

ROOF PLAN

NOTE: SEE ROOF FRAMING PLAN ON SHEET #1 FOR RAFTER SIZES/SPACING.

GENERAL SAFETY NOTES

1) SAFETY GLAZING
 A) GLAZING IN HAZARDOUS LOCATIONS PER IRC R308.4 SHALL BE OF APPROVED SAFETY GLAZING MATERIALS. GLASS IN STORM DOORS INDIVIDUAL FIXED OR OPERABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 24" ARCH OF THE DOOR IN A CLOSED POSITION AND WHOSE BOTTOM EDGE IS WITHIN 60" INCHES OF THE FLOOR, WALLS ENCLOSING STAIRWAYS/LANDINGS WHERE THE GLAZING IS WITHIN 60" OF THE TOP OR BOTTOM OF THE STAIRS, ENCLOSURES FOR SPAS, TUBS, SHOWERS AND WHIRLPOOLS AND GLAZING IN FIXED OR OPERABLE PANELS EXCEEDING 9 SF AND BOTTOM IS WITHIN 18" OF THE FLOOR OR WALKING SURFACE WITHIN 36".

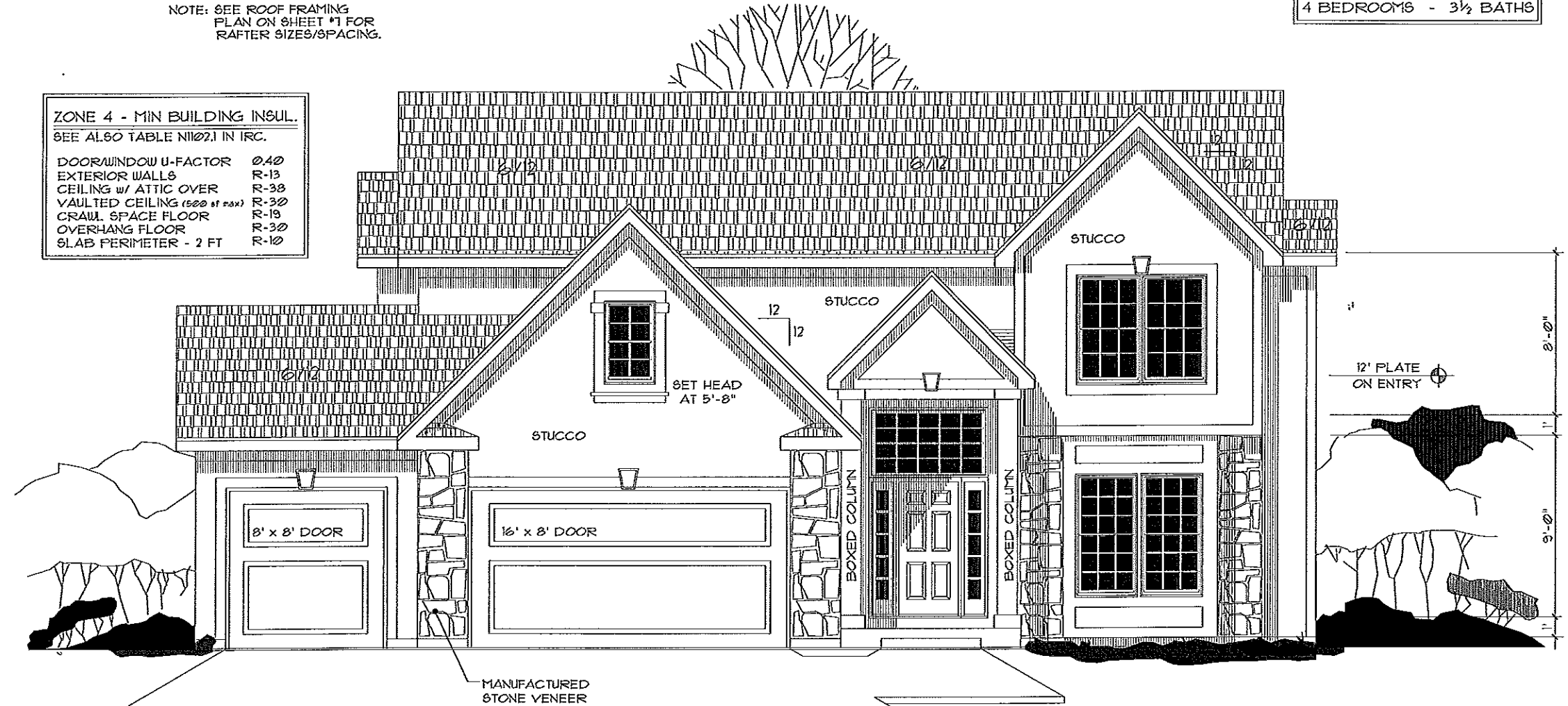
2) SMOKE ALARMS
 A) PROVIDE SMOKE ALARMS IN EACH SLEEPING ROOM, OUTSIDE OF EACH SLEEPING AREA AND ON EACH FLOOR INCLUDING BASEMENT. ALARMS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS.

3) EMERGENCY EGRESS
 A) PROVIDE ONE EGRESS WINDOW FROM EACH BEDROOM THAT HAS A MINIMUM OPENABLE AREA OF 5.7 SF, A MINIMUM OPENING HEIGHT OF AT LEAST 24 INCHES AND A WIDTH OF 21 INCHES. INSTALL 60 SILL IS 44 INCHES MAXIMUM ABOVE THE FLOOR.
 B) PROVIDE WALKOUT DOOR OR ONE EGRESS WINDOW FROM BASEMENT WITH THE SAME OPENING SIZES AND SILL HEIGHT. IF WINDOW WELL IS REQUIRED IT SHALL PROVIDE A MIN 3' x 3' HORIZONTAL CLEARANCE.

