

1. PURCHASER IS RESPONSIBLE FOR COMPLIANCE WITH ALL LOCAL BUILDING CODES AND ORDINANCES.
2. ORIGINAL DESIGNER ARCHITECT MAY NOT BE HELD RESPONSIBLE FOR SITE CONDITIONS, OR FOR THE USE OF THESE DRAWINGS DURING CONSTRUCTION.
3. PRIOR TO PROCEEDING WITH CONSTRUCTION, BUILDER IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS, AND ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF ORIGINAL DESIGNER.
4. PURCHASER IS RESPONSIBLE FOR HAVING PLANS REVIEWED BY A QUALIFIED BUILDING CONTRACTOR.
5. VERIFY ALL STRUCTURAL ELEMENTS WITH LOCAL ENGINEER AND BUILDING OFFICIAL. STRUCTURAL SIZES FOR FRAMING, FOUNDATION, RETAINING WALLS, ETC. ARE TO SERVE AS A GUIDE ONLY.



## DRAWING LIST

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# JAMES DUJONG RESIDENCE

COVER SHEET

A - 1

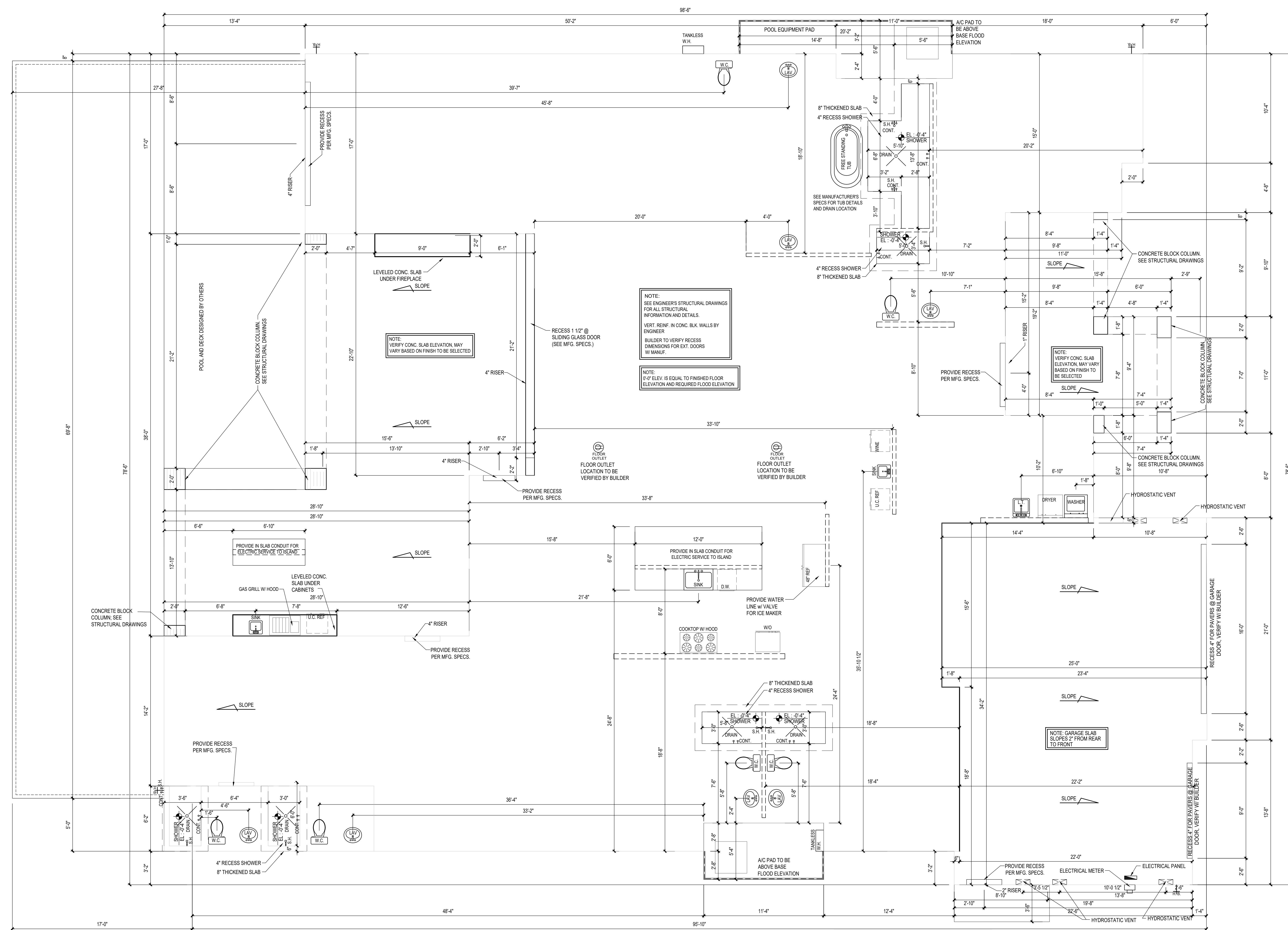
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# JAMES DUJONG RESIDENCE

## SLAB PLAN

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

# A - 2



NOTE:  
ALL STRUCTURAL ASPECTS OF THIS PLAN ARE DESIGNED FOR A SPECIFIC SITE FOR WHICH THIS ORIGINAL PLAN WAS CONSTRUCTED. THEREFOR IT IS NECESSARY FOR THE BUYER OF THIS PLAN TO HIRE AN ARCHITECT OR STRUCTURAL ENGINEER LICENSED IN THE STATE WHICH THE PLAN IS TO BE CONSTRUCTED TO PROVIDE STRUCTURAL DESIGN DRAWINGS TO ADDRESS AND SPECIFY ALL STRUCTURAL ASPECTS AND COMPONENTS REQUIRED FOR PERMIT AND CONSTRUCTION THESE PLANS. THE CERTIFIED STRUCTURAL DRAWINGS ARE TO ACCOMPANY THIS PLAN DURING CONSTRUCTION AND OTHER USES.

NOTE:  
ALL STAIR RISERS, TREADS, BEAM HEIGHTS, AND DIMENSIONS TO BE COORDINATED WITH ENGINEERED DRAWINGS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF SOUTH FLORIDA DESIGN FOR REVIEW PRIOR TO CONSTRUCTION.

TREADS AND RISERS MAY VARY DUE TO FIELD CONDITIONS. BUILDER TO VERIFY ALL EXTERIOR STAIR WITH SITE CONDITIONS BEFORE START OF CONSTRUCTION

FOUNDATION TO BE ENGINEERED

NOTE:  
ALL WINDOWS AND DOORS TO BE BY PGT (SEE BUILDER FOR DETAILS)  
COORDINATION OF CONSTRUCTION, INCLUDING VERIFICATION OF DIMENSIONS & FIELD CONDITIONS, IS THE RESPONSIBILITY OF THE CONTRACTOR. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN FIRM PRIOR TO START OF CONSTRUCTION.

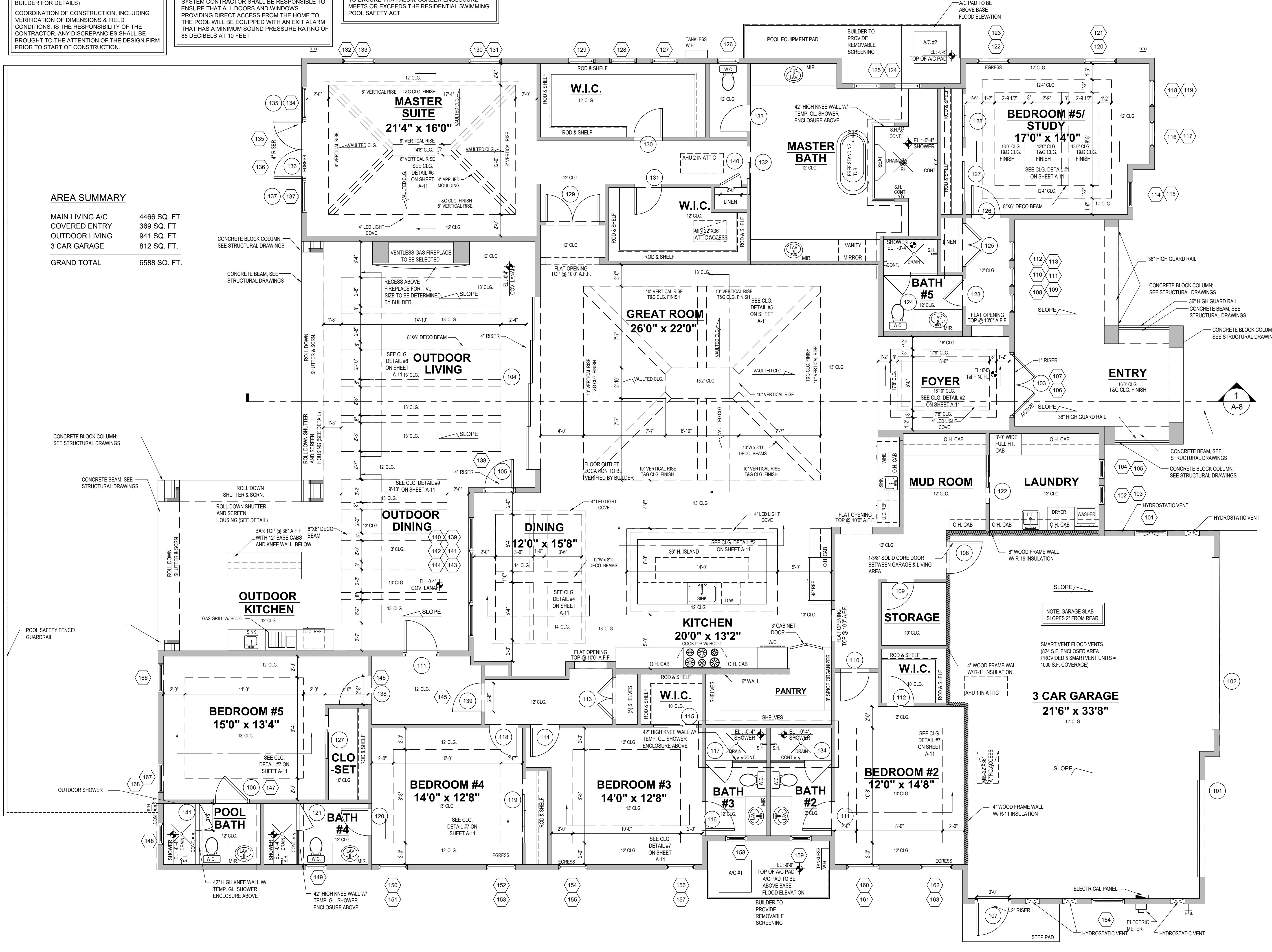
NOTE:  
ELECTRICAL CONTRACTOR AND OR SECURITY SYSTEM CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL DOORS AND WINDOWS PROVIDING DIRECT ACCESS FROM THE HOME TO THE POOL WILL BE EQUIPPED WITH AN EXIT ALARM THAT HAS A MINIMUM SOUND PRESSURE RATING OF 85 DECIBELS AT 10 FEET

NOTE:  
GENERAL CONTRACTOR/BUILDER IS RESPONSIBLE TO ENSURE THAT ALUM. SCREEN ENCLOSURE MEETS OR EXCEEDS THE RESIDENTIAL SWIMMING POOL SAFETY ACT

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**AREA SUMMARY**

MAIN LIVING A/C	4466 SQ. FT.
COVERED ENTRY	369 SQ. FT.
OUTDOOR LIVING	941 SQ. FT.
3 CAR GARAGE	812 SQ. FT.
<b>GRAND TOTAL</b>	<b>6588 SQ. FT.</b>



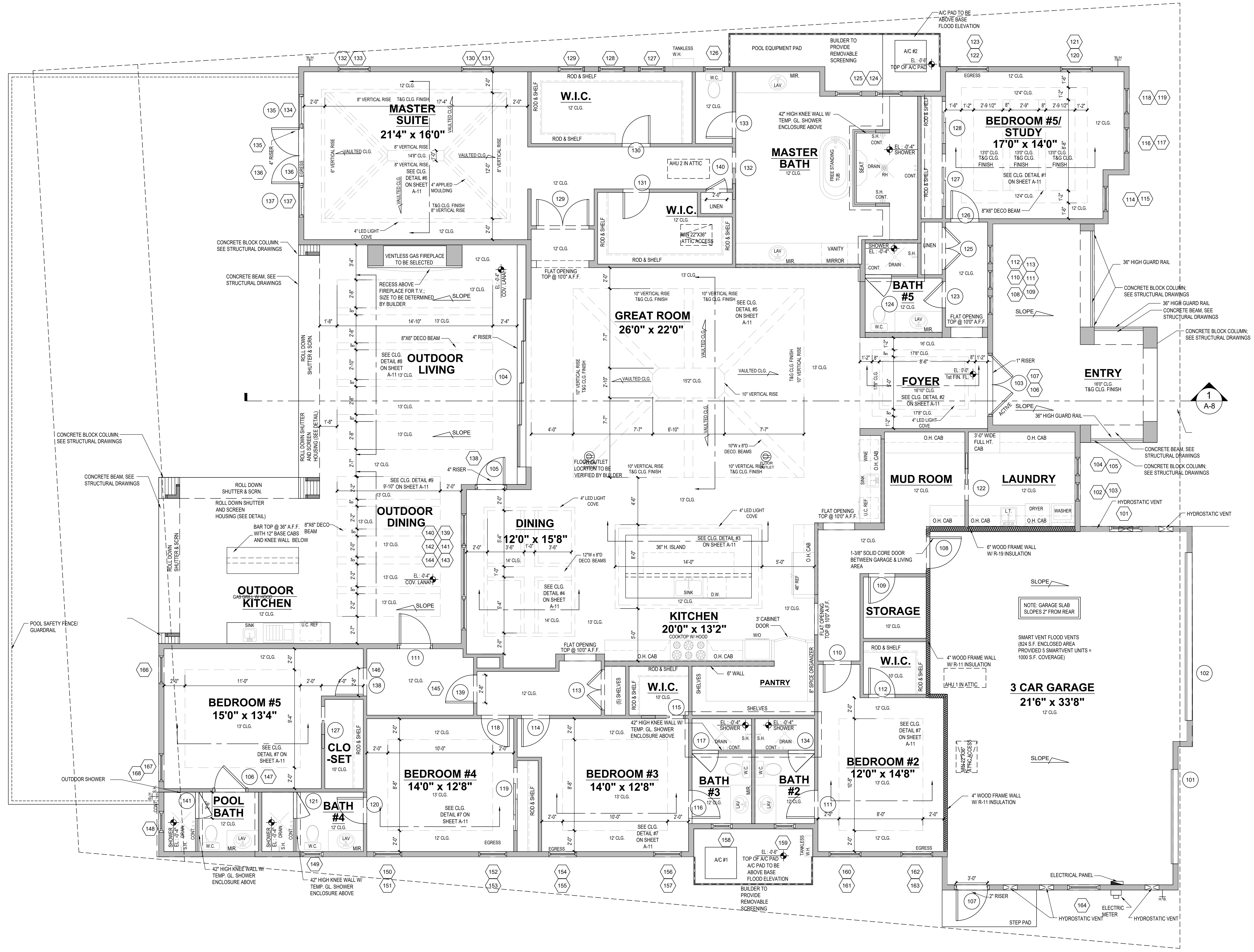
**JAMES DUONG RESIDENCE**

**NOTES PLAN**

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

**A - 3**

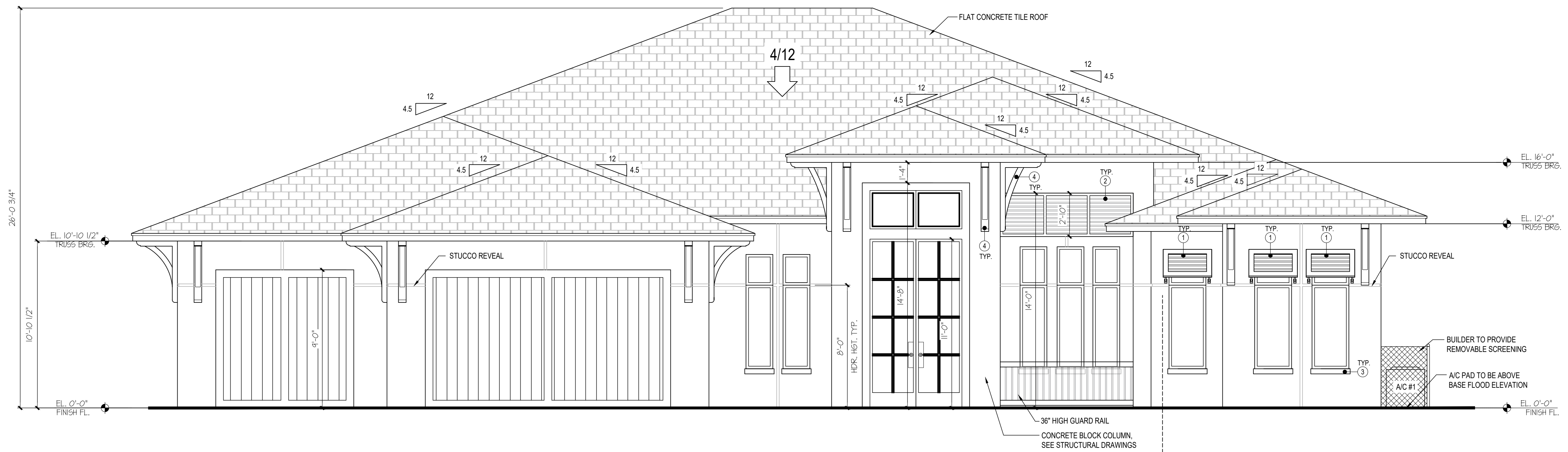
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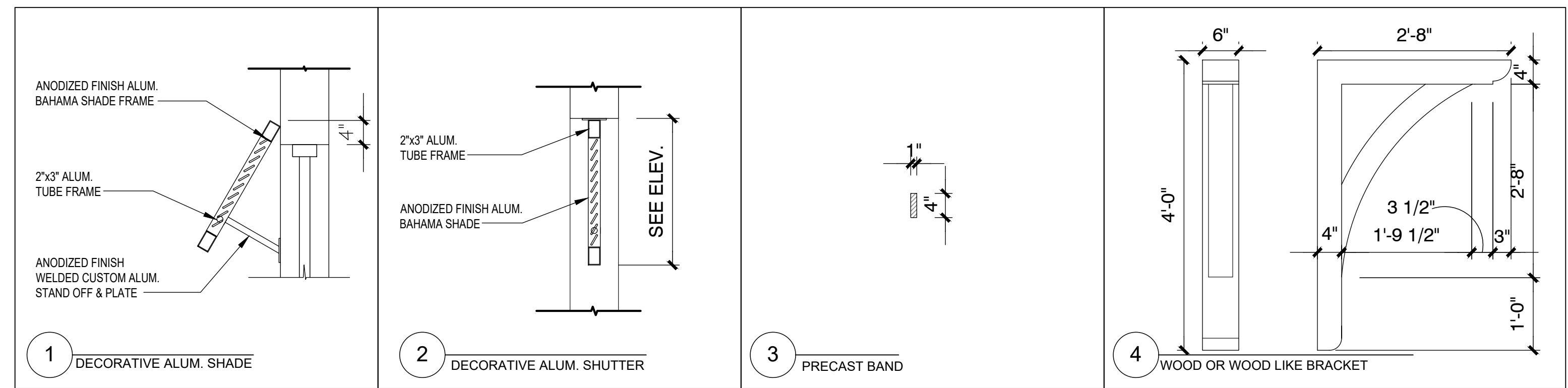
# JAMES DUONG RESIDENCE

**DIMENSION PLAN**  
 SCALE: 1/4" = 1'-0"

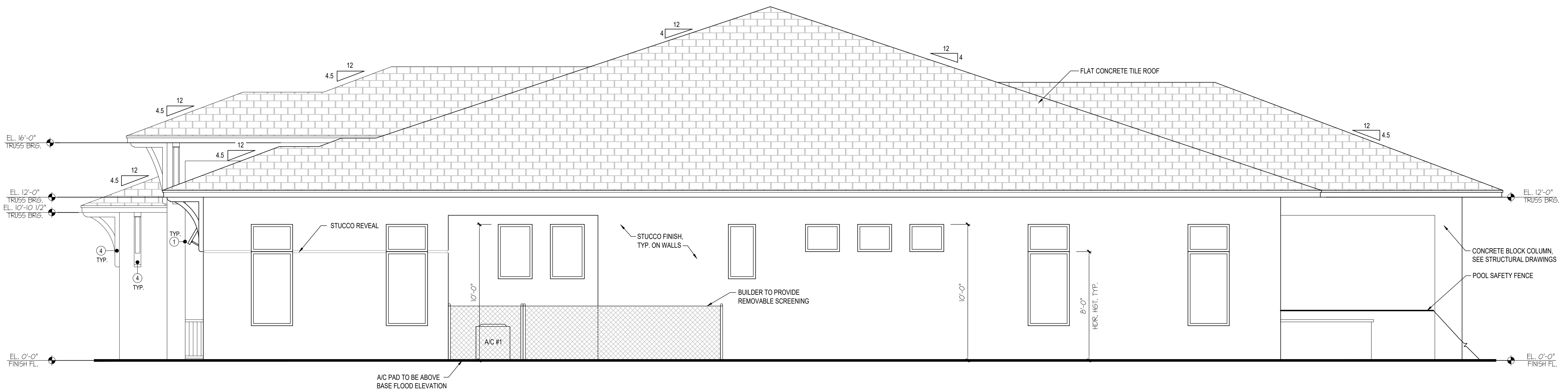
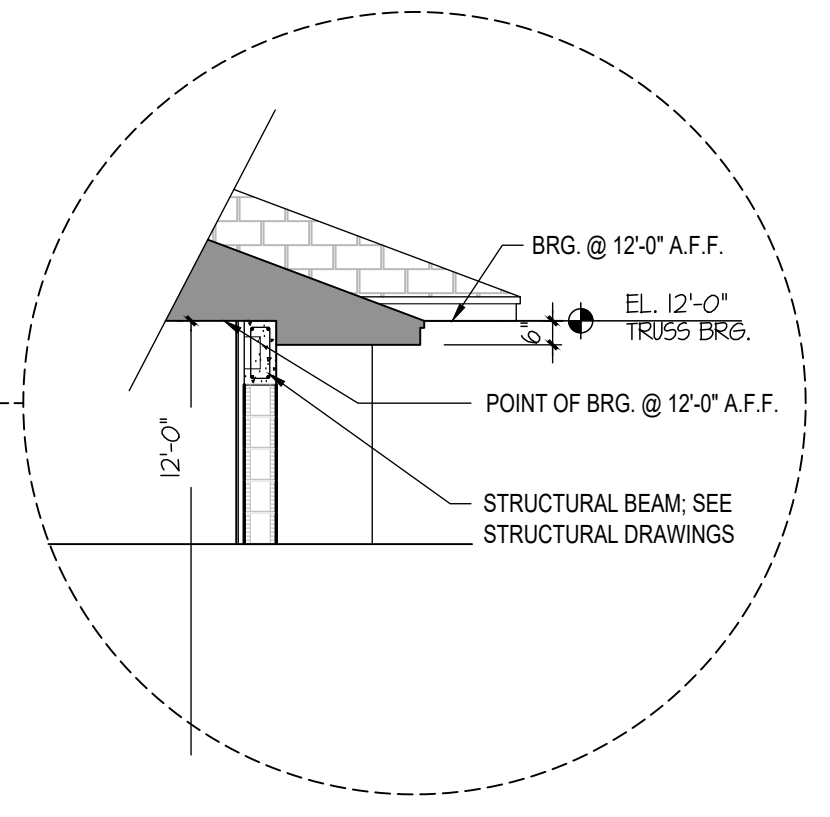
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**FRONT ELEVATION**  
 SCALE: 1/4" = 1'-0"



