RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
11/01/2021 4:20:09

Andrea Sessler

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Date: 2021.11.01 16:21:13-05'00'

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HOMESTEAD AT HOOK FARMS LOT #1
2038 SW FARM FIELD LANE
LEE'S SUMMIT, MO 64081

I.Q. HOME BUILDERS
P.O. BOX 6423
LEE'S SUMMIT, MO 64064

STATE OF MISSOURI
DANIEL J. WEBSTER
NUMBER A-6400
REGISTERED ARCHITECT
11/1/2021

DRAWN BY: MP, TC
DATE: 10-26-21
PROJECT NO: 15-016-06

SHEET NO.
A0

FLOOR PLAN - SYMBOL LEGEND

DESCRIPTION	SYMBOL
INTERIOR LOAD BEARING WALL	
STONE OR BRICK VENEER	
JOIST SIZE AND DIRECTION	FJ-XX
HEADER/ BEAM — SIZE OF MEMBER PER HEADER/ BEAM SCHEDULE; NUMBER OF PLYS; "U" IF UPSET	A 2 U
CENTERLINE	
POINT LOAD	
APPROX. WINDOW FRAME SIZE IN INCHES (SEE GENERAL NOTES BELOW)	2941
SMOKE ALARM	S
SMOKE & CARBON MONOXIDE ALARM	SC

HEADER / BEAM SCHEDULE

MARK	LUMBER SIZE	CRIPPLE STUDS	TRIMMERS
A	2 x 6	1	1
B	2 x 8	1	1
C	2 x 10	1	1
D	2 x 12	2	1
E	1¾" x 7¼" L.V.L.	2	1
F	1¾" x 9½" L.V.L.	2	1
G	1¾" x 11⅞" L.V.L.	2	1
H	1¾" x 14" L.V.L.	2	1
J	1¾" x 16" L.V.L.	3	1
K	1¾" x 18" L.V.L.	3	1
L	1¾" x 9½" L.S.L.	1	1
M	1¾" x 11⅞" L.S.L.	2	1

1. BEAMS SHALL HAVE TOTAL NUMBER OF CRIPPLES AND TRIMMERS UNDER EACH END. SOLID BLOCK BELOW.

2. FOR L.V.L. BEAMS IN 2x10 FLOORS, USE 9 1/4" L.V.L.

FLOOR JOIST SCHEDULE

MARK	TYPE	SUB-TYPE	SIZE	SPACING	MAX SPAN
FJ-1	"I" JOIST (SEE NOTE)		9 1/2"	PER MANUFACTURER	
FJ-2	"I" JOIST (SEE NOTE)		11 7/8"	PER MANUFACTURER	
FJ-3	"I" JOIST (SEE NOTE)		14"	PER MANUFACTURER	
FJ-4	TRUSSED (SEE NOTES)		14"	PER MANUFACTURER	
FJ-5	TRUSSED (SEE NOTES)		16"	PER MANUFACTURER	
FJ-20	LUMBER	ACQ. TREATED	2x10	12" O.C.	16'-2"
FJ-21	LUMBER	ACQ. TREATED	2x10	16" O.C.	14'
FJ-22	LUMBER		2x8	12" O.C.	14'-2"
FJ-23	LUMBER		2x8	16" O.C.	12'-7"
FJ-24	LUMBER		2x10	12" O.C.	17'-9"
FJ-25	LUMBER		2x10	16" O.C.	15'-5"
FJ-26	LUMBER		2-2x10	16" O.C.	

NOTE: DESIGN I-JOISTS (LOADED W/ TOTAL LIVE AND DEAD LOAD) WITH A MAX. DEFLECTION OF L/360, EXCEPT BELOW BATHROOMS AND TILED AREAS WHERE THE DEFLECTION SHALL BE L/480 MAX.

CONCRETE WALL SCHEDULE

MARK	CONCRETE WALL THICKNESS	HEIGHT	REINFORCING VERTICAL	GRADE 40 HORIZONTAL
A	8"	4' OR LESS	#4's AT 36" O.C.	2 - #4's
B	8"	4' TO 6'	#4's AT 36" O.C.	3 - #4's
C	8"	6' TO 8'	#4's AT 16" O.C.	4 - #4's
D	8"	8'	#4's AT 16" O.C.	4 - #4's
E	8"	9'	#4's AT 12" O.C.	5 - #4's
F	10"	4'	#4's AT 36"O.C.	2 - #4's
G	10"	8'	#4's AT 36" O.C.	4 - #4's
H	10"	9'	#4's AT 16" O.C.	5 - #4's
J	10"	10'	#4's AT 12" O.C.	6 - #4's

COLUMN & PAD SCHEDULE

MARK	PAD SIZE	#4 BARS REQ'D EACH WAY	COLUMN SIZE (SCHEDULE 40)	MAX. LOAD
A	36"x36"x12"	6	3"	13.5 K
B	48"x48"x16"	8	3"	24.0 K
C	60"x60"x18"	10	3.5"	37.5 K
D	72"x72"x18"	12	5"	54.0 K

PIER SCHEDULE

MARK	PIER DIAMETER	POST (ACQ OR CEDAR U.N.O.)	MAX. LOAD
F	12"	6x6 U.N.O.	11 K
G	18"	6x6 U.N.O.	26 K
H	24"	6x6 U.N.O.	47 K

1.) PAD AND PIER SIZES ASSUME 1500 P.S.F. SOIL BEARING CAPACITY.
2.) 10' MAX. STEEL COLUMN HEIGHT FROM BASE PLATE TO TOP OF COLUMN. CONSULT ARCHITECT IF SITE CONDITIONS REQUIRE TALLER COLUMNS.

GENERAL NOTES:

A. EXTERIOR FRAMED WALLS ARE 2x4 STUDS AT 16" O.C. UNLESS NOTED OTHERWISE.

B. FURNACE IS DIRECT VENT AND USES OUTSIDE AIR FOR COMBUSTION

C. FOR COVERED PATIO FRAMING - SEE DETAIL 1/G3

FOUNDATION PLAN NOTES

1. CONCRETE SLAB, CONCRETE PIER AND PAD - SEE DETAIL 3/G2

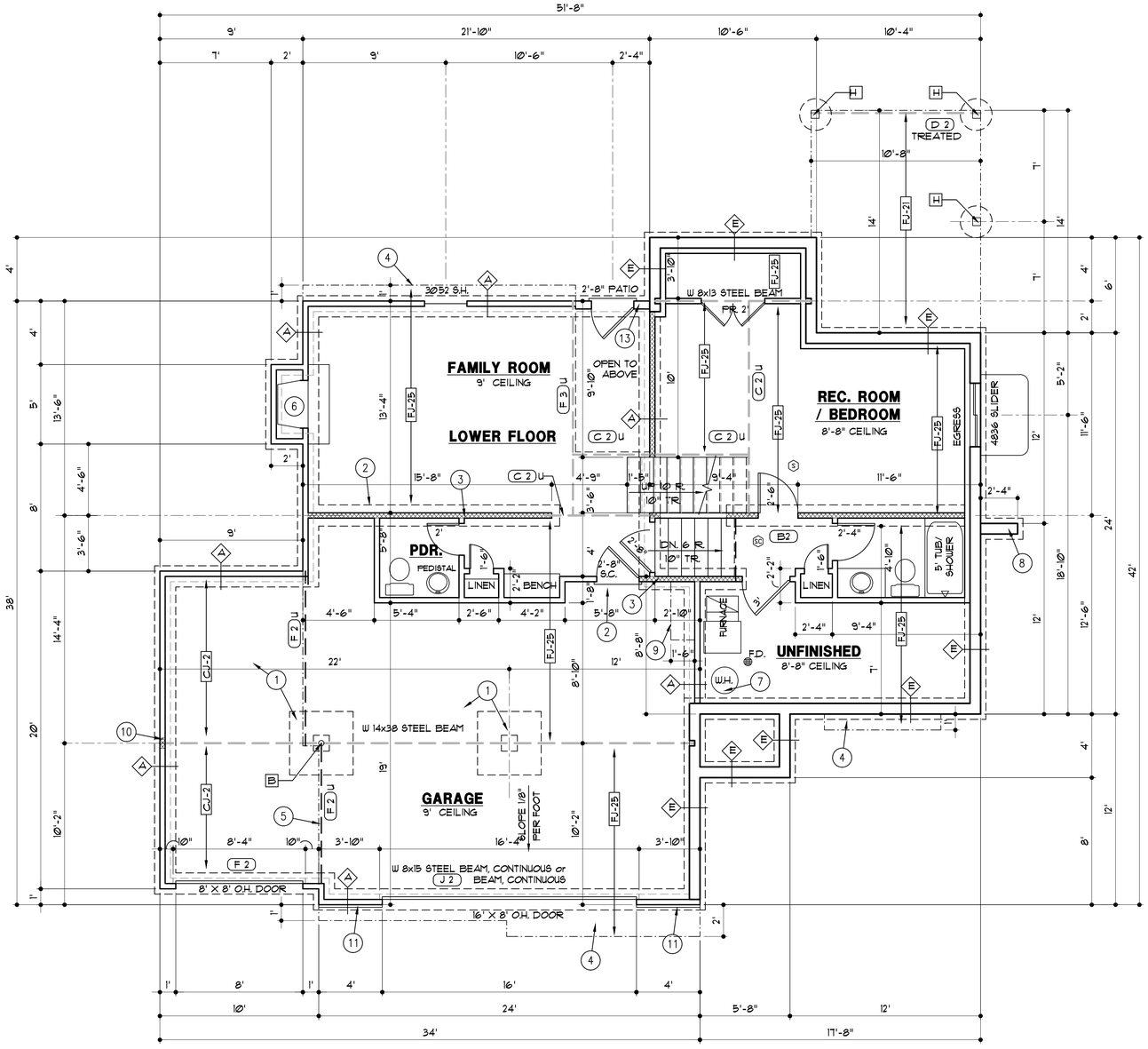
2. 16" WIDE X 8" DEEP CONCRETE FOOTING W/2-#4 BARS CONTINUOUS

3. 2x4 STUDS @ 16" O.C. WITH TREATED SILL PLATE.

4. EXTEND FLOOR FRAMING AND INSULATE SOFFIT

5. FLOOR LINE ABOVE

6. 36" GAS FIREPLACE



7. PROVIDE THERMAL EXPANSION CONTROL DEVICE.
8. RETURN WALL - SEE DETAIL 8/G2
9. CANTILEVER FLOOR FRAMING
10. 7 STUDS FOR BEARING
11. MANUFACTURED STONE VENEER - SEE ELEVATIONS
12. 4 STUDS FOR BEARING
13. 2x6 STUDS AT 12" O.C. FOR UNINTERRUPTED 17'-8" TALL WALL

FOUNDATION PLAN

1/4" = 1'-0"

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SHEET NO. A1

FLOOR PLAN - SYMBOL LEGEND

DESCRIPTION	SYMBOL
INTERIOR LOAD BEARING WALL	
STONE OR BRICK VENEER	
JOIST SIZE AND DIRECTION	FJ-XX
HEADER/ BEAM — SIZE OF MEMBER PER HEADER/ BEAM SCHEDULE; NUMBER OF PLYS; "U" IF UPSET	A 2 U
CENTERLINE	
POINT LOAD	
APPROX. WINDOW FRAME SIZE IN INCHES (SEE GENERAL NOTES BELOW)	2941
SMOKE ALARM	S
SMOKE & CARBON MONOXIDE ALARM	SC

HEADER / BEAM SCHEDULE

MARK	LUMBER SIZE	CRIPPLE STUDS	TRIMMERS
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FLOOR JOIST SCHEDULE

MARK	TYPE	SUB-TYPE	SIZE	SPACING	MAX. SPAN
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FJ-2	"I" JOIST (SEE NOTE)		11 7/8"	12" O.C.	PER MANUFACTURER
FJ-3	"I" JOIST (SEE NOTE)		14"	12" O.C.	PER MANUFACTURER
FJ-4	TRUSSED (SEE NOTES)		14"	12" O.C.	PER MANUFACTURER
FJ-5	TRUSSED (SEE NOTES)		16"	12" O.C.	PER MANUFACTURER
FJ-20	LUMBER	ACQ. TREATED	2x10	12" O.C.	16'-2"
FJ-21	LUMBER	ACQ. TREATED	2x10	16" O.C.	14'
FJ-22	LUMBER		2x8	12" O.C.	14'-2"
FJ-23	LUMBER		2x8	16" O.C.	12'-7"
FJ-24	LUMBER		2x10	12" O.C.	17'-9"
FJ-25	LUMBER		2x10	16" O.C.	15'-5"
FJ-26	LUMBER		2-2x10	16" O.C.	

