

NEW RESIDENCE: YES TOWNHOMES

FOUNDATION AND FRAMING DESIGN

142 UNIVERSITY AVENUE
SAN ANTONIO, TEXAS 78201

FOR

CLAUDETTE YARBROUGH

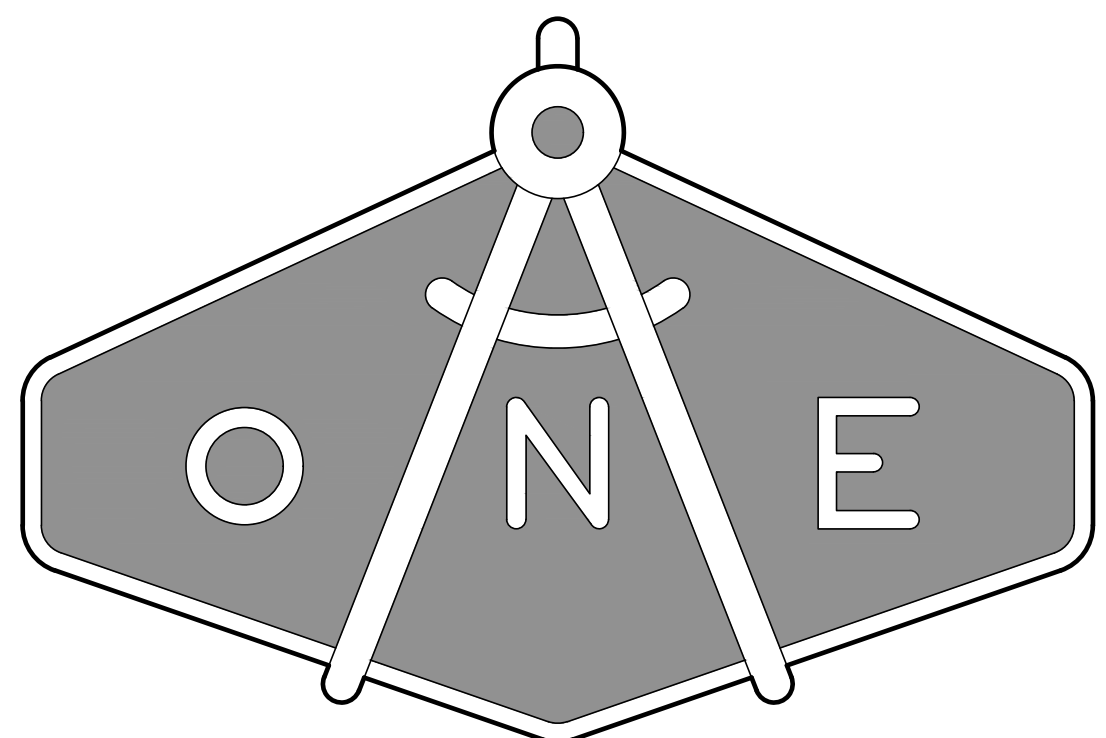
511 FREDERICKSBURG RD.
SAN ANTONIO, TEXAS 78201



A-1 ENGINEERING # 22-8012

NEW STRUCTURAL DESIGN: YES TOWNHOMES
FOUNDATION AND FRAMING DESIGN
142 UNIVERSITY AVE
SAN ANTONIO, TEXAS 78201
COVER SHEET

A-1 ENGINEERING, LLC



ENGINEERING
structural

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BY	REMARKS	DATE	ISSUE
MAC	PRELIMINARY - NOT FOR CONSTRUCTION	11.14.2022	

DATE: 11.14.2022
MOISES A. CRUZ, P.E.
LICENSED ENGINEER
TX. NO. 108540
NOTE: THESE DRAWINGS
ARE INCOMPLETE AND MAY
NOT BE USED FOR
REGULATORY APPROVAL,
PERMIT, OR CONSTRUCTION

ISSUE DATE: 11.14.2022

THIS DOCUMENT EXPIRES 12 MONTHS FROM THE DATE OF SIGNATURE.

SHEET SIZE: 24" x 36"

SHEET: **S0.0**

ANY PARTY, REFERENCING THESE PLANS FOR PRICING OR CONSTRUCTION, SHALL VERIFY ALL FIELD CONDITIONS WHICH WILL AFFECT THEIR SCOPE OF WORK, THE PROCUREMENT OF MATERIAL, AND FABRICATION OF COMPONENTS FOR THE CONSTRUCTION SHOWN ON THESE PLANS PRIOR TO THE START OF CONSTRUCTION. UNLESS OTHERWISE INDICATED, THE DOCUMENTS DO NOT INDICATE THE MEANS AND METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL TAKE ALL MEASURES TO PROTECT THE SAFETY OF THE PUBLIC ALONG WITH THE SAFETY OF PROPERTY AND HIMSELF, DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, RETAINING PROFESSIONAL TO AID IN DEVELOPING, SHORING AND BRACING SYSTEMS, AND INSPECTION OF THE ASSEMBLY AND MAINTENANCE OF BRACING AND SHORING SYSTEMS. DESIGN, CONSTRUCT, INSPECT AND MAINTAIN BRACING AND SHORING SYSTEMS TO SUSTAIN PRESCRIBED SERVICE LOADS PER THE INTERNATIONAL BUILDING CODE. THE CONTRACTOR WILL BE REQUIRED TO CORRECT AT HIS OWN EXPENSE ANY SUBSIDENCE, STRUCTURAL DAMAGE OR OTHER OBJECTIONAL CONDITIONS CAUSED BY HIS OPERATIONS.

PRELIMINARY - NOT FOR CONSTRUCTION



DRAWN BY: SLM

STRUCTURAL GENERAL NOTES AND SPECIFICATIONS:

(01 40 00) STRUCTURAL GENERAL NOTES:

- 1) THESE DOCUMENTS WERE PREPARED FOR THE SOLE USE OF THIS PROJECT. THIS SET OF DOCUMENTS AND INDIVIDUAL SHEETS ARE COPY RIGHT PROTECTED AND MAY NOT BE REPRODUCED, DISTRIBUTED OR PUBLISHED TO THE PUBLIC OR FOR ANY OTHER USE...
2) THE SPECIFICATIONS FOR FASTENERS, ANCHORING SYSTEMS, FRAMING MEMBERS, FOUNDATIONS, MATERIALS AND OVERALL STRUCTURAL DESIGNS PROVIDED IN THESE DOCUMENTS ARE SOLELY APPLICABLE TO THIS DESIGN...
3) UNLESS NOTED OTHERWISE, A-1 ENGINEERING, LLC, IS NOT ACCEPTING THE RESPONSIBILITY OF 'DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE' FOR THIS PROJECT...
4) THE TEXAS ARCHITECTURAL BARRIERS ACT (ARTICLE 9102, TEXAS CIVIL STATUTES) REQUIRES THE PRIME DESIGN CONSULTANT SUBMIT CONSTRUCTION DOCUMENTS FOR ALL PROJECTS WITH AN ESTIMATED CONSTRUCTION COST OF \$50,000 OR MORE...
5) THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SITE CONDITIONS...
6) DRAWINGS OF SPECIFIC DETAILS ON THE DRAWINGS INDICATE THE INTENT OF THE STRUCTURAL DESIGN AND IN MOST CASES, ARE TYPICAL CONDITIONS OR VERY SIMILAR TO OTHER DETAILS...
7) UNDERSTANDING THE STRUCTURAL REQUIREMENTS SHOWN ON THE STRUCTURAL DOCUMENTS REQUIRES COOPERATION AMONG ALL PARTIES INVOLVED...
8) COMBINING ALL CONSTRUCTION DOCUMENTS WITH THE STRUCTURAL DOCUMENTS DEFINES THE TOTAL PROJECT...
9) THE STRUCTURAL DRAWINGS WERE DEVELOPED BASED ON OUR INTERPRETATION AND REFERENCE TO ARCHITECTURAL DRAWINGS PROVIDED TO A-1 ENGINEERING...
10) WE RECOMMEND THE OWNER, CONTRACTORS AND DESIGN CONSULTANTS FOR THE PROJECT TO HAVE A PRE-CONSTRUCTION MEETING PRIOR TO COMMENCING CONSTRUCTION...
11) QUESTIONS AND INQUIRIES BY CONTRACTORS TO THE STRUCTURAL ENGINEER SHOULD BE SENT IN WRITING FOLLOWING A FORMAL 'REQUEST FOR INFORMATION (RFI)' PROCESS...
12) CONTRACTORS MAY PROPOSE ALTERNATIVE PRODUCTS AND DESIGNS FROM THOSE SPECIFIED IN THESE DOCUMENTS FOR REVIEW BY THE STRUCTURAL ENGINEER...
13) THE BUILDING CODE REQUIREMENTS FOR 2018 INTERNATIONAL BUILDING CODE IS THE BASIC CODE DOCUMENT USED IN THE PREPARATION OF THESE STRUCTURAL DOCUMENTS...
14) THE STRUCTURAL ENGINEER-OF-RECORD PREPARED SPECIFICATIONS FOR STRUCTURAL RELATED PORTIONS OF THE PROJECT AND HAS INCLUDED THESE SPECIFICATIONS ON THE STRUCTURAL DRAWINGS...
15) DIFFERENTIAL MOVEMENT OF THE FOUNDATION WILL OCCUR WITH VARIATIONS IN THE MOISTURE CONTENT OF THE SUBSURFACE SOILS...
16) THE FOUNDATION DESIGN DOES NOT CONSIDER THE REMOVAL AND REPLACEMENT OF SOILS OR THE CONDITIONING OF SOILS FOR GEOTECHNICAL PURPOSES...

E) IBC 1603.1.5. EARTHQUAKE DESIGN DATA: RISK CATEGORY: II SEISMIC IMPORTANCE FACTOR, I: 1.0 MAPRED SPECTRAL RESPONSE ACCELERATION PARAMETERS: Ss: 0.051 Si: 0.022 SITE CLASS: D DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS: Sds: 0.055 Si: 0.035 SEISMIC DESIGN CATEGORY: A BASIC SEISMIC FORCE-RESISTING SYSTEM(S); CONTINUOUSLY SHEATED SHEAR WALLS

19) IBC 1603.1.6. SOIL DESIGN PARAMETERS: THE SOILS SUPPORTING THE FOUNDATION ARE EXPANSIVE WITH AN EFFECTIVE PLASTICITY INDEX (PI) GREATER THAN OR EQUAL TO 15 A) ALLOWABLE SOIL BEARING CAPACITY (FP) TOTAL LOAD = 1500 PSF

(01 33 00) STRUCTURAL SUBMITTALS:

- 1) SUBMIT TO THE STRUCTURAL ENGINEER FOR REVIEW APPROPRIATE SCHEDULES, SHOP DRAWINGS, SAMPLES, TEST REPORTS, AND PRODUCT DATA THAT IS RELATED TO THE STRUCTURAL PORTION OF THE WORK ACCORDING TO AIA DOCUMENT A201 GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION...
FABRICATION / ERECTION DRAWINGS: DATE BY REMARKS FOUNDATION REINFORCING STEEL:

(31 23 00) BUILDING PAD - SOIL PREPARATION:

THE SOILS SUPPORTING THE FOUNDATION ARE ASSUMED EXPANSIVE WITH AN EFFECTIVE PLASTICITY INDEX (PI) > 15, AS OUTLINED IN CHAPTER 18 OF THE IBC. EARTHWORK CONSTRUCTION CONSIDERATIONS

- 1) THE SITE SHOULD BE GRADED SUCH THAT SURFACE WATER RUNOFF IS DIRECTED AWAY FROM ANY EXCAVATIONS DURING CONSTRUCTION...
2) THE SURFACE SOILS IN THIS VICINITY ARE MOISTURE SENSITIVE, AND SO ANY UNCONTROLLED SURFACE FLOW ACROSS THE SITE COULD RESULT IN UNDESIRED INFILTRATION AND FUTURE DIFFICULTIES WITH SWELL...
3) EXPOSURE TO THE ENVIRONMENT MAY WEAKEN THE SOILS AT THE FOUNDATION BEARING LEVEL...
PREPARATION OF THE EXISTING SUBGRADE SOILS:

- 1) EARTHWORK BELOW THE BUILDING SHALL CONSIST OF THE CONSTRUCTION OF A BUILDING PAD OF SELECT COMPACTED FILL MATERIAL OVER MOISTURE CONDITIONED COMPACTED EXISTING SOILS...
2) DISCUSSION OF PAD PREPARATION: PER IBC 1809.2, SUPPORTING SOILS, SHALLOW FOUNDATION SHALL BE BUILT ON UNDISTURBED SOIL...
3) AN INDEPENDENT SOILS INSPECTOR SHOULD BE RETAINED TO MONITOR, TEST AND REPORT THE PREPARATION AND CONDITION OF THE SOILS DURING CONSTRUCTION...
4) REMOVE THE TOP 8-INCHES OF THE EXISTING SOIL TO INCLUDE ANY ROOTS OR ORGANIC MATERIAL...
5) SCARIFY THE EXPOSED SUBGRADE TO A DEPTH OF 8-INCHES...
6) COORDINATE INSPECTION AND TESTING SERVICES IN ORDER FOR THE SPECIAL INSPECTOR TO TEST THE SUBGRADE MOISTURE/DENSITY AT LEAST EVERY 2,500 SF OF BUILDING PAD AREA...

PREPARATION OF THE SELECT STRUCTURAL FILL MATERIAL (BUILDING PAD):

- 1) AN INDEPENDENT SOILS INSPECTOR SHOULD BE RETAINED TO MONITOR, TEST AND REPORT THE PREPARATION AND CONDITION OF THE SOILS DURING CONSTRUCTION...
2) OVER THE COMPACTED EXISTING SOILS:

OPTION 1: PLACE SELECT STRUCTURAL FILL (BASE MATERIAL) IN 8-INCHES LOOSE LIFTS, MOISTURE CONDITION AND COMPACT TO AT LEAST 6-INCHES IN THICKNESS...
OPTION 2: OVER THE COMPACT NATURAL SOIL, BAG FILL THE STRUCTURAL FILL (BASE MATERIAL) IN 8-INCHES MOISTURE CONDITIONED AND COMPACTED LIFTS...

REFER TO THE ARCHITECTURAL FLOOR PLANS FOR AREA USE AND OCCUPANCY TO CORRELATE THE APPLICABLE LOADING CONDITION.

- A) IBC 1603.1.1. FLOOR LIVE LOADS: FLOOR LIVE LOADS = 40 PSF
B) IBC 1603.1.2. ROOF LIVE LOADS: ROOF LIVE LOADS = 121/620 PSF, TRIBUTARY AREA CONSIDERED, PONDING NOT CONSIDERED
C) DEAD LOADS: FLOOR = SELF WEIGHT ROOF = SELF WEIGHT
D) IBC 1603.1.3. GROUND SNOW LOAD = 5 PSF, IMPORTANCE FACTOR (I) = 1.0
E) IBC 1603.1.4. WIND LOADS ASCE 7 METHOD 2 - BUILDING AND OTHER STRUCTURES <= 60 V U LT AT EXP. C = 15 MPH STRUCTURE TYPE = BUILDING

- 3) SELECT FILL BELOW THE SLAB SHALL MEET THE FOLLOWING SPECIFICATIONS: TEXAS DEPARTMENT OF TRANSPORTATION GRADE A, TYPE I OR II BASE MATERIAL...
4) UTILITY TRENCHES WITHIN THE BUILDING SHALL BE CAREFULLY BACKFILLED, MOISTURE CONDITIONED AND COMPACTED SO THAT THE TRENCH DOES NOT BECOME AN AVENUE FOR MOISTURE...
5) COORDINATE BUILDING OFFICIAL INSPECTION AFTER EXCAVATING FOR BEAMS AND PLACEMENT OF ALL REINFORCING STEEL...
6) THE FINISH SURFACE GRADING, FINAL DRAINAGE OF SURFACE WATER AND LANDSCAPING SHALL BE CONSTRUCTED IN A MANNER TO ENSURE POSITIVE DRAINAGE...
7) THE GROUND IMMEDIATELY ADJACENT TO THE FOUNDATION SHALL BE SLOPED AWAY FROM THE BUILDING AT A SLOPE OF NOT LESS THAN ONE UNIT VERTICAL IN 20 UNITS HORIZONTAL...
(33 00 00) - CONCRETE:

- 3.1) CONSTRUCT FORMWORK TO MAINTAIN TOLERANCES AS OUTLINED IN ACI 347...
3.2) TRENCH GRADES BEHIND IN ORDER TO PROVIDE THE BEAM CROSS SECTION INDICATED...
3.3) WHERE TREES EXIST WITHIN FIVE FEET OF FOUNDATION...
3.4) TRENCH BELOW THE SLAB THICKNESS FOR PLACING ELECTRICAL CONDUIT AND PLUMBING LINES...
3.5) REINFORCING STEEL SHALL COMPLY WITH THE REQUIREMENTS OF ASTM A-615, GRADE 60...
3.6) FABRICATE BENT BARS ACCORDING TO ACI 315...
3.7) CONCRETE SHALL DEVELOP A 28-DAY COMPRESSIVE STRESS (FC) OF AT LEAST 3,000 PSI...
3.8) THE PROPORTIONS OF MATERIALS AND USE OF ADMIXTURES INFLUENCE THE CONCRETE STRENGTH...
3.9) BEFORE PLACEMENT OF ANY CONCRETE...
3.10) PLACE AND CURE CONCRETE ACCORDING TO ACI 302.1R...
3.11) COORDINATE STRUCTURAL ENGINEER'S REVIEW AND THE BUILDING OFFICIAL INSPECTION...

3.12) REINFORCING STEEL SHALL COMPLY WITH THE REQUIREMENTS OF ASTM A-615, GRADE 60...
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3.14) CONCRETE SHALL DEVELOP A 28-DAY COMPRESSIVE STRESS (FC) OF AT LEAST 3,000 PSI...
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- 3.17) REINFORCING STEEL SHALL COMPLY WITH THE REQUIREMENTS OF ASTM A-615, GRADE 60...
3.18) THE PROPORTIONS OF MATERIALS AND USE OF ADMIXTURES INFLUENCE THE CONCRETE STRENGTH...
3.19) PLACE AND CURE CONCRETE ACCORDING TO ACI 302.1R...
3.20) COORDINATE STRUCTURAL ENGINEER'S REVIEW AND THE BUILDING OFFICIAL INSPECTION...
3.21) COORDINATE STRUCTURAL ENGINEER'S REVIEW AND THE BUILDING OFFICIAL INSPECTION...
(06 10 00) WOOD FRAMING:

6.1) ALL LUMBER SHALL BE PS 20, NEW AND UNDAMAGED GRADED LUMBER IN ACCORDANCE WITH NFPA GRADING RULES...
A) ROUGH FRAMING: (2x4 - 2x12) SHALL CONSIST OF #2 SOUTHERN YELLOW PINE (SYP) WITH 19 PERCENT MAXIMUM MOISTURE CONTENT...
B) FRAMING DESIGNATED AS LVL BEAMS ON THE PLANS SHALL CONSIST OF SOLID PLYWOOD BEAMS...

Table with 2 columns: SIZE and FB (Fastener). Rows include 2x4, 2x6, 2x8, 2x10, 2x12 and corresponding fastener values.

A MODULUS OF ELASTICITY OF 1,400,000 PSI, AND AN ALLOWABLE SHEAR STRESS OF 175 PSI. B) FRAMING DESIGNATED AS LVL BEAMS ON THE PLANS SHALL CONSIST OF SOLID PLYWOOD BEAMS MANUFACTURED BY THE BOISE-CASCADE TRUS-JOIST CORPORATION...

- 6.1) NAILS SHALL BE GALVANIZED FOR EXTERIOR LOCATIONS...
BOLTS, NUTS, WASHERS, LAGS AND SCREWS SHALL BE MEDIUM CARBON STEEL...
BOTTOM PLATE ANCHORS TO FOUNDATION SHALL BE A307 CARBON STEEL...

PLYWOOD SHEATHING CLIPS SHALL BE SIMPSON STRONG-TIE 18 GAGE GALVANIZED STEEL X PLYWOOD THICKNESS. UNLESS OTHERWISE INDICATED, USE TYPE LUS JOIST HANGERS AS MANUFACTURED BY THE SIMPSON COMPANY...

- 6.2) STORE FRAMING MATERIAL A MINIMUM OF 12-INCHES ABOVE THE GROUND...
6.3) AT HEADERS BUILT-UP WITH MULTIPLE SYP #1/#2 2X MEMBERS, NAIL TOGETHER WITH AT LEAST 16d NAILS...

AT BEAMS BUILT-UP WITH MULTIPLE LVL MEMBERS, SCREW TOGETHER WITH AT LEAST #10 SCREWS AT 12-INCHES ON CENTER ALONG EACH EDGE AND WITH AT LEAST (1) #10 SCREW PER 6-INCHES NOMINAL DEPTH OF HEADER...

- 6.4) FRAMING MEMBERS SHALL BE INSTALLED WITHIN 1/4-INCH FROM TRUE POSITION...
6.5) MAINTAIN SHEATHING SURFACE FLATNESS OF MAXIMUM 1/8-INCH IN 10- FEET OR MORE.

- 6.6) INSTALL BUILDING PAPER ON ALL EXTERIOR WALLS...
6.7) PROTECTION OF WOOD AND WOOD BASED PRODUCTS FROM DECAY SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS BY THE USE OF NATURALLY DURABLE WOOD OR WOOD THAT IS PRESERVATIVE-TREATED...
1) WOOD JOISTS OR THE BOTTOM OF A WOOD STRUCTURAL FLOOR...
2) WOOD FRAMING MEMBERS THAT REST ON CONCRETE OR MASONRY EXTERIOR FOUNDATION WALLS...
3) SILLS AND SLEEPERS ON A CONCRETE OR MASONRY SLAB...
4) THE ENDS OF WOOD GIRDERS ENTERING EXTERIOR MASONRY OR CONCRETE WALLS...
5) WOOD SIDING, SHEATHING, AND WALL FRAMING ON THE EXTERIOR...
6) WOOD STRUCTURAL MEMBERS SUPPORTING MOISTURE-PERMEABLE FLOORS OR ROOFS...
7) WOOD FURRING STRIPS OR OTHER WOOD FRAMING MEMBERS ATTACHED DIRECTLY TO THE INTERIOR...
8) WOOD PERMANENTLY EXPOSED TO WEATHER.

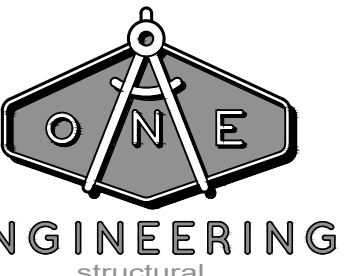
6.1) COORDINATE STRUCTURAL ENGINEER'S REVIEW AND THE BUILDING OFFICIAL INSPECTION. THE BUILDING OFFICIAL SHALL INSPECT THE PRIMARY STRUCTURAL FRAMING... (06 30 10) - TRIMMABLE JOIST

- 1) TRIMMABLE JOISTS ARE PREFABRICATED OPEN WEB TRUSS SYSTEMS THAT ALLOW FOR THE ENDS OF THE TRUSS TO BE TRIMMED TO ACCOMMODATE REQUIRED SPANS...
2) DESIGN CRITERIA: ALL LOADS ON JOIST ARE CONSIDERED UNIFORM DISTRIBUTED LOAD WITH ALLOWANCE FOR REPETITIVE USE (FACTORS) UNLESS NOTED OTHERWISE...
DESIGN DEAD LOAD: TOP CHORD: 10 PSF BOTTOM CHORD: 5 PSF DESIGN FLOOR LIVE LOAD: 40 PSF TOTAL LOAD ALLOWABLE DEFLECTION: L/480

3) INSTALL JOIST WITH RIGHT SIDE UP TO HAVE THE 'TOP' STAMP ON THE TOP OF EACH JOIST. 4) JOIST SHALL BEAR ON THE BOTTOM CHORD BENEATH THE TRIMMABLE END SECTION OF THE JOIST... 5) INSTALL VERTICAL 2X4 STIFFENERS AT ALL LOCATIONS WITH CONCENTRATED LOADS.