DESIGN LOADS		
AREA	D.L.	L.L.
EXTERIOR BALCONY	10*/SF	60*/SF
EXTERIOR DECK	10*/SF	40*/SF
CEILING JOISTS - NO STORAGE	10*/SF	10*/SF
CEILING JOISTS w/ STORAGE	10*/SF	20*/SF
ROOMS - NON SLEEPING	10*/SF	40*/SF
BEDROOMS	10*/SF	30*/SF
ROOF - LIGHT COVERING	10*/SF	20*/SF
ROOF - HEAVY COVERING	20*/SF	20*/SF

BUILDING AREAS	
FIRST FLOOR	= 1,134 sf
SECOND FLOOR	= 1,246 sf
TOTAL	= 2,380 sf
OPTIONAL MASTER CLOSET ADDS	80 sf
BASEMENT	= 995 sf
3 CAR GARAGE	= 748 sf
4 BEDROOMS - 3 1/2 BATHS	

ZONE 4 - MIN BUILDING INSUL.	
SEE ALSO TABLE N102.1 IN IRC.	
DOOR/WINDOW U-FACTOR	0.40
EXTERIOR WALLS	R-13
CEILING w/ ATTIC OVER	R-38
VAULTED CEILING (500 sf max)	R-30
CRAWL SPACE FLOOR	R-19
OVERHANG FLOOR	R-30
SLAB PERIMETER - 2 FT	R-10



FRONT ELEVATION

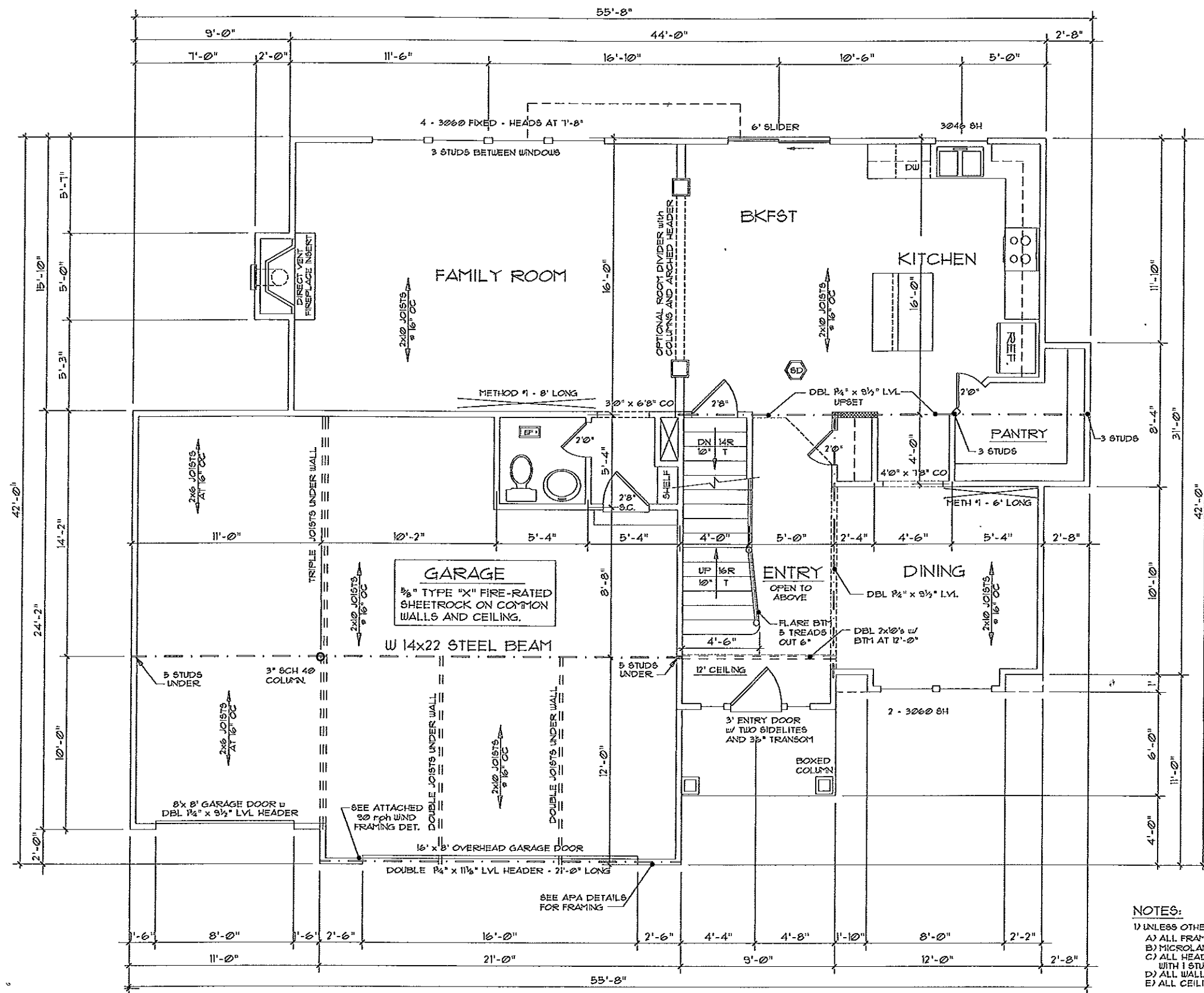
SCALE: 1/4" = 1'-0"

WALKER ENGINEERING 3950 W 214th STREET BUCYRUS, KANSAS 66013 (913) 897-1909
 MID AMERICA DEVELOPMENT, LLC
 4400 Shawnee Mission Parkway #202 Shawnee Mission, KS 66205 (913) 384-2900
 RAYMORE TWO STORY
 Plan #001-MAD-03

#	REVISIONS	DATE
1	ZONE 4 INSULATION TABLE	3/27/10
2	ADD TO FR KIT & UPSTAIRS	11/23/10

DRAWINGS ISSUED:
3/3/2010

SHEET #
1



FIRST FLOOR PLAN
 SCALE: 1/4" = 1'-0" 1134 SF

- NOTES:**
- 1) UNLESS OTHERWISE NOTED:
 A) ALL FRAMING LUMBER IS DF 2.
 B) MICROLAM'S ARE TJI - Fb-2800
 C) ALL HEADERS ARE DBL 2x10'S WITH 1 STUD UNDER EACH END.
 D) ALL WALLS ARE 2x4'S AT 16" OC.
 E) ALL CEILING'S ARE 9'-0" HIGH
 - 2) LATERAL BRACING PROVIDED BY CONTINUOUS STRUCTURAL PANEL SHEATHING PER IRC R602.10.5
 - 3) INTERIOR BRACED WALL PANELS PER IRC SECTION 602.10.3.
 - 4) LOAD BEARING WALL.
 - 5) RURR DOWN ALL VAULTED CEILING RAFTERS TO PROVIDE FOR 10" OF INSULATION AND 1" AIR SPACE.