NOTE: DESIGN I-JOISTS (LOADED W/ TOTAL LIVE AND DEAD LOAD) WITH A MAX. DEFLECTION OF L/360, EXCEPT BELOW BATHROOMS AND TILED AREAS WHERE THE DEFLECTION SHALL BE L/480 MAX.

CEILING JOISTS SCHEDULE - LIVE LOAD 10 P.S.F.

MARK	SIZE	SPACING	MAXIMUM SPAN - DOUGLAS FIR #2
CJ-1	2x6	12"	19'-6"
CJ-2	2x6	16"	17'-8"
CJ-3	2x8	12"	25'-8"
CJ-4	2x8	16"	23'-0"
CJ-5	2x10	12"	NA
CJ-6	2x10	16"	NA
CJ-7	2x4	24"	9'-10"
CJ-8	2x6	24"	14'-10"
CJ-9	2x8	24"	18'-9"
CJ-10	2x10	24"	22'-11"

SQUARE FOOTAGE TABLE

LOCATION	AREA (S.F.)
UPPER LEVEL	1433
LOWER LEVEL	392
BASEMENT	351
TOTAL	2176
GARAGE	695
BASEMENT (UNFINISHED)	183

GENERAL NOTES:

A. EXTERIOR WALLS ARE 2x4 STUDS AT 16" O.C. UNLESS OTHERWISE NOTED.

B. SOLID BLOCKING BELOW STUDS SUPPORTING BEAMS AND HEADERS.

C. FOR COVERED PATIO FRAMING - SEE DETAIL 1/G3

D. SEE G4 SHEET FOR LOCATION OF HOLD-DOWN TIES FOR BRACED WALL CONSTRUCTION

FLOOR PLAN NOTES

1. (4) 2x4 STUDS SOLID BLOCK BELOW

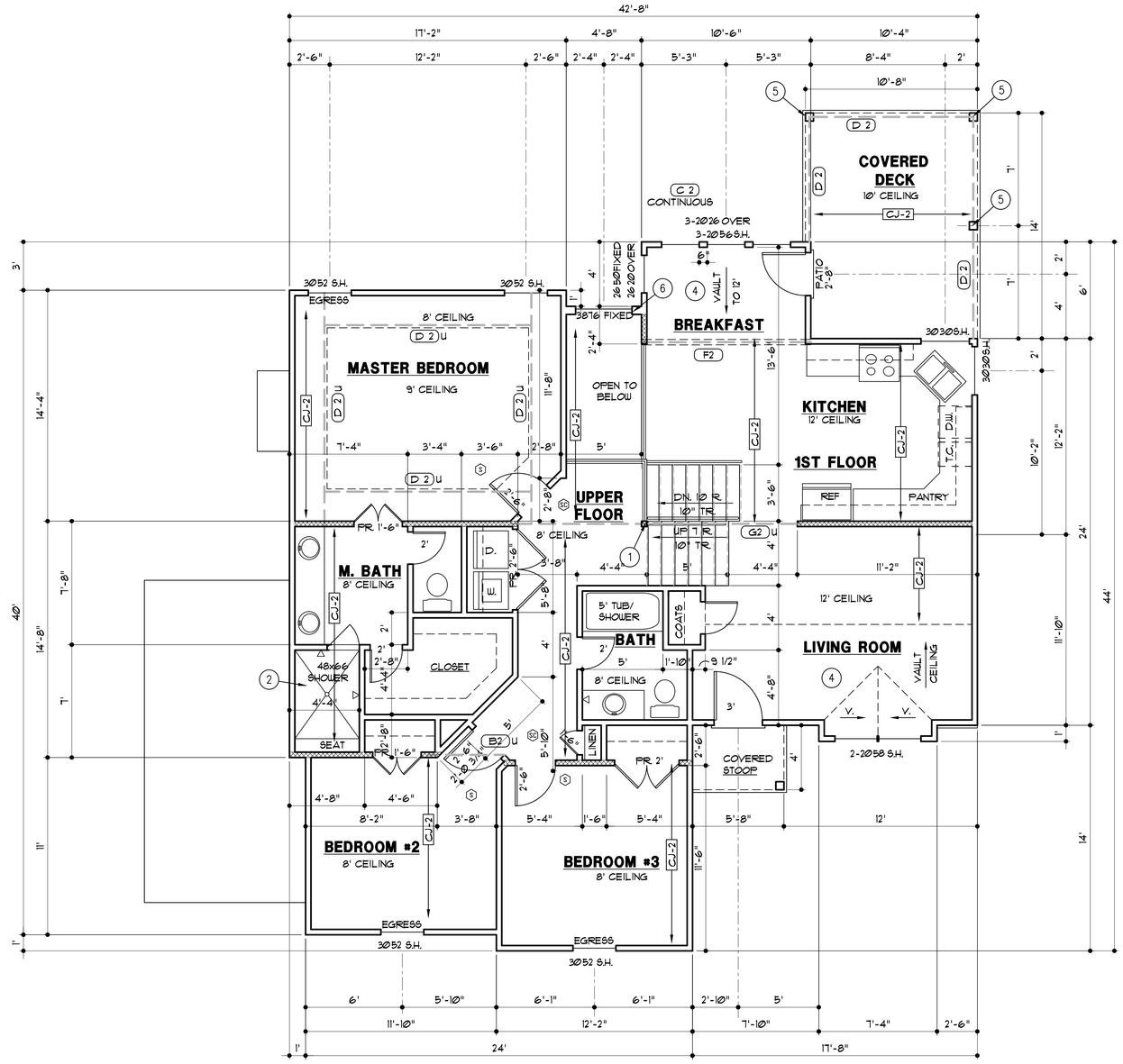
2. INSULATE CANTILEVERED FLOOR

3. 3 STUDS FOR BEARING, SOLID BLOCKING BELOW

4. FURR DOWN CEILING 6" FOR INSULATION.

5. 6 X 6 PRESSURE TREATED OR CEDAR POST.

6. 2x6 STUDS AT 12" O.C. FOR UNINTERRUPTED 17'-8" TALL WALL



FIRST FLOOR PLAN

1/4" = 1'-0"

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SHEET NO. A2

ROOF PLAN LEGEND

DESCRIPTION	SYMBOL
RIDGES AND HIPS	
VALLEYS	
EAVES, RAKE & GABLE	
HOUSE WALLS	
PURLIN	
TOP OF PURLIN STRUT OR RIDGE POLE	O
BOT. OF PURLIN STRUT OR RIDGE POLE	
JOIST SIZE AND SPACING	RJ-X
UPLIFT VALUE	ØØØ#

ROOF RAFTER SCHEDULE

MARK	SIZE	SPACING	MAXIMUM SPAN	
			FLAT CEILING	VAULTED CEILING
RJ-1	2x6	12"	16'-1"	14'-9"
RJ-2	2x6	16"	14'-4"	12'-9"
RJ-3	2x6	24"	11'-9"	10'-5"
RJ-4	2x8	12"	21'-0"	18'-8"
RJ-5	2x8	16"	18'-2"	16'-2"
RJ-6	2x8	24"	14'-10"	13'-2"
RJ-7	2x10	12"	25'-8"	22'-9"
RJ-8	2x10	16"	22'-3"	19'-9"
RJ-9	2x10	24"	18'-2"	16'-1"
RJ-10	2x12	16"	25'-9"	26'-5"
RJ-11	2x12	24"	18'-2"	22'-10"

GENERAL NOTES:

A. BRACE ALL RIDGES TO BEARING WALLS OR BEAMS BELOW, AT 4' O.C. UNLESS NOTED OTHERWISE

B. STRUTS TO BEAR ON WALLS AS INDICATED. CONTACT ARCHITECT WITH ANY PROPOSED CHANGE TO STRUT BEARING LOCATIONS. ARCHITECT MAY NEED TO VERIFY THAT BEAMS BELOW NEW STRUT LOCATION CAN SUPPORT ADDED LOADS.

ROOF PLAN NOTES

1. BEARING WALL OR BEAM BELOW

2. 2x8 PURLIN WITH 2x6 "T" BRACES AT 4' O.C. TO BEARING WALL/ BEAM BELOW

3. 2x6 "T" BRACE TO BEARING WALL OR BEAM BELOW. BRACE SHALL BE CONNECTED TO STRUCTURE AT ROOF AND CEILING WITH MINIMUM (5) 16d NAILS.

4. CUT BACK SOFFIT EAVE TO CLEAR WINDOW

5. BRACE RIDGE TO BEARING WALL WITH 2x6's AT 4' O.C.

6. (3) 2x6 STRUT

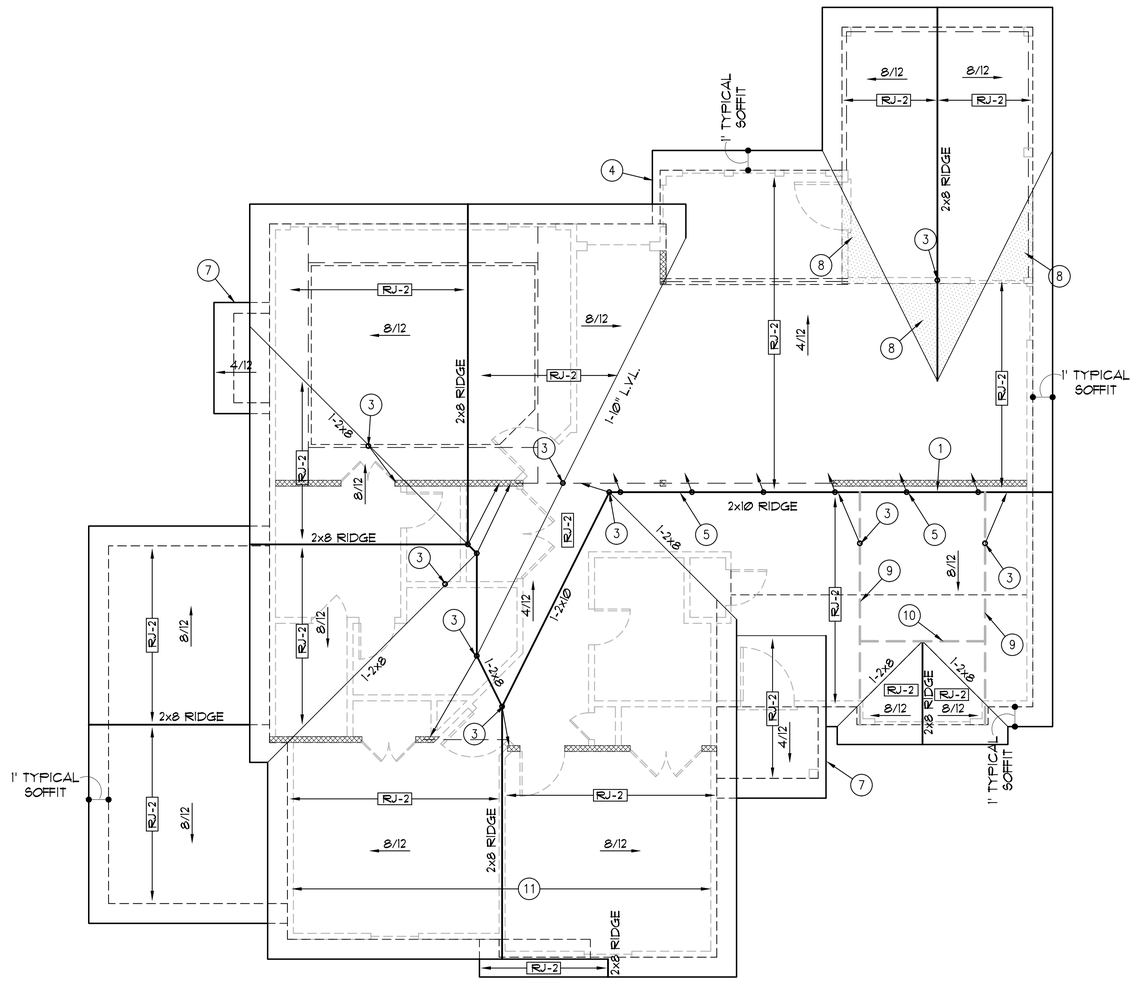
7. TIGHT BARGE

8. OVERFRAME THIS AREA

9. 4-2x6 RAFTERS

10. (3) 2x6 BEAM

11. 2x6 RAFTER TIES AT 32" O.C. INSTALLED 10'-8" FROM DECK TO BOTTOM OF TIE



ROOF PLAN
1/4" = 1'-0"

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SHEET NO. A3

ELEVATION NOTES

1. ROOFING TO BE "TIMBERLINE" SHINGLES OR EQUAL ON 15# FELT ON 7/16" O.S.B. SHEATHING.

2. SIDING TO BE 3/8" MIN. STRUCTURAL WOOD PANEL SIDING, "SMART PANEL" SIDING OR EQUAL, INSTALLED PER MANUFACTURER'S INSTRUCTIONS. PROVIDE "Z" FLASHING BETWEEN VERTICAL PANELS. 1x4 SMART TRIM AT ALL CORNERS AND AROUND WINDOWS.

