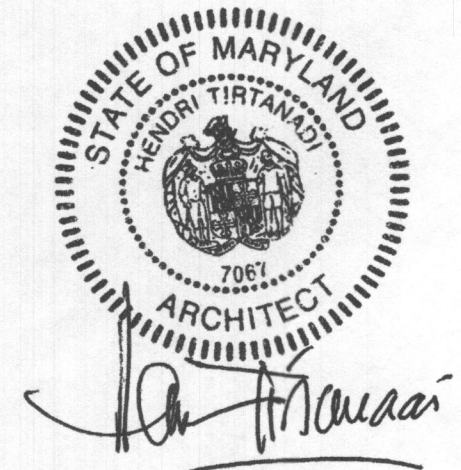


GENERAL NOTES	
<b>BUILDING CODES:</b> A. ALL CONSTRUCTION SHALL CONFORM WITH THE 2015 INTERNATIONAL RESIDENTIAL CODE (IRC). B. ALL CONSTRUCTION SHALL CONFORM WITH ALL APPLICABLE LOCAL CODES.	
<b>DESIGN LOADS:</b> (PER SECTION R301 OF IRC 2015) A. THE DESIGN DEAD LOADS FOR ALL FRAMING IS BASED ON THE CONSTRUCTION MATERIALS SHOWN ON THE DRAWINGS AND INDICATED IN THE GENERAL NOTES. B. THE MINIMUM DESIGN UNIFORMLY DISTRIBUTED LIVE LOADS FOR ALL NEW FRAMING SHALL BE AS FOLLOWS: FLOOR LOAD (W/O) 40 PSF SLEEPING PORCH / ATTIC WITH FIXED STAIR 30 PSF GARAGE FLOOR 20 PSF ROOF LIVE LOAD 20 PSF ATTIC AND TRUSS BOTTOM CHORD 10 PSF (NO STORAGE) C. ROOF SNOW LOAD DESIGN CRITERIA: GROUND SNOW LOAD (Pg) 30 PSF FLAT ROOF SNOW LOAD (Pf) 20 PSF EXPOSURE FACTOR (Ce) 1 IMPORTANCE FACTOR (I) 1 D. WIND LOAD DESIGN CRITERIA: BASIC WIND SPEED 115 MPH WIND EXPOSURE 3 IMPORTANCE FACTOR (I) 1 E. EARTHQUAKE LOAD DESIGN CRITERIA: SEISMIC DESIGN CATEGORY 1 SPECTRAL RESPONSE COEFFICIENT (SDS) 0.10 SITE CLASS 1 F. SUBJECT TO DAMAGE FROM: WEATHERING 30 FROST LINE DEPTH 15" F TERRESTRIAL DECAY YES 14-12 DISINTEGRATION YES 14-12 MEAN ANNUAL TEMPERATURE 50° F G. TEMPERATURE AND FLOODING: WINTER DESIGN TEMPERATURE 15° F ICE SHIELD UNDERLAYER REQUIRED YES 14-12 FLOOD HAZARD 15% AIR FREEZING INDEX 1000 MEAN ANNUAL TEMPERATURE 50° F H. THE STABILITY OF THE STRUCTURE IS DEPENDENT UPON THE DIAPHRAGM ACTION OF THE FLOORS AND ROOF. THE CONTRACTOR IS RESPONSIBLE FOR THE METHOD OF CONSTRUCTION AND SHALL PROVIDE ALL TEMPORARY BRACING AND SHORING REQUIRED TO MAINTAIN THE STABILITY OF THE STRUCTURE AND TO SUPPORT CONSTRUCTION LOADS DURING CONSTRUCTION, INCLUDING SOILS ON WALLS FROM BACK FILLING PRIOR TO PLACING SLABS ON GRADE. DESIGN OF ALL BRACING IS THE CONTRACTOR'S RESPONSIBILITY.	
<b>SPREAD FOOTING FOUNDATIONS:</b> A. THE BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE A MINIMUM OF 30" BELOW FINISH GRADE FOR FROST PROTECTION. B. ALL FOOTINGS HAVE BEEN DESIGNED FOR AN ASSUMED NET ALLOWABLE SOIL BEARING PRESSURE OF 2000 PSF. C. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ALL FOUNDATION AND SOIL CONDITIONS WHICH DIFFER FROM THOSE ANTICIPATED OR INDICATED IN THE CONTRACT DOCUMENTS.	
<b>CONCRETE SLAB-ON-GRADE:</b> A. ALL SLABS ON GRADE, UNLESS OTHERWISE NOTED, SHALL CONSIST OF A 4 INCH THICK CONCRETE SLAB REINFORCED WITH ONE LAYER OF #5@18" MINIMUM 4 INCHES WIDE FABRIC AND PLACED OVER A 6 MIL POLYETHYLENE VAPOR RETARDER AND 4 INCHES OF COMPACTED GRANULAR BASE. ALL EDGES OF VAPOR RETARDER SHALL BE LAPPED A MINIMUM OF 6 INCHES AND TAPED. MAXIMUM AGGREGATE SIZE OF GRANULAR BASE SHALL BE 1/2 INCH. B. FILL DEPTH UNDER SLAB SHALL NOT EXCEED 24 INCHES FOR CLEAN SAND OR GRAVEL AND 9 INCHES FOR COMPACTED SOIL. SLABS ON GREATER FILL SHALL BE ENGINEERED SUPPORTED SLABS. COORDINATE WITH ENGINEER WHERE REQUIRED. C. PLACE CONCRETE PER ACI 302.2. CONTRACTOR SHALL READ, UNDERSTAND & FOLLOW GUIDELINES SET FORTH FOR PREPARING SUBGRADE, PLACING, CONSOLIDATING, FINISHING AND CURING CONCRETE SLABS.	
<b>STRUCTURAL AND MISCELLANEOUS STEEL:</b> A. ALL STEEL CONSTRUCTION SHALL CONFORM TO THE THIRTEENTH EDITION OF THE AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS - ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN AND THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES". B. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A992 GRADE 50 OR ASTM A588 AT THE CONTRACTOR'S OPTION. C. ALL MISCELLANEOUS STEEL (ANGLES, PLATES, ETC.) SHALL CONFORM TO ASTM A36 HAVING A MINIMUM YIELD STRENGTH OF Fy=36,000 PSI. D. ALL STRUCTURAL STEEL PIPE SHALL CONFORM TO ASTM A501 HAVING A MINIMUM YIELD STRENGTH OF Fy=36,000 PSI OR TO ASTM A53, TYPE "E" OR "X" GRADE "B", HAVING A MINIMUM YIELD STRENGTH OF Fy=35,000 PSI. E. ALL STRUCTURAL STEEL TUBES SHALL CONFORM TO ASTM A500, GRADE "B", HAVING A MINIMUM YIELD STRENGTH OF Fy=46,000 PSI. F. ALL CONNECTIONS, UNLESS OTHERWISE NOTED, SHALL BE DOUBLE ANGLE OR SINGLE PLATE SHEAR CONNECTIONS DESIGNED AND DETAILED IN ACCORDANCE WITH THE AISC "STEEL CONSTRUCTION MANUAL" WITH A MINIMUM EDGE DISTANCE OF 1 1/2 INCHES AND BOLT SPACING OF 3 INCHES. G. THE CONTRACTOR SHALL NOT SPICE OR CUT OPENINGS IN STEEL MEMBERS NOT SHOWN ON CONTRACT DRAWINGS WITHOUT THE PERMISSION OF THE STRUCTURAL ENGINEER.	
