GENERAL NOTES:

A. ALL CONSTRUCTION AND MATERIALS SHALL MEET OR EXCEED CITY, STATE, LOCAL BUILDING CODES. IF WE HAVE DIFFERENT SPECIFICATIONS, WE WILL REFER TO THE MORE RESTRICTIVE OR THE HIGHER QUALITY.
B. REFER TO THE ALL SUPERSEDE THE PRINTS. SEE THE LOCAL BUILDING OFFICIAL FOR ANY CHANGES.
C. CONTRACTOR TO CONFIRM THE SIZES, SPACING AND SPECIES OF LUMBER OF ALL STRUCTURAL AND OTHER MEMBERS, ANY STRUCTURAL AND OTHER MEMBERS NOT SPECIFIED ARE TO BE SIZED BY THE GENERAL CONTRACTOR.
D. THE OWNER CONTRACTOR TO BE RESPONSIBLE FOR THE ENGINEERING OF THE FOUNDATION.
E. ALL PRODUCTS ARE TO BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
F. ALL MECHANICAL, PLUMBING, AND ELECTRICAL SYSTEMS ARE TO BE DESIGNED BY OTHERS.
G. ALL INTERIOR STAIRS ARE SHOWN FOR CONCEPT, FINAL DESIGN DETERMINED BY THE OWNER.
H. THE FOLLOWING CODES FOR ACTIONS ARE INTENDED TO MEET AND INFORM THE FOUNDATION CONSTRUCTION. THE PROJECT HAS BEEN GIVEN IT'S PERMISSION TO BE SUBJECT TO THE CODES.

CHAPTER 3 (BUILDING PLANNING)

R301.2 BUILDING STRUCTURES, AND ALL PARTS THEREOF, SHALL BE CONSTRUCTED TO SAFELY SUPPORT ALL LOADS, INCLUDING DEAD LOADS, LIVE LOADS, ROOF LOADS, WIND LOADS, SNOW LOADS, AND SEISMIC LOADS AS PRESCRIBED IN THIS CODE (2009).
R301.5 TABLE R301.5, PER 2015 IBC, LISTED BELOW IS THE DESIGN LIVE LOADS.

UNIFORM LIVE LOADS		LINE LOADS		CONCENTRATED LIVE LOADS		DESIGN SPECIFICATIONS		WIND SPEED (MPH)		SEISMIC DESIGN CATEGORY		FLOOR DEAD LOAD		ROOF DEAD LOAD	
ATTIC	FIRST FLOOR	SECOND FLOOR	ATTIC	FIRST FLOOR	SECOND FLOOR	WIND SPEED	TERRAIN	ULTIMATE	NOMINAL	A-F	G-R	10	20	30	40
10 PSF	40 PSF	30 PSF	300 LB	1000 LB	1000 LB	90	B	115	90	B	D2	15 PSF		15 PSF	

C. MINIMUM 28 GAUGE, PER R905.2.6 SPEC
UNVENTABLE ATTIC WITH LIMITED STORAGE 30 PSF
UNVENTABLE ATTIC WITHOUT STORAGE 10 PSF
VENTABLE ATTIC WITH LIMITED STORAGE 30 PSF
DECKS AND OTHER BALCONIES 40 PSF
SLEEPING AND HABITABLE 30 PSF
ROOM OTHER THAN SLEEPING ROOMS 40 PSF
SLEEPING ROOMS 30 PSF
STAIRS 40 PSF
DEFLECTION CRITERIA
ROOF LIVE LOAD L/180
ROOF TOTAL LOAD L/360
FLOOR LIVE LOAD L/360
FLOOR TOTAL LOAD L/240
WALL H/180
MINIMUM ROOF LIVE LOAD PER R301.2(5)
ROOF TRUSS LIVE LOAD 30 PSF
GROUND SNOW LOAD 30 PSF
ROOF DEAD LOAD 15 PSF
THERMAL CONDITION D+L15
TERRAIN EXPOSURE B
DURATION OF LOADING 1.15
UNBALANCED WIND DRIFT LOADING ACCORDING TO ASCE 7-05
WIND DESIGN METHOD WIND ACCORDING TO ASCE 7-05
EXPOSURE OF SUPPORT B
DURATION OF LOAD WIND 1.60

ALL BEAMS & SUPPORTS FOR ROOF LOADS ARE TO BE DESIGNED WITH THE ABOVE DEFLECTION CRITERIA

D. DISCLOSE ADDITIONAL OR CHANGES TO MATERIAL NEEDED TO BE ADJUSTED TO THE BELOW CALCULATIONS.

FLOOR TO FLOOR		ROOF TO FLOOR	
GYPSUM WALLBOARD	1.5 PSF	ROOFING	4.0 PSF
SHEATHING TILE OR BACKER BD.	10 PSF	SOLAR PSF	1.0 PSF
3/4" HARDWOOD FLOOR	4.0 PSF	1/2" OSB OR PLYWOOD	1.5 PSF
SUBFLOOR 3/4" OSB OR PLYWOOD	2.3 PSF	1/2" ROOF TRUSS	1.5 PSF
1/2" OSB OR PLYWOOD JOIST SYSTEM	1.5 PSF	CORRECTION FOR SLOPE (12/12)	1.0 PSF
TOTAL WITH GYPSUM	**5.5 PSF**	**TOTAL**	**5.0 PSF**
TOTAL WITH TILE BACKER BD	**13.5 PSF**		
TOTAL WITH HARDWOOD FLOOR	**7.5 PSF**		
FLOOR TO FLOOR		**ROOF TO FLOOR CONTINUED**	
1/2" OSB OR PLYWOOD JOIST SYSTEM		1/2" ROOF TRUSS	1.1 PSF
5/8" GYPSUM WALLBOARD		5/8" GYPSUM WALLBOARD	2.2 PSF
1/8" AIRSPACE		1/8" AIRSPACE	1.0 PSF
1/8" AIRSPACE MEDIUM HOME BUILDING		1/8" BATTS OR INSULATION	1.0 PSF
TOTAL	**5.5 PSF**	**TOTAL**	**7.3 PSF**

SECTION R303 LIGHT AND VENTILATION IN HABITABLE ROOMS, PROVIDE NATURAL LIGHT AND VENTILATION WITH OPERABLE WINDOWS, WINDOW AREA SHALL NOT BE LESS THAN 8% OF THE FLOOR AREA OF EACH ROOM. 1/2 THE REQUIRED WINDOW AREA SHALL BE OPENABLE TO THE EXTERIOR FOR NATURAL VENTILATION.
R303.3 BATHROOMS HAVE AN OPENABLE WINDOW OF 3 SQ. FT. MIN.
- EXCEPTION:
1. BATHROOM AND WATER CLOSET MAY BE VENTILATED WITH EXHAUST FANS AND ARTIFICIAL LIGHT.

SECTION R304 THE MINIMUM AREA OF ANY HABITABLE ROOM SHALL NOT BE LESS THAN 70 SQ. FEET, EXCEPT KITCHEN.
R304.3 THE MINIMUM LENGTH OR WIDTH OF ANY HABITABLE ROOM SHALL NOT BE LESS THAN 7'-0"

SECTION R305 CEILING HEIGHT: HABITABLE SPACE, HALLWAYS, AND PORTIONS OF THE BASEMENT DEVOTED TO THESE SPACES SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7 FEET. BATHROOMS, TOILET ROOMS, AND LAUNDRY ROOMS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 6'-8".
- EXCEPTION:
1. FOR ROOMS WITH SLOPED CEILINGS, THE REQUIRED FLOOR AREA OF THE ROOM SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 5 FEET AND NOT LESS THAN 50% OF THE REQUIRED FLOOR AREA SHALL HAVE A CEILING OF LESS THAN 7'-0". THE CEILING OVER A BATHROOM AND TOILET ROOM NAMED ABOVE SHALL BE 30 INCHES THE REQUIRED CEILING HEIGHT FOR THE ROOM PURPOSE, A HONOR OR TUB REQUIRED WITH A SHOWERHEAD SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 6'-8" ABOVE THE AREA OF NOT LESS THAN 30 INCHES WIDE AT THE SHOWERHEAD.
2. BEAMS, GIRDERS, DUCTS, OR OTHER OBSTRUCTIONS IN BASEMENT CONTAINING HABITABLE SPACE SHALL BE PERMITTED TO PROJECT TO WITHIN 6'-8" OF THE FINISHED FLOOR.

R305.1.1 EXCEPTION: PORTIONS OF BASEMENT THAT DO NOT CONTAIN HABITABLE SPACE OR HALLWAYS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 6'-8"
- EXCEPTION:
1. BEAMS, GIRDERS, DUCTS, OR OTHER OBSTRUCTIONS IN BASEMENT CONTAINING HABITABLE SPACE SHALL BE PERMITTED TO PROJECT TO WITHIN 6'-4" OF THE FINISHED FLOOR.

SECTION R307.1 TOILET AND SHOWER SPACES, NOT LESS THAN 30" WIDE IS REQUIRED IN ACCORDANCE WITH FIGURE R307.1.
1. TOILET AREA FROM WALL OR TUB OR ANOTHER FIXTURE 15" MIN. OR 30" MIN. CENTER TO CENTER
2. WHERE THERE IS CLEARANCE IN FRONT OF THE FIXTURE

SECTION R308 GLAZING EXCEPT AS NOTED IN SECTION R308.1.1 EACH PANE OF BUILDING INSTALLED IN WINDOWS, GLAZING OPENING IN SECTION R308.4 SHALL BE PROVIDED WITH A MANUFACTURER'S DESIGNATION SPECIFYING WHO MANUFACTURED DESIGNED IS THE TYPE OF GLASS AND THE SAFETY GLAZING STAMPING.
R308.4.2 GLAZING ADJACENT TO DOORS, GLAZING IN EXTERIOR FIXED PANELS OR OPENABLE PANELS ADJACENT TO A DOOR SHALL BE CONSIDERED TO BE IN HAZARDOUS LOCATION, WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 36" ABOVE THE FLOOR OR WALKING SURFACE AND MEETS EITHER OF THE FOLLOWING CONDITIONS:
1. WHERE THE GLAZING IS WITHIN 24 INCHES EITHER SIDE OF THE DOOR IN THE PLANE OF THE DOOR IN A CLOSED POSITION.
2. WHERE THE GLAZING ON THE WALL PERPENDICULAR TO THE PLANE OF THE DOOR IN A CLOSED POSITION AND WITHIN 24" OF THE HINGE SIDE OF AN SWING DOOR.
- EXCEPTION:
1. DECORATIVE GLASS
2. WHERE THERE IS AN INTERVENING WALL OR OTHER PERMANENT BARRIER BETWEEN DOOR AND THE GLAZING
3. WHERE ACCESS THROUGH THE DOOR IS TO A CLOSET OR STORAGE AREA 3 FEET OR LESS IN DEPTH
4. GLAZING THAT IS ADJACENT TO A FIXED PANEL OF 24 INCHES OR LESS.

R308.4.3 GLAZING IN EXTERIOR WALL GLAZING IN AN EXTERIOR FIXED OR OPENABLE PANEL THE VERTICAL OF THE FOLLOWING CONDITIONS:
1. THE EXPOSED AREA OF AN INDIVIDUAL PANEL IS GREATER THAN 9 SQUARE FEET
2. THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 18" ABOVE THE FLOOR
3. THE TOP EDGE OF THE GLAZING IS MORE THAN 36" ABOVE THE FLOOR, AND
4. ONE OR MORE WALKING SURFACE WITHIN 36" HORIZONTAL WITHIN A 17" ARC OF THE LINE OF THE GLAZING
- EXCEPTION:
1. DECORATIVE GLASS
2. WHERE THERE IS AN INTERVENING WALL OR OTHER PERMANENT BARRIER BETWEEN DOOR AND THE GLAZING
3. WHERE ACCESS THROUGH THE DOOR IS TO A CLOSET OR STORAGE AREA 3 FEET OR LESS IN DEPTH
4. GLAZING THAT IS ADJACENT TO A FIXED PANEL OF 24 INCHES OR LESS.

R308.4.4 GLAZING IN EXTERIOR WALL GLAZING IN AN EXTERIOR FIXED OR OPENABLE PANEL THE VERTICAL OF THE FOLLOWING CONDITIONS:
1. THE EXPOSED AREA OF AN INDIVIDUAL PANEL IS GREATER THAN 9 SQUARE FEET
2. THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 18" ABOVE THE FLOOR
3. THE TOP EDGE OF THE GLAZING IS MORE THAN 36" ABOVE THE FLOOR
4. ONE OR MORE WALKING SURFACE WITHIN 36" HORIZONTAL WITHIN A 17" ARC OF THE LINE OF THE GLAZING

R308.4.5 GLAZING IN EXTERIOR SURFACE, GLAZING IN WALLS, ENCLOSURES OR ENCLOSURE CONTAINING OR FACING HOT TUBS, SPAS, WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS, SHOWERS AND DOOR OR SURFACE POOLS WHERE THE BOTTOM EXPOSED EDGE OF GLAZING IS LESS THAN 60" MEASURED VERTICALLY ABOVE THE ACTUAL SEAT OR WALKING SURFACE.
R308.4.6 GLAZING ADJACENT TO STAIRS AND PLATFORMS GLAZING WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 36" ABOVE THE PLANE OF THE ADJACENT WALKING SURFACE OF THE STAIRWAY, LANDING BETWEEN FLIGHTS OF STAIRS AND WALKING SURFACE.
- EXCEPTION:
1. WHERE RAILING IS INSTALLED ON THE ACCESSIBLE SIDE OF THE GLAZING 34" TO 36" ABOVE WALKING SURFACE.

SECTION R310 EMERGENCY ESCAPE AND RESCUE OPENING BASEMENT, HABITABLE ATTICS AND EVERY SLEEPING ROOM SHALL HAVE AN EMERGENCY ESCAPE AND RESCUE OPENING.
- EXCEPTION: STORM SHELTERS AND BASEMENTS USED ONLY TO HOUSE MECHANICAL EQUIPMENT NOT EXCEEDING A TOTAL FLOOR AREA OF 200 SQUARE FEET.
R310.1.1 MINIMUM OPENING AREA EMERGENCY AND ESCAPE OPENING SHALL HAVE A NET CLEAR OPENING OF NOT LESS THAN 5.7 SQUARE FEET. THE NET CLEAR AREA DIMENSIONS REQUIRED IN THIS SECTION SHALL BE OBTAINED BY NORMAL OPERATION FROM THE INSIDE. THE NET CLEAR HEIGHT OPENING SHALL NOT BE LESS THAN 24" AND THE NET CLEAR WIDTH SHALL NOT BE LESS THAN 20".
R310.1.2 WINDOW WELL WHERE WHERE THE WINDOW IS PROVIDED AS THE EMERGENCY ESCAPE AND RESCUE OPENING IT SHALL HAVE A SILL HEIGHT OF NOT MORE THAN 44" ABOVE THE FLOOR.
R310.1.3 WINDOW WELLS THE WIDTH OF A AREA OF THE WINDOW WELL SHALL NOT BE LESS THAN 9 SQ. FT., WITH THE HORIZONTAL PROJECTION AND WIDTH OF NOT LESS THAN 36" THE AREA OF THE WINDOW WELL SHALL ALLOW THE EMERGENCY ESCAPE AND RESCUE OPENING TO BE FULLY OPENED.
- EXCEPTION:
1. THE LADDER OR STEPS SHALL BE PERMITTED TO ENCROACH NOT MORE THAN 6".
R310.2.1 WINDOW WELLS WITH A VERTICAL STEP SPECIFIED THAN 44" SHALL BE EQUIPPED WITH A PERMANENT LADDER NOT LESS THAN 12" WIDE

SECTION R311
R311.5.1 STAIRWAYS, STAIRWAY WIDTH NOT BE NOT LESS THAN 36" WIDE EXCLUSIVE WITH OF ALL POSTS AND OR THE PERMITTED HANDRAIL HEIGHT AND SHALL SHOULD PROJECT MORE THAN 4.5" ON EITHER SIDE OF THE STAIRWAY.
R311.7.5 HEADROOM THE HEADROOM IN THE STAIRWAY SHALL BE NOT LESS THAN 6'8" MEASURED VERTICALLY FROM THE SLOPED LINE JOINING THE TREAD NOSINGS OR FROM THE FLOOR SURFACE OF THE LANDING
R311.7.3 VERTICAL RISE: A FLIGHT OF STAIRS SHALL NOT HAVE A VERTICAL RISE LARGER THAN 12 FT
R311.7.5 THE MINIMUM TREAD BE 11" WITH A MINIMUM RUN OF 12".
R311.7.8 HANDRAIL SHALL BE ON NOT LESS THAN ON EACH SIDE OF EACH CONTINUOUS RUN OF TREADS

SECTION R314 SMOKE ALARMS SMOKE ALARMS SHALL COMPLY WITH NFPA 72 AND 11.2.7
R314.3 LOCATION
1. IN EACH SLEEPING ROOM
2. OUTSIDE EACH SEPARATE SLEEPING AREA
3. ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS
4. SMOKE ALARMS SHALL BE INSTALLED NOT LESS THAN 3 FT HORIZONTAL FROM THE DOOR OF ANY BEDROOM THAT CONTAINS A BATHTUB OR SHOWER UNLESS THIS WOULD PREVENT PLACEMENT OF A SMOKE ALARM IN THAT LOCATION.
R314.3.1 SMOKE ALARMS SHALL NOT BE INSTALLED LESS THAN THE FOLLOWING AREAS:
1. IN ANY KITCHEN, BATHROOM, OR ATTIC WITH AT LEAST ONE SMOKE ALARM INSTALLED WITHIN 20 FEET HORIZONTAL FROM A PERMANENT FIXED INSTALLED COOKING APPLIANCE
2. IN ANY KITCHEN, BATHROOM, OR ATTIC WITH AT LEAST ONE SMOKE ALARM INSTALLED WITHIN 10 FEET HORIZONTAL FROM A TEMPORARY COOKING APPLIANCE
3. IN THE ATTIC, SMOKE ALARMS SHALL NOT BE INSTALLED LESS THAN 3 FEET HORIZONTAL FROM A PERMANENT FIXED INSTALLED COOKING APPLIANCE.

SECTION R315 CARBON MONOXIDE ALARMS SHALL COMPLY WITH NFPA 720 AND CONFORM TO ANSI/UL 2034 AND SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 720 AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
R315.3.1 CARBON MONOXIDE SHALL BE PROVIDED IN DWELLING UNITS WHERE THERE IS FUEL BURNING EQUIPMENT, OR ATTACHED GARAGES.
1. ATTACHED GARAGE WITH AN OPENING THAT COMMUNICATES WITH THE DWELLING

SECTION R317 PROTECTION OF WOOD AND WOOD-BASED PRODUCTS AGAINST DECAY.
R317.1.1 LOCATION REQUIRED. PROTECTION OF WOOD AND WOOD-BASED PRODUCTS EXPOSED TO THE WEATHER SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS BY USE OF NATURALLY DURABLE WOOD OR WOOD THAT IS PRESERVATIVE-TREATED IN ACCORDANCE WITH AWPA U1 FOR THE SPECIES, PRODUCT, PRESERVATIVE AND USE.
1. WOOD JOISTS OR BOTTOM OF A WOOD STRUCTURAL FLOOR WHEN WITHIN 18 INCHES OR MORE OF THE EXPOSED GROUND IN CRAWL SPACES OR CRAWLSPACES AREAS LOCATED WITHIN THE PERIMETER OF THE BUILDING FOUNDATION.
2. WOOD FRAMING AND REPRESENTATIVE SUBSTRATES WITHIN 18 INCHES OR MORE OF THE INTERIOR FOUNDATION WALLS AND WITHIN 18 INCHES OR MORE FROM THE GROUND UNLESS
3. SILLS AND SUBPLATES
EXPOSED FROM GROUND BY AN IMPERVIOUS MOISTURE BARRIER.
4. THE EXTERIOR WOOD SURFACES WITHIN 10 INCHES WALLS WHICH DO NOT ADVANCE OF LESS THAN 3" ON POSTS, BEAMS AND DECKS
5. WOOD SHEATHING AND WALL FRAMING ON THE EXTERIOR OF A BUILDING HAVING A CLEARANCE OF LESS THAN 6" FROM THE GROUND
6. WOOD SHEATHING AND WALL FRAMING ON THE EXTERIOR OF A BUILDING HAVING A CLEARANCE OF LESS THAN 6" FROM THE GROUND
EXPOSED EXPOSED TO THE WEATHER.
7. WOOD STRUCTURAL MEMBERS SUPPORTING MOISTURE PRESERVATIVE OR ROOFS THAT ARE EXPOSED TO THE WEATHER, DOWNWARD OR ATTIC SPACE.
R317.1.3 PARTS WITH PRESERVATIVE-TREATED WOOD, PARTS WHERE INSULATION, MATTS AND WHERE FOR PRESERVATIVE-TREATED WOOD SHALL BE APPROPRIATE FOR THE EXPOSURE CONDITIONS ANTICIPATED. STAINLESS STEEL BUILDING HARDWARE OF EXPOSED SURFACES OF THE WEATHER PARTS FOR CONNECTION IS CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL BE ACCEPTABLE WITH THE CONNECT OF MANUFACTURERS RECOMMENDATIONS.

CHAPTER 4 (FOUNDATIONS)

SECTION 401A SOIL TEST WHERE QUANTIFIABLE DATA OPERATED BY ACCEPT ABLE SOIL SCIENCE METHODOLOGIES AND PRACTICE, COMPRESSIBLE SWELLING OR OTHER UNKNOWN SOIL CHARACTERISTICS, THE BUILDING OFFICIAL SHALL DETERMINE IF WHETHER A SOIL TEST IS REQUIRED.

TABLE R401.1

SOIL CLASS	LOWER BOUND DESIGN VALUE
SHALE, MUDSTONE, SANDSTONE	2,000 PSF/FOOT OR 1 KSF
BLOCK GRANITE, BASALT, CRYSTALLINE BEDROCK	
GRAVEL, SANDY GRAVEL, OR GRAVEL SILT MIX	1,500 PSF/FOOT OR 1.5 KSF
SILT, AND SANDY SILT, CLAY	

THE DESIGN IS BASED ON 2,000 PSF/FOOT OR 1 KSF, UNLESS NOTED OTHERWISE, IF THE BUILDER OR HOMEOWNER RESPONSIBLE TO LIST PLAN DESIGN SERVICE AND IF THE CONDITION IN THE FIELD ARE DIFFERENT.

R402.2 CONCRETE FROM TABLE R402.2
FOUNDATION CONCRETE WALLS SHALL HAVE A MIN. STRENGTH OF 2500 PSI
GARAGE FLOOR SLABS SHALL BE 3500 PSI
EXPOSED GARAGE FLOOR SLABS AND STEPS EXPOSED TO THE WEATHER SHALL BE 3500 PSI AT 28 DAYS
AIR ENTRAIN 5.5-8.0 SLUMP
CONCRETE SHALL BE AIR ENTRAINED WITH 5%-7% TOTAL AIR CONTENTS.

R403 ALL FOOTING SHALL BE PLACED ON UNDISTURBED SOIL OR COMPACTED CONTACTED FILL MINIMUM FOOTING TO BE NO WIDER THAN FOUR ACTION BUILDING AND DOT WIDER THAN DEEP FOR A STORY BUILDING OVER EVER SLOPE WITH DOWNWARD HORIZONTAL BASE.
R403.1.6 ALL ANCHOR BOLTS SHALL BE APPROVED NOT LESS THAN 1/2" IN DIAMETER AND SHALL EXTEND A MINIMUM OF 7" INTO CONCRETE. USE TWO BOLTS PER PLATE WITH ONE BOLT SPACED AT A MAXIMUM OF FIVE INCHES FROM EACH END OF EACH PLATE. THE BOLTS SHALL BE LOCATED IN THE MIDDLE THIRD OF THE WIDTH OF THE PLATE.
- ALTERNATE FOUNDATION STYLES MAY BE USED SPECIFICATION TO PROVIDE EQUIVALENT AND NOT LESS THAN THE ANCHOR BOLTS.
R404 CONCRETE FOUNDATION WALLS SHALL BE CONSTRUCTED AS SET FORTH IN TABLE R404.1.1(1) REFER TO TYPICAL WALL SECTION FOR THE PLAN FOR SPECIFICATION.
R405 FOUNDATION WATERPROOFING AND DRAINAGE
EXCEPT WHERE PROVIDED IN SECTION R406.2 TO BE WATERPROOFED, FOUNDATION WALLS THAT RETAIN EARTH AND ENCLOSED INTERIOR SPACES AND FLOORS WHERE SPACE SHALL BE DRAINAGE PROVIDED BY PROVIDING AT LEAST ONE LAYER OF DRAINAGE MATERIAL REFER TO TYPICAL WALL SECTION FOR THE PLAN FOR SPECIFICATION.
R406 FOUNDATION WATERPROOFING AND DAMPPROOFING
THE UNDERFLOOR SPACE BETWEEN THE BOTTOM OF THE JOIST AND THE EARTH UNDER ANY BUILDING SHALL HAVE VENTILATION OPENING THROUGH THE FOUNDATION WALLS OR EXTERIOR WALLS NOT NEAR OPEN VENTILATION SHALL NOT BE LESS THAN 150 SQ. FT. FOR EACH 150 SQ. FT OF AREA UNDER THE FLOOR.
R406.4 ACCESS THROUGH THE FOOTING REQUIRED TO BE 18" X 24"

CHAPTER 5 (FLOORS)

FRAMING MATERIALS SPACES
A. ROOF, FLOOR, AND WALL SHEATHING APPROVED SHEATHING, LEAST 1/8" OF AN INCH AT PANEL EDGE AND EDGES
B. WALL STUDS DOUBLE NEW OR BETTER.
C. WALL PLATES SPRUCE NEW OR BETTER.
D. DIMENSIONAL HEADERS DOUBLE NEW OR BETTER.
E. LOG HEADERS 2NEW PLUS MINIMUM.
F. STEEL ACTIVE SPECIFICATION AND SPACES OR EQUAL.
R502.4 JOISTS OVER PARALLEL BEARING SHALL NOT EXCEED A MAXIMUM OF ACCEPTABLE SIZE TO SUPPORT THE LOAD.
R502.8 THE BOX OF EACH JOIST, BEAM, OR GIRDER SHALL HAVE A MINIMUM BEARING OF NOT LESS THAN 1.5 INCHES OF BEARING ON WOOD OR METAL AND NOT LESS THAN 3 INCHES ON CONCRETE.
R502.8 WOOD STRUCTURAL AND WOOD SUPPORTS STRUCTURAL COMPOSITE LUMBER, GLUED LAMINATED MEMBERS, OR PLANKS ARE PROHIBITED EXCEPT WHERE PERMITTED IN THE MANUFACTURER'S RECOMMENDATION OF DESIGN BY PROFESSIONAL.
R502.11 WOOD TRUSSES SHALL BE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH THE DESIGN. REFER TO THE
INDIVIDUAL TRUSSES DESIGN DRAWINGS FOR WEB BRACING AND MULTI-CONNECTION OF SPECIFIC SITE
SHALL BE REFER TO FOR HANGERS AND NAILING PATTERN AND BRACING OF METAL PLATE TRUSSES.
R502.2 EXTERIOR DECKS DECK LEDGER CONNECTION TO BAND JOIST, DECK LEDGER CONNECTION TO BAND JOIST SHALL BE IN ACCORDANCE WITH THE SECTION TABLE R502.2 AND FIGURE 1, AND FIGURES R502.2(1), AND R502.2(2).