3. SMART LAP SIDING WITH 6" EXPOSURE AND 5/4x6 SMART TRIM AT CORNERS, DOORS AND WINDOWS

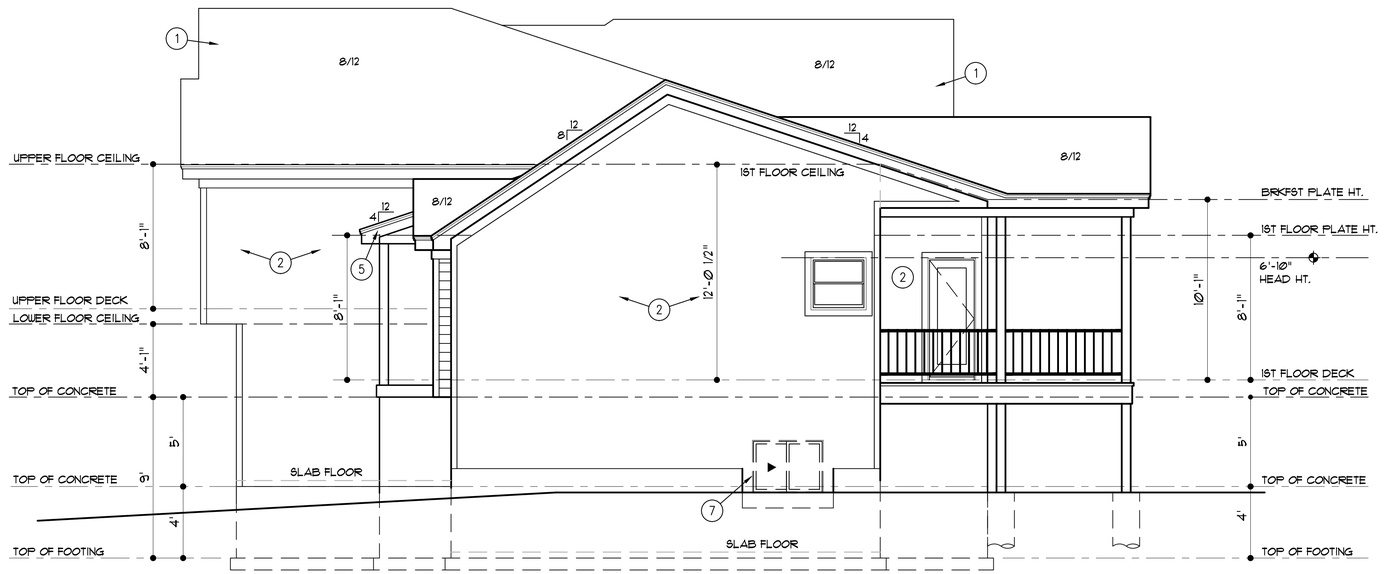
4. MANUFACTURED STONE

5. TIGHT BARGE

6. BOARD & BATTEN SHUTTERS

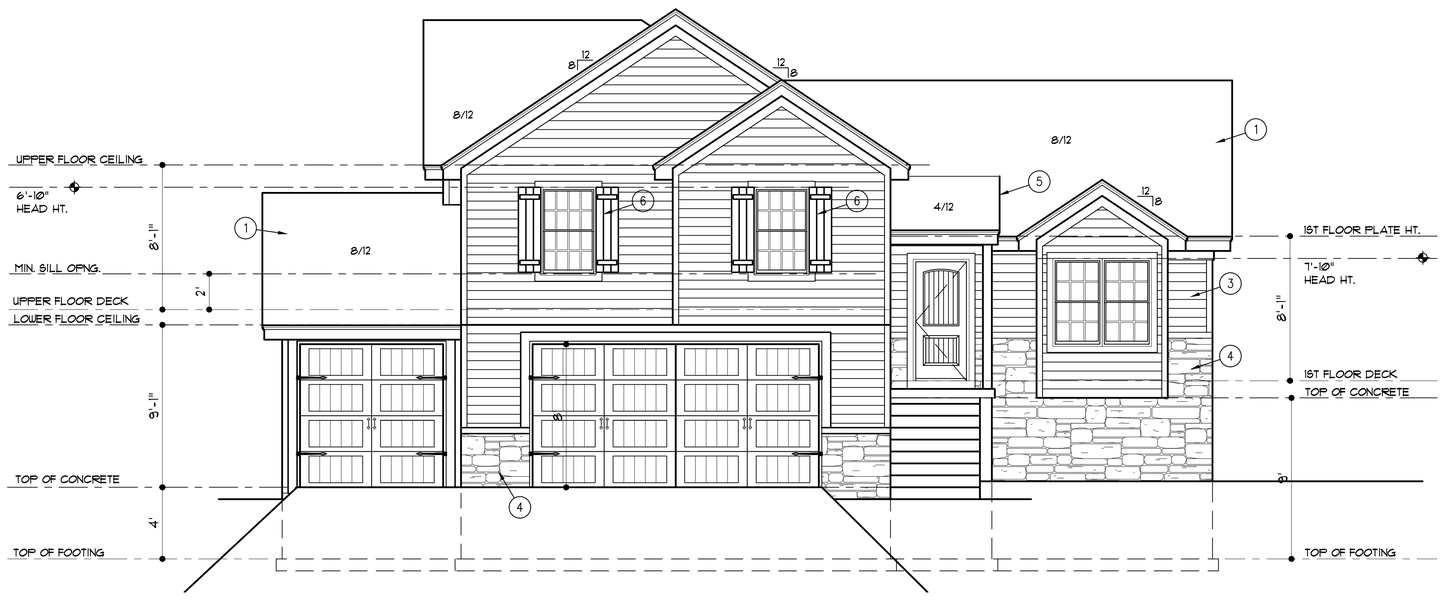
7. METAL EGRESS WINDOW. WINDOW SET AT MAX. 44" FROM FINISH FLOOR TO SILL

8. SHAKES



RIGHT SIDE ELEVATION

1/4" = 1'-0"



FRONT ELEVATION

1/4" = 1'-0"

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SHEET NO.
A4

ELEVATION NOTES

1. ROOFING TO BE "TIMBERLINE" SHINGLES OR EQUAL ON 15# FELT ON 7/16" O.S.B. SHEATHING.

2. SIDING TO BE 3/8" MIN. STRUCTURAL WOOD PANEL SIDING, "SMART PANEL" SIDING OR EQUAL, INSTALLED PER MANUFACTURER'S INSTRUCTIONS. PROVIDE "Z" FLASHING BETWEEN VERTICAL PANELS. 1x4 SMART TRIM AT ALL CORNERS AND AROUND WINDOWS.

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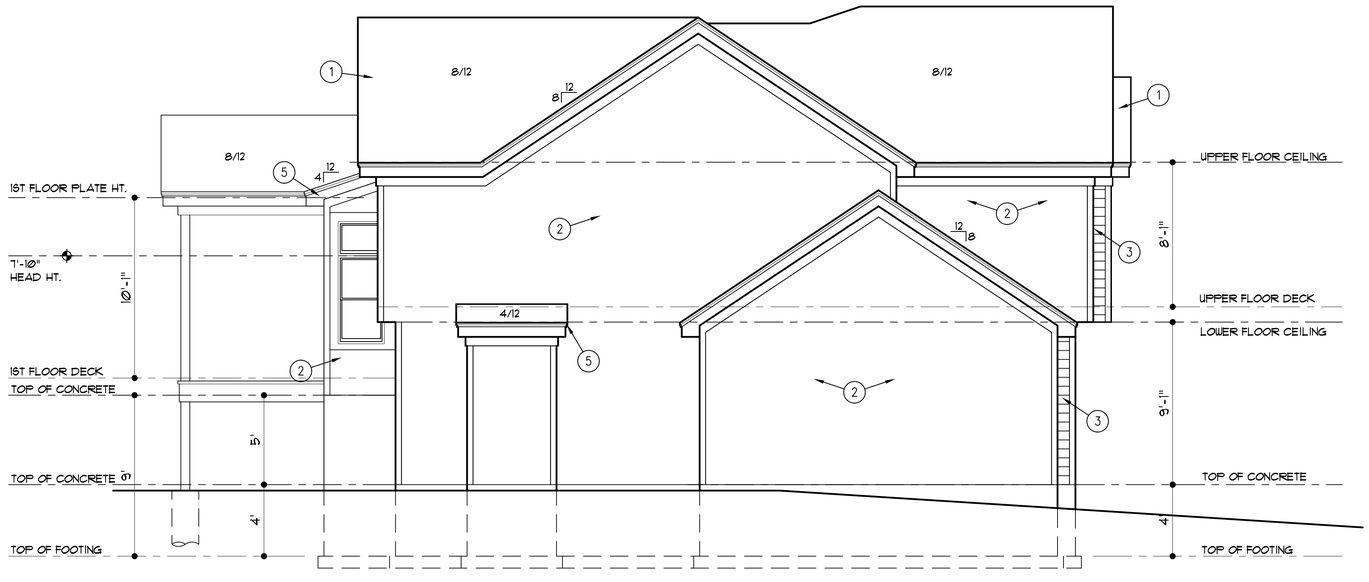
4. MANUFACTURED STONE

5. TIGHT BARGE

6. BOARD & BATTEN SHUTTERS

7. METAL EGRESS WINDOW. WINDOW SET AT MAX. 44" FROM FINISH FLOOR TO SILL

8. SHAKES



LEFT SIDE ELEVATION

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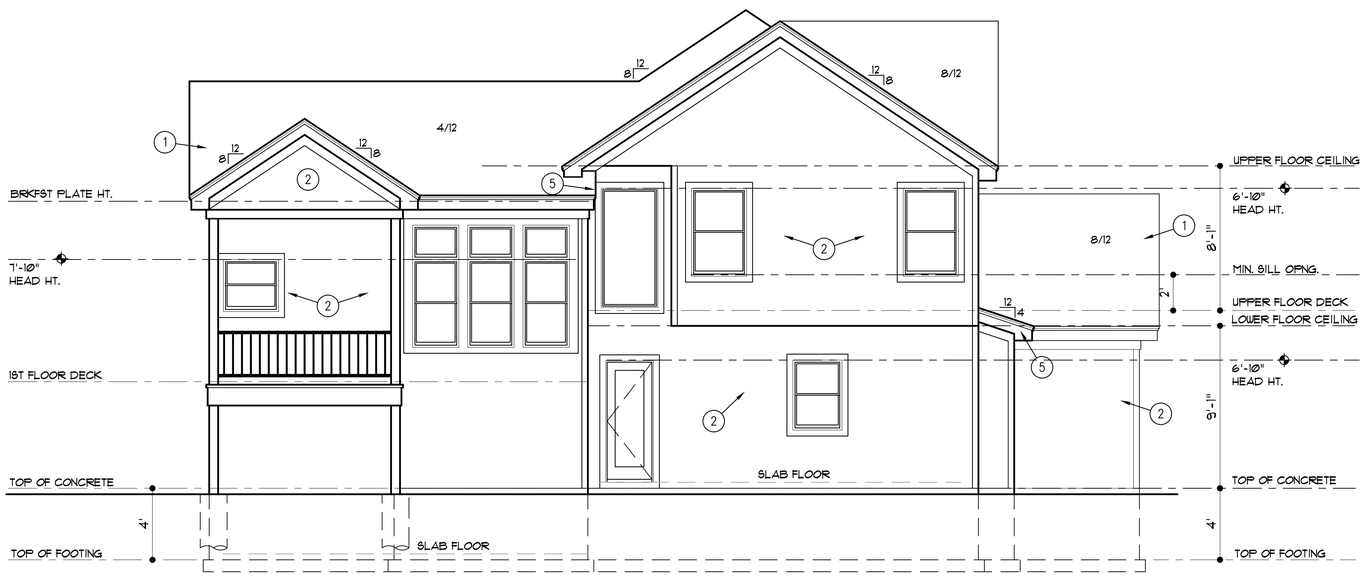