<b>WINDOWS AND DOORS:</b> A. ALL WINDOW NUMBERS INDICATE MODEL NUMBERS FOR "ANDERSEN" WINDOW UNITS. B. WINDOWS INDICATED ON DRAWINGS AS "TEARERS" SHOULD MEET BUILDING CODE REQUIREMENTS PER SECTION R302 OF THE IRC. C. WINDOWS IN DOORS, SIDE LIGHTS AND WINDOWS WITHIN 24" OF DOORS SHALL BE PROVIDED WITH SAFETY GLASS TO COMPLY WITH SECTION R302 OF THE IRC. D. GLASS AT TUBES AND SHOWER ENCLOSURES SHALL BE PROVIDED WITH SAFETY GLASS TO COMPLY WITH SECTION R302 OF THE IRC. E. THE CONTRACTOR SHALL CUT OR NOTCH THE WOOD FRAMING ONLY AS REQUIRED AND IN ACCORDANCE WITH THE IRC BUILDING CODE THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, OR AS SHOWN ON THE CONTRACT DRAWINGS.	
<b>WOOD FRAMING:</b> A. ALL WOOD FRAMING SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION PUBLISHED BY THE NATIONAL FOREST PRODUCTS ASSOCIATION. B. ALL NEW LUMBER SHALL BE SPRUCE-PINE-FIR NO. 2 OR BETTER. ALL NEW PRESSURE TREATED LUMBER SHALL BE SOUTHERN PINE NO. 2 OR BETTER. C. NAILING OF ALL WOOD FRAMING SHALL MEET THE MINIMUM RECOMMENDED REQUIREMENTS PROVIDED IN THE NAILING SCHEDULE OF THE IRC BUILDING CODE. D. PROVIDE DOUBLE JOISTS OR HEADERS ALONG EACH SIDE OF FLOOR OR ROOF OPENINGS UNDER THE CENTERLINE OF PARTITION WALLS PARALLEL TO JOIST SPANS, AND ABOVE ALL WALL OPENINGS UNLESS OTHERWISE INDICATED. E. THE CONTRACTOR SHALL CUT OR NOTCH THE WOOD FRAMING ONLY AS REQUIRED AND IN ACCORDANCE WITH THE IRC BUILDING CODE THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, OR AS SHOWN ON THE CONTRACT DRAWINGS.	
<b>WOOD FRAMING CONT.</b> F. PROVIDE DOUBLE OR TRIPLE STUDS AT ALL CORNERS, SIDES OF OPENINGS, AND BENEATH ALL WOOD BEAMS AND LINTELS UNLESS OTHERWISE INDICATED. G. WOOD TRUSSES SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE TRUSS PLATE INSTITUTES "NATIONAL DESIGN SPECIFICATION FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION" FOR THE DESIGN LOADS INDICATED ON THE CONTRACT DOCUMENTS. H. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS FOR ALL WOOD TRUSSES INCLUDING MEMBER LAYOUT, WOOD SPECIES AND GRADE, MEMBER SIZES, TRUSS BEARING CONNECTION DETAILS, CAPACITY OF CONNECTION PLATES AND THE SIZE AND LOCATION OF ALL REQUIRED BRACING. THE CALCULATIONS AND SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MARYLAND WHO IS BEING DONE. I. THE CONTRACTOR SHALL PROVIDE TRUSS TIES EQUIVALENT TO OR BETTER THAN THE UPLIFT LOADS INDICATED ON THE TRUSS SHOP DRAWINGS.	
<b>INSULATION &amp; MOISTURE PROTECTION:</b> A. PROVIDE 30 LB BUILDING FELT OR PAPER AT BRICK VENEER WITH FLASHING AT OPENING TO PREVENT MOISTURE PENETRATION BEHIND THE VENEER. B. PROVIDE MINIMUM ONE LAYER OF 15 LB ROOFING FELT AT THE ROOF TO PROVIDE A WATER-RESISTANT BASE FOR FIBERGLASS COMPOSITION ROOF SHINGLES. C. PROVIDE INSULATION AS FOLLOWS: ROOF/ATTIC AREAS: R-48 FIBERGLASS BATT OR BLOWN R-38 CELLULOSE FIBERGLASS BATT EXTERIOR WALLS: R-13 FIBERGLASS BATT BASEMENT EXTERIOR WALLS: R-10 FIBERGLASS BATT HINDOORS / GLASS DOORS: R-5 CONTINUOUS INSULATION SKYLIGHTS: U-FACTOR 1.0-0.30 D. THE CONTRACTOR SHALL PROVIDE CORROSION-RESISTANT METAL FLASHING ABOVE ALL WINDOW AND DOOR OPENINGS TO PREVENT MOISTURE PENETRATION. SIMILAR FLASHING SHALL BE PROVIDED AT ROOF VALLEYS AND ROOF OPENINGS, MOOD OR METAL CORNERS AND SILLS. E. THE CONTRACTOR SHALL PROVIDE PERFORATED SOFFITS AT THE ROOF EAVES AND A CONTINUOUS RIDGE VENT AT THE ROOF TO PROVIDE REQUIRED ATTIC VENTILATION. F. SMOKE ALARMS SHALL COMPLY WITH SECTION R314 OF THE IRC. SMOKE ALARMS SHALL BE INSTALLED IN EACH SLEEPING ROOM AND OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS AND ON EACH ADDITIONAL STORY OF THE HOUSE INCLUDING THE BASEMENT. G. SMOKE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE HOUSE WIRING. WHEN PRIMARY POWER IS INTERRUPTED, SMOKE ALARMS SHALL RECEIVE POWER FROM A BATTERY.	
<b>SPECIALTIES:</b> A. SMOKE ALARMS SHALL COMPLY WITH SECTION R314 OF THE IRC. SMOKE ALARMS SHALL BE INSTALLED IN EACH SLEEPING ROOM AND OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS AND ON EACH ADDITIONAL STORY OF THE HOUSE INCLUDING THE BASEMENT. B. SMOKE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE HOUSE WIRING. WHEN PRIMARY POWER IS INTERRUPTED, SMOKE ALARMS SHALL RECEIVE POWER FROM A BATTERY.	

- DRAWINGS INDEX
- 1 SITE PLAN
  - 2 MAIN FLOOR PLAN
  - 3 FOUNDATION PLAN
  - 4 RER ELEVATION
  - 5 RIGHT & LEFT SIDE ELEV.
  - 6 SECTION A.A & B.B
  - 7 ROOF AND FL. FRAMING, WALL DETAILS.