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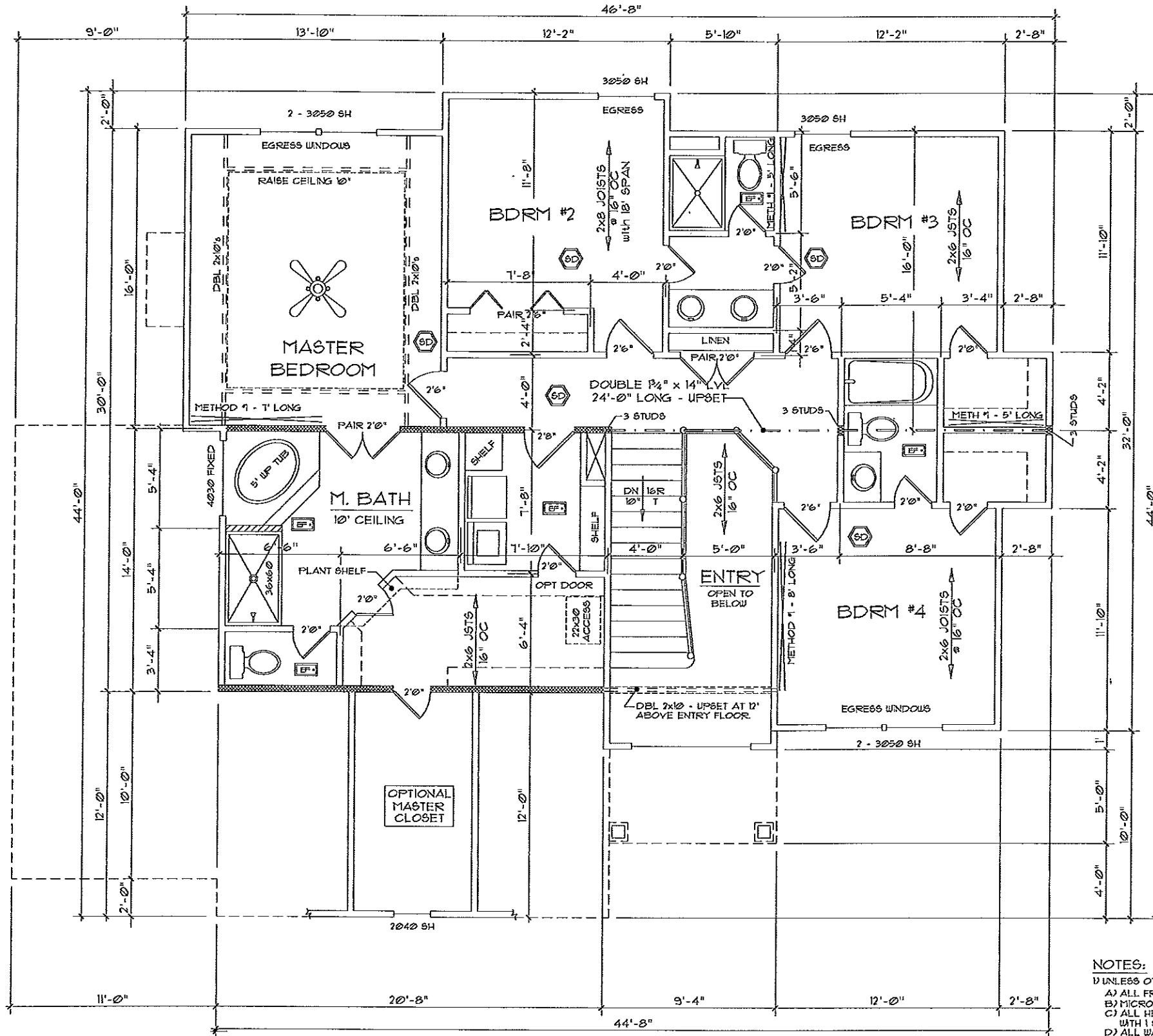
REVISIONS
 # 1 ADD TO BASED & FAY ROOM 11/29/10