**DETAILS**



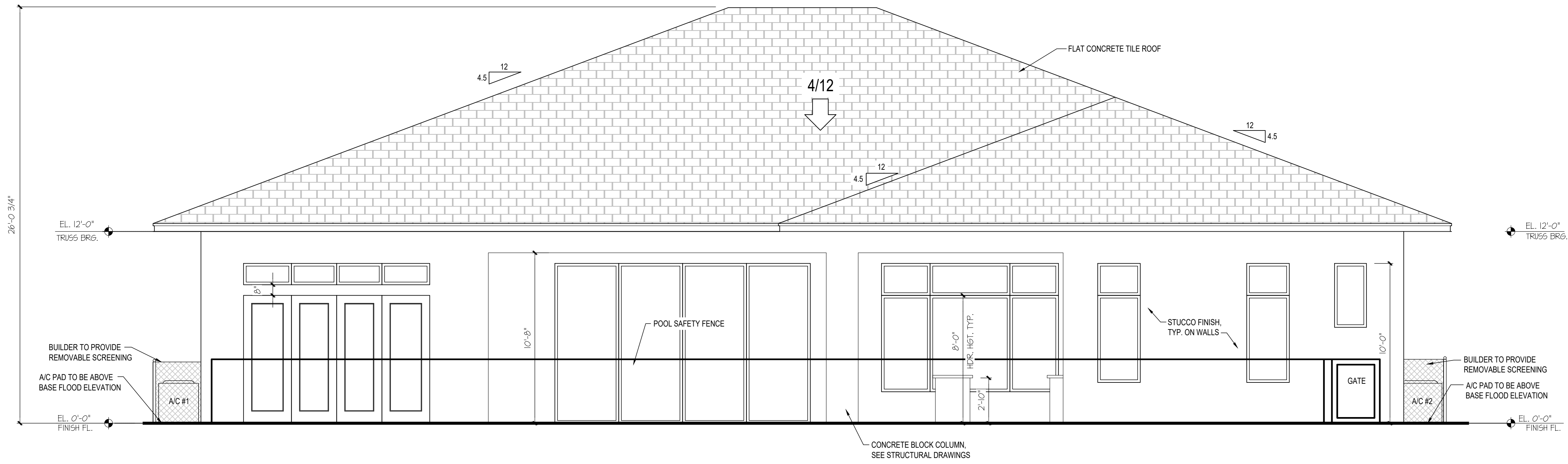
**RIGHT-SIDE ELEVATION**  
 SCALE: 1/4" = 1'-0"

# JAMES DUONG RESIDENCE

ELEVATION #01

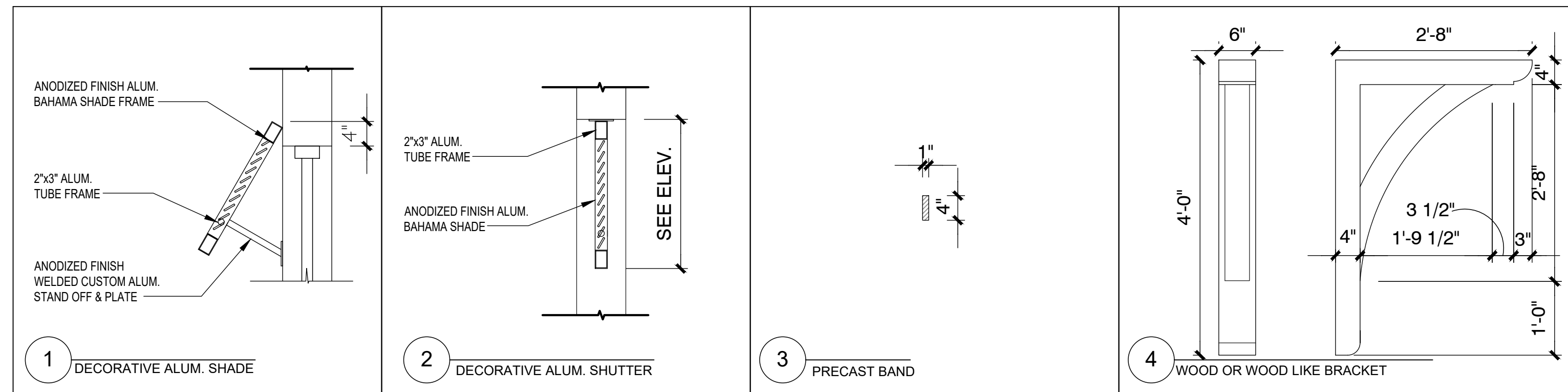
# A - 5

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**REAR ELEVATION**

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



**DETAILS**



**LEFT-SIDE ELEVATION**

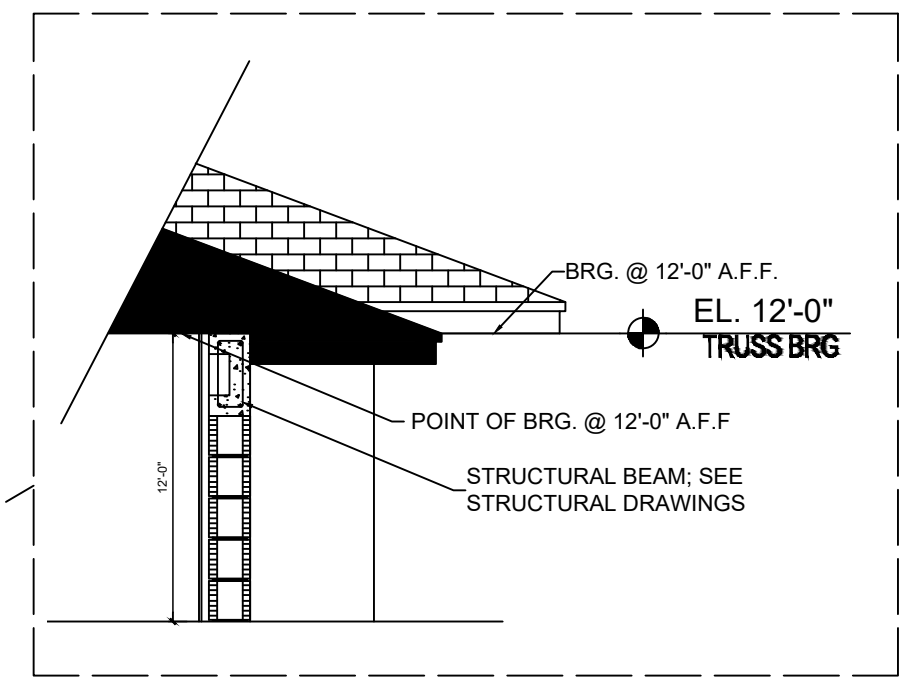
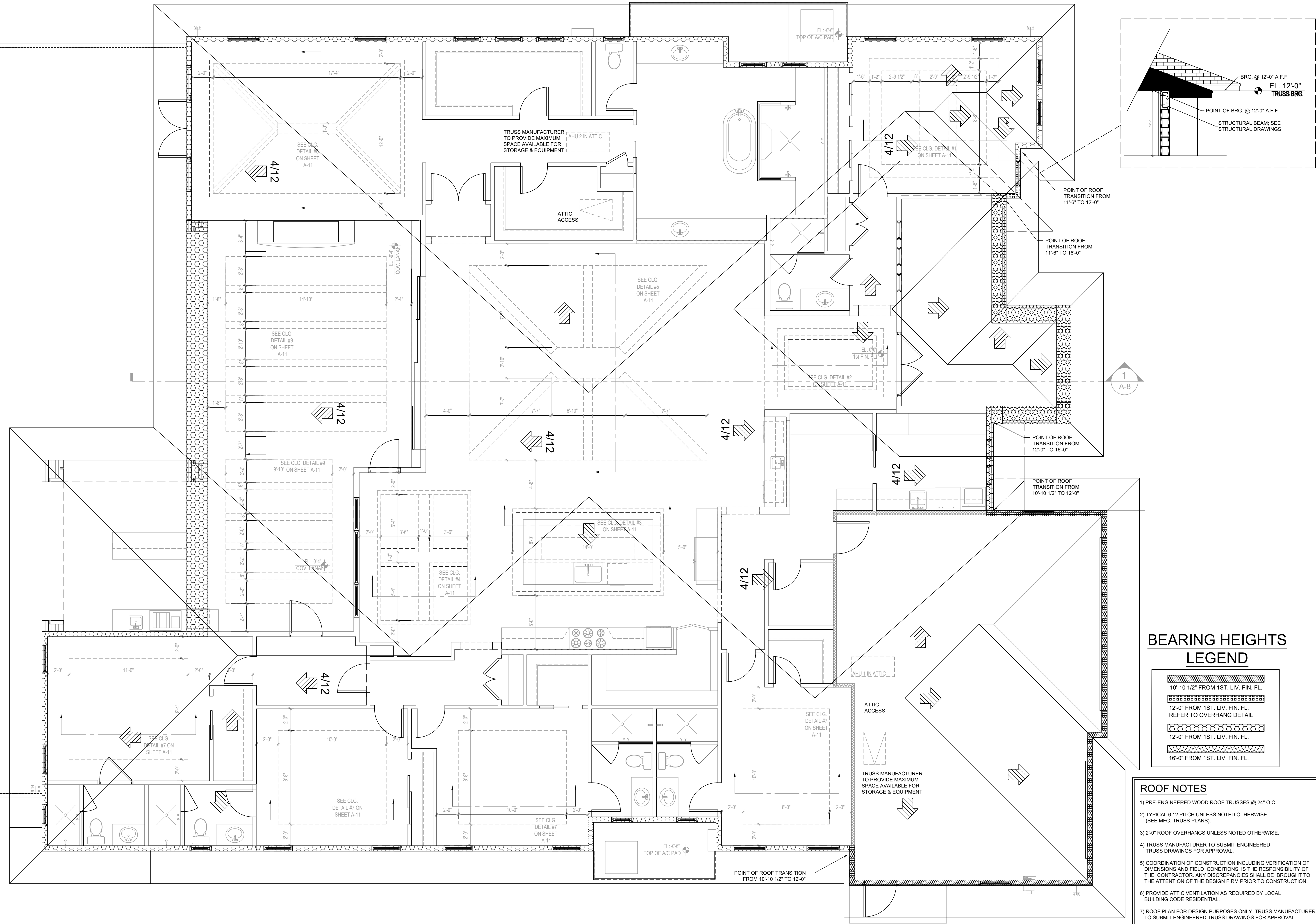
SCALE: 1/4" = 1'-0"

# JAMES DUONG RESIDENCE

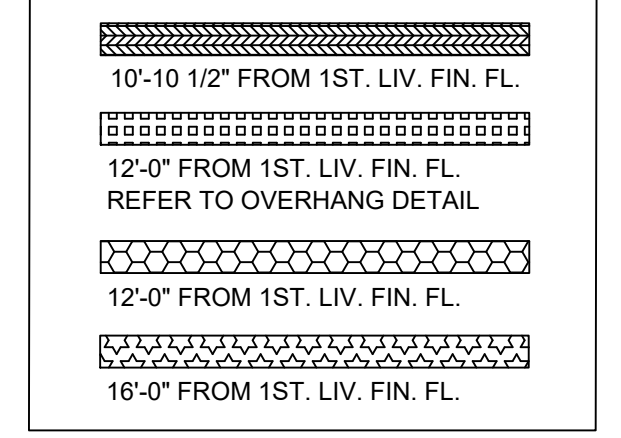
ELEVATION #02

# A - 6

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**BEARING HEIGHTS  
LEGEND**



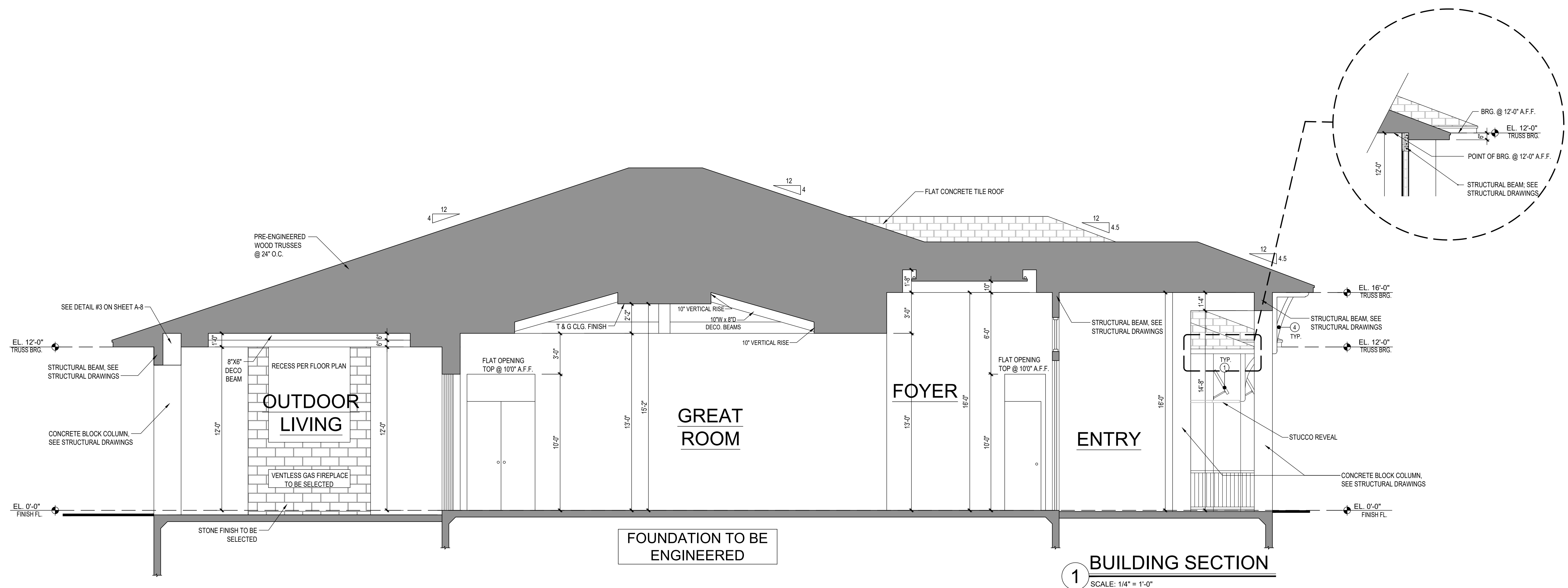
- ROOF NOTES**
- 1) PRE-ENGINEERED WOOD ROOF TRUSSES @ 24" O.C.
  - 2) TYPICAL 6:12 PITCH UNLESS NOTED OTHERWISE. (SEE MFG. TRUSS PLANS).
  - 3) 2'-0" ROOF OVERHANGS UNLESS NOTED OTHERWISE.
  - 4) TRUSS MANUFACTURER TO SUBMIT ENGINEERED TRUSS DRAWINGS FOR APPROVAL.
  - 5) COORDINATION OF CONSTRUCTION INCLUDING VERIFICATION OF DIMENSIONS AND FIELD CONDITIONS, IS THE RESPONSIBILITY OF THE CONTRACTOR. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN FIRM PRIOR TO CONSTRUCTION.
  - 6) PROVIDE ATTIC VENTILATION AS REQUIRED BY LOCAL BUILDING CODE RESIDENTIAL.
  - 7) ROOF PLAN FOR DESIGN PURPOSES ONLY. TRUSS MANUFACTURER TO SUBMIT ENGINEERED TRUSS DRAWINGS FOR APPROVAL.

**JAMES DUONG  
RESIDENCE**

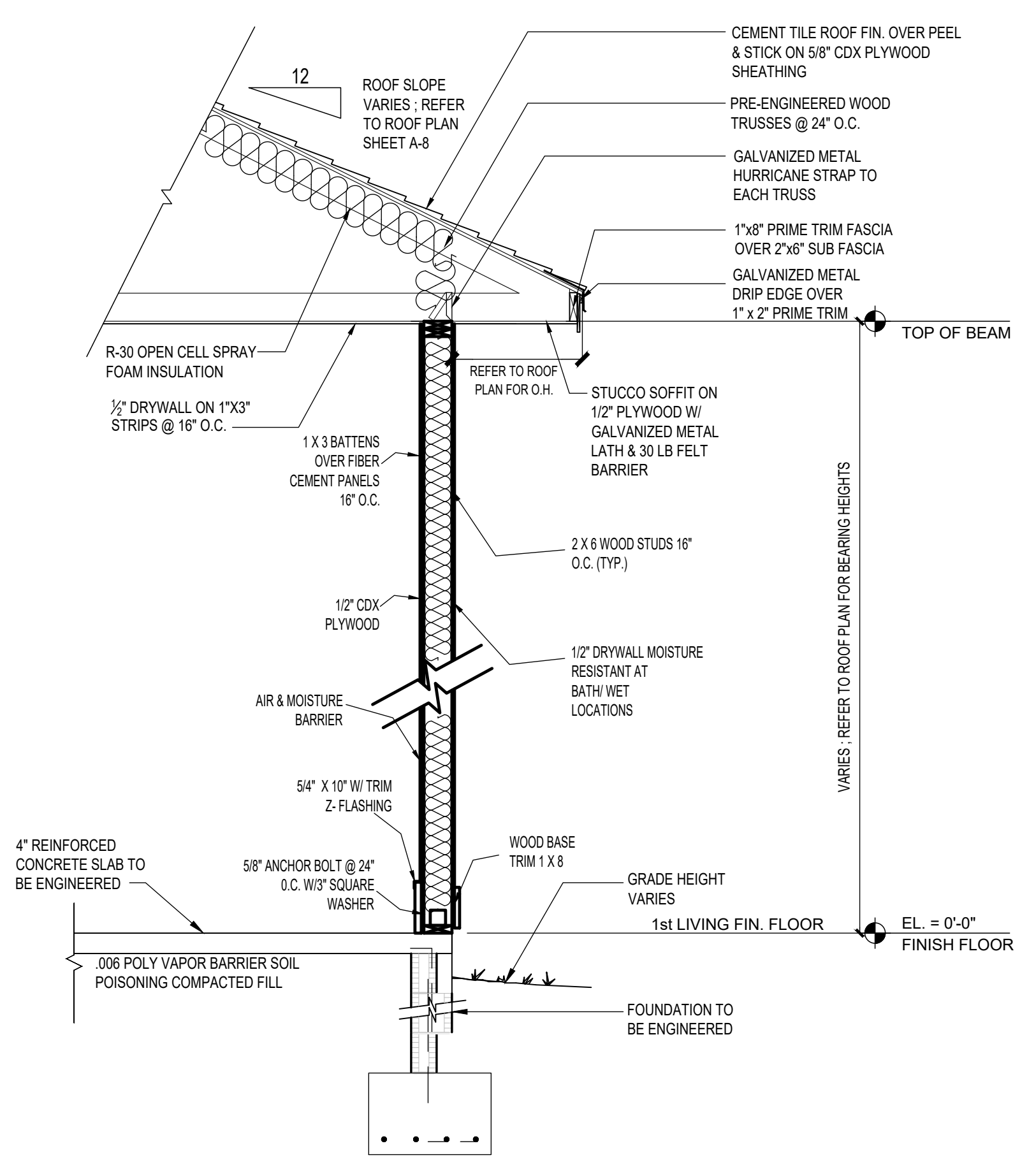
**ROOF PLAN**  
SCALE: 1/4" = 1'-0"

**A - 7**

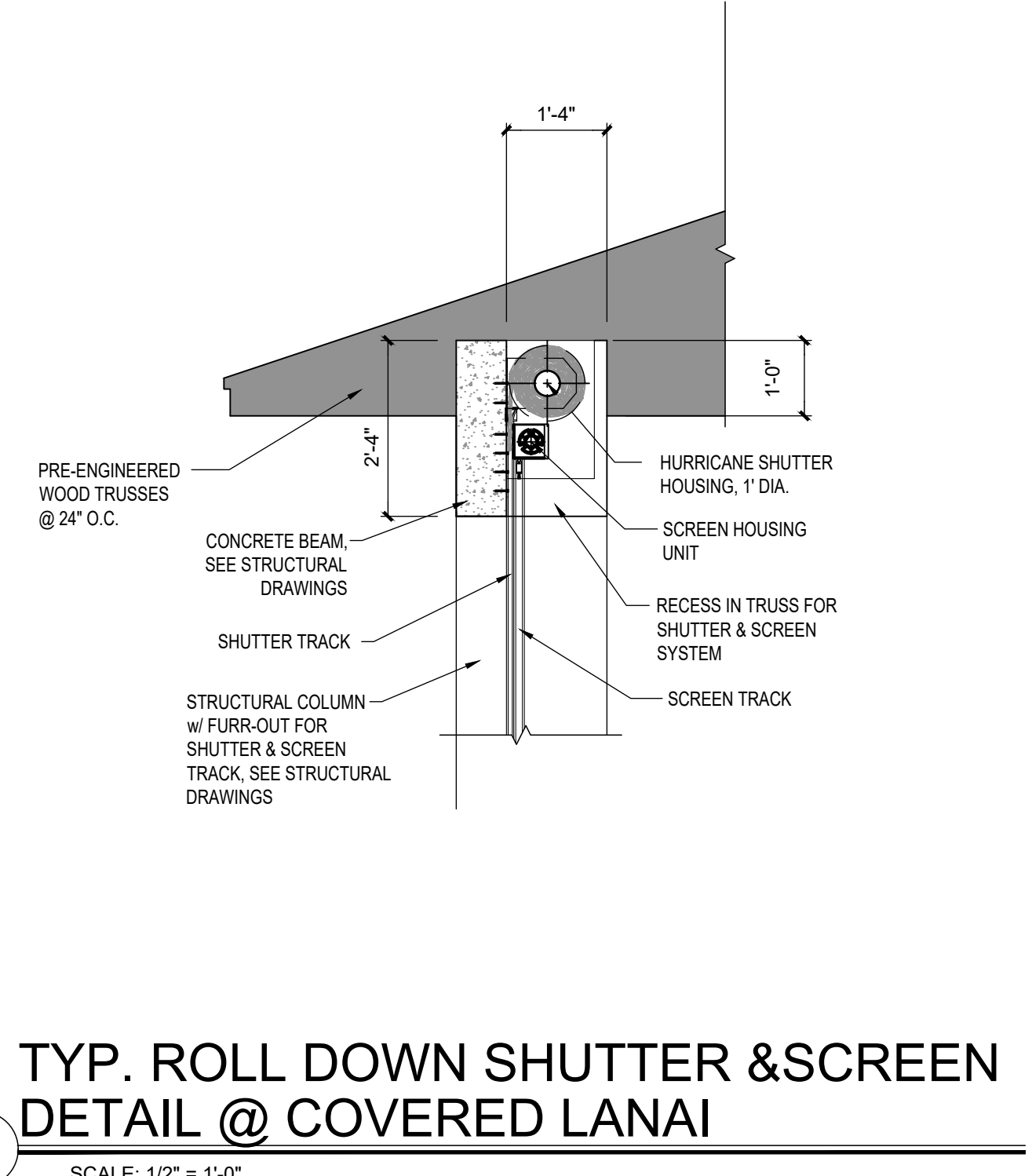
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**1 BUILDING SECTION**  
 SCALE: 1/4" = 1'-0"



**2 TYP. 1 STORY WALL SECTION**  
 SCALE: 1/2" = 1'-0"



**3 TYP. ROLL DOWN SHUTTER & SCREEN DETAIL @ COVERED LANAI**  
 SCALE: 1/2" = 1'-0"

# JAMES DUONG RESIDENCE

SECTION

# A - 8



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### FIRST FLOOR DOOR SCHEDULE

