PASSES

#### 2. FOUNDATION 3. FRAMING

### 4. FINAL

181

43

.18

.18

.18

## STRUCTURAL REQ.

CONFORMS TO NEW JERSEY CODE, TABLE 1607.1

LOCATION: METUCHEN, NJ

PROJECT TYPE: ADDITION

ADDITION AND ALTERATION

CLIMATE ZONE: 4

WALL

CEILING

WINDOW

DOORS

DOORS GL

**BASEWALL** 

**INFILTRATION RATES** 

AIR HEATING, 78 AFUE

CONSTRUCTION TYPE: SINGLE -FAMILY

**HEATING DEGREE DAYS: 5227 HDD** 

1ST, 2ND FLOOR = 40 PSF NJ CODE TABLE 1607.1 RESIDENTIAL CEILING = 10 PSF NJ CODE TABLE 1607.1 UNINHABITABLE W/O STOR.

ROOF = 30 PSF NJ CODE 1607.11.2.1 **EQUATION 16-4** 

FLOORS = 12.1 PSF FIRST FLOOR CEILING = 4.0 PSF

ROOF = 9.2 PSF

## LIST OF DRAWINGS

TITLE SHEET AND PLOT PLAN CELLAR AND FIRST FLOOR PLANS

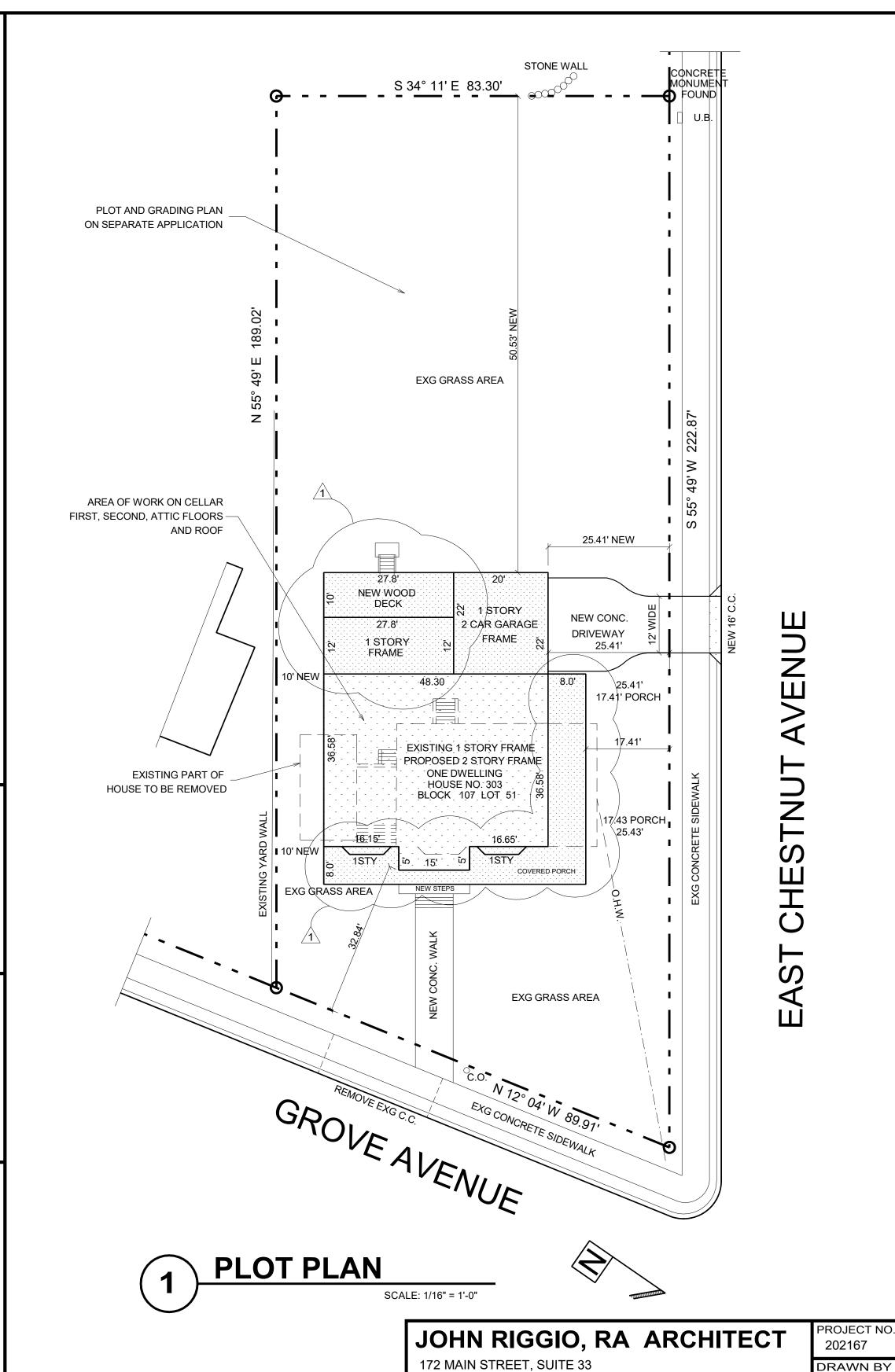
A-002 SECOND FLOOR PLAN AND ATTIC FLOOR PLAN

A-003 **ROOF PLAN** 

A-004 HOUSE ELEVATIONS

RISER DIAGRAMS AND DETAILS

A-006 SECTIONS AND DETAILS



METUCHEN, NJ 08840

TEL/FAX: (732) 902-2882

DOWNENT, TO CHANGE THE DOCUMENT.