6) DO NOT ALTER, MODIFY, CUT OR REMOVE ANY SECTION OR PARTS OF THE TRUSS MEMBERS OR SECTIONS OF THE TRIMMABLE JOIST. 7) DO NOT USE THE TRIMMABLE JOIST AS A BEAM OR HEADER WITHOUT FIRST CONSULTING THE STRUCTURAL ENGINEER... 8) CONSULT WITH THE STRUCTURAL ENGINEER TO REPAIR OR REINFORCE TRIMMABLE JOIST THAT ARE DAMAGED...

9) COORDINATE WITH THE STRUCTURAL ENGINEER AND THE BUILDING OFFICIAL FOR THE INSPECTION OF THE FRAMING PRIOR TO THE INSTALLATION OF INSULATION OR FINISHES...
10) THE INSTALLATION OF INSULATION OR FINISHES SHOULD NOT PAINT TRIMMABLE JOIST UNTIL THE JOIST FRAMING SYSTEM HAS BEEN INSPECTED AND APPROVED BY THE ENGINEER AND THE BUILDING OFFICIAL.



A-1 ENGINEERING, LLC STRUCTURAL ENGINEERING 1006 Vance Jackson Rd., San Antonio, Texas Ph. (210) 591-8829 401 Congress Ave., Suite 1540 Austin, Texas Ph. (512) 298-3360

A-1 ENGINEERING # 22-8012

NEW STRUCTURAL DESIGN: YES TOWNHOMES FOUNDATION AND FRAMING DESIGN 142 UNIVERSITY AVE SAN ANTONIO, TEXAS 78201 GENERAL NOTES

Table with columns: BY, DATE, REMARKS. Row 1: BY: MAC, DATE: 11-14-2022, REMARKS: PRELIMINARY - NOT FOR CONSTRUCTION.

DATE: 11-14-2022 MOISES A. CRUZ, P.E. LICENSED ENGINEER TX. NO. 108540 NOTE: THESE DRAWINGS ARE INCOMPLETE AND MAY NOT BE USED FOR REGULATORY APPROVAL PERMIT, OR CONSTRUCTION

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TABLE #1

NAILING SCHEDULE	
CONNECTION	NAILING
JOIST OR TRUSS BEARING ON SILL OR GIRDER, TOENAIL	(3) 8d
BRIDGING TO JOIST, TOENAIL EACH END	(2) 8d
SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	16d AT 16" O.C.
TOP PLATE TO STUD, END NAIL TO EACH STUD	(2) 16d
STUD TO SOLE PLATE	(4) 8d TOENAIL OR (2) 16d END NAIL
DOUBLE STUDS, FACE NAIL	16d AT 24" O.C.
DOUBLE TOP PLATES, FACE NAIL	16d AT 16" O.C.
TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	2 - 16d
CONTINUOUS HEADER, TWO PIECES	16d AT 16" O.C. ALONG EACH EDGE
CEILING JOISTS TO PLATE, TOENAIL	(3) 8d
CONTINUOUS HEADER TO STUD, TOENAIL	(4) 8d
CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	(3) 16d
CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	(3) 16d
RAFTER OR TRUSS TO PLATE, TOE NAIL	(3) 8d
BUILT-UP CORNER STUDS	16d AT 24" O.C.

NOTES:

- MINIMUM NAILING SPECIFIED HEREIN SHALL BE PROVIDED UNLESS OTHERWISE NOTED ON DETAILS OR STRUCTURAL NOTES.
- COMMON OR BOX NAILS MAY BE USED. 16d NAILS MAY BE EITHER COMMON OR SINKER.

TABLE #2B

STRUCTURAL SHEATHING / DECKING SCHEDULE							
STRUCTURAL SYSTEM	SHEATHING TYPE	EXPOSURE CATEGORY	THICKNESS (MIN.)	SPAN RATING	NAILING PATTERN		NOTES
					EDGE SUPPORT	INTERIOR SUPPORT	
WALL SHEATHING	APA RATED SHEATHING	EXP. 1	7/16"	24/16	10d AT 6" O.C.	10d AT 12" O.C.	1,2,3,4
ROOF DECKING	APA RATED SHEATHING	EXP. 1	7/16"	24/16	8d AT 6" O.C.	8d AT 12" O.C.	1,2,3,4
FLOOR DECKING	APA RATED SHEATHING	EXP. 1	3/4"	24/16	10d AT 6" O.C.	10d AT 12" O.C.	1,2,3,4,6

NOTES:

- STRUCTURAL PANELS SHALL BE LABELED / STAMPED WITH APA APPROVED MARKINGS AND LABELS SHOWING CONFORMANCE WITH SPECIFICATIONS.
- ALL PANELS SHALL BE LAID OUT / ORIENTATED TO BE PERPENDICULAR TO SUPPORTS.
- STAPLES MAY NOT BE SUBSTITUTED FOR NAILS.
- BLOCK EDGES OF ALL WALL, ROOF, AND FLOOR SHEATHING PANELS.
- O.C.= DENOTES ON-CENTER
- TONGUE AND GROOVE

TABLE #3B (SEE FRAMING PLAN)

ROOF / CEILING / FLOOR FRAMING SCHEDULE			
LABEL	MEMBER	SIZE	GRADE
R1	COMMON RAFTER	2 x 6 AT 2'-0" O.C. U.N.O.	SYP #2
F1	FLOOR-TRUSS	12" DEEP TRIMMABLE JOIST AT 2'-0" O.C. U.N.O.	
F2	FLOOR-JOIST	2 x 10 AT 2'-0" O.C.	SYP #2
GT	GIRDER TRUSS	22" DEEP 4X- GIRDER TRUSS	

O.C. = DENOTES ON-CENTER
U.N.O. = DENOTES UNLESS NOTED OTHERWISE

TABLE #4 (SEE FRAMING PLAN)

WOOD HEADER SCHEDULE			
MEMBER	HEADER	SPECIES	JACK STUDS
H1	(2) 2 x 6	SYP #2	(1) SPF #2
H2	(2) 2 x 8	SYP #2	(1) SPF #2
H3	(2) 2 x 10	SYP #2	(2) SPF #2
H4	(2) 2 x 12	SYP #2	(2) SPF #2
H5	(3) 2 x 12	SYP #2	(2) SPF #2

TABLE #5B (SEE FRAMING PLAN)

WOOD WALL FRAMING SCHEDULE			
LEVEL	SIZE/SPACING	SPECIES	TOP OF PLATE
1st FLOOR WALLS	2 x 6 AT 24" O.C.	SPF #2	
1st FLOOR BOTTOM PLATE	2 x 6 TREATED	SPF #2	
1st FLOOR TOP PLATE	(2) 2 x 6	SPF #2	8'-1"
2nd FLOOR WALLS	2 x 6 AT 24" O.C.	SPF #2	
2nd FLOOR BOTTOM PLATE	2 x 6	SPF #2	
2nd FLOOR TOP PLATE	(2) 2 x 6	SPF #2	18'-2"
3rd FLOOR WALLS	2 x 6 AT 24" O.C.	SPF #2	
3rd FLOOR BOTTOM PLATE	2 x 6	SPF #2	
3rd FLOOR TOP PLATE	(2) 2 x 6	SPF #2	28'-2"
PARAPET WALLS	2 x 6 AT 24" O.C.	SPF #2	
PARAPET BOTTOM PLATE	2 x 6	SPF #2	
PARAPET TOP PLATE	(2) 2 x 6	SPF #2	34'-0"

O.C. = DENOTES ON-CENTER

TABLE #6 (SEE FRAMING PLAN)

WOOD BEAM SCHEDULE			
BEAM	SIZE	GRADE	JACK STUDS
B1	(2) 1.75" x 12" LVL	Fb=2600	(2) SPF #2
B2	(2) 1.75" x 14" LVL	Fb=2600	(3) SPF #2
B3	(2) 1.75" x 16" LVL	Fb=2600	(4) SPF #2
B4	(2) 1.75" x 18" LVL	Fb=2600	(4) SPF #2
B5	(2) 1.75" x 20" LVL	Fb=2600	(4) SPF #2
B6	(2) 1.75" x 22" LVL	Fb=2600	(4) SPF #2

TABLE #7 (SEE FRAMING PLAN)

WOOD HANGER SCHEDULE			
LABEL	CONDITION	HANGER	MODEL TYPE
H1	CEILING JOIST TO BEAM	SIMPSON STRONG TIE LUS	2 x 4 - LUS24, 2 x 6 - LUS26, 2 x 8 - LUS28, 2 x 10 - LUS210, 2 x 12 - LUS212
H2	2X SAWN LUMBER TO BEAM	SIMPSON STRONG TIE LUS	2 x 4 - LUS24, 2 x 6 - LUS26, 2 x 8 - LUS28, 2 x 10 - LUS210, 2 x 12 - LUS212
H3	LVL BEAM TO LVL BEAM	THA4X-SERIES	MATCH LVL DEPTH
H5	4X FLOOR TRUSS TO WOOD BEAM	THA4X-SERIES	MATCH TRUSS DEPTH

NOTES:

- HANGER AND MODEL TYPE MANUFACTURED BY SIMPSON STRONG TIE
- FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR FASTENING TO ACHIEVE FULL DESIGN CAPACITY

TABLE #8 (SEE FRAMING PLAN)

WOOD COLUMN SCHEDULE				
LABEL	SIZE	MATERIAL	BASE MODEL	NOTES
K1	4 x 4	TREATED SPF #2	CB44	1,2

NOTES:

- COLUMN BASE TYPE MANUFACTURED BY SIMPSON STRONG TIE
- FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR FASTENING TO ACHIEVE FULL DESIGN CAPACITY.

TABLE #9 (SEE FRAMING PLAN)

COLUMN CAP SCHEDULE				
LABEL	CONDITION	CAP MODEL	COMMENTS	LAYOUT DIAGRAM
P1	CORNER COLUMN WITH MAIN BEAM	LCE	USE FOR 4x4 AND 6x6 WOOD POST	
P2	INTERMEDIATE COLUMN WITH BEAM	CCQ	MATCH CAP DIMENSIONS TO BEAM WIDTH	
P3	CORNER COLUMN WITH MAIN BEAM AND INTERMEDIATE BEAM	ECCLL	MATCH CAP DIMENSIONS TO BEAM WIDTH	
P4	INTERMEDIATE COLUMN WITH MAIN BEAM AND INTERSECTING BEAM	CCT66	MATCH CAP DIMENSIONS TO BEAM WIDTH	

NOTES:

- FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR FASTENERS AND INSTALLATION OF CAPS
- CAP MODELS MANUFACTURED BY SIMPSON STRONG TIE.

TABLE 3.2

SLAB REINFORCEMENT SCHEDULE				
AREA	THICKNESS	REBAR SIZE	SPACING	LAP SPLICE
MAIN SLAB	4"	#4	16" O.C.	24" MINIMUM
PORCH AND PATIO	4"	#4	16" O.C.	24" MINIMUM
GARAGE SLAB	5"	#4	16" O.C.	24" MINIMUM

O.C. = DENOTES ON-CENTER

TABLE 3.3

GRADE BEAM REINFORCEMENT SCHEDULE					
TYPE	TOP REBAR	BOTTOM REBAR	STIRRUPS	CORNER BARS	LAP SPLICE
INTERIOR GRADE BEAM	(2) #6	(2) #6	#3 AT 18" O.C.	#6 L-BARS TOP AND BOTTOM	36" MINIMUM
PERIMETER EXTERIOR GRADE BEAM	(2) #6	(2) #6	#3 AT 18" O.C.	#6 L-BARS TOP AND BOTTOM	36" MINIMUM

O.C. = DENOTES ON-CENTER



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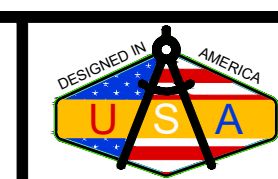
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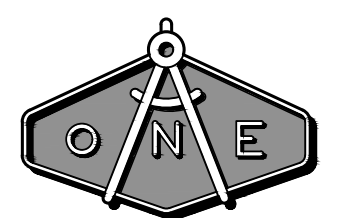
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ANY PARTY, REFERENCING THESE PLANS FOR PRICING OR CONSTRUCTION, SHALL VERIFY ALL FIELD CONDITIONS WHICH WILL AFFECT THEIR SCOPE OF WORK, THE PROCUREMENT OF MATERIAL, AND FABRICATION OF COMPONENTS FOR THE CONSTRUCTION SHOWN ON THESE PLANS PRIOR TO THE START OF CONSTRUCTION. UNLESS OTHERWISE INDICATED, THE DOCUMENTS DO NOT INDICATE THE MEANS AND METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL TAKE ALL MEASURES TO PROTECT THE SAFETY OF THE PUBLIC ALONG WITH THE SAFETY OF PROPERTY AND HIMSELF, DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, RETAINING PROFESSIONAL TO AID IN DEVELOPING, SHORING AND BRACING SYSTEMS, AND INSPECTION OF THE ASSEMBLY AND MAINTENANCE OF BRACING AND SHORING SYSTEMS. DESIGN, CONSTRUCT, INSPECT AND MAINTAIN BRACING AND SHORING SYSTEMS TO SUSTAIN PRESCRIBED SERVICE LOADS PER THE INTERNATIONAL BUILDING CODE. THE CONTRACTOR WILL BE REQUIRED TO CORRECT AT HIS OWN EXPENSE ANY SUBSIDENCE, STRUCTURAL DAMAGE OR OTHER OBJECTIONAL CONDITIONS CAUSED BY HIS OPERATIONS.

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A-1 ENGINEERING, LLC
STRUCTURAL ENGINEERING

1006 Vance Jackson Rd., San Antonio, Texas
Ph. (210) 591-8829
401 Congress Ave., Suite 1540 Austin, Texas
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FOUNDATION PLAN/ SAW CUT PLAN

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FOUNDATION PLAN GENERAL NOTES:

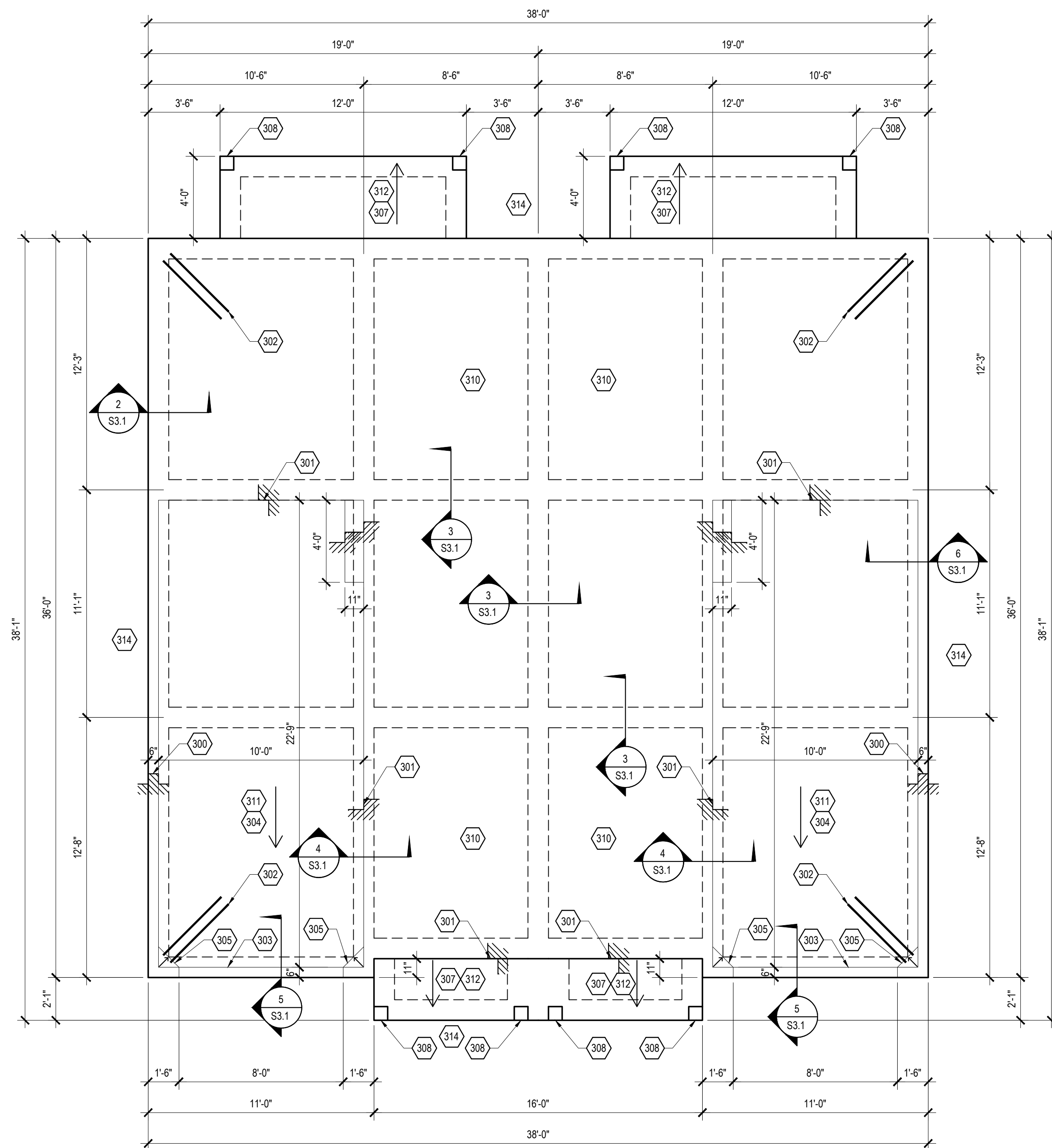
- 1) PRIOR TO EXCAVATION OF SOILS FOR THE FOUNDATION, THE CONTRACTOR SHALL COORDINATE LOCATING EXISTING UTILITY LINES ACROSS THE SITE TO ENSURE THAT NO EXISTING UTILITIES ARE DISTURBED WITH THE EXCAVATION OF THE FOUNDATION.
- 2) SITE TOPOGRAPHY MAY REQUIRE FOR THE FOUNDATION GRADE BEAMS TO BE GREATER THAN 3-FEET IN TOTAL DEPTH. AT A MINIMUM, THE FOUNDATION PERIMETER GRADE BEAMS SHOULD BE CONSTRUCTED TO BE EMBEDDED AT LEAST 36-INCHES BELOW THE GROUND LEVEL OR BEAR DIRECTLY ON ROCK, UNLESS THE FOUNDATION DETAILS NOTE OTHERWISE. AT A MINIMUM, THE FOUNDATION FINISHED FLOOR SHOULD BE AT LEAST 6-INCHES HIGHER THAN THE ADJACENT GROUND UNLESS NOTED OTHERWISE BY THE BUILDING DESIGNER OR A CIVIL ENGINEER FOR THE PROJECT.
- 3) ALL EXCAVATED MATERIAL SHOULD BE PROPERLY DISPOSED OF AND NOT REUSED WITHIN THE FOUNDATION FOOTPRINT UNLESS PERMITTED BY THE STRUCTURAL ENGINEER OR A GEOTECHNICAL ENGINEER FOR THE PROJECT.
- 4) THE CONTRACTOR SHOULD COORDINATE THE EXCAVATION OF THE FOUNDATION WITH NEARBY TREES TO PROTECT AND PRESERVE TREES THAT ARE INTENDED TO REMAIN. EXCAVATION OF SOILS AROUND THE ROOTS OF TREES CAN PERMANENTLY DAMAGE TREES. A TREE ARBORIST SHOULD BE CONSULTED WITH IF TREE ROOTS ARE ENCOUNTERED OR IF THE EXCAVATION NEAR A TREE IS EXPECTED.
- 5) THE FOUNDATION DESIGN DOES NOT INCLUDE OR ACCOUNT FOR FLATWORK AROUND THE BUILDING. ALL SOILS AND FLATWORK AROUND THE BUILDING SHOULD BE CONSTRUCTED AND INSTALLED IN SUCH A MANNER THAT ENCOURAGES SURFACE WATER TO FLOW AWAY FROM THE BUILDING AND DOES NOT ALLOW FOR SURFACE WATER TO POND OR COLLECT NEAR THE BUILDING.
- 6) IN THE EVENT OF RAIN, THE FOUNDATION GRADE BEAMS SHOULD BE FULLY DRAINED OF ANY STANDING WATER. THE FOUNDATION GRADE BEAM BOTTOMS SHOULD BE CLEARED OF ANY LOOSE SOIL OR DEBRIS. ALLOW AT LEAST 48 HOURS FOR THE SOILS TO DRY PRIOR TO PLACEMENT OF CONCRETE.
- 7) ANY EXISTING CONCRETE FOUNDATION ELEMENTS OR ASPHALT PAVEMENTS THAT ARE ENCOUNTERED DURING THE EXCAVATION OF THE FOUNDATION SHOULD BE FULLY REMOVED TO ALLOW FOR THE EXCAVATION OF THE FOUNDATION. LARGE SURFACES OF CONCRETE OR ASPHALT PAVEMENTS WITHIN THE FOUNDATION FOOTPRINT MAY REMAIN AND NOT BE DEMOLISHED PROVIDED THE PAVEMENT OR FLATWORK DOES NOT INTERFERE WITH THE CONSTRUCTION OF THE FOUNDATION ELEMENTS AS INTENDED ON THE PLANS.
- 8) THE FOUNDATION SHOULD BE CONSTRUCTED WITH THE ARCHITECTURAL OR BUILDING DESIGNER PLANS ON HAND AND IN A COORDINATED REFERENCE BETWEEN THE LATEST ARCHITECTURAL OR DESIGN PLANS AND THE STRUCTURAL PLANS. ANY DISCREPANCY BETWEEN THE PLANS SHOULD BE BROUGHT TO THE ATTENTION OF THE DESIGN TEAM TO REVIEW.
- 9) THE CONTRACTOR SHALL COORDINATE INSPECTION AND REVIEW OF THE FOUNDATION CONSTRUCTION WITH THE OWNER AND THE DESIGN TEAM WITH AT LEAST 4 DAY NOTICE PRIOR TO THE DATE OF THE REQUIRED INSPECTION AND AT LEAST 7 DAYS PRIOR TO THE PLACEMENT OF CONCRETE. INSPECTION REQUESTS MADE AFTER 3PM WILL BE CONSIDERED REQUESTS MADE THE FOLLOWING DAY. REQUESTS MADE AFTER 3PM ON FRIDAYS WILL BE CONSIDERED REQUESTS MADE ON THE NEXT BUSINESS DAY.
- 10) THE CONTRACTOR SHOULD MAINTAIN AT LEAST ONE SUPERINTENDENT OR PROJECT MANAGER ON SITE DURING INSPECTION TO ADDRESS DISCREPANCIES.
- 11) THE ADEQUACY OF THE FOUNDATION FORM WORK, DIMENSIONS AND THE SQUARENESS OF THE FOUNDATION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 12) ALL CONCRETE BLEMISHES, HONEYCOMBS AND OTHER IMPERFECTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN TEAM AND THE OWNER PRIOR TO REPAIR ATTEMPTS. REPAIRS TO HONEYCOMBS WITHOUT THE GUIDANCE OF THE STRUCTURAL ENGINEER MAY REQUIRE REWORK.
- 13) UNLESS NOTED OTHERWISE, INITIAL AND FINAL CURING OF THE CONCRETE SHALL BE BY WE CURING METHODS ONLY (CONTINUOUS SPRINKLING OR STEAM, OR MOISTURE RETAINING COVER).
- 14) DIMENSIONS SHOWN ASSOCIATED WITH ANY EXISTING ELEMENTS OR BUILDINGS ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED PRIOR TO CONSTRUCTION AND DEVELOPMENT OF ANY FABRICATION AND ERECTION DRAWING.
- 15) ADDITIONAL REQUIREMENTS FOR MATERIAL SPECIFICATIONS, DIMENSIONS, REINFORCEMENT AND CONSTRUCTION IS FOUND IN THE STRUCTURAL GENERAL NOTES AND FOUNDATION DETAILS AND KEYNOTES IN THE PLAN SET. ANY DISCREPANCY BETWEEN THE DETAILS AND THE FOUNDATION LAYOUT SHOULD BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER PRIOR TO COMPLETING THE CONSTRUCTION OF THE ELEMENTS AFFECTED BY THE DISCREPANCY.
- 16) ALL PLUMBING LINES THAT CROSS A FOUNDATION GRADE BEAM OR PENETRATE THROUGH A PERIMETER FOUNDATION GRADE BEAM SHALL BE SLEEVED WITH A SLEEVE THAT IS AT LEAST 3-INCHES LARGER THAN PLUMBING PIPE. THE SLEEVED PIPE SHOULD BE CENTERED IN THE SLEEVE.
- 17) THE GROUND IMMEDIATELY ADJACENT TO THE FOUNDATION SHALL BE SLOPED AWAY FROM THE BUILDING AT A SLOPE OF NOT LESS THAN ONE UNIT VERTICAL IN 20 UNITS HORIZONTAL (5%) FOR A MINIMUM DISTANCE OF 10 FEET MEASURED PERPENDICULAR TO THE FACE OF THE WALL. IMPERVIOUS SURFACES WITHIN 10 FEET OF THE BUILDING FOUNDATION SHALL BE SLOPED A MINIMUM OF 2% AWAY FROM THE FOUNDATION.