CHAPTER 6 (ROOF-CEILING)

SECTION R802.1.3 DESIGN. WOOD TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICE. THE DESIGN AND MANUFACTURE OF ROOF TRUSSES SHALL COMPLY WITH AWPA STD.
R802.10.1 BRACING TRUSSES SHALL BE PROVIDED TO PROVIDE ROTATION AND PROVIDE LATERAL STABILITY. REFER TO THE INDIVIDUAL TRUSS DESIGN DRAWINGS AND BRACING PLANS. DESIGN TO GOOD PRACTICE FOR HANGER INSTALLATION AND SPACING OF METAL PLATE CONNECTED WOOD TRUSSES.
R802.10.1.1 TRUSS SUPPORT. TRUSSES SHALL BE ATTACHED TO SUPPORTING WALL ASSEMBLIES BY CONNECTIONS CAPABLE OF RESISTING FORCES SPECIFIED ON THE TRUSS DESIGN DRAWINGS.
SECTION R806 ROOF VENTILATION. EXCLUDED ATTIC AS EXCLUDED PARTS OF SPACES FORMED WHERE CEILING ARE APPLIED DIRECTLY TO THE UNDERSIDE OF THE ROOF RAFTERS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATION OPENING PROTECTED AGAINST THE ENTRANCE OF RAIN OR SNOW. REQUIRED VENTILATION OPENING EXCLUSIVE OF SCREENS TO THE OUTDOOR AIR.
R806.2 MINIMUM AREA VENTILATION AND FREE VENTILATION SHALL BE 1/300 OF EXPOSED THE AREA.

SECTION R807 ATTIC ACCESS BUILDING IN WHICH COMBUSTIBLE CEILING OR ROOF CONSTRUCTION SHALL HAVE AN ATTIC ACCESS OPENING TO ATTIC AREA THAT HAS A VERTICAL HEIGHT OF 30" OR GREATER.
1. THE ROOF-RAFTERS OPENING SHALL NOT BE LESS THAN 22" X 30"
2. SHALL BE LOCATED IN A HALLWAY OR OTHER READILY ACCESSIBLE LOCATION
3. OR IF A FURNACE INSTALLED HEAD ROOM IN THE ATTIC SPACE SHALL BE 30" MEASURED VERTICALLY FROM BOTTOM OF CEILING MEMBER.

CHAPTER 9 (ROOF ASSEMBLIES)

SECTION R903
R903.1 GENERAL ROOF DECKS SHALL BE COVERED WITH THE APPROVED ROOF COVERING IS SECURED TO THE BUILDING OR STRUCTURE IN ACCORDANCE WITH THE PROVISIONS OF THIS CHAPTER. ROOF ASSEMBLIES SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THE CODE AND THE APPROVED MANUFACTURER'S INSTRUCTIONS.
R903.2 PLUMBING PLUMBER SHALL BE INSTALLED IN MANNER THAT PREVENTS MOISTURE PROVIDED TO THE WALL AND ROOF THROUGH JOINTS IN CONNECTIONS THROUGH MOISTURE FREE AND NOT WALLS AND WITH EXPRESS CONTAINED WITHIN WALLS AND OTHER PENETRATIONS THROUGH THE ROOF PLANE.
R903.3.1.1 LOCATION PLUMBER SHALL BE INSTALLED AT WALL AND ROOF INTERSECTIONS, WHERE EXPRESSED A CHANGE IN ROOF DIRECTION AND WITHIN ROOF OPENINGS.

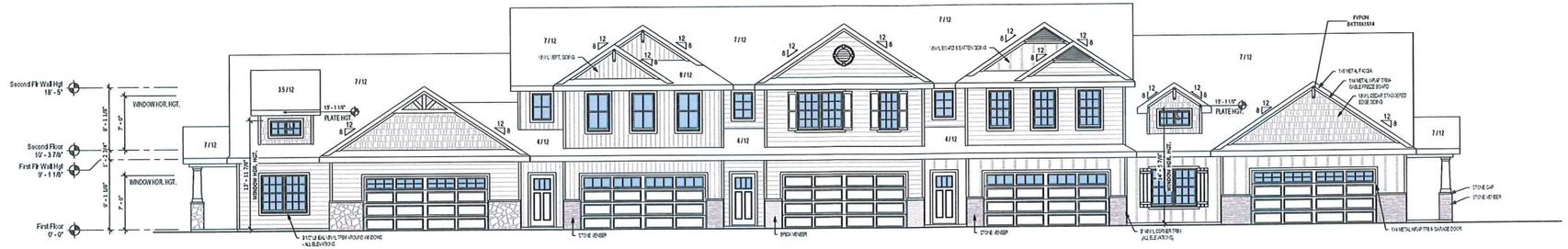
SECTION R905
R905.1 ROOF COVERING APPLICATION. ROOF COVERING SHALL BE APPLIED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THIS SECTION AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
R905.1.1 UNDERLAYMENT. UNDERLAYMENT FOR ASPHALT SHINGLES, GLASS, AND ASPHALT TILE, METAL ROOF SHINGLES, METAL SHINGLES, PLUMBER PLUMBER, SLATE AND SLATE TILE, WOOD SHINGLES AND WOOD TILE, PLASTIC AND RUBBER SHINGLES AND TILES, AND FOR PITCH TO THE APPLICABLE STANDARDS LISTED IN THIS CHAPTER. UNDERLAYMENT MATERIALS REQUIRED TO COMPLY WITH ASTM D226, D2178, D4869 AND D4990 TYPE I, UNLESS OTHERWISE PROVIDED IN THE ASTM STANDARDS WITH THE SPECIFICATIONS.
R905.1.1.1 SLOPE BARRIER. IF AREAS WHERE THERE ARE NEED A MINIMUM OF SLOPE FORMING AND ONE AS ESCALLOP GROUP OF UNDER AND DESIGNED TO BE NOT LESS THAN 2 PER 12 INCHES. AND SLOPE BARRIER SHALL BE INSTALLED. THE SLOPE BARRIER SHALL COMPLY OF THE CLASS OF UNDERLAYMENT. THE SLOPE FORMING PLUMBER MATERIALS REQUIRED TO COMPLY WITH ASTM D226, D2178, D4869 AND D4990 TYPE I, UNLESS OTHERWISE PROVIDED IN THE ASTM STANDARDS WITH THE SPECIFICATIONS.
R905.1.1.2 SLOPE BARRIER. IF AREAS WHERE THERE ARE NEED A MINIMUM OF SLOPE FORMING AND ONE AS ESCALLOP GROUP OF UNDER AND DESIGNED TO BE NOT LESS THAN 2 PER 12 INCHES. AND SLOPE BARRIER SHALL BE INSTALLED. THE SLOPE BARRIER SHALL COMPLY OF THE CLASS OF UNDERLAYMENT. THE SLOPE FORMING PLUMBER MATERIALS REQUIRED TO COMPLY WITH ASTM D226, D2178, D4869 AND D4990 TYPE I, UNLESS OTHERWISE PROVIDED IN THE ASTM STANDARDS WITH THE SPECIFICATIONS.
R905.2 ASPHALT SHINGLES. THE INSTALLATION OF ASPHALT SHINGLES SHALL COMPLY WITH THE SECTION AND MANUFACTURER'S INSTRUCTIONS.
R905.2.2 SLOPE. ASPHALT SHINGLES SHALL BE USED ON ROOF SLOPES OF 2 PER 12 INCHES OR GREATER. FOR SLOPES FROM 2 PER 12 TO 4 PER 12 DOUBLE UNDERLAYMENT APPLICATION IS REQUIRED IN ACCORDANCE WITH SECTION R905.1.1.
R905.2.3 PLACING. PLACING FOR ASPHALT SHINGLES SHALL COMPLY WITH THE SECTION

CHAPTER 10-43

REFER TO THE CHAPTERS IN THE PDS SET FOR THE DESIGN AND REQUIREMENTS OF THE SHEETS.
CHAPTER 10 CHIMNEYS AND FIREPLACE
CHAPTER 11 ENERGY EFFICIENCY
CHAPTER 12-43 MECHANICAL SYSTEMS AND MECHANICAL SYSTEMS REQUIREMENTS
CHAPTER 34 HEATING AND COOLING EQUIPMENT AND APPLIANCES
CHAPTER 35 EXHAUST SYSTEMS
CHAPTER 36 DUCT SYSTEMS
CHAPTER 37 COMBUSTION AIR
CHAPTER 38 CHIMNEYS AND VENTS
CHAPTER 39-42 SPECIAL APPLIANCE, WATER HEATERS, HYDRO SERVICE AND SPECIAL PIPING
CHAPTER 39 FUEL GAS PIPING AND ENERGY SYSTEMS
CHAPTER 40 FUEL GAS SYSTEMS
CHAPTER 41 PLUMBER RELATED SYSTEMS
CHAPTER 42-43 ELECTRICAL RELATED SYSTEMS

ABBREVIATIONS

ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
ANN.	ANNEAL
BTM.	BOTTOM
BSMT.	BASEMENT
BTWN.	BETWEEN
CA	CABINETS
CNTR.	COUNTER
CLR.	CLEAR
CL	CENTER LINE
CLG	CEILING
C.S.	CASED OPENING
COL.	COLUMN
CONC.	CONCRETE
CT	CERAMIC TILE
DF	DOUGLAS FIR
DIA	DIAMETER
DN	DOWN
DW	DOUBLE WALL
DW	DISHWASHER
EQ	EQUAL
FD	FLOOR DRAIN
FD	FIREPLACE
FLR.	FLOOR
FT	FOOTING
FURR.	FURRING
HDR.	HEADER
HDWD	HARDWOOD
HH	HEADER HEIGHT
INSUL.	INSULATION
JT	JOIST STEEL
JST.	JOIST
HS	HIGH STEEL
LBL	LABELED STEEL OR LUMBER
LVL	LAMINATED VENEER LUMBER
LVL	LAMINATED VENEER LUMBER
LN	LINEN
MAN.	MANHOLE
MFR.	MANUFACTURER
OC	OVER CENTER
O.H.D.	OVERHEAD DOOR
OPNG	OPENING
PED.	PEDESTAL
NTS.	NOT TO SCALE
REF	REFRIGERATOR
REQ	REQUIRED
RO	ROUGH OPENING
RM



1 **FRONT ELEVATION**
Scale: 3/16" = 1'-0"

ESTIMATED AREA - WALL CLADDING			
MATERIAL TYPE	MATERIAL SF	MATERIAL %	MATERIAL ELEVATION
18" Board & Batten	547 SF	8.6%	
Lap Siding - 8"	4574 SF	71.9%	
Shake Material - Staggered	828 SF	13.0%	
Siding - Vertical	290 SF	4.6%	
Stone Veneer	85 SF	1.3%	
18" Board & Batten	548 SF	18.1%	Front
Brick	31 SF	1.0%	Front
Lap Siding - 8"	793 SF	26.2%	Front
Shake Material - Staggered	275 SF	14.3%	Front
Siding - Vertical	548 SF	18.1%	Front
Stone Veneer	156 SF	5.1%	Front

- SQUARE FOOTAGE OF CALCULATIONS IS TAKEN FROM THE EXTERIOR SURFACE OF THE WALL.
1. THE HIGHLIGHTED SURFACES ARE BELOW THE TRIM LINES.
2. THE NON HIGHLIGHTED AREAS ARE ABOVE TRIM LINES.

2 **REAR ELEVATION**
Scale: 3/16" = 1'-0"

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BUILDING SYSTEMS, LLC

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Roman 5 - Townhome Complex - 5 Plex
Ankeny, Iowa

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DATE: 04-26-19
DATE: 06-19-19
DATE: 06-20-19
DATE: 07-03-19
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Elevations
As indicated
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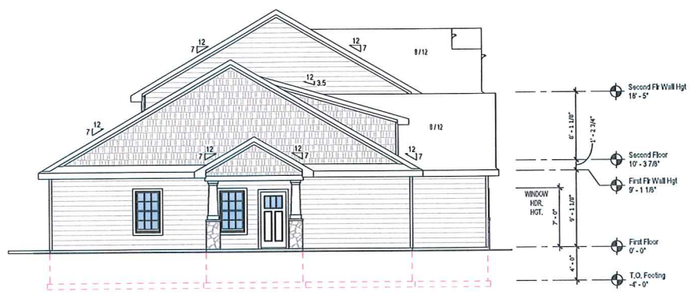
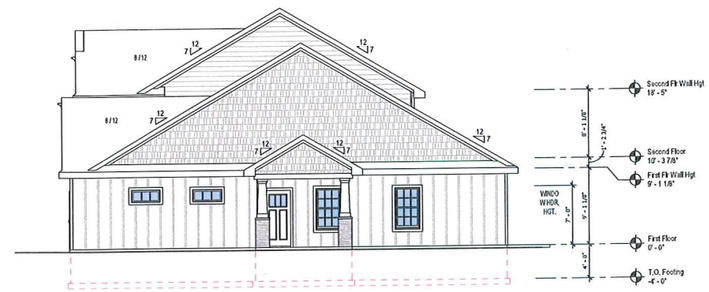
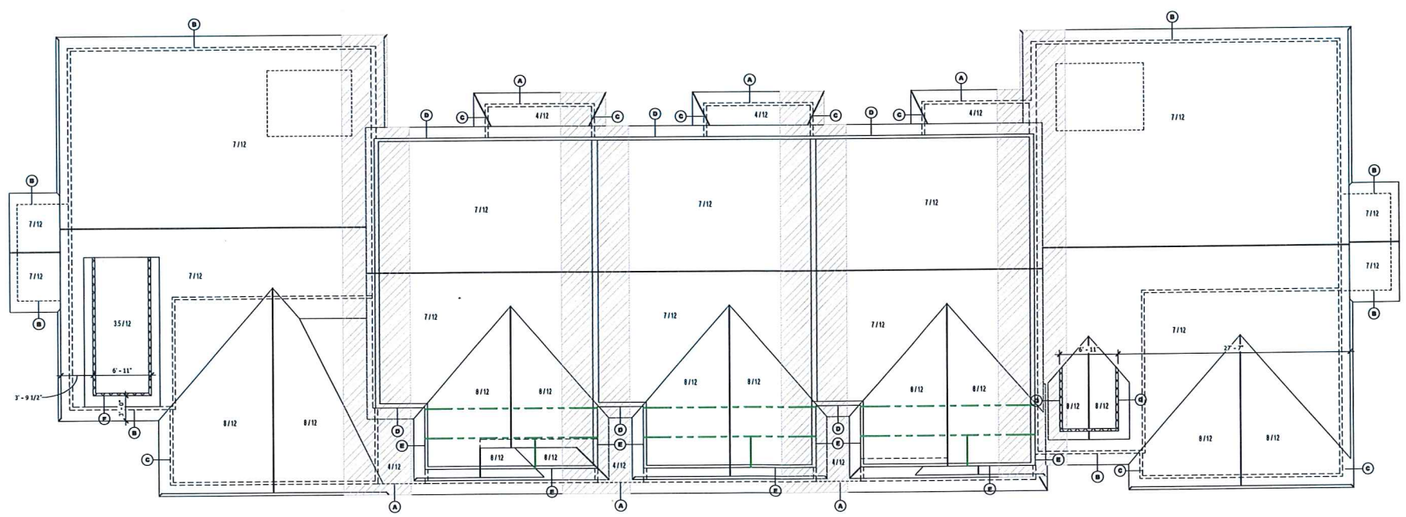
A.1



1 LEFT ELEVATION
Scale 3/16" = 1'-0"



2 RIGHT ELEVATION
Scale 3/16" = 1'-0"



3 ROOF PLAN
Scale 3/16" = 1'-0"

ESTIMATED AREA - ROOF

5597 SF

- THE AREA REFLECTED AT ROOF IS TAKEN FROM THE EXPOSED SURFACE AT THE FLAT.
- TO ACCOMMODATE LOSSES ADD THE FOLLOWING PERCENTAGES PER PITCH:
- 2% WASTE FOR FLAT AND SLIGHT SLOPES

ROOF PLAN LEGEND

DWG.	PLATE HGT.	PITCH	OVERHANG	RIDGE HGT.
A	9'-1 1/8"	3/12	1'-0"	9'-10 1/8"
B	9'-1 1/8"	7/12	1'-0"	9'-10 1/8"
C	9'-1 1/8"	8/12	1'-0"	10'-3 7/8"
D	18'-0"	7/12	1'-0"	21'-0"
E	18'-0"	8/12	1'-0"	21'-6"
F	18'-0" 1/8"	7/12	1'-0"	21'-0"
G	18'-0" 1/8"	8/12	1'-0"	21'-6"

ALL PLATE DIMENSIONS ARE 1'-0" UNLESS NOTED

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Elevations
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A.2

WINDOW SCHEDULE							
ID	QTY	TYPE	ROUGH OPENINGS WIDTH	ROUGH OPENINGS HEIGHT	HEADER HEIGHT	SPECIAL NOTES	Level
B	7	3060-2 SH	5' - 0"	5' - 0"	7' - 0"	Meets Egress	First Floor
C	4	3060 SH	5' - 0"	5' - 0"	7' - 0"	Meets Egress	First Floor
P	2	4030 F	3' - 0"	3' - 0"	7' - 0"	Fixed	First Floor
V	4	3060 SH2	5' - 0"	5' - 0"	7' - 0"	Meets Egress	First Floor
B	1	3060-2 SH	5' - 0"	5' - 0"	7' - 0"	Meets Egress	Second Floor
C	9	3060 SH	5' - 0"	5' - 0"	7' - 0"	Meets Egress	Second Floor
H	1	3060 CA	5' - 0"	5' - 0"	7' - 0"	Meets Egress	Second Floor
L	2	24262 F	2' - 0"	2' - 0"		Fixed	Second Floor
S	2	3042 CA	3' - 0"	3' - 0"	7' - 0"		Second Floor
V	3	3060 SH2	5' - 0"	5' - 0"	7' - 0"	Meets Egress	Second Floor
W	1	3042 CA 2	3' - 0"	3' - 0"	7' - 0"		Second Floor

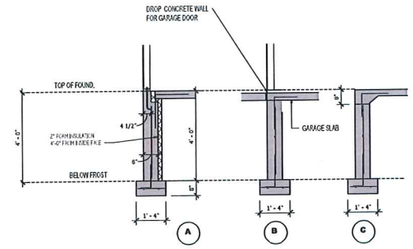
DOOR SCHEDULE						
ID	QTY	DOOR SIZE	ROUGH OPENINGS WIDTH	ROUGH OPENINGS HEIGHT	SPECIAL NOTES	Level
D1	5	3.0 x 6.8 Entry	3' - 2 1/4"	6' - 10 3/4"	Therma Tru R-O = 3/4" Pad - Verify R/O	First Floor
D2A	3	3.0 x 6.8 Stud F	3' - 10 1/4"	6' - 10 3/4"	Therma Tru - 20 Min Fire Rated - R/O includes 3/4" Pad	First Floor
D2B	2	3.0 x 6.8 Stud F	3' - 2 1/4"	6' - 10 3/4"	Therma Tru - 20 Min Fire Rated - R/O includes 3/4" Pad	First Floor
DGF	2	16.0 x 7.0 Doubledoor IV - 3 Lite	16' - 3"	7' - 1 1/2"	Overhead Garage Door	First Floor
D3H	2	16.0 x 7.0 Doubledoor IV - 8 Lite	16' - 3"	7' - 1 1/2"	Overhead Garage Door	First Floor
D3	3	5.0 x 6.10 Slider	5' - 0"	6' - 10 1/2"	Window - 10 Pts - 2 Panel Slider - R/O includes 1/2" Pad	First Floor
D4	1	16.0 x 7.0 Solid Panel	16' - 3"	7' - 1 1/2"	Overhead Garage Door	First Floor
D5	8	3.0 x 6.8	3' - 2"	6' - 10 1/2"	Standard Wood Door	First Floor
D6	2	3.0 x 6.8	3' - 2"	6' - 10 1/2"		First Floor
D11	6	2.8 x 6.8	2' - 10"	6' - 10 1/2"		First Floor
D12	3	3.0 x 6.8	3' - 2"	6' - 10 1/2"		First Floor
D14	2	6.0 x 6.8	6' - 2"	6' - 10 1/2"	Double Door	First Floor
D21	1	6.0 x 6.8 Bifold	6' - 2"	6' - 10"	4-Panel Bifold	First Floor
D22	3	5.0 x 6.8 Bifold	5' - 2"	6' - 10"	4-Panel Bifold	First Floor
D23	3	3.0 x 6.8	3' - 0"	6' - 11 1/4"	Barn Door	First Floor
D11	27	2.8 x 6.8	2' - 10"	6' - 10 1/2"		Second Floor
D12	6	3.0 x 6.8 Bifold	3' - 2"	6' - 10"	4-Panel Bifold	Second Floor

ESTIMATED AREA - 4" FLATWORK		
LOCATION	AREA	CUBIC YARDS
Floor Front Porch	70 SF	0.6 CY
Floor Garage	308 SF	4.5 CY
Floor Garage	519 SF	8.3 CY
Floor Front Porch	69 SF	0.6 CY
Floor Front Porch	70 SF	0.6 CY
Floor Garage	308 SF	4.5 CY
Floor Front Porch	70 SF	0.7 CY
Floor Garage	308 SF	4.5 CY
Floor Front Porch	69 SF	0.6 CY
Floor Garage	308 SF	4.5 CY
Floor Basement	1647 SF	18.1 CY
Floor Rear Patio	156 SF	1.9 CY
Floor Rear Patio	156 SF	1.9 CY
Floor Rear Patio	156 SF	1.9 CY

ESTIMATED AREA - CEILING		
LEVEL	CEILING TYPE	AREA
First Flr Wall Hgt	Ceiling - Garage	1458 SF
First Flr Wall Hgt	Ceiling - House	1723 SF
Second Flr Wall Hgt	Ceiling - House	2758 SF
		5939 SF

- DEDUCTS THE AREA OF FIREPLACE THROUGH THE FIRST STORY WALL
- DEDUCTS THE AREA OF FIREPLACE THROUGH THE SECOND STORY WALL
- 2.5% ALLOWANCE FOR ROUGH FRAMING AREAS
- 5.0% ADDED TO THE AREA FOR SLOPED CEILINGS

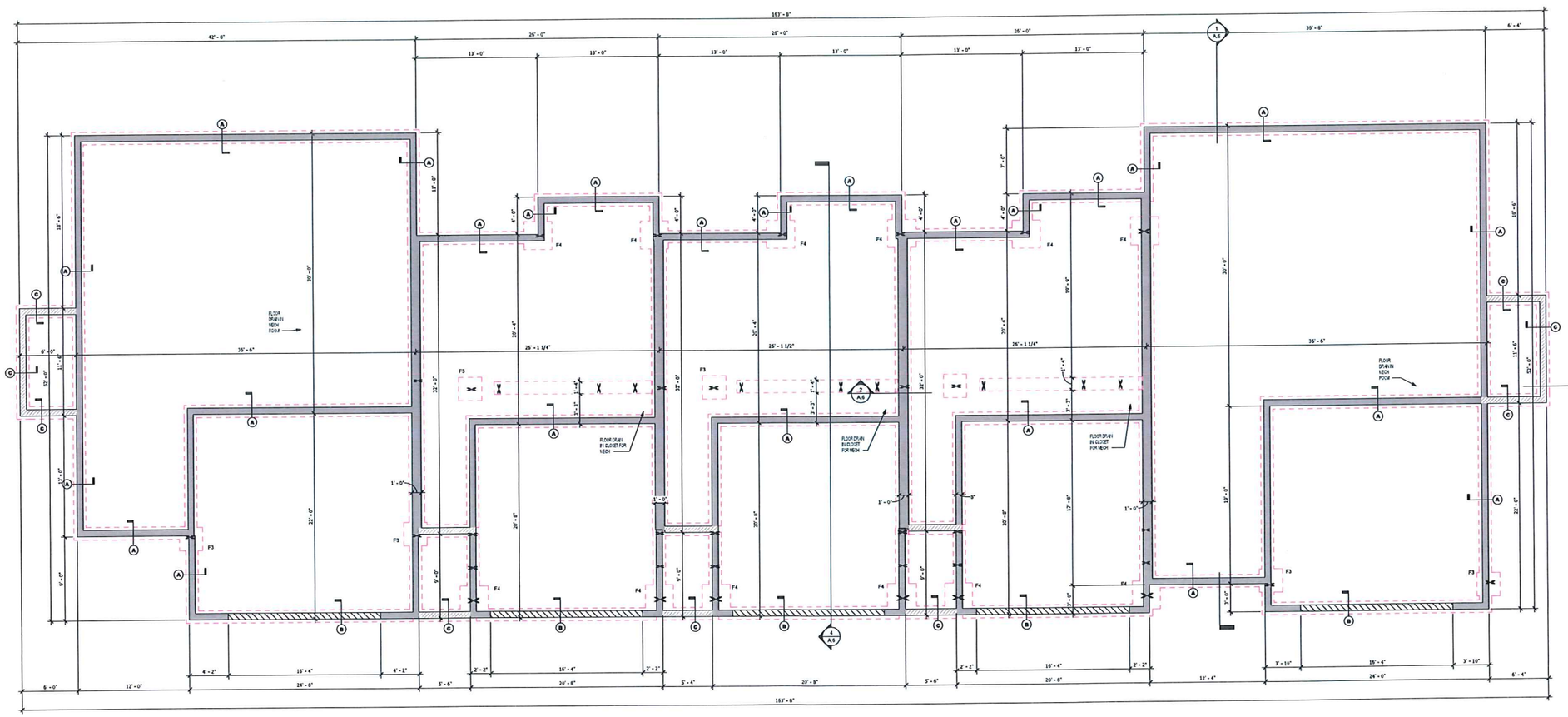
FOOTING SCHEDULE			
MARK	DIMENSIONS	REINFORCEMENT	NOTES
F3	30" x 30" x 12"	#4's @ 7" O.C. EW (4) min.	
F4	30" x 30" x 12"	#4's @ 7" O.C. EW (4) min.	