ADDITION AND ALTERATION

TO ONE FAMILY HOUSE

303 GROVE AVENUE

METUCHEN, NJ 08840

HERE MUST BE A LICENSED ARCHITEC

PROJECT

J.R. , D.N.

1/4"=1'-0"

9-27-2021

Γ-001.00

1 OF 7

DRAWING

SCALE

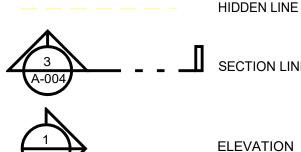
DATE

√8-<u>17-202</u>3 FOR VARIANCE

TITLE SHEET

AND PLOT PLAN

## **SYMBOLS**





DRAWING ON SHEET

FIRST FLOOR AREA = 42.5' X 26.08' = 838.60 SF EXISTING FIRST FLOOR GARAGE AREA = 20' X 2'= 440 SF PROPOSED FIRST FLOOR ADDITION = 15' 36.58' = 1,274.64 SF PROPOSED TOTAL FIRST FLOOR AREA = 2,553.24 SF SECOND FLOOR AREA TOTAL 2ND FLOOR AREA = 48.30' X 36.58' = 1,748.521 SF PROPOSED ATTIC FLOOR AREA TOTAL ATTIC FLOOR AREA = 47.30' X 9' = 425.70 SF PROPOSED TOTAL HOUSE FLOOR AREA = 4,727.46 SF PROPOSED TOTAL HOUSE FLOOR AREA /WO GARAGE = 4,287.46 SF PROPOSED TOTAL FLOOR AREA OF ADDITIONS 3,888.86 SF PROPOSED 110-64 MAX LOT COVERAGE = 30% 17,155.82 SF X .30 5,146.75 SF > 2,553.24 SF 110-64 MAX IMPERVIOUS COVERAGE = 50% 17,155.82 SF X .50 = 8,577.91 SF > 3,053.24 SF 10' X 28.3' = 283 SF