ADDITION & PORCH

8180 STABEAN DRIVE  
COLUMBIA, MARYLAND

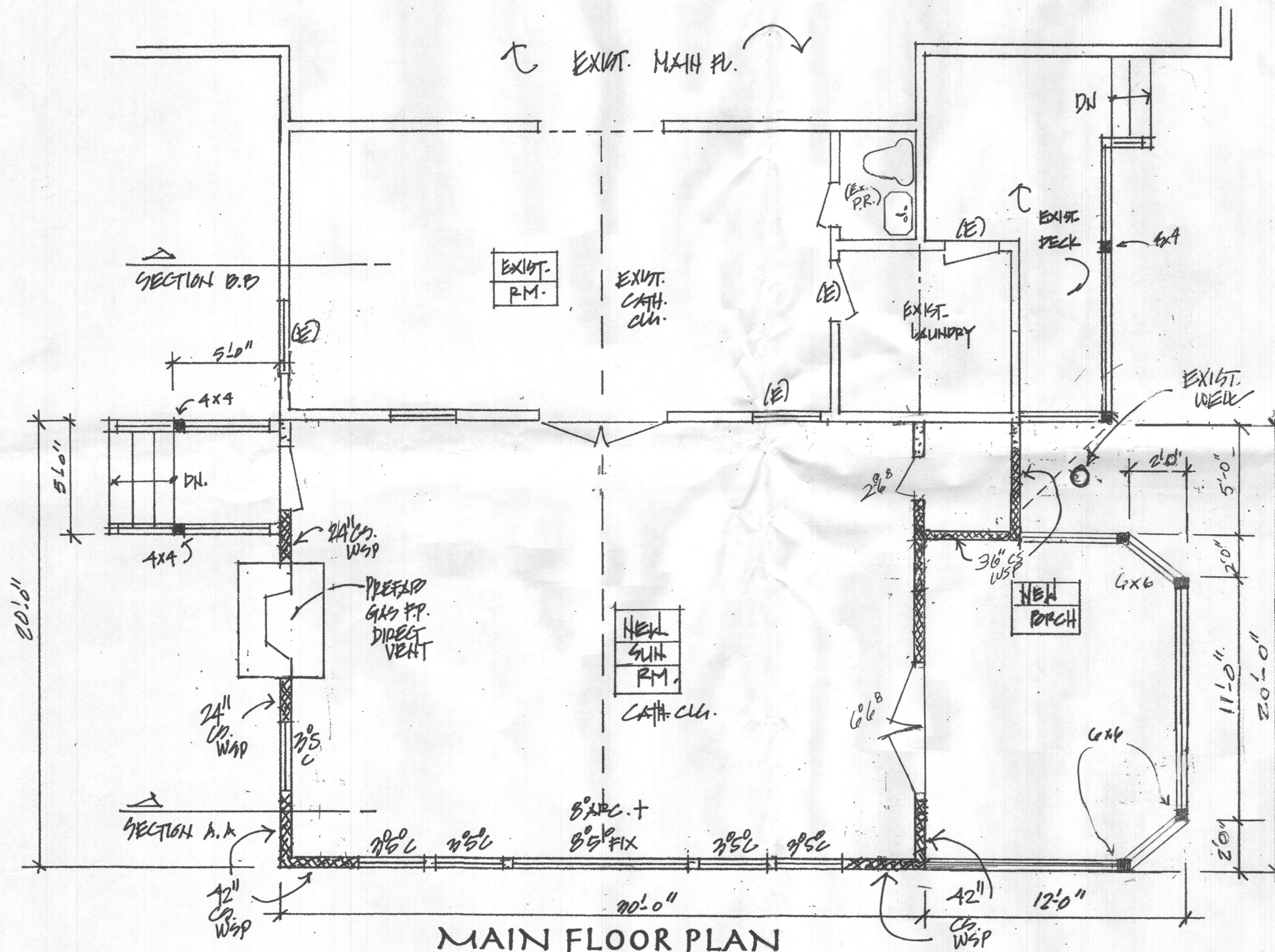
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GAITHERSBURG, MARYLAND 20877

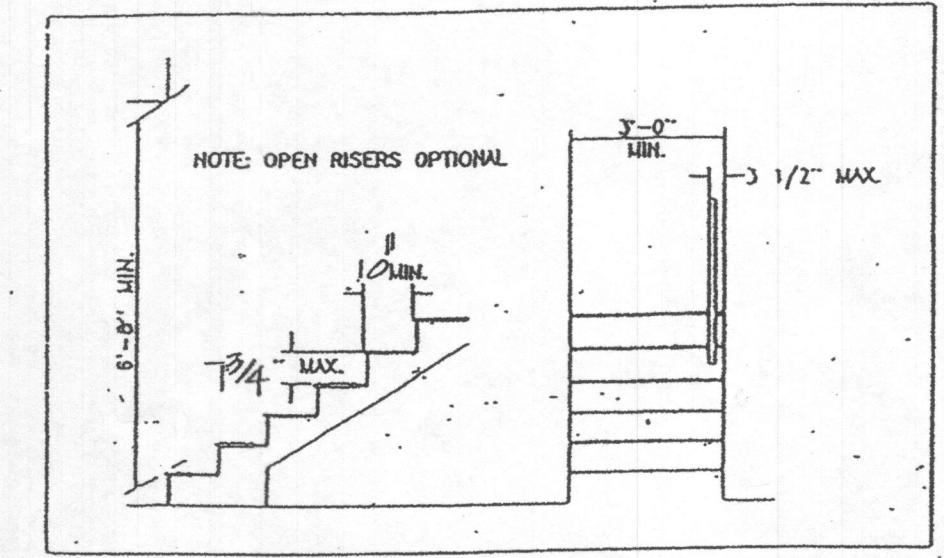
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1/4" = 1'-0"



**R311.5.6 Handrails.** Handrails shall be provided on at least one side of each continuous run of treads or flight with four or more risers.

**R311.5.6.1 Height.** Handrail height, measured vertically from the sloped plane adjoining the tread nosing, or finish surface of ramp slope, shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm).

**R311.5.6.2 Continuity.** Handrails for stairways shall be continuous for the full length of the flight, from a point directly above the top riser of the flight to a point directly above lowest riser of the flight. Handrail ends shall be returned or shall terminate in newel posts or safety terminals. Handrails adjacent to a wall shall have a space of not less than 1 1/2 inch (38 mm) between the wall and the handrails.