4" THICK POURED CONCRETE FOUNDATION WALL
VERTICAL STEEL: #4 @ 48" O.C.
HORIZ. STEEL: #4 @ 24" O.C.
(SPLICING AS NECESSARY: MIN 15" OVERLAP)

TYPICAL NOTE FOR CONC. FTG.
NO 2 #4 HORIZ. BODS CONTINUOUS
SPLICING AS NECESSARY ON
UNDISTURBED SOIL OR 6 MIN.

② FOUNDATION SECTIONS-Slab
Scale: 1/2" = 1'-0"



① T.O. Footing
Scale: 1/8" = 1'-0"

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A.3

WINDOW SCHEDULE							
ID	QTY	TYPE	ROUGH OPENINGS WIDTH	ROUGH OPENINGS HEIGHT	HEADER HEIGHT	SPECIAL NOTES	Level
B	7	3080 SH	7'-0"	5'-0"	7'-0"	Meets Egress	First Floor
C	4	3060 SH	7'-0"	5'-0"	7'-0"	Meets Egress	First Floor
P	2	4036 F	7'-0"	3'-0"	7'-0"	Fixed	First Floor
V	4	3080 SH 2	7'-0"	5'-0"	7'-0"	Meets Egress	First Floor
B	1	3080 2 SH	7'-0"	5'-0"	7'-0"	Meets Egress	Second Floor
C	3	3060 SH	7'-0"	5'-0"	7'-0"	Meets Egress	Second Floor
H	1	3050 CA	7'-0"	5'-0"	7'-0"	Meets Egress	Second Floor
L	2	2042 X 2F	4'-0"	2'-0"		Fixed	Second Floor
S	2	2040 CA	7'-0"	5'-0"	7'-0"		Second Floor
V	3	3080 SH 2	7'-0"	5'-0"	7'-0"	Meets Egress	Second Floor
W	1	5042 CA 2	7'-0"	5'-0"	7'-0"		Second Floor

DOOR SCHEDULE						
ID	QTY	DOOR SIZE	ROUGH OPENINGS WIDTH	ROUGH OPENINGS HEIGHT	SPECIAL NOTES	Level
D1	5	3.0 x 6.8 Entry	7'-3 1/4"	6'-10 3/4"	Therma Tru R-O = 3'4" Pad - Verify R-O	First Floor
D2A	3	2.8 x 6.8 Steel F	7'-10 1/4"	6'-10 3/4"	Therma Tru - 20 Min Fire Rated - R-O includes 3/4" Pad	First Floor
D2B	2	3.0 x 6.8 Steel F	7'-3 1/4"	6'-10 3/4"	Therma Tru - 20 Min Fire Rated - R-O includes 3/4" Pad	First Floor
D2F	2	16.0 x 7.0 Doublefolding IV - 3 Lite	16'-3"	7'-1 1/2"	Overhead Garage Door	First Floor
D2N	2	16.0 x 7.0 Doublefolding IV - 6 Lite	16'-3"	7'-1 1/2"	Overhead Garage Door	First Floor
D3	3	5.0 x 6.9 Slider	6'-0"	6'-10 1/2"	Window - 10 Pts - 2 Panel Slider - R-O includes 1/2" Pad	First Floor
D4	1	16.0 X 7.0 Solid Panel	16'-3"	7'-1 1/2"	Overhead Garage Door	First Floor
D5	1	3.0 x 6.8	7'-3"	6'-10 1/2"	Standard Wood Door	First Floor
D6	2	3.0 x 6.8	7'-3"	6'-10 1/2"		First Floor
D11	6	3.0 x 6.8	7'-1 1/2"	6'-10 1/2"		First Floor
D12	3	3.0 x 6.8	7'-3"	6'-10 1/2"		First Floor
D14	2	6.0 x 6.8	4'-3"	6'-10 1/2"	Double Door	First Floor
D16	1	4.0 x 6.8 Bifold	4'-3"	6'-10"	4 Panel Bifold	First Floor
D18	2	5.0 x 6.8 Bifold	5'-3"	6'-10"	4 Panel Bifold	First Floor
D19	3	3.0 x 6.8	7'-6"	6'-11 1/4"	Barn Door	First Floor
D11	27	3.0 x 6.8	7'-1 1/2"	6'-10 1/2"		Second Floor
D12	6	3.0 x 6.8 Bifold	3'-3"	6'-10"	4 Panel Bifold	Second Floor

AREA SCHEDULE - UNIT A	
NAME	SQ FT
Unit A Main Floor	1261 SF
	1261 SF
Unit A Garage	533 SF
	533 SF
Grand total: 2	1794 SF

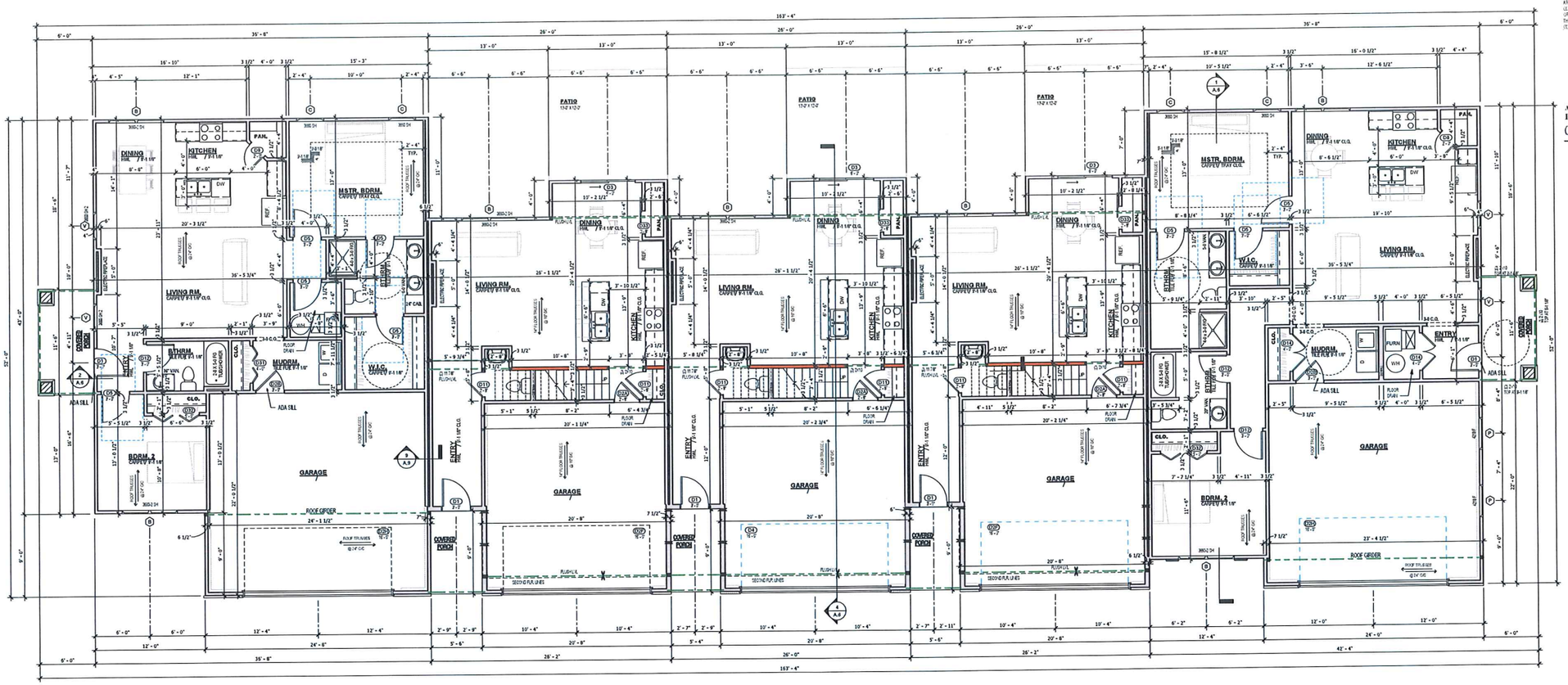
AREA SCHEDULE - UNIT B	
NAME	SQ FT
Unit B Main Floor	657 SF
Unit B Second Floor	908 SF
	1565 SF
Unit B Garage	419 SF
	419 SF
Grand total: 3	2064 SF

AREA SCHEDULE - UNIT E	
NAME	SQ FT
Unit E Main Floor	1362 SF
	1362 SF
Unit E Garage	518 SF
	518 SF
Grand total: 2	1880 SF

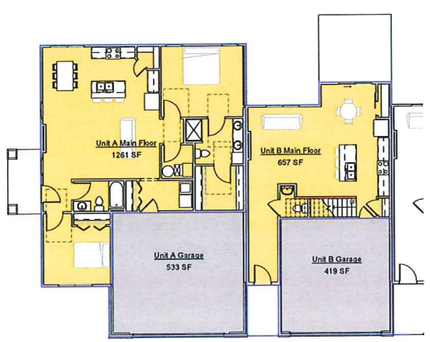
ESTIMATED AREA - 4" FLATWORK		
LOCATION	AREA	CUBIC YARDS
Floor Front Porch	150 SF	0.5 CY
Floor Garage	300 SF	1.0 CY
Floor Garage	510 SF	1.5 CY
Floor Front Porch	150 SF	0.5 CY
Floor Front Porch	150 SF	0.5 CY
Floor Garage	600 SF	2.0 CY
Floor Front Porch	150 SF	0.5 CY
Floor Garage	510 SF	1.5 CY
Floor Front Porch	150 SF	0.5 CY
Floor Garage	600 SF	2.0 CY
Floor Basement	4040 SF	14.1 CY
Floor Front Patio	156 SF	0.5 CY
Floor Front Patio	156 SF	0.5 CY
Floor Front Patio	156 SF	0.5 CY

ESTIMATED AREA - CEILING		
LEVEL	CEILING TYPE	AREA
First Flr Walls	Ceiling - Garage	1403 SF
First Flr Walls	Ceiling - House	2122 SF
Second Flr Walls	Ceiling - House	2778 SF
		7303 SF

- FOUNDATION DIMENSIONS ARE TO THE FACE OF THE FOUNDATION WALL
- THE ARCHITECT HAS NOT VERIFIED ALL EXISTING UTILITIES
- ALL INTERIOR DIMENSIONS ARE TO THE FACE OF STUD UNLESS OTHERWISE NOTED



3 First Floor A
Scale: 1/4" = 1'-0"



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Main Floor
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WINDOW SCHEDULE

ID	QTY	TYPE	ROUGH OPENINGS WIDTH	ROUGH OPENINGS HEIGHT	HEADER HEIGHT	SPECIAL NOTES	Level
B	7	3660 2 SH	3'-0"	5'-0"	7'-0"	Meets Egress	First Floor
C	4	3660 SH	3'-0"	5'-0"	7'-0"	Meets Egress	First Floor
P	2	4218 F	4'-0"	7'-0"	7'-0"	Fixed	First Floor
V	4	3660 SH 2	3'-0"	5'-0"	7'-0"	Meets Egress	First Floor
B	1	3660 2 SH	3'-0"	5'-0"	7'-0"	Meets Egress	Second Floor
C	3	3660 SH	3'-0"	5'-0"	7'-0"	Meets Egress	Second Floor
H	1	3060 CA	3'-0"	5'-0"	7'-0"	Meets Egress	Second Floor
L	2	2424 2 F	2'-0"	2'-0"		Fixed	Second Floor
S	2	3042 CA	3'-0"	4'-0"	7'-0"		Second Floor
V	3	3660 SH 2	3'-0"	5'-0"	7'-0"	Meets Egress	Second Floor
W	1	3042 CA 2	3'-0"	4'-0"	7'-0"		Second Floor

DOOR SCHEDULE

ID	QTY	DOOR SIZE	ROUGH OPENINGS WIDTH	ROUGH OPENINGS HEIGHT	SPECIAL NOTES	Level
D1	5	3.0 x 6.8 Entry	3'-2 1/4"	6'-10 3/8"	Therma Tru FD-30 • 3/4" Pad - Verify RO	First Floor
D2A	3	2.8 x 6.8 Bifold F	2'-10 1/4"	6'-10 3/8"	Therma Tru - 20 Min Fire Rated - R/O includes 3/4" Pad	First Floor
D2B	2	3.0 x 6.8 Bifold F	3'-2 1/4"	6'-10 3/8"	Therma Tru - 20 Min Fire Rated - R/O includes 3/4" Pad	First Floor
D2F	2	16.0 x 7.0 Doublebridge M - 3 Lite	16'-2"	7'-1 1/2"	Overhead Garage Door	First Floor
D2H	2	16.0 x 7.0 Doublebridge M - 6 Lite	16'-2"	7'-1 1/2"	Overhead Garage Door	First Floor
D3	3	6.0 x 6.10 Slider	6'-2"	6'-10 3/8"	Window - 60 Min - 3 Panel Slider - R/O includes 1/2" Pad	First Floor
D4	1	16.0 x 7.0 Solid Panel	16'-2"	7'-1 1/2"	Overhead Garage Door	First Floor
D5	8	3.0 x 6.8	3'-2"	6'-10 1/2"	Standard Wood Door	First Floor
D6	2	2.0 x 6.8	2'-2"	6'-10 1/2"		First Floor
D11	6	2.8 x 6.8	2'-10"	6'-10 1/2"		First Floor
D12	3	3.0 x 6.8	3'-2"	6'-10 1/2"		First Floor
D14	2	4.0 x 6.8	4'-2"	6'-10 1/2"	Double Door	First Floor
D31	1	4.0 x 6.8 Bifold	4'-2"	6'-10"	4 Panel Bifold	First Floor
D32	2	5.0 x 6.8 Bifold	5'-2"	6'-10"	4 Panel Bifold	First Floor
D33	3	2.8 x 6.8	2'-10"	6'-11 1/8"	Barn Door	First Floor
D11	27	2.8 x 6.8	2'-10"	6'-10 1/2"		Second Floor
D32	6	5.0 x 6.8 Bifold	5'-2"	6'-10"	4 Panel Bifold	Second Floor

AREA SCHEDULE - UNIT A

NAME	SQ FT
Unit A Main Floor	1251 SF
Unit A Second Floor	1251 SF
Unit A Garage	533 SF
Grand total: 3	3035 SF

AREA SCHEDULE - UNIT B

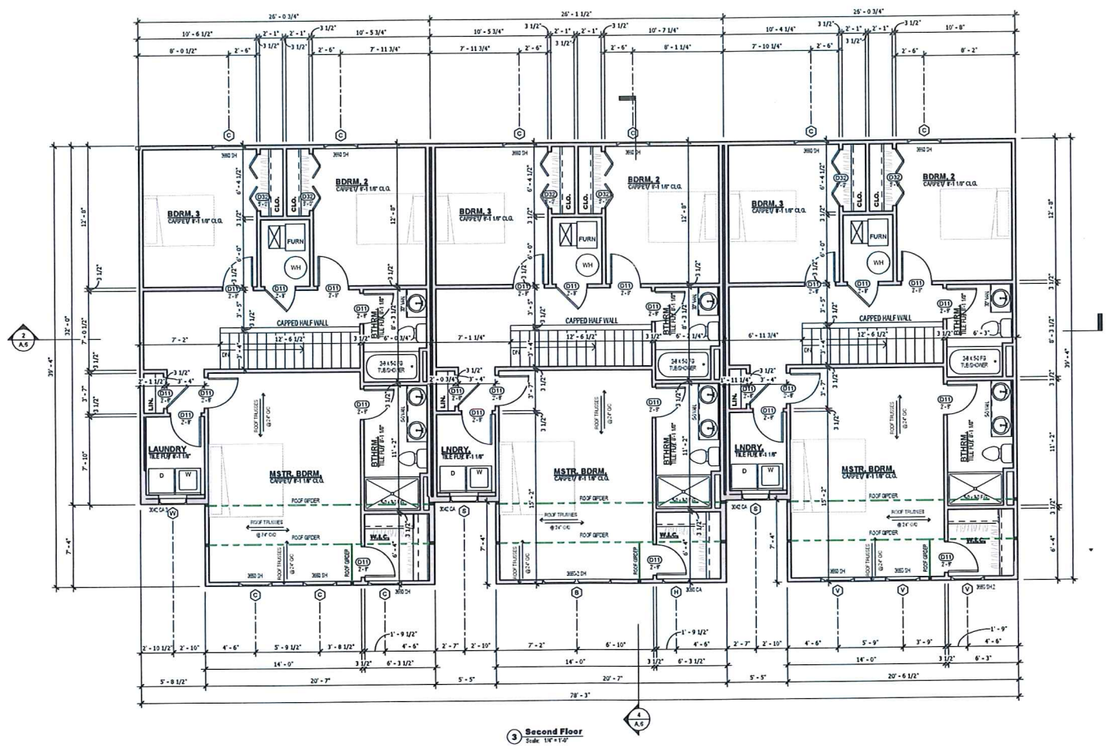
NAME	SQ FT
Unit B Main Floor	957 SF
Unit B Second Floor	988 SF
Unit B Garage	419 SF
Grand total: 3	2364 SF

AREA SCHEDULE - UNIT E

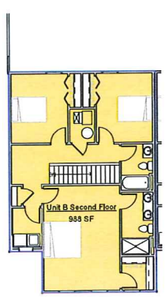
NAME	SQ FT
Unit E Main Floor	1362 SF
Unit E Second Floor	1362 SF
Unit E Garage	519 SF
Grand total: 3	3243 SF

ESTIMATED AREA - CEILING

LEVEL	CEILING TYPE	AREA
First Flr Wall Hgt	Ceiling - Garage	1498 SF
First Flr Wall Hgt	Ceiling - House	3122 SF
Second Flr Wall Hgt	Ceiling - House	2788 SF
		7407 SF



3 Second Floor
Scale: 1/4" = 1'-0"



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Ankeny, Iowa

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Second Floor
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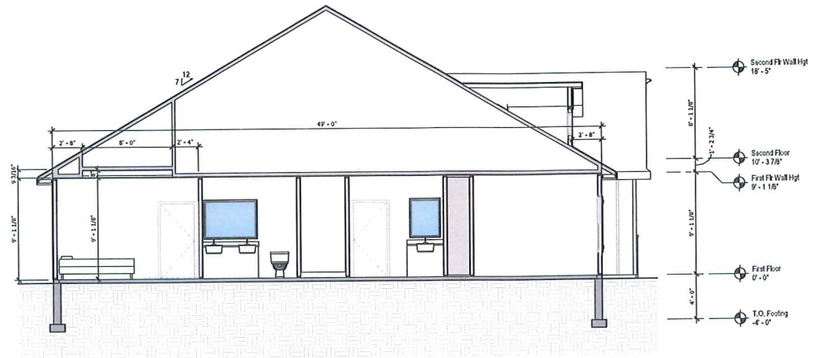
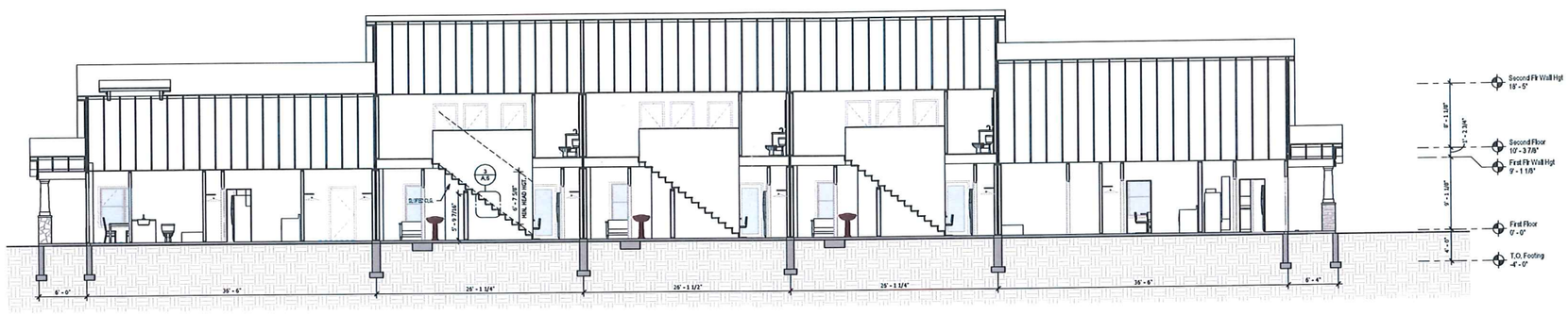
A.5



1 BUILDING SECTION A
Scale: 1/4" = 1'-0"



2 BUILDING SECTION C
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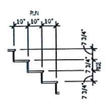

3 STAIR DETAILS
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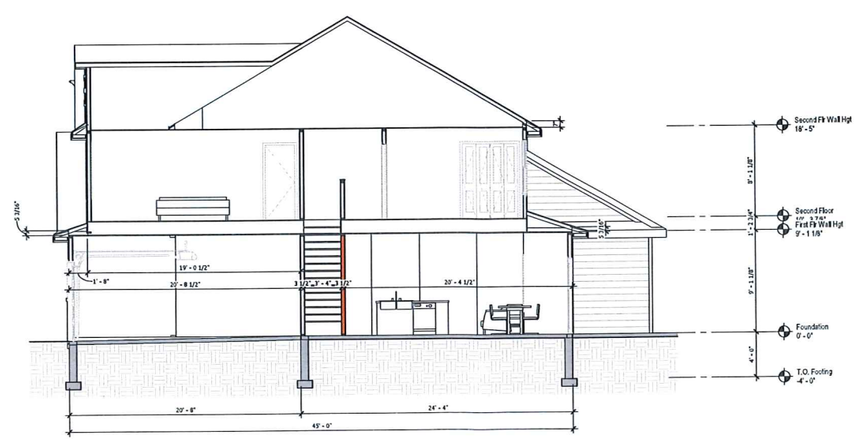

4 BUILDING SECTION D
Scale: 1/4" = 1'-0"

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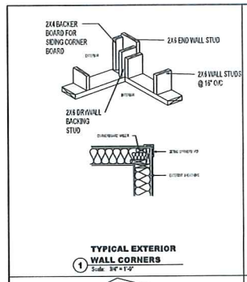
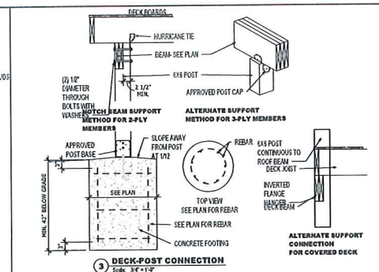
A.6



TYPICAL EXTERIOR WALL CORNERS
1 Scale: 3/8" = 1'-0"



DECK-POST CONNECTION
3 Scale: 3/8" = 1'-0"

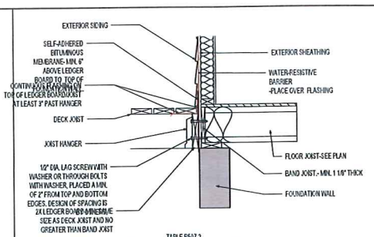
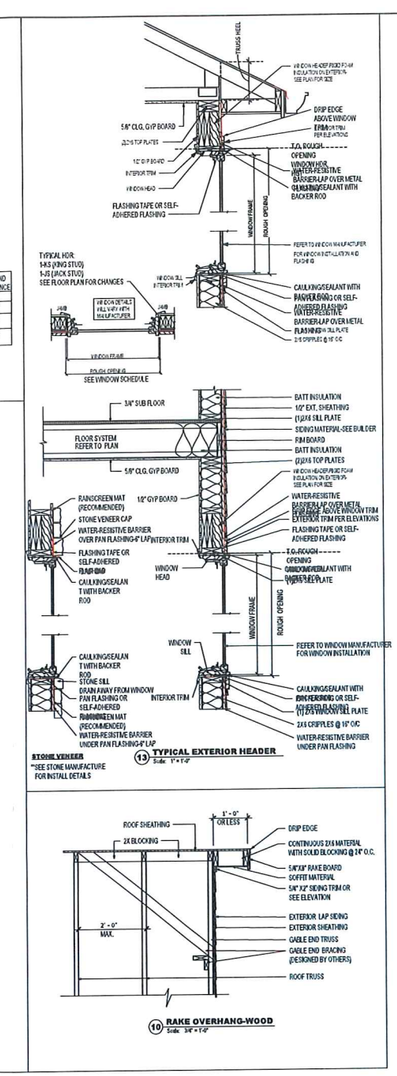


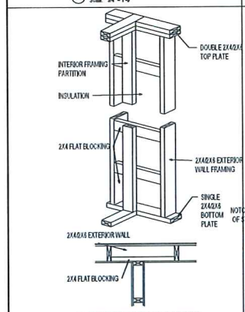
TABLE R507.2
DECK LEDGER CONNECTION TO BAND JOIST(SIMPSON STRONG TIE SDWS SCREWS
LOADING: DECK LIVE LOAD 40 PSF/DECK DEAD LOAD 10 PSF

CONNECTION DETAIL	LEDGER BOARD SIZE	MAXIMUM DECK JOIST SPAN						MIN EDGE DISTANCE	MIN END DISTANCE
		UP TO 6'-0"	UP TO 7'-0"	UP TO 8'-0"	UP TO 9'-0"	UP TO 10'-0"	UP TO 11'-0"	UP TO 12'-0"		
		MAXIMUM NUMBER OF FASTENERS (STAGGER IN 2 ROWS)								
1/2" LAG SCREWS	2X SYP	20	23	18	15	17	11	10	2"	2"
SIMPSON SDS22612DCB	1 1/8 OSB RIM	16	12	10	8	7	6	5	1 7/8"	6"
SIMPSON SDS22612DCB	1 1/4" LSL RIM	22	16	13	11	9	8	7	1 7/8"	6"
	2X SYP									

DECK LEDGER CONNECTION
2 Scale: 1" = 1'-0"



TYPICAL EXTERIOR HEADER
13 Scale: 1" = 1'-0"



EXTERIOR WALL LADDER
6 Scale: 3/4" = 1'-0"

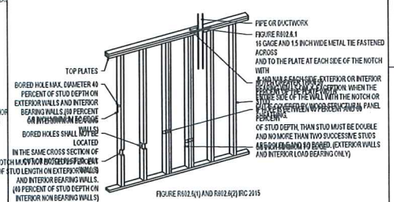
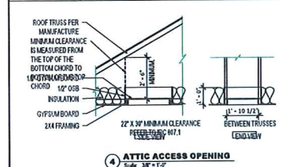
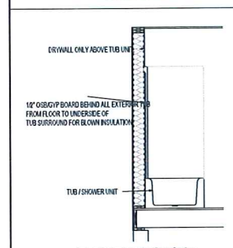


FIGURE R602.6(1) AND R602.6(2) IRC 2015

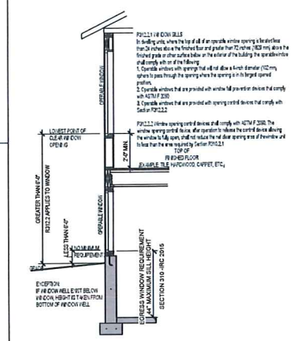
NOTCHING AND BORING HOLE LIMITATIONS
7 Scale: 3/8" = 1'-0"



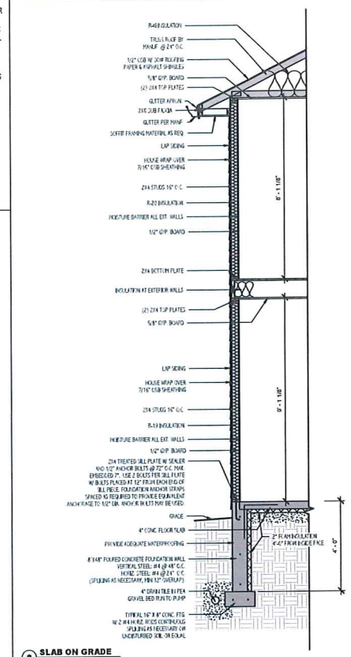
ATTIC ACCESS OPENING
4 Scale: 3/8" = 1'-0"



Bath Tub-OSB Insulation
9 Scale: 1/2" = 1'-0"



2015 IRC R612 WINDOW FALL PROTECTION
5 Scale: 3/8" = 1'-0"



SLAB ON GRADE
8 Scale: 1/2" = 1'-0"

RAKE OVERHANG-WOOD
10 Scale: 3/8" = 1'-0"

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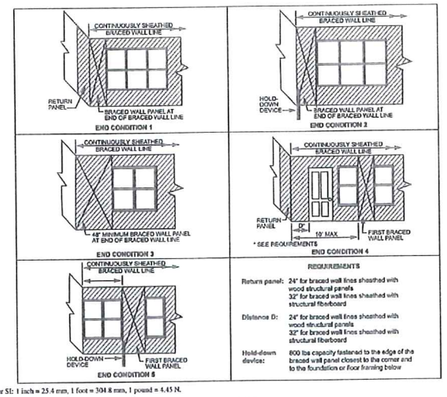
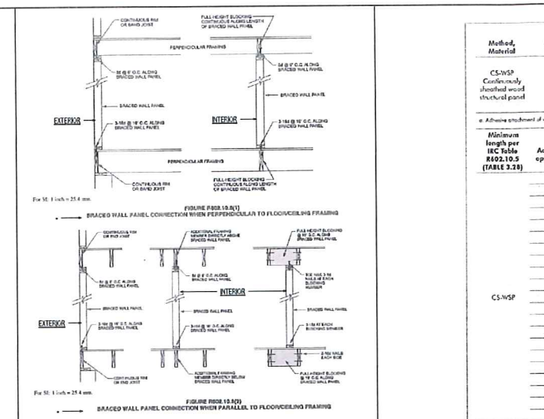
A.7



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound = 4.45 N.