REAR ELEVATION

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SHEET NO. A5

DISCLAIMER

THESE DRAWINGS ARE CONSIDERED A "BUILDER'S SET" AND BY BEGINNING CONSTRUCTION THE CONTRACTOR WARRANTS TO THE ARCHITECT, THAT HE HAS THE COMPETENCE AND SKILL IN CONSTRUCTION NECESSARY TO BUILD THE PROJECT WITHOUT FULL ENGINEERING AND DESIGN SERVICES. THE CONTRACTOR WILL BE REQUIRED TO ADAPT THE DRAWINGS TO ACTUAL FIELD CONDITIONS AND MAKE LOGICAL ADJUSTMENTS IN FIT, FORM, DIMENSION AND QUANTITY. IN THE EVENT, ADDITIONAL DETAIL OR GUIDANCE IS NEEDED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY WEBSTER ARCHITECTS. FAILURE TO GIVE NOTICE SHALL RELIEVE WEBSTER ARCHITECTS OF THE ALL RESPONSIBILITY FOR THE CONSEQUENCES. ALTHOUGH WEBSTER ARCHITECTS HAVE PERFORMED THEIR SERVICES WITH DUE CARE AND DILIGENCE, PERFECTION CAN'T BE GUARANTEED. IT IS UNDERSTOOD AND AGREED THAT IF WEBSTER ARCHITECTS IS NOT HIRED TO DO PROJECT OBSERVATION OR ANY OTHER CONSTRUCTION PHASE SERVICES, THAT THE CLIENT WILL PERFORM SUCH SERVICES. THE CLIENT ASSUMES ALL RESPONSIBILITY FOR INTERPRETATION OF THE CONTRACT DOCUMENTS AND FOR CONSTRUCTION OBSERVATION, AND THE CLIENT WAIVES ANY CLAIMS AGAINST WEBSTER ARCHITECTS THAT MAY BE IN ANY WAY CONNECTED THERETO. THESE DRAWINGS ARE NOT TO BE SCALED. IF A CRITICAL DIMENSION IS MISSING THE ARCHITECT SHOULD BE CONSULTED.

ABBREVIATIONS

A.F.F.	ABOVE FINISH FLOOR
C.C.A.	CHROMATED COPPER ARSENATE
C.J.	CONTROL JOINT
CLG.	CEILING
C.O.	CASED OPENING
D.	DRYER
D.H.	DOUBLE HUNG
DIA.	DIAMETER
DN.	DOWN
D.W.	DISHWASHER
E.J.	EXPANSION JOINT
EQ.	EQUAL
F.D.	FLOOR DRAIN
GA.	GAUGE OR GAGE
GFI	GROUND FAULT CIRCUIT INTERRUPTER
H.B.	HOSE BIB
HT.	HEIGHT
K.S.	KNEE SPACE
LB. (#)	POUND
L.V.L.	LAMINATED VENEER LUMBER
MAX.	MAXIMUM
MIN.	MINIMUM
MICRO.	MICROWAVE OVEN
O.C.	ON CENTER
O.H.	OVERHEAD/ OVERHANG
PR.	PAIR
R.	RISER
REF.	REFRIGERATOR
RM.	ROOM
R.O.	ROUGH OPENING
S.F.	SQUARE FEET
SIM.	SIMILAR
SQ.	SQUARE
T.	TREAD
T.C.	TRASH COMPACTOR
T.V.	TELEVISION
TYP.	TYPICAL
W.	WASHER
W/	WITH
W.I.C.	WALK IN CLOSET
W.H.	WATER HEATER
W.W.F.	WELDED WIRE FABRIC

LOAD AND DEFLECTION LIMITATIONS

AREA	CONDITION	MIN. LOADS (P.S.F.) LIVE	DEAD
DECKS	-	40	10
CEILING JOISTS	NO STORAGE	10	10
CEILING JOISTS	STORAGE ALLOWED	20	10
FLOORS	NON-SLEEPING	40	10 (20 FOR TILED FLRS *)
	SLEEPING AREAS	30	10 (20 FOR TILED FLRS *)
ROOFS	WOOD OR COMPOSIT.	20	10 (20 IN LEAWOOD)
	TILE OR CONCRETE	20	20
STAIRS	-	40	10
HANDRAIL/ GUARDRAIL		200# IN ANY DIRECTION	

NOTE:
- WIND SPEED 115 MPH (CATAGORY AS DEFINED BY R301.2.1.4)
* TILE FLOOR LOAD BASED ON THINSET METHOD.

BUILDING INSULATION SCHEDULE

OPENING MAXIMUM U-VALUE		
WINDOWS		.32
OPAQUE DOORS		.20
GLASS DOORS		.35
SKYLIGHT		.55
GLAZED FENESTRATION SHGC		.40
BULDING COMPONENT MINIMUM R-VALUE		
CEILING		
	WITH ATTIC	49
	CATHEDRAL	30
WALL		
	EXTERIOR (CAVITY or CAVITY / CONTINUOUS)	20 or 13 + 5
	BASEMENT (CAVITY or EXTERIOR)	13 or 10
	CRAWL SPACE	10 / 13
FLOORS		
	SLABS FOR 2' DEPTH ON FOUNDATION)	10
	TRENCH FOOTINGS - HEATED SLAB	15
	TRENCH FOOTINGS	10
	OVER UNHEATED SPACES	19
	OVER OUTSIDE AIR	30
DUCTS IN UNHEATED SPACES - SUPPLY AND RETURN		8
DUCTS IN UNHEATED SPACES - IN FLOOR AND CEILING ASSEMBLY		6
HOT WATER SYSTEM PIPING		3
FURNACE (AFUE)		80% MINIMUM
AIR CONDITIONING (SEER)		13 MINIMUM

CODE COMPLIANCE

A. BUILDING CONSTRUCTION: REGARDLESS OF WHAT IS SHOWN ON THE PLANS, THE BUILDING SHALL COMPLY WITH THE 2018 INTERNATIONAL RESIDENTIAL CODE AND ANY OTHER CITY REQUIREMENTS.

B. FOUNDATION WALLS ARE DESIGNED TO COMPLY WITH THE JOHNSON COUNTY FOUNDATION GUIDELINES.

C. BUILDING DESIGNED FOR SEVERE CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA OF WEATHERING CONDITIONS, MODERATE TO SEVERE TERMITE CONDITIONS, MODERATE DECAY CONDITIONS, 6 DEGREES FAHRENHEIT AND 5,333 HEATING DEGREE DAYS WINTER DESIGN TEMPERATURE CONDITIONS, 36 INCHES FROST LINE DEPTH CONDITIONS AND FLOOD HAZARDS BASED UPON THE LATEST ADOPTED F.I.R.M. AND F.B.F.M. DOCUMENTS IN ACCORDANCE WITH L.B.C. ARTICLE 4-905.

GENERAL NOTES

A. GLASS: PROVIDE SAFETY GLAZING WHERE REQUIRED BY IRC R308 AND IN THE FOLLOWING LOCATIONS: 1. STORM DOORS, 2. INDIVIDUAL FIXED OR OPERABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 24" ARC OF THE DOOR IN A CLOSED POSITION AND WHOSE BOTTOM EDGE IS WITHIN 60" OF THE FLOOR, 3. WALLS ENCLOSING STAIRWAYS AND LANDINGS WHERE THE GLAZING IS WITHIN 60" OF THE TOP OR BOTTOM OF THE STAIR, 4. ENCLOSURES FOR HOT TUBS, SAUNAS, STEAM ROOMS, SPAS, BATH TUBS, SHOWERS AND WHIRLPOOLS, 5. FIXED OR OPERABLE PANELS EXCEEDING 9 SQUARE FOOT AND WHOSE BOTTOM EDGE IS LESS THAN 18" ABOVE THE FLOOR AND WALKING SURFACE WITHIN 36"

B. EXTERIOR WINDOWS AND DOORS SHALL BE DESIGNED TO RESIST WIND LOADS SPECIFIED IN IRC TABLE R301.2(4)A. EXTERIOR OVERHEAD DOORS SHALL MEET D.A.S.M.A. 115 MPH REQUIREMENTS.

C. BEDROOM EGRESS: AT LEAST ONE WINDOW FROM EACH BEDROOM AND FROM THE BASEMENT SHALL HAVE AN OPERABLE AREA OF 5.7 SQUARE FEET WITH A MINIMUM OPERABLE HEIGHT OF 24" AND A WIDTH OF 21" AND WITH THE BOTTOM OF THE OPERABLE PORTION NO MORE THAN 44" A.F.F. WINDOWS WHOSE SILL IS 72" OR MORE ABOVE FINISHED GRADE AND WHOSE SILL IS LESS THAN 24" ABOVE FINISHED FLOOR SHALL HAVE WINDOW GUARDS OR OPENING CONTROL DEVICES WHICH RESTRICT A 4" SPHERE FROM PASSING THRU.

D. STAIRWAYS: MAXIMUM RISE 7¾", MINIMUM RUN 10", MINIMUM HEADROOM 6'-8", MINIMUM WIDTH 36". HANDRAILS ARE REQUIRED WHEN STAIRS HAVE 4 OR MORE RISERS. HANDRAIL TO HAVE ENDS RETURNED OR TERMINATED IN A NEWEL POST OR SAFETY TERMINAL AND PLACED MINIMUM 34", MAXIMUM 38" ABOVE TREAD NOSING. THE HAND GRIP PORTION OF HANDRAIL SHALL BE NOT LESS THAN 1-1/4" NOR MORE THAN 2 5/8" IN CROSS SECTION DIMENSION. HANDRAILS PROJECTING FROM A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1-1/2" BETWEEN THE WALL AND THE HANDRAIL. INSTALL FIRE BLOCKING AT TOP AND BOTTOM OF STAIR RUN. THE CEILING AND WALLS OF USEABLE SPACE UNDER STAIRS SHALL BE SURFACED WITH 1/2" GYPSUM BOARD, TAPED AND FINISHED.

E. GUARDRAILS: ALL UNENCLOSED FLOOR AREAS, STAIRS AND EXTERIOR DECKS OVER 30" ABOVE GRADE SHALL HAVE 36" HIGH GUARDRAILS WITH A MAXIMUM OPENING OF 4" BETWEEN BALLUSTERS. BALLUSTERS SHALL NOT CREATE A LADDER.

F. DOOR BETWEEN THE GARAGE AND DWELLING SHALL BE 1 3/8" THICK SOLID WOOD, 1 3/8" THICK MINIMUM SOLID CORE OR HONEY COMBED STEEL DOOR OR 20-MINUTE FIRE RATED, EQUIPPED WITH AUTOMATIC OR SELF-CLOSING DEVICE.

G. ATTACHED GARAGE: WALLS AND CEILING TO BE NOT LESS THAN 1/2" GYPSUM BOARD. CEILINGS AND BEAMS WITHIN THE GARAGE WILL BE COVERED WITH 5/8" TYPE "X" GYPSUM BOARD, IF SPACE ABOVE GARAGE IS LIVING SPACE.

H. BUILDER TO PROVIDE DECK OR LANDING PRIOR TO OWNER OCCUPANCY.

J. CRAWL SPACE: THE MINIMUM NET AREA OF VENTILATION OPENINGS WILL NOT BE LESS THAN 1 SQUARE FOOT FOR EACH 150 SQUARE FEET OF UNDER-FLOOR AREA. ONE SUCH VENTILATING OPENING WILL BE WITHIN 3 FEET OF EACH CORNER. AN 18"x24" MINIMUM ACCESS OPENING SHALL BE PROVIDED TO CRAWL SPACE.