2/17/20

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ADDITION & PORCH

**8180 STABEAN DRIVE**

COLUMBIA, MARYLAND

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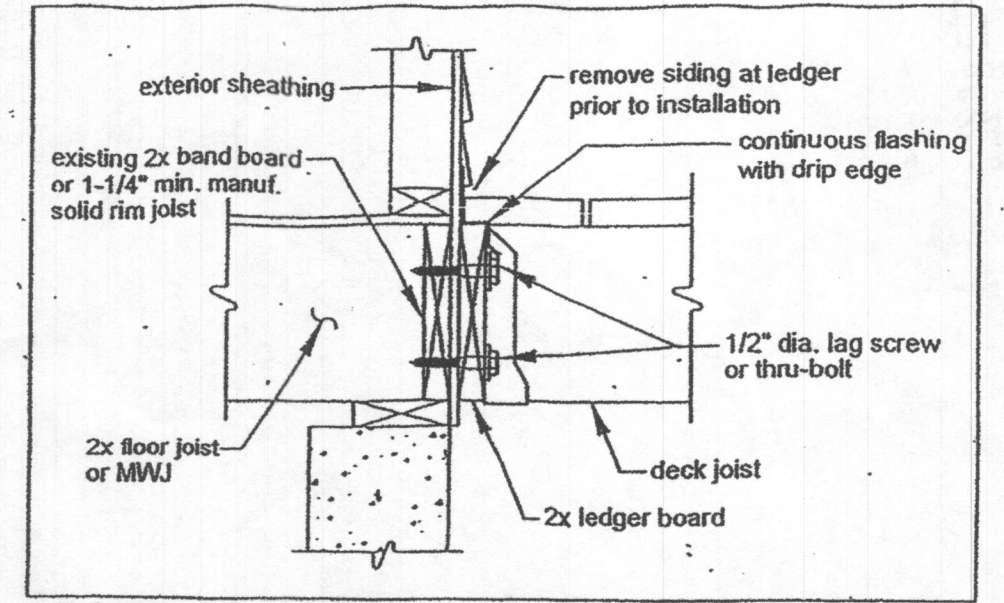
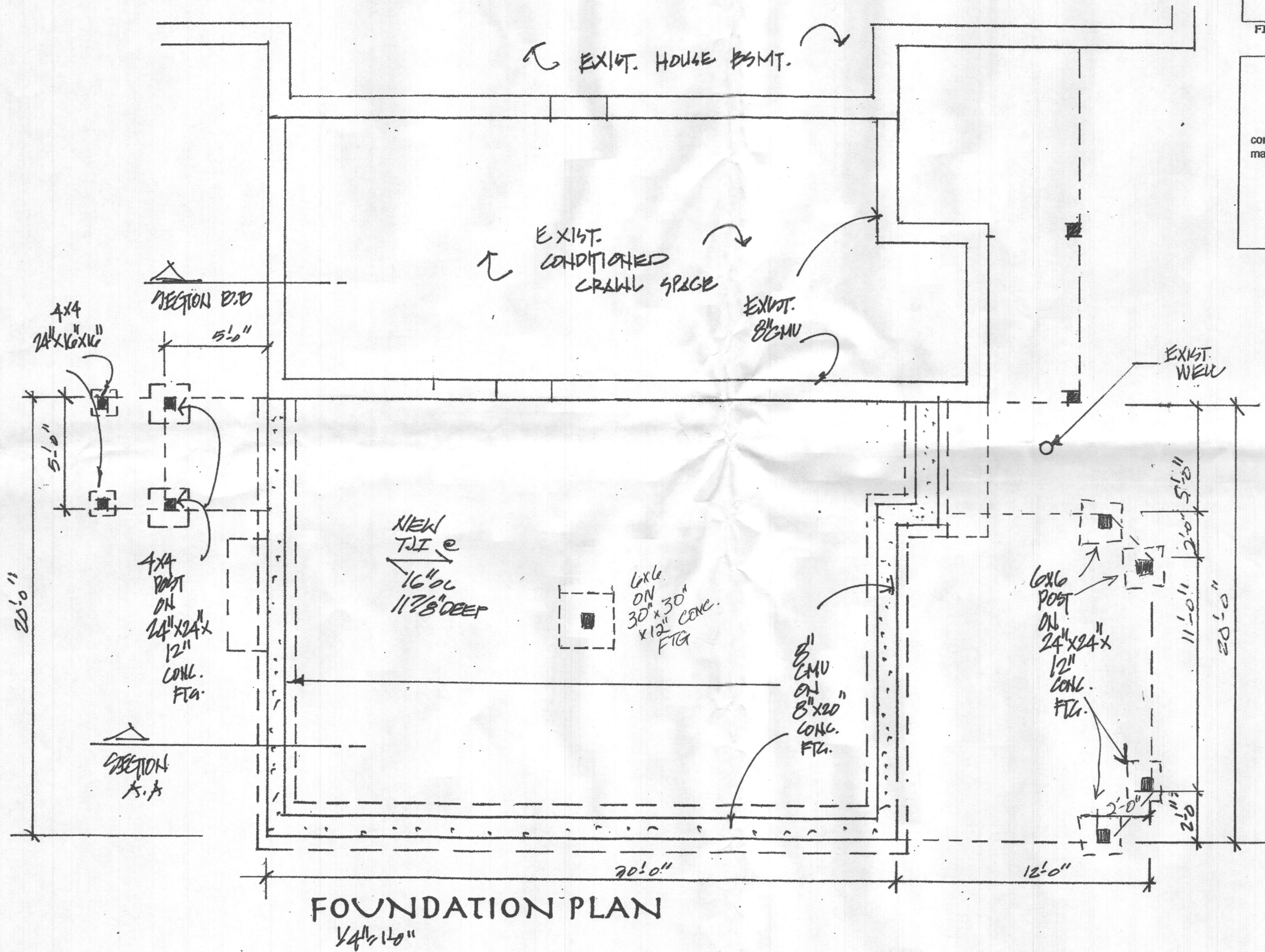


FIGURE 5: ATTACHMENT OF LEDGER BOARD-TO-BAND BOARD

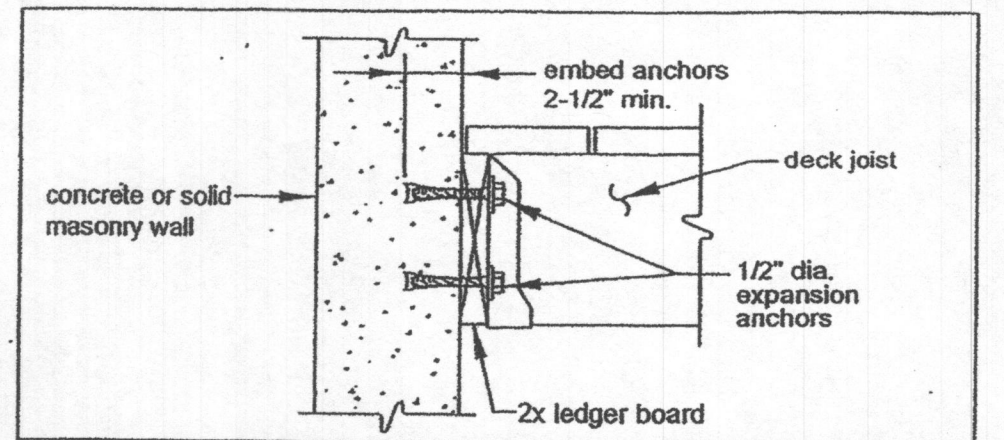


FIGURE 6: ATTACHMENT OF LEDGER BOARD-TO-FOUNDATION WALL (CONCRETE OR SOLID MASONRY)