FIGURE R602.10.7
END CONDITIONS FOR BRACED WALL LINES WITH CONTINUOUS SHEATHING

① **CS-END CONDITIONS**
Scale: 1/4" = 1'-0"



FASTENER SCHEDULE FOR INTERIOR BRACED WALL LINES (BWL) - NOTED ON PLAN
METHOD GB - BOTH SIDES GYP.- 7" EDGES (INCLUDING TOP & BOTTOM PLATES) & 7" FIELD
METHOD WSP - 1 SIDE OSB PLWOOD - 6" EDGES & 12" FIELD, 1 SIDE GYP

② **BRACED WALL PANEL CONNECTION**
Scale: 1/4" = 1'-0"

Method, Material	Minimum Thickness	Figure	Connection Criteria[a] Fasteners	Connection Criteria[a] Spacings
CS-WSP Continuously sheathed wood structural panel	3/8"		Exterior sheathing see Table R602.3(3)	6" spacing (panel edges); 12" spacing (intermediate supports)
			Interior sheathing see Table R602.3(3) or Table R602.3(3)	Varies by fastener

a. Adhesive attachment of wall sheathing, including Method CS, shall not be permitted in Seismic Design Categories C, D_0, D_1 and D_2.

Minimum length per IEC table R602.10.5 (TABLE 3.28)	Adjacent clear opening height (in.)	Minimum Length[a] (in.) Wall Height 8 ft	9 ft	10 ft	11 ft	12 ft	Contributing Length (in.)
CS-WSP	< 64	24	27	30	33	36	Actual
	68	25	27	30	33	36	
	72	27	27	30	33	36	
	76	30	29	30	33	36	
	80	32	30	30	33	36	
	84	35	32	32	33	36	
	88	38	35	33	33	36	
	92	43	37	35	35	36	
	96	48	41	38	35	36	
	100		44	40	38	38	
	104		49	43	40	37	
	108		54	46	43	41	
	112			50	45	43	
	116			55	48	45	
	120			60	52	48	
	124				56	51	
	128				61	54	
	132				65	58	
	136					62	
	140					65	
	144					72	

a. Linear interpolation shall be permitted.
b. Use actual length when it is greater than or equal to the minimum length.

⑥ **BRACING METHOD CS-WSP**
Scale: 1/4" = 1'-0"

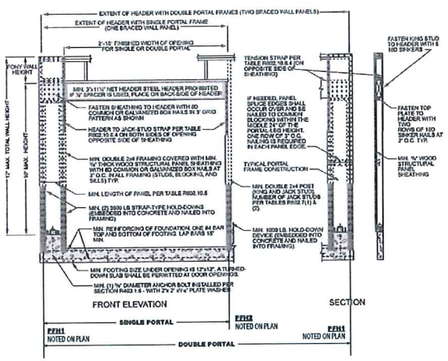


FIGURE R602.10.6.2
METHOD PFH—PORTAL FRAME WITH HOLD-DOWNS

③ **BRACING METHOD PFH**
Scale: 1/4" = 1'-0"

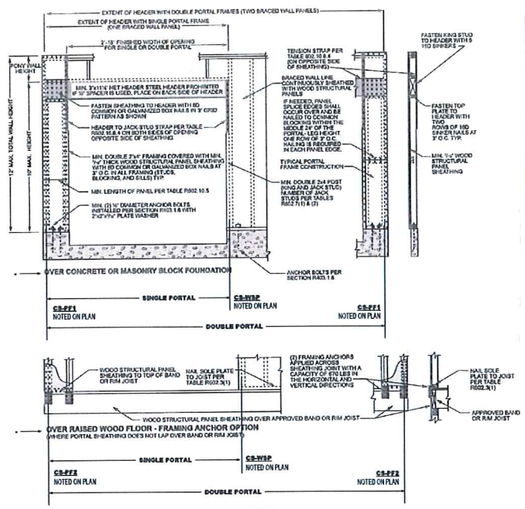


FIGURE R602.10.8.4
METHOD CS-PF—CONTINUOUSLY SHEATHED PORTAL FRAME PANEL CONSTRUCTION

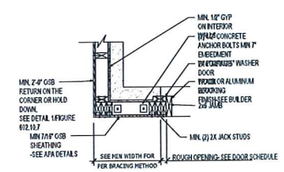
④ **BRACING METHOD CS-PF**
Scale: 1/4" = 1'-0"

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

MINIMUM WALL STUD FRAMING NOMINAL SIZE AND GRADE	MAXIMUM POSTS WALL HEIGHT (ft-in)	MAXIMUM TOTAL WALL HEIGHT (feet)	MAXIMUM GROUND SNOW LOAD (psf)	TENSION STRAP CAPACITY REQUIRED (pounds)[a, b] Ultimate Design Wind Speed V_{ult} (mph) 110	115	120	130	140
				Exposure B				
2 x 4 No. 2 Grade	1	10	15	1,000	1,000	1,000	1,000	1,192
			9	1,000	1,000	1,000	1,000	1,192
			15	1,000	1,000	1,000	1,000	1,192
	2	10	9	1,000	1,000	1,000	1,000	1,192
			15	1,000	1,213	1,270	1,394	1,550
			9	1,000	1,000	1,000	1,000	1,375
			15	1,000	1,213	1,270	1,394	1,550
	2	12	9	1,000	1,000	1,000	1,000	1,375
			15	1,000	1,213	1,270	1,394	1,550
	4	12	9	1,000	1,300	1,362	1,494	1,662
			15	1,000	1,300	1,362	1,494	1,662
2 x 6 Stud Grade	2	12	9	1,000	1,000	1,000	1,000	1,000
			15	1,000	1,000	1,000	1,000	1,000
	4	12	9	1,000	1,000	1,000	1,000	1,000
			15	1,000	1,000	1,000	1,000	1,000

For SI: 1 inch = 25.4 mm, 1 m/s per hour = 0.447 m/s.
a. ER = Design Required.
b. Straps shall be installed in accordance with manufacturer's recommendations.

10W/A = 115 mph



MIN LENGTH FOR CONTINUOUS SHEATHING - PORTFAL FRAME (CS-PF)
PER TABLE R602.10.5
(HEIGHT TAKEN FROM TOP OF FOUNDATION WALL TO TOP PLATES OF GARAGE WALL)
8'-0" WALL = 48" (2'-0") 9'-0" WALL = 54" (2'-6") 10'-0" WALL = 60" (3'-0")
11'-0" WALL = 66" (3'-6") 12'-0" WALL = 72" (4'-0")

⑤ **GARAGE DOOR JAMB - BRACING METHOD CS-PF**
Scale: 1" = 1'-0"

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Classic Builders
Roman 5 - Townhome Complex - 5 Plex
Ankeny, Iowa

PROJECT ID:
PDS 3866

ISSUE DATE:
DATE: 04-10-19
DATE: 04-23-19
DATE: 04-24-19
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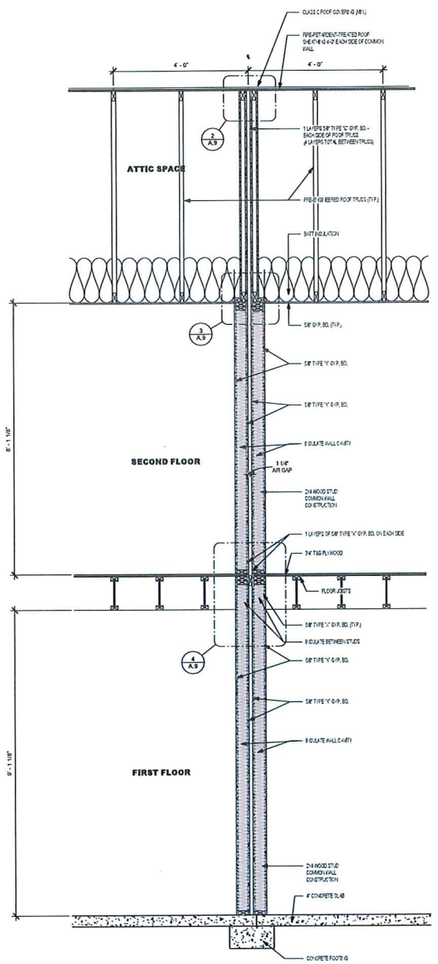
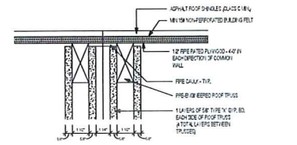
Wall Bracing
As indicated
THIS PAGE IS INTENDED TO BE PRINTED ON 24"X 36" PAPER TO BE TO SCALE

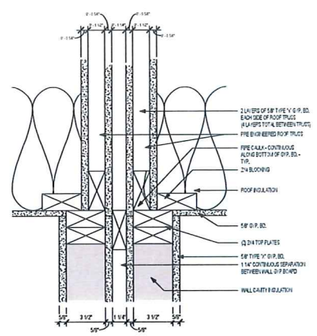
A.8



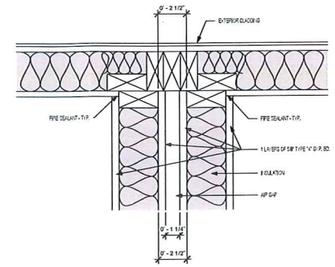
D - (2)1- HR. COMMON WALL
1 SECTION U305
Scale: 3/4" = 1'-0"



D - (2) 1 HR. COMMON WALL
2 SECTION @ ROOF JUNCTION
Scale: 3" = 1'-0"



D - (2) 1 HR. COMMON WALL
3 SECTION @ TRUSS JUNCTION
Scale: 3" = 1'-0"



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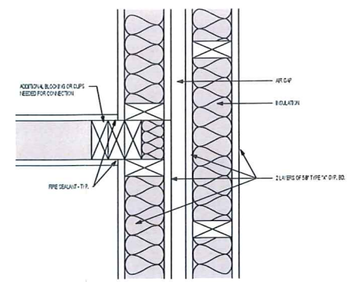
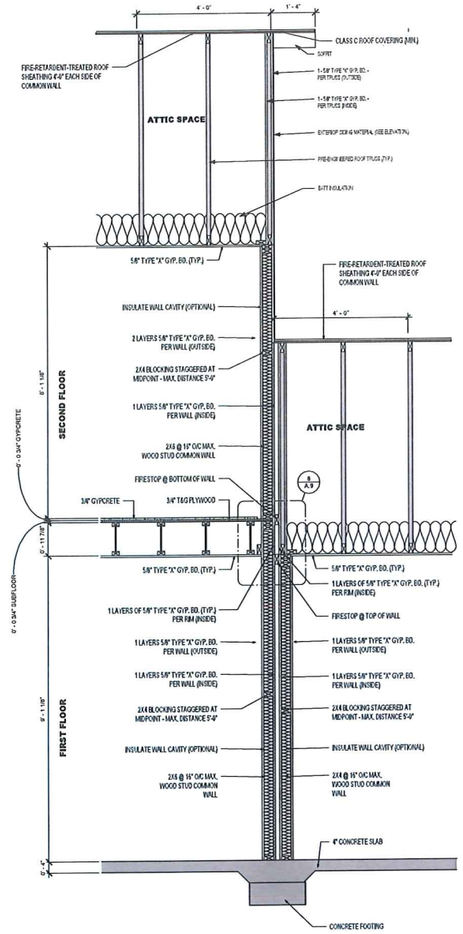
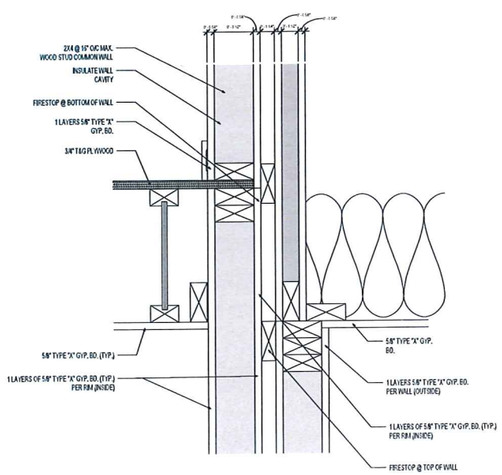
8 EXTERIOR WALL INTERSECTION
Scale: 3" = 1'-0"



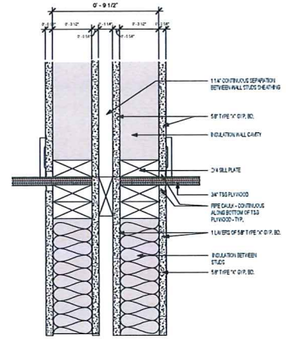
D - (2)1 HR. COMMON WALL @
6 INTERIOR WALL INTERSECTION OPTION
Scale: 3" = 1'-0"



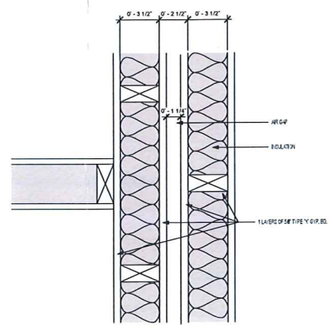
D - (2) 1 HR. COMMON WALL
9 SECTION -END WALL
Scale: 3/4" = 1'-0"



C - 2 1-HR. COMMON WALL
8 SECTION @ WALL1
Scale: 3" = 1'-0"



D - (2) 1 HR. COMMON WALL
4 SECTION @ T.O. FOUNDATION
Scale: 3" = 1'-0"



D - (2)1 HR. COMMON WALL @
7 INTERIOR WALL INTERSECTION
Scale: 3" = 1'-0"

SECTION R302

R302.2 TOWNHOUSES COMMON WALL SEPARATING TOWNHOUSES SHALL BE ASSIGNED A FIRE-RESISTANCE RATING IN ACCORDANCE WITH SECTION R302.2, ITEM 1 OR 2.

THE COMMON WALL SHARED BY TWO TOWNHOUSES SHALL BE CONSTRUCTED WITHOUT MECHANICAL EQUIPMENT, DUCTS OR VENTS IN THE CAVITY OF THE COMMON WALLS. THE WALL SHALL BE RATED FOR FIRE EXPOSURE FROM BOTH SIDES AND SHALL EXTEND TO AND BE TIGHT AGAINST EXTERIOR WALLS AND UNDERSIDE OF THE ROOF SHEATHING. ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH CHAPTER 34 THROUGH 43.

CITY OF ANKENY EXCEPTIONS:

THE PLUMBING PIPING NEEDS TO BE FIRE CAULKED WHERE THEY PENETRATE THE FIRE RATED WALL. NO SHOWER/TUB VALVES IN RATED WALL.

THE COMMON WALL SHALL BE NOT LESS THAN (2) 1 HOUR FIRE-RESISTANCE-RATED WALL ASSEMBLY IN ACCORDANCE WITH ASTM E 119 OR UL 263

R302.2.1 CONTINUITY

THE FIRE RESISTANCE WALL OR ASSEMBLY SEPARATING TOWNHOUSES SHALL BE CONTINUES FROM THE FOUNDATION TO THE UNDERSIDE OF THE ROOF SHEATHING, DECK OR SLAB, SHALL EXTEND THE FULL LENGTH OF THE WALL OR ASSEMBLY, INCLUDING WALL EXTENSIONS THROUGH AND SEPARATING ATTACHED ENCLOSED ACCESSORY STRUCTURES.

R302.2.3 PARAPETS FOR TOWNHOUSES

2. EXCEPTION: ROOF COVERING COMPLIES WITH A MINIMUM CLASS C RATING AS TESTED IN ACCORDANCE WITH ASTM E 108 OR UL 790 AND THE ROOF DECKING OR SHEATHING IS OF NONCOMBUSTIBLE MATERIAL OR APPROVED FIRE-RETARDANT-TREATED WOOD FOR A DISTANCE OF 4'-0" ON EACH SIDE OF THE WALL OR WALLS.

R302.2.4 STRUCTURAL INDEPENDENCE.

EACH TOWNHOUSE SHALL BE STRUCTURAL INDEPENDENCE EXCEPTIONS:

1. FOUNDATION SUPPORTING EXTERIOR WALLS OR COMMON WALL
2. STRUCTURAL ROOF AND WALL SHEATHING FROM EACH UNIT FASTENED TO THE COMMON WALL FRAMING
3. NON STRUCTURALLY WALL OR ROOF COVERING
4. FLASHING AT TERMINATION OF ROOF COVERING OVER COMMON WALL
5. TOWNHOUSES SEPARATED BY A COMMON WALL AS PROVIDED IN SECTION R302.2.2 ITEM 1 OR 2

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(2) -1 Hr
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CITY OF ANKENY

GENERAL NOTES:

A. ALL CONSTRUCTION AND MATERIALS SHALL MEET OR EXCEED 2012 STATE LOCAL BUILDING CODES WHICH ARE DIFFERENT OR SPECIFICATIONS AND REQUIREMENTS THAN WHAT IS LISTED IN THIS PLAN SHALL BE LOCAL REQUIREMENTS WILL SUPERSEDE THE PLAN. 2012 STATE LOCAL BUILDING CODES APPLIES FOR PLAN CHECKS.
B. CONTRACTOR TO CONFIRM THE SIZE, GRADE AND SPECIES OF LUMBER OF ALL STRUCTURAL AND FRAMING MEMBERS, ANY STRUCTURAL AND FRAMING MEMBERS NOT LOCATED AND NOTED BY DESIGNER OF RECORD CONTACTOR.
C. THE OWNER/CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE MEASURE OF THE BUILD UP WHICH ARE VOID.
D. ALL PRODUCTS MUST BE INSTALLED PER THE MANUFACTURES RECOMMENDATIONS.
E. ALL MECHANICAL, PLUMBING AND ELECTRICAL SYSTEMS MUST BE DESIGNED BY OTHERS.
F. ALL DESIGN OF FRAMING MEMBERS FOR CONCRETE, STEEL AND DESIGN DETERMINE ON SITE FOR FINAL SPACE.
G. THE DRAWINGS ARE DESIGNED FOR PRESCRIPTIVE METHOD TO MEET AND EXCEED THE MINIMUM CONSTRUCTION, THE PROJECT HAS BEEN GRANTED PRESCRIPTIVE TO DATE BY STANDARDS.

CHAPTER 3 (BUILDING PLANNING)

A. BUILDING AND STRUCTURES, AND ALL PARTS THEREOF, SHALL BE CONSTRUCTED TO SAFELY SUPPORT ALL LOADS INCLUDED DEAD LOADS, LIVE LOADS, ROOF LOADS, FLOOR LOADS, SNOW LOADS, AND LOADS AND EFFECTS LOADS AS PRESCRIBED BY THE CODE (R301).
B. TABLE R301(5), SPECIFIC SNOW LOADS FROM THE CITY OF DES MOINES, IOWA.

ROOF TYPE	SPACE	RIDGE DIRECTION			VALUES CALCULATED							
		STYLE	SLOPE	RIDGE DIRECTION	SNOW LOAD		SNOW LOAD		ENTER SNOW LOAD	PLUS	OR	ENTER ROOF PITCH
					ACTUAL PSF	OPTIN	VERIFY					
B-TYP	CV	HIP	4/12	NORTH	0	0	0	0	0	0	0	4/12

C. MINIMUM LIVE LOADS, (TABLE R301(4))

UNINHABITABLE ATTICS WITHOUT STORAGE	10 PSF
UNINHABITABLE ATTICS WITH STORAGE	20 PSF
HABITABLE ATTICS AND SECOND FLOORS (TYP)	30 PSF
DECKS AND EXTERIOR BALCONIES	40 PSF
GUARDRAIL AND HANDRAILS	200 PSF
ROOM OTHER THAN SLEEPING ROOMS	40 PSF
SLEEPING ROOMS	30 PSF
STAIRS	40 PSF

DESIGN DATA (CONTINUED)	
FLOOR LIVE LOAD	L=80
FLOOR TOTAL LOAD	L=80
ROOF LIVE LOAD	L=30
ROOF TOTAL LOAD	L=30
WALL	H=50

ALL BEAMS SUPPORTED BY FLOOR OR ROOF LOADS ARE TO BE DESIGNED AND METHOD AS DEFLECTION CRITERIA

D. DEAD LOADS, ADDITIONAL OR OWNER SUPPLIED MATERIAL NEEDS TO BE ADDED TO THE BELOW CALCULATIONS

FLOOR TYP DATA		ROOF TYP DATA	
3/4 PLYWOOD FLOOR	1.5 PSF	ROOFING DATA (INCLUDES 1/2 PLYWOOD)	4.0 PSF
NO CERAMIC TILE 1/2" BACKER BD.	10 PSF	1/2 GYP. BOARD	2.0 PSF
3/4 PLYWOOD FLOOR	4.5 PSF	1/2" OSB OR 3/8" PLYWOOD	1.0 PSF
1/2 PLYWOOD FLOOR OR 5/8 PLYWOOD	1.0 PSF	1/2 ROOF TRUSS DATA	1.0 PSF
1/2 ROOF TRUSS JOIST SYSTEM	1.5 PSF	CORRECTION FOR ROOF DATA	1.0 PSF
TOTAL NEW GYPSUM FLOOR	**5.5 PSF**	**TOTAL**	**9.00 PSF**
TOTAL NEW PLAN NAILER BD	**10.5 PSF**		
TOTAL NEW PLYWOOD FLOOR	**7.5 PSF**	**FLOOR DATA (CONTD)**	
		1/2 ROOF TRUSS DATA	1.0 PSF
FLOOR DATA (CONTD)		1/2" GYP BOARD	2.0 PSF
1/2 ROOF TRUSS JOIST SYSTEM	1.5 PSF	MINIMUM FOR MISC MECHANICAL ELEC	1.0 PSF
1/2" GYP BOARD	2.0 PSF	1/2" BATTS OR INSULATION	1.0 PSF
MINIMUM FOR MISC MECHANICAL ELEC.	1.0 PSF		
TOTAL	**5.0 PSF**	**TOTAL**	**7.00 PSF**

SECTION R303 LIGHT AND VENTILATION IN HABITABLE ROOMS, PROVIDE NATURAL LIGHT AND VENTILATION WITH OPENABLE WINDOWS, WINDOW SIZE IN GENERAL SHALL NOT BE LESS THAN 8% OF THE FLOOR AREA OF EACH ROOM, 1/2 THE REQUIRED WINDOW AREA SHALL BE OPENABLE TO THE EXTERIOR FOR NATURAL VENTILATION.
R303.3 BATHROOMS MAY HAVE AN OPENABLE WINDOW OF 3 FT X 5 FT IN AREA.
- EXCEPTION:
1. BATHROOM AND WATER CLOSET MAY BE VENTILATED WITH EXHAUST FANS AND ARTIFICIAL LIGHT.

SECTION R304 THE MINIMUM AREA OF ANY HABITABLE ROOM SHALL NOT BE LESS THAN 70 SQ. FEET, EXCEPT KITCHEN.
R304.2 THE MINIMUM LENGTH OF ANY HABITABLE ROOM SHALL NOT BE LESS THAN 7 FT.