FOUNDATION KEYNOTES:

- 300 RAISED CONCRETE CURB AT EXTERIOR WALLS OF GARAGE. MATCH WIDTH OF CURB WITH WIDTH OF WALL FRAMING.
- 301 DROP SLAB. REFER TO ARCHITECTURAL/DESIGNER PLANS FOR DROP. PROVIDE 3/4-INCH DROP MINIMUM IF ARCHITECTURAL OR DESIGNER PLANS DO NOT INDICATE AMOUNT OF DROP.
- 302 ADD(2) #4 REBAR, 4-FT LONG, IN DIAGONAL POSITION TO CORNER.
- 303 LUG AT GARAGE - COORDINATE LUG WIDTH ALONG THE GARAGE DOOR WITH OWNER OR GARAGE DOOR MANUFACTURER PRIOR TO CONSTRUCTION.
- 304 GARAGE FLOOR SLOPE: REFER TO ARCHITECTURAL OR DESIGNER PLANS. IF NOT PROVIDED, SLOPE GARAGE FLOOR AT LEAST 1/8-INCH PER FOOT.
- 305 GARAGE FLOOR CRICKET: ADD CRICKET (SLOPED AREA) AT CORNERS OF GARAGE TO ENCOURAGE WATER TO FLOW TOWARDS THE GARAGE DOOR.
- 307 PATIO FLOOR SLOPE: REFER TO ARCHITECTURAL OR DESIGNER PLANS. IF NOT PROVIDED, SLOPE PATIO FLOOR AT LEAST 1/8-INCH PER FOOT.
- 308 RAISED PEDESTAL: AT ALL WOOD OR STEEL COLUMNS, PROVIDE 1-1/2 INCH RAISED CONCRETE PEDESTAL. DIMENSIONS OF THE PEDESTAL SHALL MATCH THE SIZE OF THE WOOD COLUMN OR STEEL BASE PLATE.
- 310 MAIN SLAB: SEE TABLE 3.2 AND 3.3 ON SHEET S1.2
- 311 GARAGE SLAB: SEE TABLE 3.2 AND 3.3 ON SHEET S1.2
- 312 PATIO SLAB: SEE TABLE 3.2 AND 3.3 ON SHEET S1.2
- 314 FINAL GRADE ALONG THE PERIMETER OF THE BUILDING SHALL BE GRADED AT LEAST 5% FOR A DISTANCE OF 10'-0" OUTWARD FROM THE EDGE OF THE BUILDING. ADD SOD ALONG THE FULL PERIMETER.

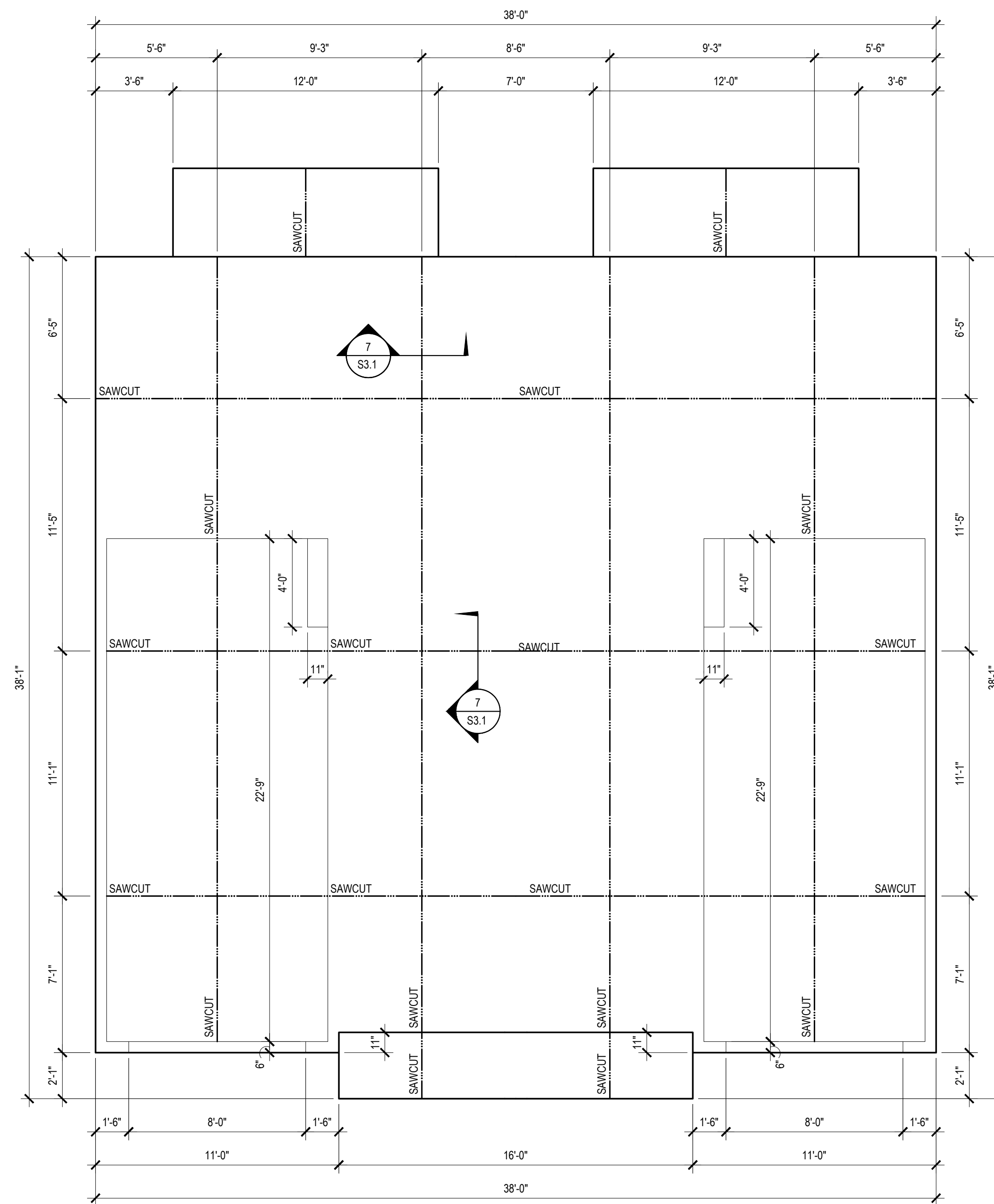
LEGEND:

- DENOTES DROP IN FOUNDATION
- DENOTES CURB IN FOUNDATION



1 FOUNDATION PLAN

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



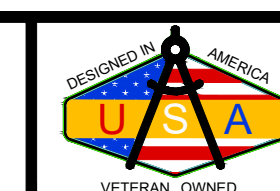
2 SAW CUT PLAN

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



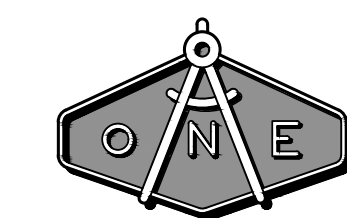
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STRUCTURAL ENGINEERING

1006 Vance Jackson Rd., San Antonio, Texas
Ph. (210) 591-8829

401 Congress Ave., Suite 1540 Austin, Texas
Ph. (512) 298-3360

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FRAMING PLANS

WOOD FRAMING PLAN GENERAL NOTES:

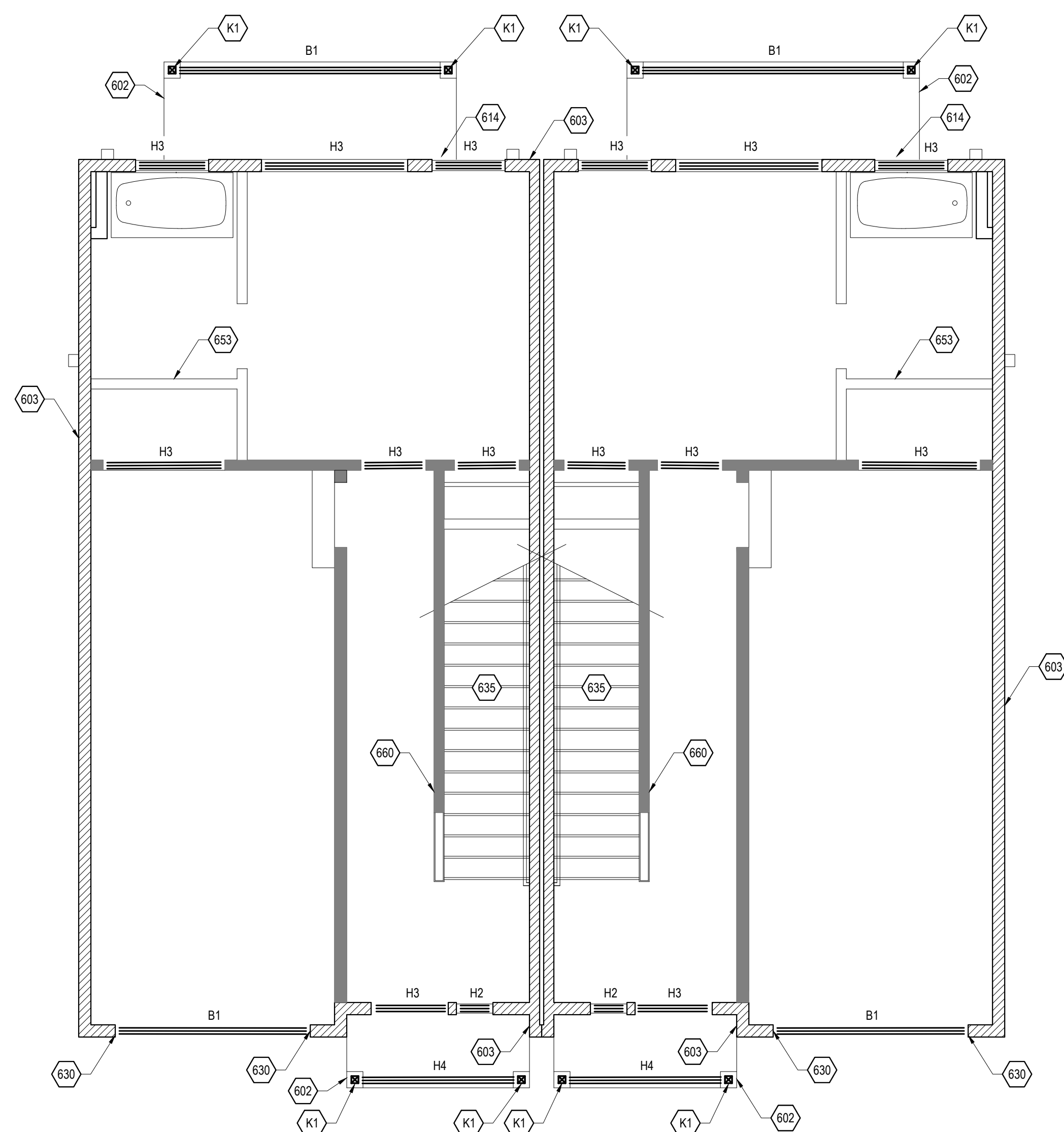
- 1) THE FRAMING PLAN IS INTENDED TO SPECIFY THE MAIN STRUCTURAL MEMBERS AND ORIENTATION FOR THE ROOF, FLOOR, WALLS AND CEILING SYSTEM. FRAMING FOR BLOCKING, FURR DOWNS, STAIRS, DROPPED OR RAISED CEILING, REINFORCEMENT FOR WALL MOUNTED ITEMS, FIRE BLOCKING OR PROTECTION AND FRAMING MEMBERS FOR NON-STRUCTURAL ELEMENTS ARE NOT SHOWN AND MAYBE NEEDED. REFER TO THE ARCHITECTURAL/DESIGNER/OWNER PLANS AND OVERALL PROJECT SCOPE, SPECIFICATIONS AND LOCAL BUILDING CODES FOR FRAMING REQUIREMENTS BEYOND THE MAIN STRUCTURAL SYSTEM.
- 2) THE FRAMER SHOULD REFERENCE BOTH THE STRUCTURAL PLANS AND THE ARCHITECTURAL PLANS FOR COORDINATING AND ALIGNING SECOND FLOOR AND ROOF BEAMS AS NEEDED TO ADEQUATELY SUPPORT THE FRAMING. NOTIFY THE STRUCTURAL ENGINEER IF LOWER LEVEL WALLS AND BEAMS DO NOT ALIGN WITH THE LATEST ARCHITECTURAL PLANS.
- 3) DO NOT ALLOW NON-LOAD BEARING WALLS AND CEILINGS TO SUPPORT UPPER FLOORS OR ROOF FRAMING MEMBERS.
- 4) REFER TO STRUCTURAL GENERAL NOTES ON SHEET S1.1 FOR PROJECT SPECIFICATIONS.
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- 7) NOTIFY THE STRUCTURAL ENGINEER IF FIELD VERIFIED CONDITIONS LIMIT, INHIBIT OR PREVENT THE STRUCTURAL FRAME FROM BEING CONSTRUCTED FOLLOWING CONVENTIONAL WOOD FRAMING TECHNIQUES AND PRACTICES.
- 8) ALL FRAMING SHOULD REMAIN EXPOSED AND UNCONCEALED FOR REVIEW BY THE STRUCTURAL ENGINEER WHEN THE ENTIRE STRUCTURAL FRAME IS COMPLETE. THE CONTRACTOR SHOULD NOTIFY THE STRUCTURAL ENGINEER OF ANY AND ALL DEVIATIONS FROM THE PLANS FOR REVIEW BY THE STRUCTURAL ENGINEER. DEVIATIONS FROM THE PLANS MAY NOT BE ACCEPTED BY THE STRUCTURAL ENGINEER AND MAY REQUIRE THE FRAME TO BE REMOVED AND RECONSTRUCTED.
- 9) STRUCTURAL DESIGN OF ROOF FRAMING DOES NOT ACCOUNT FOR CONSTRUCTION LOADS OF ROOF MATERIAL STACKED ALONG THE RIDGE OF ROOF. DO NOT STACK ROOFING MATERIALS AT RIDGE OF ROOF.

FRAMING KEYNOTES:

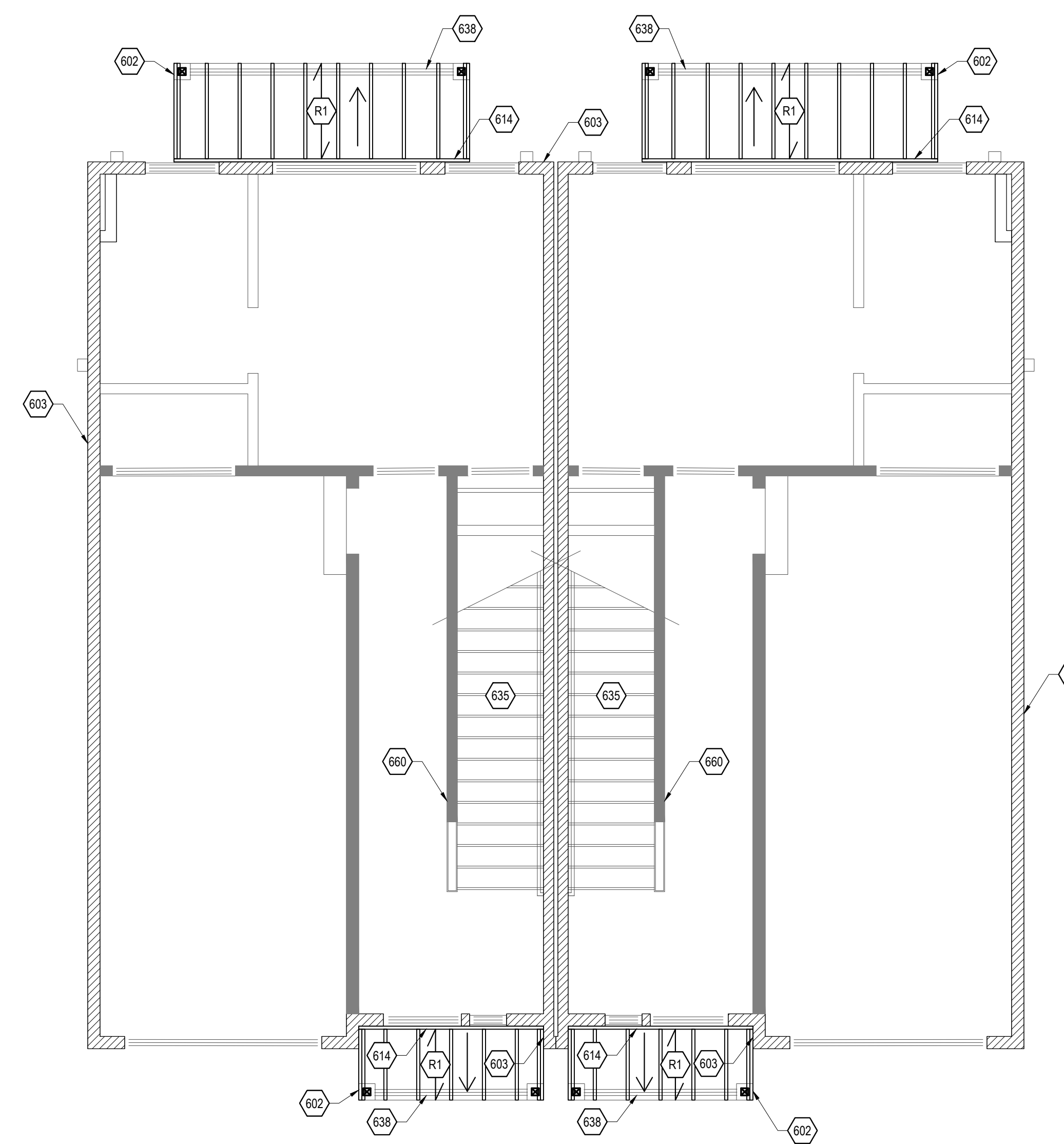
- 602 EDGE OF LOW ROOF
- 603 EDGE OF EXTERIOR WALL
- 614 ADD CONTINUOUS 2X NAILER ALONG FACE OF WALL FRAMING. 2X NAILER SHALL BE AT LEAST 2-INCHES DEEPER THAN FRAMING MEMBERS. FULLY FASTEN NAILER TO STRUCTURAL WALL WITH (3) NO. 10 STRUCTURAL WOOD SCREWS AT EACH STUD.
- 630 ADD 2X CRIPPLE STUDS INSIDE OF FRAMING TO SUPPORT INTERSECTING BEAM/HEADER.
- 635 REFER TO ARCHITECTURAL/BUILDING DESIGNER PLANS FOR STAIR LAYOUT. REFER TO THE LOCAL BUILDING CODE FOR RISER RUN AND TREAD HEIGHT. FRAME STAIRS FOLLOWING PERSCRIPITIVE CODE REQUIREMENTS OF THE BUILDING CODE.
- 638 BEAM/HEADER FRAMING BELOW. REFER TO BEAM/HEADER FRAMING PLAN.
- 653 DO NOT BEAR TRUSS ON NON-LOAD BEARING WALLS.
- 660 WOOD FRAMED WALLS FOR ELEVATOR/STAIR ENCLOSURE.

LEGEND

- X DENOTES KEYNOTE
- X DENOTES DIRECTION OF FRAMING (SPAN) FOR CEILING, ROOF AND/OR FLOOR JOISTS/TRUSSES. SEE TABLE #3B, ON SHEET S1.2.
- H# SEE TABLE #4 FOR HEADER, ON SHEET S1.2
- B# SEE TABLE #6 FOR BEAM, ON SHEET S1.2
- K# SEE TABLE #8 FOR COLUMN, ON SHEET S1.2
- ▨ DENOTES EXTERIOR BRACED WALL PANELS. SEE TABLE #5B, ON SHEET S1.2.
- DENOTES INTERIOR BEARING WALLS UNLESS NOTED OTHERWISE. SEE TABLE #5B, ON SHEET S1.2.