3,888.86 SF X 9' = 34,999.74 CF PROPOSED

EXISTING DETACHED 2 CAR GARAGE 12' X 22.33' = 267.96 SF

PROPOSED ATTACHED 2 CAR GARAGE= 20' X 22' = 440.00 SF

# WINDOWS .37 CFM/LF REQ. => .34 CFM/LF SPECIFIED

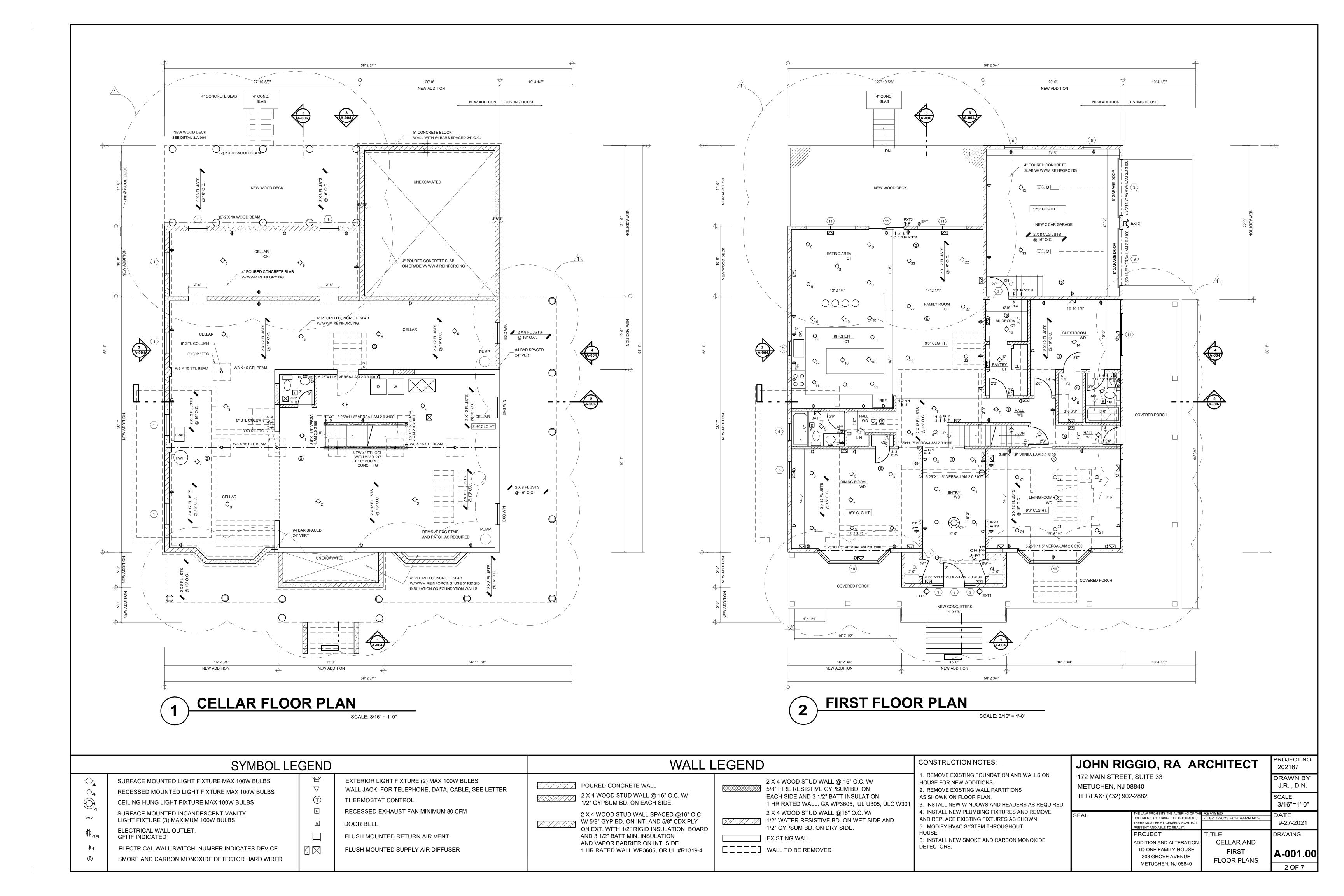
REQUIRED LIVE LOADS

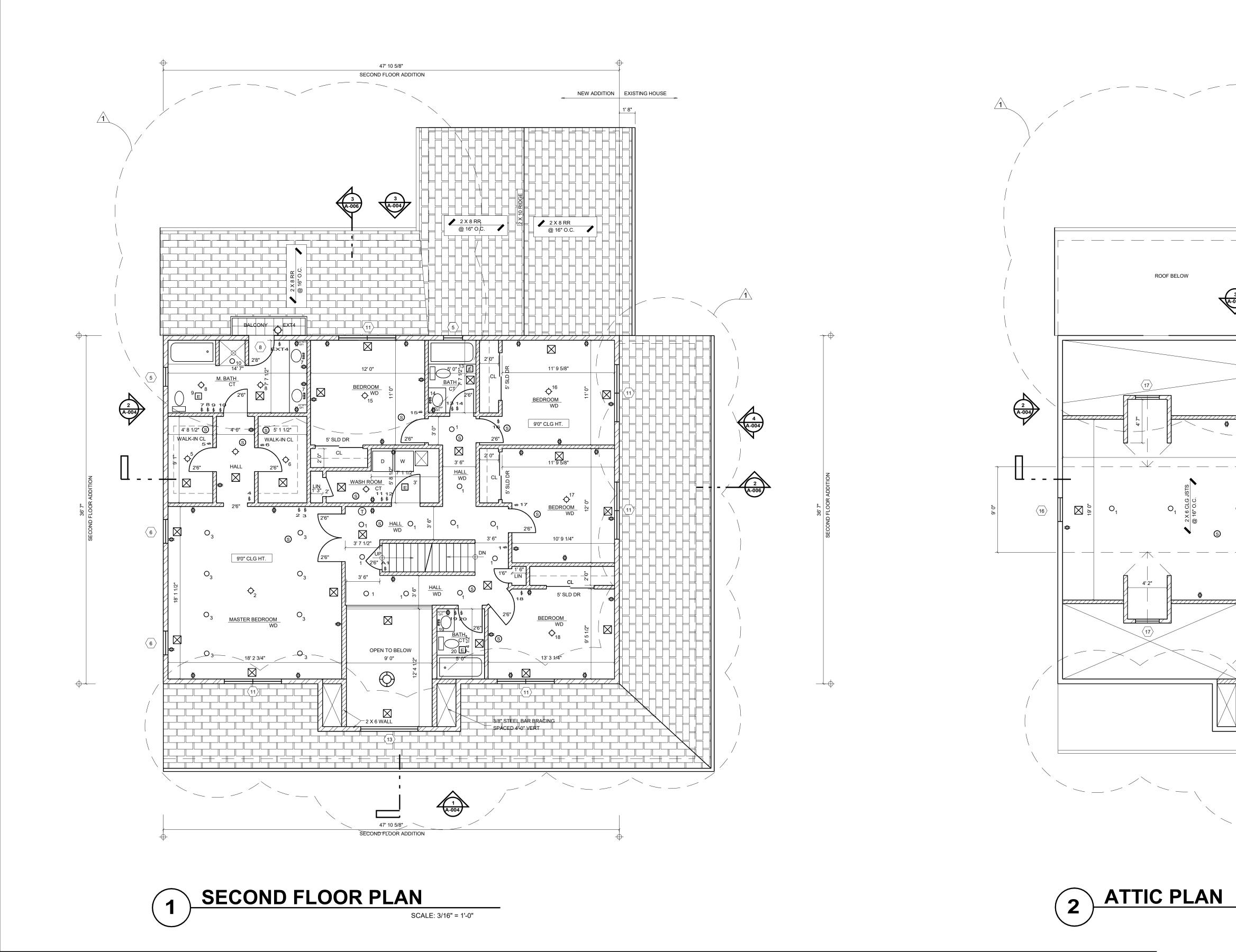
CEL FLOOR = 40 PSF NJ CODE TABLE 1607.1 RESIDENTIAL