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ADDITION & PORCH

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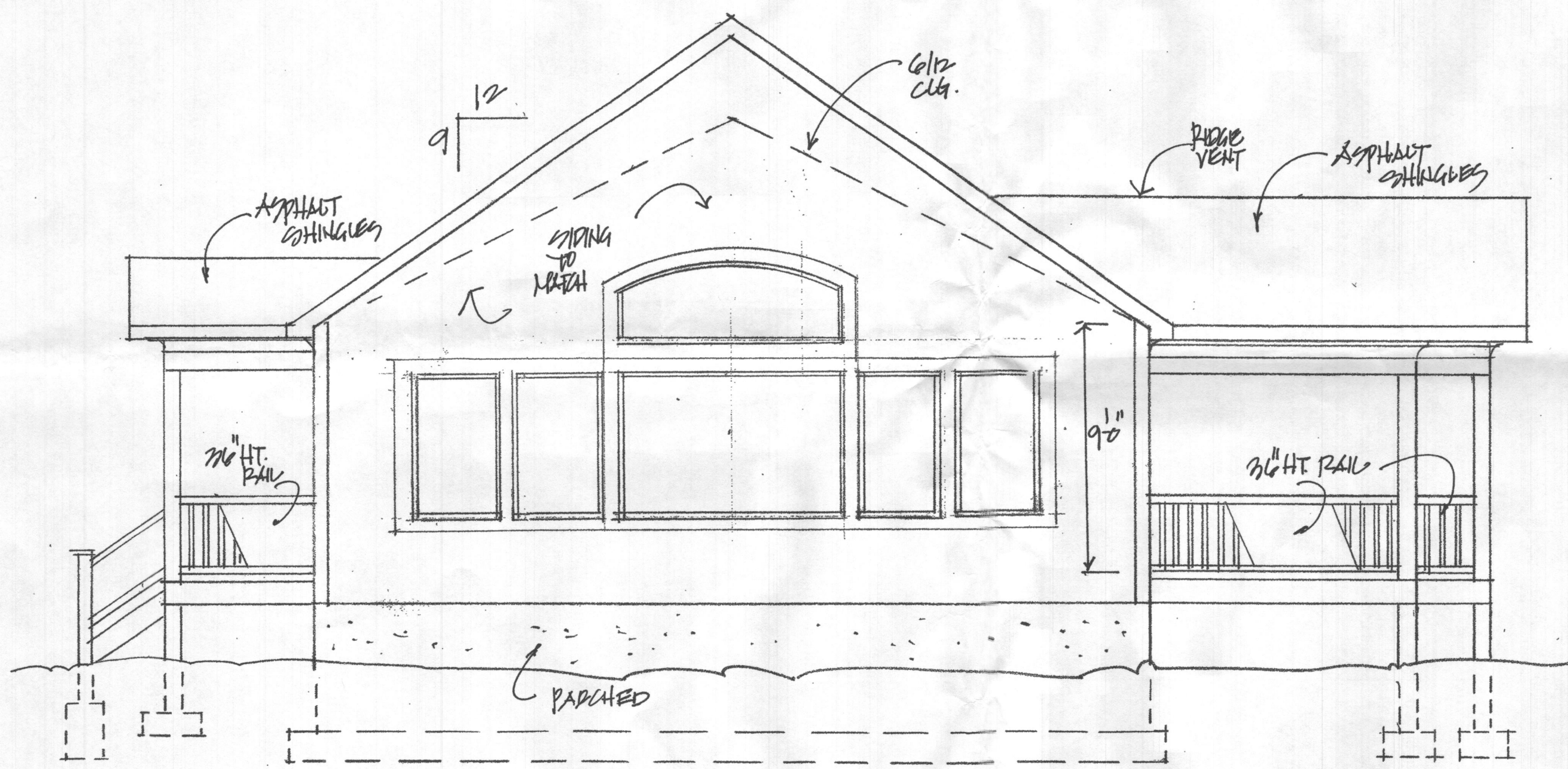
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2/17/20  
2/19/19

3





REAR ELEVATION  
1/4" = 1'-0"



*Hendri Tirtanadi*

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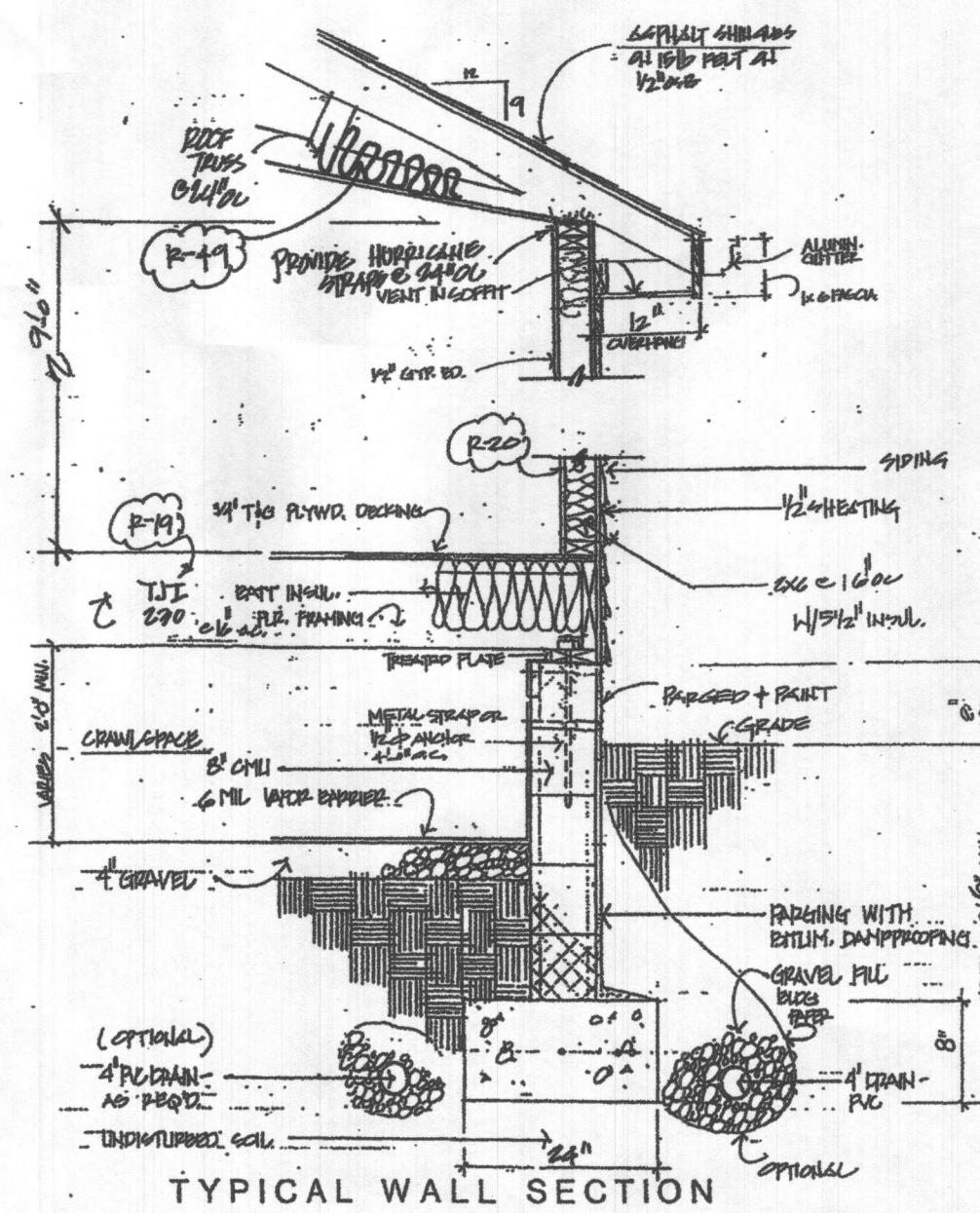
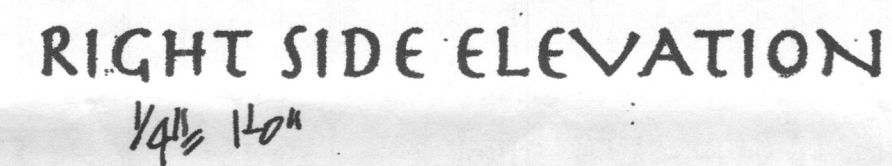
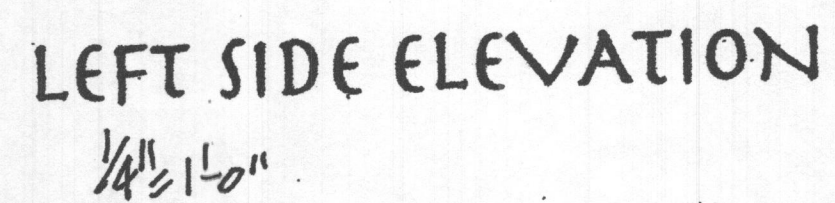
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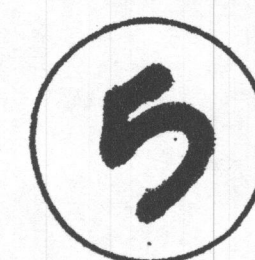
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## ADDITION & PORCH