1
1ST FLOOR: BRACED WALL, BEAM & HEADER FRAMING PLAN
SCALE: 1/4" = 1'-0"
0" 2' 4' 8' 12'



2
1ST FLOOR: PORCH ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"
0" 2' 4' 8' 12'

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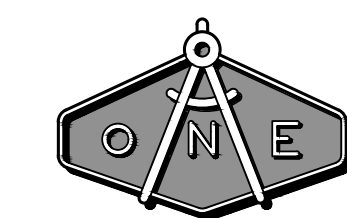
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Ph. (210) 591-8829

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FRAMING PLANS

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WOOD FRAMING PLAN GENERAL NOTES:

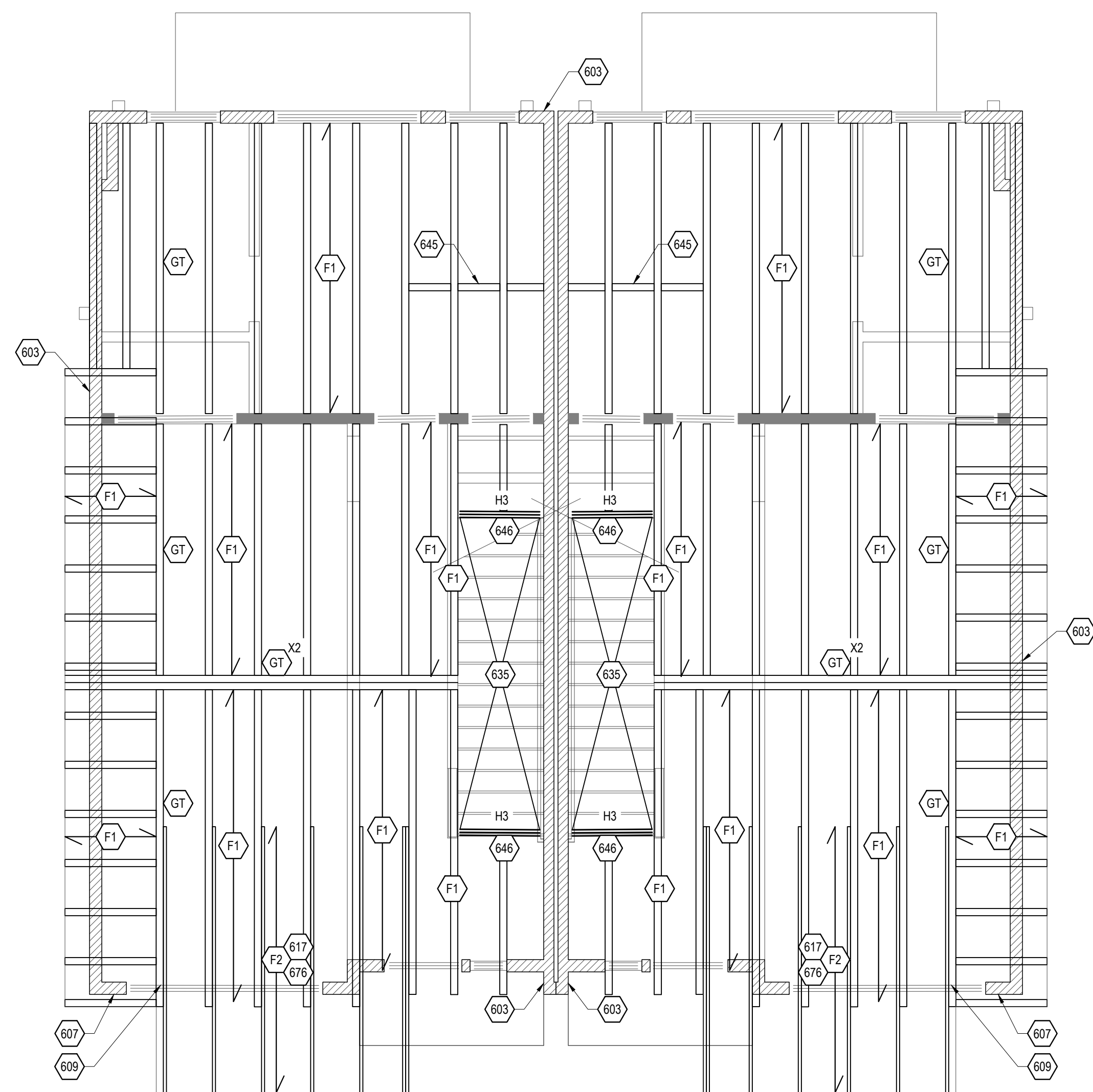
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- 2) THE FRAMER SHOULD REFERENCE BOTH THE STRUCTURAL PLANS AND THE ARCHITECTURAL PLANS FOR COORDINATING AND ALIGNING SECOND FLOOR AND ROOF BEAMS AS NEEDED TO ADEQUATELY SUPPORT THE FRAMING. NOTIFY THE STRUCTURAL ENGINEER IF LOWER LEVEL WALLS AND BEAMS DO NOT ALIGN WITH THE LATEST ARCHITECTURAL PLANS.
- 3) DO NOT ALLOW NON-LOAD BEARING WALLS AND CEILINGS TO SUPPORT UPPER FLOORS OR ROOF FRAMING MEMBERS.
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- 5) REFER TO SCHEDULES AND TABLES ON SHEET S1.2 FOR DESIGN SPECIFICATIONS.
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- 8) ALL FRAMING SHOULD REMAIN EXPOSED AND UNCONCEALED FOR REVIEW BY THE STRUCTURAL ENGINEER WHEN THE ENTIRE STRUCTURAL FRAME IS COMPLETE. THE CONTRACTOR SHOULD NOTIFY THE STRUCTURAL ENGINEER OF ANY AND ALL DEVIATIONS FROM THE PLANS FOR REVIEW BY THE STRUCTURAL ENGINEER. DEVIATIONS FROM THE PLANS MAY NOT BE ACCEPTED BY THE STRUCTURAL ENGINEER AND MAY REQUIRE THE FRAME TO BE REMOVED AND RECONSTRUCTED.
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FRAMING KEYNOTES:

- 603 EDGE OF EXTERIOR WALL
- 607 CANTILEVER FRAMING OVER SUPPORT BELOW
- 609 ADD FULL DEPTH BLOCKING BETWEEN FRAMING OVER SUPPORT
- 612 BOTTOM OF BEAM - FLUSH WITH CEILING (BOTTOM OF JOIST)
- 617 FACE NAIL 2X FRAMING TO FACE OF TRUSS
- 630 ADD 2X CRIPPLE STUDS INSIDE OF FRAMING TO SUPPORT INTERSECTING BEAM/HEADER.
- REFER TO ARCHITECTURAL/BUILDING DESIGNER PLANS FOR STAIR LAYOUT. REFER TO THE LOCAL BUILDING CODE FOR RISER RUN AND TREAD HEIGHT. FRAME STAIRS FOLLOWING PERSCRPTIVE CODE REQUIREMENTS OF THE BUILDING CODE.
- 645 ADD BLOCKING BETWEEN FRAMING FOR FIRM SUPPORT OF NON-LOAD BEARING WALL ABOVE.
- 646 HEADER FOR LANDING ABOVE.
- 653 DO NOT BEAR TRUSS ON NON-LOAD BEARING WALLS.
- 660 WOOD FRAMED WALLS FOR ELEVATOR/STAIR ENCLOSURE.
- 676 BLOCKING FOR JOIST: 2X FULL DEPTH BLOCKING BETWEEN ALL FLOOR JOISTS, CEILING JOIST AND ROOF RAFTERS. BLOCKING DEPTH TO MATCH SIZE OF FRAMING MEMBER BEING REINFORCED.

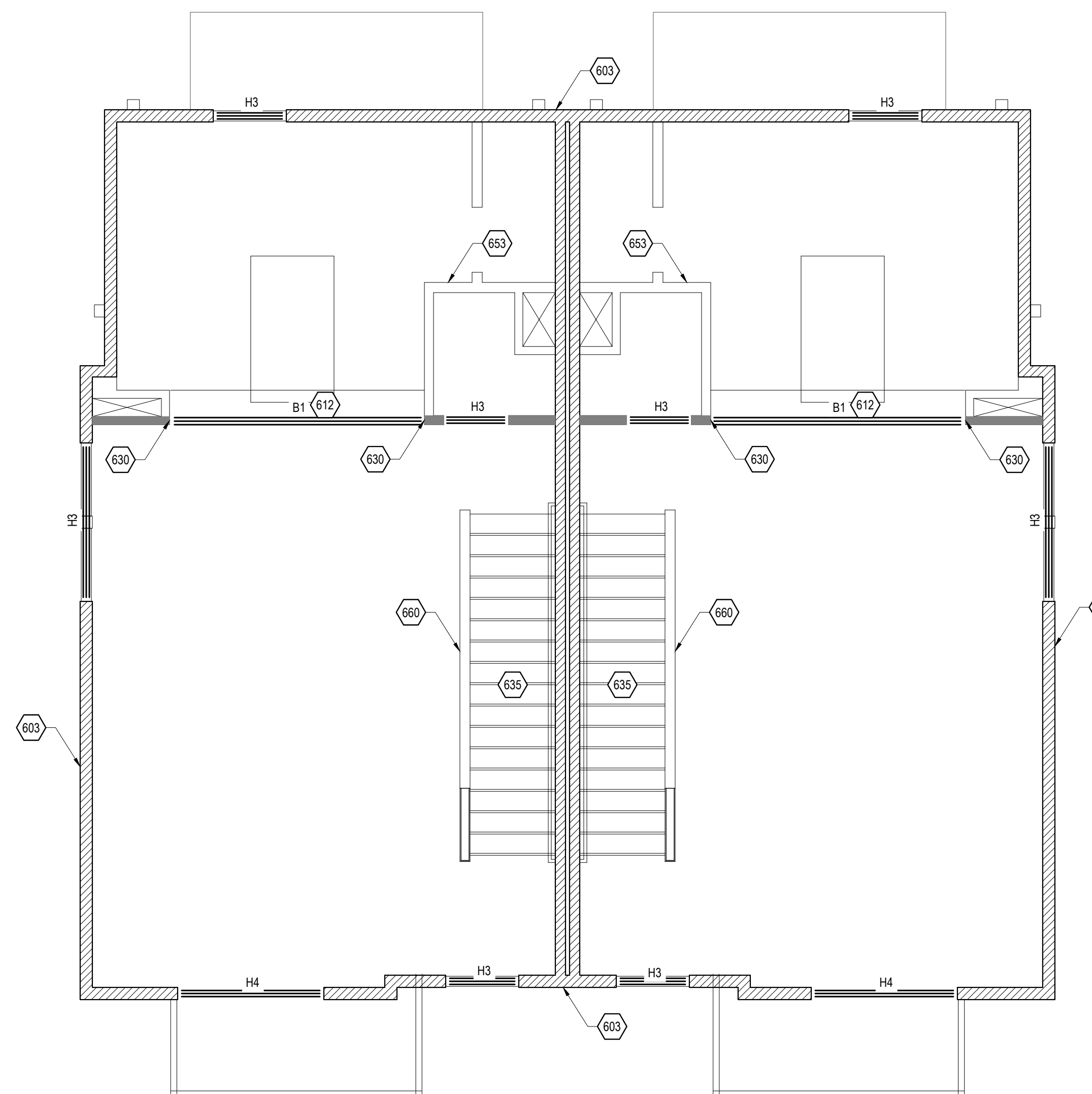
LEGEND

- X DENOTES KEYNOTE
- X DENOTES DIRECTION OF FRAMING (SPAN) FOR CEILING, ROOF AND/OR FLOOR JOISTS/TRUSSES. SEE TABLE #3B, ON SHEET S1.2.
- H# SEE TABLE #4 FOR HEADER, ON SHEET S1.2
- B# SEE TABLE #6 FOR BEAM, ON SHEET S1.2
- ▨ DENOTES EXTERIOR BRACED WALL PANELS. SEE TABLE #5B, ON SHEET S1.2.
- ▩ DENOTES INTERIOR BEARING WALLS UNLESS NOTED OTHERWISE. SEE TABLE #5B, ON SHEET S1.2.



2ND FLOOR: FLOOR FRAMING PLAN

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



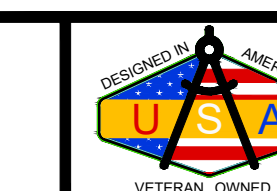
2ND FLOOR: BRACED WALL, BEAM & HEADER FRAMING PLAN

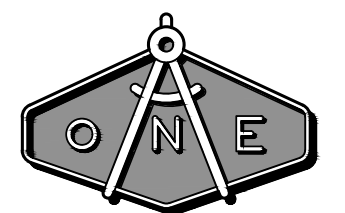
SCALE: 1/4" = 1'-0"



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1006 Vance Jackson Rd., San Antonio, Texas
Ph. (210) 591-8829
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FRAMING PLANS

BY	DATE	ISSUE	REMARKS
MAC	11.14.2022		PRELIMINARY - NOT FOR CONSTRUCTION

DATE: 11.14.2022
MOISES A. CRUZ, P.E.
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SIGNATURE.

SHEET SIZE: 24" x 36"

SHEET: **S2.4**

DRAWN BY: SLM

WOOD FRAMING PLAN GENERAL NOTES:

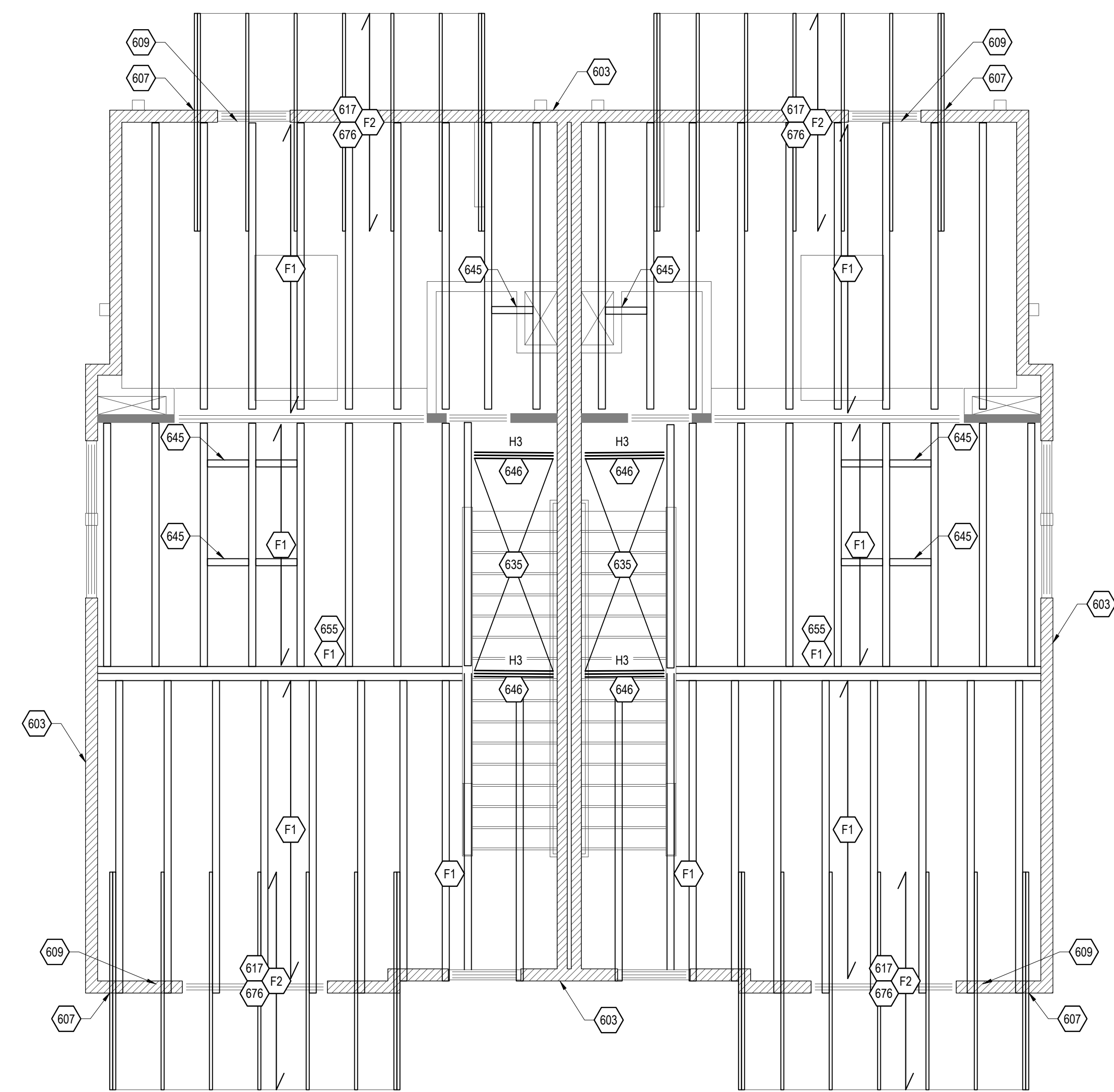
- 1) THE FRAMING PLAN IS INTENDED TO SPECIFY THE MAIN STRUCTURAL MEMBERS AND ORIENTATION FOR THE ROOF, FLOOR, WALLS AND CEILING SYSTEM. FRAMING FOR BLOCKING, FURR DOWNS, STAIRS, DROPPED OR RAISED CEILING, REINFORCEMENT FOR WALL MOUNTED ITEMS, FIRE BLOCKING OR PROTECTION AND FRAMING MEMBERS FOR NON-STRUCTURAL ELEMENTS ARE NOT SHOWN AND MAYBE NEEDED. REFER TO THE ARCHITECTURAL/DISIGNER/OWNER PLANS AND OVERALL PROJECT SCOPE, SPECIFICATIONS AND LOCAL BUILDING CODES FOR FRAMING REQUIREMENTS BEYOND THE MAIN STRUCTURAL SYSTEM.
- 2) THE FRAMER SHOULD REFERENCE BOTH THE STRUCTURAL PLANS AND THE ARCHITECTURAL PLANS FOR COORDINATING AND ALIGNING SECOND FLOOR AND ROOF BEAMS AS NEEDED TO ADEQUATELY SUPPORT THE FRAMING. NOTIFY THE STRUCTURAL ENGINEER IF LOWER LEVEL WALLS AND BEAMS DO NOT ALIGN WITH THE LATEST ARCHITECTURAL PLANS.
- 3) DO NOT ALLOW NON-LOAD BEARING WALLS AND CEILINGS TO SUPPORT UPPER FLOORS OR ROOF FRAMING MEMBERS.
- 4) REFER TO STRUCTURAL GENERAL NOTES ON SHEET S1.1 FOR PROJECT SPECIFICATIONS.
- 5) REFER TO SCHEDULES AND TABLES ON SHEET S1.2 FOR DESIGN SPECIFICATIONS.
- 6) WHERE MEMBER SIZES, SPECIFICATIONS, OR DESIGN KEYNOTES ON STRUCTURAL DETAILS AND SECTIONS CONFLICT WITH PROJECT SPECIFICATIONS, SCHEDULES AND TABLES, THE PROJECT SPECIFICATIONS, SCHEDULES AND TABLES SHALL GOVERN FIRST.
- 7) NOTIFY THE STRUCTURAL ENGINEER IF FIELD VERIFIED CONDITIONS LIMIT, INHIBIT OR PREVENT THE STRUCTURAL FRAME FROM BEING CONSTRUCTED FOLLOWING CONVENTIONAL WOOD FRAMING TECHNIQUES AND PRACTICES.
- 8) ALL FRAMING SHOULD REMAIN EXPOSED AND UNCONCEALED FOR REVIEW BY THE STRUCTURAL ENGINEER WHEN THE ENTIRE STRUCTURAL FRAME IS COMPLETE. THE CONTRACTOR SHOULD NOTIFY THE STRUCTURAL ENGINEER OF ANY AND ALL DEVIATIONS FROM THE PLANS FOR REVIEW BY THE STRUCTURAL ENGINEER. DEVIATIONS FROM THE PLANS MAY NOT BE ACCEPTED BY THE STRUCTURAL ENGINEER AND MAY REQUIRE THE FRAME TO BE REMOVED AND RECONSTRUCTED.
- 9) STRUCTURAL DESIGN OF ROOF FRAMING DOES NOT ACCOUNT FOR CONSTRUCTION LOADS OF ROOF MATERIAL STACKED ALONG THE RIDGE OF ROOF. DO NOT STACK ROOFING MATERIALS AT RIDGE OF ROOF.

FRAMING KEYNOTES:

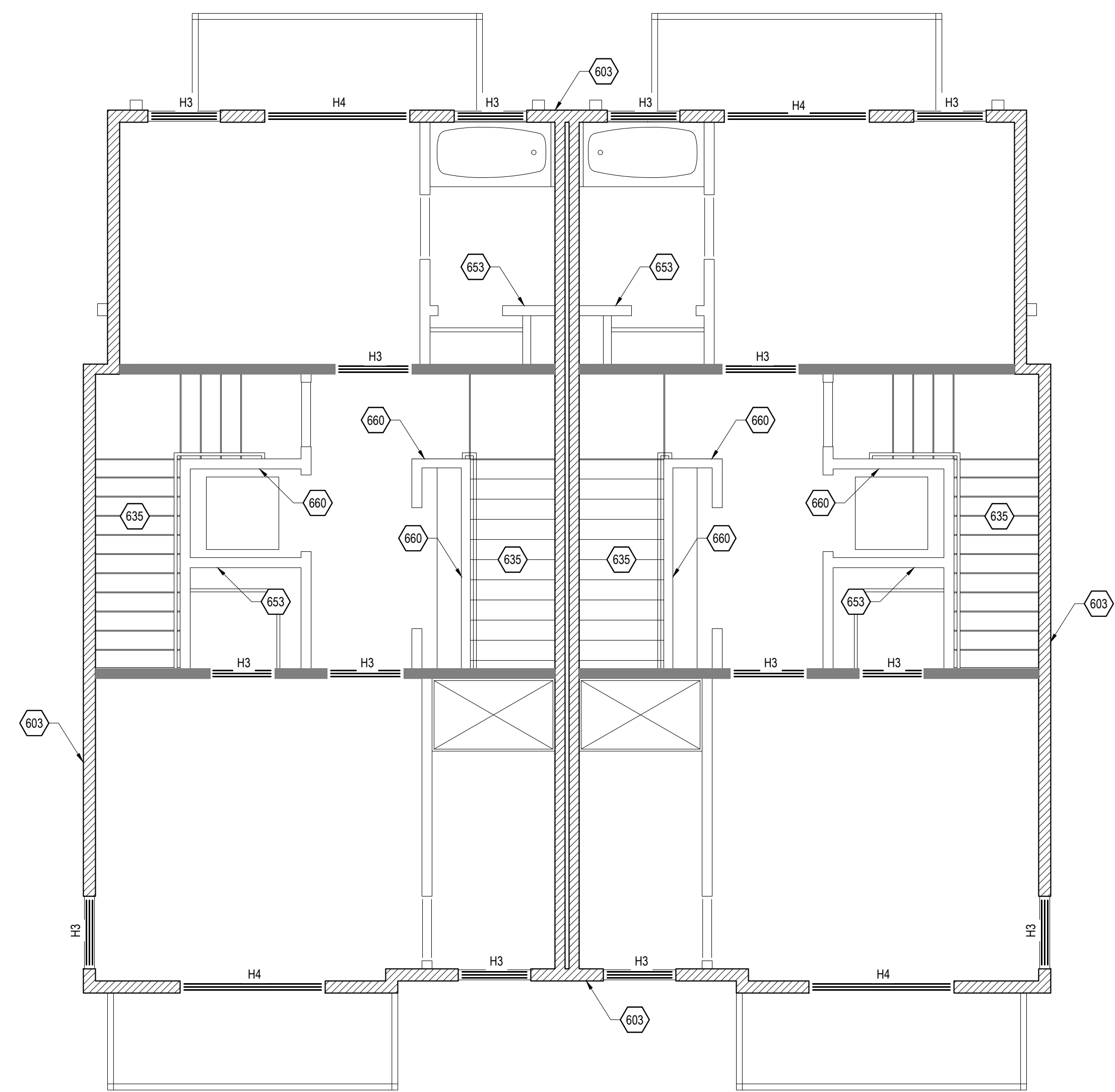
- 603 EDGE OF EXTERIOR WALL
- 607 CANTILEVER FRAMING OVER SUPPORT BELOW
- 609 ADD FULL DEPTH BLOCKING BETWEEN FRAMING OVER SUPPORT
- 617 FACE NAIL 2X FRAMING TO FACE OF TRUSS
- 635 REFER TO ARCHITECTURAL/BUILDING DESIGNER PLANS FOR RISER RUN AND TREAD HEIGHT. FRAME STAIRS FOLLOWING PERSPECTIVE CODE REQUIREMENTS OF THE BUILDING CODE.
- 645 ADD BLOCKING BETWEEN FRAMING FOR FIRM SUPPORT OF NON-LOAD BEARING WALL ABOVE.
- 646 HEADER FOR LANDING ABOVE.
- 653 DO NOT BEAR TRUSS ON NON-LOAD BEARING WALLS.
- 655 DOUBLE FLOOR TRUSS, ALIGN EDGE OF FLOOR TRUSS WITH WALL FRAMING ABOVE. COORDINATE WITH ARCHITECT/DISIGNER PLANS.
- 660 WOOD FRAMED WALLS FOR ELEVATOR/STAIR ENCLOSURE.
- 676 BLOCKING FOR JOIST: 2X FULL DEPTH BLOCKING BETWEEN ALL FLOOR JOISTS, CEILING JOIST AND ROOF RAFTERS. BLOCKING DEPTH TO MATCH SIZE OF FRAMING MEMBER BEING REINFORCED.