DESIGN DEAD LOADS

UNINHABITABLE

SOILING BEARING PRESSURE = 2 TONS / SF



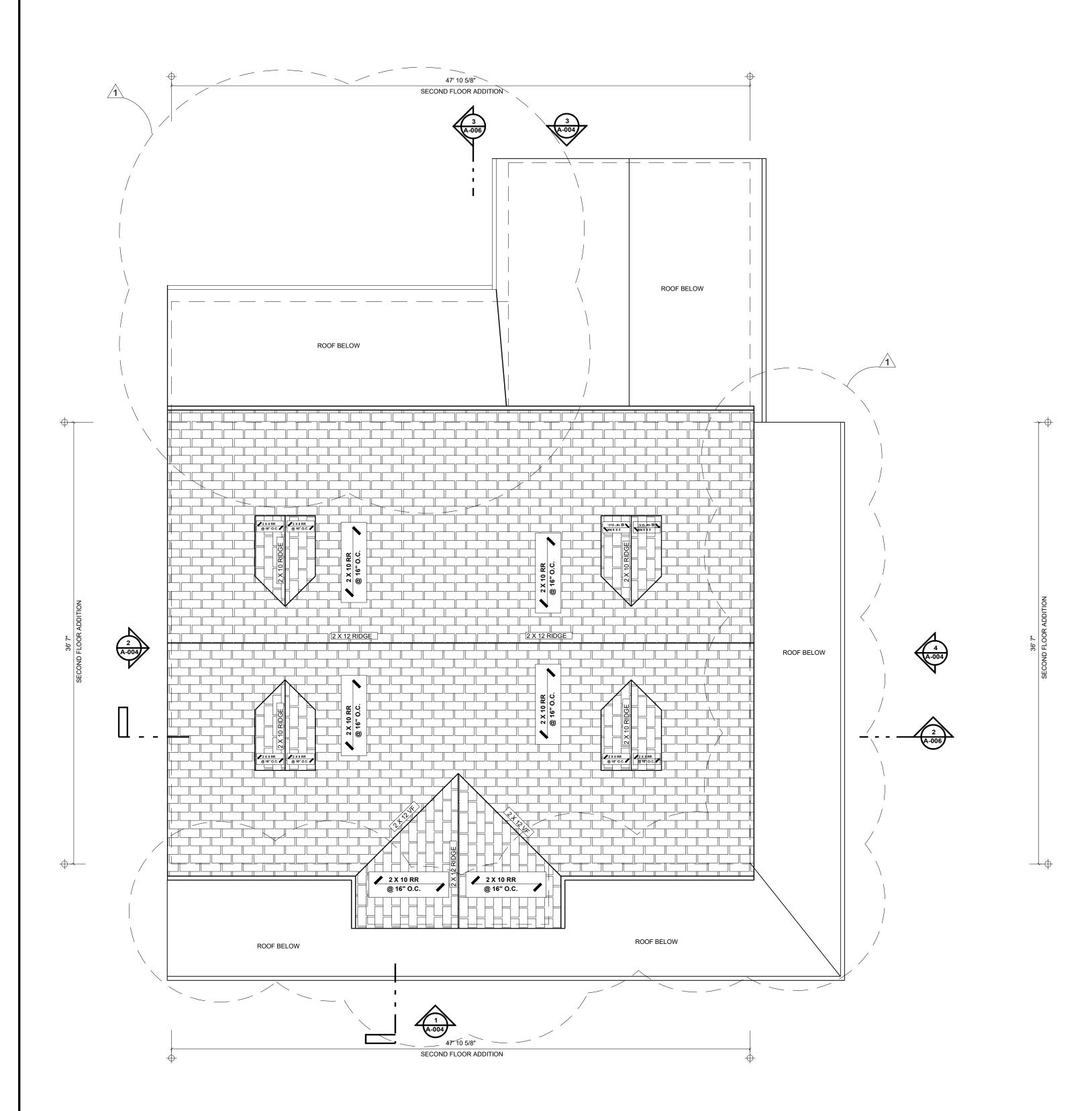


ATTIC PLAN	
	SCALE: 3/16" = 1'-0"