DRAWINGS ISSUED:
 3/3/2010

SHEET #
2

RAYMORE TWO STORY
 Plan #001-MAD-03

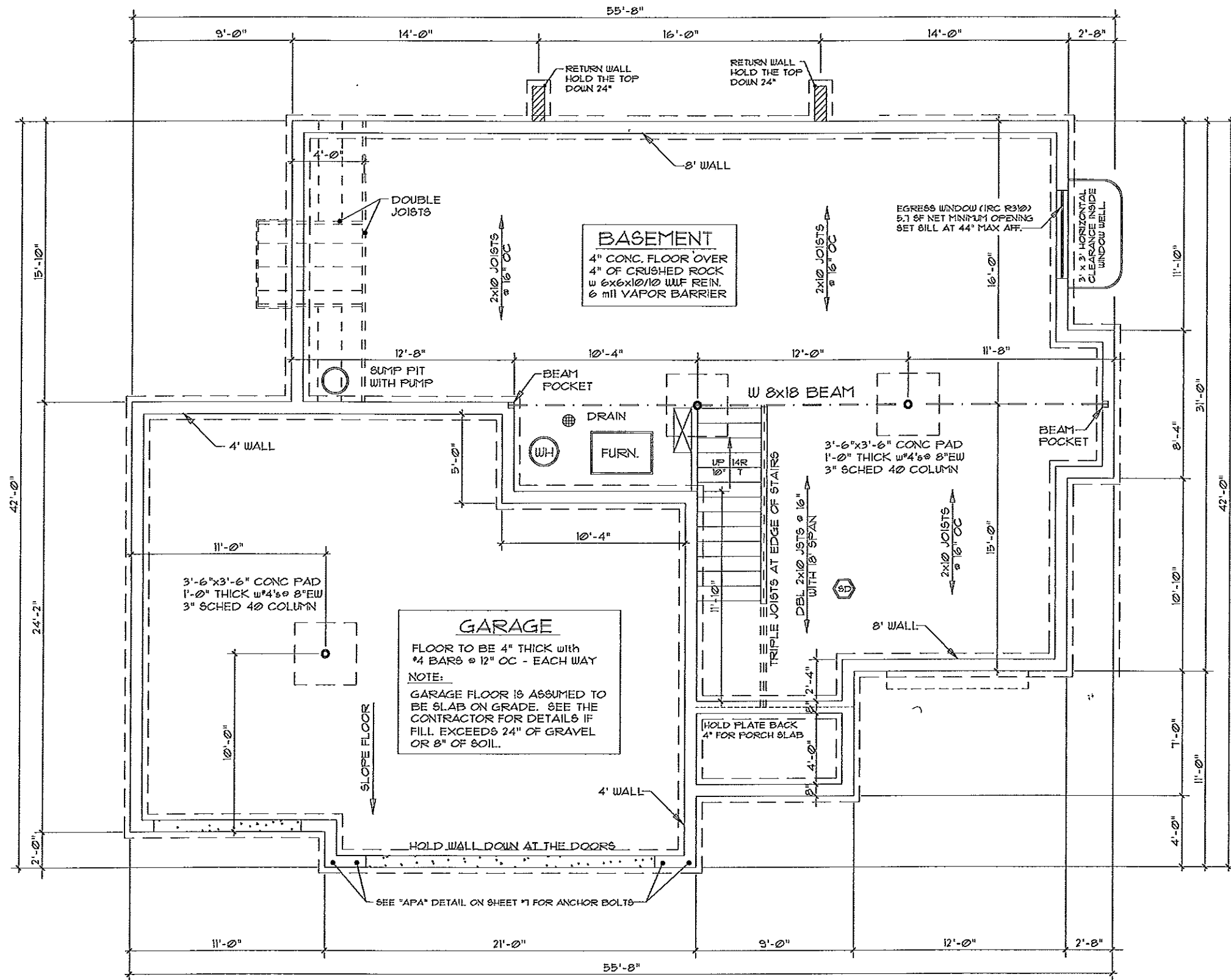
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2nd FLOOR PLAN
 SCALE: 1/4" = 1'-0" 1246 SF
 OPT MASTER CLOSET ADDS 80 SF

- NOTES:**
- 1) UNLESS OTHERWISE NOTED:
 - A) ALL FRAMING LUMBER IS DF #2
 - B) MICROLAM'S ARE TJI - Fb #2000
 - C) ALL HEADERS ARE DBL 2x10'S WITH 1 STUD UNDER EACH END.
 - D) ALL WALLS ARE 2x4'S AT 16" OC.
 - E) ALL CEILING'S ARE 8'-0" HIGH
 - 2) LATERAL BRACING PROVIDED BY CONTINUOUS STRUCTURAL PANEL SHEATHING PER IRC R602.2.5
 - 3) INTERIOR BRACED WALL PANELS PER IRC SECTION 602.2.3.
 - 4) LOAD BEARING WALL.
 - 5) FURR DOWN ALL VAULTED CEILING RAFTERS TO PROVIDE FOR 10" OF INSULATION AND 1" AIR SPACE.

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RAYMORE TWO STORY		Plan #001-MAD-03					
	#	REVISIONS	DATE				
	1	MASTER BATH EXHAUST FAN	3/29/10				
	2	ADDED HOLLYWOOD BATH	11/23/10				
DRAWINGS ISSUED:			3/9/2010				
SHEET #			3				



NOTES:
 1) DESIGN BASED ON ALLOWABLE SOIL BEARING VALUE OF 1500 PSF.
 2) ALL CONCRETE TO HAVE A MINIMUM STRENGTH OF $f'_c = 3000$ PSI.
 3) FOOTINGS TO MEET OR EXCEED THE MINIMUM FROST DEPTH OF 36".
 4) FOUNDATION DRAINAGE TO BE IN ACCORDANCE WITH IRC R405.
 5) FOOTING SIZE TO BE 8"x16" WITH 2 - #4 BARS CONTINUOUS.
 6) FOUNDATION WALLS TO BE 8" THICK w #4 BARS AT 24" HOR. & VERT.
 7) DAMPROOFING TO BE IN ACCORDANCE WITH IRC SECTION R406.
 8) FOUNDATIONS TO MEET ALL CITY ORDINANCES AND STANDARDS.