LEGEND

- X DENOTES KEYNOTE
- X DENOTES DIRECTION OF FRAMING (SPAN) FOR CEILING, ROOF AND/OR FLOOR JOISTS/TRUSSES. SEE TABLE #3B, ON SHEET S1.2.
- H# SEE TABLE #4 FOR HEADER, ON SHEET S1.2
- B# SEE TABLE #6 FOR BEAM, ON SHEET S1.2
- ▨ DENOTES EXTERIOR BRACED WALL PANELS. SEE TABLE #5B, ON SHEET S1.2.
- DENOTES INTERIOR BEARING WALLS UNLESS NOTED OTHERWISE. SEE TABLE #5B, ON SHEET S1.2.



1
3RD FLOOR: FLOOR FRAMING PLAN
SCALE: 1/4" = 1'-0"
0' 2' 4' 8' 12'



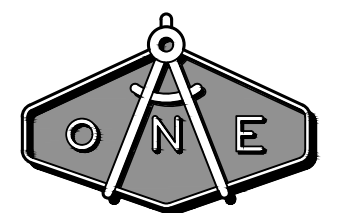
2
3RD FLOOR: BRACED WALL, BEAM & HEADER FRAMING PLAN
SCALE: 1/4" = 1'-0"
0' 2' 4' 8' 12'

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1006 Vance Jackson Rd., San Antonio, Texas
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FRAMING PLANS

WOOD FRAMING PLAN GENERAL NOTES:

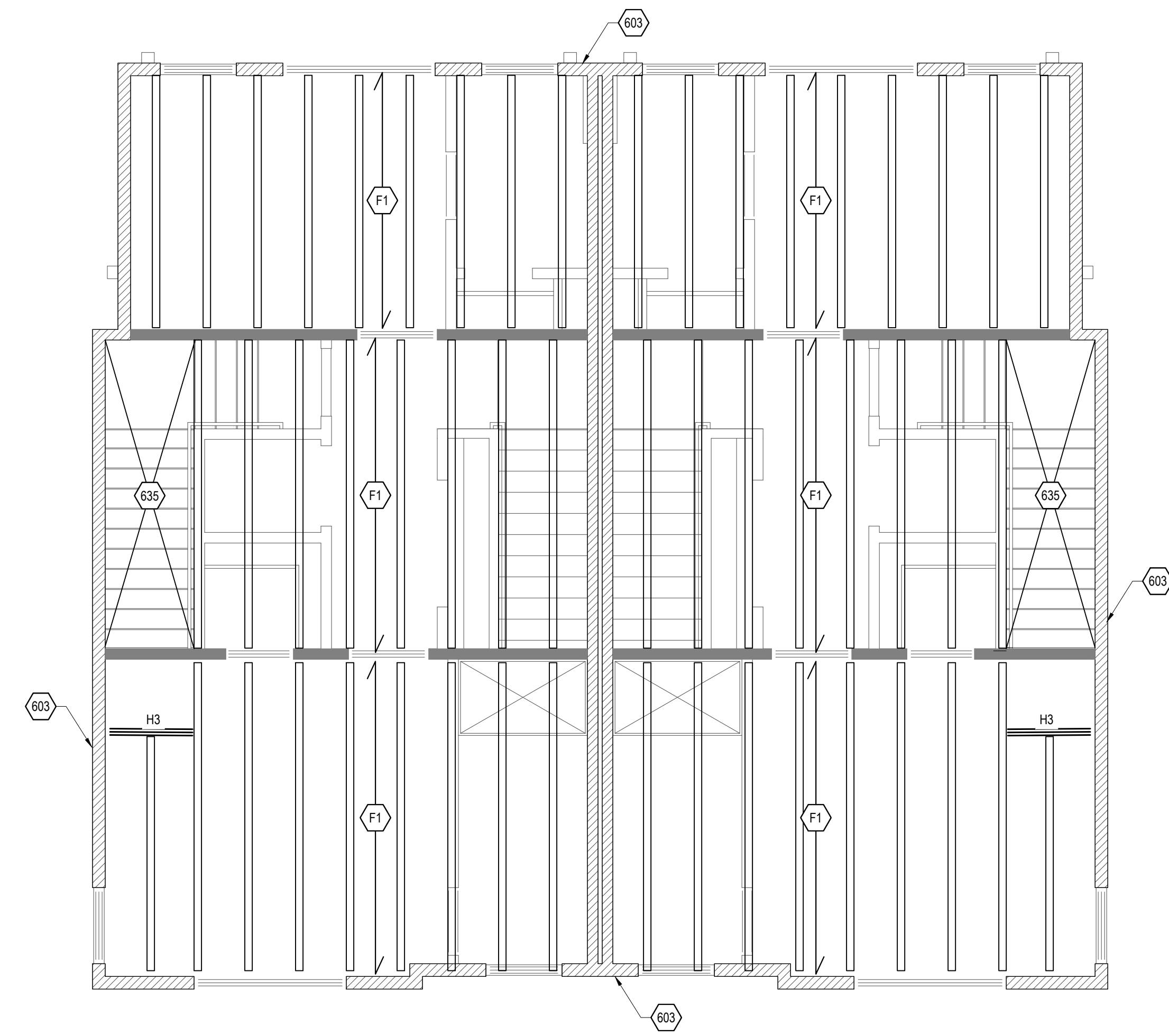
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- 3) DO NOT ALLOW NON-LOAD BEARING WALLS AND CEILINGS TO SUPPORT UPPER FLOORS OR ROOF FRAMING MEMBERS.
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- 9) STRUCTURAL DESIGN OF ROOF FRAMING DOES NOT ACCOUNT FOR CONSTRUCTION LOADS OF ROOF MATERIAL STACKED ALONG THE RIDGE OF ROOF. DO NOT STACK ROOFING MATERIALS AT RIDGE OF ROOF.

FRAMING KEYNOTES:

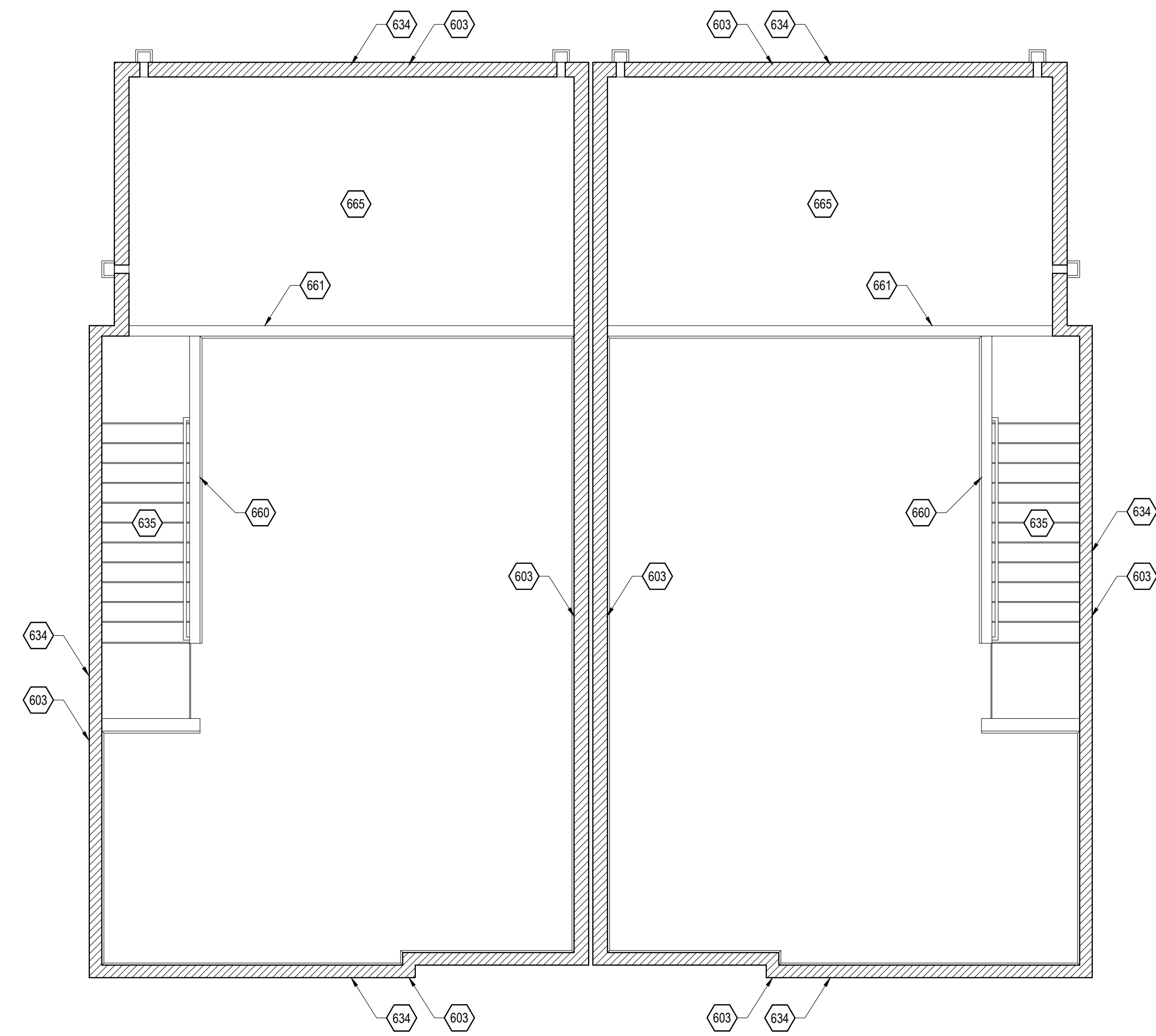
- 603 EDGE OF EXTERIOR WALL
- 634 ADD 2X PARAPET FRAMING ALONG EDGE OF ROOF. COORDINATE WITH ARCHITECTURAL PLANS.
- 635 REFER TO ARCHITECTURAL/BUILDING DESIGNER PLANS FOR STAIR LAYOUT. REFER TO THE LOCAL BUILDING CODE FOR RISER RUN AND TREAD HEIGHT. FRAME STAIRS FOLLOWING PERSCRPTIVE CODE REQUIREMENTS OF THE BUILDING CODE.
- 660 WOOD FRAMED WALLS FOR ELEVATOR/STAIR ENCLOSURE.
- 661 ALIGN CENTER OF PONY WALL/CRIPPLE WALL/PONY END WALL TRUSS WITH WALL FRAMING BELOW.
- 665 SLOPE ROOFING MATERIAL AS PER ARCHITECT. IF NOT PROVIDED, SLOPE ROOFING MATERIAL AT LEAST 1/8-INCH PER FOOT. ROOF TRUSSES TO BE LEVEL.

LEGEND

- (X) DENOTES KEYNOTE
- (X) DENOTES DIRECTION OF FRAMING (SPAN) FOR CEILING, ROOF AND/OR FLOOR JOISTS/TRUSSES. SEE TABLE #3B, ON SHEET S1.2.
- (H3) SEE TABLE #4 FOR HEADER, ON SHEET S1.2
- [Hatched Box] DENOTES EXTERIOR BRACED WALL PANELS. SEE TABLE #5B, ON SHEET S1.2.
- [Solid Grey Box] DENOTES INTERIOR BEARING WALLS UNLESS NOTED OTHERWISE. SEE TABLE #5B, ON SHEET S1.2.



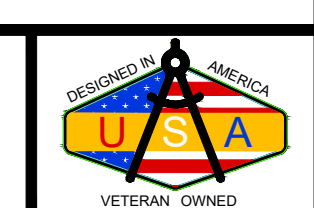
1
ROOF TERRACE: FLOOR FRAMING PLAN
SCALE: 1/4" = 1'-0"
0" 2" 4" 8" 12"



2
ROOF TERRACE: PARAPET FRAMING PLAN
SCALE: 1/4" = 1'-0"
0" 2" 4" 8" 12"

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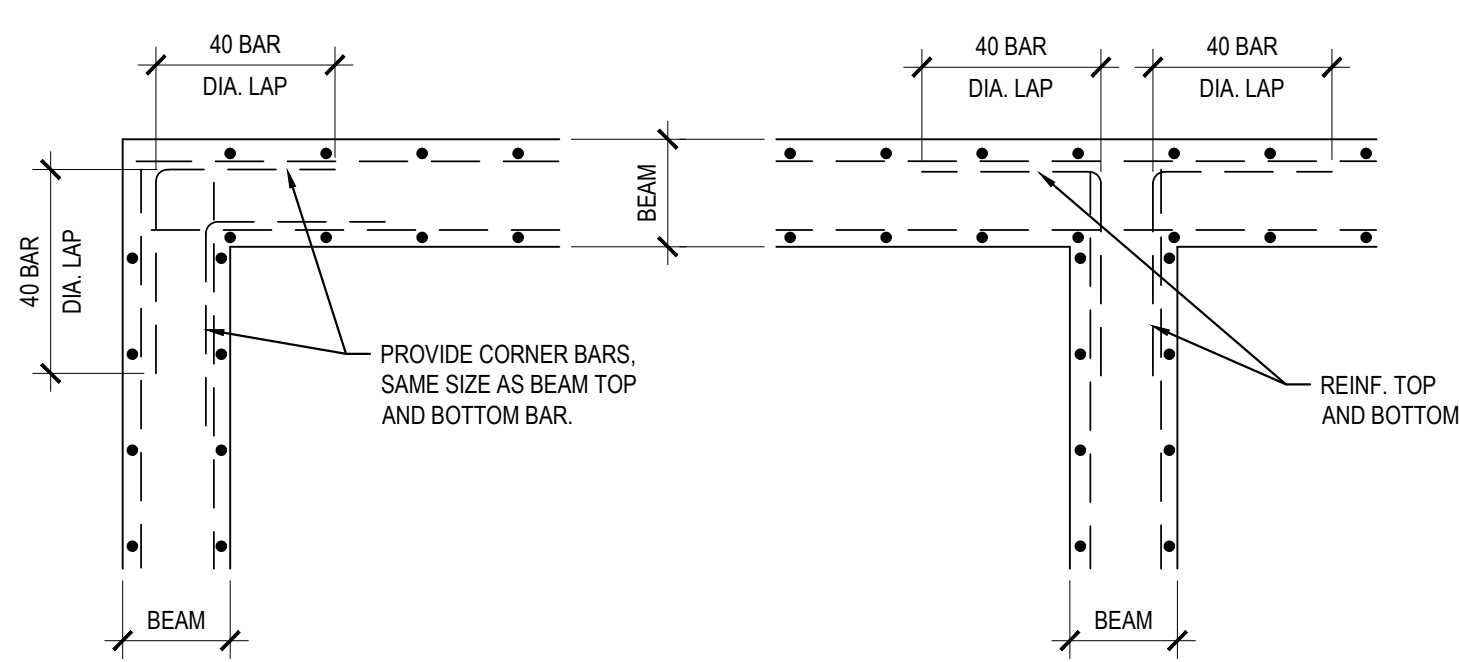
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DATE: 11.14.2022
MOISES A. CRUZ, P.E.
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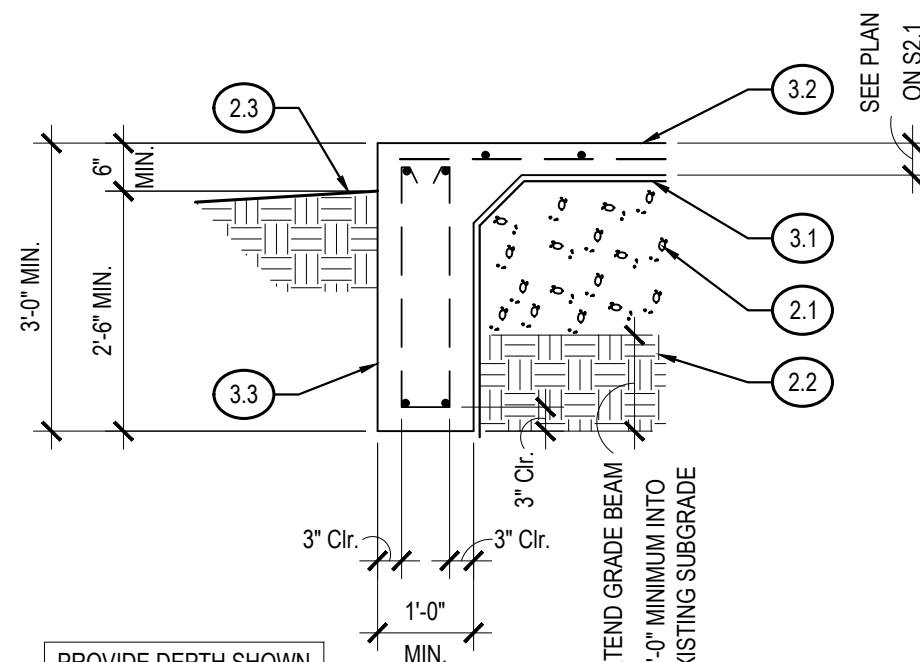
ISSUE DATE: 11.14.2022

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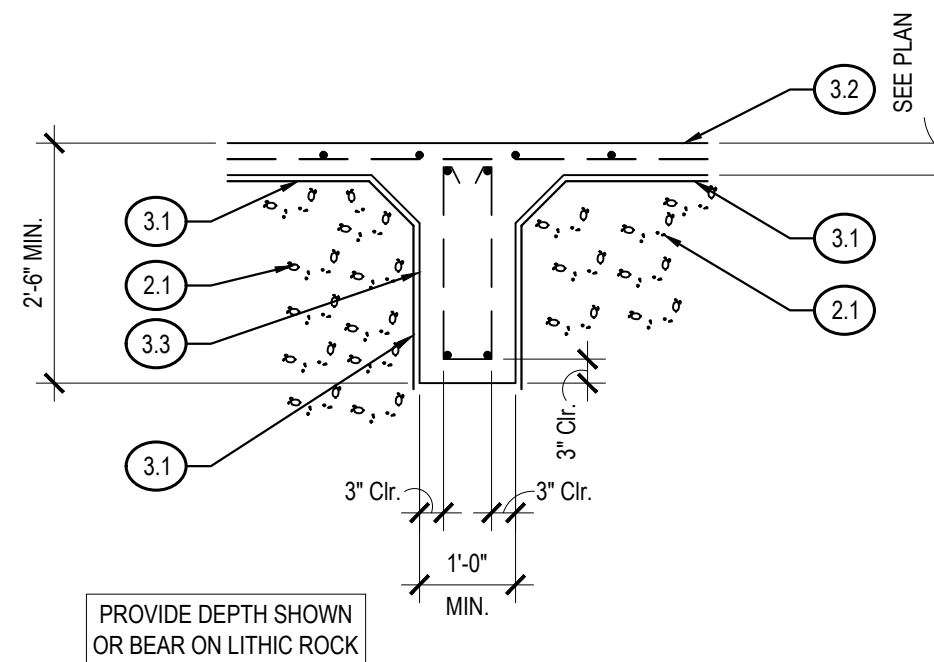
SHEET SIZE: 24" x 36"



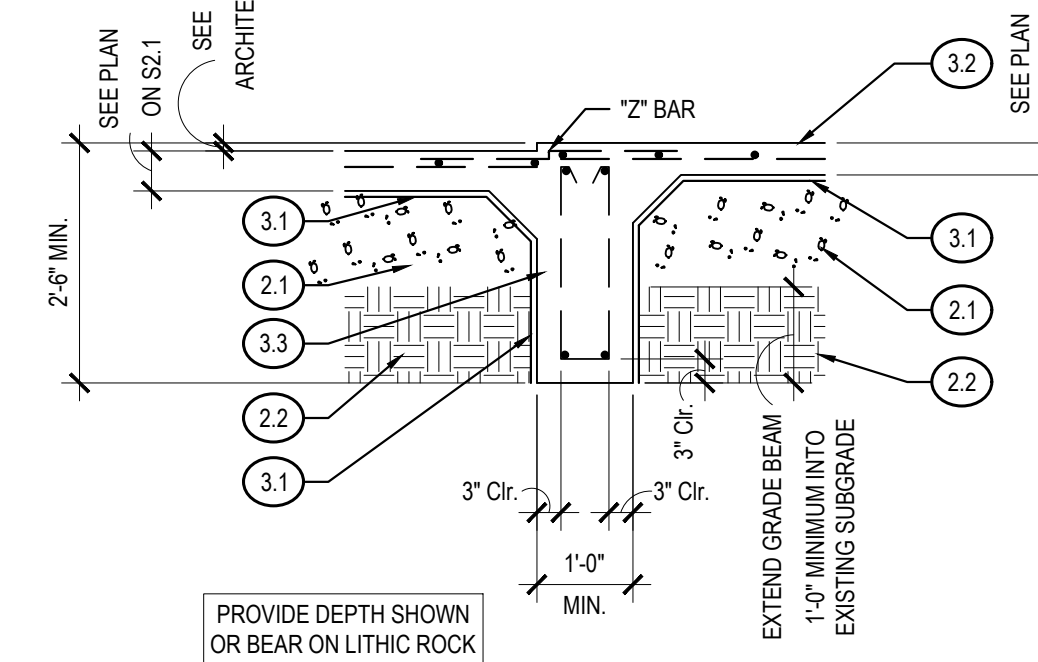
1 TYPICAL CORNER REINFORCING AT GRADE BEAM INTERSECTIONS
SCALE: 1/2" = 1'-0"



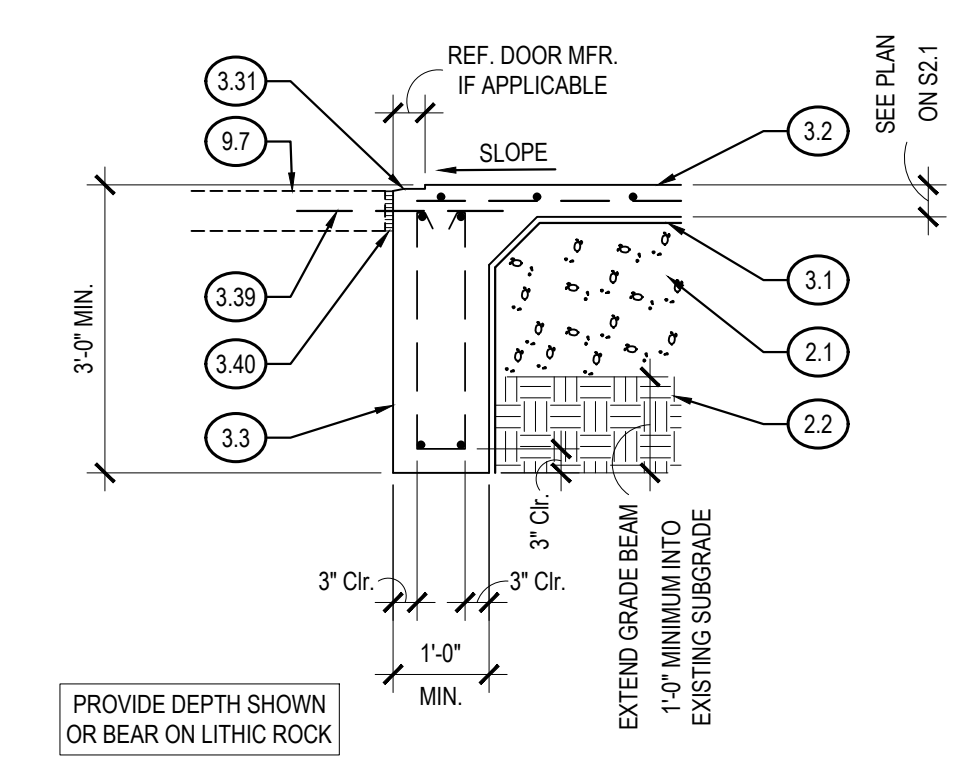
2 EXTERIOR GRADE BEAM
SCALE: 1/2" = 1'-0"