	WINDOW SCHEDULE																						
	BRAND	SERIES	TYPE	MODEL#	MODEL#	INTERIOR	EXTERIOR	CUS	STOM WIN	IDOW	NOTES:		BRAND	SERIES	TYPE	MODEL#	MODEL#	INTERIOR	EXTERIOR	CUSTOM WINDOW		NDOW	NOTES:
NO.						FINISH	FINISH	W (RO)	H (RO)	MATERIAL		NO.						FINISH	FINISH	W (RO)	H (RO)	MATERIAL	
1	ANDERSEN	400	CASEMENT	A31	-	WHITE	WHITE	-	-	-	CELLAR	11	ANDERSEN	400	DH	(2) TW3446	-	NATURAL	WHITE	-	-	-	DOUBLE, EM ESCAPE
2	ANDERSEN	400	EXT DOOR	-	-	WHITE	WHITE	2'8"	6'8"	VINYL CLAD	GARAGE	12	ANDERSEN	400	DH	TW4030	-	NATURAL	WHITE	-	-	-	TEMPERED, KITCHEN
3	ANDERSEN	400	FRONT DOOR	12AEHID6468A	A -	WHITE	WHITE	-	-	-	DB DOORS W/ SIDELITES	13	ANDERSEN	400	PICT / ARCH	PC6060	ARCH#CTC3	NATURAL	WHITE	-	-	-	PICTURE W/ ARCH
4	ANDERSEN	400	DH	TW3446	-	NATURAL	WHITE	-	-	-	EM ESCAPE	14	ANDERSEN	400	DH	TW3446	-	NATURAL	WHITE	-	-	-	BEDROOMS, EM ESCAPE
5	ANDERSEN	400	DH	TW2032	-	NATURAL	WHITE	-	-	-	TEMPERED	15	ANDERSEN	400	SLD GL DR	FWG6068R	-	NATURAL	WHITE	-	-	-	EATING AREA
6	ANDERSEN	400	DH	TW3046	-	NATURAL	WHITE	-	-	-	M. BEDROOM	16	ANDERSEN	400	DH	TW3446	-	NATURAL	WHITE	-	-	-	ATTIC SIDES
7	ANDERSEN	400	-	-	-	-	-	-	-	-	-	17	ANDERSEN	400	DH	TW2636	-	NATURAL	WHITE	-	-	-	ATTIC
8	ANDERSEN	400	EXT DOOR	FWH2968AR	-	NATURAL	WHITE		-  -	-	BALCONY	18	ANDERSEN	400	-	-	-		-		-	-	
9	ANDERSEN	400	GARAGE DOOR	-	-	WHITE	WHITE	8' 0"	7' 0"	FIBERGLASS	-	19	ANDERSEN	400	-	-	-	-	-	-	-	-	-
10	ANDERSEN	400	BAY WIN	45-P6050-20	-	NATURAL	WHITE	-	-	-	LIVINGROOM, DININGRM	20	ANDERSEN	400	-	-	-	-	-	-	-	-	-

	GIO, RA AF	RCHITECT	PROJECT NO. 202167
172 MAIN STREET METUCHEN, NJ 08	DRAWN BY J.R. , D.N.		
TEL/FAX: (732) 902	SCALE 3/16"=1'-0"		
SEAL	THE LAW PROHIBITS THE ALTERING OF THIS DOCUMENT. TO CHANGE THE DOCUMENT, THERE MUST BE A LICENSED ARCHITECT PRESENT AND ABLE TO SEAL IT.	REVISED  A 8-17-2023 FOR VARIANCE	DATE 9-27-2021
	PROJECT ADDITION AND ALTERATION TO ONE FAMILY HOUSE 303 GROVE AVENUE METUCHEN, NJ 08840	TITLE SECOND FLOOR PLAN AND ATTIC PLAN	A-002.00 3 OF 7