FOUNDATION PLAN
 SCALE: 1/4" = 1'-0"

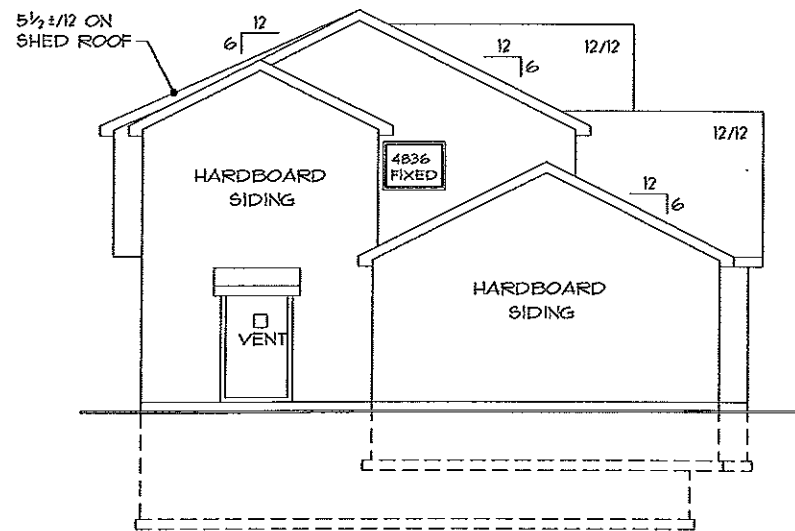
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RAYMORE TWO STORY
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#	REVISIONS	DATE
1	RETURN WALLS & VAP BAR	3/29/10
2	EXPAND FURN ROOM & KIT	1/25/10

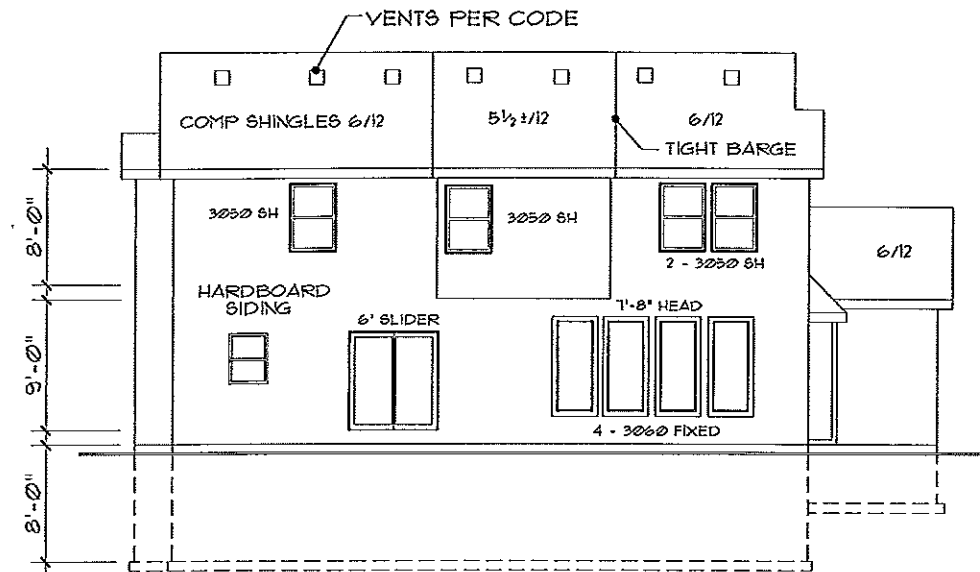
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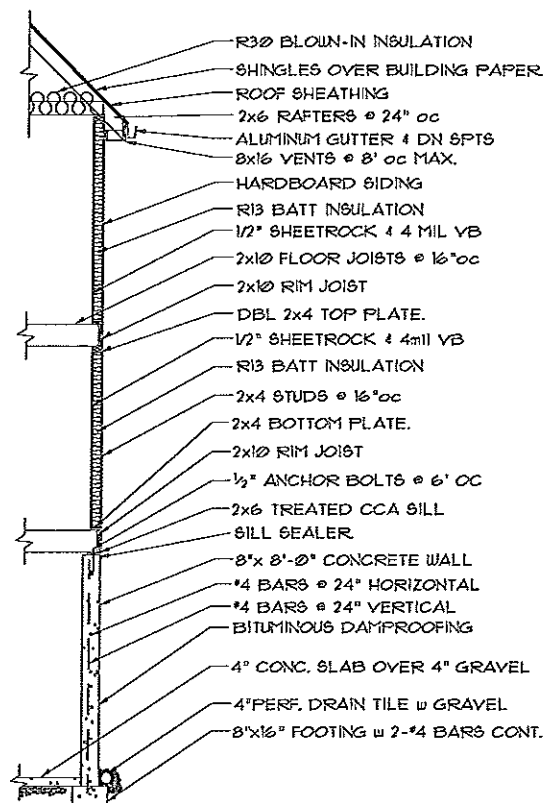
LEFT SIDE ELEVATION