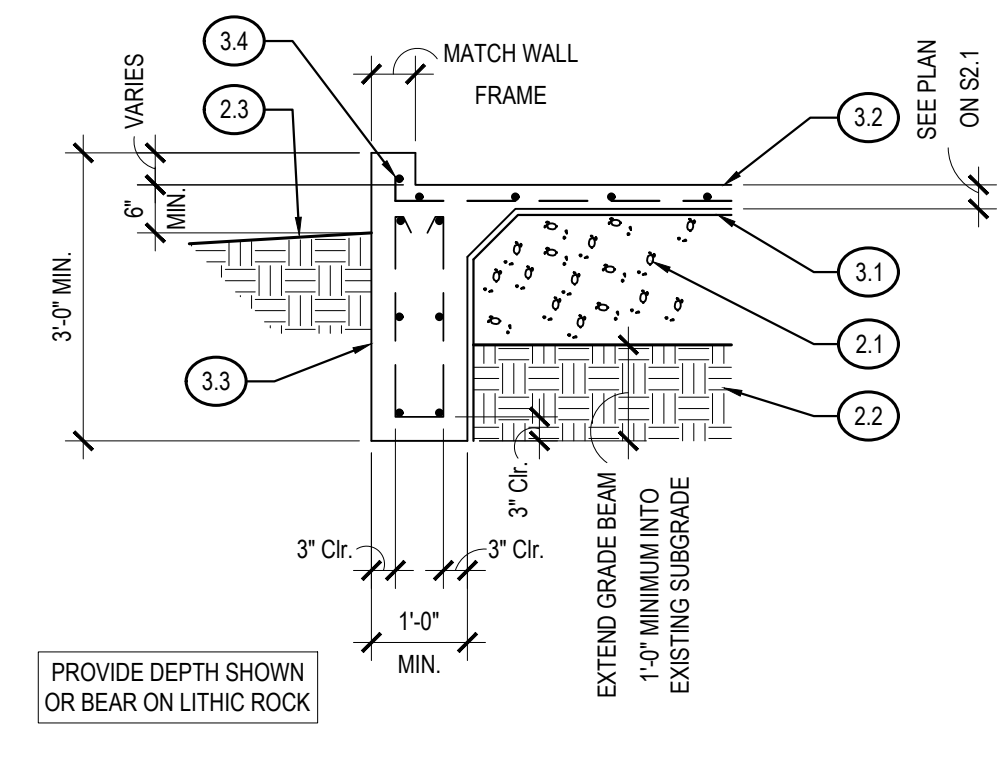
3 INTERIOR GRADE BEAM
SCALE: 1/2" = 1'-0"



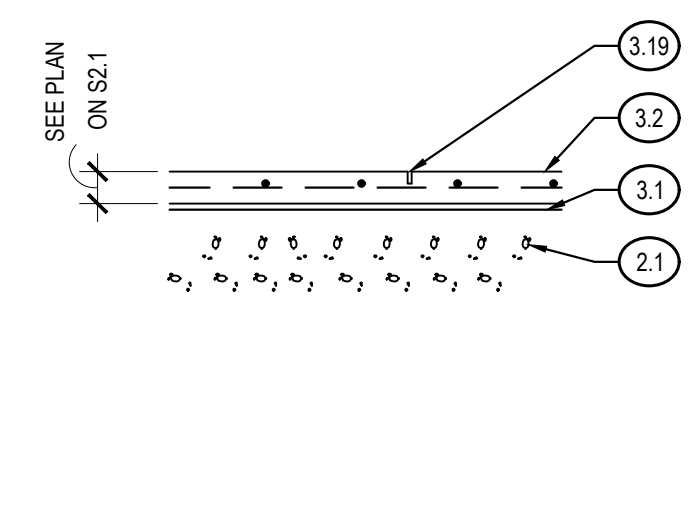
4 DROP AT INTERIOR BEAM
SCALE: 1/2" = 1'-0"



5 EXTERIOR GRADE BEAM AT GARAGE
SCALE: 1/2" = 1'-0"



6 CURB AT EXTERIOR GRADE BEAM
SCALE: 1/2" = 1'-0"



7 SAW CUT DETAIL
SCALE: 1/2" = 1'-0"

- KEY NOTES**
- 2.1) SELECT STRUCTURAL COMPACTED FILL.
 - 2.2) COMPACTED EXISTING SOIL.
 - 2.3) FINAL GRADE ALONG THE PERIMETER OF THE BUILDING SHALL BE AT LEAST 5% FOR A DISTANCE OF 10'-0" OUTWARD FROM THE EDGE OF THE BUILDING. ADD SOD ALONG THE FULL PERIMETER.
 - 3.1) 6 MIL THICK PLASTIC VAPOR RETARDER, TYPE RECOMMENDED TO BE IN CONTACT WITH THE SOIL OR FILL UNDER A CONCRETE SLAB, LISTED IN ASTM 1745 CLASS A WITH A PERMEANCE LESS THAN 0.036 AS DETERMINED BY ASTM E96. POLYETHYLENE IS NOT ACCEPTABLE. INSTALL VAPOR RETARDER SOLIDLY WITHIN AND BELOW SLAB SURFACE WITH JOINTS LAPPED AT LEAST 6-INCHES AND TAPED CONTINUOUSLY WITH RECOMMENDED PRESSURE-SENSITIVE TAPE. EXTEND VAPOR RETARDER DOWN THE SIDES OF THE BEAM TRENCHES AND TERMINATE SO THAT IT DOES NOT EXTEND ACROSS THE TRENCH BOTTOM. CONTRACTOR AND ARCHITECT (NOT STRUCTURAL ENGINEER) SHALL VERIFY THAT VAPOR RETARDER SELECTED IS COMPATIBLE WITH PROPOSED FLOOR FINISHES.
 - 3.2) SLAB REINFORCEMENT: SEE TABLE 3.2 ON SHEET S1.2, EXTEND SLAB REINFORCING TO TOP OUTSIDE PERIMETER BEAM BAR. START SLAB STEEL SPACING NOT MORE THAN 6-INCHES FROM THE EDGE OF THE SLAB TOP INSIDE BEAM BAR. ADD (3) #4 DIAGONAL BARS x 4-FEET LONG ABOVE TYPICAL SLAB REINFORCING AT ALL SLAB INTERIOR CORNERS. ADD #4 "Z" BARS AT 12-INCHES ON CENTER WHERE SLAB STEPS DOWN GREATER THAN 3-INCHES.
 - 3.3) FOUNDATION GRADE BEAM REINFORCEMENT: SEE TABLE 3.3 ON SHEET S1.2, LAP #6 "Z" BARS TO HORIZONTAL BARS WHERE BEAM STEPS DOWN GREATER THAN 3-INCHES. FOR BEAMS WITH DEPTH EXCEEDING 3'-0", ADD #4 CONTINUOUS MID-HEIGHT HORIZONTAL BARS AT EACH BEAM FACE AT 12-INCHES ON CENTER.
 - 3.4) BEND END OF #4 SLAB REBAR TO ACCOMMODATE CURB. ADD CONTINUOUS #4 REBAR ALONG TOP OF BENT BAR.
 - 3.19) 3/16-INCH WIDE SAW CUT JOINT SEE PLAN FOR SPACING OF JOINT. CUT JOINTS 8 TO 12 HOURS AFTER CONCRETE IS PLACED AND SHALL BE AT LEAST 1-1/2-INCH DEEP. REINFORCEMENT SHALL BE CONTINUOUS THROUGH SAWED JOINTS.
 - 3.31) LUG AT GARAGE DOOR. REFER TO DOOR MANUFACTURER FOR SUGGESTIONS ON LUG DIMENSIONS.
 - 3.39) #4 x 2'-0" DOWELS AT 12-INCHES ON CENTER.
 - 3.40) 1-INCH EXPANSION JOINT.
 - 9.7) PAVEMENT BY OTHERS.

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1006 Vance Jackson Rd., San Antonio, Texas
Ph. (210) 591-8829
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FOUNDATION DETAILS

DATE	ISSUE	REMARKS	BY
11.14.2022		PRELIMINARY - NOT FOR CONSTRUCTION	MAC

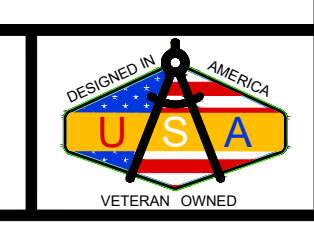
DATE: 11.14.2022
MOISES A. CRUZ, P.E.
LICENSED ENGINEER
TX. NO. 108540
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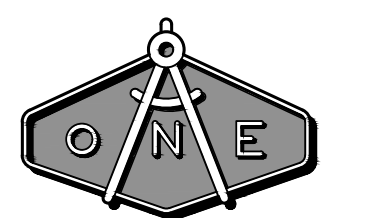
SHEET SIZE: 24" x 36"
SHEET: **S3.1**

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142 UNIVERSITY AVE
SAN ANTONIO, TEXAS 78201
TYPICAL FRAMING DETAILS

DATE	ISSUE	REMARKS	BY
11.14.2022		PRELIMINARY - NOT FOR CONSTRUCTION	MAC

DATE: 11.14.2022
MOISES A. CRUZ, P.E.
LICENSED ENGINEER
TX. NO. 108540
NOTE: THESE DRAWINGS
ARE INCOMPLETE AND MAY
NOT BE USED FOR
REGULATORY APPROVAL
PERMIT, OR CONSTRUCTION

ISSUE DATE: 11.14.2022

THIS DOCUMENT EXPIRES 12
MONTHS FROM THE DATE OF
SIGNATURE.

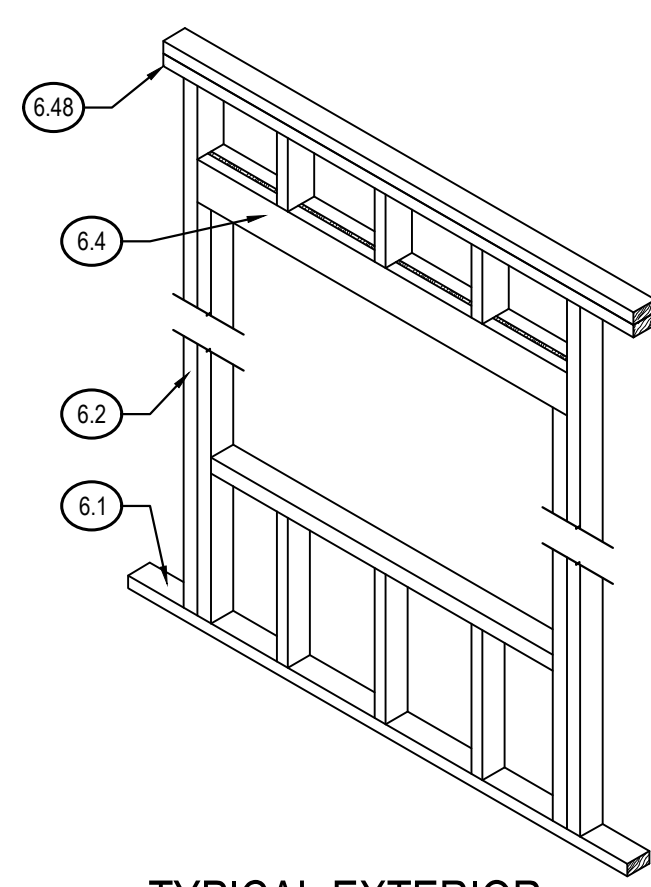
SHEET SIZE: 24" x 36"

SHEET: S4.1

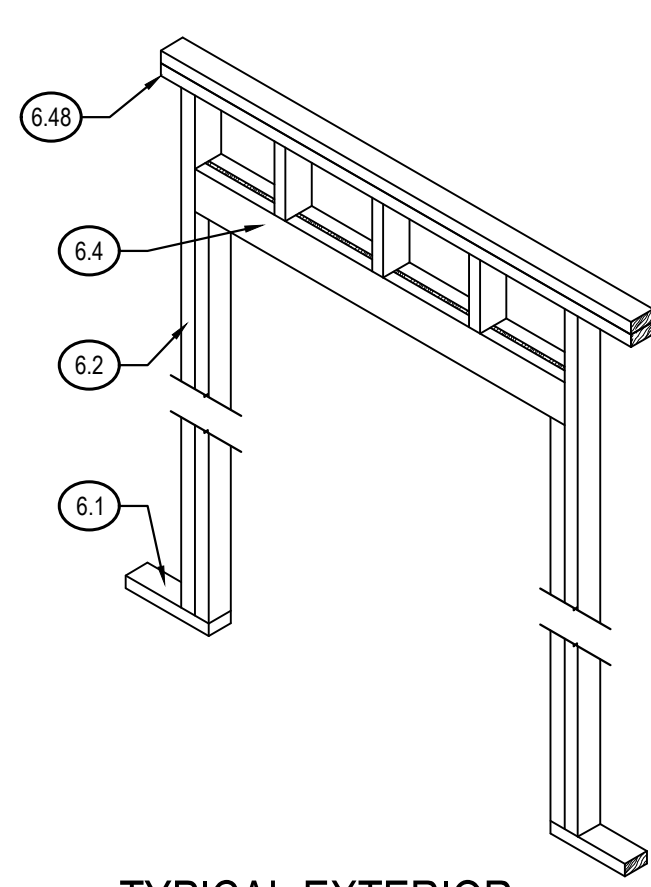
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FRAMING KEY NOTES

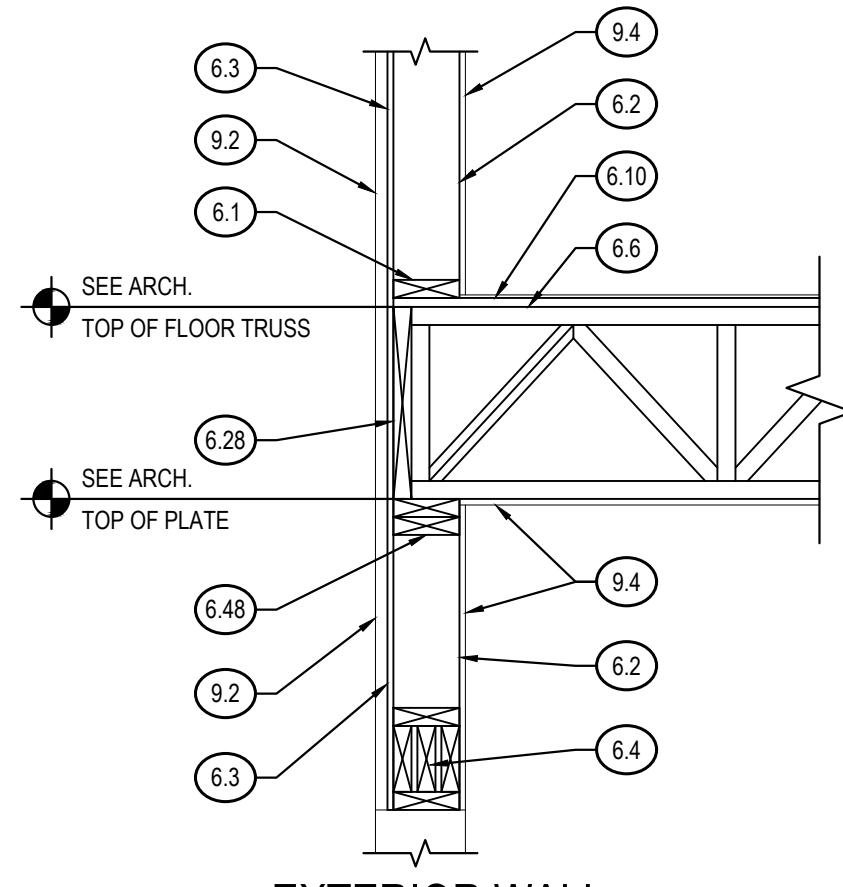
- 6.1) WALL SILL PLATE: SEE TABLE 5B, ON SHEET S1.2
SILL PLATE TO CONCRETE FOUNDATION: ANCHOR SILL PLATE TO CONCRETE FOUNDATION WITH 1/2-INCH DIAMETER, A307 "J" BOLTS OR ALL THREAD RODS AT 48-INCHES ON CENTER MAX. EMBED ANCHOR AT LEAST 7-INCHES INTO CONCRETE.
SILL PLATE TO WOOD FRAMING (AT UPPER FLOORS): ANCHOR SILL PLATE TO FLOOR FRAMING WITH 1/4-INCH DIAMETER x 5-INCHES LONG LAG SCREW OR (2) SIMPSON STRONG TIE STRONG DRIVE SDWS TIMBER SCREW (5-INCHES LONG) AT 48-INCHES ON CENTER.
- 6.2) WALL STUDS: SEE TABLE 5B, ON SHEET S1.2
STUDS SHALL BE DOUBLED AT ALL ANGLES, CORNERS, AND AROUND ALL OPENINGS. NOT LESS THAN (3) STUDS SHALL BE INSTALLED AT EACH WALL CORNER.
PROVIDE 2X SOLID BLOCKING AT MID-HEIGHT OF ALL WOOD STUD BEARING WALLS LOCATED ON THE FIRST FLOOR OF BUILDINGS.
- 6.3) EXTERIOR STRUCTURAL WALL SHEATHING - SEE TABLE 2, ON SHEET S1.2
ALL EXTERIOR WALLS AND MAIN CROSS STUD PARTITIONS INDICATED ON THE DRAWINGS SHALL BE EFFECTIVELY AND THOROUGHLY SHEATHED.
- 6.4) HEADER: SEE FRAMING PLAN AND TABLE 4, ON SHEET S1.2
UNLESS NOTED OTHERWISE, ADD (1) 2X CRIPPLE STUD AT EACH END OF THE END AND (1) KING STUD FACE NAILED TO CRIPPLE STUD AT EACH END.
- 6.6) FLOOR TRUSS: PREFABRICATED 4X WOOD FLOOR TRUSS - SEE PLAN AND TABLE 3B ON SHEET S1.2
FLOOR AND ROOF TRUSSES SHALL BEAR WITHIN 5-INCHES OF THE WIDTH BENEATH THE DOUBLE TOP PLATE. TOENAIL TRUSS TO TOP PLATE WITH AT LEAST (4) 8d NAILS.
UNLESS OTHERWISE INDICATED ON THE DRAWINGS, ALL CANTILEVERED JOISTS SHALL EXTEND INTO THE BUILDING A DISTANCE EQUAL TO THE CANTILEVER. CANTILEVERED JOISTS RUNNING PERPENDICULAR TO FRAMING INSIDE THE BUILDING SHALL BE CONNECTED TO INSIDE MEMBER WITH STANDARD JOIST HANGERS. CANTILEVERED JOIST RUNNING PARALLEL TO FRAMING INSIDE THE BUILDING SHALL BE NAILED TO THE SIDE OF THE INSIDE MEMBERS WITH 16d NAILS AT 12-INCHES ON CENTER TOP AND BOTTOM.
- 6.7) ROOF RAFTER: 2X CONVENTIONAL ROOF RAFTER - SEE ROOF FRAMING PLAN AND TABLE 3B, ON SHEET S1.2
- 6.10) FLOOR DECKING: SEE TABLE 2B ON SHEET S1.2
PLACE TONGUE AND GROOVE PLYWOOD FLOOR WITH REQUIRED JOINT SPACES BETWEEN SHEETS AND WITH END JOINTS STAGGERED. PLYWOOD GRAIN SHALL BE PERPENDICULAR TO FRAMING. SECURE SHEETS OVER FIRM BEARING. PROVIDE EDGE BLOCKING AT ALL FLOOR OPENINGS.
- 6.11) ROOF DECKING: SEE TABLE 2B ON SHEET S1.2
PLACE PLYWOOD ROOF SHEATHING WITH REQUIRED JOINT SPACES BETWEEN SHEETS AND WITH END JOINTS STAGGERED. PLYWOOD GRAIN SHALL BE PERPENDICULAR TO FRAMING.
- 6.12) JOIST HANGER: SEE TABLE 7, ON SHEET S1.2
- 6.13) WOOD BEAM - SEE FRAMING PLAN AND TABLE 6, ON SHEET S1.2
- 6.14) FASCIA BOARD: CONTINUOUS FASCIA BOARD - SEE FRAMING PLAN AND REFER TO ARCHITECT/DESIGNER/OWNER, IF NOT PROVIDED BY OTHERS, SEE TABLE 3B ON SHEET S1.2.
- 6.15) RIDGE BOARD/BEAM: SEE FRAMING PLAN. SEE TABLE 3B ON SHEET S1.2 FOR RIDGE BOARD AND TABLE 6 ON SHEET S1.2 FOR BEAM, AS APPLICABLE.
- 6.18) CEILING JOIST: SEE FRAMING PLAN. SEE TABLE 6, ON SHEET S1.2
- 6.19) ROOF OUTRIGGER: SEE FRAMING PLAN AND TABLE 3 OR 3B, ON SHEET S1.2
- 6.20) SOFFIT SUPPORT: 2x4 HORIZONTAL SUPPORT FOR SOFFIT. FASTEN TO 2X NAILER ALONG WALL WITH (2) 10d TOE NAILS.
- 6.21) BLOCKING FOR JOISTS: 2X FULL DEPTH BLOCKING BETWEEN ALL FLOOR JOISTS, CEILING JOISTS AND ROOF RAFTERS. BLOCKING DEPTH TO MATCH SIZE OF FRAMING MEMBER BEING REINFORCED.
- 6.22) COLLAR TIE: 2x4 COLLAR TIE, 24-INCHES BELOW BOTTOM OF RIDGE BOARD. SPACE COLLAR TIES AT 4-FEET ON CENTER OR AT EVERY OTHER ROOF RAFTER. FACE NAIL COLLAR TIE TO RAFTERS WITH (2) 10d NAILS.
- 6.24) WALL STUDS AT END WALL OF GABLE: MATCH BUILDING WALL STUDS FROM FLOOR BELOW. SEE TABLE 5B ON SHEET S1.2.
- 6.28) RIBBON BLOCKING FOR TRUSS/JOIST FRAMING: CONTINUOUS 2X RIBBON BLOCKING FACE NAILED TO EACH TRUSS/JOIST WITH (2) 16d NAILS.
- 6.29) BLOCKING FOR STUDS: 2X BLOCKING BETWEEN 2X STUDS AT 32-INCHES ON CENTER ALONG THE FULL HEIGHT OF BLOCKED STUDS. TOE NAIL BLOCKING TO STUDS WITH (2) 8d NAILS PER SIDE.
- 6.31) PURLIN: CONTINUOUS 2X PURLIN ACROSS THE BOTTOM OF RAFTERS. PURLIN SIZE TO MATCH SIZE OF RAFTERS.
- 6.32) PURLIN SUPPORT: DIAGONAL PURLIN SUPPORT AT 6-FEET ON CENTER MAX. PROVIDE PURLIN SUPPORT AT EACH OF PURLIN LINE. BEAR PURLIN SUPPORT ON NEAREST LOAD BEARING WALL OR STRUCTURAL BEAM. DO NOT BEAR PURLIN SUPPORT ON CEILING JOISTS OR FLOOR FRAMING UNLESS SPECIFICALLY NOTED ON THE PLANS. ADD CONTINUOUS 2x4 HORIZONTAL BRACE AT MIDSPAN OF PURLIN SUPPORT.
(2) 2x4 PURLIN SUPPORTS - 10-FEET MAX DIAGONAL LENGTH
(2) 2x6 PURLIN SUPPORTS - 14-FEET MAX DIAGONAL LENGTH
(2) 2x8 PURLIN SUPPORTS - 18-FEET MAX DIAGONAL LENGTH
(2) 2x10 PURLIN SUPPORTS - 20-FEET MAX DIAGONAL LENGTH
- 6.46) CONTINUOUS NAILER: CONTINUOUS 2X NAILER. MATCH NAILER DEPTH TO SUPPORTED FRAMING MEMBER.
FASTEN TO STRUCTURAL WALL AS FOLLOWS:
2x4 NAILER: (2) NO. 10 STRUCTURAL WOOD SCREWS AT EACH STUD.
2x6 NAILER: (3) NO. 10 STRUCTURAL WOOD SCREWS AT EACH STUD.
2x8 NAILER: (4) NO. 10 STRUCTURAL WOOD SCREWS AT EACH STUD.
2x10 NAILER: (5) NO. 10 STRUCTURAL WOOD SCREWS AT EACH STUD.
2x12 NAILER: (6) NO. 10 STRUCTURAL WOOD SCREWS AT EACH STUD.
NAILS MAY NOT BE SUBSTITUTED FOR STRUCTURAL WOOD SCREWS.
- 6.48) DOUBLE TOP PLATE FOR BRACED WALLS: DOUBLE 2X TOP PLATE. SEE TABLE 5B ON SHEET S1.2 FOR MEMBER SIZE. LAP TOP PLATE MEMBERS AT LEAST 24-INCHES FOR CONTINUITY.
- 6.55) TOP PLATE DIAGONAL BRIDGING TO STUD: 2x4 DIAGONAL BRIDGING AT 2-FEET ON CENTER ALONG FULL LENGTH OF WALL. FASTEN TO TOP OF JOIST/TRUSS AND TO TOP OF PLATE WITH (2) 10d NAILS.
- 6.64) SOLID BUILT UP 2X FRAMED COLUMN. BUILT UP COLUMN SHALL BE FULL HEIGHT COLUMN TO EXTEND FROM BOTTOM PLATE TO TOP PLATE WITHOUT ANY INTERMEDIATE INTERRUPTIONS OF COLUMN.
- 9.1) ROOFING MATERIAL - REFER TO ARCHITECT/DESIGNER/OWNER.
- 9.2) EXTERIOR FINISH - REFER TO ARCHITECTURAL/DESIGNER/OWNER.
- 9.4) INTERIOR FINISH - REFER TO ARCHITECT/DESIGNER/OWNER.