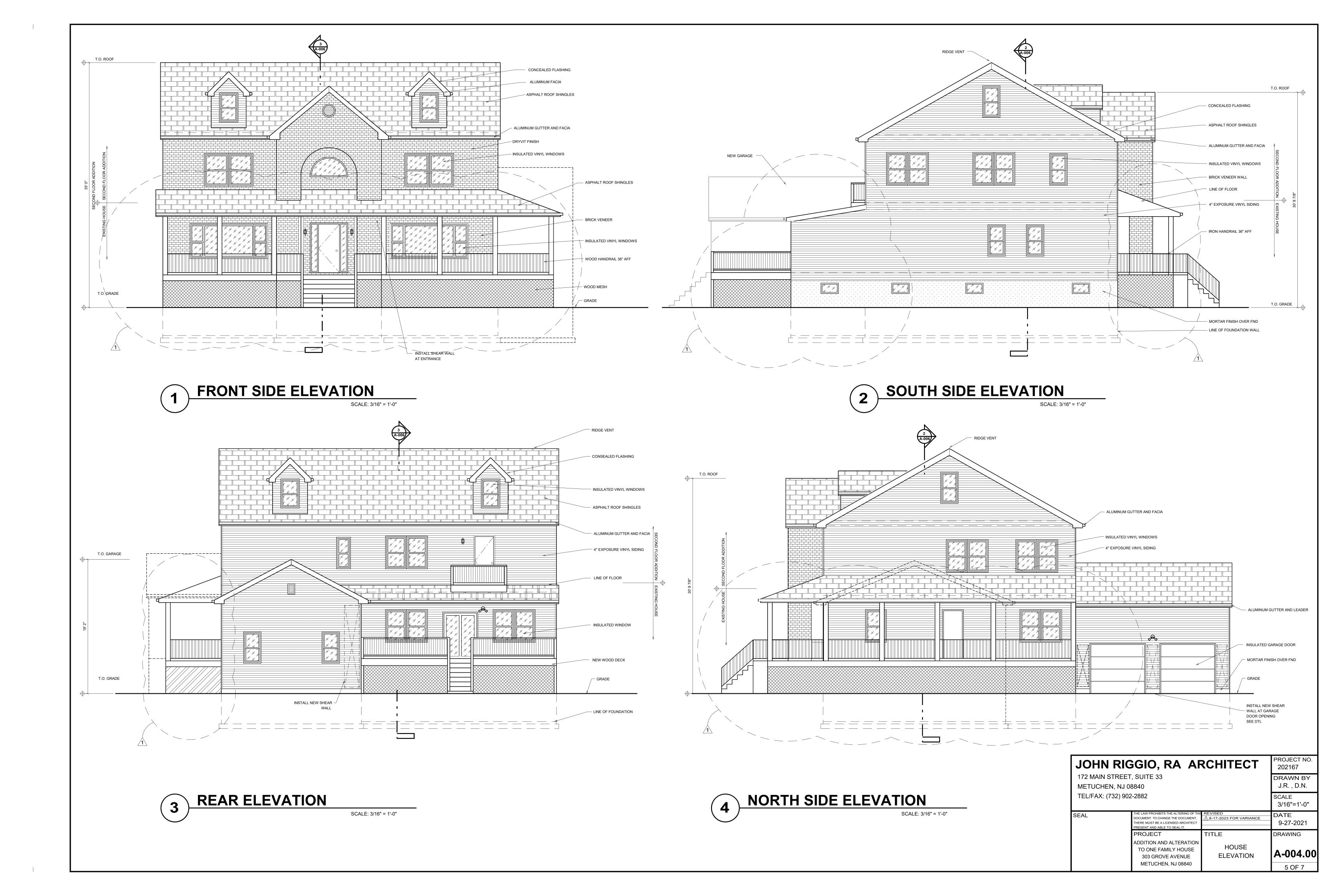
ROOF BELOW

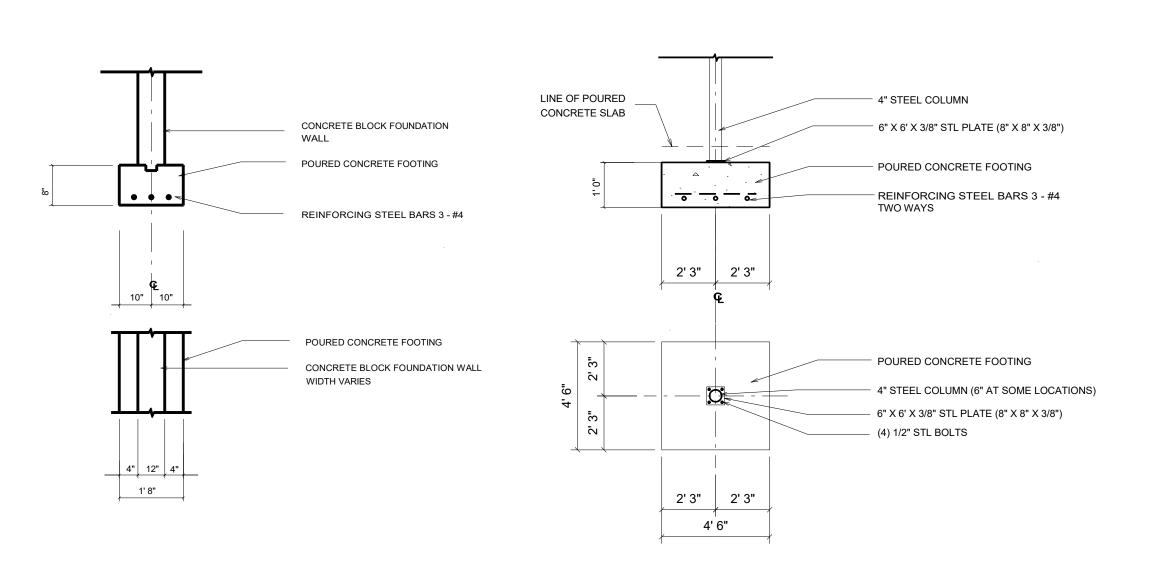


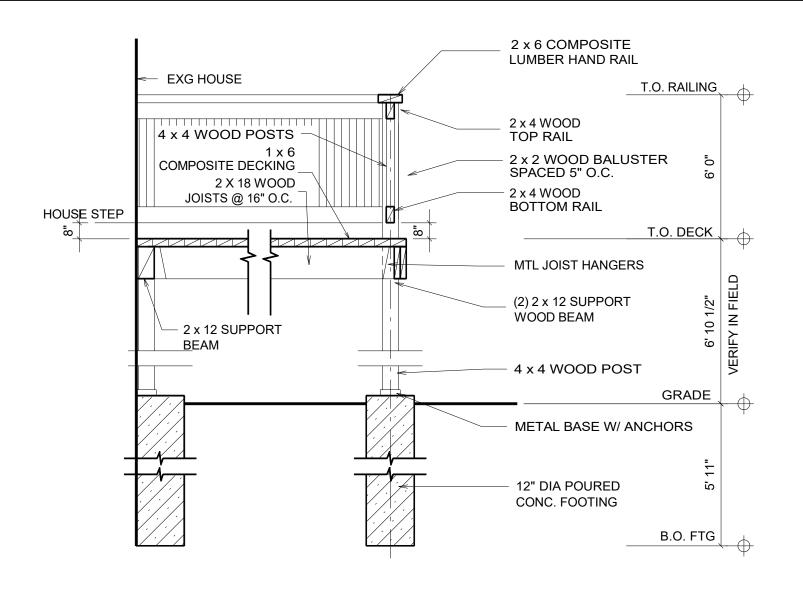
ROOF PLAN

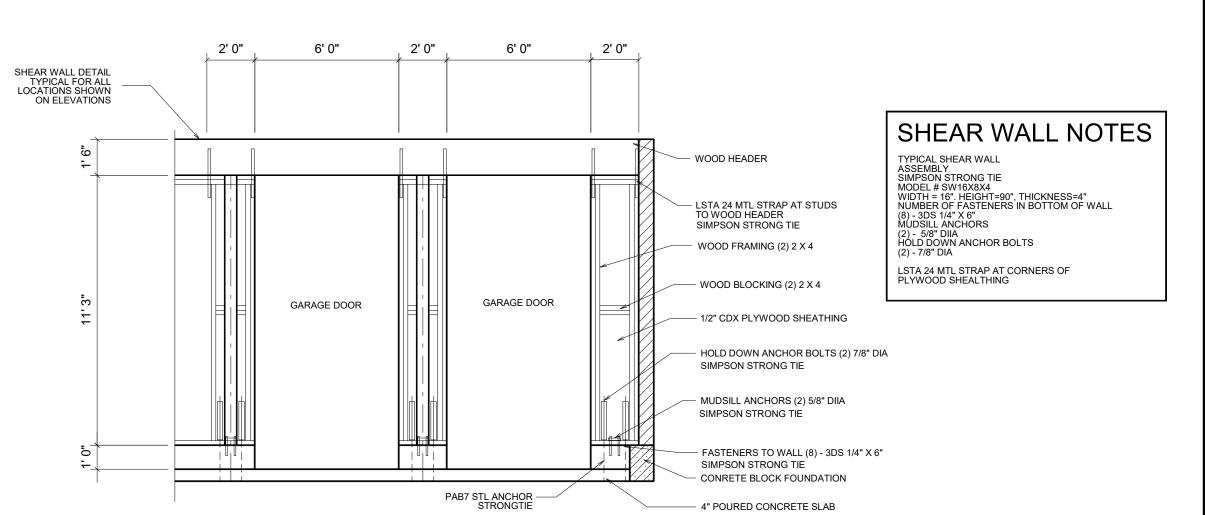
SCALE: 3/16" = 1'-0"

JOHN RIG	PROJECT NO. 202167		
172 MAIN STREET METUCHEN, NJ 0	DRAWN BY J.R. , D.N.		
TEL/FAX: (732) 902	2-2882		SCALE 3/16"=1'-0"
SEAL	THE LAW PROHIBITS THE ALTERING OF THIS DOCUMENT. TO CHANGE THE DOCUMENT, THERE MUST BE A LICENSED ARCHITECT PRESENT AND ABLE TO SEAL IT.	