NO.	STYLE	SIZE		PROTECTION		MATERIAL	MANUFACTURER	REMARKS
		WIDTH	HEIGHT	SHUTTER	IMPACT			
101	OVERHEAD DOOR	9'-0"	9'-0"		YES	METAL	CLOPAY	
102	OVERHEAD DOOR	16'-0"	9'-0"		YES	METAL	CLOPAY	
103	SWING-DBL-EXT	PR 3'-0"	11'-0"		YES	STEEL	SUNCOST IRON DOORS	
104	SLIDER 4 PANEL	16'-0"	10'-0"		YES	ALUM		
105	SWING-EXT	2'-8"	8'-0"		YES	FIBERGLASS		
106	EXTERIOR FRENCH	3'-0"	8'-0"		YES	FIBERGLASS		
107	SWING-EXT	3'-0"	8'-0"		YES	FIBERGLASS		
108	SWING GARAGE	3'-0"	8'-0"			METAL		FIRE RATED W/ SELF CLOSING DEVICE
109	SWING	2'-6"	8'-0"			WOOD		
110	SWING	2'-8"	8'-0"			WOOD		
111	SWING	2'-8"	8'-0"			WOOD		
112	SWING	2'-6"	8'-0"			WOOD		
113	SWING-DBL	PR 1'-11"	8'-0"			WOOD		
114	SWING	2'-8"	8'-0"			WOOD		
115	POCKET	2'-8"	8'-0"			WOOD		
116	SWING	2'-8"	8'-0"			WOOD		
117	SHOWER SWING	2'-6"	7'-0"			GLASS		TEMP. GLASS
118	SWING	2'-8"	8'-0"			WOOD		
119	BYPASS-DBL	PR 3'-0"	8'-0"			WOOD		
120	SWING	2'-6"	8'-0"			WOOD		
121	SHOWER SWING	2'-6"	7'-0"			GLASS		TEMP. GLASS
122	POCKET	3'-0"	8'-0"			WOOD		
123	SWING	2'-6"	8'-0"			WOOD		
124	SHOWER SWING	2'-6"	8'-0"			GLASS		TEMP. GLASS
125	SWING-DBL	PR 2'-0"	8'-0"			WOOD		
126	SWING	2'-8"	8'-0"			WOOD		
127	BYPASS-DBL	PR 2'-6"	8'-0"			WOOD		
128	BYPASS-DBL	PR 2'-0"	8'-0"			WOOD		
129	SWING-DBL	PR 2'-6"	8'-0"			WOOD		
130	SWING	2'-8"	8'-0"			WOOD		
131	SWING	2'-6"	8'-0"			WOOD		
132	POCKET	3'-0"	8'-0"			WOOD		
133	SWING	2'-6"	8'-0"			WOOD		
134	SHOWER SWING	2'-6"	7'-0"			GLASS		TEMP. GLASS
135	SWING-EXT	2'-8"	8'-0"		YES	FIBERGLASS		FIXED PANEL, FRENCH DOOR
136	SWING-DBL-EXT	PR 2'-8"	8'-0"		YES	STEEL	SUNCOST IRON DOORS	
137	SWING-EXT	2'-8"	8'-0"		YES	FIBERGLASS		FIXED PANEL, FRENCH DOOR
138	SWING-EXT	2'-8"	8'-0"		YES	FIBERGLASS		
139	SWING-EXT	3'-0"	8'-0"		YES	FIBERGLASS		
140	SWING	2'-0"	8'-0"			WOOD		
141	SHOWER SWING	2'-6"	7'-0"			GLASS		

### FIRST FLOOR WINDOW SCHEDULE

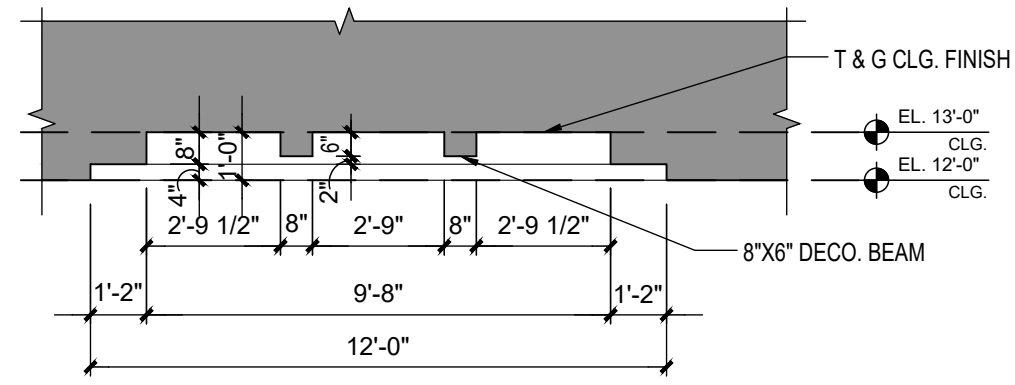
NO.	STYLE	SIZE		PROTECTION		MATERIAL	MANUFACTURER	REMARKS
		WIDTH	HEIGHT	SHUTTER	IMPACT			
101	FIXED GLASS	3'-1"	5'-3"		YES	WOOD	ANDERSEN	TOP @ 6'4" A.F.F.
102	CASEMENT	1'-9"	5'-5 1/2"		YES	WOOD	ANDERSEN	TOP @ 8'-0" A.F.F.
103	FIXED GLASS	1'-9"	2'-0"		YES	WOOD	ANDERSEN	TRANSOM
104	CASEMENT	1'-9"	5'-5 1/2"		YES	WOOD	ANDERSEN	TOP @ 8'-0" A.F.F.
105	FIXED GLASS	1'-9"	2'-0"		YES	WOOD	ANDERSEN	TRANSOM
106	FIXED GLASS	3'-0"	2'-6"		YES	WOOD	ANDERSEN	TRANSOM ABOVE ENTRY DOOR
107	FIXED GLASS	3'-0"	2'-6"		YES	WOOD	ANDERSEN	TRANSOM ABOVE ENTRY DOOR
108	CASEMENT	1'-9"	5'-5 1/2"		YES	WOOD	ANDERSEN	TOP @ 8'-0" A.F.F.
109	FIXED GLASS	1'-9"	2'-6"		YES	WOOD	ANDERSEN	TRANSOM
110	CASEMENT	1'-9"	5'-5 1/2"		YES	WOOD	ANDERSEN	TOP @ 8'-0" A.F.F.
111	FIXED GLASS	1'-9"	2'-6"		YES	WOOD	ANDERSEN	TRANSOM
112	CASEMENT	1'-9"	5'-5 1/2"		YES	WOOD	ANDERSEN	TOP @ 8'-0" A.F.F.
113	FIXED GLASS	1'-9"	2'-6"		YES	WOOD	ANDERSEN	TRANSOM
114	CASEMENT	2'-5"	5'-5 1/2"		YES	WOOD	ANDERSEN	TOP @ 8' A.F.F.
115	FIXED GLASS	2'-5"	2'-0"		YES	WOOD	ANDERSEN	TRANSOM
116	CASEMENT	2'-5"	5'-5 1/2"		YES	WOOD	ANDERSEN	TOP @ 8' A.F.F.
117	FIXED GLASS	2'-5"	2'-0"		YES	WOOD	ANDERSEN	TRANSOM
118	CASEMENT	2'-5"	5'-5 1/2"		YES	WOOD	ANDERSEN	TOP @ 8' A.F.F.
119	FIXED GLASS	2'-5"	2'-0"		YES	WOOD	ANDERSEN	TRANSOM
120	CASEMENT	3'-0 1/2"	5'-5 1/2"		YES	WOOD	ANDERSEN	TOP @ 8' A.F.F.
121	FIXED GLASS	3'-0 1/2"	2'-0"		YES	WOOD	ANDERSEN	TRANSOM
122	CASEMENT	3'-0 1/2"	5'-5 1/2"		YES	WOOD	ANDERSEN	TOP @ 8' A.F.F. ; EGRESS
123	FIXED GLASS	3'-0 1/2"	2'-0"		YES	WOOD	ANDERSEN	TRANSOM
124	FIXED GLASS	2'-6"	4'-0"		YES	WOOD	ANDERSEN	TOP @ 10'-0" A.F.F.
125	FIXED GLASS	2'-6"	4'-0"		YES	WOOD	ANDERSEN	TOP @ 10'-0" A.F.F.
126	FIXED GLASS	2'-0"	4'-0"		YES	WOOD	ANDERSEN	TOP @ 10' A.F.F.
127	FIXED GLASS	2'-6"	2'-0"		YES	WOOD	ANDERSEN	TOP @ 10' A.F.F.
128	FIXED GLASS	2'-6"	2'-0"		YES	WOOD	ANDERSEN	TOP @ 10' A.F.F.
129	FIXED GLASS	2'-6"	2'-0"		YES	WOOD	ANDERSEN	TOP @ 10' A.F.F.
130	CASEMENT	3'-0 1/2"	5'-5 1/2"		YES	WOOD	ANDERSEN	TOP @ 8' A.F.F.
131	FIXED GLASS	3'-0 1/2"	2'-0"		YES	WOOD	ANDERSEN	TRANSOM
132	CASEMENT	3'-0 1/2"	5'-5 1/2"		YES	WOOD	ANDERSEN	TOP @ 8' A.F.F.
133	FIXED GLASS	3'-0 1/2"	2'-0"		YES	WOOD	ANDERSEN	TRANSOM
134	FIXED GLASS	2'-8"	1'-4"		YES	WOOD	ANDERSEN	TRANSOM
135	FIXED GLASS	2'-8"	1'-4"		YES	WOOD	ANDERSEN	TRANSOM
136	FIXED GLASS	2'-8"	1'-4"		YES	WOOD	ANDERSEN	TRANSOM
137	FIXED GLASS	2'-8"	1'-4"		YES	WOOD	ANDERSEN	TRANSOM
138	FIXED GLASS	2'-8"	1'-4"		YES	WOOD	ANDERSEN	TRANSOM
139	CASEMENT	3'-0 1/2"	6'-0 1/2"		YES	WOOD	ANDERSEN	TOP @ 8' A.F.F.
140	FIXED GLASS	3'-0 1/2"	2'-0"		YES	WOOD	ANDERSEN	TRANSOM
141	FIXED GLASS	5'-0"	6'-0 1/2"		YES	WOOD	ANDERSEN	TOP @ 8' A.F.F.
142	FIXED GLASS	5'-0"	2'-0"		YES	WOOD	ANDERSEN	TRANSOM
143	CASEMENT	3'-0 1/2"	6'-0 1/2"		YES	WOOD	ANDERSEN	TOP @ 8' A.F.F.
144	FIXED GLASS	3'-0 1/2"	2'-0"		YES	WOOD	ANDERSEN	TRANSOM
145	FIXED GLASS	2'-8"	1'-4"		YES	WOOD	ANDERSEN	TRANSOM
146	FIXED GLASS	3'-0"	1'-4"		YES	WOOD	ANDERSEN	TRANSOM
147	FIXED GLASS	3'-0"	1'-4"		YES	WOOD	ANDERSEN	TRANSOM ABOVE DOOR
148	FIXED GLASS	2'-0"	4'-0"		YES	WOOD	ANDERSEN	TOP @ 10' A.F.F.
149	FIXED GLASS	2'-0"	4'-0"		YES	WOOD	ANDERSEN	TOP @ 10' A.F.F.
150	CASEMENT	2'-8"	5'-5 1/2"		YES	WOOD	ANDERSEN	TOP @ 8' A.F.F.
151	FIXED GLASS	2'-8"	2'-0"		YES	WOOD	ANDERSEN	TRANSOM
152	CASEMENT	2'-8"	5'-5 1/2"		YES	WOOD	ANDERSEN	TOP @ 8' A.F.F. ; EGRESS
153	FIXED GLASS	2'-8"	2'-0"		YES	WOOD	ANDERSEN	TRANSOM
154	CASEMENT	2'-8"	5'-3"		YES	WOOD	ANDERSEN	TOP @ 8' A.F.F. ; EGRESS
155	FIXED GLASS	2'-8"	2'-0"		YES	WOOD	ANDERSEN	TRANSOM
156	CASEMENT	2'-8"	5'-3"		YES	WOOD	ANDERSEN	TOP @ 8' A.F.F.
157	FIXED GLASS	2'-8"	2'-0"		YES	WOOD	ANDERSEN	TRANSOM
158	FIXED GLASS	2'-0"	4'-0"		YES	WOOD	ANDERSEN	TOP @ 10' A.F.F.
159	FIXED GLASS	2'-0"	4'-0"		YES	WOOD	ANDERSEN	TOP @ 10' A.F.F.
160	CASEMENT	3'-0 1/2"	5'-5 1/2"		YES	WOOD	ANDERSEN	TOP @ 8' A.F.F. ; EGRESS
161	FIXED GLASS	3'-0 1/2"	2'-0"		YES	WOOD	ANDERSEN	TRANSOM
162	CASEMENT	3'-0 1/2"	5'-5 1/2"		YES	WOOD	ANDERSEN	TOP @ 8' A.F.F. ; EGRESS
163	FIXED GLASS	3'-0 1/2"	2'-0"		YES	WOOD	ANDERSEN	TRANSOM
164	FIXED GLASS	3'-1"	5'-3"		YES	WOOD	ANDERSEN	TOP @ 6'4" A.F.F.
165	CASEMENT	2'-8"	5'-5 1/2"		YES	WOOD	ANDERSEN	TOP @ 8' A.F.F.
166	FIXED GLASS	2'-8"	2'-0"		YES	WOOD	ANDERSEN	TRANSOM
167	CASEMENT	2'-8"	5'-5 1/2"		YES	WOOD	ANDERSEN	TOP @ 8' A.F.F.
168	FIXED GLASS	2'-8"	2'-0"		YES	WOOD	ANDERSEN	TRANSOM

# JAMES DUONG RESIDENCE

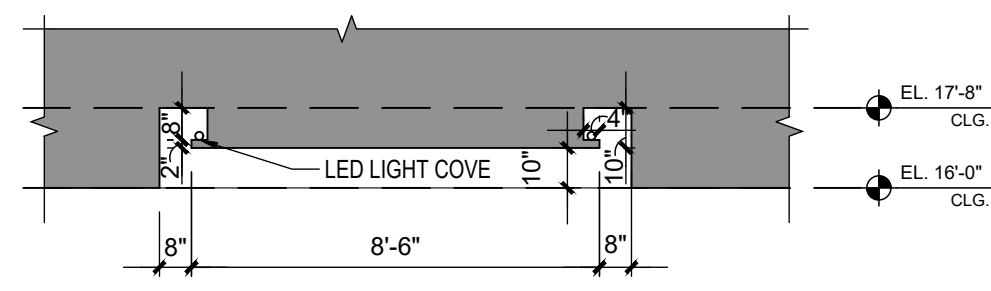
DOOR & WINDOW SCHEDULE

A - 9

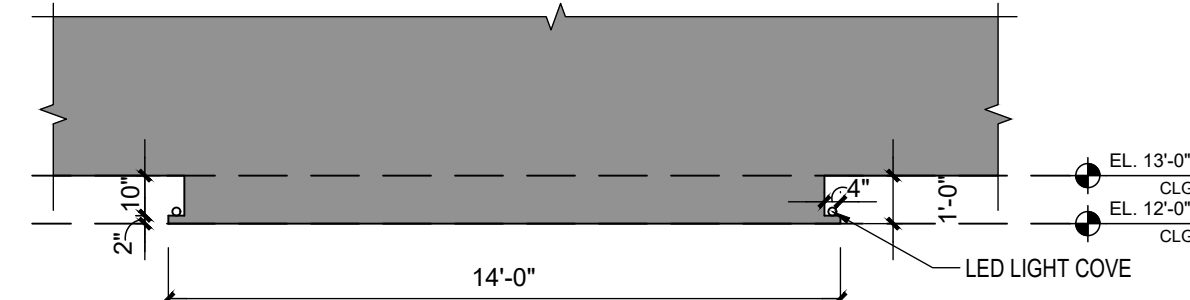
1. PURCHASER IS RESPONSIBLE FOR COMPLIANCE WITH ALL LOCAL BUILDING CODES AND ORDINANCES.
2. ORIGINAL DESIGNER ARCHITECT MAY NOT BE HELD RESPONSIBLE FOR SITE CONDITIONS, OR FOR THE USE OF THESE DRAWINGS DURING CONSTRUCTION.
3. PRIOR TO PROCEEDING WITH CONSTRUCTION, BUILDER IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS, AND ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF ORIGINAL DESIGNER.
4. PURCHASER IS RESPONSIBLE FOR HAVING PLANS REVIEWED BY A QUALIFIED BUILDING CONTRACTOR.
5. VERIFY ALL STRUCTURAL ELEMENTS WITH LOCAL ENGINEER AND BUILDING OFFICIAL. STRUCTURAL SIZES FOR FRAMING, FOUNDATION, RETAINING WALLS, ETC. ARE TO SERVE AS A GUIDE ONLY.



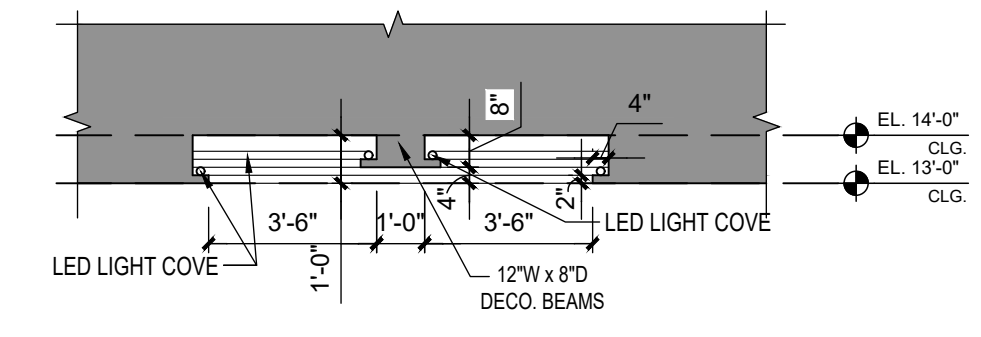
**1** CEILING DETAIL AT STUDY  
 SCALE: 1/4" = 1'-0"



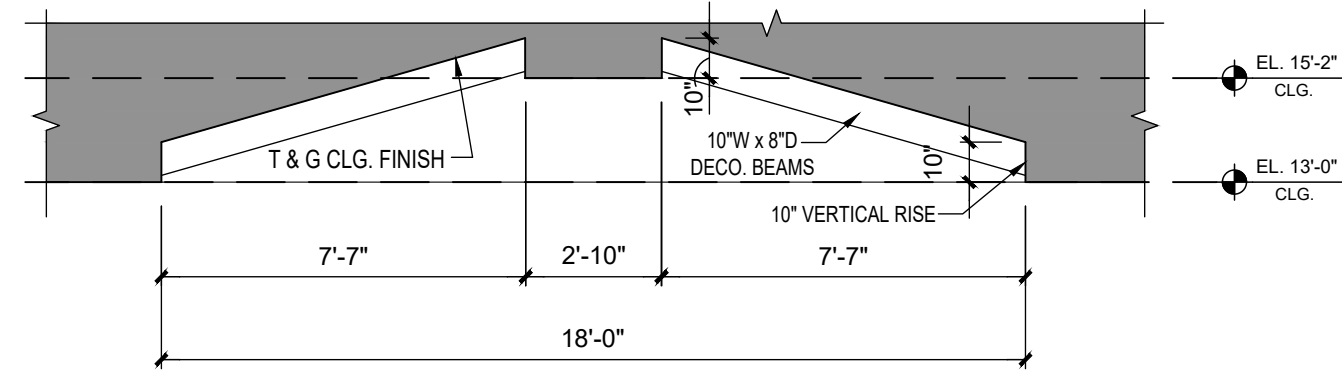
**2** CEILING DETAIL AT FOYER  
 SCALE: 1/4" = 1'-0"



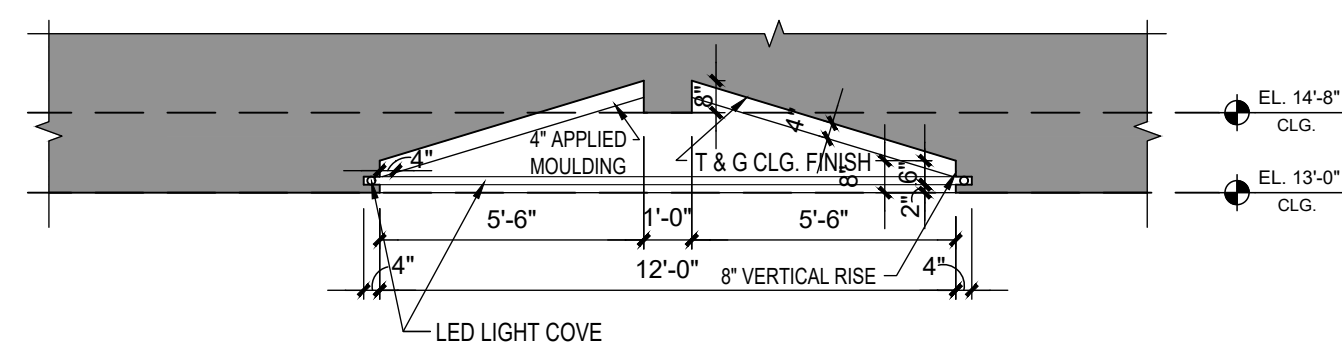
**3** CEILING DETAIL AT KITCHEN  
 SCALE: 1/4" = 1'-0"



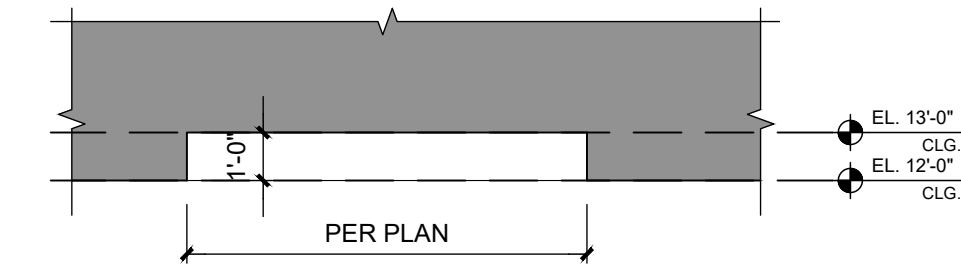
**4** CEILING DETAIL AT DINING  
 SCALE: 1/4" = 1'-0"



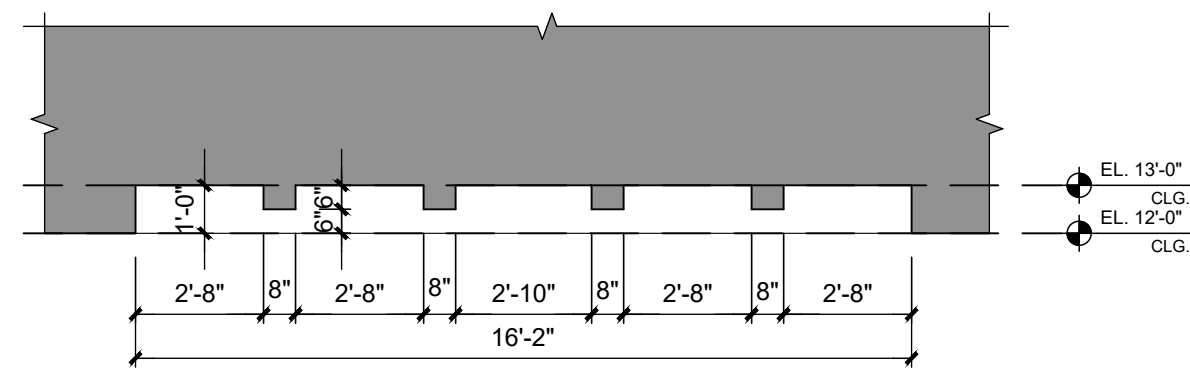
**5** CEILING DETAIL AT GREAT ROOM  
 SCALE: 1/4" = 1'-0"



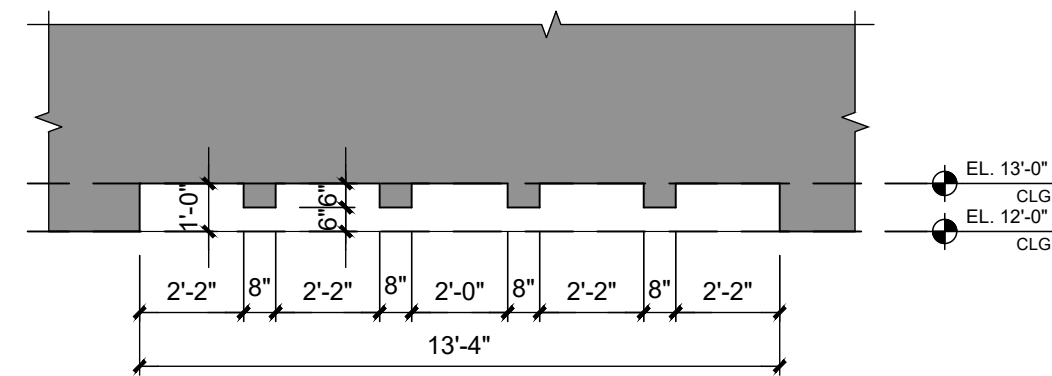
**6** CEILING DETAIL AT MASTER SUITE  
 SCALE: 1/4" = 1'-0"



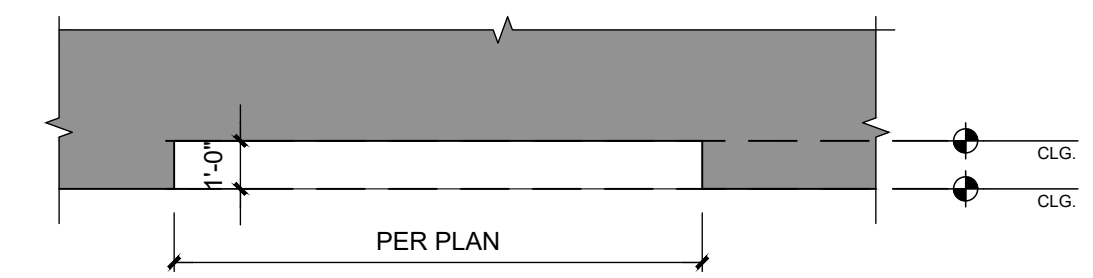
**7** CEILING DETAIL AT BEDROOM #2, 3 AND 4  
 SCALE: 1/4" = 1'-0"



**8** CEILING DETAIL AT COVERED LANAI  
 SCALE: 1/4" = 1'-0"



**9** CEILING DETAIL AT OUTDOOR DINING  
 SCALE: 1/4" = 1'-0"



**10** CEILING DETAIL AT BEDROOM #5  
 SCALE: 1/4" = 1'-0"

# JAMES DUJONG RESIDENCE

CEILING DETAILS

**ELECTRICAL NOTES**

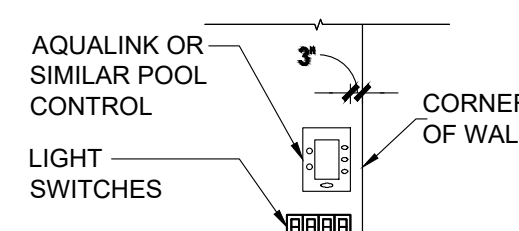
NOTE:  
 ALL ELECTRICAL DEVICES AND FIXTURES IN ALL LIVING QUARTERS TO BE PROTECTED WITH A.F.I. BREAKER

1. PREWIRE FOR SECURITY SYSTEM AND INTERCOM SYSTEM.
2. INSTALL RG-6 COAXIAL CABLE AND CAT-6 TWISTED PAIR WIRE (SEE BUILDER FOR DETAILS)
3. SEE SMOKE DETECTOR AND POOL ALARM NOTES BELOW.
4. ALL ELECTRICAL SHALL BE IN ACCORDANCE TO MEET OR EXCEED -NEC 2017-

SMOKE DETECTOR'S POWERED BY HOUSE ELECTRIC W/ BATTERY BACKUP & INTERCONNECTED. INSTALLED IN EACH SLEEPING ROOM & IN HALL OR AREA IMMEDIATELY OUTSIDE EACH ROOM & AT HIGHEST POINT OF EACH STORY OF RESIDENCE.