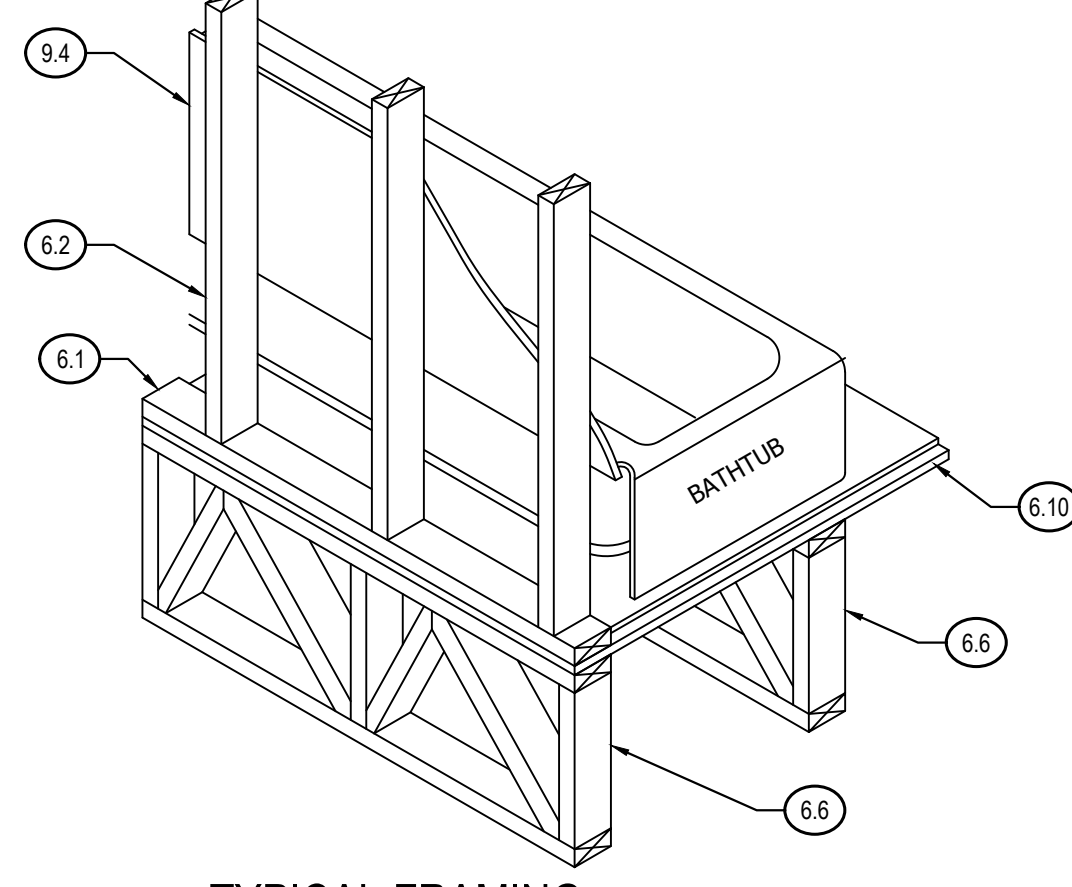
1 TYPICAL EXTERIOR WALL OPENINGS
SCALE: 3/4" = 1'-0"



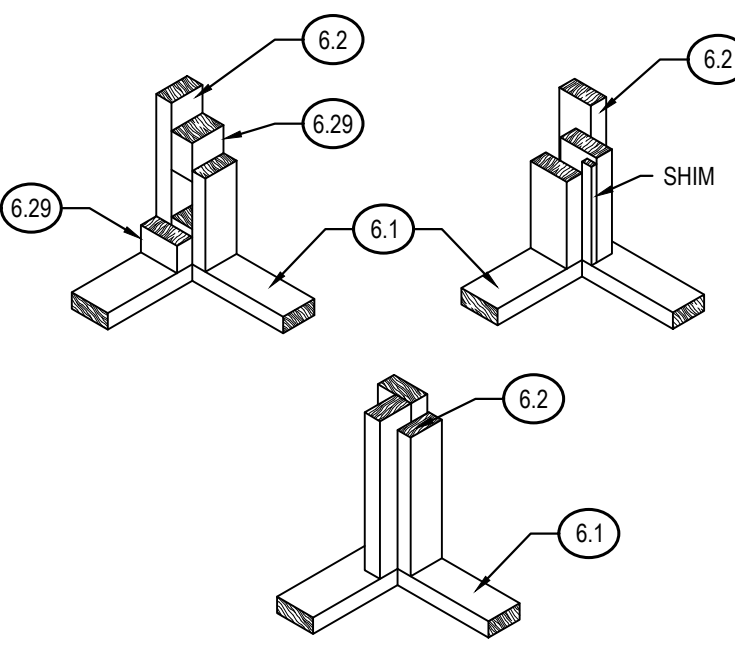
2 TYPICAL EXTERIOR DOOR OPENINGS
SCALE: 3/4" = 1'-0"



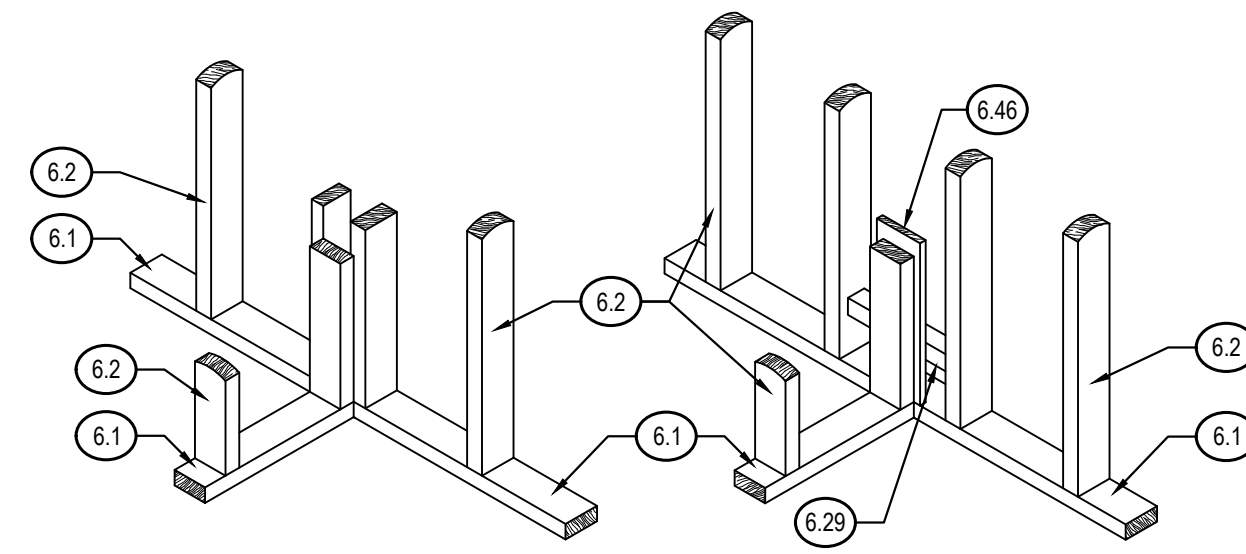
3 EXTERIOR WALL TO FLOOR JOIST
SCALE: 3/4" = 1'-0"



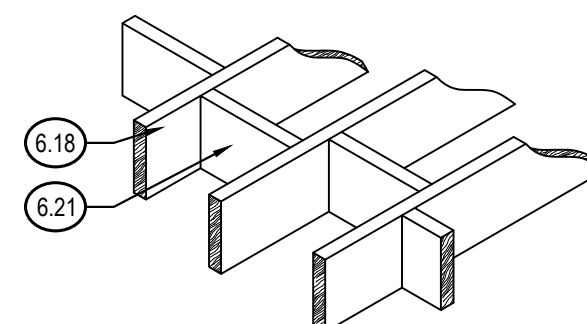
4 TYPICAL FRAMING SUPPORTING BATHTUB
SCALE: 3/4" = 1'-0"



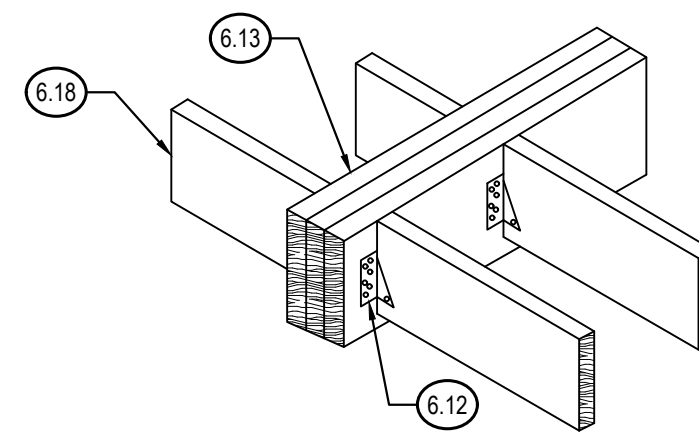
5 TYPICAL MULTIPLE STUDS AT CORNERS
SCALE: 3/4" = 1'-0"



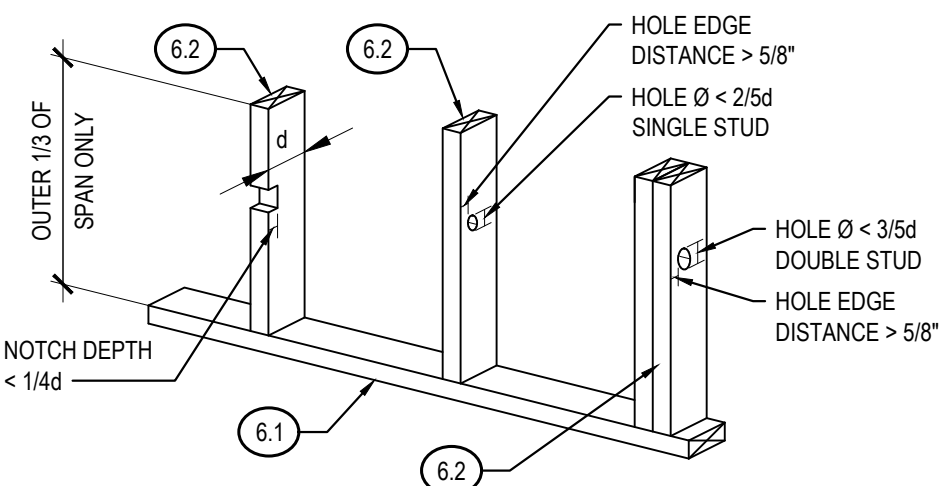
6 TYPICAL WALL FRAMING AT INTERSECTING PARTITIONS
SCALE: 3/4" = 1'-0"



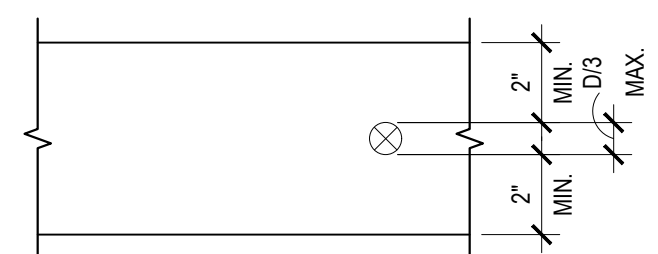
7 TYPICAL JOIST BLOCKING
SCALE: 3/4" = 1'-0"



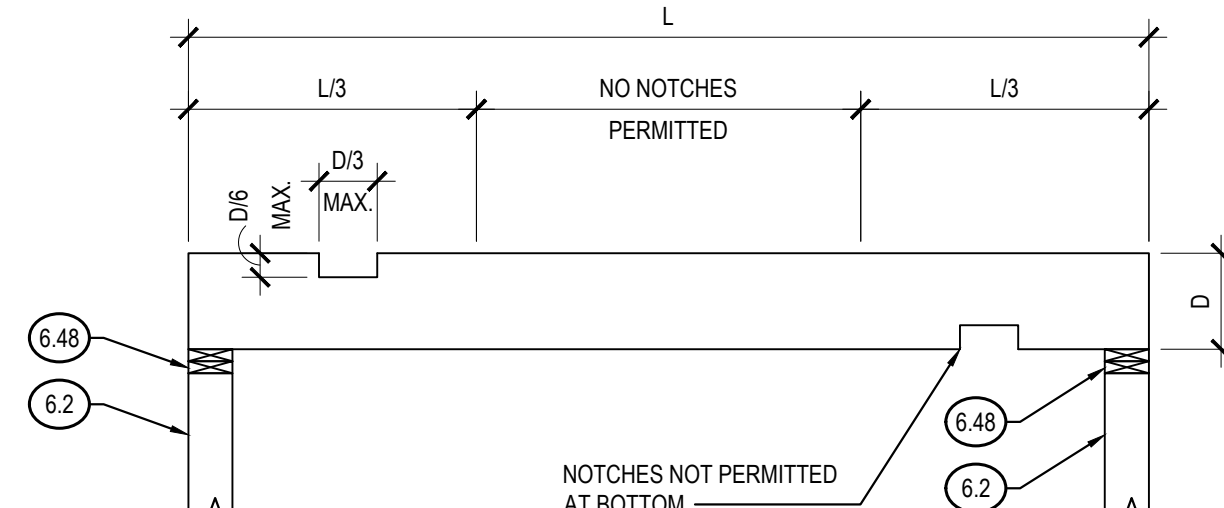
8 TYPICAL JOIST TO BEAM
SCALE: 3/4" = 1'-0"



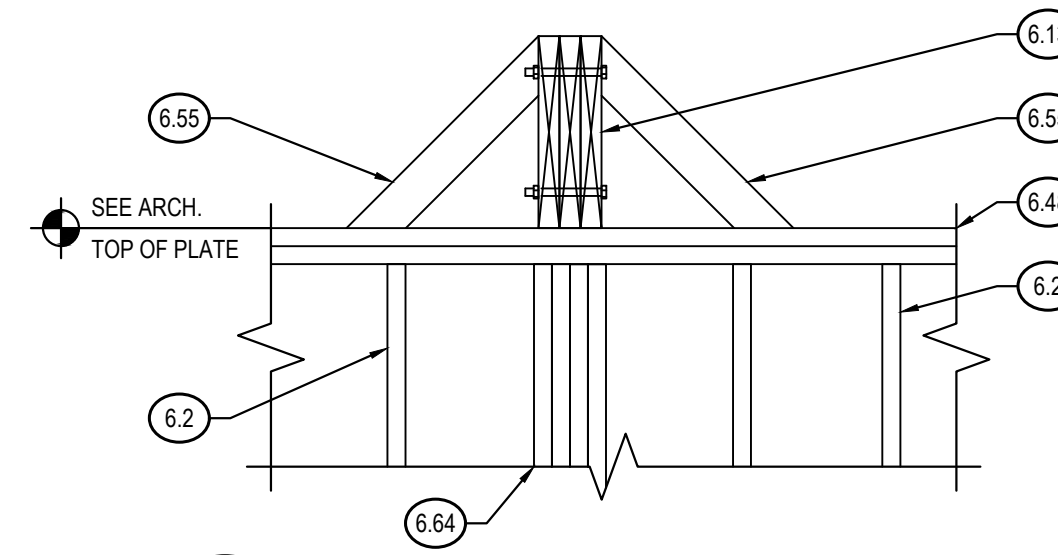
9 ALLOWABLE STUD NOTCHES
SCALE: 3/4" = 1'-0"



10 ALLOWABLE HOLES IN RAFTERS/JOISTS
SCALE: 3/4" = 1'-0"



11 ALLOWABLE NOTCHES IN RAFTERS/JOISTS
SCALE: 3/4" = 1'-0"



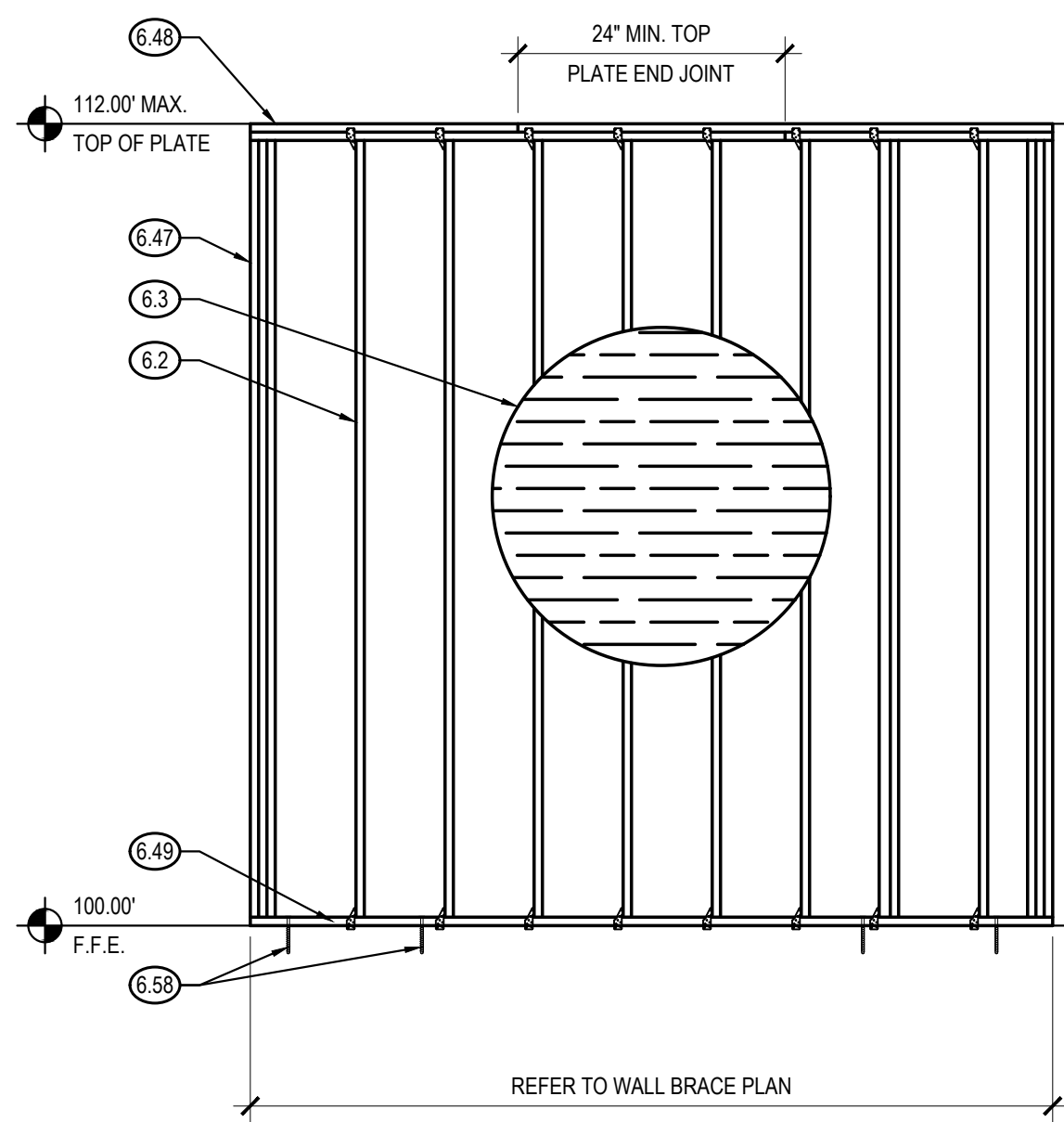
12 TYPICAL BEAM BRACE DETAIL
SCALE: 3/4" = 1'-0"