REVISED  A 8-17-2023 FOR VARIANCE	DATE 9-27-2021
	PROJECT	TITLE	DRAWING
	ADDITION AND ALTERATION TO ONE FAMILY HOUSE 303 GROVE AVENUE METUCHEN, NJ 08840	ROOF PLAN	A-003.00
	WE1 331 E.V, 140 33340		4 OF 7









FOOTING DETAIL

SCALE: 1/2" = 1'-0"

2 COLUMN FTG DETAIL

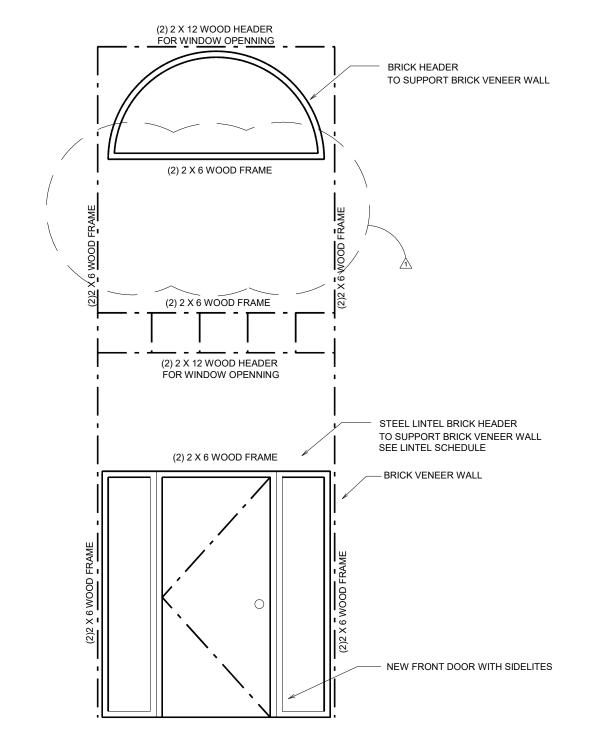
SCALE: 1/2" = 1'-0"

**DECK DETAIL** 

SCALE: 1/2" = 1'-0"