K. ALL EXTERIOR DOORS, INCLUDING THE DOOR BETWEEN THE GARAGE AND THE HOUSE, SHALL INCORPORATE THE PHYSICAL SECURITY PROVISIONS OF SECTION MUNICIPAL CODE OF THE CITY IN WHICH THIS PROJECT IS LOCATED.

MECHANICAL, ELECTRICAL NOTES

A. SMOKE DETECTORS: INSTALL ONE IN EACH BEDROOM, OUTSIDE OF EACH BEDROOM AREA, AT LEAST ONE ON EACH STORY INCLUDING THE BASEMENT. ALL ALARMS ARE TO BE INTERCONNECTED SO THAT ACTIVATING ONE ALARM ACTIVATES THEM ALL.

B. CARBON MONOXIDE ALARMS: IN DWELLING UNITS USING FUEL-FIRED APPLIANCES OR IN DWELLING UNITS WITH ATTACHED GARAGES, INSTALL CARBON MONOXIDE ALARMS OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS .

C. GROUND FAULT CIRCUIT INTERRUPTER PROTECTION (GFCI) SHALL BE INSTALLED IN RECEPACLES IN BATHROOMS, KITCHENS, GARAGES, UNFINISHED BASEMENTS, OUTDOORS, CRAWL SPACES, AND WITHIN 6' OF ANY SINK. BATHROOM RECEPTACLES REQUIRE SEPARATE 20-AMP CIRCUIT. PROVIDE ARC-FAULT CIRCUIT INTERRUPTERS AS REQUIRED BY IRC E3902.12 OR AS REQUIRED BY MUNICIPALITY.

D. FIREPLACE: FACTORY-BUILT FIREPLACE WILL BE EQUIPPED WITH LISTED COMPONENT FOR OUTSIDE COMBUSTION AIR PER IRC 1005 AND SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS

E. ALL BATHROOMS TO RECEIVE EXHAUST FANS-- 50 CFM DIRECTLY TO OUTSIDE. POINT OF DISCHARGE MIN. 3' FROM ANY OPENING.

MECHANICAL, ELECTRICAL NOTES CONT.

F. HEAT PUMP THERMOSTATS MUST PREVENT BACK-UP ELECTRIC RESISTANCE HEAT WHEN THE HEAT PUMP CAN MEET THE LOAD.

G. DUCT SEALING MUST MEET THE REQUIREMENTS OF M 1601.3.1

H. ELECTRICAL CONDUCTORS SHALL BE COPPER AND THE PANEL BOX SHOULD BE 200 AMP

I. ANY DUCT PENETRATIONS OF THE WALLS OR CEILING SEPERATING THE DWELLING FROM THE GARAGE SHALL BE CONSTRUCTED OF 26 GAUGE SHEET METAL WITH NO OPENINGS IN THE GARAGE.

CONCRETE NOTES

A. CONCRETE: ALL CONCRETE SHALL BE 5-7% AIR-ENTRAINED AND HAVE A MINIMUM COMPRESSIVE STRENGTH AS LISTED BELOW AT 28 DAYS:
1. BASEMENT AND INTERIOR FLOOR SLABS: 3,000 PSI (2,500 IN LENEXA)
2. BASEMENT AND FOUNDATION WALLS: 3,000 PSI
3. PORCHES, CARPORT AND GARAGE FLOOR SLABS: 3,500 PSI

B. REINFORCING SHALL BE GRADE 40. SPLICES SHALL LAP 24" MIN. UNLESS NOTED OTHERWISE.

C. FOOTINGS: FOOTINGS SHALL BEAR ON UNDISTURBED SOIL AND EXTEND A MINIMUM OF 36" BELOW FINISHED GRADE. FOOTINGS UNDER FOUNDATION WALLS SHALL HAVE A MINIMUM WIDTH OF 16" AND A MINIMUM DEPTH OF 8" AND SHALL HAVE 2 #4 BARS CONTINUOUS. TRENCH FOOTINGS SUPPORTING MORE THAN ONE FLOOR SHALL BE A MINIMUM OF 16" WIDE. FOOTINGS SHALL BE CONTINUOUS AROUND THE STRUCTURE AND FROM ONE LEVEL TO THE NEXT. MAXIMUM HORIZONTAL JUMPS FOR FOOTINGS SHALL BE 1'.

D. WALLS: HORIZONTAL BARS SHALL BE PLACED WITH THE TOP BAR WITHIN 8 INCHES OF THE TOP OF THE WALL AND OTHER BARS EQUALLY SPACED. BARS SHALL LAP A MINIMUM 18 INCHES AT ENDS, SPLICES AND AROUND CORNERS, REINFORCEMENT SHALL BE CONTINUOUS AROUND WINDOWS, DOORS AND OTHER OPENINGS WITH SPLICES AS NOTED ABOVE TO MINIMIZE CRACKING AT CORNERS OF THE OPENINGS. BARS SHALL BE PLACED 2" FROM THE INSIDE FACE OF THE WALL.

E. DAMPPROOFING: DAMPPROOFING REQUIRED FOR WALLS ENCLOSING BASEMENTS OR OTHER HABITABLE SPACE. A MINIMUM OF ONE COAT OF DAMPPROOFING SHALL BE APPLIED TO EXTERIOR WALL SURFACES BELOW GRADE. SEAL TIE HOLES, VOIDS AND HONEYCOMBED AREAS WITH SEALANT BEFORE DAMPPROOFING.

F. WATERPROOFING: WATERPROOFING REQUIRED IN LIEU OF DAMPPROOFING WHERE A HIGH WATER TABLE OR OTHER SEVERE WATER CONDITIONS EXIST.

G. DRAIN TILE: INSTALL CONTINUOUS 4" DRAIN TILE AROUND THE PERIMETER OF ALL FOUNDATIONS ENCLOSING HABITABLE SPACES LOCATED BELOW GRADE. INSTALL VERTICAL DRAINS TO THE PERIMETER DRAIN TILE AT ALL WINDOW WELLS. SET DRAIN TILE ON A 2" DEEP BY 12" WIDE GRAVEL BED AND COVER TILE WITH AT LEAST 6" OF COARSE, CLEAN ROCK AND A FILTER MEMBRANE MATERIAL. CONNECT THE DRAINS TO A 20-GALLON SUMP PIT OR DRAIN BY GRAVITY TO AN OUTLET WELL AWAY FROM THE HOUSE.

H. FOUNDATION ANCHORAGE: BASEMENT FOUNDATION SILL PLATES SHALL BE BOLTED TO THE FOUNDATION WITH 1/2" ANCHOR BOLTS EMBEDDED AT LEAST 7 INCHES INTO THE CONCRETE AND SPACED NOT MORE THAN 3 FEET ON CENTER AND WITHIN 12 INCHES OF THE END OF EACH PIECE.

I. BEAM POCKETS: RECESSED 4" INTO THE WALL. THE DEPTH AND WIDTH SHALL BE SIZED TO ACCOMMODATE THE DESIGNATED BEAM.

J. FLOOR SLABS: BASEMENT FLOOR SLABS SHALL BE A MINIMUM 4 INCHES THICK AND PLACED ON A 4-INCH GRAVEL BASE. THE BASEMENT FLOOR SHALL BE ISOLATED FROM COLUMN PADS, INTERIOR COLUMNS AND INTERIOR BEARING WALLS. INTERIOR COLUMNS AND BEARING WALLS SHALL BE SUPPORTED ON A SEPARATE INTERIOR FOOTING (NOT ON TOP OF THE FLOOR SLAB). THE GARAGE FLOOR SHALL SLOPE TOWARDS THE GARAGE DOORWAYS OR SLOPE TO A TRENCH OR UN-TRAPPED DRAIN THAT DISCHARGES DIRECTLY TO THE EXTERIOR ABOVE GRADE. OPTIONAL (EXCEPT IN LEAWOOD) 6 MIL. POLY VAPOR BARRIER SHOULD BE INSTALLED UNDER THE FLOOR SLAB.

GENERAL FRAMING NOTES

A. LUMBER: LUMBER IS #2 OR BETTER DOUGLAS FIR LARCH, EXCEPT FOR DECAY RESISTANT LUMBER WHICH IS SOUTHERN YELLOW PINE #2.

B. ALL EXTERIOR FRAMING LUMBER OR LUMBER IN CONTACT WITH CONCRETE OR MASONRY SHALL BE DECAY RESISTANT

C. L.V.L. HEADERS & BEAMS ARE TO HAVE A MIN. MODULUS OF ELASTICITY OF 1.9 x 10 PSI.

D. FLOOR, CEILING AND ROOF OPENINGS: TRIMMER JOISTS SHALL BE DOUBLED WHEN THE HEADER IS SUPPORTED MORE THAN 3 FEET FROM THE TRIMMER JOIST BEARING. TRIMMER AND HEADER JOISTS SHALL BE DOUBLED WHEN THE SPAN OF THE HEADER EXCEEDS 4 FEET. THE ENDS OF HEADER RAFTERS MORE THAN 6 FEET LONG SHALL BE SUPPORTED BY FRAMING ANCHORS OR RAFTER HANGERS UNLESS BEARING ON A BEAM, PARTITION OR WALL.

E. FRAMING AROUND OPENINGS: TRIMMER AND HEADER JOISTS SHALL BE DOUBLED WHEN THE SPAN OF THE HEADER EXCEEDS 4' THE ENDS OF HEADER JOISTS MORE THAN 6 FEET LONG SHALL BE SUPPORTED BY FRAMING ANCHORS OR JOIST HANGERS UNLESS BEARING ON A BEAM, PARTITION, OR WALL.

FRAMING NOTES- FLOORS

A. BEARING: THE ENDS OF EACH JOIST SHALL NOT HAVE LESS THAN 1-1/2 INCHES OF BEARING ON WOOD OR METAL. JOISTS FRAMING INTO BEAMS SHALL BE SUPPORTED BY METAL JOIST HANGERS. JOIST FRAMING FROM OPPOSITE SIDES OF A BEAM, GIRDER OR PARTITION SHALL BE LAPPED AT LEAST 3 INCHES OR STRAPPED TOGETHER. JOISTS UNDER AND PARALLEL TO BEARING PARTITIONS SHALL BE DOUBLED.

B. LATERAL SUPPORT: JOISTS AT SUPPORTS SHALL BE SUPPORTED LATERALLY AT THE ENDS BY FULL-DEPTH SOLID BLOCKING NOT LESS THAN 2" NOMINAL THICKNESS OR BY ATTACHMENT TO A HEADER, BAND OR RIM JOIST OR TO AN ADJOINING STUD OR OTHERWISE PROVIDED WITH LATERAL SUPPORT TO PREVENT ROTATION. WHERE JOISTS ARE PERPENDICULAR TO BRACED WALL LINES, PROVIDE BLOCKING UNDER AND IN-LINE WITH THE BRACED WALL PANEL.

C. DECKING TO BE ¾" (MIN.) PLYWOOD OR ORIENTED STRAND BOARD INSTALLED PERPENDICULAR TO JOISTS.

D. TOP OF WALL SUPPORT CONNECTIONS: WHERE JOISTS RUN PARALLEL TO FOUNDATION WALLS, SOLID BLOCKING FOR A MINIMUM OF 2 JOIST SPACES SHALL BE PROVIDED AT A MAXIMUM OF 4 FEET CENTERS, AND SHALL BE SECURELY NAILED TO THE JOISTS AND FLOORING. IF DUCTS ARE INSTALLED IN THE FIRST JOIST SPACE(S), NAIL 2 BY 4'S FLAT AT 4-FOOT CENTERS WITHIN THE JOIST SPACE(S) AND THEN PROVIDE THE SOLID BLOCKING. SECURE EACH 2 BY 4 TO THE SILL PLATE WITH FOUR 10D NAILS.

E. "I" JOISTS (IF USED) SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS.

F. PROVIDE BLOCKING OR BRIDGING AT CANTILEVERS.

G. PROVIDE 1/2" DRYWALL ON CEILING OF UNFINISHED SPACES FOR FLOOR FRAMING USING "I" JOISTS OR TRUSSES.

FRAMING NOTES - WALLS

A. SIZE, HEIGHT AND SPACING: UNLESS OTHERWISE NOTED, STUDS SHALL BE 2x4 DF#2's SPACED AT 16" O.C.

FOR EXTERIOR WALLS SUPPORTING A ROOF ONLY, 2 x 6 STUDS SPACED 16" O.C SHOULD BE USED FOR ALL WALLS 14' TO 18' TALL AND 2 x 6 STUDS SPACED 12" O.C SHOULD BE USED FOR WALLS 18' TO 20' TALL.