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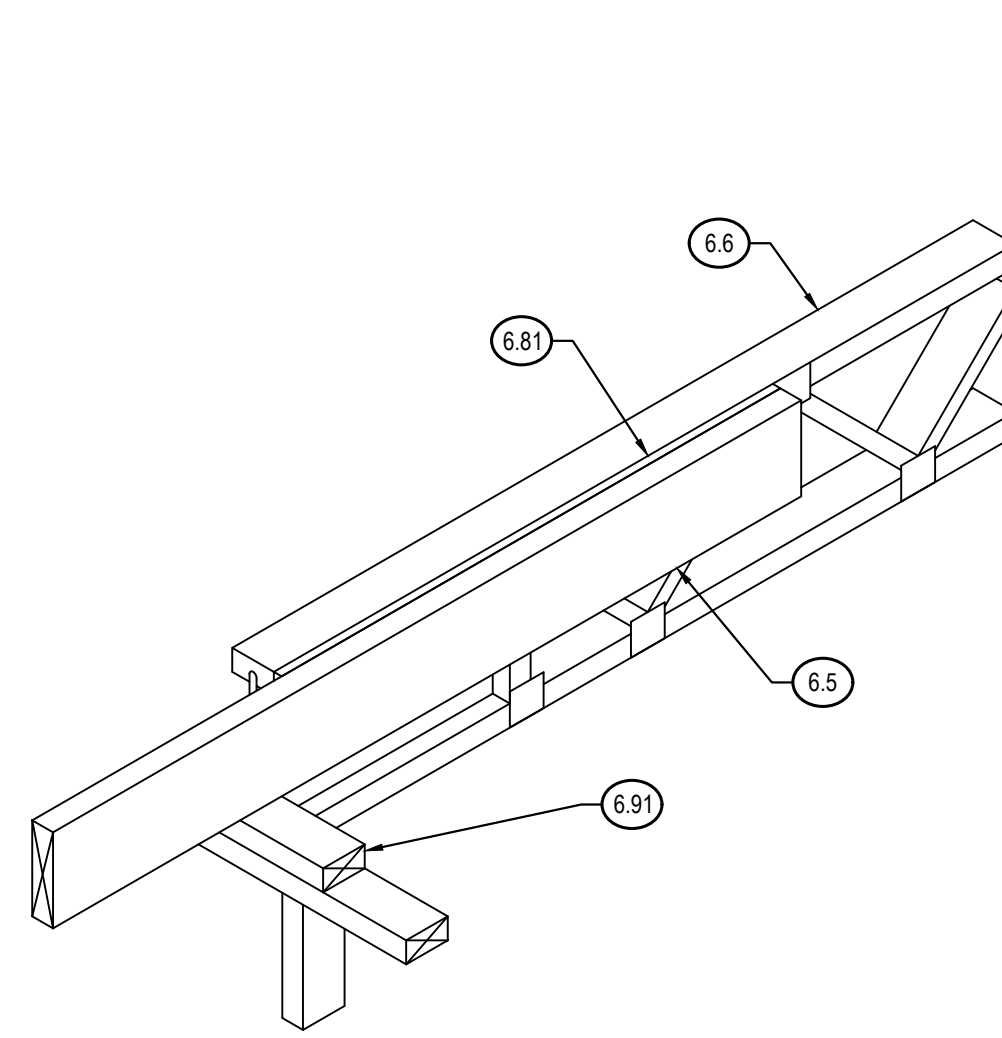
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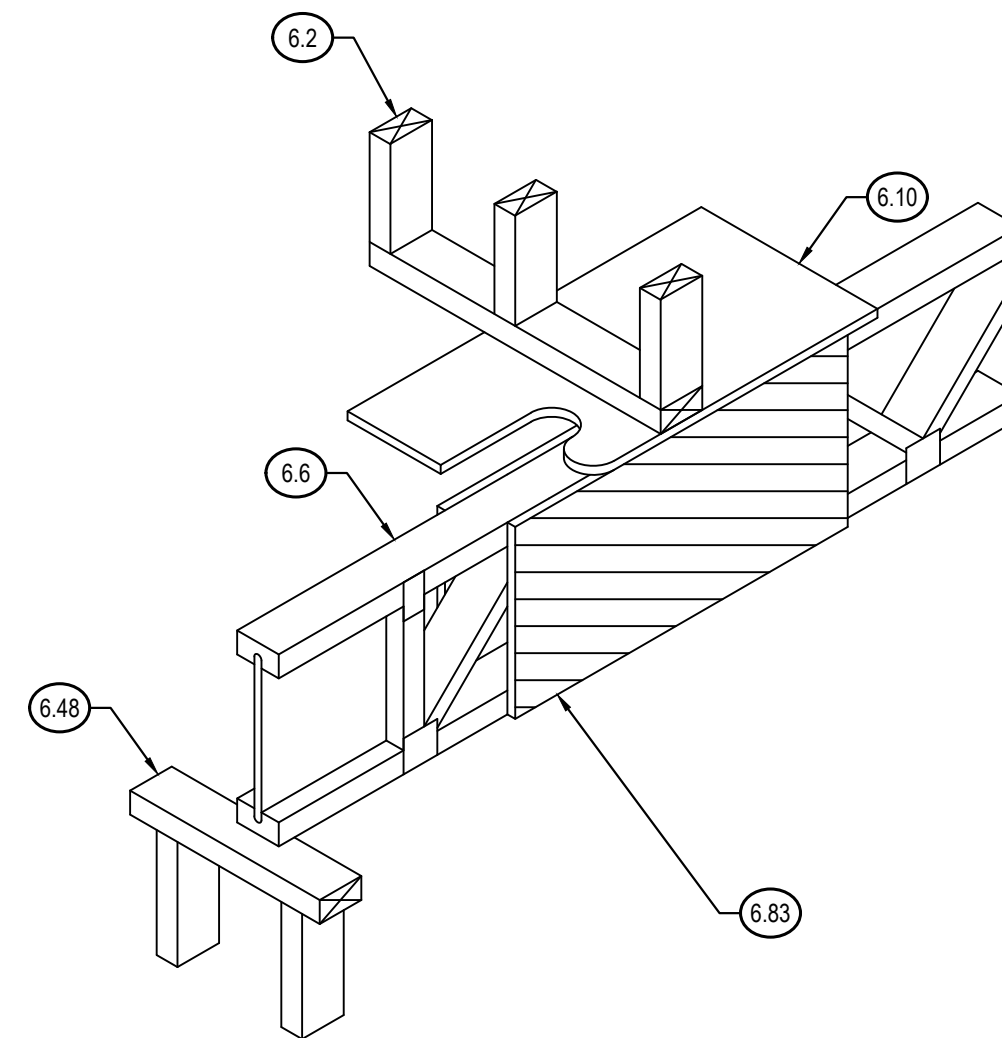
S4.1



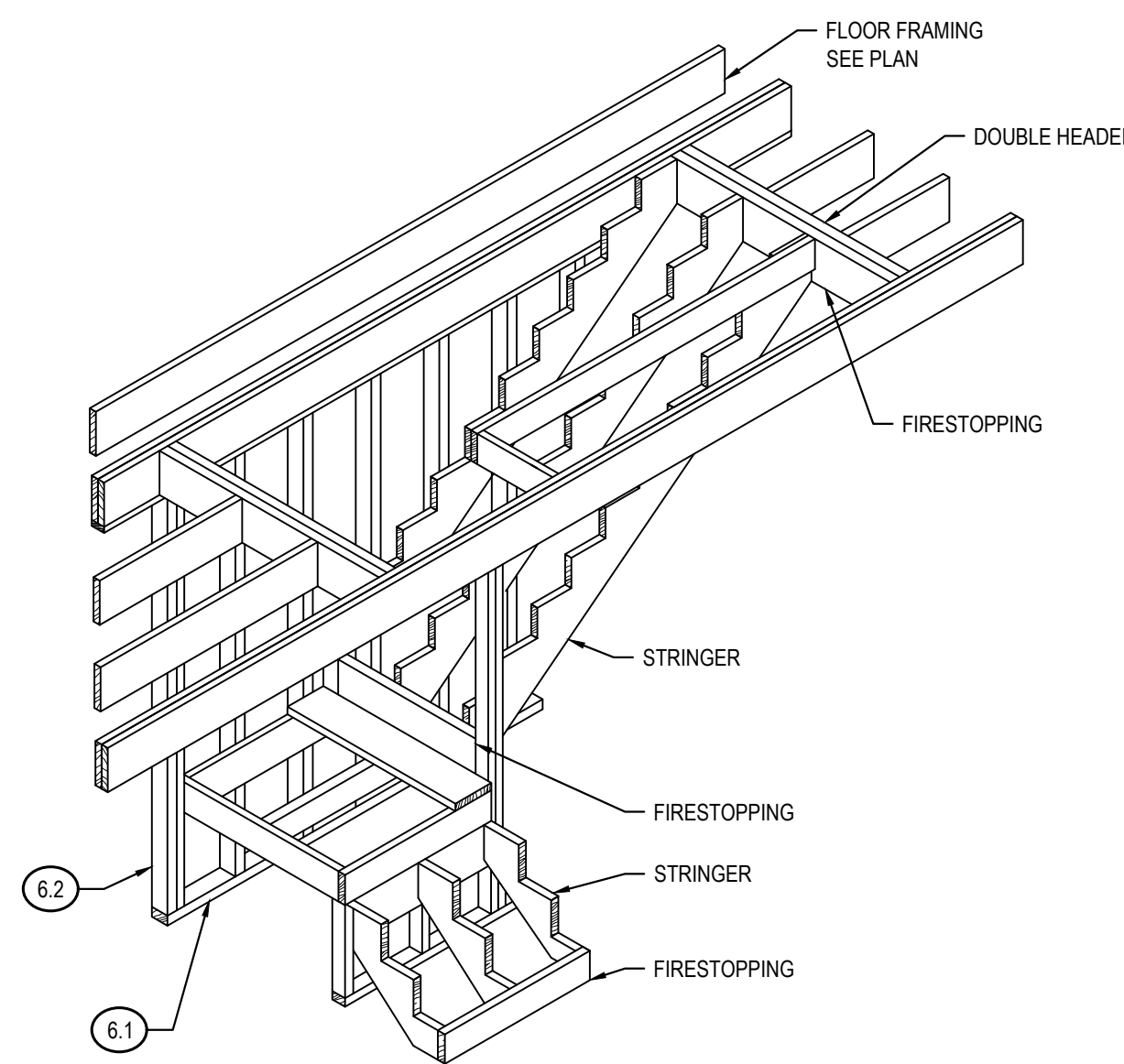
1 TYPICAL SCHEMATIC OF ENGINEERED BRACED WALL PANEL
SCALE: 3/8" = 1'-0"



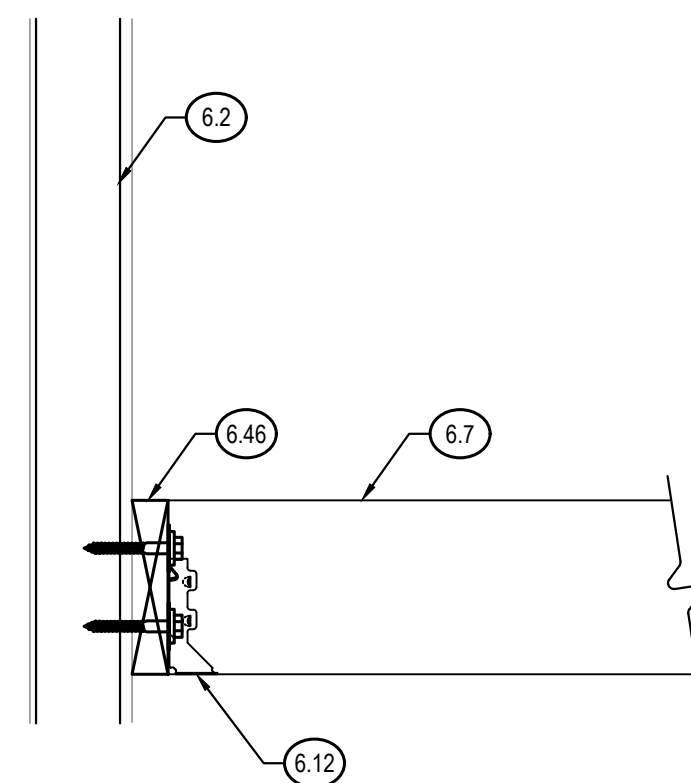
2 CANTILEVER JOIST TO TRIM JOIST
SCALE: 3/4" = 1'-0"



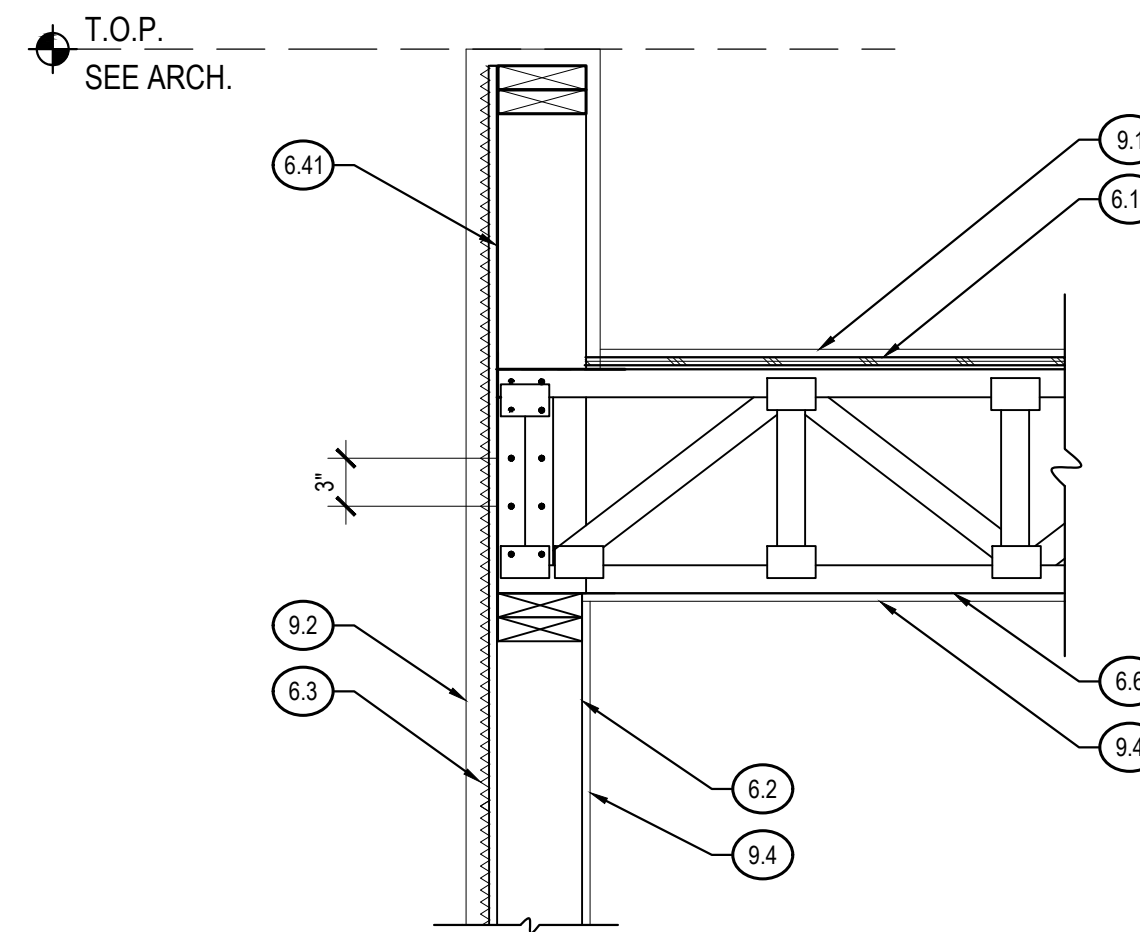
3 TRIM JOIST BELOW LOAD BEARING WALL
SCALE: 3/4" = 1'-0"



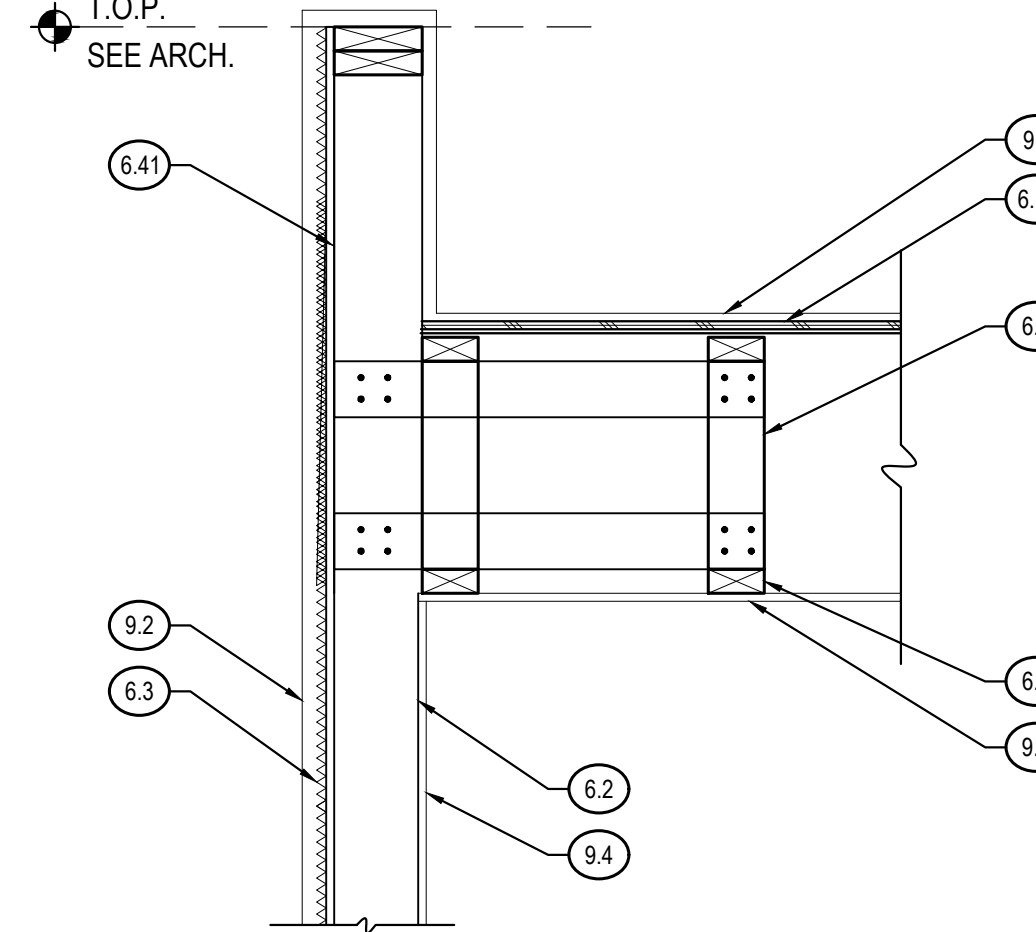
4 TYPICAL STAIRWAY WITH LANDING
SCALE: 3/4" = 1'-0"



5 TYPICAL LOW ROOF RAFTER TO WALL
SCALE: 1 1/2" = 1'-0"



6 PARAPET ROOF FRAMING DETAIL
SCALE: 1" = 1'-0"



7 PARAPET ROOF FRAMING DETAIL
SCALE: 1" = 1'-0"

FRAMING KEY NOTES

- 6.2) WALL STUDS: SEE TABLE 5B, ON SHEET S1.2
STUDS SHALL BE DOUBLED AT ALL ANGLES, CORNERS, AND AROUND ALL OPENINGS. NOT LESS THAN (3) STUDS SHALL BE INSTALLED AT EACH WALL CORNER.
PROVIDE 2X SOLID BLOCKING AT MID-HEIGHT OF ALL WOOD STUD BEARING WALLS LOCATED ON THE FIRST FLOOR OF BUILDINGS.
- 6.3) EXTERIOR STRUCTURAL WALL SHEATHING - SEE TABLE 2, ON SHEET S1.2
ALL EXTERIOR WALLS AND MAIN CROSS STUD PARTITIONS INDICATED ON THE DRAWINGS SHALL BE EFFECTIVELY AND THOROUGHLY SHEATHED.
- 6.5) FLOOR JOIST: 2X CONVENTIONAL FLOOR JOIST - SEE PLAN AND TABLE 3B ON SHEET S1.2
- 6.6) FLOOR TRUSS: PREFABRICATED 4X WOOD FLOOR TRUSS - SEE PLAN AND TABLE 3B ON SHEET S1.2
FLOOR AND ROOF TRUSSES SHALL BEAR WITHIN 5-INCHES OF THE WIDTH BENEATH THE DOUBLE TOP PLATE. TOENAIL TRUSSES TO TOP PLATE WITH AT LEAST (4) 8d NAILS.
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- 6.7) ROOF RAFTER: 2X CONVENTIONAL ROOF RAFTER - SEE ROOF FRAMING PLAN AND TABLE 3B, ON SHEET S1.2
- 6.10) FLOOR DECKING: SEE TABLE 2B ON SHEET S1.2
PLACE TONGUE AND GROOVE PLYWOOD FLOOR WITH REQUIRED JOINT SPACES BETWEEN SHEETS AND WITH END JOINTS STAGGERED. PLYWOOD GRAIN SHALL BE PERPENDICULAR TO FRAMING. SECURE SHEETS OVER FIRM BEARING. PROVIDE EDGE BLOCKING AT ALL FLOOR OPENINGS.
- 6.11) ROOF DECKING: SEE TABLE 2B ON SHEET S1.2
PLACE PLYWOOD ROOF SHEATHING WITH REQUIRED JOINT SPACES BETWEEN SHEETS AND WITH END JOINTS STAGGERED. PLYWOOD GRAIN SHALL BE PERPENDICULAR TO FRAMING. SECURE SHEETS OVER FIRM BEARING. PROVIDE SOLID BLOCKING AT ALL PLYWOOD EDGES. PROVIDE PLYWOOD SHEATHING CLIPS (REFERRED TO AS H CLIPS OR PSC CLIPS) AT UNSUPPORTED PLYWOOD ROOF EDGES, SPACED ONE BETWEEN EACH SUPPORT. PROVIDE EDGE BLOCKING AT ALL ROOF OPENINGS. NAIL TO FRAMING MEMBERS AT PLYWOOD EDGES AT 6-INCHES ON CENTER AND AT INTERMEDIATE SUPPORTS AT 6-INCHES ON CENTER. NAIL WITH AT LEAST 8d COMMON NAILS.
- 6.12) JOIST HANGER: SEE TABLE 7, ON SHEET S1.2
- 6.41) PARAPET WALL FRAMING - FACE NAIL STUDS TO TRUSS. SEE TABLE 3B ON SHEET S1.2
- 6.46) CONTINUOUS NAILER: CONTINUOUS 2X NAILER. MATCH NAILER DEPTH TO SUPPORTED FRAMING MEMBER.
FASTEN TO STRUCTURAL WALL AS FOLLOWS:
2x4 NAILER: (2) NO. 10 STRUCTURAL WOOD SCREWS AT EACH STUD.
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2x12 NAILER: (6) NO. 10 STRUCTURAL WOOD SCREWS AT EACH STUD.
NAILS MAY NOT BE SUBSTITUTED FOR STRUCTURAL WOOD SCREWS.
- 6.47) CORNER STUDS AT END OF BRACED WALL: (2) 2X CORNER STUDS AT EACH END OF BRACED WALL. SEE DETAIL H FOR FRAMING INTERSECTING WALLS TO BRACED WALLS. DO NOT ADD 2X BLOCKING TO CORNER STUDS AT BRACED WALLS.
- 6.48) DOUBLE TOP PLATE FOR BRACED WALLS: DOUBLE 2X TOP PLATE. SEE TABLE 5B ON SHEET S1.2 FOR MEMBER SIZE. LAP TOP PLATE MEMBERS AT LEAST 24-INCHES FOR CONTINUITY.
- 6.49) BRACED WALL BOTTOM PLATE ANCHOR:
SILL PLATE TO CONCRETE FOUNDATION: ANCHOR SILL PLATE TO CONCRETE FOUNDATION WITH 1/2-INCH DIAMETER, A307 "J" BOLTS OR ALL THREAD RODS AT 48-INCHES ON CENTER MAX. EMBED ANCHOR AT LEAST 7-INCHES INTO CONCRETE.
SILL PLATE TO WOOD FRAMING (AT UPPER FLOORS): ANCHOR SILL PLATE TO FLOOR FRAMING WITH 1/4-INCH DIAMETER X 5-INCHES LONG LAG SCREW OR (2) SIMPSON STRONG-TIE STRONG DRIVE SDWS TIMBER SCREW (5-INCHES LONG) AT 48-INCHES ON CENTER.
- 6.58) ADD SIMPSON STRONG-TIE TITEN HD ANCHOR AT END OF WALL. ADD ADDITIONAL ANCHOR 24-INCHES FROM END WALL ANCHOR.
- 6.81) 3/4" MIN. PLYWOOD GLUED AND NAILED TO ONE FACE WITH 10d NAILS 3" O.C.
- 6.83) 32" X 12" X 3/4" PLYWOOD GLUED AND NAILED TO BOTH FACES WITH 10d NAILS 3" O.C. CENTERED OVER BEARING POINT.
- 6.91) 2 X 4 SUPPORT PONY WALL.

ENGINEERING
structural
F-12583
A-1 ENGINEERING, LLC
STRUCTURAL ENGINEERING
1006 Vance Jackson Rd., San Antonio, Texas
Ph. (210) 591-8829
401 Congress Ave., Suite 1540 Austin, Texas
Ph. (512) 298-3360
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NEW STRUCTURAL DESIGN: YES TOWNHOMES
FOUNDATION AND FRAMING DESIGN
142 UNIVERSITY AVE
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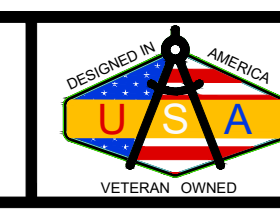
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SHEET: **S4.2**

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