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



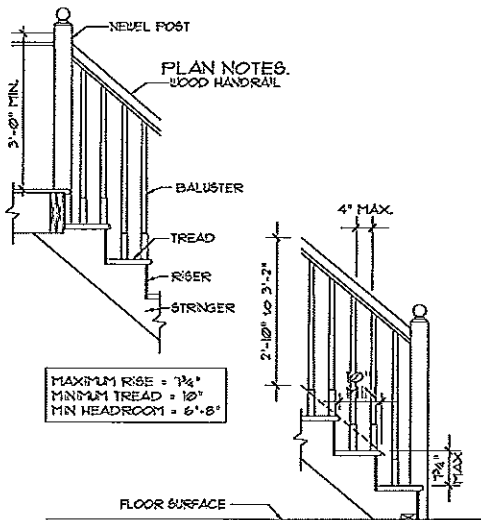
REAR ELEVATION

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



TYPICAL WALL SECTION

NO SCALE BASED ON 8% GLAZING

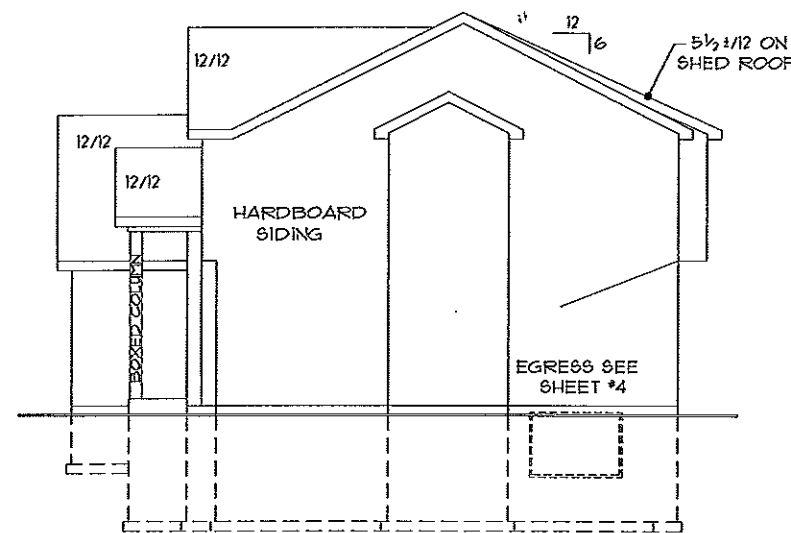


STAIR SECTION

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

GENERAL NOTES

- A. BRACE ROOF RAFTER TO BEARING PARTITIONS. UNBRACED LENGTH OF STRUTS SHALL NOT EXCEED 8' AND THE MINIMUM SLOPE OF STRUTS SHALL NOT EXCEED 45 DEGREES FROM THE HORIZONTAL.
- B. PROVIDE SAFETY GLAZING FOR WINDOWS OVER 9 SF, AND LESS THAN 18" ABOVE FLOOR.
- C. ROOF VENTS. (PROVIDE 1 SF. OF NET FREE VENTILATING AREA FOR EACH 300 SF. OF ATTIC SPACE. PROVIDE AN EQUAL AMOUNT OF SOFFIT VENTS.



RIGHT SIDE ELEVATION

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

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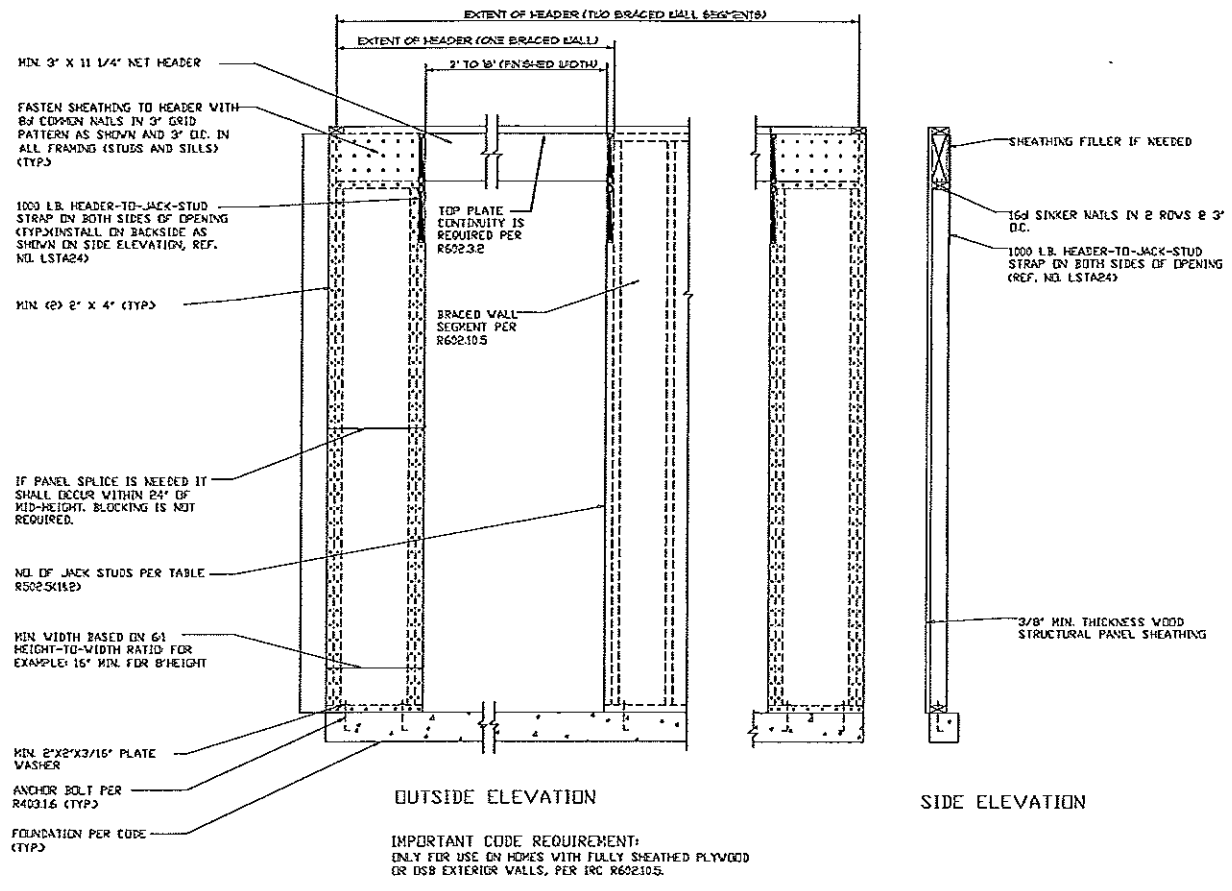
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RAYMORE TWO STORY
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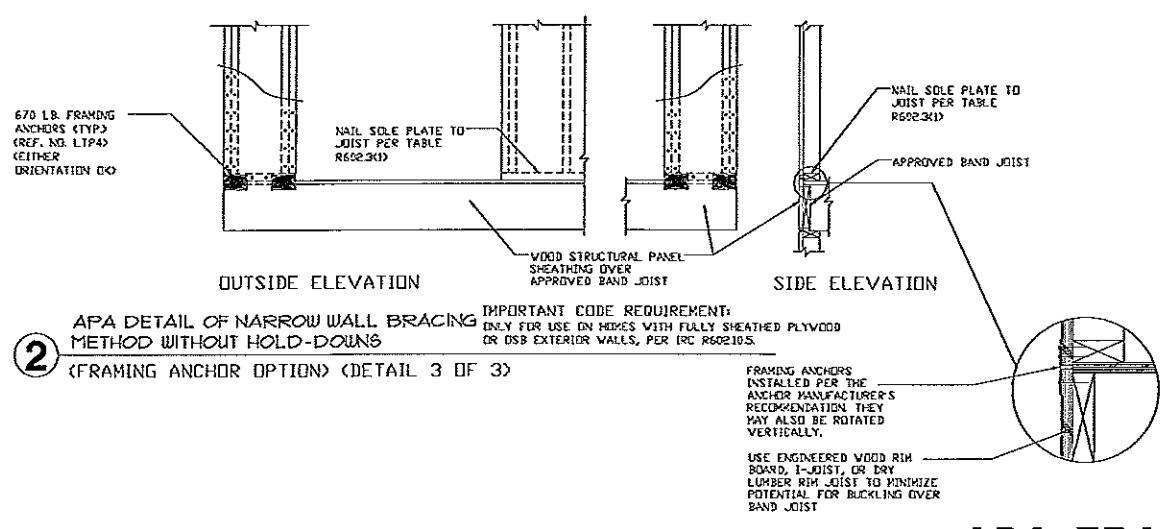
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DRAWINGS ISSUED:
3/9/2010