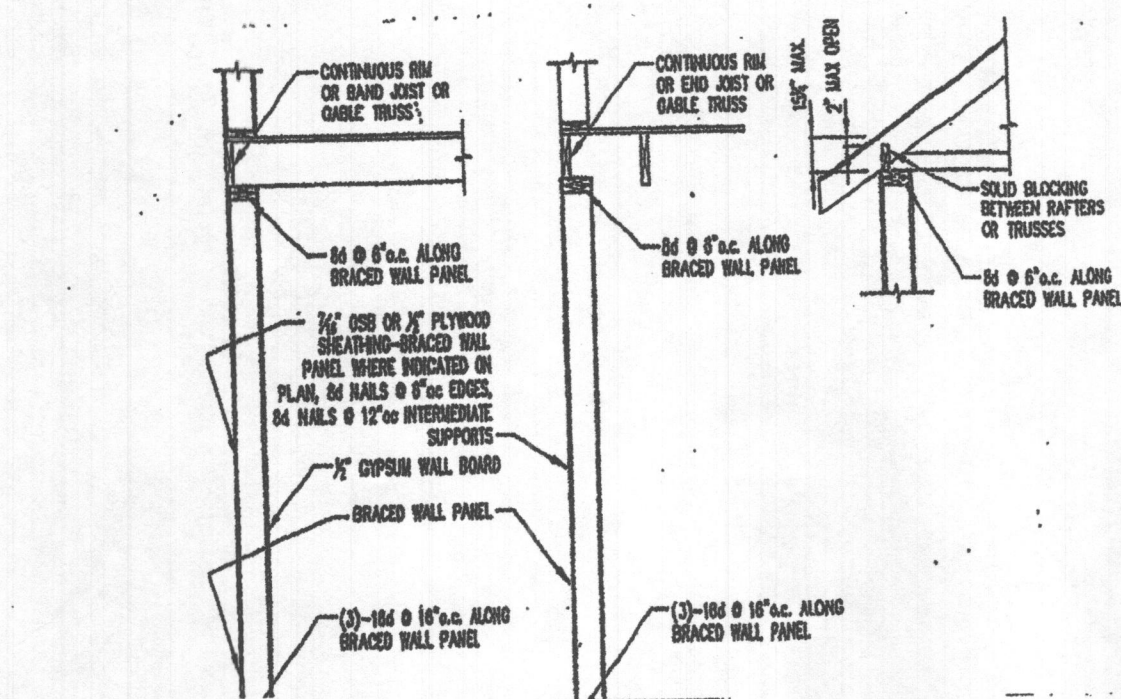
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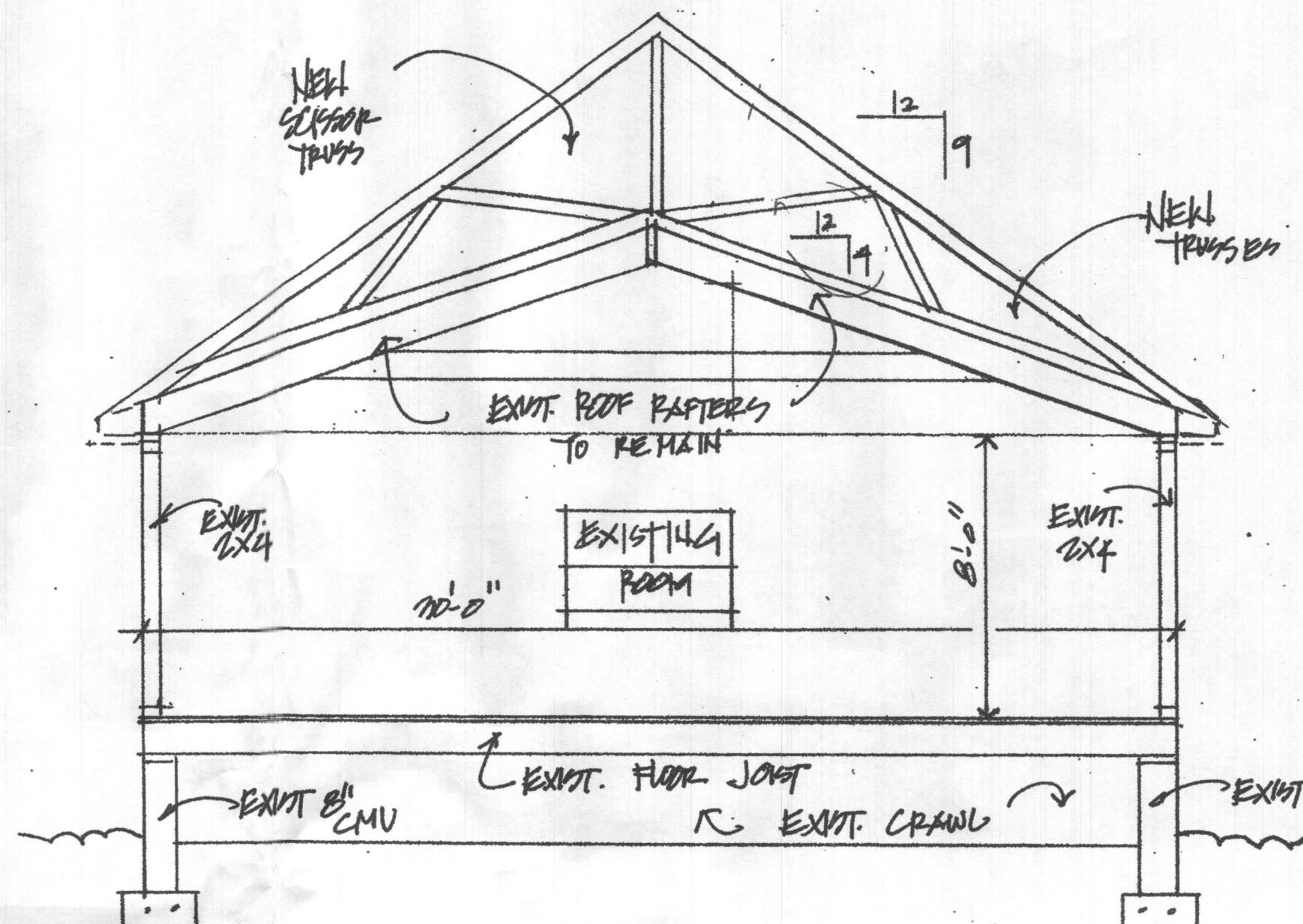