SECTION R305 CEILING HEIGHT, HABITABLE SPACE, HALLWAY, AND PORTION OF THE BASEMENT CONTAINING THESE SPACES SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7 FEET. BATHROOM, TOILET ROOM AND LAUNDRY ROOMS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 6 FT 8 IN.
- EXCEPTION:
1. FOR ROOMS WITH SLOPED CEILING THE REQUIRED FLOOR AREA OF THE ROOM SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 5 FT AND NOT LESS THAN 50% OF THE REQUIRED FLOOR AREA SHALL HAVE A CEILING OF LESS THAN 7 FT
2. THE CEILING ABOVE AN IMPROVED ATTIC FLOOR THAT IS SPACE SHALL BE SUCH THAT THE PORTION OF SPACE USED FOR STORAGE PURPOSE, AS OWNER OR BUILDER PROVIDES WITH A CEILING HEIGHT OF NOT LESS THAN 5 FT ABOVE THE AREA OF NOT LESS THAN 30 FT AT THE OVERHEAD.
3. DUCTS, GRIPSES, DUCTS, OR OTHER OBSTRUCTIONS IN BASEMENT CONTAINING HABITABLE SPACE SHALL BE PERMITTED TO PROJECT TO A HEIGHT OF THE BEAM FLOOR.

R305.1.1 BASEMENT PORTION OF BASEMENT THAT DO NOT CONTAIN HABITABLE SPACE OR HALLWAYS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 6 FT
- EXCEPTION:
1. BEAMS, GRIPSES, DUCTS, OR OTHER OBSTRUCTIONS IN BASEMENT CONTAINING HABITABLE SPACE SHALL BE PERMITTED TO PROJECT TO A HEIGHT OF THE BEAM FLOOR.

SECTION R307.1 TOILET, BATH AND SHOWER SPACES, PER PIPES SHALL BE SPACED IN ACCORDANCE WITH PLUMBER PART.
1. TOILET MUST BE FROM WALL OR FURNITURE.
- MIN 30" CLEAR WIDTH IN FRONT OF TOILET
2. VANITY MUST CLEAR WIDTH IN FRONT OF VANITY

SECTION R308 GLAZING EXCEPT AS INDICATED IN SECTION R308.3 EACH PANE OF GLAZING INSTALLED IN HAZARDOUS LOCATION DEFINED IN SECTION
R308.4 SHALL BE PROVIDED WITH A MARKING THAT IDENTIFIES IT AS DESIGNED TO COMPLY WITH THE APPLIED DESIGN STANDARD, DESIGN WITH THE TYPE OF GLASS AND THE SAFETY GLAZING STANDARD.
R308.4.2 GLAZING ADJACENT TO DOORS. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL ADJACENT TO A DOOR SHALL BE CONSIDERED TO BE A HAZARDOUS LOCATION WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 ABOVE THE FLOOR OR WALKING SURFACE AND MEETS ANY OF THE FOLLOWING CONDITIONS:
1. WHERE THE GLAZING IS WITHIN 24 INCHES EITHER SIDE OF THE DOOR IN THE PLANE OF THE DOOR IN AN CLOSED POSITION
2. WHERE THE GLAZING ON THE WALL PERPENDICULAR TO THE PLANE OF THE DOOR IN A CLOSED POSITION AND WITHIN 60" OF THE EDGE SIDE OF AN OPENING DOOR.
- EXCEPTION:
1. DECORATIVE GLASS
2. WHERE THERE IS A WALL OR OTHER PERMANENT BARRIER BETWEEN DOOR AND THE GLAZING
3. WHERE ACCESS THROUGH THE DOOR IS TO A CLOSET OR STORAGE AREA FEWER THAN 24 INCHES IN DEPTH
4. GLAZING THAT IS ADJACENT TO A RAISED PANEL OF EXTERIOR DOOR
R308.4.3 GLAZING IN WINDOWS. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL THAT MEETS ALL OF THE FOLLOWING CONDITIONS:
1. THE EXPOSED AREA OF AN INDIVIDUAL PANE IS GREATER THAN 9 SQUARE FEET
2. THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 18" ABOVE THE FLOOR
3. THE TOP EDGE OF THE GLAZING IS MORE THAN 36" ABOVE THE FLOOR AND
4. ONE OR MORE WALKING SURFACE WITHIN THE WITHIN 36" MEASURED HORIZONTALLY AND IN A STRAIGHT LINE, OF THE GLAZING
- DESCRIPTION:
1. DECORATIVE GLASS
2. WHERE THERE IS A WALL OR OTHER PERMANENT BARRIER BETWEEN DOOR AND THE GLAZING
R308.4.4 GLAZING IN FIXED OR SLIDING PANELS. GLAZING IN WALLS, ENCLOSURES OR FENCES CONTAINING OR FACING HOT TUBS, SPAS, WHIRLPOOL, SAUNAS, STEAM ROOMS, BATHTUBS, SHOWERS AND INDOOR OR OUTDOOR POOLS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60" MEASURED VERTICALLY ABOVE THE STANDING OR WALKING SURFACE
R308.4.5 GLAZING ADJACENT TO STAIRS AND RAMPS. GLAZING WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 36" ABOVE THE PLANE OF THE ADJACENT WALKING SURFACE OF THE STAIRWAY, LANDING OR BETWEEN SURFACE OF STAIRS AND RAMPS.
- EXCEPTIONS:
1. WHERE RAILINGS ARE INSTALLED ON THE ACCESSIBLE SIDE OF THE GLAZING AND TO 36" ABOVE WALKING SURFACE.

SECTION R310 EMERGENCY ESCAPE AND RESCUE OPENING. BASEMENT, HABITABLE ATTICS AND EVERY SLEEPING ROOM SHALL HAVE AN EMERGENCY ESCAPE AND RESCUE OPENING.
- EXCEPTION: STORM SHELTERS AND BASEMENTS USED ONLY TO HOUSE MECHANICAL EQUIPMENT NOT EXCEEDING A TOTAL FLOOR AREA OF 200 SQUARE FEET.
R310.1.1 MINIMUM OPENING AREA. EMERGENCY AND ESCAPE OPENING SHALL HAVE A NET CLEAR OPENING OF NOT LESS THAN 5.7 SQUARE FEET. THE NET CLEAR AREA OF EACH WINDOW REQUIRED BY THIS SECTION SHALL BE OBTAINED BY NORMAL OPERATION FROM THE INSIDE. THE NET CLEAR HEIGHT OPENING SHALL NOT BE LESS THAN 24" AND THE NET CLEAR WIDTH SHALL NOT BE LESS THAN 20"
R310.2.2 WINDOWS SILL HEIGHT. WHERE THE WINDOWS ARE PROVIDED AS THE EMERGENCY ESCAPE AND RESCUE OPENING SHALL BE A SILL HEIGHT OF NOT MORE THAN 44" ABOVE THE FLOOR.
R310.2.3 WINDOWS WELLS. THE HORIZONTAL AREA OF THE WINDOW WELL SHALL NOT BE LESS THAN 9 SQ FT, WITH THE HORIZONTAL PROJECTION AND WIDTH OF NOT LESS THAN 36" THE AREA OF THE WINDOW WELL SHALL ALLOW THE EMERGENCY ESCAPE AND RESCUE OPENING TO BE FULLY OPENED.
- EXCEPTION:
1. THE LADDER OR STEPS SHALL BE PERMITTED TO ENCROACH NOT MORE THAN 6".
R310.2.3.1 WINDOW WELLS WITH VERTICAL STEP OPENING THAN 36" SHALL BE EQUIPPED WITH A PERMANENT LADDER NOT LESS THAN 12" WIDE

SECTION R311
R311.3.1 STAIRWAYS. STAIRWAYS ARE TO BE NOT LESS THAN 36" WIDE IN CLEAR WIDTH AT ALL POINTS ABOVE THE PERMITTED HANDRAIL HEIGHT. HANDRAILS SHOULD PROJECT MORE THAN 4.5" ON EITHER SIDE OF THE STAIRWAY.
R311.7.8 HEADROOM. THE HEADROOM IN THE STAIRWAY SHALL BE NOT LESS THAN 6'8" MEASURED VERTICALLY FROM THE SLOPED LINE ADJOINING THE TREAD NOSING OR FROM THE FLOOR SURFACE OF THE LANDING
R311.7.9 VERTICAL RISE. A FLIGHT OF STAIRS SHALL NOT HAVE A VERTICAL RISE LARGER THAN 12 FT
R311.7.5 THE MINIMUM TREAD DEPTH IS 11" WITH A MINIMUM RUN OF 11".
R311.7.8 HANDRAILS SHALL BE ON NOT LESS THAN 1/2 THE SIZE OF EACH CONTOUR SURFACE OF THE ROS

SECTION R313 SINGLE AND MULTIPLE STATION SMOKE ALARMS SHALL COMPLY WITH NFPA 72 AND NFPA 74 AND 297
R314.2.2.2 ON EACH BUILDING FLOOR
1. ON EACH SLEEPING ROOM
2. OUTSIDE EACH SEPARATE SLEEPING AREA
3. ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS
4. SMOKE ALARMS SHALL BE INSTALLED NOT LESS THAN 3 FT HORIZONTAL PATH FROM THE DOOR OR OPENING OF A BATHROOM THAT CONTAINS A BATHTUB OR SHOWER UNLESS THE ONLY PATH BETWEEN THE ALARMS AND THE BATHROOM WOULD PASS THROUGH THE KITCHEN.
R314.3.1 SMOKE ALARMS SHALL NOT BE INSTALLED IN THE FOLLOWING AREAS:
1. EXCEPTION: SMOKE ALARMS SHALL NOT BE INSTALLED LESS THAN 3 FEET HORIZONTAL PATH FROM A PERMANENTLY INSTALLED COOKING APPLIANCE.
2. EXCEPTION: SMOKE ALARMS SHALL COMPLY WITH UL 217, COMBINATION CARBON MONOXIDE AND SMOKE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL 217 AND UL 217.
R314.3.1.1 CARBON MONOXIDE ALARMS SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS WHERE EITHER OR BOTH OF THE FOLLOWING CONDITIONS EXIST:
1. CONTAINS A FUEL-FIRED APPLIANCE
2. ATTACHED GARAGE WITH AN OPENING THAT COMMUNICATES WITH THE DWELLING
SECTION R317 PROTECTION OF WOOD AND WOOD-BASED PRODUCTS AGAINST DECAY.
R317.1 LOCATION REQUIRED PROTECTION OF WOOD AND WOOD-BASED PRODUCTS FROM DECAY SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS IN USE OF WOOD FULLY EXPOSED TO THE WEATHER, OR WOOD THAT IS PERIODICALLY WETTED BY RAIN OR DEW, SUFFICIENT TO CAUSE DECAY TO THE SPECIES PRODUCT PRESENT IN THE WOOD USE.
1. WOOD JOISTS OR BOTTOM OF WOOD STRUCTURAL FLOOR AND FLOOR SYSTEMS THAT ARE OF WOOD SPECIES LISTED IN SECTION 1210 TO THE EXPOSED SPACE BELOW SPACES OR UNVENTILATED CRAWL SPACES WITH AN THE PERIMETER OF THE BUILDING FOUNDATION.
2. WOOD FRAMING MEMBERS THAT REST ON CONCRETE OR MASONRY EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 8" FROM EXPOSED GROUND.
3. SILLS AND SUBSILLS ON A FOUNDATION OR FOUNDATION SLAB THAT IS IN DIRECT CONTACT WITH THE GROUND AND ARE LESS THAN 8 INCHES FROM EXPOSED GROUND.
4. THE BOTTOM OF WOOD SIDING EXTERIOR CONCRETE WALLS THAT HAS CLEARANCE OF LESS THAN 1 FT ON THE SIDES AND EDGES
5. WOOD SIDING, SHEATHING AND FRAMING ON THE EXTERIOR OF A BUILDING WHERE A CLEARANCE OF LESS THAN 6" FROM THE GROUND OR LESS THAN 2 INCHES FROM EXPOSED SURFACE OF FLAT OR HORIZONTAL SURFACES EXPOSED TO THE WEATHER.
6. WOOD STRUCTURAL MEMBERS SUPPORTING MOISTURE PRESERVE BLE ROOFS OR POORS THAT ARE EXPOSED TO THE WEATHER, FLOOR AND CONCRETE SLABS.
7. WOOD FRAMING STEPS OF OTHER WOOD FRAMING MEMBERS ATTACHED DIRECTLY TO THE EXTERIOR OF EXTERIOR MASONRY OR CONCRETE WALLS BELOW SPACE EXCEPT WHERE WE APPROVED APPROPRIATE PRESERVE APPLIED BETWEEN WALL AND THE PLATE WITH SILL.
R317.3.1 FASTENERS OF PRESERVATIVE TREATED WOOD. FASTENERS, EXCLUDE NAILS AND WASHERS, FOR PRESERVATIVE TREATED WOOD SHALL BE OF MATERIAL RECOMMENDED FOR THAT PURPOSE, STAINLESS STEEL, SILICON BRONZE OR COPPER COATED TYPES AND WHERE FOR CONNECTIONS IN CONTACT WITH PRESERVATIVE TREATED WOOD SHALL BE ACCEPTABLE WITH THE CONDITIONS AND MANUFACTURES RECOMMENDATIONS.

CHAPTER 4 (FOUNDATIONS)

SECTION R401 SOIL TEST WHERE QUANTITIES ARE ESTIMATED BY ACCEPTABLE SOIL TEST OR METHOD TO CLASSIFY INDICATE EXPANSIVE, COMPRESSIBLE, SHIFTING OR OTHER UNFAVORABLE CHARACTERISTICS, THE BUILDING OFFICIAL SHALL DETERMINE WHETHER SOIL TEST REQUIRED.

TABLE R401.1	
CLASS OF MATERIAL	LOAD BEARING VALUE
SAND, SILTY SAND, CLAYEY SAND	1,500 PSF PER SQ FT
SILTY GRAVEL AND CLAYEY GRAVEL	
CLAYEY GRAVEL, SILTY GRAVEL, CLAYEY SILT, SILTY SAND, CLAYEY SILT	1,500 PSF PER SQ FT

THE DESIGN IS BASED ON 1,500 POUNDS PER SQ FT, UNLESS NOTED OTHERWISE, IT IS THE BUILDER OR HOMEOWNER RESPONSIBLE TO LIST PLAN DESIGN SERVICE WHOM IF THE CONDITION IN THE FIELD ARE DIFFERENT.

R403.2 CONCRETE FROM TABLE R402.2
- FOUNDATION CONCRETE WALLS SHALL HAVE A MINIMUM STRENGTH OF 3000 PSI
- GARAGE FLOOR SLABS SHALL BE 3000 PSI
- PORCHES, EXPOSURE SLABS AND STEPS SHOULD TO THE HEATER SHALL BE 3000 psi AT 28 DAYS
- BASEMENT SLABS 3000 PSI
- CONCRETE SHALL BE AIR ENTRAINED WITH 6% TOTAL AIR CONTENT.

R403 ALL POSTS OR SHALL BE PLACED ON UNTREATED SOIL OR CONTROLLED COMPACTED FILL MINIMUM POSTS OR TO BE NOT MORE THAN 50" FROM BUILDING AND 12" WIDE AND 12" DEEP FOR A 1 STORY BUILDING 12" WIDE AND 12" DEEP FOR A 2 STORY BUILDING
2 CONTINUOUS HORIZONTAL REBAR.
R403.1.6 ALL ANCHOR BOLTS SHALL BE APPROXIMATELY 1/2 IN DIAMETER AND SHALL EXTEND A MINIMUM OF 7 INCHES INTO CONCRETE. USE TWO BOLTS PER SILL PLATE WITH BOLTS SPACED NOT A MAX MINIMUM OF 3 INCHES FROM EDGE OF SILL PLATE. THE BOLTS SHALL BE LOCATED IN THE MIDDLE THIRD OF THE WIDTH OF THE PLATE.
- ALTERNATE FOUNDATION STRAPS MAY BE USED, SPECIFICATION TO APPROVED BY AN ENGINEER AND ANCHOR TO A 12" DEEP ANCHOR BOLTS.
R404 CONCRETE FOUNDATION WALLS SHALL BE CONSTRUCTED AS SET FORTH IN TABLE R404.1.1(1). REFER TO TYPICAL WALL SECTION ON THE PLAN FOR SPECIFICATION.
R405 FOUNDATION WATERPROOFING AND DRAINAGE PROVIDING
EXCEPT WHERE REQUIRED IN SECTION R406.2 THE EXTERIOR PERIMETER FOUNDATION WALLS THAT RETAIN EARTH AND ENCLOSED INTERIOR SPACES AND FLOORS, REMOVE SPACE SHALL BE WATERPROOF IN ACCORDANCE WITH THE PLAN OR SPECIFICATION.
R406 DRAINAGE
1. DRAIN TILE SHALL BE PLACED ON A MINIMUM 2 INCHES OF GRAVEL OR CRUSHED STONE AND COVERED WITH 6 INCHES OF GRAVEL OR CRUSHED STONE. THE DRAIN TILE SHALL BE PLACED AT THE BOTTOM OF THE FOOTING AND SHALL BE PROVIDED WITH A FILTER MATERIAL THAT PROVIDES A FREE FLOW OF WATER TO THE DRAIN TILE. THE DRAIN TILE SHALL BE PROVIDED WITH A CLEANOUT.

CHAPTER 5 (FLOORS)

FRAMING MATERIALS SPECIES
A. ROOF, FLOOR AND SMALL BEAMS (4 X 6 AND 4 X 8) ARE NOT SHOWN ON THE PLAN, LESS THAN 6" SPACING AT 4 FT AS BEAMS AND DESIGNED.
B. WALL STUDS: DOUGLAS FIR #2 OR BETTER.
C. WALL PLATES: DOUGLAS FIR #2 OR BETTER.
D. DIMENSIONAL HEADERS: DOUGLAS FIR #2 OR BETTER.
E. LVL HEADERS: 2000 PSI 2.0E MINIMUM.
F. STEEL: ASTM SPECIFICATION AND GRADES SHOWN.
R502.6 JOIST AND BEAM HANGER. BEAM OR PARTITIONS SHALL BE OF ADEQUATE SIZE TO SUPPORT THE LOAD.
R502.8 THE ENDS OF EACH JOIST, BEAM OR GIRDER SPAN SHALL HAVE NOT LESS THAN 1 INCHES OF BEARING ON WOOD OR METAL AND NOT LESS THAN 3 INCHES ON CONCRETE.
R502.9 NO CUTS, NOTCHES AND HOLES BORED INTO TRUSSES, STRUCTURAL CHORDS OR FLANGES OF LAMINATED VENEER LUMBER OR LAMINATED MEMBERS, OR A JOIST AND PRUNED EXCEPT WHERE THE MANUFACTURERS RECOMMENDATION OR DESIGN BY PROFESSIONAL.
R502.11 WOOD TRUSSES SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THIS CHAPTER. REFER TO THE INDIVIDUAL TRUSS DESIGN DRAWINGS FOR AND SPACING AND MAX CONNECTION OF GIRDERS, BEAMS SHOULD BE REFERED TO FOR HANGER INSTALLATION AND SPACING OF METAL PLATE TRUSSES.
R502.3 ENTERPRISE DECK LEDGER CONNECTION TO BAND JOIST. DECK LEDGER CONNECTION TO BAND JOIST SHALL BE IN ACCORDANCE WITH THE SECTION TABLE R502.2 AND FIGURE 1, AND REQUIRED FIGURE 3.1(1), AND FIGURE 3.1(2).

CHAPTER 6 (WALL CONSTRUCTION)

R602.1 SAWN LUMBER. SAWN LUMBER SHALL BE IDENTIFIED BY A GRADE MARK OF AN ACCREDITED LUMBER GRADING OR INSPECTION AGENCY OR A CERTIFICATION AGENCY WHICH HAVE BEEN VALIDATED BY ACCREDITATION AGENCY THAT COMPLIES WITH DOC PS 20.
R602.3 REFER TO TABLE R602.3(1) THROUGH TABLE R602.3(6) FOR FRAMING AND NAILING PATTERNS
R602.6 DRILLING AND NOTCHING. REFER TO FIGURE R602.6.1 AND FIGURE 2 AND DETAIL A FOR DRAWING FOR FREE.
R602.7 THE ALLOWABLE SPANS OF SPECIFIED HEADERS SHALL BE DETERMINED FROM DIMENSIONAL LUMBER ON EXTERIOR WALLS SHALL NOT EXCEED THE VALUES OF TABLE R602.7(1).
R602.8 PIPES, DUCTS AND SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT SPACES, BOTH VERTICAL AND HORIZONTAL AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES AND BETWEEN ATTIC STORY AND ROOF SPACE.
R602.10 WALL BRACING. BUILDING SHALL BE PLACED IN ACCORDANCE WITH SECTION OR FIGURE 1 (SIMPLIFIED METHOD), FROM TABLE R602.10.4 USE CS-PF BRACING METHOD WITH MINIMUM SHEATHING.

CHAPTER 7 (WALL COVERING)

R703.1 GENERAL. EXTERIOR COVERING OR WALL FINISHES SHALL BE INSTALLED IN ACCORDANCE WITH THIS CHAPTER AND TABLE R703.3(1), TABLE R703.3(2), TABLE R703.3(3) AND TABLE R703.3(4). INTERIOR MASONRY VENEER SHALL COMPLY WITH THE REQUIREMENTS OF SECTION R703.9 FOR SUPPORT AND SECTION R703.7.4 FOR ANCHORAGE. EXTERIOR FINISHES AND MATERIAL SHALL CONFORM TO THE FLAME SPREAD AND SMOKE DENSITY REQUIREMENTS OF SECTION R302.9
R703.1 GENERAL. EXTERIOR WALL SHALL PROVIDE THE BUILDING WITH A WEATHER RESISTANT EXTERIOR WALL ENVELOPE. THE EXTERIOR WALL ENVELOPE SHALL INCLUDE FLASHING AS DESCRIBED IN SECTION R703.8
R703.1.1 WATER RESISTANCE. THE EXTERIOR WALL ENVELOPE SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT PREVENTS THE ACCUMULATION OF WATER WITHIN THE WALL ASSEMBLY BY PROVIDING A WATER RESISTANT BARRIER EQUAL TO THE EXTERIOR VENEER AS REQUIRED IN SECTION R703.2 AND FLASHING AS DESCRIBED IN SECTION R703.8. THE EXTERIOR WATER THAT ENTERS THE ASSEMBLY.
R703.1.2 AIR RESISTANCE. WALL COVERING, BACKING MATERIALS AND THEIR ATTACHMENT SHALL BE CAPABLE OF RESISTING LOADS IN ACCORDANCE WITH TABLE R301.2(2) AND FIGURE.
R703.2 WATERPROOFING & BARRIER. WHERE SIDE WATERPROOFING & BARRIER SHALL BE APPLIED OVER STUDS OR SHEATHING OF ALL EXTERIOR WALLS. SUCH MATERIAL SHALL BE APPLIED HORIZONTALLY, WITH UPPER LAYERS OVER THE LOWER AND NOT LESS THAN 2 INCHES. WHERE JOINT OCCUR, LAYERS NOT LESS THAN 6".
R703.3 VENEER, THICKNESS AND ATTACHMENTS. THE MINIMUM THICKNESS AND ATTACHMENT OF EXTERIOR WALL COVERING SHALL BE IN ACCORDANCE WITH TABLE R703.3(1), AND THE WALL COVERING MATERIAL MANUFACTURER'S INSTALLATION REQUIREMENTS.
R703.8 FLASHING. APPROVED CORROSION RESISTANT FLASHING SHALL BE APPLIED OVER A BARRIER IN A MANNER TO PREVENT ENTRY OF WATER INTO WALL CAVITY OR DEFLECTION OF WATER TO THE BUILDING STRUCTURAL FRAMING COMPONENTS.
1. EXTERIOR WINDOWS AND DOORS: SPECIFICATIONS, USE MANUFACTURE SPECIFICATION FOR INSTALLATION DETAILS.
2. AT INTERSECTION OF CHIMNEYS OR OTHER MASONRY CONSTRUCTION WITH FRAME OR STUCCO WALLS, WITH PROJECTING LIGHTS ON BOTH SIDES UNDER STUCCO SPECIFICATIONS.
3. UNDER AND AT EDGES OF MASONRY, WOOD OR METAL COPING AND SILLS.
4. CONTINUOUS FLASHING AT ALL PROJECTING WOOD TRIM
5. WHERE EXTERIOR PORCHES, DECKS OR STAIRS ATTACH TO A WALL OR FLOOR ASSEMBLY OF WOOD-FRAME CONSTRUCTION
6. AT WALL AND ROOF INTERSECTION

CHAPTER 8 (ROOF-CEILING)

SECTION R802.10.2 DESIGN. WOOD TRUSSES SHALL BE DESIGNED BY A COMPONENT ENGINEER IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICE. THE DESIGN AND MANUFACTURE OF METAL PLATED WOOD TRUSS SHALL COMPLY WITH ANSI/TPI.
R802.10.3 BRACING. TRUSSES SHALL BE BRACED TO PREVENT ROTATION AND ROTATION OF TRUSS. REFER TO THE INDIVIDUAL TRUSS DESIGN DRAWINGS AND DETAILS FOR BRACE PLACEMENT AND SIZE. BRACING OF METAL PLATE CONNECTED WOOD TRUSSES.
R802.10.3.1 TRUSS SUPPORT. TRUSSES SHALL BE ATTACHED TO SUPPORTING WALL ASSEMBLIES BY CONNECTION OUT AND OF RESISTING FORCES SPECIFIED ON THE TRUSS DESIGN DRAWING.
SECTION R806 ROOF VENTILATION. BALANCED VENTILATION OF ATTIC SPACES PROVIDED WHERE CEILING IS APPLIED DIRECTLY TO THE UNDERSIDE OF THE ROOF RAFTERS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE VENTILATION OPENINGS PROTECTED AS NEAR TO THE EUTMOST OF EAVE OR AT LEAST ONE HALF REQUIRED VENTILATION OPENINGS SHALL BE PROVIDED TO THE UPPER AREA.
R806.2 MINIMUM AREA OF VENTILATION. THE TOTAL AREA OF VENTILATION SHALL BE 1/300 OF REPRESENTATIVE

SECTION R807 ATTIC ACCESS. BUILDING WITH COMBUSTIBLE CEILING OR ROOF CONSTRUCTION SHALL HAVE AN ATTIC ACCESS OPENING TO ATTIC AREA THAT HAS A VERTICAL HEIGHT OF 30" OR GREATER.
1. THE ROUGH FRAME OPENING SHALL NOT BE LESS THAN 22" X 30"
2. SHALL BE LOCATED IN OTHER PLACES OTHER THAN OVER THE STAIRWAY OR DOOR OF THE BUILDING OR CONVERTION EXIST.
3. MINIMUM UNOBSTRUCTED HEADROOM IN THE ATTIC SPACE SHALL BE NOT LESS THAN 30" MEASURED VERTICALLY FROM BOTTOM OF CEILING MEMBER

CHAPTER 9 (ROOF ASSEMBLIES)

SECTION R903
R903.1 GENERAL. ROOF DECKS SHALL BE COVERED WITH THE APPROVED ROOF COVERING SPECIFIED TO THE BUILDING OR STRUCTURE IN ACCORDANCE WITH THE PROVISIONS OF THE OTHER ROOF ASSEMBLIES SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THE CODE AND THE APPROVED MANUFACTURE INSTRUCTIONS.
R903.2 FLASHING. FLASHING SHALL BE INSTALLED IN WHEREVER THERE IS A MOISTURE PROVIDE STOPPING THE WALL AND ROOF THROUGH ANY FACE OR PENETRATION WITH ANY WALL OR OTHER PERIMETER WITH ANY WALLS AND OTHER PENETRATIONS THROUGH THE ROOF FLAKE.
R903.2.1 LOCATION FLASHING. FLASHING SHALL BE INSTALLED AT VALLEYS AND ROOF INTERSECTION, WHEREVER THERE IS A CHANGE IN ROOF OR DIRECTION AND AROUND ROOF OPENINGS.