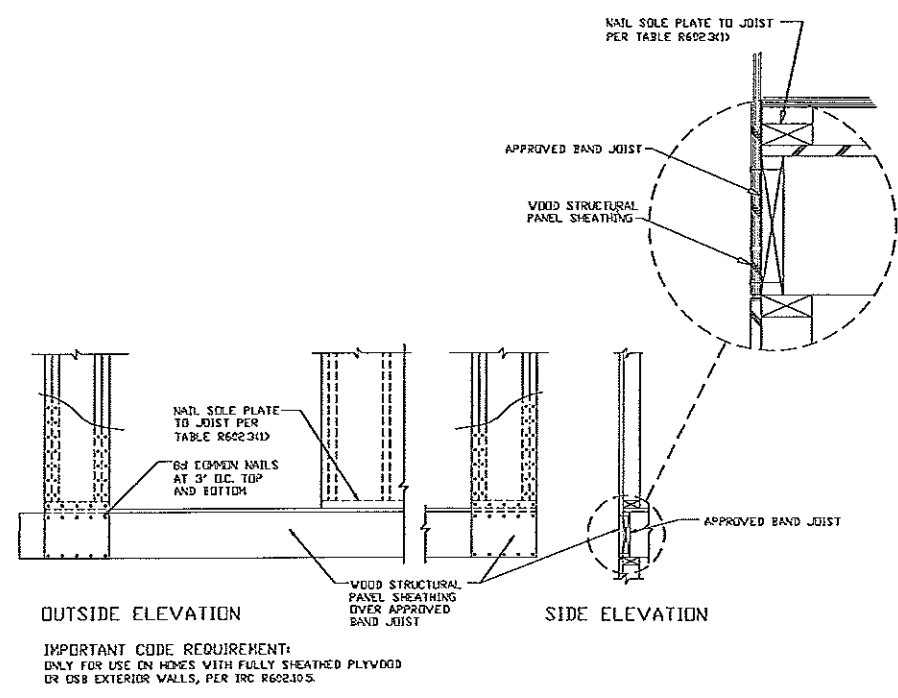
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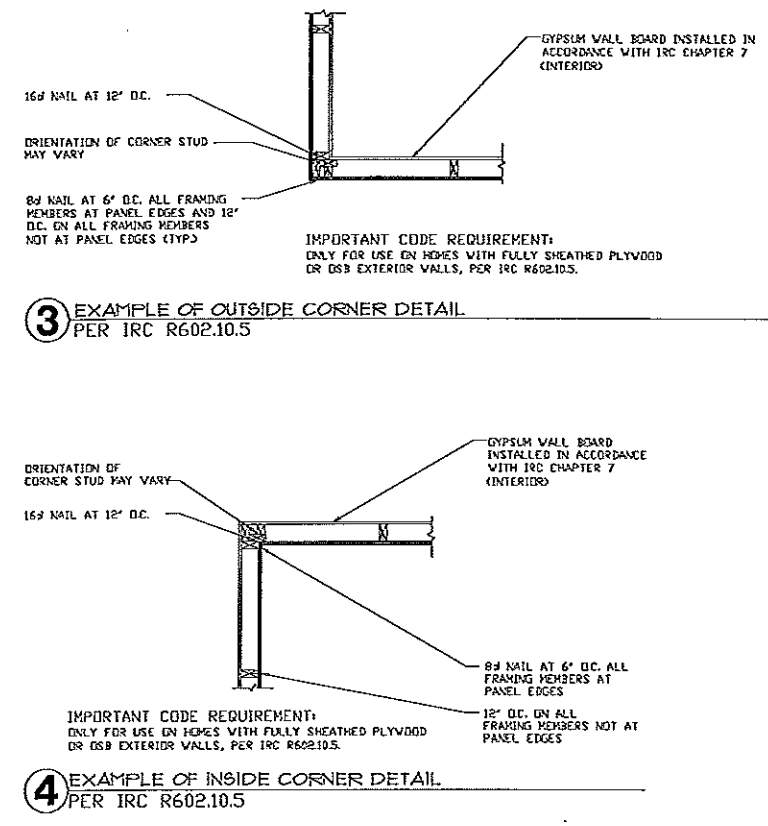
1 APA DETAIL OF NARROW WALL BRACING METHOD WITHOUT HOLD-DOWNS (DETAIL 1 OF 3)