FOR WALLS SUPPORTING A ROOF AND A FLOOR 2 x 6 STUDS SPACED 16" O.C SHOULD BE USED FOR WALLS 12' TO 18' TALL

STUDS SHALL BE CONTINUOUS FROM SOLE PLATE TO TOP PLATE OR CEILING DIAPHRAGM, EXCEPT FOR JACK STUDS,TRIMMER OR CRIPLE STUDS.

B. ANGLES: ANGLED WALLS ARE ASSUMED TO BE 45° UNLESS OTHERWISE NOTED.

C. FRAMING DETAILS: BEARING AND EXTERIOR WALL STUDS SHALL BE CAPPED WITH DOUBLE TOP PLATES INSTALLED TO PROVIDE OVER-LAPPING AT CORNERS AND AT INTERSECTIONS WITH OTHER PARTITIONS. END JOINTS IN DOUBLE TOP PLATES SHALL BE OFFSET AT LEAST 48 INCHES.

D. OPENINGS: UNLESS OTHERWISE NOTED, ALL HEADERS ARE TO BE TYPE "A" PER THE HEADER SCHEDULE. EACH END OF A HEADER SHALL HAVE A BEARING LENGTH OF NOT LESS THAN 1-1/2 INCHES FOR THE FULL WIDTH OF THE LINTEL. PROVIDE SOLID BLOCKING BELOW ALL STUDS SUPPORTING HEADERS AND BEAMS.

- UNLESS OTHERWISE DIMENSIONED, INTERIOR DOORS AND CASED OPENINGS ARE TO BE CENTERED IN THE WALL OR 3" FROM CORNERS AS INDICATED ON THE DRAWINGS.

E. FIRE BLOCKING OF NON-COMBUSTIBLE MATERIAL SHALL BE PROVIDED IN OPENINGS AROUND VENTS, PIPES, DUCTS, CHIMNEYS, FIREPLACES, AND LAUNDRY CHUTES AT CEILING AND FLOOR LEVEL.

F. CRIPPLE WALLS: FOUNDATION CRIPPLE WALLS SHALL BE FRAMED WITH 2 X 4 STUDS WITH A MINIMUM LENGTH OF 14" OR SHALL BE FRAMED OF SOLID BLOCKING. WHEN EXCEEDING 4' IN HEIGHT ON 2 STORY STRUCTURES, WALLS SHALL BE 2 X 6 STUDS AT 16" O.C.

G. BASEMENT NONBEARING WALLS: NON-LOAD BEARING STUD WALLS EXTENDING FROM THE FLOOR SLAB TO THE STRUCTURE ABOVE SHALL BE PROVIDED WITH A MINIMUM 1-INCH EXPANSION JOINT.

H. GARAGE DOORS AND FRAMES SHALL BE DESIGNED AND INSTALLED TO MEET A 115 mph WIND LOAD. THE H-FRAME FOR ATTACHMENT OF TRACK AND COUNTER BALANCE SHALL CONSIST OF THE FOLLOWING: 2x6 VERTICAL JAMBS RUNNING FROM FLOOR TO CEILING ATTACHES WITH 3-1/4"x120 NAILS @ 7" O.C. STAGGERED WITH 7) 3-1/4"x120 NAILS THRU JAMB INTO HEADER, MINIMUM 2x8 HEADER FOR ATTACHMENT OF COUNTER BALANCE SYSTEM.

FRAMING NOTES- DECKS

A. FOR DECK LEDGER ATTACHMENT AND DECK CONSTRUCTION REFER TO IRC SECTION 507.

FRAMING NOTES- CEILING

A. BLOCKING: ROOF RAFTERS AND CEILING JOISTS SHALL BE SUPPORTED LATERALLY TO PREVENT ROTATION AND LATERAL DISPLACEMENT.

B. JOISTS FRAMING INTO BEAMS SHALL BE SUPPORTED BY METAL JOIST HANGERS.

FRAMING NOTES- ROOF

A. FRAMING: RAFTERS SHALL BE FRAMED DIRECTLY OPPOSITE EACH OTHER AT THE RIDGE. THERE SHALL BE A RIDGE BOARD AT LEAST 1-INCH NOMINAL THICKNESS AT ALL RIDGES AND NOT LESS IN DEPTH THAN THE CUT END OF THE RAFTER. AT ALL VALLEYS AND HIPS THERE SHALL BE A SINGLE VALLEY OR HIP RAFTER NOT LESS THAN 2-INCH NOMINAL THICKNESS AND NOT LESS IN DEPTH THAN THE CUT END OF THE RAFTER.

B. BRACING: ALL PURLINS AND HIPS, RIDGES, AND VALLEYS SHOWN TO BE SUPPORTED SHALL BE BRACED WITH A STRUT DOWN TO A BEARING WALL (WALLS LOCATED DIRECTLY ABOVE A BEAM LINE OR CONTINUOUS FOOTING). THE MINIMUM SLOPE OF THE STRUTS SHALL NOT BE LESS THAN 45° FROM THE HORIZONTAL.

C. RAFTER TIES: RAFTERS SHALL BE NAILED TO ADJACENT CEILING JOISTS TO FORM A CONTINUOUS TIE BETWEEN EXTERIOR WALLS WHEN SUCH JOISTS ARE PARALLEL TO THE RAFTERS. WHERE NOT PARALLEL, RAFTERS SHALL BE TIED TO 2"x4" MINIMUM CROSSTIES AT EACH RAFTER AND LOCATED AS CLOSE TO THE CEILING JOISTS AS POSSIBLE (RE: DETAIL 3 & 4/G3).

D. RAFTER COLLAR TIES: PROVIDE 1x4 MIN. COLLAR TIES AT 48" O.C. (RE: DETAIL 3 & 4/G3). AT CATHEDRAL CEILINGS PROVIDE RIDGE STRAPS.

E. VAULTED CEILINGS: FOR RAFTERS SMALLER THAN A 2 x 10, FURRING MUST BE ADDED TO THE BOTTOM OF THE RAFTER TO OBTAIN A 9 1/4" MINIMUM DEPTH.

F. FLASH AND COUNTERFLASH ROOF RIDGES AND VALLEYS, ROOF PENETRATIONS, CHANGES IN ROOF PITCHES, RAKES, CHIMNEY BASES, WINDOW AND DOOR HEADS, ETC. TO PROVIDE WATER TIGHT CLOSURES. ALL EXPOSED FLASHING TO BE 26 GAUGE ALUMINUM. COUNTERFLASHING SHALL BE FABRICATED FROM 40# TERNE METAL.

G. ATTIC VENTILATION: THE NET FREE VENTILATION AREA SHALL BE NOT LESS THAN 1/150 OF THE AREA OF THE SPACE VENTILATED, EXCEPT THAT THE AREA MAY BE 1/300, PROVIDED AT LEAST 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATOR LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED, AT LEAST 3 FEET ABOVE EAVES OR CORNICE VENTS, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. RAFTERS SPACES ENCLOSED BY CEILINGS DIRECTLY APPLIED TO UNDERSIDE OF RAFTERS SHALL BE SIZED TO ALLOW A MINIMUM 1 INCH CLEAR VENTED AIR SPACE ABOVE THE INSULATION AND EACH SPACE BETWEEN JOISTS SHALL BE VENTED.

H. ROOF SHEATHING: SHALL BE INSTALLED PERPENDICULAR TO THE ROOF JOISTS AND THE ENDS SHALL BE STAGGERED.

PREFABRICATED WOOD TRUSSES (IF USED)

A. ROOF AND FLOOR TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH TRUSS PLATE INSTITUTE (TPI) DESIGN SPECIFICATION FOR METAL PLATE CONNECTED WOOD TRUSSES AND THE NATIONAL DESIGN SPECIFICATION FOR ANSI/NFOPA WOOD CONSTRUCTION. PROVIDE TEMPORARY AND PERMANENT BRACING ON ALL TRUSSES, AS REQUIRED TO PROVIDE MEMBER AND TRUSS STABILITY.

B. ROOF TRUSSES SHALL BE DESIGNED AND CONSTRUCTED FOR A MAXIMUM TOTAL LOAD DEFLECTION OF L/240, AND TO SAFELY SUPPORT THE FOLLOWING LOADS:
1. TOP CHORD:
a. LIVE LOAD .... SEE GENERAL NOTES
b. DEAD LOAD .... 15 PSF
2. BOTTOM CHORD:
a. LIVE LOAD ... ... 10 PSF
b. DEAD LOAD .. .. 10 PSF
3. WIND LOADS IN ACCORDANCE WITH THE APPROPRIATE BUILDING CODE. GABLED END TRUSSES SHALL HAVE VERTICAL MEMBERS SPACED AT 16" ON CENTER MAXIMUM.
4. TRUSSES SHALL ALSO BE DESIGNED TO SUPPORT ADDITIONAL OVERBUILD FRAMING TO FORM VALLEYS AND HIPS ON ROOFS.
5. TRUSSES SHALL BE DESIGNED TO SUPPORT DRIFTED SNOW LOADS IN ACCORDANCE WITH THE APPROPRIATE BUILDING CODE.
6. TRUSSES SHALL BE ATTACHED TO WALL ASSEMBLIES BY CONNECTIONS CAPABLE OF RESISTING UPLIFT FORCES AS SPECIFIED ON THE TRUSS DESIGN DRAWINGS PER IRC TABLE R802.11.

ENERGY REQUIREMENTS

A. THE BUILDING THERMAL ENEVELOPE IS REQUIRED TO BE SEALED (IRC N1102.4.1)

B. RECESSED LIGHTING SHALL BE SEALED TO PREVENT LEAKAGE BETWEEN CONDITIONED AND UNCONDITIONED SPACES

C. DUCTS, AIR HANDLERS, FILTER BOXES AND BUILDING CAVITIES USED AS DUCTS SHALL BE SEALED (IRC SECTION N1103.2)

D. PENETRATIONS IN AIR BARRIERS (HOUSE WRAP) SHALL BE TAPED AND SEALED AS REQUIRED BY AIR BARRIER MANUFACTURER, WINDOW/ DOOR MANUFACTURER AND ENERGY CODE.