SECTION R905
R905.1 ROOF COVERING APPLICATION. ROOF COVERING SHALL BE APPLIED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE SECTION AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
R905.1.1 UNDERLAYMENT. UNDERLAYMENT FOR ASPHALT SHINGLES, CLAY, AND CONCRETE TILE METAL ROOF SHINGLES, MINERAL SURFACED ROLL ROOFING SLATE AND SLATE TYPE SHINGLES, WOOD SHINGLES AND METAL ROOF SHALL COMPLY WITH THE APPLICABLE STANDARDS LISTED IN THE CHAPTER, UNDERLAYMENT MATERIALS REQUIRED TO COMPLY WITH ASTM D226, D 4869 AND D 4869 ASTM D 226, D 4869 AND D 4869 ASTM D 226, D 4869 AND D 4869 ASTM D

1 **FRONT ELEVATION**
Scale: 3/16" = 1'-0"

ESTIMATED AREA - WALL CLADDING			
MATERIAL TYPE	MATERIAL SF	MATERIAL %	MATERIAL ELEVATION
18" Board & Batten	552 SF	8.2%	
Lap Siding - 6"	4598 SF	68.7%	
Shake Material - Staggered	871 SF	13.0%	
Siding - Vertical	591 SF	8.8%	
Stone Veneer	88 SF	1.3%	
18" Board & Batten	339 SF	14.9%	Front
Brick	31 SF	1.3%	Front
Lap Siding - 6"	1000 SF	45.2%	Front
Shake Material - Staggered	275 SF	12.1%	Front
Shake Material - Straight Edge (Gable Gables)	68 SF	3.0%	Front
Siding - Vertical (Gable Gables)	348 SF	15.3%	Front
Stone Veneer	188 SF	8.2%	Front

2 **REAR ELEVATION**
Scale: 3/16" = 1'-0"

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Classic Builders
Roman 6 - Townhome Complex - 6 Plex
Ankeny, Iowa

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PDS 3866

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Elevations
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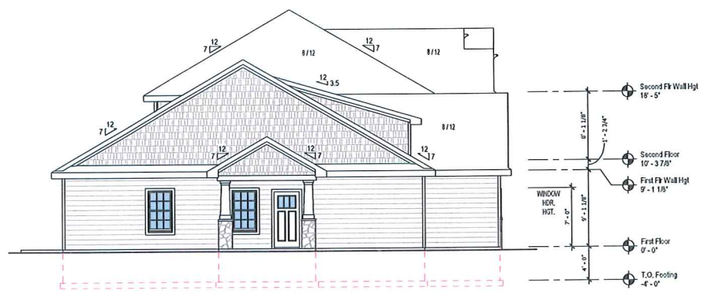
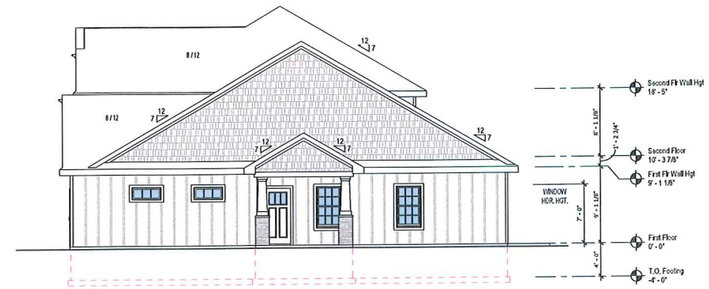
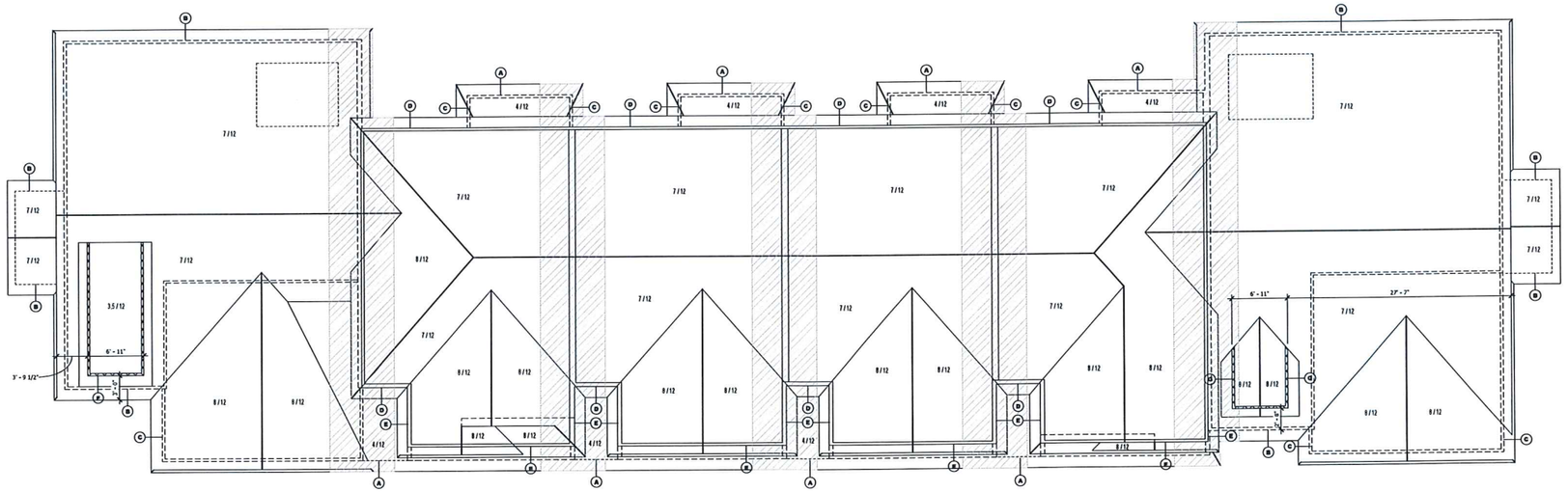
A.1



1 LEFT ELEVATION
Scale: 3/16" = 1'-0"



2 RIGHT ELEVATION
Scale: 3/16" = 1'-0"



3 ROOF PLAN
Scale: 3/32" = 1'-0"

ESTIMATED AREA - ROOF

11520 SF

- ROOF PITCHES ARE FOR REFERENCE ONLY. SEE SHEET A1.0 FOR ROOF PLAN FOR ACTUAL PITCHES. ROOF PITCHES ARE ESTIMATED FOR ONLY 1 SLOPE WHERE THERE IS A PITCH CHANGE.

ROOF PLAN LEGEND

SYMBOL	RUN	RISE	PITCH	OVERHANG	HEIGHT
A	12	3.5	3.5/12	24"	3.5/12
B	12	7	7/12	24"	3.5/12
C	12	8	8/12	24"	4/12
D	12	12	12/12	24"	
E	12	4	4/12	24"	3.5/12
F	12	3.5	3.5/12	24"	2
F	12	4	4/12	24"	2

ALL PITCHES OVERHANGS ARE 12" UNLESS NOTED

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A.2

WINDOW SCHEDULE

ID	QTY	TYPE	ROUGH OPENINGS WIDTH	ROUGH OPENINGS HEIGHT	HEADER HEIGHT	SPECIAL NOTES	Level
B	8	2850 2 SH	6'-0"	5'-0"	7'-0"	Meets Egress	First Floor
C	8	2850 SH	2'-0"	5'-0"	7'-0"	Meets Egress	First Floor
P	2	4248 F	4'-0"	4'-0"	7'-0"	Fixed	First Floor
B	1	2850 2 SH	6'-0"	5'-0"	7'-0"	Meets Egress	Second Floor
C	12	2850 SH	2'-0"	5'-0"	7'-0"	Meets Egress	Second Floor
L	2	4424 2 F	4'-0"	2'-0"		Fixed	Second Floor
S	3	3042 CA	2'-6"	7'-6"	7'-9"		Second Floor
U	2	3650 SH 2	3'-0"	6'-0"	7'-0"	Meets Egress	Second Floor
V	1	2880 F	2'-0"	5'-0"	7'-0"	Picture	Second Floor
W	1	3042 CA 2	2'-6"	7'-6"	7'-0"		Second Floor
X	3	2880 F 2	2'-0"	5'-0"	7'-0"	Picture	Second Floor

DOOR SCHEDULE

ID	QTY	DOOR SIZE	ROUGH OPENINGS WIDTH	ROUGH OPENINGS HEIGHT	SPECIAL NOTES	Level
01	6	3-0 x 6-8 Entry	3'-2 1/4"	6'-10 3/4"	Therma Tru R0 - 3/4" Pad - Verify R0	First Floor
02A	4	2-8 x 6-8 Shelf F	2'-10 1/4"	6'-10 3/4"	Therma Tru - 20 Min Fire Rated - R0 includes 3/4" Pad	First Floor
02B	2	3-0 x 6-8 Shelf F	3'-2 1/4"	6'-10 3/4"	Therma Tru - 20 Min Fire Rated - R0 includes 3/4" Pad	First Floor
03	4	5-0 x 6-10 Slider	5'-0"	6'-10 1/2"	Window - 1HD Pro - 2 Panel Slider - R0 includes 1/2" Pad	First Floor
04	2	16-0 X 7-0 Solid Panel	16'-3"	7'-1 1/2"	Overhead Garage Door	First Floor
04A	2	16-0 x 7-0 Stockbridge IV - 3 Lite	16'-3"	7'-1 1/2"	Overhead Garage Door	First Floor
04B	2	16-0 x 7-0 Stockbridge IV - 6 Lite	16'-3"	7'-1 1/2"	Overhead Garage Door	First Floor
05	8	3-0 x 6-8	3'-2"	6'-10 1/2"	Standard Wood Door	First Floor
08	2	2-0 x 6-8	2'-2"	6'-10 1/2"		First Floor
011	8	2-8 x 6-8	2'-10"	6'-10 1/2"		First Floor
012	3	3-0 x 6-8	3'-2"	6'-10 1/2"		First Floor
014	2	4-0 x 6-8	4'-2"	6'-10 1/2"	Double Door	First Floor
031	1	4-0 x 6-8 Bifold	4'-2"	6'-10"	4 Panel Bifold	First Floor
032	2	5-0 x 6-8 Bifold	5'-2"	6'-10"	4 Panel Bifold	First Floor
033	4	2-8 x 6-8	2'-10"	6'-11 1/4"	Barn Door	First Floor
011	36	2-8 x 6-8	2'-10"	6'-10 1/2"		Second Floor
032	8	5-0 x 6-8 Bifold	5'-2"	6'-10"	4 Panel Bifold	Second Floor

ESTIMATED AREA - 4" FLATWORK

LOCATION	AREA	CUBIC YARDS
Floor Front Porch	50 SF	0.6 CY
Floor Garage	89 SF	0.9 CY
Floor Garage	513 SF	5.3 CY
Floor Front Porch	108 SF	1.0 CY
Floor Front Porch	50 SF	0.6 CY
Floor Garage	430 SF	4.8 CY
Floor Basement	5132 SF	64.1 CY
Floor Rear Patio	156 SF	1.9 CY
Floor Rear Patio	156 SF	1.9 CY
Floor Front Porch	54 SF	0.7 CY
Floor Garage	398 SF	4.9 CY
Floor Front Porch	68 SF	0.8 CY
Floor Garage	465 SF	5.1 CY
Floor Rear Patio	156 SF	1.9 CY
Floor Front Porch	50 SF	0.6 CY
Floor Rear Patio	156 SF	1.9 CY

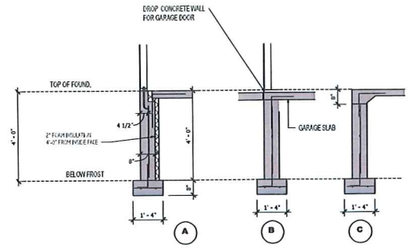
ESTIMATED AREA - CEILING

LEVEL	CEILING TYPE	AREA
First Flr Wall Hgt	Ceiling - Garage	1408 SF
First Flr Wall Hgt	Ceiling - House	3122 SF
Second Flr Wall Hgt	Ceiling - House	3214 SF
		8293 SF

- ROUNDED FIGURES AT CEILING BY SWEEP FROM THE WALLS OF EXTERIOR WALLS.
- THE ABOVE MEASURED AREA WILL VARY ACCORDING TO THE WALLS
- 2.5" SWEEP, ON 2 FACES, SWEEP MEASURED HERE
- SLAB AREAS TO BE FINISHED

FOOTING SCHEDULE

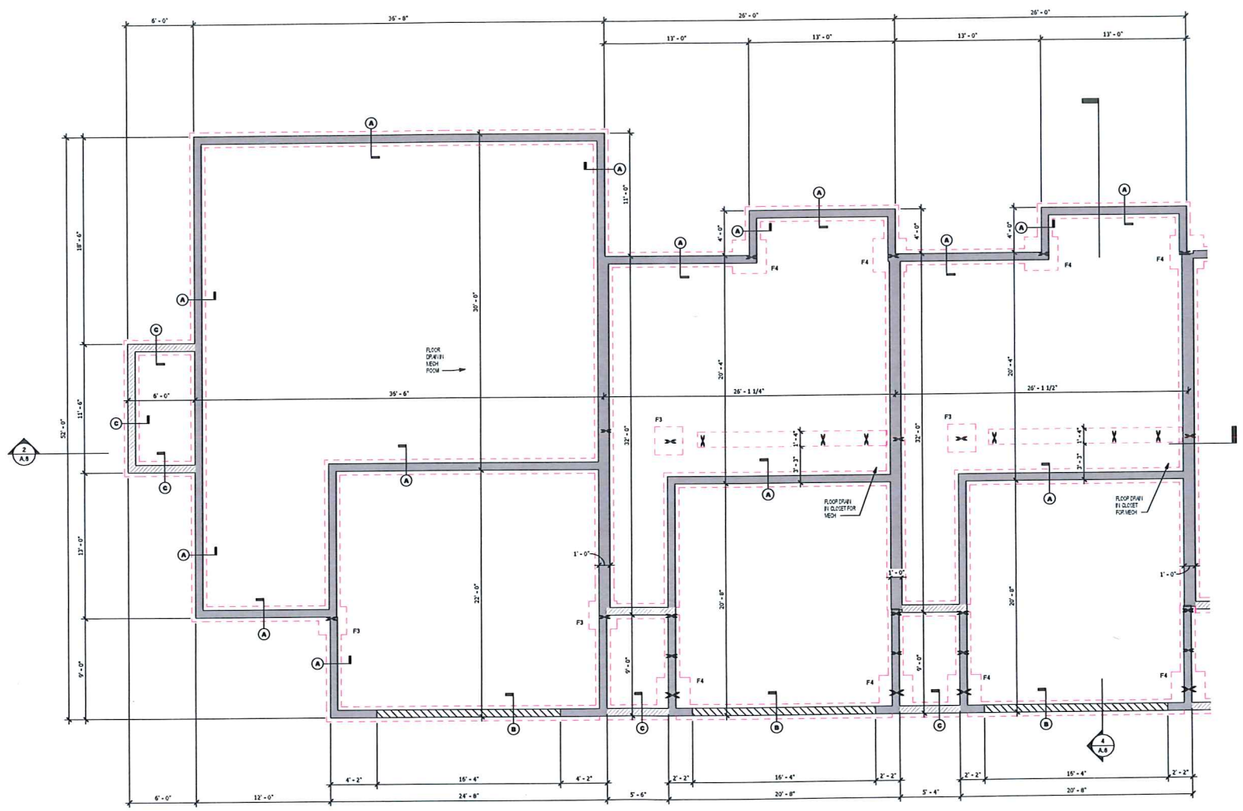
MARK	DIMENSIONS	REINFORCEMENT	NOTES
F3	30" x 30" x 12"	#5 @ 3" O.C. E/W (4) min.	
F4	30" x 30" x 12"	#5 @ 3" O.C. E/W (5) min.	



12"x14" POURED CONCRETE FOUNDATION WALL
VERTICAL STEEL #4 @ 48" O.C.
HORIZ. STEEL #4 @ 24" O.C.
(SPLICING IS NECESSARY, MIN 15" OVERLAP)

TYPICAL 24" x 8" CONC. FTG.
W/ (2) #4 HORIZ. ROUND CONTINUOUS
SPLICING AS NECESSARY ON
UNDISTURBED NATURE SOIL

2 FOUNDATION SECTIONS-Slab
Scale: 1/8" = 1'-0"



1 T.O. Footing A
Scale: 1/4" = 1'-0"

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A.3

WINDOW SCHEDULE							
ID	QTY	TYPE	ROUGH OPENINGS WIDTH	ROUGH OPENINGS HEIGHT	HEADER HEIGHT	SPECIAL NOTES	Level
B	8	3660 2 SH	6'-0"	5'-0"	7'-0"	Meets Egress	First Floor
C	8	3660 SH	3'-0"	5'-0"	7'-0"	Meets Egress	First Floor
P	2	4268 F	4'-0"	7'-0"	7'-0"	Fixed	First Floor
B	1	3660 2 SH	6'-0"	5'-0"	7'-0"	Meets Egress	Second Floor
C	12	3660 SH	3'-0"	5'-0"	7'-0"	Meets Egress	Second Floor
L	2	4268 2 F	4'-0"	7'-0"		Fixed	Second Floor
S	3	3040 CA	2'-8"	3'-8"	7'-0"		Second Floor
U	2	3660 SH 2	3'-0"	5'-0"	7'-0"	Meets Egress	Second Floor
V	1	3660 F	3'-0"	5'-0"	7'-0"	Picture	Second Floor
W	1	3040 CA 2	2'-8"	3'-8"	7'-0"		Second Floor
X	3	3660 F 2	3'-0"	5'-0"	7'-0"	Picture	Second Floor

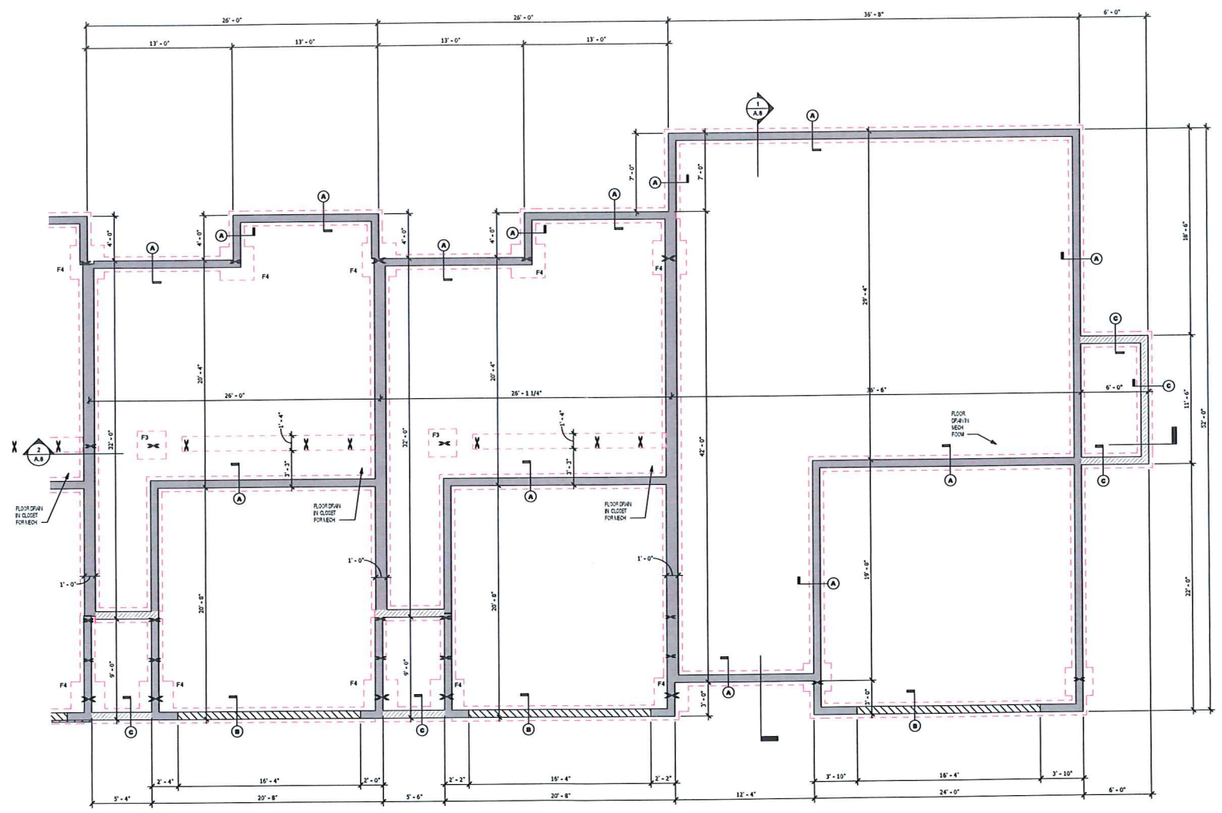
DOOR SCHEDULE							
ID	QTY	DOOR SIZE	ROUGH OPENINGS WIDTH	ROUGH OPENINGS HEIGHT	SPECIAL NOTES	Level
01	6	3-0 x 6-8 Entry	3'-2 1/4"	6'-10 3/4"	Therma Tru RO = 3/4" Pad - Verify RO	First Floor
02A	4	2-8 x 6-8 Shed F	2'-10 1/4"	6'-10 3/4"	Therma Tru - 20 Min Fire Rated - RO includes 3/4" Pad	First Floor
02B	2	3-0 x 6-8 Shed F	3'-2 1/4"	6'-10 3/4"	Therma Tru - 20 Min Fire Rated - RO includes 3/4" Pad	First Floor
03	4	5-0 x 6-10 Slider	5'-0"	6'-10 1/2"	Window - NO Pins - 2 Panel Slider - RO includes 1/2" Pad	First Floor
04	2	16-0 X 7-0 Solid Panel	16'-3"	7'-1 1/2"	Overhead Garage Door	First Floor
04A	2	16-0 x 7-0 Stockbridge IV - 3 Lite	16'-3"	7'-1 1/2"	Overhead Garage Door	First Floor
04B	2	16-0 x 7-0 Stockbridge IV - 9 Lite	16'-3"	7'-1 1/2"	Overhead Garage Door	First Floor
05	8	3-0 x 6-8	3'-2"	6'-10 1/2"	Standard Wood Door	First Floor
08	2	2-6 x 6-8	2'-2"	6'-10 1/2"		First Floor
011	8	2-8 x 6-8	2'-10"	6'-10 1/2"		First Floor
012	3	3-0 x 6-8	3'-2"	6'-10 1/2"		First Floor
014	2	4-0 x 6-8	4'-2"	6'-10 1/2"	Double Door	First Floor
016	1	4-0 x 6-8 Bifold	4'-2"	6'-10"	4 Panel Bifold	First Floor
012	2	5-0 x 6-8 Bifold	5'-2"	6'-10"	4 Panel Bifold	First Floor
033	4	2-8 x 6-8	2'-6"	6'-11 1/4"	Barn Door	First Floor
011	36	2-8 x 6-8	2'-10"	6'-10 1/2"		Second Floor
012	8	5-0 x 6-8 Bifold	5'-2"	6'-10"	4 Panel Bifold	Second Floor

ESTIMATED AREA - 4" FLATWORK		
LOCATION	AREA	CUBIC YARDS
Floor Front Porch	50 SF	0.6 CY
Floor Garage	398 SF	4.9 CY
Floor Garage	513 SF	6.3 CY
Floor Front Porch	50 SF	0.6 CY
Floor Front Porch	50 SF	0.6 CY
Floor Garage	400 SF	4.9 CY
Floor Basement	5132 SF	64.1 CY
Floor Rear Patio	196 SF	2.4 CY
Floor Rear Patio	196 SF	2.4 CY
Floor Front Porch	54 SF	0.7 CY
Floor Garage	398 SF	4.9 CY
Floor Front Porch	50 SF	0.6 CY
Floor Garage	400 SF	5.1 CY
Floor Rear Patio	196 SF	2.4 CY
Floor Front Porch	50 SF	0.6 CY
Floor Rear Patio	196 SF	2.4 CY

ESTIMATED AREA - CEILING		
LEVEL	CEILING TYPE	AREA
First Flr Wall Hgt	Ceiling - Garage	1408 SF
First Flr Wall Hgt	Ceiling - House	2122 SF
Second Flr Wall Hgt	Ceiling - House	2214 SF
		5743 SF

- ROUNDED FOOTAGE OF CEILING IS TAKEN FROM THE INNER OF EXTERIOR WALLS.
- THE ATTACHED DETACHED GARAGE WILL BE ROUGHLY 1,000 SF
- SUBJECT TO FINAL DESIGN

FOOTING SCHEDULE			
MARK	DIMENSIONS	REINFORCEMENT	NOTES
F3	30" x 30" x 12"	#4's @ 7'-0 O.C. E/W (5) min.	
F4	30" x 30" x 12"	#4's @ 7'-0 O.C. E/W (5) min.	