2 APA DETAIL OF NARROW WALL BRACING METHOD WITHOUT HOLD-DOWNS (FRAMING ANCHOR OPTION) (DETAIL 3 OF 3)



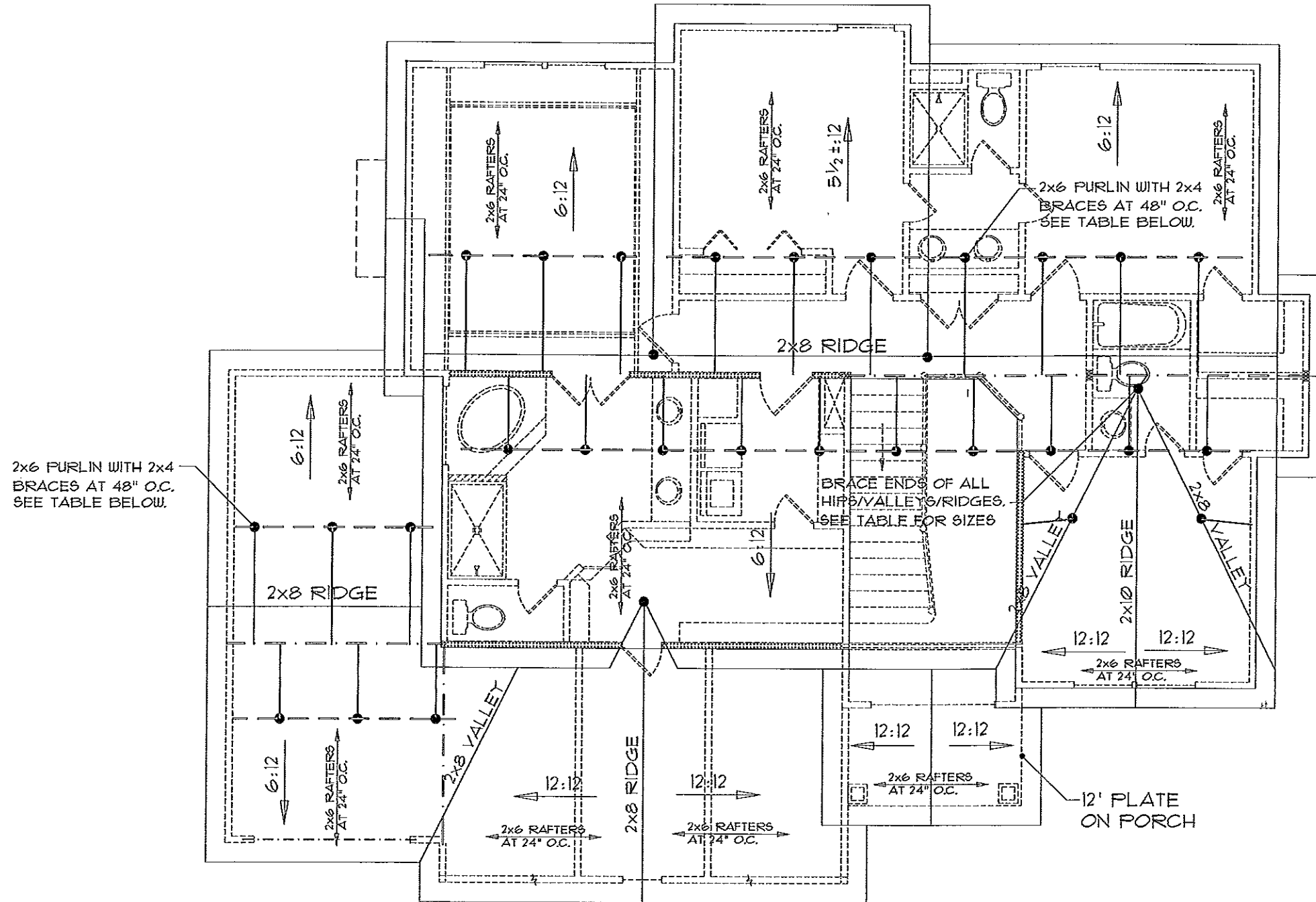
3 APA DETAIL OF NARROW WALL BRACING METHOD WITHOUT HOLD-DOWNS (STRUCTURAL PANEL OVERLAP OPTION) (DETAIL 2 OF 3)



3 EXAMPLE OF OUTSIDE CORNER DETAIL PER IRC R602.10.5

4 EXAMPLE OF INSIDE CORNER DETAIL PER IRC R602.10.5

APA FRAMING DETAILS



2x6 PURLIN WITH 2x4 BRACES AT 48" O.C. SEE TABLE BELOW.

BRACE ENDS OF ALL HIP/VALLEYS/RIDGES. SEE TABLE FOR SIZES

12' PLATE ON PORCH

HIP & VALLEY RAFTERS	MAX UNSUPPORTED LENGTH (MUL)	BRACE SIZE
2x8 - DF#2	8'-0"	2x6
2x10 - DF#2	10'-0"	2x6
2x12 - DOUG FIR #2	12'-0"	2x6
10" MICROLAM	14'-0"	2x6 TEE
12" MICROLAM	16'-0"	2x8 TEE

2 HIPS & VALLEYS

1 ROOF FRAMING PLAN

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

NOTE: PROVIDE ADEQUATE BEARING AND/OR HANGERS FOR SUPPORT OF ALL HIP AND VALLEY RAFTERS.

ROOF PURLINS			BRACE OR STRUTS	
MEMBER	MAX. SPAN	MAX. CANTILEVER	MEMBER	MAX. LENGTH
2 x 6	6'	3'	2 x 6	8'
2 x 8	7'	3'-6"	2 x 4 TEE	10'
2 x 10	8'	4'-0"	2 x 4 + 2 x 6 TEE	12'
2 - 2 x 8's	10'-0"	4'-6"	2 x 6 TEE	14'
2 - 2 x 10's	11'-6"	5'-0"	2 x 6 + 2 x 8 TEE	16'
2 - 2 x 12's	12'-0"	6'-0"	2 x 8 TEE	18'

3 PURLINS & BRACES

WALKER ENGINEERING 3950 W 214th STREET BUCYRUS, KANSAS 66013 (913) 831-0768

RAYMORE TWO STORY
Plan #001-MAD-03

#	REVISIONS	DATE
1	ADDED 3rd CAR PURLIN	3/29/10
2	ADD BATH + EXP 2nd FLR	1/29/10

DRAWINGS ISSUED: 3/3/2010

SHEET #
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