FASTENING SCHEDULE

CONNECTION	NAILS	LOCATION
JOIST TO SILL OR GIRDER	3-8d 3 - 3" x Ø.131"	TOENAIL
BRIDGING TO JOIST	2-8d 2 - 3" x Ø.131"	TOENAIL
SOLE PLATE TO JOIST OR BLOCKING	16d at 16" o.c. 3-3" x Ø.131 at 8" o.c.	FACE NAIL
SOLE PLATE TO JOIST / BLOCKING AT BRACED WALL PANELS	3-16d at 16" o.c. 4 -3" x Ø.131 at 16" o.c.	FACE NAIL
TOP PLATE TO STUD	2-16d 3 - 3" x Ø.131"	END NAIL
STUD TO SOLE PLATE	4-8d 4 - 3" x Ø.131"	TOENAIL
	2-16d 3 - 3" x Ø.131"	FACE NAIL
DOUBLE STUDS	16d at 24" o.c. 3" x Ø.131 at 8" o.c.	FACE NAIL
DOUBLE TOP PLATES	16d at 24" o.c. 3" x Ø.131 at 12" o.c.	FACE NAIL
	8-16d 12-3" x Ø.131	LAP SPLICE
BLOCKING BETWEEN JOISTS AND RAFTERS TO TOP PLATE	3-8d 3-3" x Ø.131 at 12" o.c.	TOENAIL
RIM JOIST TO TOP PLATE	8d at 6" o.c. 3" x Ø.131 at 6" o.c.	TOENAIL
TOP PLATE, LAPS AND INTERSECTIONS	2 - 16d 3 - 3" x Ø.131"	FACE NAIL
CONTINUOUS HEADER, 2 PIECES.	16d at 16" o.c. 3" x Ø.131 at 12" o.c.	FACE NAIL
CEILING JOISTS TO TOP PLATE	3-8d 5 - 3" x Ø.131	TOENAIL
CONTINUOUS HEADER TO STUD	4-8d 6 - 3" x Ø.131	TOENAIL
CEILING JOISTS, LAPS OVER PARTITIONS	3-16d 4 - 3" x Ø.131	FACE NAIL
CEILING JOISTS TO PARALLEL RAFTERS/ RAFTER TIES TO RAFTERS	RE: IRC TABLE R802.5.1 (9)	FACE NAIL
RAFTER TO PLATE	3-8d 3 - 3" x Ø.131"	TOENAIL
1" DIAGONAL BRACE TO EACH STUD AND PLATE	2-8d 2 - 3" x Ø.131"	FACE NAIL
BUILT UP CORNER STUDS	16d at 24" o.c. 3" x Ø.131" at 16" o.c.	FACE NAIL
BUILT UP BEAMS, STAGGER NAILS ON OPPOSITE SIDES	20d at 32" o.c. 3" x Ø.131" at 24" o.c.	FACE NAIL
BUILT UP BEAMS AT ENDS AND SPLICES	2-20d 3 - 3" x Ø.131"	FACE NAIL
COLLAR TIE TO RAFTER	3-10d 4 - 3" x Ø.131"	FACE NAIL
JACK RAFTER TO HIP	3-10d 4 - 3" x Ø.131"	TOE NAIL
	2-16d 3 - 3" x Ø.131"	FACE NAIL
ROOF RAFTER TO 2 x RIDGE BEAM	2-16d 3 - 3" x Ø.131"	TOE NAIL & FACE NAIL
JOIST TO BAND JOIST	3-16d 4 - 3" x Ø.131"	FACE NAIL
LEDGER STRIP	3-16d 4 - 3" x Ø.131"	FACE NAIL
3/4" OR LESS WOOD STRUCTURAL PANEL WALL, SUBFLOOR, & ROOF SHEATHING	6d at 12" o.c.	INTERMEDIATE
	6d at 6" o.c.	EDGES
	2 3/8" x Ø.113 AT 8" o.c.	INTERMEDIATE
	2 3/8" x Ø.113 AT 4" o.c.	EDGES
7/8" TO 1" WOOD STRUCTURAL PANEL WALL, SUBFLOOR, & ROOF SHEATHING	10d at 12" o.c.	INTERMEDIATE
	8d at 6" o.c.	EDGES
	2 1/2" x Ø.131 AT 8" o.c.	INTERMEDIATE
	2 3/8" x Ø.131 AT 4" o.c.	EDGES
1 1/8" TO 1 1/4" WOOD STRUCTURAL PANEL WALL, SUBFLOOR, & ROOF SHEATHING	8d at 12" o.c.	INTERMEDIATE
	10d at 6" o.c.	EDGES
	3" x Ø.148 AT 8" o.c.	INTERMEDIATE
	3" x Ø.148 AT 4" o.c.	EDGES
HARDBOARD SIDING	8d at 6" o.c.	INTERMEDIATE
	8d at 12" o.c.	EDGES
1/2" GYPSUM SHEATHING	6d at 8" o.c.	INTERMEDIATE
	6d at 4" o.c.	EDGES
5/8" GYPSUM SHEATHING	8d at 8" o.c.	INTERMEDIATE
	8d at 4" o.c.	EDGES
WOOD I JOISTS AT EACH END AND BEARING POINT	8d each side	FACE NAIL

NOTE:
1. ON ½" GYPSUM SHEATHING, 1¼" TYPE W OR S SCREWS MAY BE USED IN LIEU OF NAILS. ON ⅝" SHEATHING, THE SCREWS ARE TO BE 1 ⅝" LONG. THE SPACING IS THE SAME AS THE NAILS.

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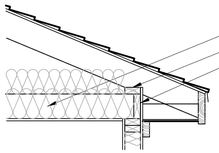
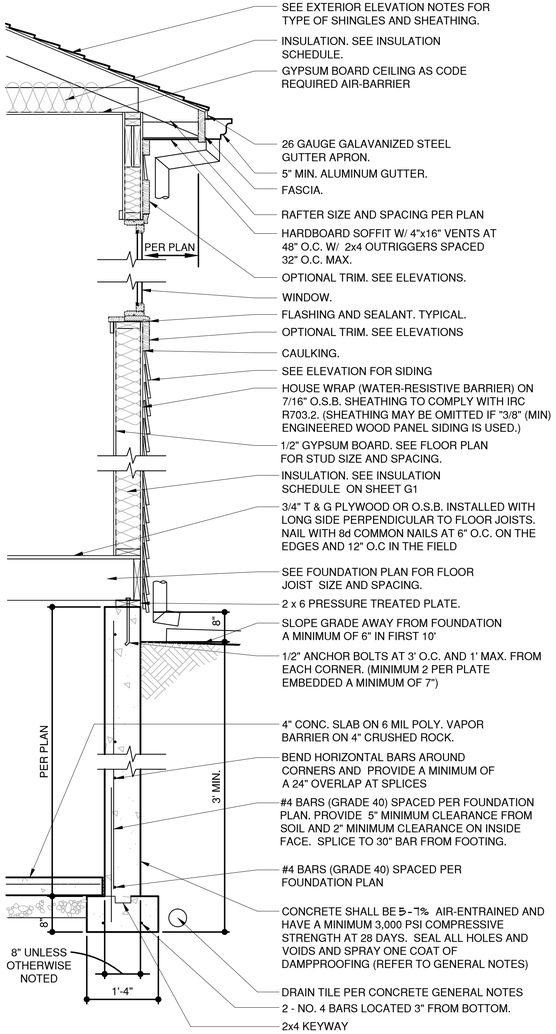
STATE OF MISSOURI
DANIEL J. WEBSTER
NUMBER A-5400
REGISTERED ARCHITECT
11/1/2021

DRAWN BY: MP, TC
DATE: 10-26-21
PROJECT NO: 15-016-06

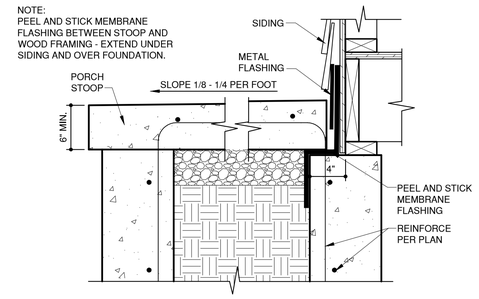
SHEET NO. G1



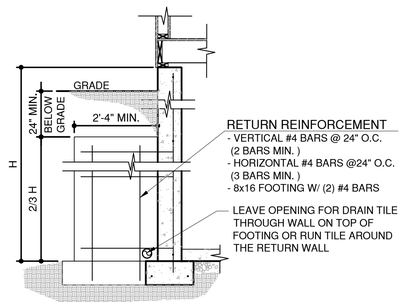
ALTERNATE ENERGY CONDITION
(AS REQUIRED BY CITY)



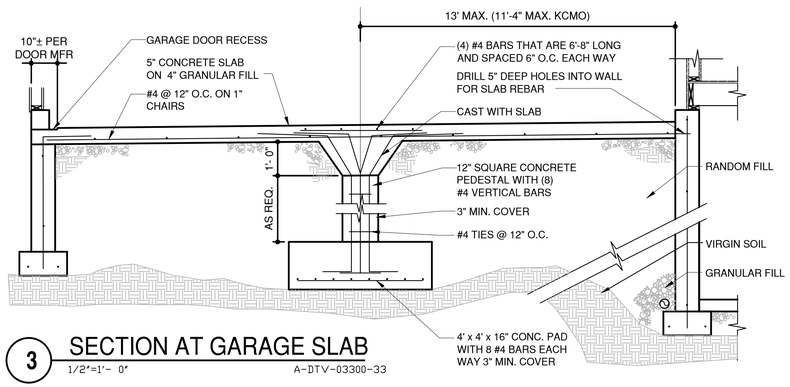
1 WALL SECTION
3/4"=1'- 0" A-DTW-06062-19



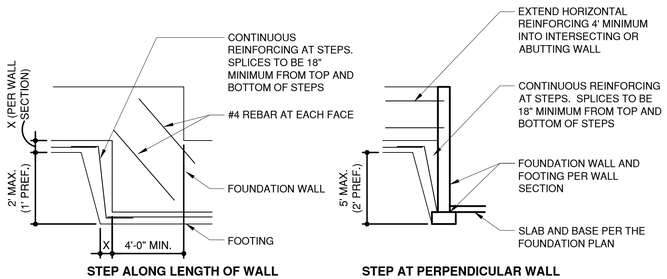
4 STOOP DETAIL
1 1/2"=1'-0" A-DTV-03300-35B



8 RETURN WALL DETAIL
1/2"=1'- 0" A-DTV-03300-34



3 SECTION AT GARAGE SLAB
1/2"=1'- 0" A-DTV-03300-33



2 ELEVATION AT FOUNDATION STEP
1/4"=1'-0" A-DTE-03300-01

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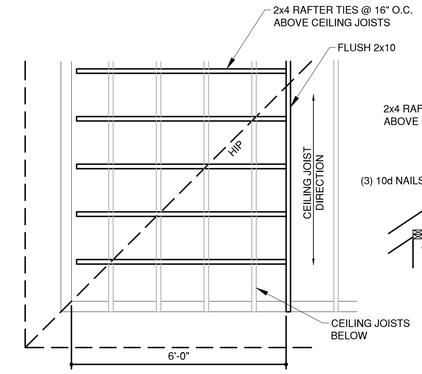
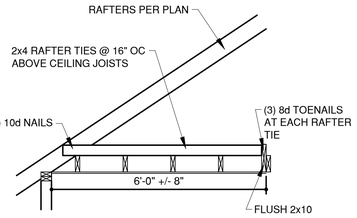
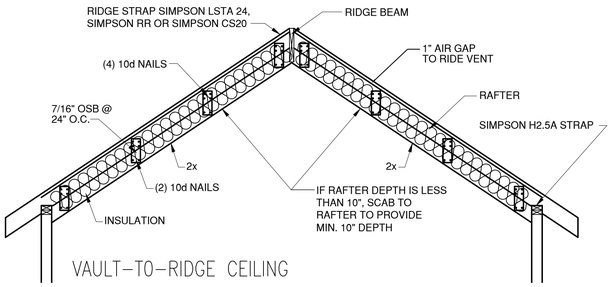
G2

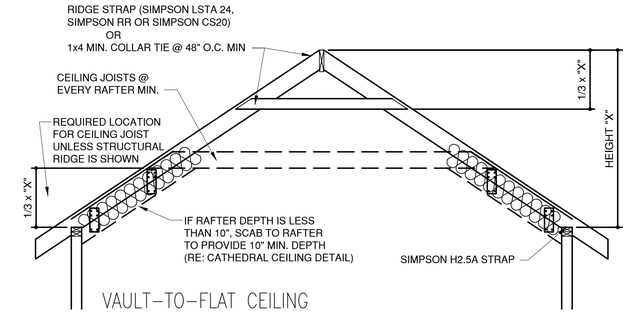




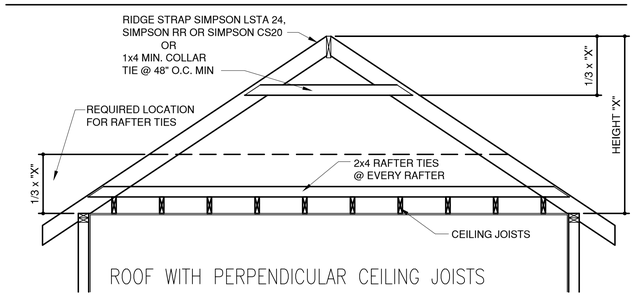
4 ROOF W/ PERPENDICULAR CEILING JOISTS
1/2"=1'-0" A-DTV-06100-09