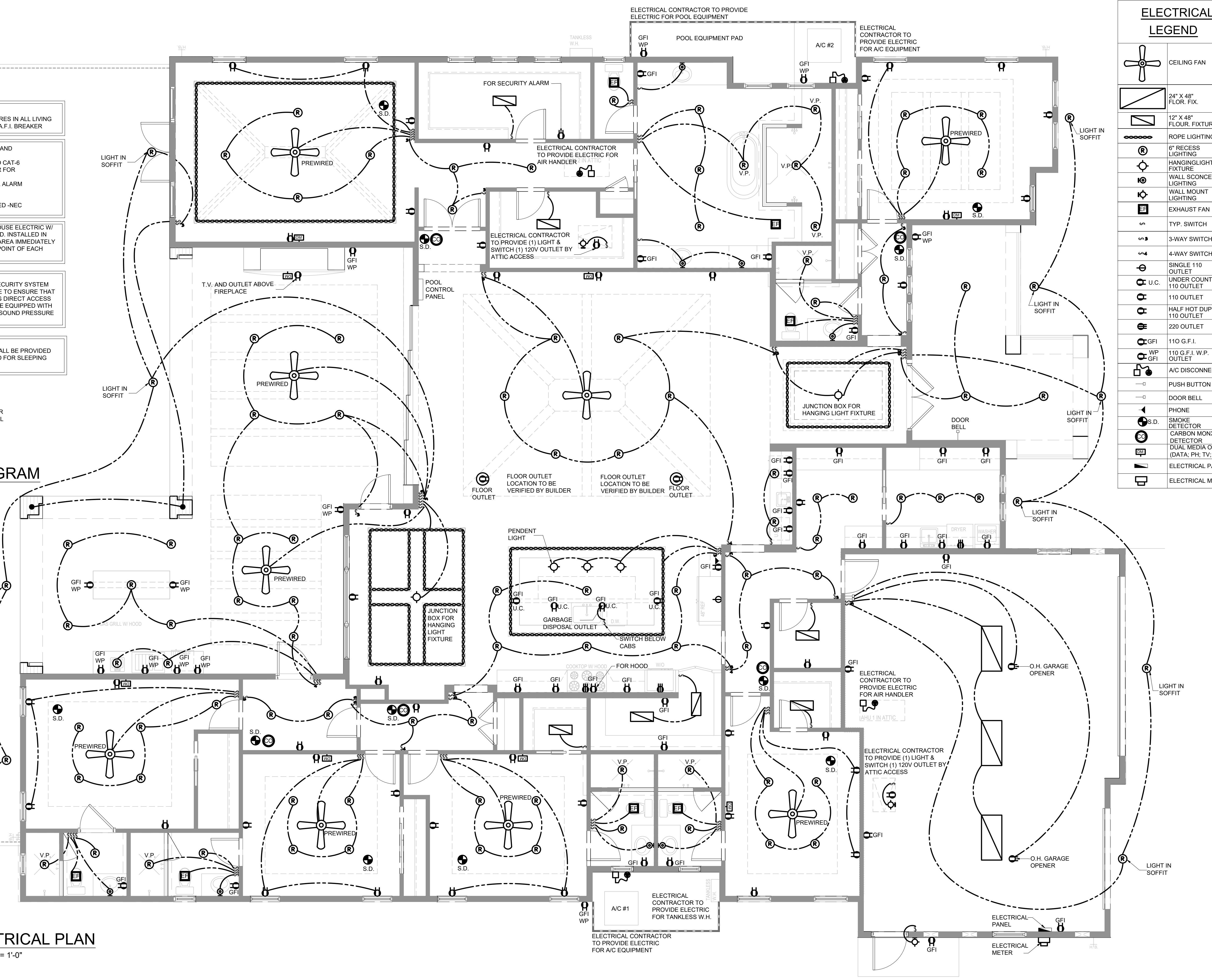
NOTE:  
 ELECTRICAL CONTRACTOR AND OR SECURITY SYSTEM CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL DOORS AND WINDOWS PROVIDING DIRECT ACCESS FROM THE HOME TO THE POOL WILL BE EQUIPPED WITH AN EXIT ALARM THAT HAS A MINIMUM SOUND PRESSURE RATING OF 85 DECIBELS AT 10 FEET.

NOTE:  
 CARBON MONOXIDE PROTECTION SHALL BE PROVIDED WITHIN 10 FEET OF EACH ROOM USED FOR SLEEPING PURPOSES.



**ELECTRICAL DIAGRAM**

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



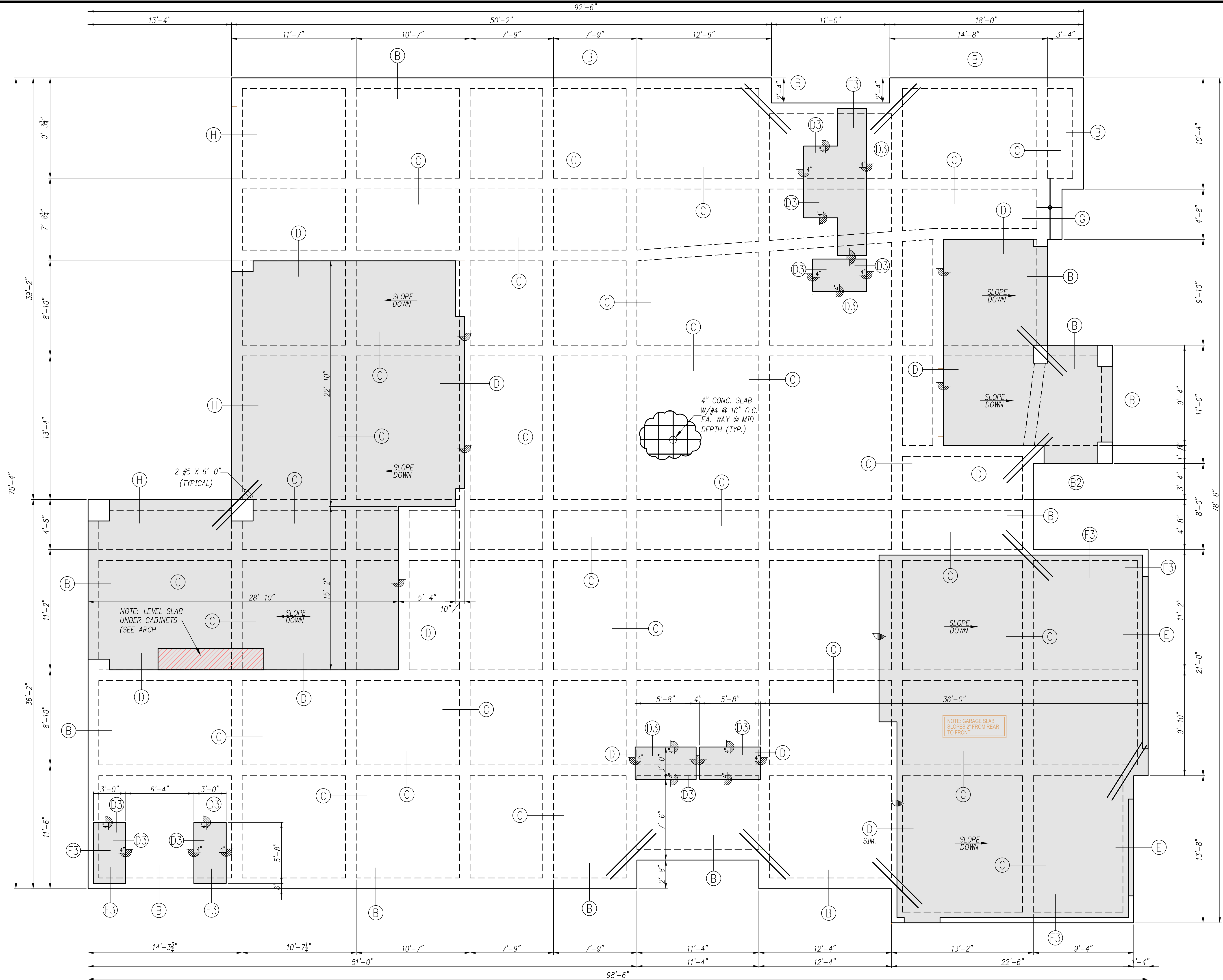
**ELECTRICAL LEGEND**

	CEILING FAN
	24" X 48" FLOOR FIX.
	12" X 48" FLOOR FIXTURE
	ROPE LIGHTING
	6" RECESS LIGHTING
	HANGING LIGHT FIXTURE
	WALL SCONCE LIGHTING
	WALL MOUNT LIGHTING
	EXHAUST FAN
	TYP. SWITCH
	3-WAY SWITCH
	4-WAY SWITCH
	SINGLE 110 OUTLET
	U.C. UNDER COUNTER 110 OUTLET
	110 OUTLET
	HALF HOT DUPLEX 110 OUTLET
	220 OUTLET
	110 G.F.I.
	110 G.F.I. W.P. OUTLET
	A/C DISCONNECT
	PUSH BUTTON
	DOOR BELL
	PHONE
	SMOKE DETECTOR
	CARBON MONOXIDE DETECTOR
	DUAL MEDIA OUTLET (DATA; PH; TV; ELEC.)
	ELECTRICAL PANEL
	ELECTRICAL METER

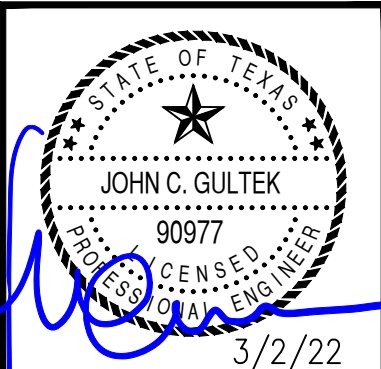
**ELECTRICAL PLAN**

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

**JAMES DUJONG RESIDENCE**



**FOUNDATION PLAN**  
 scale: 1/4" = 1'-0"  
 SEE SHEET S-1A FOR FOUNDATION NOTES & SCHEDULES, AND S-2 FOR FOUNDATION DETAILS.



**DTS**  
 ENGINEERING, INC.  
 7 Grogan's Park Dr. Suite 11, The Woodlands, TX 77380  
 Ph: (281) 298-8877 Fax: (281) 298-9856 Registration #F-7539

**CUSTOM HOME**

**PROJECT INFO.**

LOT.	14
BLK.	1
SECT.	6

27900 E. STALLION LN., WALLER, TX 77484

PLAN NO.

**FOUNDATION PLAN**

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

**REVISIONS**

DATE	REASON

CHECKED BY:	JG/BW
DRAWN BY:	YP
DATE:	3/2/22
JOB #	22104

S-1

BEARING WALL ANCHOR SCHEDULE					
ATTACHMENT ANCHOR TYPE	EMBEDMENT	LOCATION AND SPACING			NOTES
		EXTERIOR WALLS	INTERIOR WALLS	NON LOAD BEARING WALLS	
1/2" DIAM. ANCHOR BOLTS	7"	48"O.C.	72"O.C.	N/A	2 TO 4
1/2" DIAM. EXPANSION ANCHORS	2 1/4"	N/A	12"O.C.	N/A	1 & 3
0.177" DIA. POWER ACTUATED FASTENERS	1 1/2"	N/A	24"O.C.	48"O.C.	3
0.099" DIA. POWER ACTUATED FASTENERS	1"	N/A	12"O.C.	12"O.C.	3

- NOTE:**
- EXPANSION ANCHORS SHALL NOT BE ALLOWED WITHIN 10" OF SLAB EDGE.
  - REFER TO SHEAR WALL PLAN AND DETAILS FOR SHEAR WALL ANCHORS.
  - REF: PLANS FOR ADDITIONAL NOTES.
  - ALL HARDWARE IN CONTACT WITH ACQ TREATED LUMBER CLASS G185 MUST BE SIMPSON 2MAX PRODUCTS THAT MEET ASTM A653.

ALL TIMBER POST SHALL BE 4X4 (MINIMUM) UNLESS NOTED OTHERWISE AND SHALL BE OF #2 S.Y.P.

**SITE PREPARATION**

- REMOVE A MINIMUM OF 12" OF THE NATURAL SOIL WITHIN THE AREA OF THE FOUNDATION PAD AND 5'-0" BEYOND.
- PROOF ROLL AREA TO RECEIVE FOUNDATION PAD.
- IF 95% COMPACTION ON EXISTING SOIL CANNOT BE OBTAINED, EITHER CONTINUE REMOVING ADDITIONAL SOIL UNTIL COMPACTABLE CLAYEY SOIL IS OBSERVED OR TREAT THE SURFACE WITH RECOMMENDED LIME AND/OR FLYASH CEMENT MIX. SEE SOILS REPORT FOR SPECIFIC RECOMMENDATIONS.
- PLACE A MIN. OF 2'-0" OF NEW SELECT FILL IN 6" LIFTS AND COMPACT TO 95% OF THE MAXIMUM DRY DENSITY TO REQUIRED ELEVATION TO RECEIVE FOUNDATION SLAB.
- FOUNDATION CONTRACTOR TO CONTACT LONE STAR AT 281-441-1462 OR A TESTING COMPANY OF YOUR CHOICE 48 HOURS PRIOR TO THE FOUNDATION EXCAVATION FOR SCHEDULING OF SOIL COMPACTION TESTS; THIS COMPANY MUST HAVE PROOF OF EXPERIENCE AT SOILS TESTING.
- SUBMIT TO DTS ENGINEERING ALL SITE TESTING RESULTS INCLUDING COMPACTION TESTING, CONCRETE COMPRESSIVE STRENGTH TESTING AND ANY OTHER FIELD OR LAB RELATED TESTING PERTAINING TO THIS PROJECT.

**SLAB SCHEDULE**

THICKNESS t'	REINFORCING	
	SIZE	SPACING
4"	#4	16"

- NOTES:**
- REINFORCING SHALL BE PLACED AT MID-DEPTH OF SLAB.
  - SEE FOUNDATION PLAN FOR OTHER REINFORCING IN SLAB.
  - THE SLAB AND BEAMS SHALL BE PLACED ON A 10 MIL VAPOR BARRIER.

SUBDIVISION OR ADDRESS	BEAM SCHEDULE		P.I.	SOILS REPORT INFORMATION
	"W"	"D"		
SADDLE CREEK FOREST S/D WALLER, TX 77484	12"	30"***	30	LONE STAR REPORT # 2111024-1 DATED: DEC 23, 2021

\* BOTTOM OF BEAM TO BE A MINIMUM OF 18" BELOW FINAL GRADE.  
 \*\*\*THIS DIMENSION IS THE MINIMUM BEAM DEPTH REQUIRED. WHEN VARIATIONS IN THE GRADE ELEVATIONS OR DROPS IN THE SLAB OR THE BEAMS OCCUR, THE BEAM DEPTH WILL INCREASE ACCORDINGLY.  
 MIN. 2'-0" OF SELECT FILL (SEE SITE PREPARATION NOTE ON THIS SHEET) SLAB AREA = 6,587 S.F.

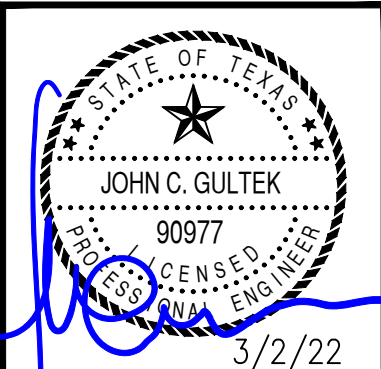
- NOTES:**
- THE CONTRACTOR SHALL PROVIDE TO DTS ENGINEERING ALL SOILS TEST DATA TAKEN AT THE PROJECT SITE DURING CONSTRUCTION.
  - SEE THE FOUNDATION PLAN ON THIS SHEET AND ASSOCIATED DETAILS AND SECTIONS FOR REINFORCING ON SHEET S-2.
  - SEE SOIL REPORT FOR DETAILED INFORMATION ON SITE-PREP, SELECT FILL REQUIREMENTS, FOUNDATION MAINTENANCE, E.T.C.

**REINFORCING NOTES:**

- SEE SHEET S-2 FOR DETAILS, NOTES, AND SPECIFICATIONS FOR THIS FOUNDATION SLAB.
- SEE THE "BEAM SCHEDULE" ON THIS SHEET FOR THE BEAM DIMENSIONS "W" AND "D".

**FOUNDATION SLAB NOTES**

- THIS DRAWING IS STRICTLY DRAWN TO SHOW STRUCTURAL DETAILS OF THE SLAB SURFACE AND LAYOUT. SEE THE ARCHITECTURAL DRAWINGS TO VERIFY ALL SLAB EDGE DIMENSIONS, BRICK LEDGES, DROPS AND SLOPE LOCATIONS AND ALL OTHER CHANGES IN THE SLAB SURFACE OR LAYOUT PRIOR TO CONSTRUCTION.
- FOR THE LOCATION OF NON-STRUCTURAL ITEMS TO BE EMBEDDED IN THE SLAB; SEE THE ARCHITECTURAL DRAWINGS OR THE DRAWING PROVIDED BY OTHER TRADES FOR THE APPROPRIATE DETAILS AND LOCATIONS AS REQUIRED FOR THEIR INSTALLATION. ALL PIPES, CONDUITS, OR OTHER SUCH ITEMS MUST BE PLACED UNDER THE SLAB.
- THE BOTTOM OF ALL BEAMS SHALL BE A MINIMUM OF 18-INCHES BELOW FINISHED GRADE UNLESS OTHERWISE NOTED IN THE BEAM SCHEDULE SHOWN ON THIS SHEET.
- THE DEPTH OF THE BEAMS SHOWN IN THE "BEAM SCHEDULE" ON THIS DRAWING IS A MINIMUM DEPTH. IF THE BEAMS BECOME DEEPER SEE THE DETAILS ON DRAWING S-2 FOR THE ADDITIONAL REINFORCING, IF REQUIRED.
- REMOVE ALL TREES IN THE AREA OR ADJACENT TO THE AREA IN WHICH THE FOUNDATION SHALL BE PLACED. UPON REMOVAL OF THE TREES, THE REMAINING HOLES SHALL BE FILLED WITH SELECT FILL (P.L. = 12 TO 20 AND LIQUID LIMIT = 35 OR LESS) IN 6-INCH LOOSE LIFTS AND COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR DENSITY TEST (ASTM D-698).
- DURING THE INITIAL PROOF ROLLING IF SOME LOCALIZED SOIL PROBLEMS ARE DISCOVERED; REMOVE THE EXISTING SOIL IN THOSE LOCATIONS AND PLACE SELECT FILL IN THE HOLES AND COMPACT AS STATED ABOVE.
- DO NOT PLACE THE FOUNDATION SLAB ON WET OR SATURATED SOILS. IF WET CONDITIONS PERSIST THE WET AREA SHALL BE TREATED WITH AN APPROVED LIME/FLYASH MIX AND RECOMPACTED BEFORE PLACING ANY FURTHER FILL ON THIS LOCATION.
- POSITIVE DRAINAGE SHALL BE PROVIDED ON ALL SIDES OF THE FOUNDATION SLAB. SHOULD THE FOUNDATION SLAB BE HIGHER THAN ANY OTHER POINT IN THE LOT NO ADDITIONAL WORK IS REQUIRED. HOWEVER, IF ANY POINT ON THE FOUNDATION SLAB IS LOWER THAN THE ADJACENT LOT; A SWALE SHALL BE CREATED NO LESS THAN 5- FEET FROM THE FOUNDATION SLAB TO DIRECT THE FLOW OF WATER AWAY AND OR AROUND THE FOUNDATION SLAB.
- IF DURING CONSTRUCTION, IT IS DISCOVERED THAT THERE IS A DISCREPANCY BETWEEN THE ARCHITECTURAL AND THE STRUCTURAL PLANS; NOTIFY THE ENGINEER AT ONCE (DTS ENGINEERING 281-298-8877).
- IT IS IMPERATIVE THAT DTS ENGINEERING IS NOTIFIED DURING THE STRUCTURAL DESIGN PHASE FOR ANY FUTURE STRUCTURES THAT ARE PLANNED TO BE BUILT AROUND THE FOUNDATION INCLUDING SWIMMING POOLS, JACUZZI, OR ANY OTHER STRUCTURE THAT HAS A FOUNDATION. PLEASE CLARIFY THE LOCATION OF SUCH STRUCTURE(S) ON THE SITE PLAN INCLUDING THE DIMENSIONS, DISTANCES TO THE HOUSE FOUNDATION, AND DESIGN SPECIFICATIONS OF THE STRUCTURE, E.T.C.
- THE DESIGN OF THE FOUNDATION SHOWN ON THIS DRAWING IS BASED ON ESTIMATED LOADS FROM THE STRUCTURAL FRAMING ABOVE. THIS FIRM DID NOT DESIGN THE STRUCTURAL FRAMING; ALL LOADS ARE ESTIMATED FROM THE ARCHITECTURAL DRAWINGS PROVIDED BY THE CLIENT.



**DTS ENGINEERING, INC.**  
 7 Grogan's Park Dr. Suite 11, The Woodlands, TX 77380  
 Ph: (281) 298-8877 Fax: (281) 298-9856 Registration #F-7539

**CUSTOM HOME**

**DUONG RESIDENCE**

**PROJECT INFO.**

SADDLE CREEK FOREST	
LOT.	14
BLK.	1
SECT.	6

27900 E. STALLION LN., WALLER, TX 77484

PLAN NO.