1 T.O. Footing B
Scale: 1/4" = 1'-0"

plum BUILDING SYSTEMS, LLC

PLUM DESIGN SERVICES
1100 SEARS ROAD WAUKEE, IOWA 50263
TELEPHONE 515 979 6210 FAX 515 978 6211

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Classic Builders
Roman 6 - Townhome Complex - 6 Plex
Ankeny, Iowa

PROJECT ID:
PDS 3866

ISSUE DATE:
DATE: 06-06-19
DATE: 06-19-19
DATE: 06-20-19
DATE: 07-03-19
DATE:
DATE:
DATE:
DATE:

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

WINDOW SCHEDULE

ID	QTY	TYPE	ROUGH OPENINGS WIDTH	ROUGH OPENINGS HEIGHT	HEADER HEIGHT	SPECIAL NOTES	Level
B	8	3068-2 SH	7'-0"	5'-0"	7'-0"	Meets Egress	First Floor
C	8	3668 SH	7'-0"	5'-0"	7'-0"	Meets Egress	First Floor
P	2	4218 F	7'-0"	1'-6"	7'-0"	Fixed	First Floor
B	1	3068-2 SH	6'-0"	5'-0"	7'-0"	Meets Egress	Second Floor
C	12	3668 SH	7'-0"	5'-0"	7'-0"	Meets Egress	Second Floor
L	2	2424-2 F	4'-0"	2'-0"		Fixed	Second Floor
S	3	3042CA	2'-6"	5'-6"	7'-0"		Second Floor
U	2	3668 SH2	7'-0"	5'-0"	7'-0"	Meets Egress	Second Floor
V	1	3068 F	7'-0"	5'-0"	7'-0"	Picture	Second Floor
W	1	3042CA2	2'-6"	3'-6"	7'-0"		Second Floor
X	3	3068 F 2	7'-0"	5'-0"	7'-0"	Picture	Second Floor

DOOR SCHEDULE

ID	QTY	DOOR SIZE	ROUGH OPENINGS WIDTH	ROUGH OPENINGS HEIGHT	SPECIAL NOTES	Level
D1	6	3.0 x 6.8 Entry	3'-1 1/2"	6'-10 3/8"	Therma Tru RO = 3/4" Pad - Verify RO	First Floor
D2A	4	2.8 x 6.8 Shelf F	3'-10 1/4"	6'-10 3/8"	Therma Tru - 20 Min Fire Rated - RO includes 3/4" Pad	First Floor
D2B	2	3.0 x 6.8 Shelf F	3'-1 1/2"	6'-10 3/8"	Therma Tru - 20 Min Fire Rated - RO includes 3/4" Pad	First Floor
D3	4	6.0 x 6.8 Slider	6'-0"	6'-10 1/2"	Window - NO Pin - 3 Panel Slider - RO includes 1/2" Pad	First Floor
D4	2	16.0 X 7.0 Solid Panel	16'-0"	7'-1 1/2"	Overhead Garage Door	First Floor
D4A	2	16.0 x 7.0 Stockbridge IV - 3 Lite	16'-0"	7'-1 1/2"	Overhead Garage Door	First Floor
D4B	2	16.0 x 7.0 Stockbridge IV - 6 Lite	16'-0"	7'-1 1/2"	Overhead Garage Door	First Floor
D5	8	3.0 x 6.8	3'-0"	6'-10 1/2"	Standard Wood Door	First Floor
D6	2	2.0 x 6.8	2'-0"	6'-10 1/2"		First Floor
D11	8	2.8 x 6.8	2'-10"	6'-10 1/2"		First Floor
D12	3	3.0 x 6.8	3'-0"	6'-10 1/2"		First Floor
D14	2	4.0 x 6.8	4'-0"	6'-10 1/2"	Double Door	First Floor
D31	1	4.0 x 6.8 Bifold	4'-0"	6'-10"	4 Panel Bifold	First Floor
D32	2	5.0 x 6.8 Bifold	5'-0"	6'-10"	4 Panel Bifold	First Floor
D33	4	2.8 x 6.8	2'-8"	6'-11 1/8"	Barn Door	First Floor
D11	26	2.8 x 6.8	2'-10"	6'-10 1/2"		Second Floor
D32	8	5.0 x 6.8 Bifold	5'-0"	6'-10"	4 Panel Bifold	Second Floor

AREA SCHEDULE - UNIT A

NAME	SQ.FT
Unit A Main Floor	1258 SF
Unit A Garage	533 SF
Grand total: 2	1792 SF

AREA SCHEDULE - UNIT B

NAME	SQ.FT
Unit B Main Floor	654 SF
Unit B Second Floor	864 SF
Unit B Garage	421 SF
Grand total: 3	2939 SF

AREA SCHEDULE - UNIT E

NAME	SQ.FT
Unit E Main Floor	1345 SF
Unit E Garage	517 SF
Grand total: 2	1862 SF

ESTIMATED AREA - 4" FLATWORK

LOCATION	AREA	CUBIC YARDS
Floor Front Porch	150 SF	0.6 CY
Floor Garage	398 SF	4.6 CY
Floor Garage	510 SF	6.3 CY
Floor Front Porch	69 SF	0.9 CY
Floor Front Porch	150 SF	0.6 CY
Floor Garage	400 SF	4.6 CY
Floor Basement	1102 SF	12.7 CY
Floor Rear Patio	156 SF	1.8 CY
Floor Rear Patio	156 SF	1.8 CY
Floor Front Porch	54 SF	0.7 CY
Floor Garage	398 SF	4.6 CY
Floor Front Porch	69 SF	0.9 CY
Floor Garage	495 SF	5.1 CY
Floor Rear Patio	156 SF	1.8 CY
Floor Front Porch	50 SF	0.6 CY
Floor Rear Patio	156 SF	1.8 CY

ESTIMATED AREA - CEILING

LEVEL	CEILING TYPE	AREA
First Flr Wall Hgt	Ceiling - Garage	1458 SF
First Flr Wall Hgt	Ceiling - House	3122 SF
Second Flr Wall Hgt	Ceiling - House	3714 SF
		8293 SF

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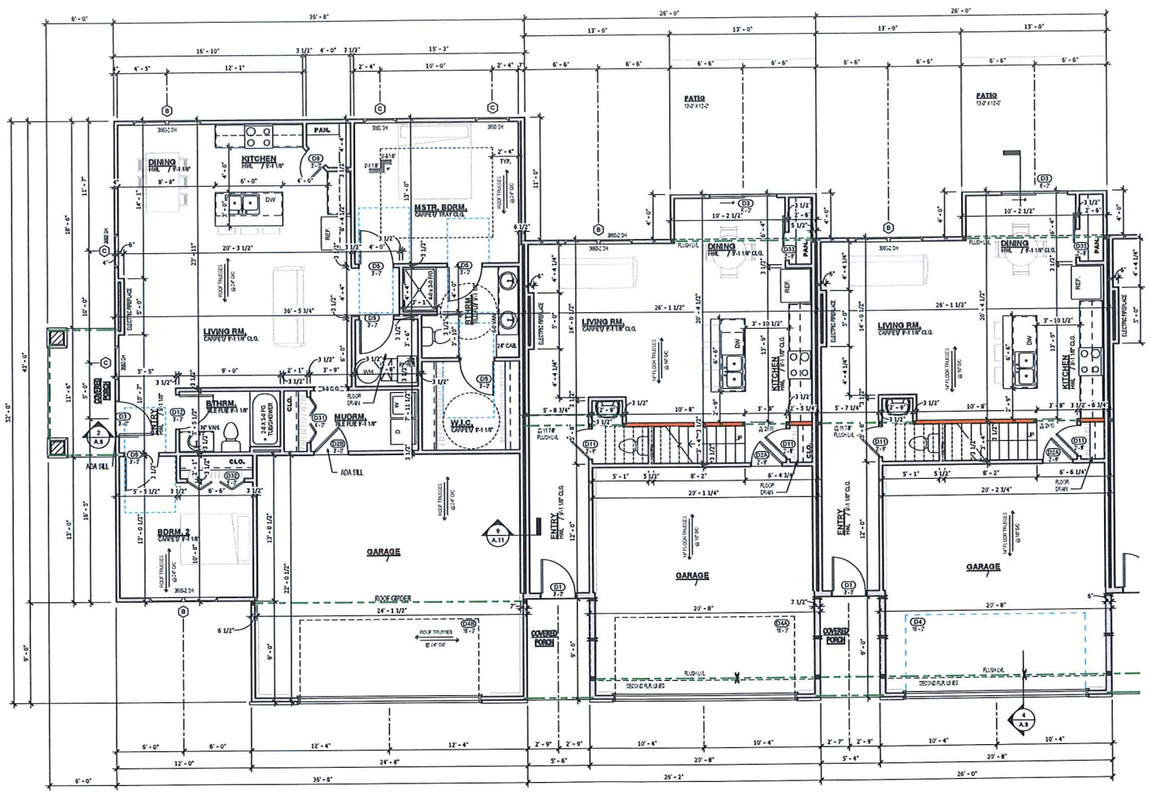
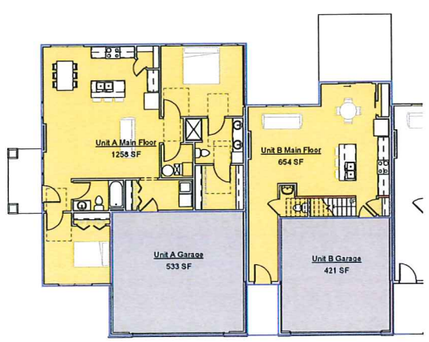


3 First Floor A
Scale: 1/8" = 1'-0"



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plum BUILDING SYSTEMS, LLC

PLUM DESIGN SERVICES
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Classic Builders
Roman 6 - Townhome Complex - 6 Plex
Ankeny, Iowa

PROJECT ID:
PDS 3866

ISSUE DATE:
DATE: 05-06-19
DATE: 06-19-19
DATE: 06-20-19
DATE: 07-03-19
DATE:
DATE:
DATE:
DATE:

Main Floor
As indicated
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A.5

WINDOW SCHEDULE

ID	QTY	TYPE	ROUGH OPENINGS WIDTH	ROUGH OPENINGS HEIGHT	HEADER HEIGHT	SPECIAL NOTES	Level
B	8	3080 SH	3'-0"	5'-0"	7'-0"	Meets Egress	First Floor
C	8	3060 SH	3'-0"	5'-0"	7'-0"	Meets Egress	First Floor
P	2	4218 F	4'-0"	7'-0"	7'-0"	Fixed	First Floor
B	1	3080 SH	3'-0"	5'-0"	7'-0"	Meets Egress	Second Floor
C	12	3060 SH	3'-0"	5'-0"	7'-0"	Meets Egress	Second Floor
L	2	2424 FF	2'-0"	2'-0"		Fixed	Second Floor
S	3	2442 CA	2'-0"	4'-0"	7'-0"		Second Floor
U	2	3060 SH2	3'-0"	5'-0"	7'-0"	Meets Egress	Second Floor
V	1	3068 F	3'-0"	5'-0"	7'-0"	Picture	Second Floor
W	1	3042 CA2	3'-0"	3'-0"	7'-0"		Second Floor
X	3	3068 F 2	3'-0"	5'-0"	7'-0"	Picture	Second Floor

DOOR SCHEDULE

ID	QTY	DOOR SIZE	ROUGH OPENINGS WIDTH	ROUGH OPENINGS HEIGHT	SPECIAL NOTES	Level
D1	6	3.0 x 6.8 Entry	3'-2 1/4"	6'-10 3/4"	Therma Tru RO = 3'-6" Pad - Verify RO	First Floor
D2A	4	2.8 x 6.8 Shed F	3'-10 1/8"	6'-10 3/4"	Therma Tru - 2.8 Min Fire Rated - RO includes 3'-6" Pad	First Floor
D2B	2	3.0 x 6.8 Shed F	3'-2 1/4"	6'-10 3/4"	Therma Tru - 2.8 Min Fire Rated - RO includes 3'-6" Pad	First Floor
D3	4	6.0 x 6.0 Slider	6'-0"	6'-10 1/2"	Window - NO Pre - 3 Panel Slider - RO includes 10'-0" Pad	First Floor
D4	2	16.0 X 7.0 Solid Panel	16'-0"	7'-1 1/2"	Overhead Garage Door	First Floor
D4A	2	16.0 x 7.0 Stockbridge IV - 3 Lite	16'-0"	7'-1 1/2"	Overhead Garage Door	First Floor
D4B	2	16.0 x 7.0 Stockbridge IV - 4 Lite	16'-0"	7'-1 1/2"	Overhead Garage Door	First Floor
D5	8	3.0 x 6.8	3'-2"	6'-10 1/2"	Standard Wood Door	First Floor
D6	2	2.6 x 6.8	2'-10"	6'-10 1/2"		First Floor
D11	8	2.8 x 6.8	2'-10"	6'-10 1/2"		First Floor
D12	3	3.0 x 6.8	3'-2"	6'-10 1/2"		First Floor
D14	2	4.0 x 6.8	4'-2"	6'-10 1/2"	Double Door	First Floor
D2A	1	4.0 x 6.8 BiFold	4'-2"	6'-10"	4 Panel BiFold	First Floor
D2B	2	5.0 x 6.8 BiFold	5'-2"	6'-10"	4 Panel BiFold	First Floor
D13	4	2.8 x 6.8	2'-6"	6'-11 1/4"	Barn Door	First Floor
D11	36	2.8 x 6.8	2'-10"	6'-10 1/2"		Second Floor
D12	8	5.0 x 6.8 BiFold	5'-2"	6'-10"	4 Panel BiFold	Second Floor

AREA SCHEDULE - UNIT A

NAME	SQ.FT
Unit A Main Floor	1258 SF
Unit A Garage	533 SF
Grand total: 2	1792 SF

AREA SCHEDULE - UNIT B

NAME	SQ.FT
Unit B Main Floor	654 SF
Unit B Second Floor	984 SF
Unit B Garage	425 SF
Grand total: 3	2063 SF

AREA SCHEDULE - UNIT E

NAME	SQ.FT
Unit E Main Floor	1345 SF
Unit E Garage	517 SF
Grand total: 2	1862 SF

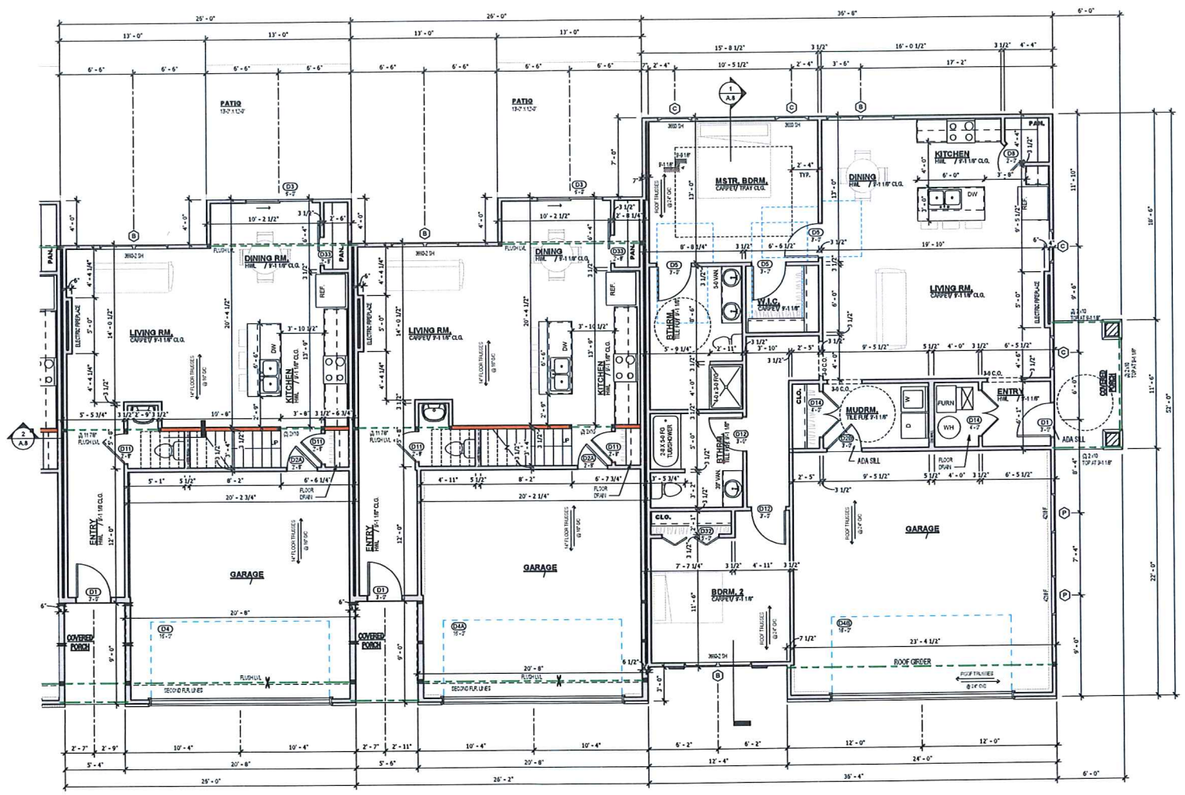
ESTIMATED AREA - 4" FLATWORK

LOCATION	AREA	CUBIC YARDS
Floor: Front Porch	150 SF	0.6 CY
Floor: Garage	398 SF	4.5 CY
Floor: Garage	313 SF	3.5 CY
Floor: Front Porch	89 SF	0.3 CY
Floor: Front Porch	150 SF	0.6 CY
Floor: Garage	400 SF	4.5 CY
Floor: Basement	5132 SF	58.1 CY
Floor: Rear Patio	156 SF	1.8 CY
Floor: Rear Patio	156 SF	1.8 CY
Floor: Front Porch	54 SF	0.7 CY
Floor: Garage	398 SF	4.5 CY
Floor: Front Porch	89 SF	0.3 CY
Floor: Garage	605 SF	6.7 CY
Floor: Rear Patio	156 SF	1.8 CY
Floor: Front Porch	150 SF	0.6 CY
Floor: Rear Patio	156 SF	1.8 CY

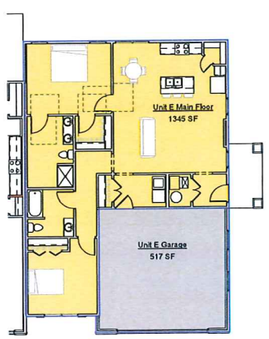
ESTIMATED AREA - CEILING

LEVEL	CEILING TYPE	AREA
First Flr Wall Hgt	Ceiling - Garage	1458 SF
First Flr Wall Hgt	Ceiling - House	2122 SF
Second Flr Wall Hgt	Ceiling - House	2214 SF
		5793 SF

* FRAME STYLE OF CEILING IN KITCHEN IS BASED ATTACHED HALL
* THE HEIGHT OF THE HALL HEIGHT IS BETWEEN HALF
* AN INCREASE IN THE HEIGHT PRICES APPLY
* IN ADDITION TO THE ABOVE PRICES



1 First Floor B
Scale: 1/4" = 1'-0"



plum BUILDING SYSTEMS, LLC

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Main Floor
As indicated
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A.6

WINDOW SCHEDULE							
ID	QTY	TYPE	ROUGH OPENINGS WIDTH	ROUGH OPENINGS HEIGHT	HEADER HEIGHT	SPECIAL NOTES	Level
B	8	3050 2 SH	2'-0"	5'-0"	7'-0"	Meets Egress	First Floor
C	8	3060 SH	2'-0"	5'-0"	7'-0"	Meets Egress	First Floor
P	2	4030 F	3'-0"	3'-0"	7'-0"	Fixed	First Floor
B	1	3050 2 SH	2'-0"	5'-0"	7'-0"	Meets Egress	Second Floor
C	10	3060 SH	2'-0"	5'-0"	7'-0"	Meets Egress	Second Floor
L	2	1424 2 F	4'-0"	2'-0"		Fixed	Second Floor
S	3	2040 CA	2'-0"	4'-0"	7'-0"		Second Floor
U	2	3060 SH 2	2'-0"	5'-0"	7'-0"	Meets Egress	Second Floor
V	1	3080 F	3'-0"	5'-0"	7'-0"	Picture	Second Floor
W	1	2424 CA 2	2'-0"	2'-0"	7'-0"		Second Floor
X	3	2880 F 2	2'-0"	5'-0"	7'-0"	Picture	Second Floor

DOOR SCHEDULE						
ID	QTY	DOOR SIZE	ROUGH OPENINGS WIDTH	ROUGH OPENINGS HEIGHT	SPECIAL NOTES	Level
01	6	3-0 x 6-8 Entry	3'-2 1/4"	6'-10 3/4"	Therma Tru FIO + 3/4" Pad - Verify R/O	First Floor
01A	4	2-8 x 6-8 Steel F	2'-10 3/4"	6'-10 3/4"	Therma Tru - 20 Min Fire Rated - R/O includes 3/4" Pad	First Floor
01B	2	3-0 x 6-8 Steel F	3'-2 1/4"	6'-10 3/4"	Therma Tru - 20 Min Fire Rated - R/O includes 3/4" Pad	First Floor
03	4	5-0 x 6-10 Slider	5'-0"	6'-10 1/2"	Window - NO Pins - 2 Panel Slider - R/O includes 1/2" Pad	First Floor
04	2	16-0 x 7-0 Solid Panel	16'-2"	7'-1 1/2"	Overhead Garage Door	First Floor
04A	2	16-0 x 7-0 Stockbridge IV - 3 Lite	16'-2"	7'-1 1/2"	Overhead Garage Door	First Floor
04B	2	16-0 x 7-0 Stockbridge IV - 4 Lite	16'-2"	7'-1 1/2"	Overhead Garage Door	First Floor
05	8	3-0 x 6-8	3'-2"	6'-10 1/2"	Standard Wood Door	First Floor
08	2	2-0 x 6-8	2'-2"	6'-10 1/2"		First Floor
011	8	2-8 x 6-8	2'-10"	6'-10 1/2"		First Floor
012	3	3-0 x 6-8	3'-2"	6'-10 1/2"		First Floor
014	2	6-0 x 6-8	6'-2"	6'-10 1/2"	Double Door	First Floor
016	1	6-0 x 6-8 Bifold	6'-2"	6'-10"	4 Panel Bifold	First Floor
017	2	5-0 x 6-8 Bifold	5'-2"	6'-10"	4 Panel Bifold	First Floor
020	4	2-8 x 6-8	2'-8"	6'-11 1/8"	Barn Door	First Floor
011	36	2-8 x 6-8	2'-10"	6'-10 1/2"		Second Floor
012	8	3-0 x 6-8 Bifold	3'-2"	6'-10"	4 Panel Bifold	Second Floor

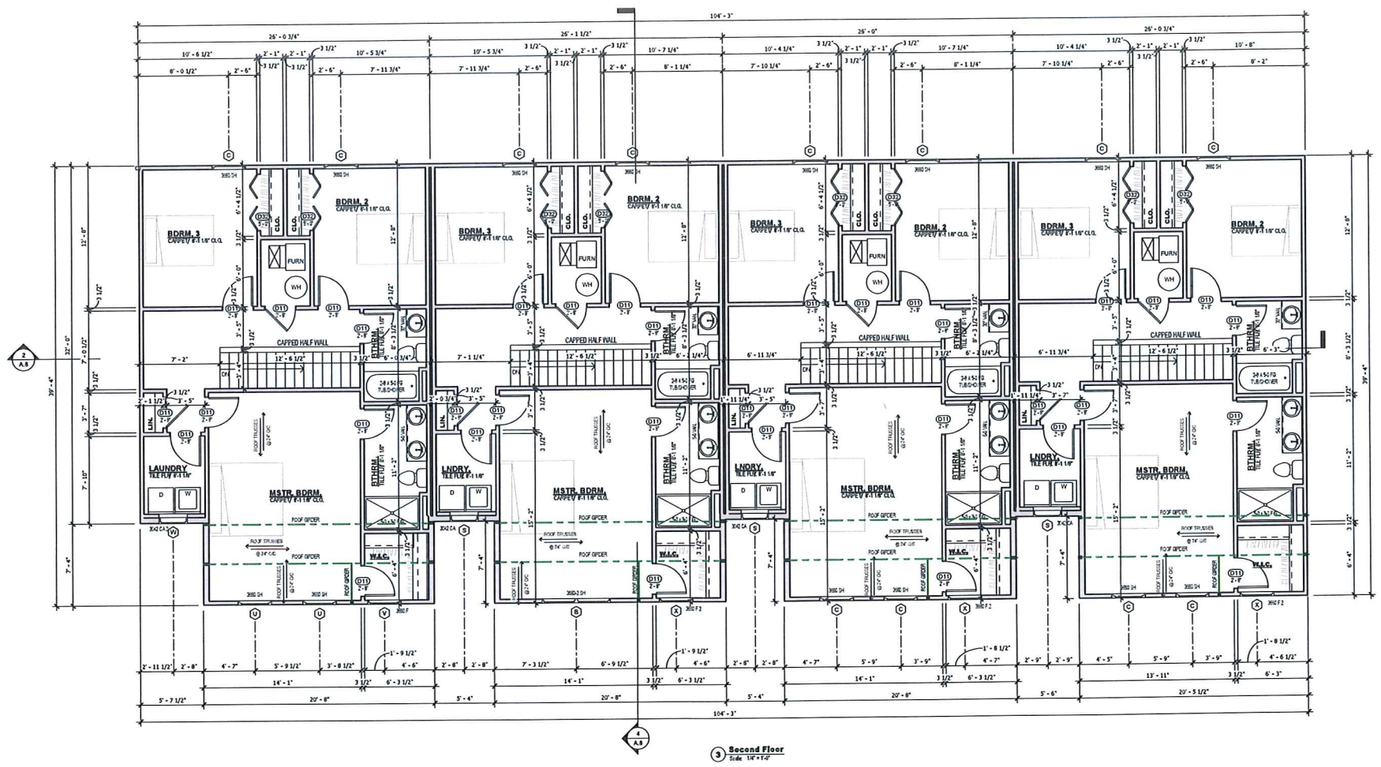
AREA SCHEDULE - UNIT A	
NAME	SQ FT
Unit A Main Floor	1258 SF
	1258 SF
Unit A Garage	538 SF
	538 SF
Grand total: 2	1796 SF

AREA SCHEDULE - UNIT B	
NAME	SQ FT
Unit B Main Floor	654 SF
Unit B Second Floor	984 SF
	1638 SF
Unit B Garage	421 SF
	421 SF
Grand total: 3	2058 SF

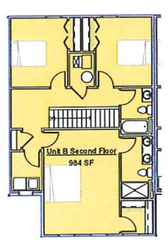
AREA SCHEDULE - UNIT E	
NAME	SQ FT
Unit E Main Floor	1365 SF
	1365 SF
Unit E Garage	517 SF
	517 SF
Grand total: 2	1882 SF

ESTIMATED AREA - CEILING		
LEVEL	CEILING TYPE	AREA
First Flr Mid Hgt	Ceiling - Garage	1458 SF
First Flr Mid Hgt	Ceiling - House	2122 SF
Second Flr Mid Hgt	Ceiling - House	3714 SF
		8293 SF

- SLAB EDGE AT DECK IS THICKER THAN REST OF BUTTAH WALL
- THE HOUSE IS A 6-PLEX WITH 2 FIRE WALLS
- 2 BEDROOM UNITS ARE ADDED HERE
- SAME AS FIRST FLOOR



3 Second Floor
Scale: 1/4" = 1'-0"



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PLUM DESIGN SERVICES
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Roman 6 - Townhome Complex - 6 Plex
Ankeny, Iowa