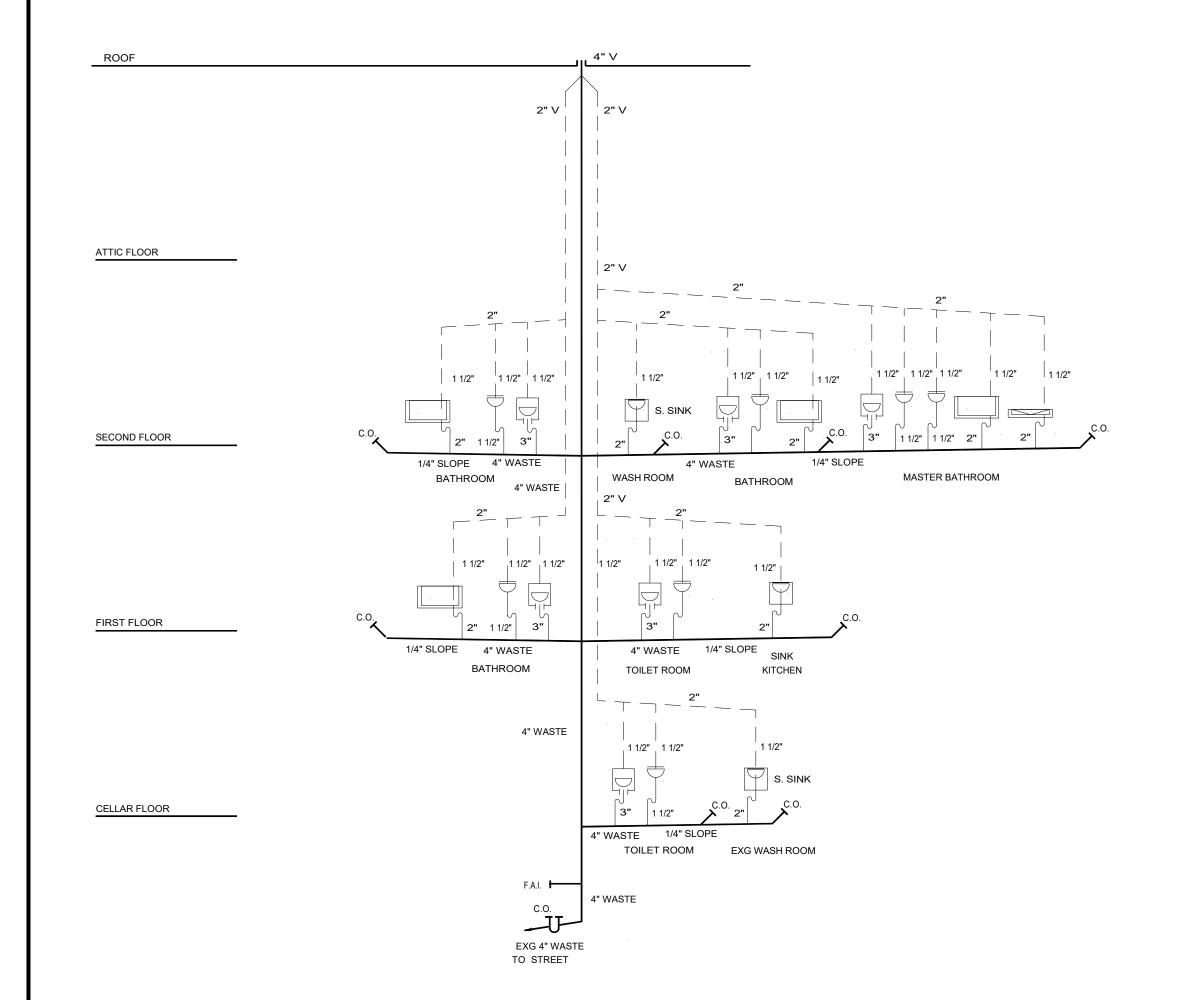
SHEAR WALL DETAIL

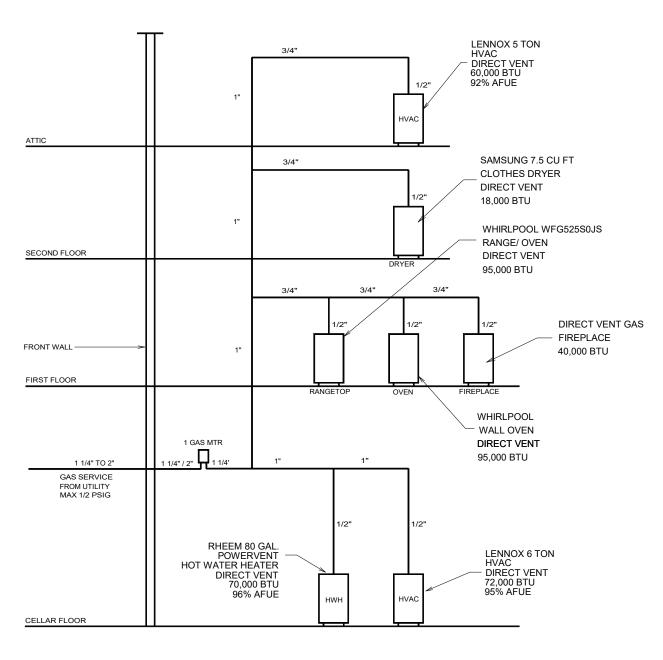
SCALE: 3/8" = 1'-0"



7 ARCH WINDOW DETAIL

SCALE: 3/8" = 1'-0"





NOT TO SCALE

GAS RISER DIAGRAM

JOHN R	PROJECT NO. 202167									
172 MAIN STRI METUCHEN, N	DRAWN BY J.R.									
TEL/FAX: (732)	TEL/FAX: (732) 902-2882									
SEAL	THE LAW PROHIBITS THE ALTERING OF THIS DOCUMENT. TO CHANGE THE DOCUMENT, THERE MUST BE A LICENSED ARCHITECT PRESENT AND ABLE TO SEAL IT.	REVISED  A 8-17-2023 FOR VARIANCE	DATE 9-27-2021							
	PROJECT	TITLE	DRAWING							
	ADDITION AND ALTERATION TO ONE FAMILY HOUSE 303 GROVE AVENUE	RISER DIAGRAMS AND DETAILS	A-005.00							
	METUCHEN, NJ 08840		6 OF 7							

5 PLUMBING RISER DIAGRAM
NOT TO SCALE