**FOUNDATION NOTES & SCHEDULES**

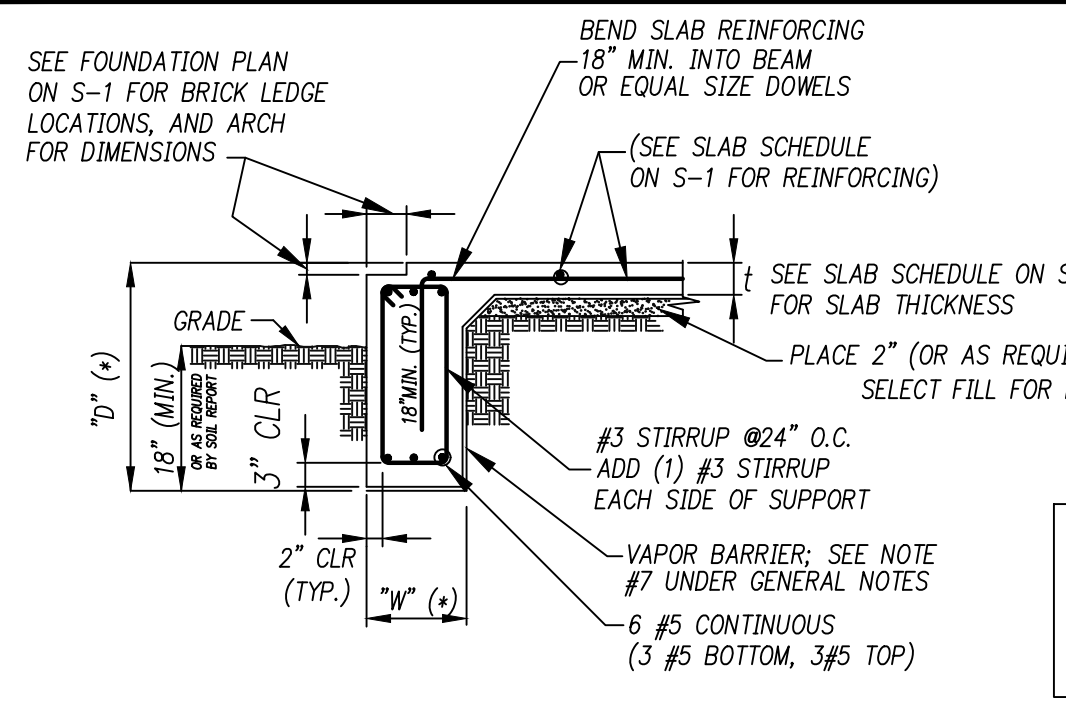
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**REVISIONS**

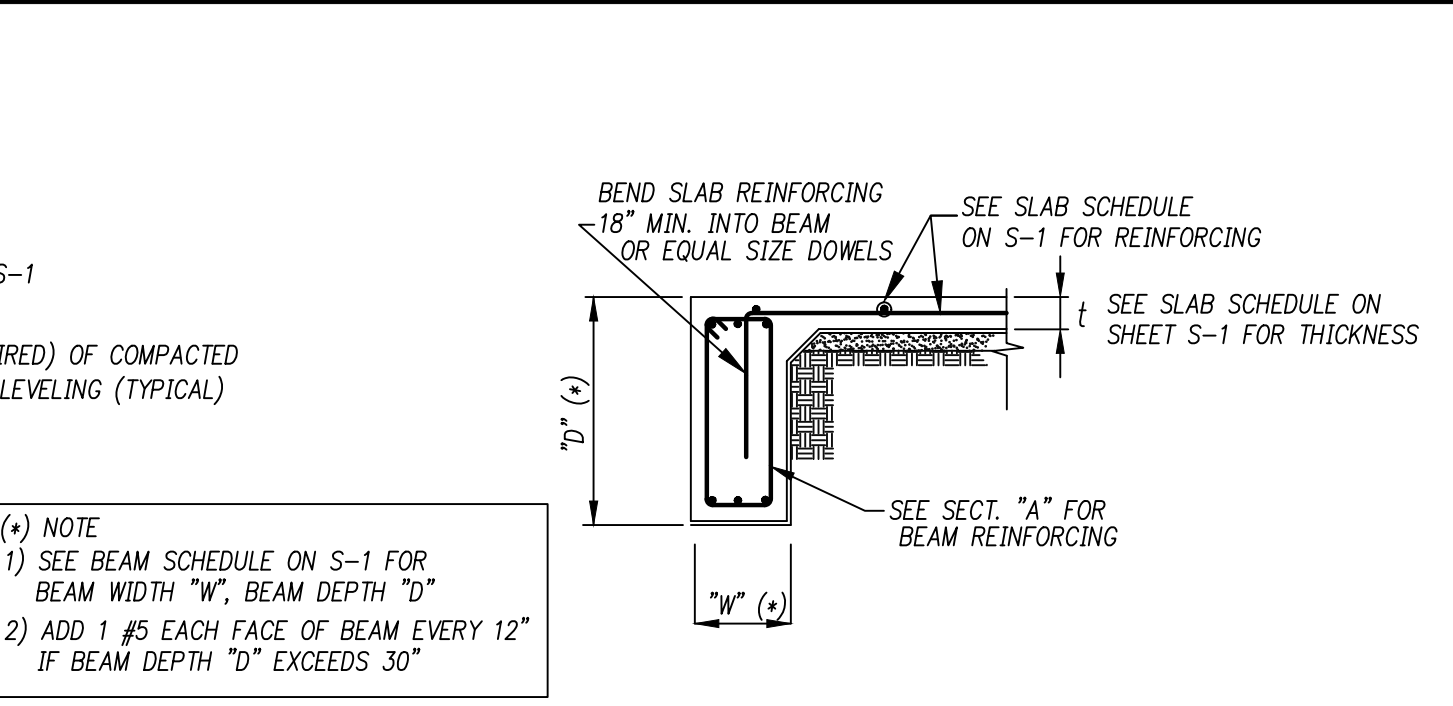
DATE	REASON

CHECKED BY:  
 JG/BW  
 DRAWN BY:  
 YP  
 DATE:  
 3/2/22  
 JOB #  
 22104

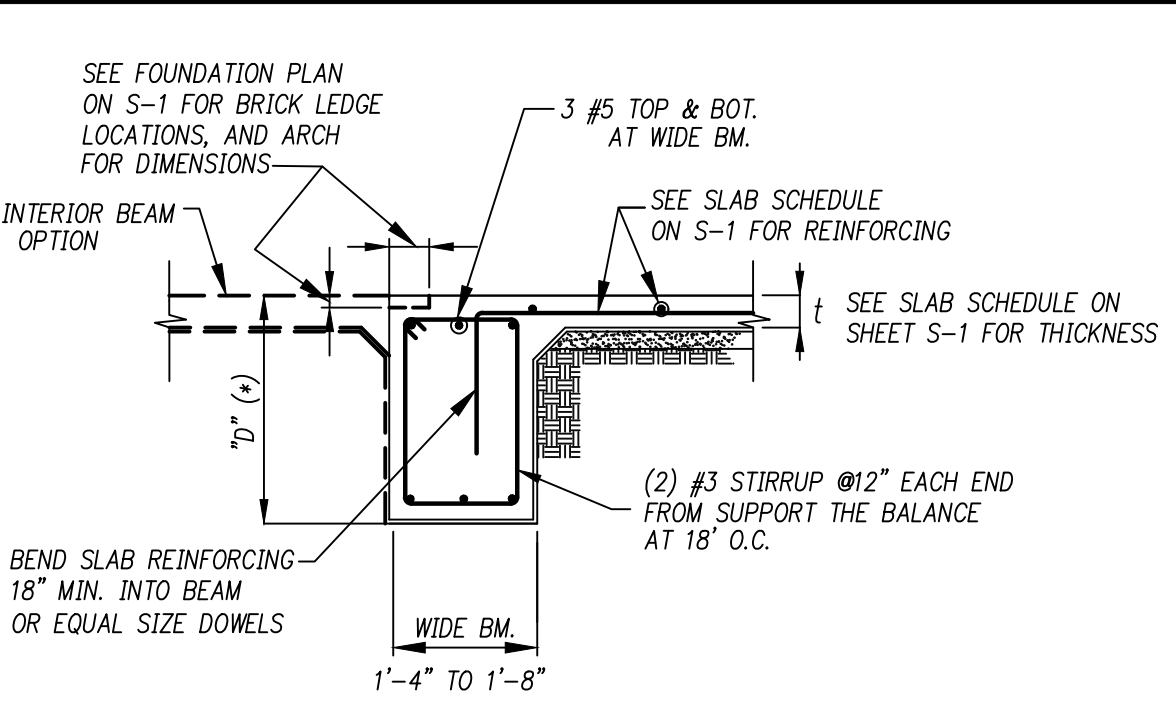
S-1A



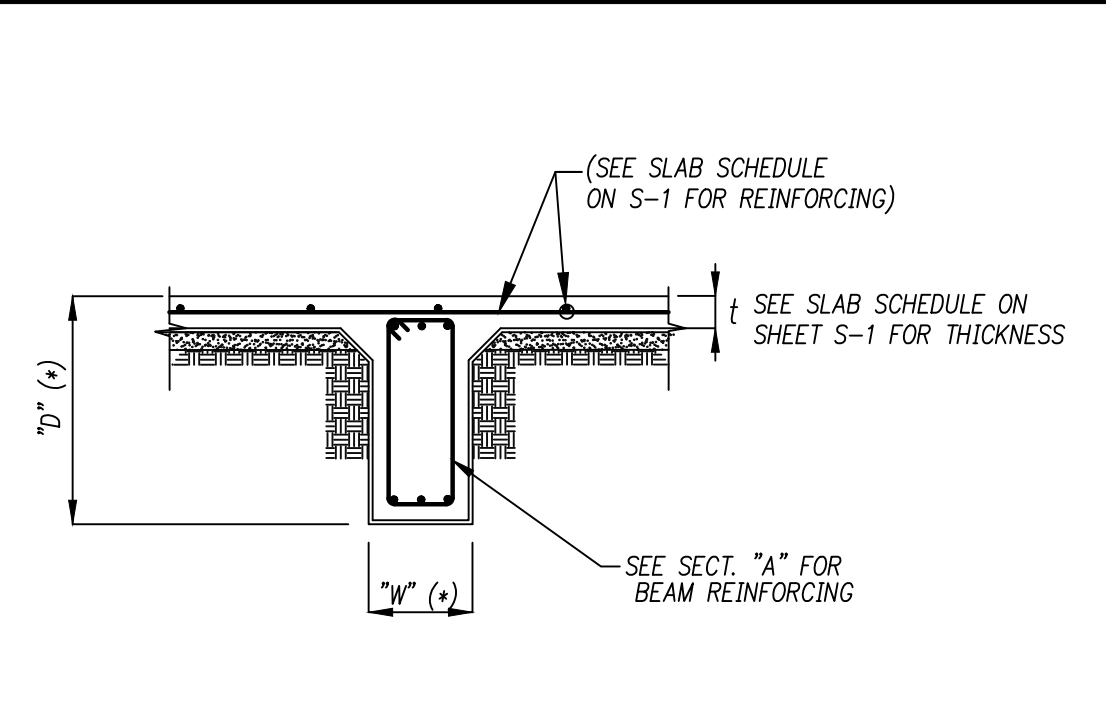
**A** EXTERIOR BEAM WITH BRICK LEDGE



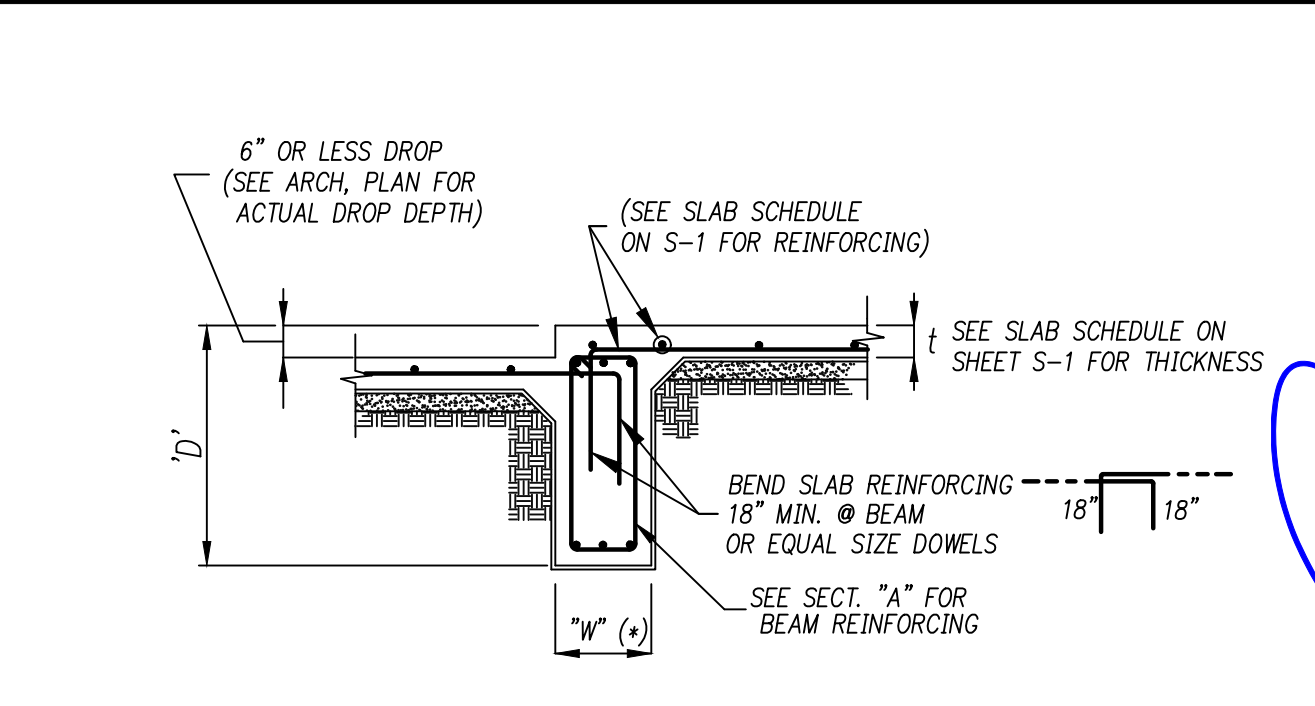
**B** EXTERIOR BEAM WITHOUT BRICK LEDGE



**B2** EXTERIOR WIDE BEAM

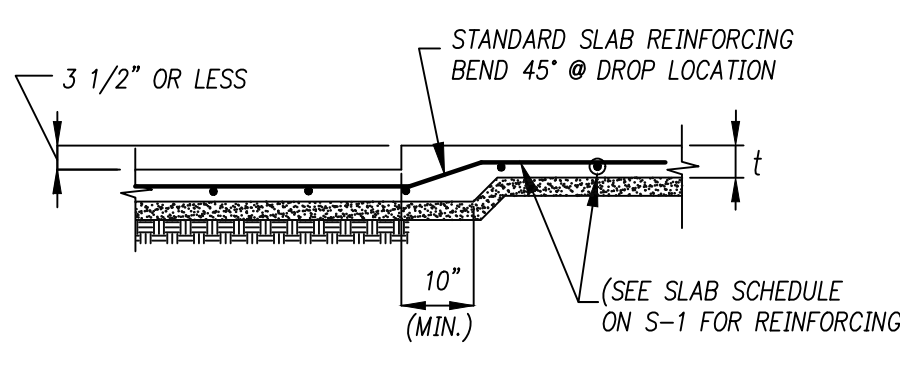


**C** INTERIOR BEAM

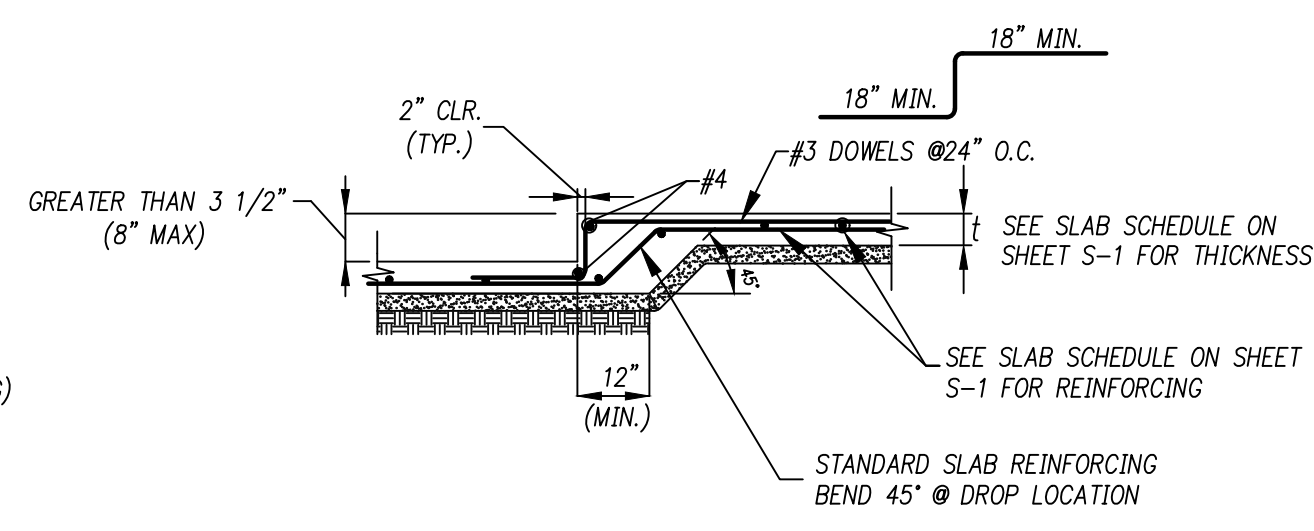


**D** DROP AT INTERIOR BEAM

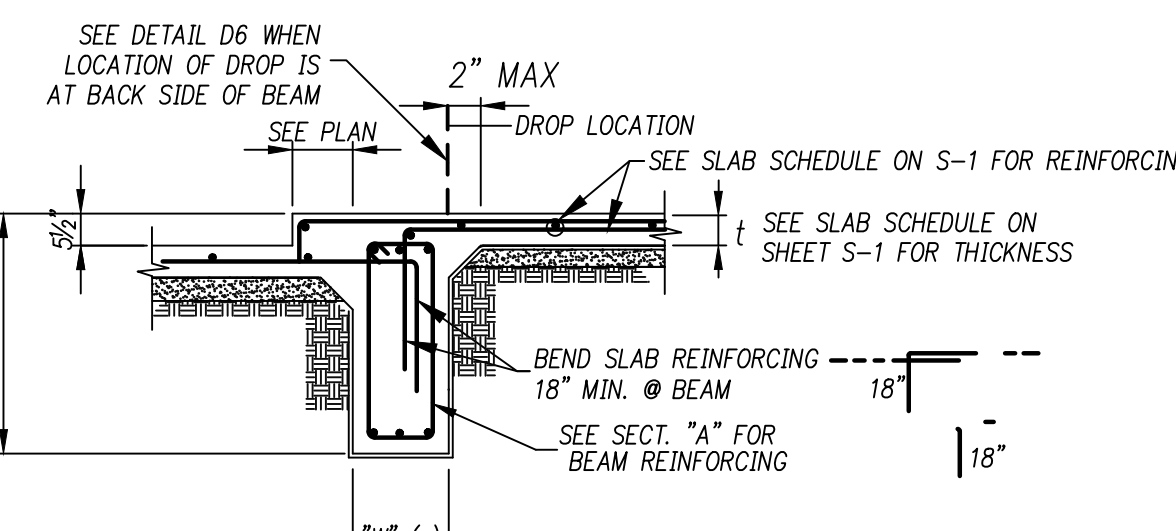
(\*) NOTE  
 1) SEE BEAM SCHEDULE ON S-1 FOR BEAM WIDTH "W", BEAM DEPTH "D"  
 2) ADD 1 #5 EACH FACE OF BEAM EVERY 12" IF BEAM DEPTH "D" EXCEEDS 30"