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DATE: 06-20-19
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Second Floor
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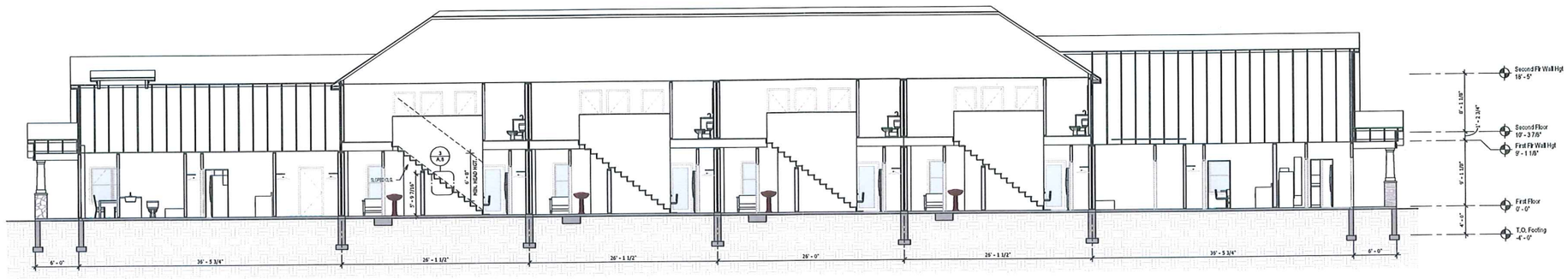
A.7



2 BUILDING SECTION C
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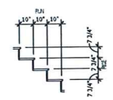

3 STAIR DETAILS
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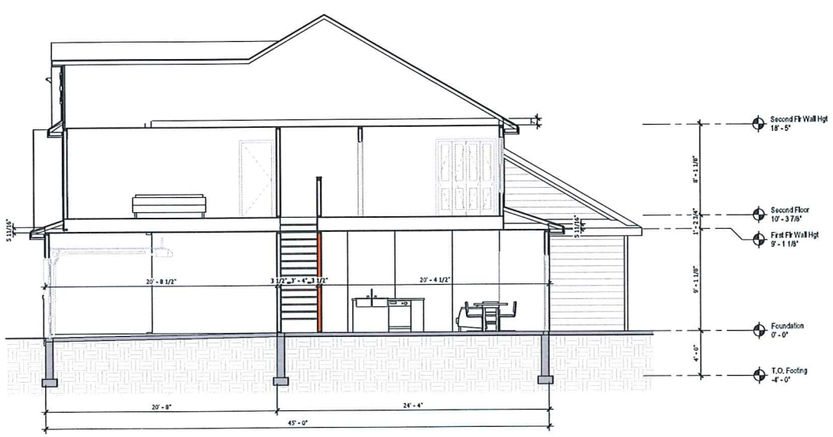

4 BUILDING SECTION D
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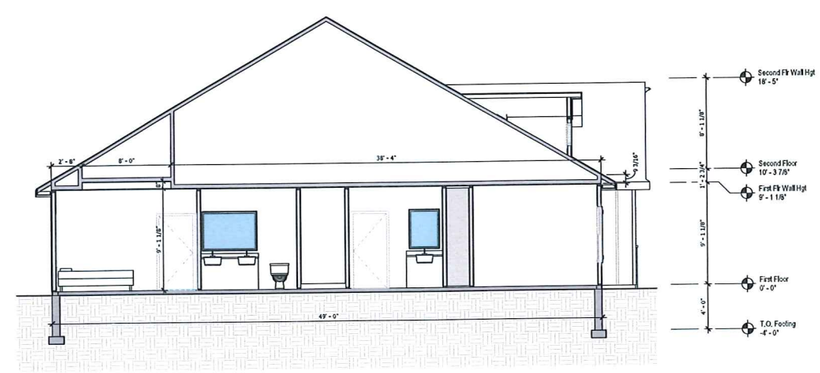

1 BUILDING SECTION A1
Scale 1/4" = 1'-0"

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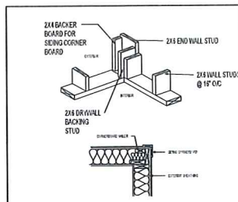
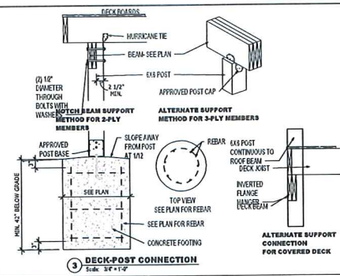
A.8



TYPICAL EXTERIOR WALL CORNERS
1 Scale: 3/4" = 1'-0"



DECK-POST CONNECTION
3 Scale: 3/4" = 1'-0"

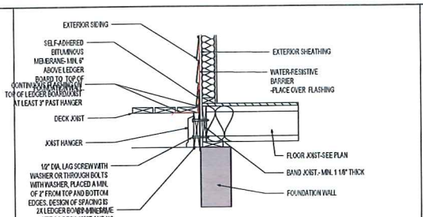
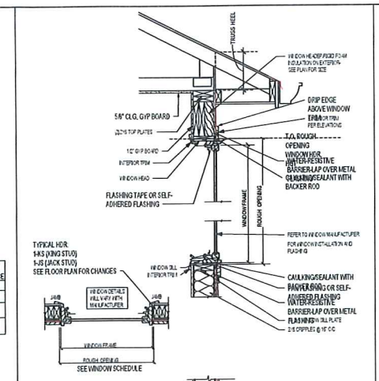


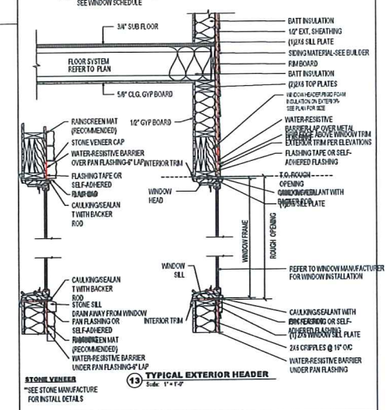
TABLE R507.2
DECK LEDGER CONNECTION TO BAND JOIST/RIM/POST STRONG TIE SDWS SCREWS
LOADING: DECK LIVE LOAD 40 PSF/DECK DEAD LOAD 10 PSF

CONNECTION DETAIL	LEDGER BOARD SIZE	MAXIMUM JOIST SPAN							MIN EDGE DISTANCE	MIN END DISTANCE
		UP TO 6'-0"	UP TO 7'-0"	UP TO 8'-0"	UP TO 9'-0"	UP TO 10'-0"	UP TO 11'-0"	UP TO 12'-0"		
1/2" LAG SCREWS	2X SYP	30	23	19	15	12	11	10	2"	2"
SIMPSON SDS22400KIT	1 1/8 OSB RIM	16	12	10	8	7	6	5	1 7/8"	6"
SIMPSON SDS22400KIT	1 1/4" LSL RIM	22	16	13	11	9	8	7	1 7/8"	6"
SIMPSON SDS22400KIT	2X SYP									

DECK LEDGER CONNECTION
2 Scale: 1" = 1'-0"

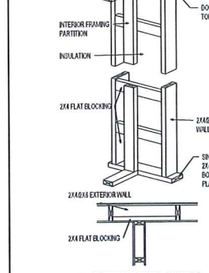


TYPICAL EXTERIOR HEADER
13 Scale: 1" = 1'-0"

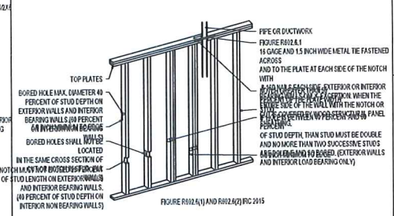


STONE VENEER
*SEE STONE MANUFACTURE FOR INSTALL DETAILS

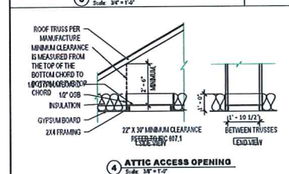
TYPICAL EXTERIOR HEADER
13 Scale: 1" = 1'-0"



EXTERIOR WALL LADDER
6 Scale: 3/4" = 1'-0"



NOTCHING AND BORING HOLE LIMITATIONS
7 Scale: 3/4" = 1'-0"



ATTIC ACCESS OPENING
4 Scale: 3/4" = 1'-0"

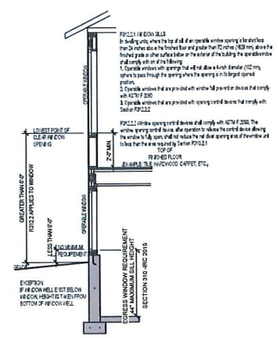
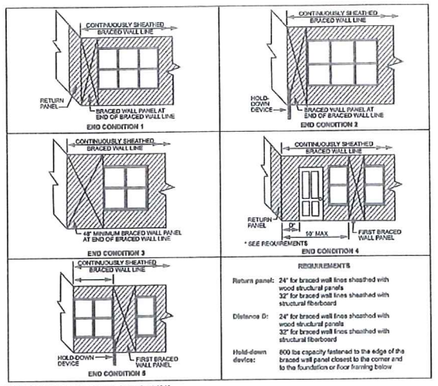


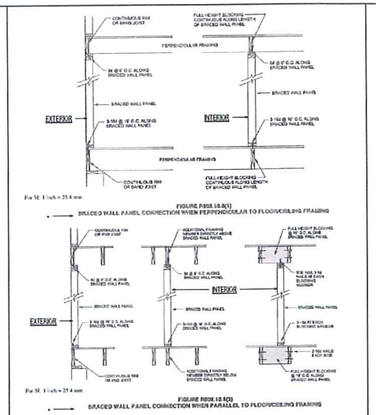
FIGURE R612.1 WINDOW SILLS
FIGURE R612.2 WINDOW FALL PROTECTION
UNDER SILL
UNDER SILL
UNDER SILL



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound = 4.45 N.

FIGURE R602.10.7
END CONDITIONS FOR BRACED WALL LINES WITH CONTINUOUS SHEATHING

1 **CS-END CONDITIONS**
Scale: 1/4" = 1'-0"



For SI: 1 inch = 25.4 mm.

FIGURE R602.10.8(1)
BRACED WALL PANEL CONNECTION WHEN PERPENDICULAR TO FLOOR/CEILING FRAMING

For SI: 1 inch = 25.4 mm.

FIGURE R602.10.8(2)
BRACED WALL PANEL CONNECTION WHEN PARALLEL TO FLOOR/CEILING FRAMING

FASTENER SCHEDULE FOR INTERIOR BRACED WALL LINES (EW) - NOTED ON PLAN
METHOD GB - BOTH SIDES GYP - 7" EDGES (INCLUDING TOP & BOTTOM PLATES) & 7" FIELD
METHOD WSP - 1 SIDE OSB/PLYWOOD - 6" EDGES & 12" FIELD, 1 SIDE GYP

2 **BRACED WALL PANEL CONNECTION**

Method, Material	Minimum Thickness	Figure	Connection Criteria* Fasteners	Connection Criteria* Spacings
CS-WSP Continuously sheathed wood structural panel	3/8"		Exterior sheathing see Table R602.3(3)	6" spacing (panel edges); 12" spacing (intermediate supports)
			Interior sheathing see Table R602.3(1) or Table R602.3(2)	Varies by fastener

a. Adhesive attachment of wall sheathing, including Method GB, shall not be permitted in Seismic Design Categories C_s, D_0, D_1 and D_2.

Minimum length per IRC Table R602.10.5 (TABLE 3.28)	Adjacent clear opening height (in.)	Minimum Length[a] (in.) Wall Height 8 ft	9 ft	10 ft	11 ft	12 ft	Contributing Length (in.)
CS-WSP	< 64	24	27	30	33	36	Adjacent
	68	26	27	30	33	36	
	72	27	27	30	33	36	
	76	30	29	30	33	36	
	80	32	30	30	33	36	
	84	35	32	32	33	36	
	88	38	35	33	33	36	
	92	43	37	35	35	36	
	96	48	41	38	35	36	
	100		44	40	38	38	
	104		49	43	40	39	
	108		54	46	43	41	
	112			50	45	43	
	116			55	48	45	
	120			60	52	48	
	124				56	51	
	128				61	54	
	132				66	58	
	136					62	
	140					66	
	144					72	

a. Linear interpolation shall be permitted.
b. Use actual length where it is greater than or equal to the minimum length.

6 **BRACING METHOD CS-WSP**
Scale: 1/4" = 1'-0"

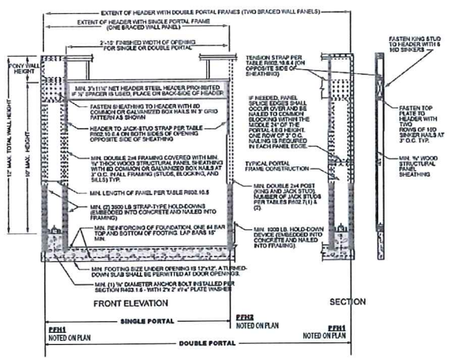


FIGURE R602.10.6.2
METHOD PFH—PORTAL FRAME WITH HOLD-DOWNS

3 **BRACING METHOD PFH**
Scale: 1/4" = 1'-0"

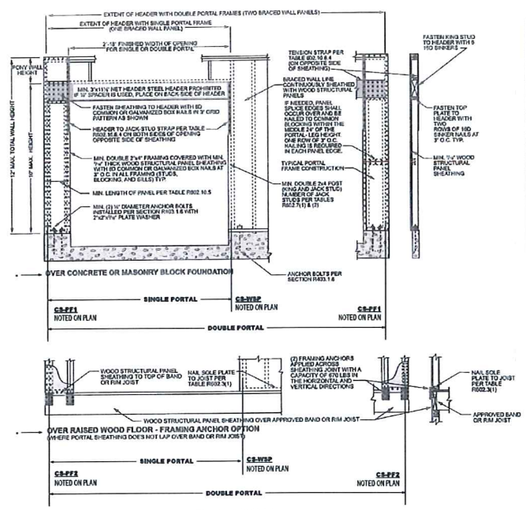


FIGURE R602.10.6.4
METHOD CS-PF—CONTINUOUSLY SHEATHED PORTAL FRAME PANEL CONSTRUCTION

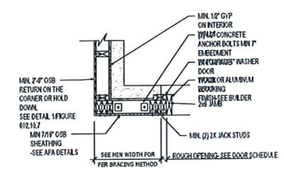
4 **BRACING METHOD CS-PF**
Scale: 1/4" = 1'-0"

TABLE R602.10.6.4
TENSION STRAP CAPACITY FOR RESISTING WIND PRESSURES PERPENDICULAR TO EXTERIOR WALL FOR END OF PORTAL BRACED WALL PANELS

MINIMUM WALL STUD FRAMING SPECIES AND GRADE	MAXIMUM PORTAL WIDTH (ft)	MAXIMUM TOTAL WALL HEIGHT (feet)	MAXIMUM OPENING HEIGHT (feet)	Tension Strap Capacity Required (pounds)[a] Ultimate Design Wind Pressure V_{ult} (mph) 110	120	130	140	150
				Exposure B			Exposure C	
2 x 4 No. 2 Grade	8	10	15	1,050	1,050	1,050	1,050	1,050
			9	1,050	1,050	1,050	1,050	1,050
	1	15	15	1,050	1,050	1,050	1,050	1,050
			9	1,050	1,050	1,050	1,050	1,050
	2	10	15	1,175	1,175	1,175	1,175	1,175
			9	1,050		1,050	1,050	1,050
			15	1,175	1,175	1,175	1,175	1,175
	2	12	9	1,350	1,350	1,350	1,350	1,350
			15	1,575	1,575	DR	DR	DR
			9	1,575	1,575	DR	DR	DR
	4	12	15	1,575	1,575	DR	DR	DR
			9	1,050	1,050	1,050	1,050	1,050
2 x 6 Stud Grade	2	12	15	1,350	1,350	1,350	1,350	1,350
			9	1,350	1,350	1,350	1,350	1,350
	4	12	15	1,575	1,575	DR	DR	DR
			9	1,575	1,575	DR	DR	DR
			15	1,575	1,575	DR	DR	DR

For SI: 1 inch = 25.4 mm, 1 mile per hour = 0.447 m/s.
a. DR = Design Required.
b. Image shall be consulted in accordance with manufacturer's recommendation.

10MPH = 1lb mph



MIN LENGTH FOR CONTINUOUS SHEATHING - PORTFAL FRAME (CS-PF)
PER TABLE R602.10.5
(HEIGHT TAKEN FROM TOP OF FOUNDATION WALL TO TOP PLATES OF GARAGE WALL)
8'-0" WALL HT. = 84" WIDE x 96" TALL
10'-0" WALL HT. = 96" WIDE x 108" TALL
12'-0" WALL HT. = 108" WIDE x 120" TALL

GARAGE DOOR JAMB - BRACING METHOD CS-PF
Scale: 1" = 1'-0"

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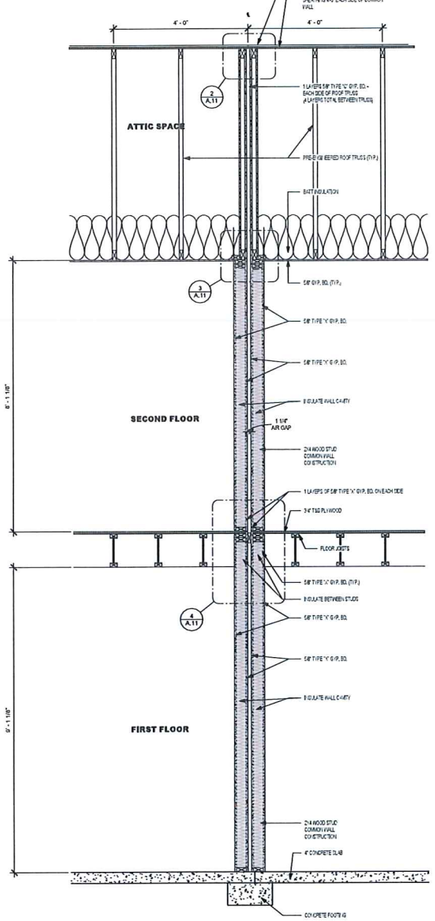

D - (2)1- HR. COMMON WALL
1 SECTION U305
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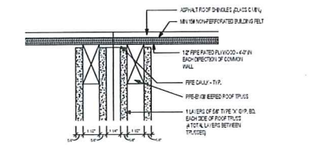
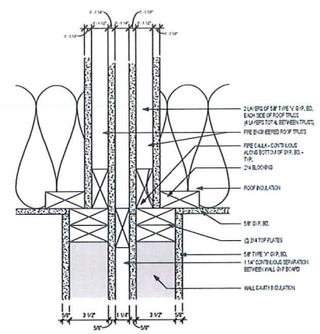


D - (2) 1 HR. COMMON WALL
2 SECTION @ ROOF JUNCTION
Scale: 3" = 1'-0"



D - (2) 1 HR. COMMON WALL
3 SECTION @ TRUSS JUNCTION
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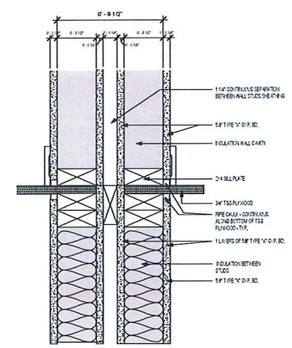
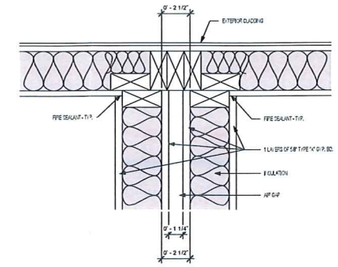
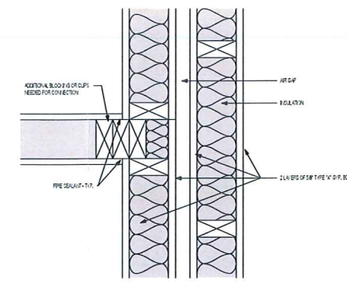


D - (2) 1 HR. COMMON WALL
4 SECTION @ T.O. FOUNDATION
Scale: 3" = 1'-0"



D - (2) 1 HR. COMMON WALL @
5 EXTERIOR WALL INTERSECTION
Scale: 3" = 1'-0"



D - (2)1 HR. COMMON WALL @
6 INTERIOR WALL INTERSECTION OPTION
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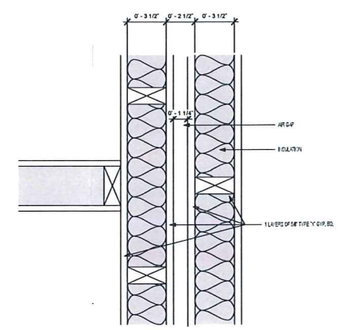

D - (2)1 HR. COMMON WALL @
7 INTERIOR WALL INTERSECTION
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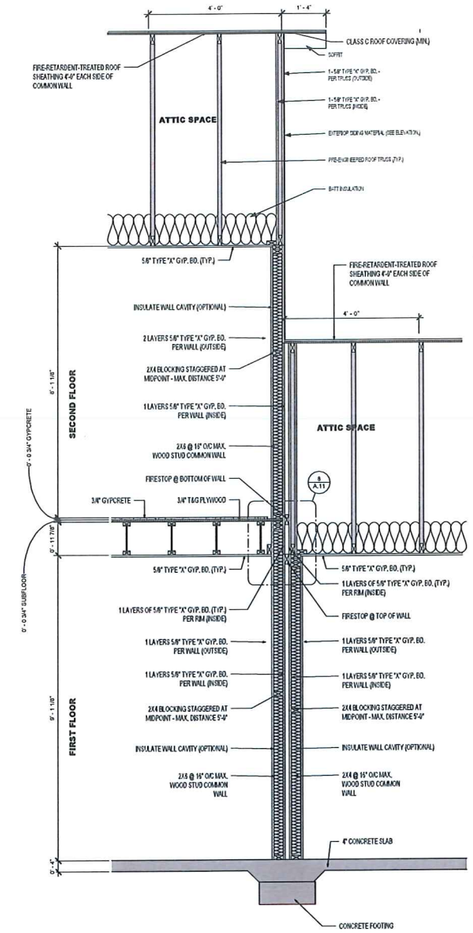
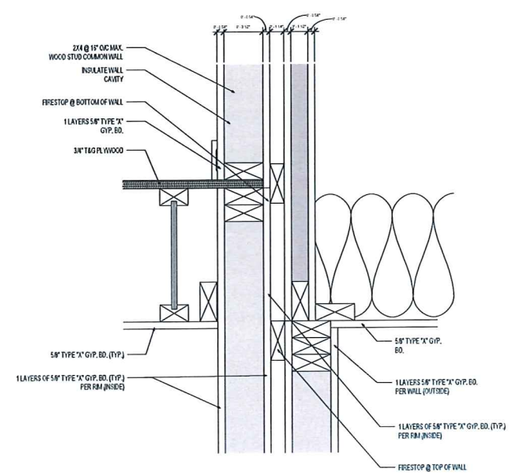


D - (2) 1 HR. COMMON WALL
9 SECTION -END WALL
Scale: 3/4" = 1'-0"



C - 2 1-HR. COMMON WALL
8 SECTION @ WALL1
Scale: 3" = 1'-0"

SECTION R302

R302.2 TOWNHOUSES. COMMON WALL SEPARATING TOWNHOUSES SHALL BE ASSIGNED A FIRE-RESISTANCE RATING IN ACCORDANCE WITH SECTION R302.2, ITEM 1 OR 2.

THE COMMON WALL SHARED BY TWO TOWNHOUSES SHALL BE CONSTRUCTED WITHOUT MECHANICAL EQUIPMENT, DUCTS OR VENTS IN THE CAVITY OF THE COMMON WALLS. THE WALL SHALL BE RATED FOR FIRE EXPOSURE FROM BOTH SIDES AND SHALL EXTEND TO AND BE TIGHT AGAINST EXTERIOR WALLS AND UNDERSIDE OF THE ROOF SHEATHING. ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH CHAPTER 34 THROUGH 43.

CITY OF ANKENY EXCEPTIONS:
THE PLUMBING PIPING NEEDS TO BE FIRE CAULKED WHERE THEY PENETRATE THE FIRE RATED WALL. NO SHOWER/TUB VALVES IN RATED WALL.

THE COMMON WALL SHALL BE NOT LESS THAN (2) 1 HOUR FIRE-RESISTANCE-RATED WALL ASSEMBLY IN ACCORDANCE WITH ASTM E 119 OR UL 263

R302.2.1 CONTINUITY
THE FIRE RESISTANCE WALL OR ASSEMBLY SEPARATING TOWNHOUSES SHALL BE CONTINUES FROM THE FOUNDATION TO THE UNDERSIDE OF THE ROOF SHEATHING, DECK OR SLAB, SHALL EXTEND THE FULL LENGTH OF THE WALL OR ASSEMBLY, INCLUDING WALL EXTENSIONS THROUGH AND SEPARATING ATTACHED ENCLOSED ACCESSORY STRUCTURES.

R302.2.2 PARAPETS FOR TOWNHOUSES
2. EXCEPTION: ROOF COVERING COMPLIES WITH A MINIMUM CLASS C RATING AS TESTED IN ACCORDANCE WITH ASTM E 108 OR UL 790 AND THE ROOF DECKING OR SHEATHING IS OF NONCOMBUSTIBLE MATERIAL OR APPROVED FIRE-RETARDANT-TREATED WOOD FOR A DISTANCE OF 4'-0" ON EACH SIDE OF THE WALL OR WALLS.

R302.2.4 STRUCTURAL INDEPENDENCE.
EACH TOWNHOUSE SHALL BE STRUCTURAL INDEPENDENCE
EXCEPTIONS
1. FOUNDATION SUPPORTING EXTERIOR WALLS OR COMMON WALL
2. STRUCTURAL ROOF AND WALL SHEATHING FROM EACH UNIT FASTENED TO THE COMMON WALL FRAMING
3. NON STRUCTURALLY WALL OR ROOF COVERING
4. FLASHING AT TERMINATION OF ROOF COVERING OVER COMMON WALL
5. TOWNHOUSES SEPARATED BY A COMMON WALL AS PROVIDED IN SECTION R302.2 ITEM 1 OR 2

plum BUILDING SYSTEMS, LLC

PLUM DESIGN SERVICES
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Classic Builders
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PROJECT ID:
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DATE: 06-06-19
DATE: 06-19-19
DATE: 06-20-19
DATE: 07-03-19
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(2) -1 Hr
Common Wall-
U305

THE PAGE ENTITLED CAN BE PRINTED ON 24"X36" PAPER AT THE SCALE

A.11