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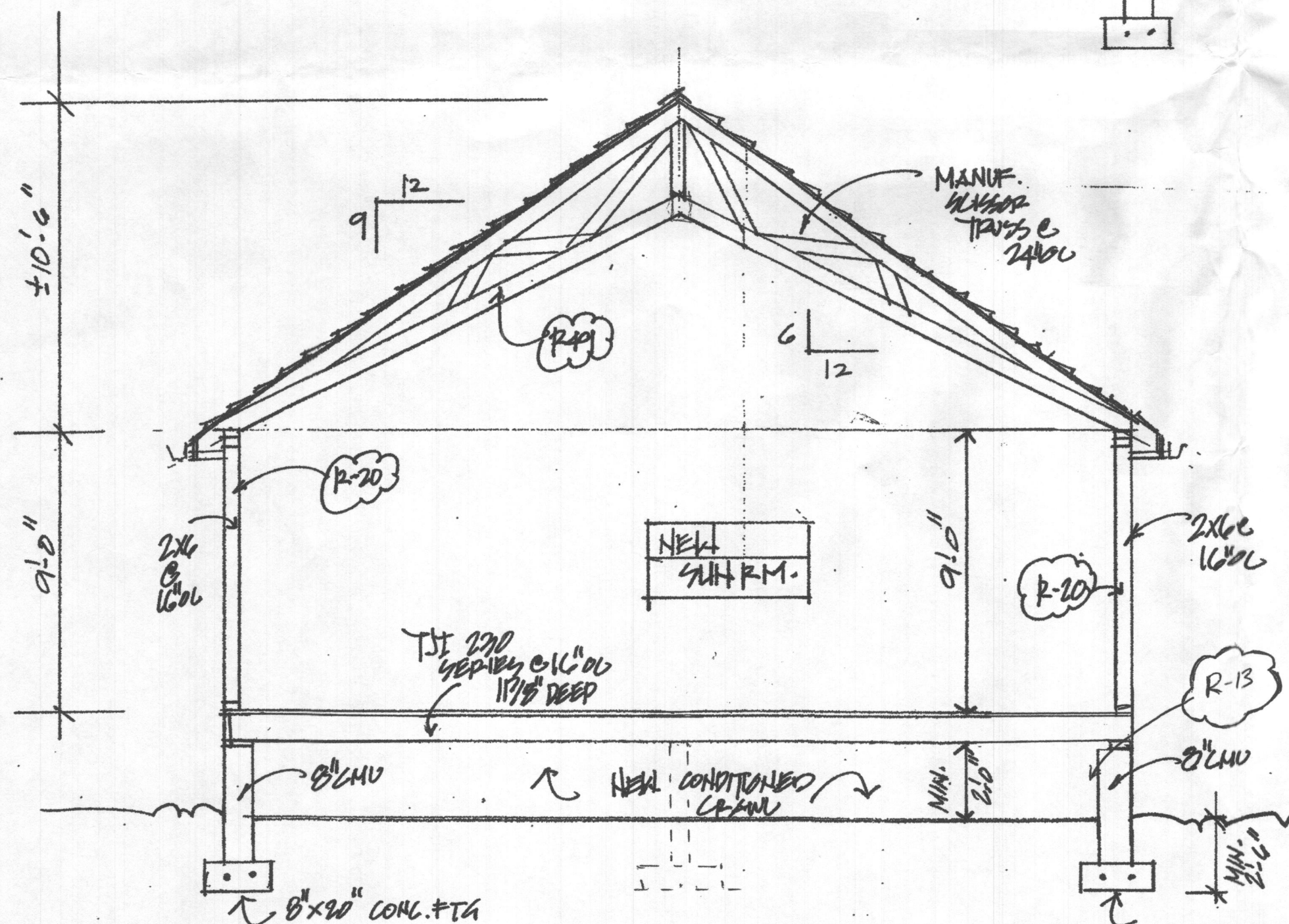