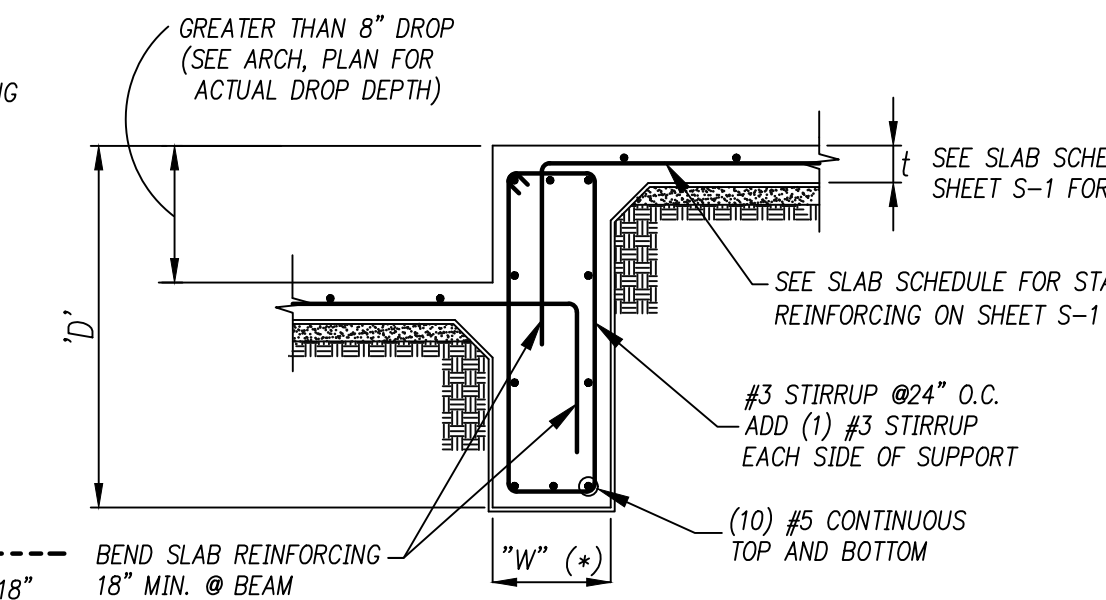
**D2** SMALL DROP AT SLAB



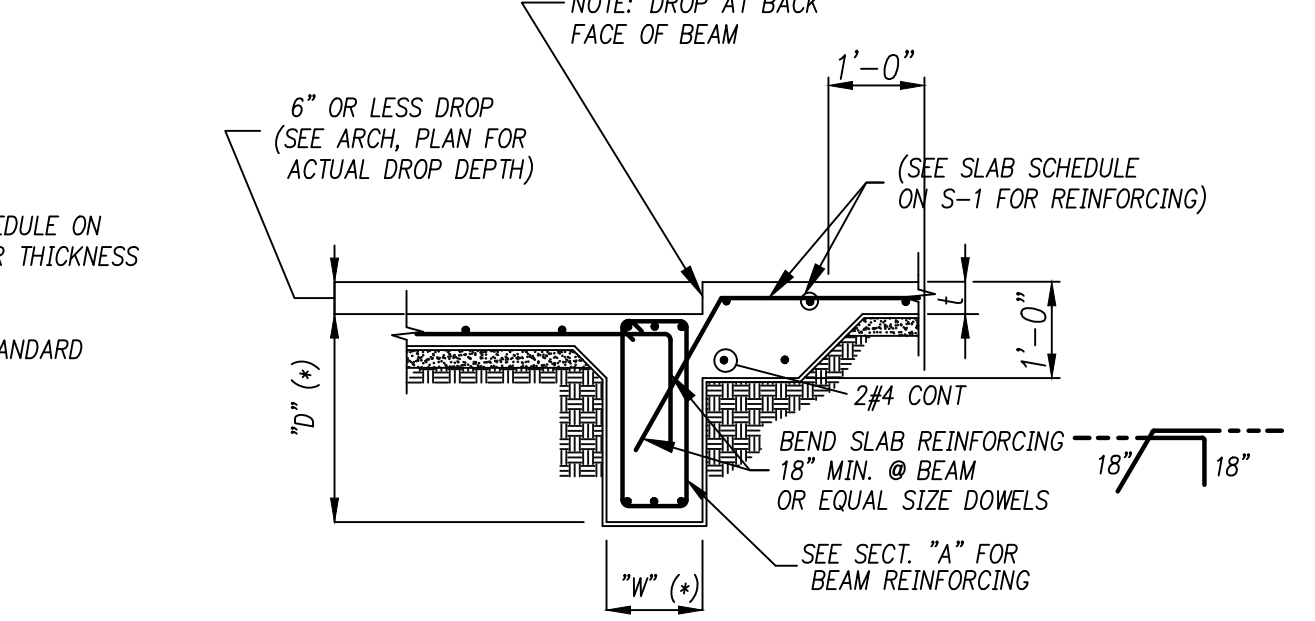
**D3** BIG DROP AT SLAB



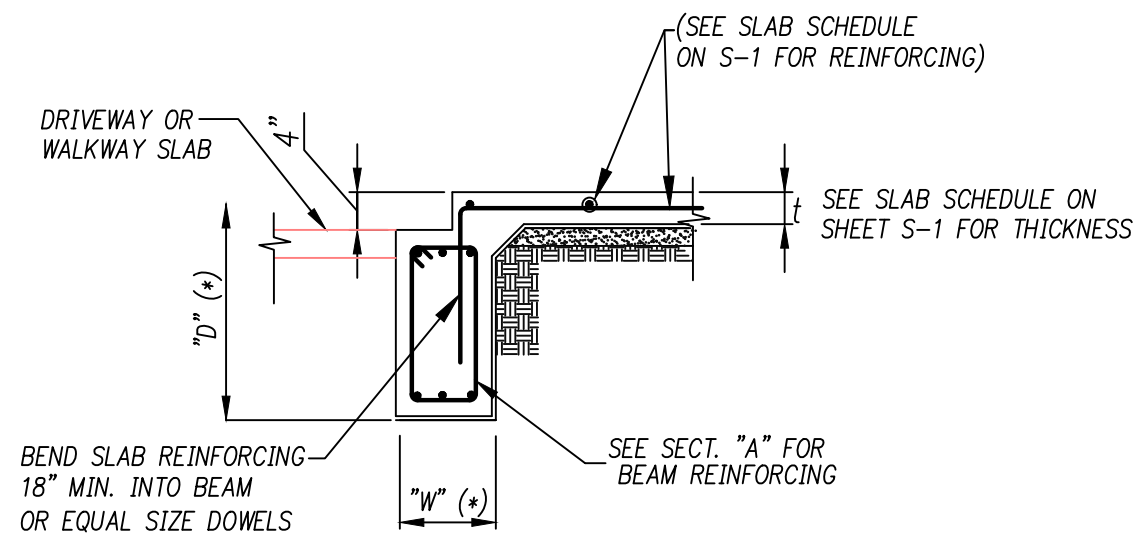
**D4** DROP AT INTERIOR BEAM



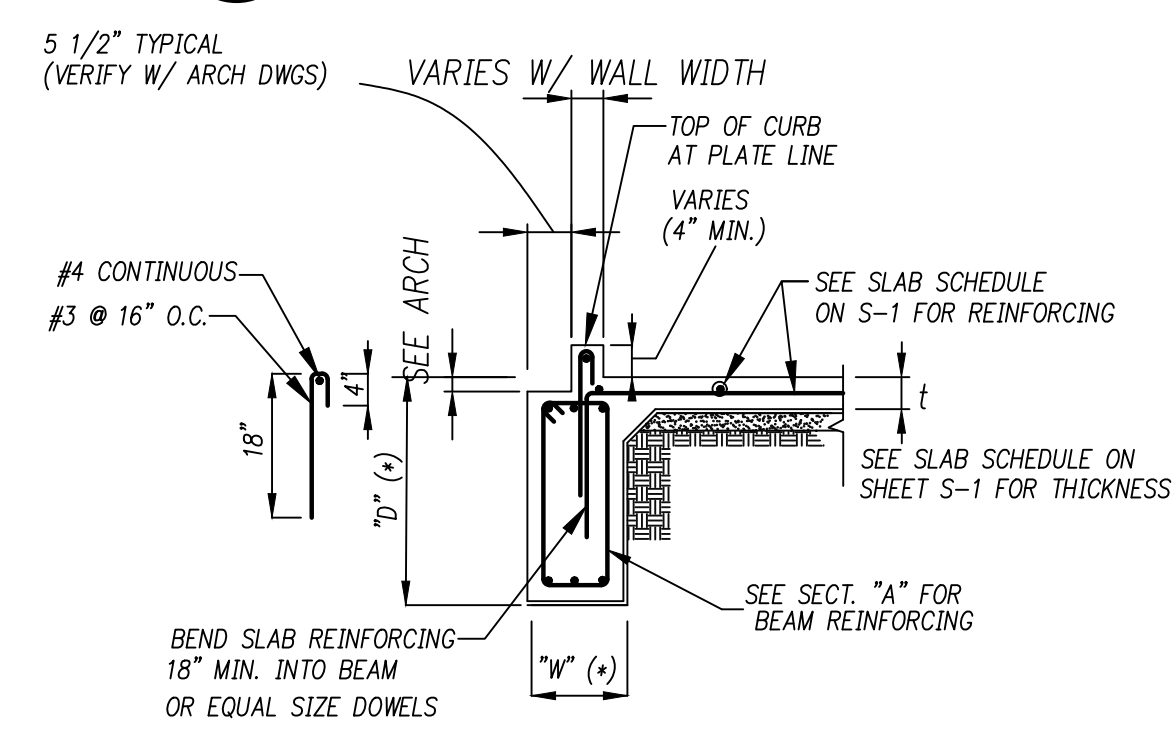
**D5** LARGE DROP AT INTERIOR BEAM



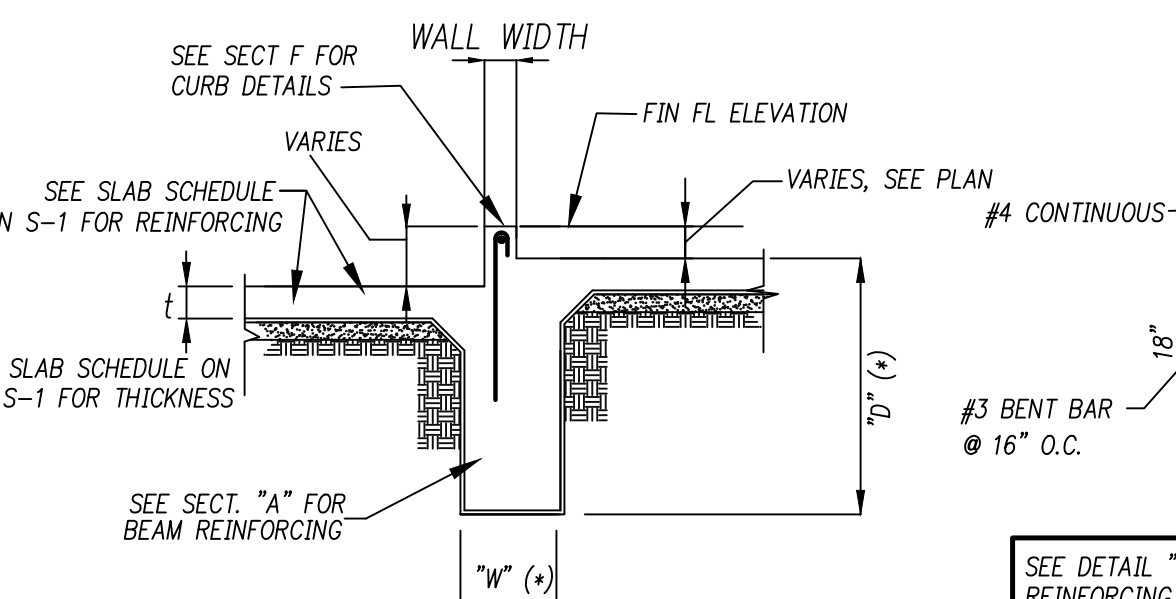
**D6** DROP BEHIND INTERIOR BEAM



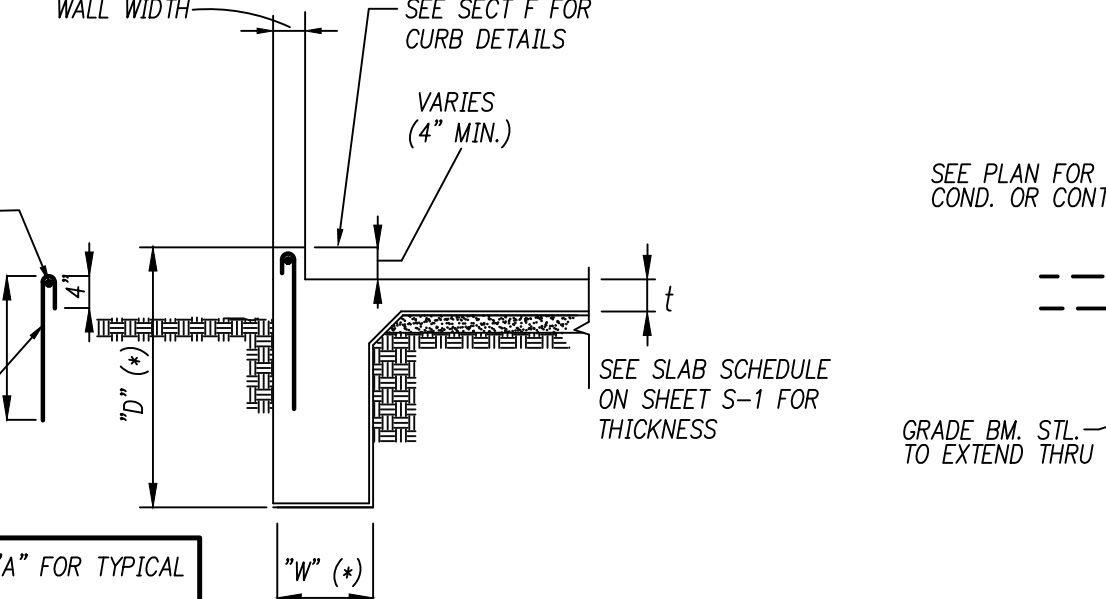
**E** EXTERIOR BEAM AT GARAGE DOOR



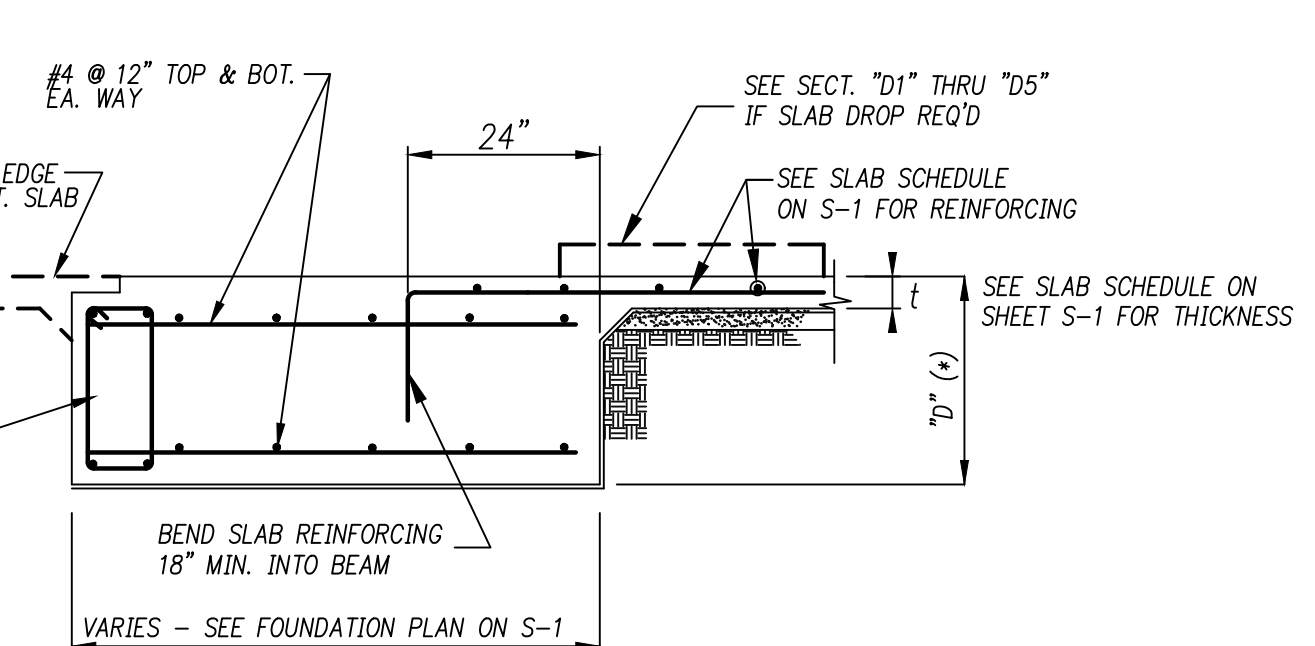
**F** CURB AT EXTERIOR BEAM W/ BRICK LEDGE



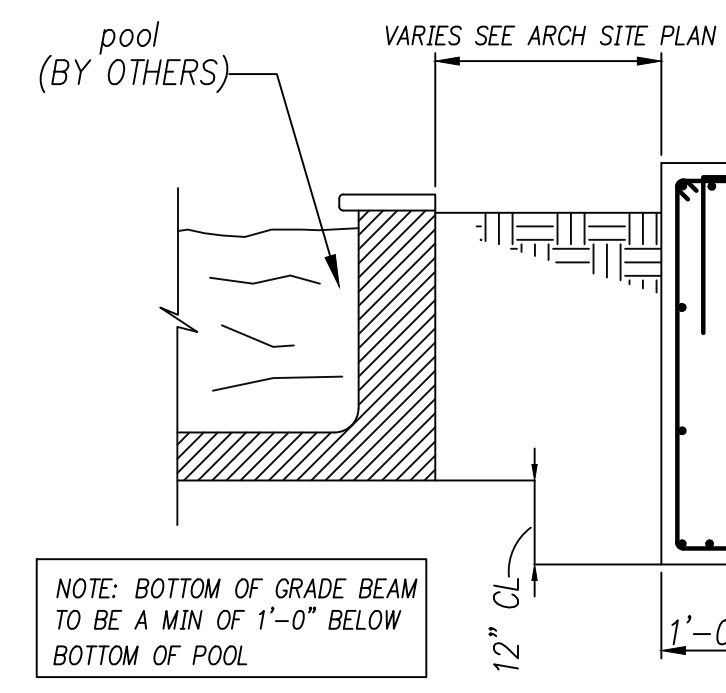
**F2** CURB AT INTERIOR BEAM



**F3** CURB AT EXTERIOR BEAM WITHOUT BRICK LEDGE



**G** DETAIL AT WIDE BEAM



**H** DEEP BEAM AT POOL

**GENERAL NOTES**

- FOUNDATION**
1. THE FOUNDATION SPECIFICATIONS SHALL APPLY TO THE STRUCTURAL FOUNDATION FOR THIS PROJECT, UNLESS NOTED OR SHOWN OTHERWISE.
  2. ALL MATERIALS USED AND THE WORKMANSHIP APPLIED SHALL CONFORM TO THE STANDARDS SET FORTH IN THE INTERNATIONAL RESIDENTIAL CODE - 2012.
  3. ALL FOUNDATIONS SHALL BE PLACED ON PROOF ROLLED NATURAL SOIL OR PLACED ON COMPACTED SELECT FILL. ALL EXCAVATIONS SHALL BE FREE OF ANY LOOSE SOIL OR WATER.
  4. OVER EXCAVATIONS SHALL BE FILLED WITH COMPACTED SELECT FILL OR CONCRETE.
  5. ALL BACKFILL PLACED AROUND THE FOUNDATION BEAMS OR FILL UNDER THE FOUNDATION SLAB SHALL BE COMPACTED SELECT FILL.
  6. WATERPROOFING OF THE FOUNDATION IS NOT PART OF THE SPECIFICATIONS OF THE RESPONSIBILITY OF THIS FIRM.
  7. THE AREA OF THE FOUNDATION SHALL BE COVERED WITH A PLASTIC VAPOR BARRIER CONFORMING TO ASTM E-1745, CLASS B. THE BARRIER SHALL NOT BE LESS THAN 10-MILS IN THICKNESS. LAP ALL COMMON EDGES A MINIMUM OF 6-INCHES.
  8. ALL TRADES WHICH WILL HAVE ITEMS PLACED UNDER THE FOUNDATION SLAB SHALL CONFORM TO THE FOLLOWING:
    - A. ALL ITEMS SHALL PASS THRU A BEAM AT MID-DEPTH ONLY. USE A PIPE SLEEVE FOR PENETRATIONS NO SHORTER THAN 3 DIAMETERS IN LENGTH.
    - B. NO ITEM SHALL BE PLACED IN THE SLAB OTHER THAN STRUCTURAL ITEMS CALLED FOR IN THESE STRUCTURAL PLANS, DETAILS, OR SECTIONS.

**SELECT FILL**

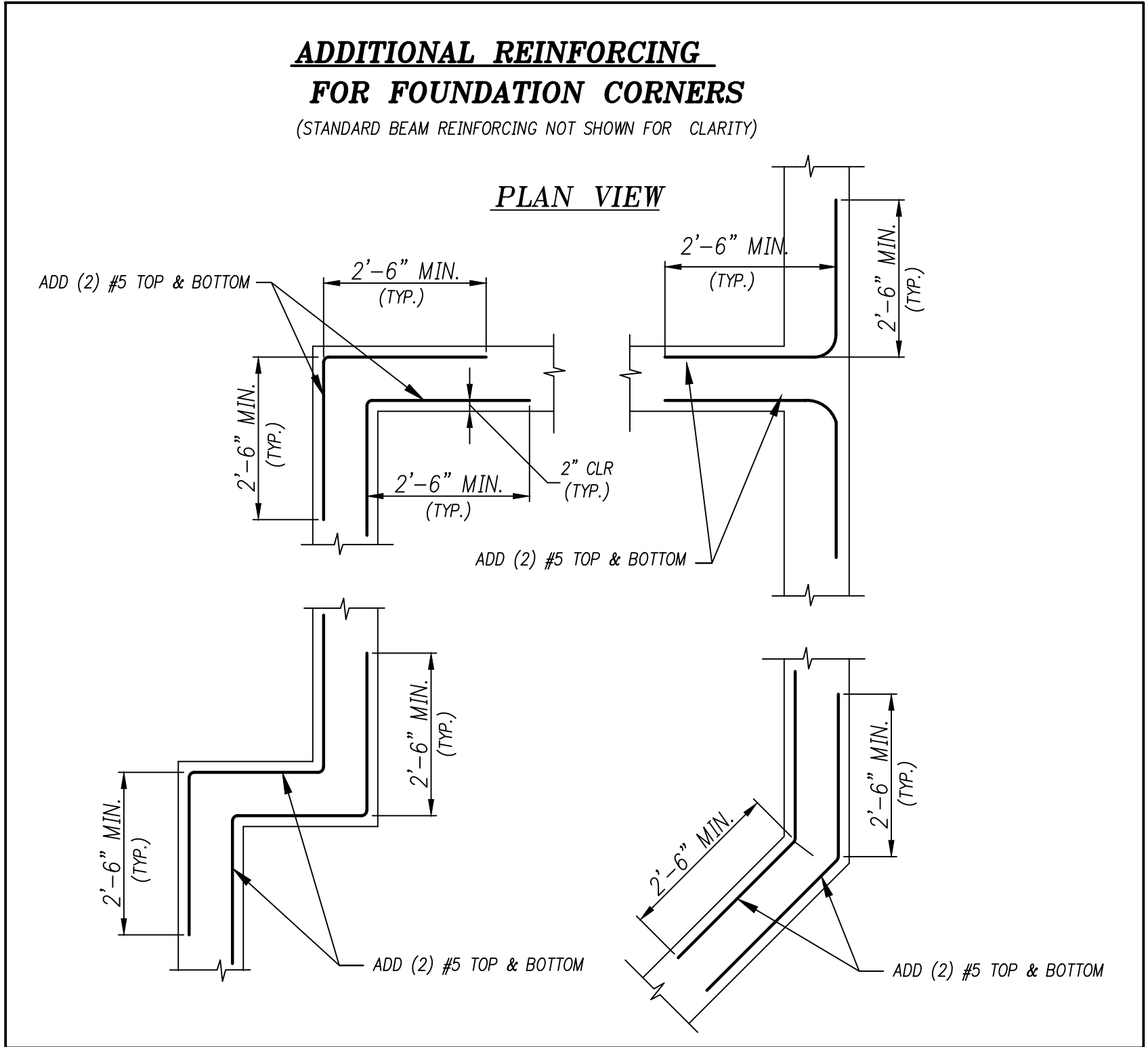
THE SELECT FILL (P<sub>L</sub> = 10 TO 20, LIQUID LIMIT = 35 OR LESS, 3-INCH MAXIMUM PARTICLE SIZE, AND FREE OF ALL FORMS OF DEBRIS) SHALL BE PLACED IN 6-INCH LOOSE LIFTS AND COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR DENSITY TEST (ASTM D-698). THE FINISH AREA OF THE COMPACTED SELECT FILL SHALL EXTEND A MINIMUM OF 5- FEET FROM THE FOUNDATION OUTLINE AND SHALL HAVE A SLOPE OF NOT MORE THAN 3:1. A MATERIAL TESTING FIRM SHALL BE EMPLOYED TO DETERMINE THE AMOUNT OF COMPACTION OF EACH LIFT.

- REINFORCED CONCRETE**
1. REINFORCED CONCRETE SHALL CONFORM TO THE STANDARDS OF THE AMERICAN CONCRETE INSTITUTE ACI-318.
  2. ALL CONCRETE PLACED IN THE FOUNDATION BEAMS, FOOTINGS, AND SLAB SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.
  3. ALL CONCRETE PLACED IN THE FOUNDATION SLAB THAT MAY BE EXPOSED TO THE WEATHER SHALL BE AIR ENTRAINED BETWEEN 5% AND 7% BY VOLUME.
  4. THE SLUMP SHALL NOT EXCEED 5-INCHES.
  5. THE CONCRETE SUPPLIER SHALL SUBMIT A CONCRETE MIX DESIGN BEFORE THE POUR BEGINS.
  6. NO WATER SHALL BE ADDED TO THE CONCRETE MIX AT THE PROJECT SITE UNLESS THE BATCH PLANT INDICATES THE AMOUNT ON THE TRIP TICKET. ONLY TRUCKS WITH OPERATING WATER GAUGES SHALL BE ALLOWED TO ADD WATER TO THEIR MIX.

- REINFORCING STEEL**
1. ALL CONCRETE REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60; EXCEPT #3 BARS SHALL BE ASTM A-615, GRADE 40.
  2. REINFORCING STEEL SHALL BE PLACED IN ACCORDANCE WITH THE FOUNDATION PLAN FOR THIS PROJECT. THE BARS SHALL BE SECURED IN PLACE BEFORE AND DURING THE PLACEMENT OF THE CONCRETE.
  3. FABRICATION AND INSTALLATION OF THE REINFORCING SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE MANUAL OF STANDARD PRACTICE.
  4. REINFORCING BAR LAP SPLICES ARE AS FOLLOWS, UNLESS OTHERWISE NOTED:
 

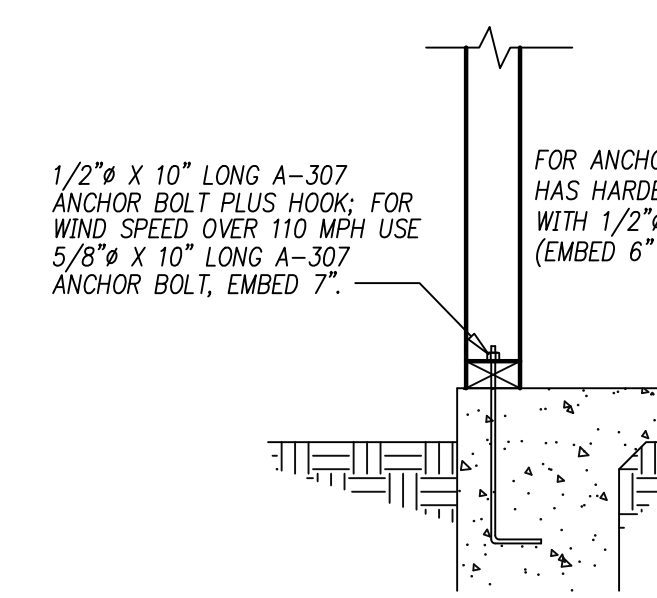
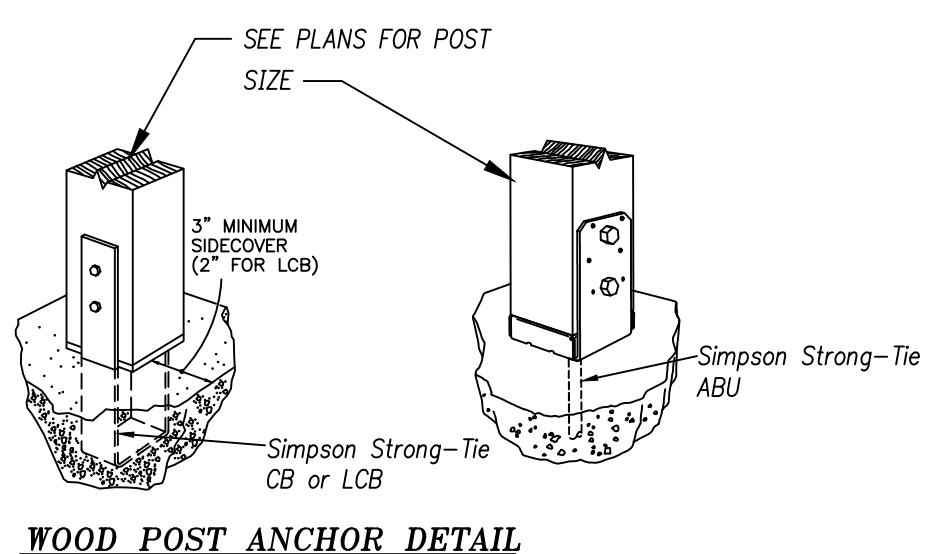
BAR SIZE	SPLICE LENGTH
#3	2'-0"
#4	2'-6"
#5	3'-0"

 A) SLICE TOP BARS AT MID-SPAN  
 B) SLICE BOTTOM BARS OVER SUPPORT  
 5. PROVIDE THE MINIMUM CONCRETE COVER OVER THE REINFORCING STEEL AS FOLLOWS:  
 CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.....1 1/2"  
 CONCRETE EXPOSED TO WEATHER.....1 1/2"  
 CONCRETE NOT EXPOSED TO WEATHER OR NOT IN CONTACT WITH EARTH.....3/4"

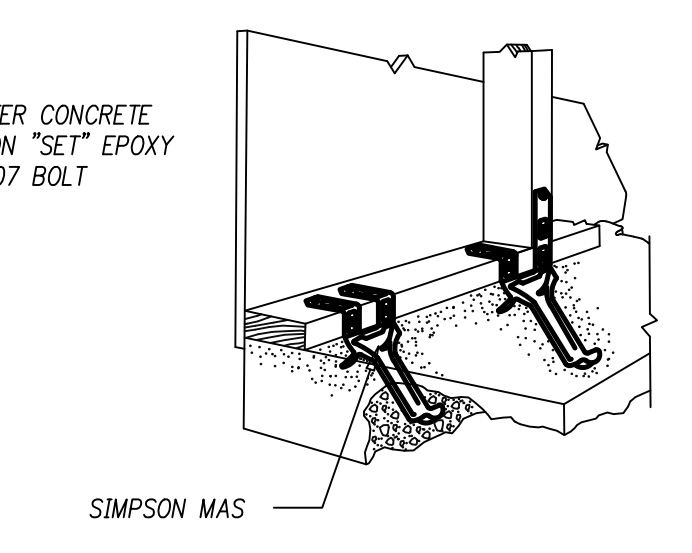


**TIMBER POST SCHEDULE**

POST SIZE	SIMPSON EMBED BASE	SIMPSON BOLTED BASE
4x4	CB44	ABU44
6x6	CB66	ABU66
8x8	CB88	ABU88
10x10	CB1010	NA



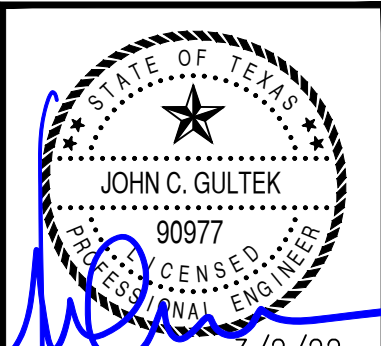
**TYPICAL SILL PLATE ANCHOR DETAIL**



**ALTERNATE SILL PLATE ANCHOR DETAIL**

NOTE: SOLE PLATE ANCHORS WITHIN THE LENGTH OF A SHEAR WALL SHALL BE 32" ON CENTER.