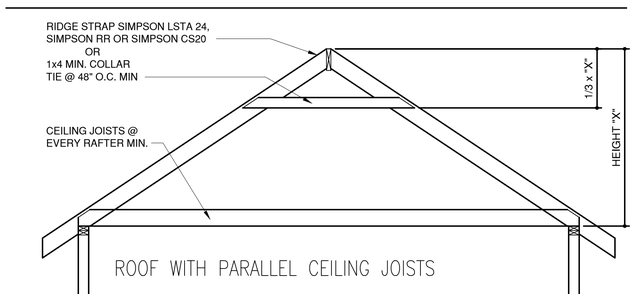
VAULT-TO-RIDGE CEILING



VAULT-TO-FLAT CEILING



ROOF WITH PERPENDICULAR CEILING JOISTS



ROOF WITH PARALLEL CEILING JOISTS

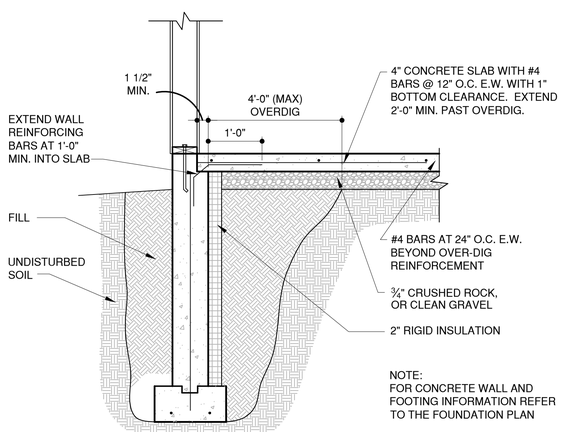
3 ROOF FRAMING DETAIL
1/2"=1'-0" A-DTV-06100-04

NOTE:
ROOF FRAMING TO COMPLY WITH SECTIONS R802, R802.3, R802.3.1 AND R802.11

CONDITION 1

CONDITION 2

CONDITION 3



NOTE:
FOR CONCRETE WALL AND
FOOTING INFORMATION REFER
TO THE FOUNDATION PLAN

1 COVERED PORCH DETAIL
3/4"=1'-0" A-DTV-06100-07

2 WALKOUT WALL DETAIL
3/4"=1'-0" A-DTW-06062-29

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SHEET NO.
G3

TABLE R602.10.6.4
TENSION STRAP CAPACITY REQUIRED FOR RESISTING WIND PRESSURES
PERPENDICUALR TO METHOD PFH,PFG, AND CS-PF BRACED WALL PANELS

2-9-21

MINIMUM WALL STUD FRAMING NORMAL SIZE AND GRADE	MAXIMUM PONY WALL HEIGHT (feet)	MAXIMUM TOTAL WALL HEIGHT (feet)	MAXIMUM OPENING WIDTH (feet)	TENSION STRAP CAPACITY REQUIRED (pounds) a,b					
				ULTIMATE DESIGN WIND SPEED (mph)					
				110	115	130	110	115	130
				EXPOSURE B			EXPOSURE C		
2 x 4 NO. 2 GRADE	0	10	18	1,000	1,000	1,000	1,000	1,000	1,050
	1	10	9	1,000	1,000	1,000	1,000	1,000	1,750
			16	1,000	1,025	2,050	2,075	2,500	3,950
			18	1,200	1,275	2,375	2,400	2,850	DR
	2	10	9	1,000	1,000	1,475	1,500	1.875	3,125
			16	1,775	2,175	3,525	3,550	4,125	DR
			18	2,075	2,500	3,950	3,975	DR	DR
	2	12	9	1,150	1,500	2,650	2,675	3,175	DR
			16	2,875	3,375	DR	DR	DR	DR
			18	3,425	3,975	DR	DR	DR	DR
	4	12	9	2,275	2,750	DR	DR	DR	DR
			12	3,225	3,775	DR	DR	DR	DR
2 x 6 STUD GRADE	2	12	9	1,000	1,000	1,700	1,700	2,025	3,050
			16	1,825	2,150	3,225	3,225	3,675	DR
			18	2,200	2,550	3,725	3,750	DR	DR
	4	12	9	1,450	1,750	2,700	2,725	3,125	DR
			16	2,050	2,400	DR	DR	DR	DR
			18	3,50	3,800	DR	DR	DR	DR

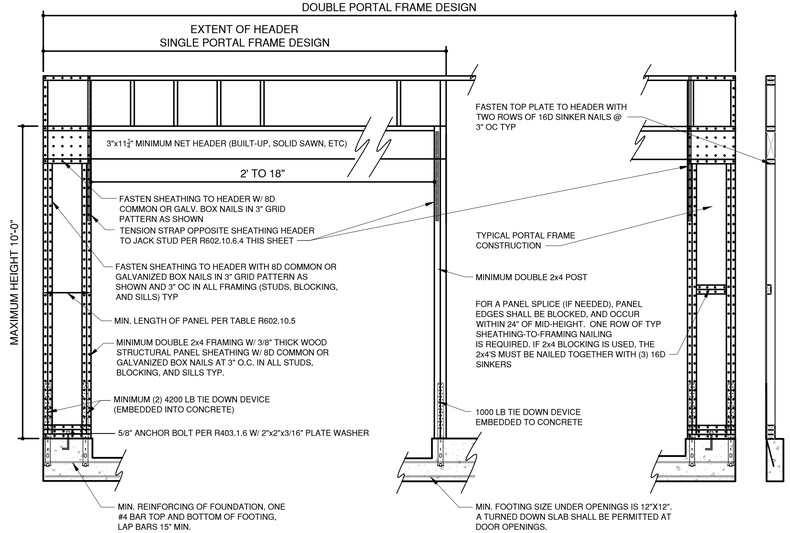
a. DR = DESIGN REQUIRED
b. STRAP SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

BRACED WALL SCHEDULE

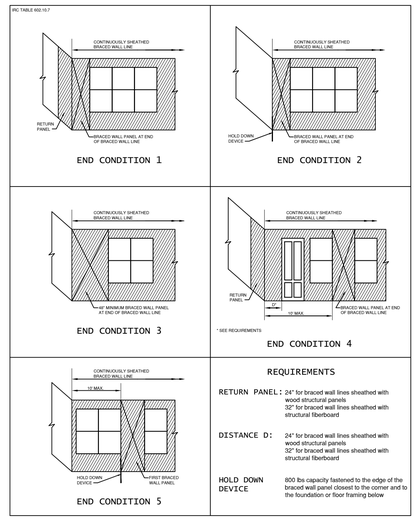
2-9-21

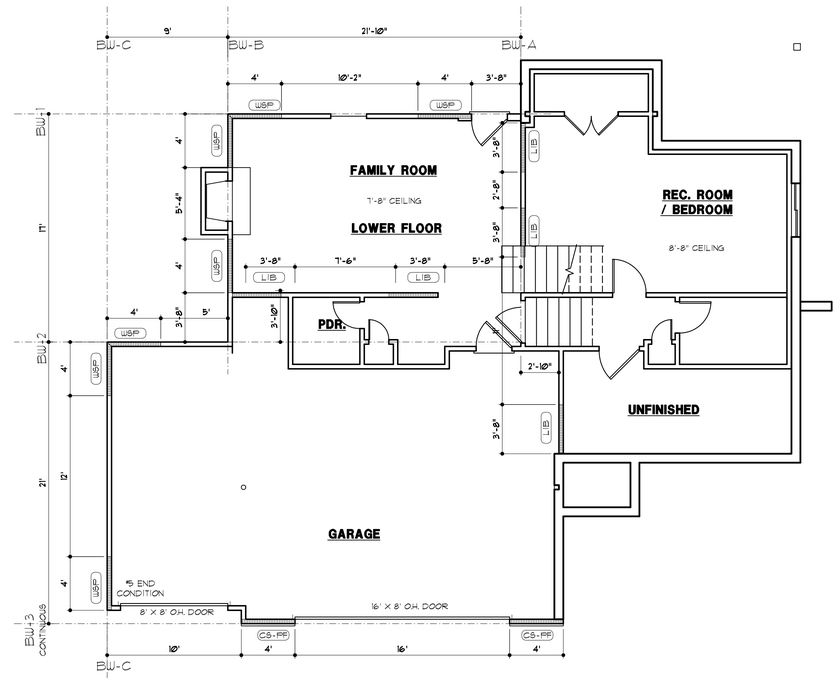
METHOD NUMBER	DESCRIPTION	MINIMUM LENGTH	FASTENERS
LIB	LET-IN-BRACING: METAL STRAPS TO FORM "X" OR "V" INSTALLED PER MANUFACTURED (SIMPSON: WB126C, TWB12, WB143C) (USP: RWB114, WBT12)	AS REQUIRED TO ALLOW BRACE TO BE CONTINUOUS FROM PLATE TO PLATE AND AT AN ANGLE BETWEEN 45° TO 60° FROM HORIZONTAL	PER MANUFACTURER'S REQUIREMENTS
WSP	WOOD STRUCTURAL PANEL- 3/8" THICK (MIN.) FOR STUDS AT 16" O.C. (APA EXP. I- PLYWOOD/ O.S.B./ ETC.)	MIN. 48"	6d COMMON NAILS, 6" O.C. AT EDGES AND 12" O.C. AT INTERMEDIATES
CS-WSP	CONTINUOUS SHEATHING- WOOD STRUCTURAL PANEL: 3/8" THICK (MIN.) (APA EXP. I- PLYWOOD/ O.S.B.)	CONTINUOUS ON ALL EXTERIOR WALLS	6d COMMON NAILS, 8d COMMON NAILS - 6" O.C. AT EDGES AND 12" O.C. AT INTERMEDIATES
GB	GYPSUM BOARD: 1/2" THICK MIN.	96" IF GYP. BOARD 1 SIDE 48" IF GYP. BOARD 2 SIDES (STUDS AT 16" O.C. MAX. FOR 48" LONG PANELS)	6d NAILS OR 1-1/4" SCREWS (TYPE W OR S)- 7" O.C. AT EDGES AND 7" O.C. AT INTERMEDIATES (CAN SUBSTITUTE COOLER NAILS)
PFH/PFG	PORTAL FRAME GARAGE: WITH HOLD-DOWNS PFG MIN. 7/16" PFH MIN. 3/8"	SEE DETAIL 1/G3 FOR MIN. WALL LENGTH	PER DETAIL 1/G3
CS-PF	CONTINUOUS SHEATHING- PORTAL FRAME	SEE DETAIL 1/G3 FOR MIN. WALL LENGTH	PER DETAIL 1/G3

NOTES:
A. SEE (XXX) ON BRACED WALL PLAN FOR BRACED WALL METHOD.

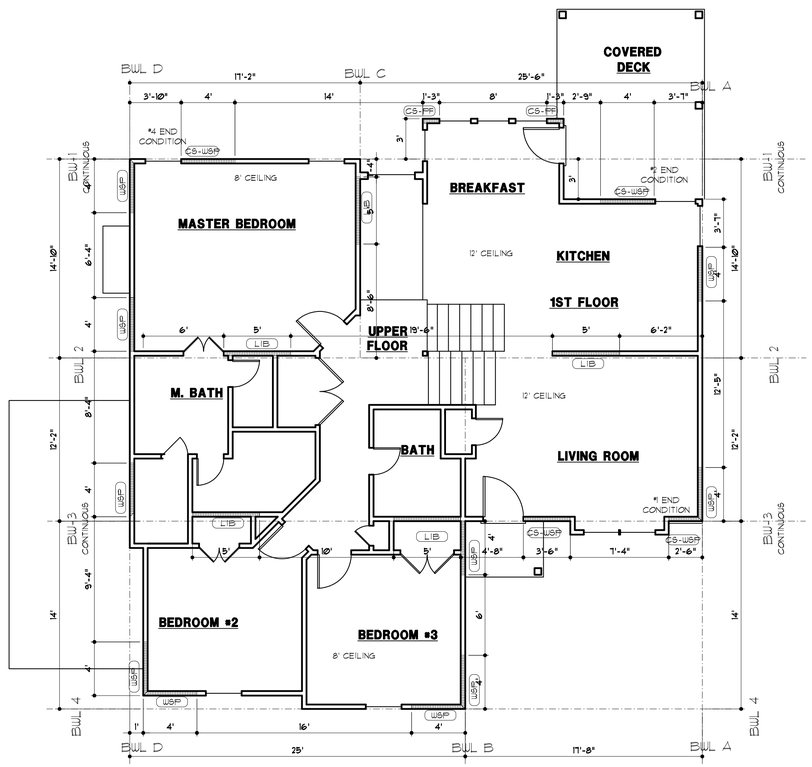


1 PFH PORTAL FRAME W/ HOLD-DOWNS
1/2" = 1'-0" A-DTE-06100-28





LOWER FLOOR DIAGRAM
3/16" = 1'-0"



FIRST FLOOR DIAGRAM
3/16" = 1'-0"

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G4