TYPICAL EXTERIOR CORNER DETAIL FOR CONTINUOUS SHEATHING - CS-WSP  
3/4" PER FOOT



SECTION B.B  
1/4" = 1'-0"



SECTION A.A  
1/4" = 1'-0"

### INSULATION NOTES :

#### Mandatory Requirements for both Methods

##### Air Leakage

Building thermal envelope. The building thermal envelope shall be durably sealed to limit infiltration. The sealing methods between dissimilar materials shall allow for differential expansion and contraction. The following shall be caulked, gasketed, weatherstripped or otherwise sealed with an air barrier material, suitable film or solid material:

1. All joints, seams and penetrations.
2. Site-built windows, doors and skylights.
3. Openings between window and door assemblies and their respective jambs and framing.
4. Utility penetrations.
5. Dropped ceilings or chases adjacent to the thermal envelope.
6. Knee walls.
7. Walls and ceilings separating a garage from conditioned spaces.
8. Behind tubs and showers on exterior walls.
9. Common walls between dwelling units.
10. Attic access openings.
11. Film joint junction.
12. Other sources of infiltration.



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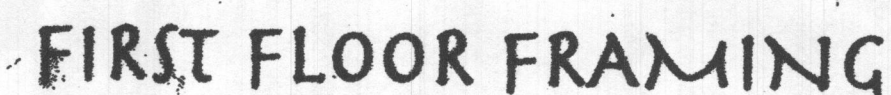
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COLUMBIA, MARYLAND



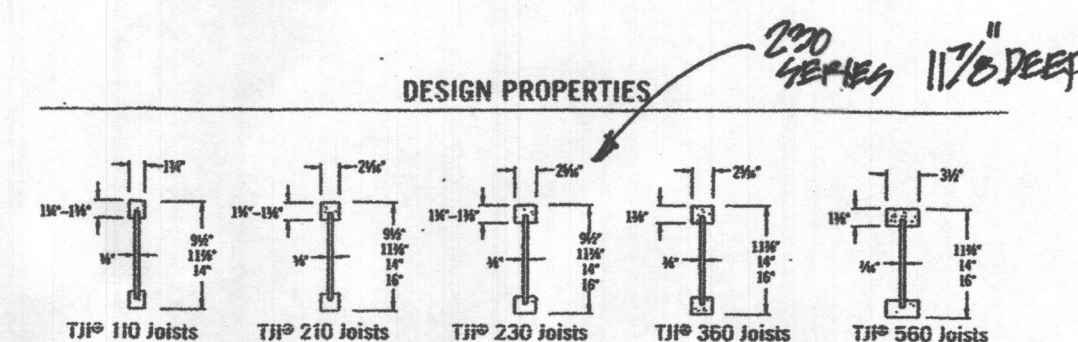
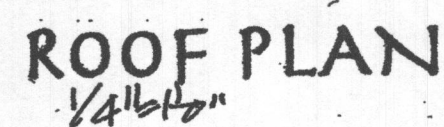
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Depth	40 PSF Live Load / 2 PSF Dead Load				40 PSF Live Load / 2 PSF Dead Load			
	12" x 12"	12" x 16"	16" x 16"	20" x 20"	12" x 12"	12" x 16"	16" x 16"	20" x 20"
60"	110	19-0	18-0	17-0	18-0	17-0	16-0	15-0
	116	20-0	19-0	18-0	19-0	18-0	17-0	16-0
	122	21-0	20-0	19-0	20-0	19-0	18-0	17-0
	128	22-0	21-0	20-0	21-0	20-0	19-0	18-0
	134	23-0	22-0	21-0	22-0	21-0	20-0	19-0
810"	110	25-0	24-0	23-0	24-0	23-0	22-0	21-0
	116	26-0	25-0	24-0	25-0	24-0	23-0	22-0
	122	27-0	26-0	25-0	26-0	25-0	24-0	23-0
	128	28-0	27-0	26-0	27-0	26-0	25-0	24-0
	134	29-0	28-0	27-0	28-0	27-0	26-0	25-0
10'	110	30-0	29-0	28-0	29-0	28-0	27-0	26-0
	116	31-0	30-0	29-0	30-0	29-0	28-0	27-0
	122	32-0	31-0	30-0	31-0	30-0	29-0	28-0
	128	33-0	32-0	31-0	32-0	31-0	30-0	29-0
	134	34-0	33-0	32-0	33-0	32-0	31-0	30-0
12'	110	35-0	34-0	33-0	34-0	33-0	32-0	31-0
	116	36-0	35-0	34-0	35-0	34-0	33-0	32-0
	122	37-0	36-0	35-0	36-0	35-0	34-0	33-0
	128	38-0	37-0	36-0	37-0	36-0	35-0	34-0
	134	39-0	38-0	37-0	38-0	37-0	36-0	35-0
14'	110	40-0	39-0	38-0	39-0	38-0	37-0	36-0
	116	41-0	40-0	39-0	40-0	39-0	38-0	37-0
	122	42-0	41-0	40-0	41-0	40-0	39-0	38-0
	128	43-0	42-0	41-0	42-0	41-0	40-0	39-0
	134	44-0	43-0	42-0	43-0	42-0	41-0	40-0

 $\frac{1}{4}, \frac{1}{5}$ 

2200 SERIES  
TJIC  
16" OC  
1 7/8" DEEP

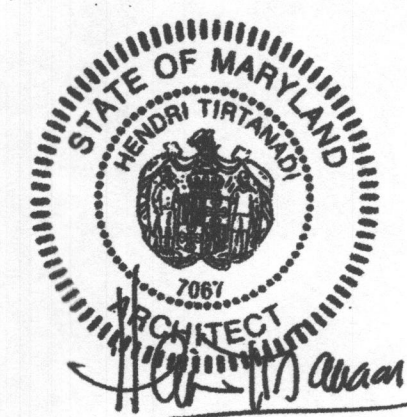


**Some TJI® Joist series may not be available in your region.**  
Contact your local representative for information.

Design Properties (100% Load Duration)											
Basic Properties							Section Properties				
Depth	1/8"	Joint Weight (kN)	Nominal Section Modulus (S <sub>x</sub> ) (in <sup>3</sup> )	Joint Only (S <sub>x</sub> 1/8" (S <sub>x</sub> 2-1/8")) (in <sup>3</sup> )	Nominal Section Modulus (S <sub>x</sub> ) (in <sup>3</sup> )	5/8" End Reaction (kN)	3/4" End Reaction (kN)	5/8" Intermediate Reaction (kN)		5/8" Intermediate Reaction (kN)	
								No. of Studs	Stud Spacing	No. of Studs	Stud Spacing
65"	110	2.3	2,590	157	1,220	910	1,220	1,435	N/A	2,550	N/A
	120	2.9	3,000	186	1,495	1,095	1,495	2,475	N/A	2,660	N/A
	130	2.7	3,330	205	1,630	1,030	1,630	2,410	N/A	2,770	N/A
	140	2.5	3,180	229	1,560	910	1,335	2,335	2,595	2,550	2,795
	150	2.8	3,185	252	1,605	1,040	1,145	2,505	2,585	2,585	2,795
110"	110	3.0	4,215	347	1,905	1,400	1,410	2,410	2,705	2,705	2,795
	120	3.0	4,180	419	1,765	1,095	1,505	2,460	2,815	3,000	3,320
	130	4.0	5,500	636	2,650	1,265	1,725	3,000	3,475	3,425	3,390
	140	3.8	4,950	562	2,460	910	1,375	1,355	2,225	2,350	2,705
	150	3.1	4,050	509	1,865	1,040	1,145	2,145	2,345	2,265	2,920
14"	110	2.8	4,950	569	1,945	1,095	1,485	2,410	2,765	2,790	2,795
	120	3.1	5,235	612	1,955	1,090	1,485	2,400	2,675	2,600	3,380
	130	4.2	11,770	1,295	1,295	1,295	1,295	2,400	2,415	2,405	3,380
	140	3.8	5,140	629	1,905	1,040	1,440	2,145	2,365	2,265	3,380
	150	3.5	5,710	691	2,190	1,090	1,485	2,410	2,745	2,790	3,140
16"	110	5	8,405	830	2,190	1,090	1,505	2,460	2,815	3,040	3,390
	120	4.5	7,550	1,250	2,190	1,090	1,505	2,460	2,815	3,040	3,390

(E) Caution: Do not increase joint moment design strengths for a moment-resisting frame.

2/13/20



## ADDITION & PORCH

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