**SILL PLATE ANCHORING DETAIL**



**DTS**  
 ENGINEERING, INC.  
 7 Grogan's Park Dr. Suite 11, The Woodlands, TX 77380  
 Ph: (281) 298-8877 Fax: (281) 298-9856 Registration #P-7539

**CUSTOM HOME**

DUONG RESIDENCE

**PROJECT INFO.**

SADDLE CREEK FOREST

LOT.	14
BLK.	1
SECT.	6

27900 E. STALLION LN., WALLER, TX 77484

**FOUNDATION DETAILS & NOTES**

SCALE:  
 NOT TO SCALE

**REVISIONS**

DATE	REASON

CHECKED BY:  
**JG/BW**  
 DRAWN BY:  
**BW**  
 DATE:  
**3/2/22**  
 JOB #  
**22104**

**S-2**

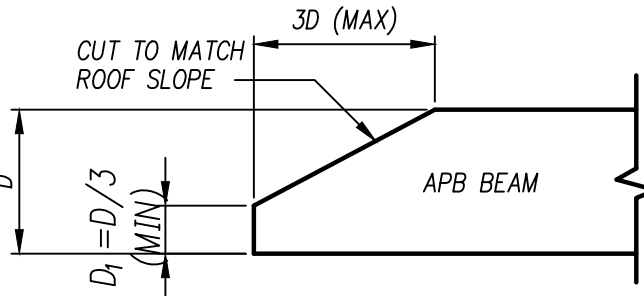


**TIMBER BEAM SCHEDULE**

SAWN TIMBER BEAMS (SOUTHERN YELLOW PINE)		
BEAM MARK	ACTUAL BEAM SIZE	SIMPSON HANGER (WHERE REQ'D)
(2) 2X6	(2) 1-1/2" X 5-1/2"	HU26-2
(2) 2X8	(2) 1-1/2" X 7-1/4"	HU28-2
(2) 2X10	(2) 1-1/2" X 9-1/4"	HU210-2
(2) 2X12	(2) 1-1/2" X 11-1/4"	HU212-2
(3) 2X6	(3) 1-1/2" X 5-1/2"	HU26-3
(3) 2X8	(3) 1-1/2" X 7-1/4"	HU28-3
(3) 2X10	(3) 1-1/2" X 9-1/4"	HU210-3
(3) 2X12	(3) 1-1/2" X 11-1/4"	HU212-3

ENGINEERED BEAMS (ANTHONY POWER BEAMS)		
BEAM MARK	ACTUAL BEAM SIZE	SIMPSON HANGER (WHERE REQ'D)
APB411	APB 3-1/2" X 11-1/4"	HGUS412
APB412	APB 3-1/2" X 11-7/8"	HGUS412
APB414	APB 3-1/2" X 14"	HGUS414
APB416	APB 3-1/2" X 16"	HGUS414
APB418	APB 3-1/2" X 18"	HGUS414
APB611	APB 5-1/2" X 11-1/4"	HGUS5.50/12
APB612	APB 5-1/2" X 11-7/8"	HGUS5.50/12
APB614	APB 5-1/2" X 14"	HGUS5.50/14
APB616	APB 5-1/2" X 16"	HGUS5.50/14
APB618	APB 5-1/2" X 18"	HGUS5.50/14
APB711	APB 7" X 11-1/4"	HGUS7.25/12
APB712	APB 7" X 11-7/8"	HGUS7.25/12
APB714	APB 7" X 14"	HGUS7.25/14
APB716	APB 7" X 16"	HGUS7.25/14
APB718	APB 7" X 18"	HGUS7.25/14
APB719	APB 7" X 19"	HGUS7.25/14

- NOTES:
- SAWN TIMBER - SOUTHERN YELLOW PINE SHALL BE THE GRADE SPECIFIED ON THE FRAMING DRAWINGS AND SHALL HAVE A MOISTURE CONTENT OF 15% MAXIMUM.
  - SAWN TIMBER BEAMS USED AS HEADERS SHALL HAVE A 1/2-INCH PLYWOOD OR OSB PANEL PLACED BETWEEN THE TWO MEMBERS.
  - APB - LAMINATED BEAMS SHALL BE AS MANUFACTURED BY ANTHONY FOREST PRODUCTS CO., EL DORADO, ARKANSAS
  - PROVIDE 3" BEARING AT EACH END OF ANY TIMBER BEAM LISTED ABOVE, MINIMUM.
  - HANGERS SHALL BE INSTALLED PER MANUFACTURER'S MOST RECENTLY PRINTED LITERATURE.
  - SEE DETAIL ON THIS SHEET FOR TAPERED END CUTS.
  - NO SUBSTITUTION SHALL BE ALLOWED FOR THE APB BEAMS SHOWN ON THIS DRAWING. IF SUBSTITUTIONS ARE TO BE MADE PLEASE NOTIFY DTS ENGINEERING, INC. FOR A NEW DESIGN.



**APB - TAPERED END CUT**

NOTE: SEE STRUCTURAL FRAMING PLAN FOR VALUE OF "D1" FOR A SPECIFIC BEAM IF REQUIRED.

**FLOOR AND CEILING FRAMING NOTES**

- SEE SHEAR WALL AND FRAMING DETAIL SHEETS FOR FRAMING NOTES, DETAILS, AND SECTIONS.
- ALL ARCHITECTURAL FURR DOWNS OR OTHER CEILING TREATMENTS SHALL BE FRAMED WITH 2X4 #3 S.Y.P. AND THE SPACING SHALL BE AS REQUIRED ON THE ARCHITECTURAL DRAWINGS.
- HVAC EQUIPMENT, WATER HEATERS, OR OTHER ITEMS PLACED IN THE ATTIC SHALL BE SUPPORTED ON DOUBLE CEILING JOISTS.
- WALLS WHERE THE PLF LOAD IS NOT GIVEN ON THE FRAMING DRAWINGS SHALL BE ASSUMED TO HAVE A MIN. LOAD OF 100 POUNDS PER LINEAR FOOT.
- ALL ENGINEERED TIMBER BEAMS USED IN THIS PROJECT SHALL BE APB BEAMS WITH  $I_b = 3000$  PSI (SEE TIMBER BEAM SCHEDULE.)
- ALL STRUCTURAL STEEL BEAMS AND COLUMNS USED ON THIS PROJECT SHALL CONFORM TO ASTM A-36 OR A-992; TUBULAR SECTIONS SHALL CONFORM TO ASTM A501.
- ALL ENGINEERED BEAMS PARALLEL TO THE FLOOR JOIST CAN BE REPLACED BY AN ENGINEERED JOIST; THE NEW MEMBER MUST CARRY ANY LOADING SUPPORTED BY THE ENGINEERED BEAM BEING REPLACED.
- ALL HEADERS SUPPORTING A FLOOR ABOVE SHALL BE #2 S.Y.P. (2)2X12; ALL OTHERS SHALL BE (2)2X8 UNLESS NOTED OTHERWISE. SPACER BETWEEN 2X'S SHALL BE CONTINUOUS STRUCTURAL PANEL. (OSB OR PLYWOOD)
- IF DURING CONSTRUCTION, IT IS DISCOVERED THAT THERE IS A DISCREPANCY BETWEEN THE ARCHITECTURAL AND STRUCTURAL PLANS NOTIFY THE ENGINEER AT ONCE (DTS ENGINEERING 281-298-8877).
- ABBREVIATIONS USED IN THIS DRAWING:
  - ALT = ADDITIONALLY LOADED TRUSS
  - BLK = BLOCKING
  - BRNG = BEARING
  - CANT = CANTILEVER
  - CONT = CONTINUOUS
  - CLG = CEILING HEIGHT
  - DB = DROP BEAM
  - DBL = DOUBLE
  - FB = FLUSH BEAM
  - FRB = FOR ROOF BRACE
  - OWB = OVER WALL BELOW
  - OWT = OPEN WEB TRUSSES BY OTHERS
  - #PL = POINT LOAD
  - PLF = POUNDS PER LINEAR FOOT
  - RSD = RAISED BEAM
  - TJ1 = TRUSS JOIST BY OTHERS
  - TRP = TRIPLE
  - UNO = UNLESS NOTED OTHERWISE
  - UPL = UNDER POINT LOAD
  - UWA = UNDER WALL ABOVE

FLOOR AND CEILING FRAMING MATERIALS TABLE			
MEMBER	SIZE	TIMBER GRADE	SPACING (O.C.)
FLOOR JOIST (U.N.O.)	N/A	N/A	N/A
CEILING JOIST (U.N.O.)	2x's	#2	16"
HEADER SUPPORTING A FLOOR AND ROOF	(2)2x12	#2	
HEADER SUPPORTING 2 FLOORS AND ROOF	(2)2x12	#2	
HEADER SUPPORTING A ROOF	(2)2x8	#2	
SAWN TIMBER BEAM	MULTIPLE 2x's	#2	

NOTE: ALL SAWN TIMBER ITEMS ABOVE SHALL BE S.Y.P.

MIN. EXTERIOR WALL FRAMING MATERIAL TABLE (U.N.O.)			
MEMBER	SIZE	TIMBER GRADE	SPACING (O.C.)
2ND FLOOR WALL STUDS	N/A	N/A	N/A
1ST FLOOR WALL STUDS	2x4	#2 OR STUD GR.	16"

NOTE: ALL SAWN TIMBER ITEMS ABOVE SHALL BE S.Y.P.

**WALL FRAMING NOTES**

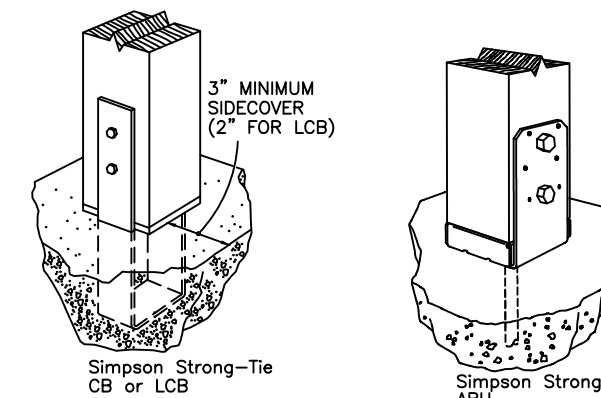
- SEE STRUCTURAL FRAMING DETAIL SHEETS FOR FRAMING NOTES, DETAILS, AND SECTIONS (SF-1 THRU SF-5).
- ALL WOOD SOLE PLATES SHALL:
  - MATCH THE SIZE OF THE STUDS WHICH BEAR ON THE SOLE PLATE.
  - BE TREATED WITH AN APPROVED CHEMICAL TO RESIST DECAY AND INSECT ATTACK.
- ANCHORAGE OF ALL EXTERIOR SOLE PLATES:
  - PROVIDE A 1/2" # STEEL "J" ANCHOR BOLT OR EQUAL STRAP. USE 5/8" # IN WIND AREA WITH WIND SPEEDS GREATER THAN 110 MPH.
  - PROVIDE 7" EMBEDMENT (MINIMUM).
  - PLACE AT 12" FROM ENDS OF SOLE PLATE AND NOT MORE THAN 6'-0" ON CENTER; BUT NOT LESS THAN TWO (2) ANCHOR BOLTS PER SOLE PLATE.
- ALL EXTERIOR WALLS AND INTERIOR LOADBEARING WALLS SHALL:
  - BE #2 OR STUD GRADE STUDS. SEE SHEET SF-2 FOR "ALLOWABLE LENGTH OF EXTERIOR WALL STUDS".
  - HAVE A DOUBLE TOP PLATE MATCHING THE STUD SIZE.
  - NOT BE NOTCH MORE THAN 25% OF ITS WIDTH.
  - NOT BE DRILLED MORE THAN 40% OF ITS WIDTH.
- INTERIOR NON-BEARING WALLS SHALL NOT BE NOTCHED MORE THAN 40% OF ITS WIDTH, AND NOT BE DRILLED MORE THAN 60% OF ITS WIDTH.
- FINGER JOINTED STUDS SHALL NOT BE USED AS PART OF SHEAR WALL END POST.
- BALLOON WALL FRAMING SHALL BE CONSTRUCTED OF CONTINUOUS STUDS FROM THE SOLE PLATE TO THE TOP PLATE OF THE CEILING OR ROOF; USE 2X6 STUDS (MINIMUM); NO FINGER JOINTED STUDS; UNLESS NOTED OTHERWISE ON THE FRAMING DRAWINGS.

BEARING WALL ANCHOR SCHEDULE					
ATTACHMENT ANCHOR TYPE	EMBEDMENT	LOCATION AND SPACING			NOTES
		EXTERIOR WALLS	INTERIOR WALLS	NON LOAD BEARING WALLS	
1/2" DIAM. ANCHOR BOLTS	7"	48"O.C.	72"O.C.	N/A	2 TO 4
1/2" DIAM. EXPANSION ANCHORS	2 1/4"	N/A	12"O.C.	N/A	1 & 3
0.177" DIA. POWER ACTUATED FASTENERS	1 1/2"	N/A	24"O.C.	48"O.C.	3
0.099" DIA. POWER ACTUATED FASTENERS	1"	N/A	12"O.C.	12"O.C.	3

- NOTE:
- EXPANSION ANCHORS SHALL NOT BE ALLOWED WITHIN 10" OF SLAB EDGE.
  - REFER TO SHEAR WALL PLAN AND DETAILS FOR SHEAR WALL ANCHORS.
  - REF: PLANS FOR ADDITIONAL NOTES.
  - ALL HARDWARE IN CONTACT WITH ACO TREATED LUMBER CLASS G185 MUST BE SIMPSON ZMAX PRODUCTS THAT MEET ASTM A653.

ALL TIMBER POST SHALL BE 4X4 (MINIMUM) UNLESS NOTED OTHERWISE AND SHALL BE OF #2 S.Y.P.

TIMBER POST SCHEDULE		
POST SIZE	SIMPSON EMBED BASE	SIMPSON BOLTED BASE
4x4	CB44	ABU44
6x6	CB66	ABU66
8x8	CB88	ABU88
10x10	CB1010	NA



**FRAMING LEGEND**

—————	TIMBER JOIST OR RAFTER
-----	ENGINEERED JOIST
=====	ENGINEERED BEAM
—————	STEEL BEAM
=====	HEADER
-----	BLOCKING
-----	SHEAR WALL
-----	PURLIN
=====	STUD WALL
=====	STUD WALL W/ BRICK LEGGE

**ROOF FRAMING NOTES**

- RIDGES, HIPs, AND VALLEYS SHALL BE ONE SIZE LARGER THAN THE RAFTERS; 2X8 MINIMUM.
- COLLAR TIES SHALL BE INSTALLED AT 48" ON CENTER AT THE UPPER THIRD ON THE ATTIC HEIGHT.
- SUPPORT RIDGES, VALLEYS, HIPs ON WALLS OR DESIGNATED BEAMS (FRB) BELOW. SEE FRAMING PLAN FOR LOWER LEVELS.
- SUPPORT RIDGES AT 4'-0" ON CENTER WHEN ROOF PITCH IS LESS THAN 12/12; SUPPORT HIPs AND VALLEY AT 8'-0" ON CENTER.
- FRAMED CHIMNEY - DO NOT SUPPORT ON THE RAFTERS; EXTEND CHIMNEY WALLS THROUGH ROOF AND SUPPORT ON FOUNDATION OR LOAD BEARING WALLS.
- INDICATES PURLINS -----
- SEE TYPICAL DETAIL SHEET FOR FRAMING NOTES, DETAILS, AND SECTIONS.
- RAFTER SANDWICH - WHERE BEAM IS SUPPORTED BY THE ROOF RAFTERS; PLACE A RAFTER ON BOTH SIDES OF BEAM AND NAIL WITH (9) 16d NAILS (EACH SIDE). ADD SOLID BLOCKING BETWEEN RAFTERS BELOW BEAM TO TOP OF WALL BELOW.
- IF DURING CONSTRUCTION, IT IS DISCOVERED THAT THERE IS A DISCREPANCY BETWEEN THE ARCHITECTURAL AND STRUCTURAL PLAN NOTIFY THE ENGINEER AT ONCE (DTS ENGINEERING 281-298-8877)

ROOF FRAMING MATERIAL TABLE (* COMPOSITION SHINGLES)			
RAFTER SIZE	TIMBER GRADE	SPACING (O.C.)	SPAN (MAX.)
2x6**	#2	16"	11'-1"

NOTE: ALL SAWN TIMBER ROOF FRAMING MATERIAL SHALL BE S.Y.P.

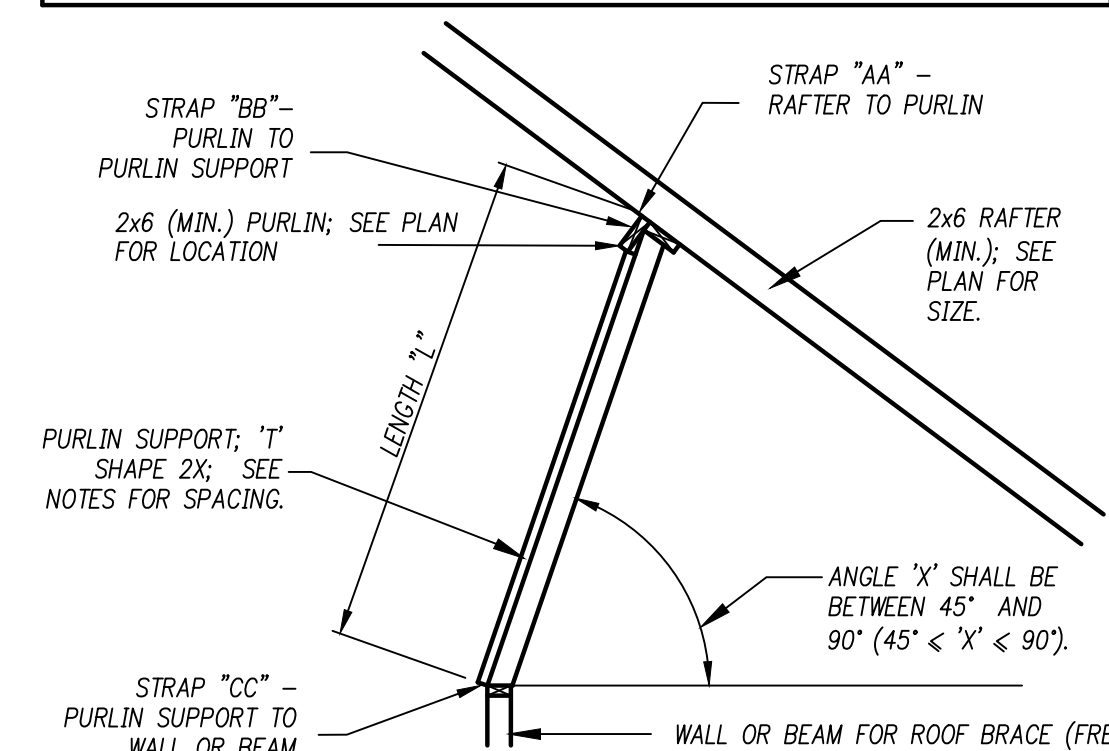
\* IF ANY OTHER MATERIAL OTHER THAN COMPOSITION SHINGLES IS PLANNED TO BE USED FOR ROOF COVERING, NOTIFY DTS ENGINEERING AT ONCE FOR A DESIGN CHANGE.

\*\* TYPICAL UNLESS NOTED OTHERWISE ON PLAN

**ROOF DIAPHRAGM SCHEDULE**

MARK	SHEATHING THICKNESS	NAIL SIZE	NAIL SPACING ON ALL EDGES (ON CENTER)	NAIL SPACING IN FIELD (ON CENTER)	NAIL PENETRATION (MINIMUM)
RD-1		8d	6"	12"	1-3/8"
RD-2	15/32"	8d	4"	8"	1-3/8"
RD-3		8d	2 1/2"	6"	1-3/8"
RD-4		10d	6"	12"	1-1/2"
RD-5	15/32"	10d	4"	8"	1-1/2"
RD-6		10d	2 1/2"	6"	1-1/2"
RD-7		10d	6"	12"	1-1/2"
RD-8	19/32"	10d	4"	8"	1-1/2"
RD-9		10d	2 1/2"	6"	1-1/2"

- NOTES:
- USE 15/32" OR 19/32" APA RATED SHEATHING, EXPOSURE 1.
  - EDGES OF SHEATHING NOT SUPPORTED ON RAFTER OR OTHER ROOF MEMBERS SHALL BE SUPPORTED BY 2X4 BLOCKING.



**PURLIN BRACING DETAIL**

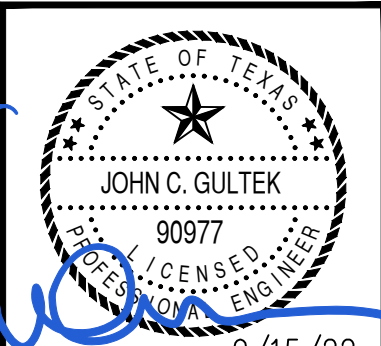
PURLIN SUPPORTS	
LENGTH 'L'	TIMBER SIZE
UP TO 8'-0"	1 - 2X4
8'-1" TO 12'-0"	2 - 2X4
12'-1" TO 20'-0"	1 - 2X6
20'-1" TO 25'-0"	1 - 2X8

NOTE: FOR PURLIN SUPPORTS OVER 8'-0" IN LENGTH; INSTALL 2X4 'X' BRACING BETWEEN PURLIN SUPPORTS ALONG THE SAME PURLIN SO THAT THE UNBRACED LENGTH SHALL BE 8'-0" OR LESS; NO 'X' BRACING SHALL BE TALLER THAN 6'-0".

**PURLIN STRAPPING SCHEDULE**

LOCATION	STRAP	90 MPH	100 MPH	110 MPH (INLAND I)	120 MPH (INLAND II)
RAFTER TO PURLIN	'AA'	H2.5A @ 48"	H6 @ 48"	H6 @ 32"	H6 @ 16"
PURLIN TO PURLIN SUPPORT	'BB'	MTS12	MTS12	(2) MTS12	(2) HTS20
PURLIN SUPPORT TO WALL/BEAM	'CC'	MTS12	MTS12	(2) MTS12	(2) HTS20

- NOTES:
- ALL STRAP DESIGNATIONS ARE TAKEN FROM SIMPSON STRONG-TIE OR USP STRUCTURAL CONNECTOR.
  - STRAPS SHALL BE INSTALLED IN A VERTICAL ALIGNMENT SO TO PROVIDE A STRAIGHT LOAD PATH DOWN THE SIDE OF THE WALL.
  - FOR USE IN T.D.I. AREAS, SEE "TDI CORROSION RESISTANCE REQUIREMENTS FOR METAL CONNECTORS AND FASTENERS" ON THE FRAMING NOTES SHEET.
  - THE ABOVE CHART SHALL BE USED FOR THE ANCHORAGE OF HIP, VALLEY AND RIDGE SUPPORTS.



9/15/22

**DTS**  
ENGINEERING, INC.  
7 Grogan's Park Dr. Suite 11, The Woodlands, TX 77380  
Ph: (281) 298-8877 Fax: (281) 298-9856 Registration #F-7559

**CUSTOM HOME**

DUONG RESIDENCE

**PROJECT INFO.**

SADDLE CREEK FOREST
LOT. 14
BLK. 1
SECT. 6
27900 E. STALLION LN., WALLER, TX 77484

**FRAMING NOTES & SCHEDULES**

PLAN NO.	
SCALE:	1/4" = 1'-0"

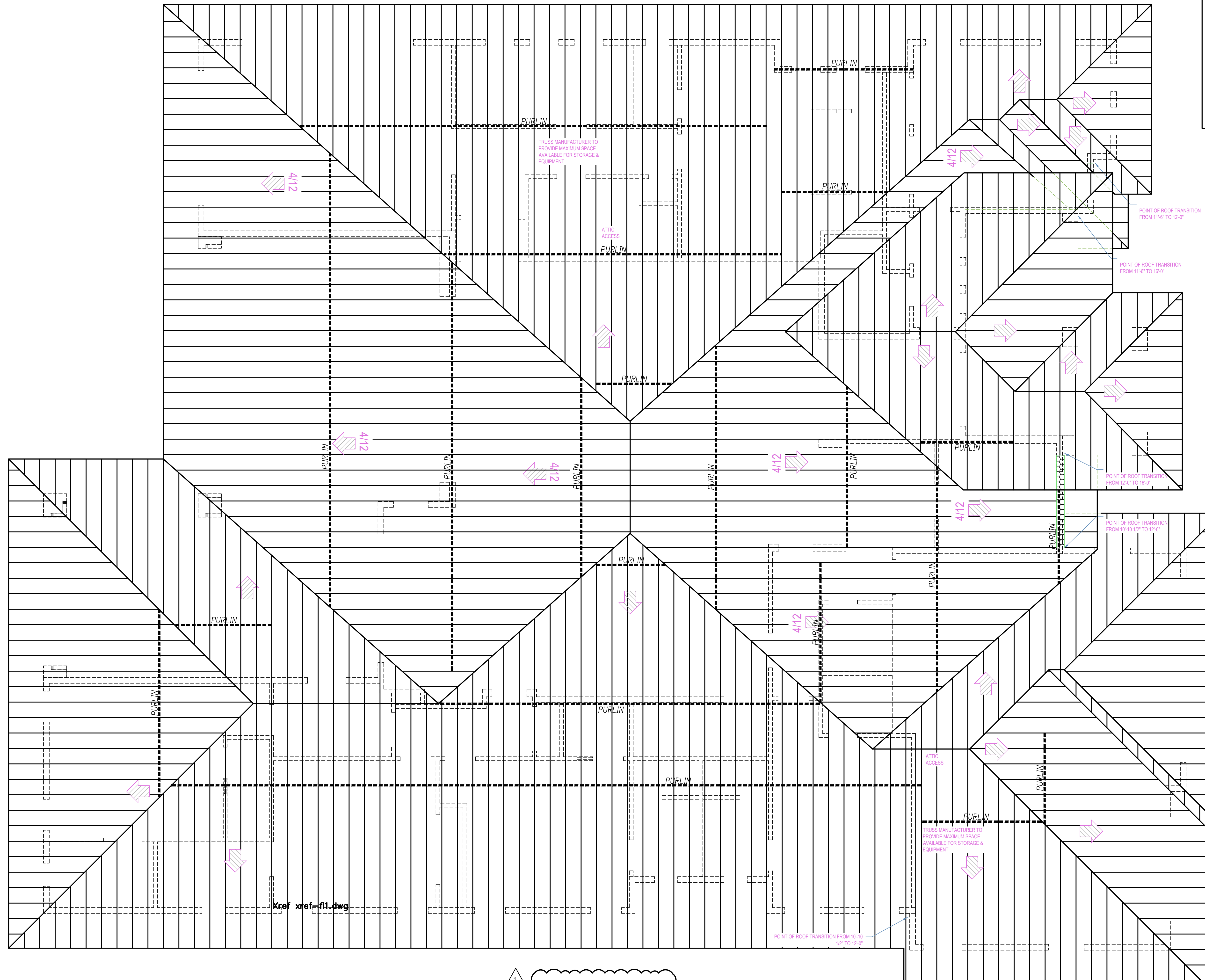
**REVISIONS**

DATE	REASON
9/15/22	FRAMING REV.

CHECKED BY:  
**JG/BW**  
DRAWN BY:  
**YP**  
DATE:  
**3/2/22**  
JOB #  
**22104**

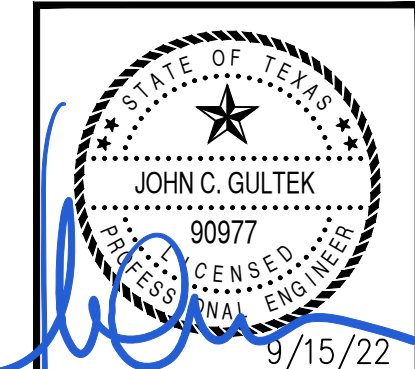
S-4





**FRAMING LEGEND**

- TIMBER JOIST OR RAFTER
- ENGINEERED JOIST
- ENGINEERED BEAM
- STEEL BEAM
- HEADER
- BLOCKING
- SHEAR WALL
- PURLIN
- STUD WALL
- STUD WALL W/ BRICK LEDGE



**DTS**  
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7 Grogan's Park Dr. Suite 11, The Woodlands, TX 77380  
Ph: (281) 298-8877 Fax: (281) 298-9856 Registration #F-7539

CUSTOM HOME

DUONG RESIDENCE

PROJECT INFO.

LOT.	14
BLK.	1
SECT.	6

27900 E. STALLION LN., WALLER, TX 77484

PLAN NO.

ROOF FRAMING PLAN

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

REVISIONS

DATE	REASON
9/15/22	FRAMING REV.

CHECKED BY: JG/BW  
DRAWN BY: YP  
DATE: 3/2/22  
JOB #: 22104

S-5

**1**  
**ROOF FRAMING PLAN**  
scale: 1/4" = 1'-0"  
SEE SHEET S-4 FOR FRAMING NOTES & SCHEDULES

DESIGN WIND SPEED  
THIS PROJECT WAS DESIGNED FOR  
**90 MPH**  
3 SECOND GUST WIND SPEED.

Xref xref-fl.dwg

POINT OF ROOF TRANSITION FROM 10'-8" TO 12'-0"

POINT OF ROOF TRANSITION FROM 12'-0" TO 16'-0"

POINT OF ROOF TRANSITION FROM 11'-6" TO 18'-0"

POINT OF ROOF TRANSITION FROM 11'-6" TO 12'-0"

TRUSS MANUFACTURER TO PROVIDE MAXIMUM SPACE AVAILABLE FOR STORAGE & EQUIPMENT

TRUSS MANUFACTURER TO PROVIDE MAXIMUM SPACE AVAILABLE FOR STORAGE & EQUIPMENT

ATTIC ACCESS

ATTIC ACCESS

# FASTENER SCHEDULE

IRC - TABLE 2304.9.1

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER (A,B,C,D)	SPACING OF FASTENERS
JOIST TO SILL OR GIRDER, TOE NAIL	3-8D	
1"x6" SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL	2-8D 2-1 3/4" 16 GAGE STAPLE	
2" SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	2-16D	
SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	16D	16" O.C.
TOP OR SOLE PLATE TO STUD, END NAIL	2-16D	
STUD TO SOLE PLATE, TOE NAIL	3-8D 2-16D	
DOUBLE STUD, FACE NAIL	10D	24" O.C.
DOUBLE TOP PLATE, FACE NAIL	10D	24" O.C.
SOLE PLATE TO JOIST OR BLOCKING AT BRACED WALL PANEL	3-16D	16" O.C.
DOUBLE TOP PLATES, MINIMUM 48-INCH OFFSET OF END JOINTS, ACE NAIL IN LAPPED AREA	8-16D	
BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOE NAIL	3-8D	
RIM JOIST TO TOP PLATE, TOE NAIL	8D	6" O.C.
TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS, FACE NAIL	2-10D	
BUILT-UP HEADER, TWO PIECES WITH 1/2-INCH SPACER	16D	16" O.C. ALONG EACH EDGE
CONTINUOUS HEADER, TWO PIECES	16D	16" O.C. ALONG EACH EDGE
CEILING JOIST TO PLATE, TOE NAIL	3-8D	
CONTINUED HEADER TO STUD, TOE NAIL	4-8D	
CEILING JOIST, LAPS OVER PARTITIONS, FACE NAIL	3-10D	
CEILING JOIST TO PARALLEL RAFTERS, FACE NAIL	3-10D	
RAFTERS TO PLATE, TOE NAIL	2-16D	
1" BRACE TO EACH STUD AND PLATE FACE NAIL	2-8D 2-1 3/4" 16 GAGE STAPLES	
1"x6" SHEATHING TO EACH BEARING WALL, FACE NAIL	2-8D 2-1 3/4" 16 GAGE STAPLES	
1"x8" SHEATHING TO EACH BEARING WALL, FACE NAIL	2-8D 3-1 3/4" 16 GAGE STAPLES	
WIDER THAN 1"x8" SHEATHING TO BEARING WALL, FACE NAIL	3-8D 4-1 3/4" 16 GAGE STAPLES	
BUILT-UP CORNER STUDS	10D	24" O.C.
BUILT-UP GIRDERS AND BEAMS 2-INCH LUMBER LAYERS	10D	NAIL EACH LAYER AS FOLLOWS: 32" O.C. AT TOP AND BOTTOM AND STAGGERED. TWO NAILS AT ENDS AND AT EACH SPLICE.
2" PLANKS	2-16D	AT EACH BEARING
ROOF RAFTERS TO RIDGE, VALLEY OR HIP RAFTERS: TOE NAIL	4-16D	
FACE NAIL	3-16D	
RAFTER TIES TO RAFTERS, FACE NAIL	3-8D	
WOOD STRUCTURAL PANELS, SUBFLOOR, ROOF AND WALL SHEATHING TO FRAMING, AND PARTICLEBOARD WALL SHEATHING TO FRAMING		
3/8" - 1/2"	6D COMMON NAIL (SUBFLOOR, WALL) 8D COMMON (ROOF)	6 12 (G)
5/16" - 1/2"	6D COMMON NAIL (SUBFLOOR, WALL) 8D COMMON (ROOF)(F)	6 12 (G)
3/16" TO 1"	8D COMMON NAIL	6 12 (G)
1/8" TO 1/4"	10D COMMON NAIL OR 8D DEFORMED NAIL	6 12
DESCRIPTION OF BUILDING MATERIAL		
OTHER WALL SHEATHING	DESCRIPTION OF BUILDING MATERIAL	SPACING OF FASTENERS EDGES (INCHES) (I) INTERMEDIATE SUPPORTS (INCHES) (C,E)
1/2" STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING	1 1/2" GALVANIZED ROOFING NAIL 8D COMMON NAIL 1 1/2" 16 GA STAPLE	3 6
25/32" STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING	1 3/4" GALVANIZED ROOFING NAIL 8D COMMON NAIL 1 3/4" 16 GA STAPLE	3 6
1/2" GYPSUM SHEATHING	1 1/2" GALVANIZED ROOFING NAIL 6D COMMON NAIL 1 1/2" 16 GA GALVANIZED STAPLE 1 1/4" SCREW, TYPE W OR S	4 7
5/8" GYPSUM SHEATHING	1 3/4" GALVANIZED ROOFING NAIL 8D COMMON NAIL 1 5/8" 16 GA GALVANIZED STAPLE 1 5/8" SCREW, TYPE W OR S	4 7
WOOD STRUCTURAL PANELS, COMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING		
3/4" AND LESS	6D DEFORMED NAIL OR 8D COMMON NAIL	6 12
7/8" - 1"	8D COMMON NAIL OR 8D DEFORMED NAIL	6 12
1 1/8" - 1 1/4"	10D COMMON NAIL OR 8D DEFORMED NAIL	6 12

FASTENER NOTES

- (A) ALL NAILS ARE SMOOTH-COMMON, BOX OR DEFORMED SHANKS EXCEPT WHERE OTHERWISE STATED.  
 (B) STAPLES ARE 16 GAGE WIRE AND HAVE A MINIMUM 7/16-INCH IN DIAMETER CROWN WIDTH.  
 (C) NAILS SHALL BE SPACED AT NOT MORE THAN 6 INCHES ON CENTER AT ALL SUPPORTS WHERE SPANS ARE 48 INCHES OR GREATER.  
 (D) 4'-00" BY 8'-00" OR 4'-00" BY 9'-00" PANELS SHALL BE APPLIED VERTICALLY.  
 (E) SPACING OF FASTENERS NOT INCLUDED IN THIS TABLE SHALL BE BASED ON TABLE R602.3(1).  
 (F) FOR REGIONS HAVING BASIC WIND SPEED OF 110 MPH OR GREATER, 8D DEFORMED NAILS SHALL BE USED FOR ATTACHING PLYWOOD AND WOOD STRUCTURAL PANEL ROOF SHEATHING TO FRAMING WITHIN MINIMUM 48-INCH DISTANCE FROM GABLE END WALLS, IF MEAN ROOF HEIGHT IS MORE THAN 25 FEET, UP TO 35 FEET MAXIMUM.  
 (G) FOR REGIONS HAVING A BASIC WIND SPEED OF 100 MPH OR LESS, NAILS FOR ATTACHING WOOD STRUCTURAL PANEL ROOF SHEATHING TO GABLE END WALL FRAMING SHALL BE SPACED 6 INCHES ON CENTER, WHEN BASIC WIND SPEED IS GREATER THAN 80 MPH, NAILS FOR ATTACHING PANEL ROOF SHEATHING TO INTERMEDIATE SUPPORTS SHALL BE SPACED 6 INCHES ON CENTER FOR MINIMUM 48-INCH DISTANCE FROM RIDGES, EAVES AND GABLE END WALLS; 4 INCH ON CENTER TO GABLE END WALL FRAMING.  
 (H) GYPSUM SHEATHING SHALL CONFORM TO ASTM C-79 AND SHALL BE INSTALLED IN ACCORDANCE WITH GA 253. FIBERBOARD SHEATHING SHALL CONFORM TO EITHER AIA 194.1 OR ASTM C-208.  
 (I) SPACING OF FASTENERS ON FLOOR SHEATHING PANEL EDGES APPLIES TO PANEL EDGES SUPPORTED BY FRAMING MEMBERS AND AT ALL FLOOR PERIMETERS ONLY. SPACING OF FASTENERS ON ROOF SHEATHING PANEL EDGES APPLIES TO PANEL EDGES SUPPORTED BY FRAMING MEMBERS AND AT ALL ROOF PLANE PERIMETERS. BLOCKING OF ROOF OR FLOOR SHEATHING PANEL EDGES PERPENDICULAR TO THE FRAMING MEMBERS SHALL NOT BE REQUIRED EXCEPT AT INTERSECTION OF ADJACENT ROOF PLANES. FLOOR AND ROOF PERIMETER SHALL BE SUPPORTED BY FRAMING MEMBERS OR SOLID BLOCKING.

# LINTEL SCHEDULE

BRICK (FOR EACH 4" WYTHE)		
SPAN	LINTEL	
0'-0" TO 1'-0"		FB 3-1/2 X 1/4
1'-0" TO 4'-0"		L 3-1/2 X 3-1/2 X 1/4
4'-0" TO 6'-0"		L 4 X 3-1/2 X 5/16
6'-0" TO 8'-0"		L 5 X 3-1/2 X 3/8
8'-0" TO 10'-0"		L 6 X 3-1/2 X 3/8
10'-0" TO 12'-0"		L 7 X 4 X 3/8
CONCRETE MASONRY UNIT (CMU)		
SPAN	LINTEL	
0'-0" TO 3'-0"	1 - #4 T & 1 - #5 B	(ONE COURSE DEEP)
3'-0" TO 5'-0"	1 - #5 T & 1 - #6 B	
5'-0" TO 7'-0"	2 - #6 T & 2 - #7 B	(TWO COURSES DEEP **)
7'-0" TO 11'-0"	2 - #8 T & 2 - #9 B	
11'-0" TO 14'-0"	2 - #9 T & 2 - #10 B	
** KNOCK OUT BLOCK ON TOP COURSE WITH #3 TIES AT 16" ON CENTER		
LINTEL NOTES:		
1 - LINTEL SCHEDULE ABOVE SHALL BE USED UNLESS SHOWN OR NOTED OTHERWISE.		
2 - LINTELS SHALL HAVE ONE (1) INCH OF BEARING AT EACH END; FOR EACH 1'-0" OF SPAN, BUT NOT LESS THAN SIX (6) INCHES BEARING EACH END.		
3 - CONCRETE BLOCK LINTELS SHALL BE MADE WITH FILLED "U" BLOCKS. UNLESS NOTED OTHERWISE FILL SHALL BE MADE WITH COURSE GROUT CONFORMING TO ASTM C-476, 3/8 INCH MAXIMUM STONE SIZE. SHORE POURED LINTELS, SEVEN (7) DAYS, MINIMUM.		
4 - WHERE LINTEL SPAN EXCEEDS SIX (6) FEET, FILL CELLS AT BEARING FOR 16 INCH LENGTH FROM FOOTING TO BEARING.		
5 - FOR LINTELS L'S SUPPORTED BY THE WOOD BEAM, EITHER SAWN OR ENGINEERED, USE 1/2" X 3" LAG BOLTS AT 16" ON CENTER.		
6 - FOR ARCHED LINTEL, USE L6X4X3/8 CONTINUOUS, ROLLED TO REQUIRED ARCH. USE L3X3X3/16 (VERTICAL) AT 16" ON CENTER TO STEEL LINTEL ABOVE; WELD EACH L3X3 TO LINTEL WITH 3/16" FILLET WELD. USE 5/8" DIAMETER LAG BOLTS TO ATTACH ARCHED LINTEL TO TIMBER BEAM ABOVE.		

# NAIL SIZES

NOMENCLATURE	DIAMETER (INCH)	LENGTH (INCH)
6d	0.113	2
8d	0.131	2 1/2
10d	0.148	3
16d	0.162	3 1/2

NOTE:  
 UNCOATED AND PAINTED FASTENERS AND METAL PRODUCTS SHALL NOT BE USED WITH TREATED WOOD.  
 USE ONLY HOT-DIP GALVANIZED (G-185) OR STAINLESS STEEL FASTENERS AND METAL PRODUCTS.

# CORROSION RESISTANCE REQUIREMENTS FOR METAL CONNECTORS AND FASTENERS

TDI CATEGOTROPHE AREA	LOCATION IN BUILDING	REQUIRED COATING
SEAWARD	OPEN AREA	STAINLESS STEEL (ASTM A-167) HOT-DIP GALVANIZED (ASTM A-123) HOT-DIP GALVANIZED (ASTM A-153) HOT-DIP GALVANIZED (ASTM A-653)
	VENTED OR ENCLOSED AREA	SAME AS SEAWARD OPEN AREA HOT-DIP GALVANIZED (ASTM A-641) MECHANICALLY DEPOSITED ZINC COATING (ASTM B-695) ELECTRODEPOSITED ZINC COATING (ASTM B-633)
	CONDITIONED AREA	NO COATING REQUIRED
INLAND 1 AND INLAND 2	OPEN AREA	STAINLESS STEEL (ASTM A-167) HOT-DIP GALVANIZED (ASTM A-123) HOT-DIP GALVANIZED (ASTM A-153) HOT-DIP GALVANIZED (ASTM A-653) HOT-DIP GALVANIZED (ASTM A-641) MECHANICALLY DEPOSITED ZINC COATING (ASTM B-695) ELECTRODEPOSITED ZINC COATING (ASTM B-633)
	VENTED OR ENCLOSED AREA	SAME AS INLAND 1 OR INLAND 2 OPEN AREA EPOXY COATING (ASTM A-899)
	CONDITIONED AREA	NO COATING REQUIRED

- NOTES:  
 1 - OPEN AREA - PORCHES, EXTERIOR COVERING, ROOF COVERING, AND UNDERSIDE OF ELEVATED STRUCTURES.  
 2 - VENTED OR ENCLOSED AREA - ATTICS, EXTERIOR WALL STUD CAVITIES, AND CRAWL SPACES.  
 3 - CONDITIONED AREA - HEATED AND COOLED LIVING AREA.

# GENERAL NOTES

## CODES:

1. THE FOLLOWING CODES WERE EMPLOYED WHERE APPLICABLE IN THE DESIGN OF THE VARIOUS COMPONENTS OF THIS PROJECT AND THE PREPARATION OF THE CONTRACT DOCUMENTS:

- INTERNATIONAL RESIDENTIAL CODE 2012 (IRC 2012)
- NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, 1997 EDITION (NDS 1997)
- WOOD FRAMED CONSTRUCTION MANUAL FOR ONE AND TWO FAMILY DWELLINGS, 2001 EDITION (WFCM 2001)
- AMERICAN SOCIETY OF CIVIL ENGINEERS - MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES (ASCE 7-02)
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION - 13TH EDITION
- AMERICAN INSTITUTE OF CONCRETE - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318)

## LOADS

AREAS	DEAD LOAD	LIVE LOAD
ROOF	10	20
ROOF (SLATE OR TILE)	20	30
CEILING	10	20
FLOOR	10	40
EXTERIOR BALCONY	10	60

TABLE 4-1 (ASCE 7-05)

## GENERAL

1. THE CONSTRUCTION OF FLOORS, WALLS, CEILINGS, AND ROOFS SHALL BE IN ACCORDANCE WITH THE INTERNATIONAL RESIDENTIAL CODE 2012 (IRC).

2. LOAD-BEARING DIMENSION LUMBER FOR JOISTS, BEAMS, GIRDERS, STUDS, PLATES, HEADERS, RAFTERS, TRUSSES, AND CEILING JOISTS SHALL BE IDENTIFIED BY A GRADE MARK OF A LUMBER GRADING OR INSPECTION AGENCY THAT HAS BEEN APPROVED BY AN ACCREDITATION BODY THAT COMPLIES WITH DOC P5 20.

## FLOOR FRAMING

### 1. SPANS

A. SPANS FOR FLOOR JOIST SHALL BE INDICATED ON THE FRAMING PLAN IN THE "FLOOR AND CEILING FRAMING MATERIALS TABLE". THE GRADE OF LUMBER USED FOR THE PROJECT SHALL BE NOTED ON THE FRAMING DRAWINGS.

### 2. BEARING

A. THE ENDS OF EACH JOIST, BEAM OR GIRDER SHALL HAVE NOT LESS THAN 1.5-INCHES OF BEARING ON WOOD OR METAL AND NOT LESS THAN 3-INCHES ON MASONRY OR CONCRETE EXCEPT WHERE SUPPORTED BY THE USE OF APPROVED JOIST HANGERS.

B. JOIST FRAMING FROM OPPOSITE SIDE OVER A BEARING SUPPORT SHALL LAP A MINIMUM OF 3-INCHES.

C. JOIST FRAMING INTO THE SIDE OF A WOOD GIRDER SHALL BE SUPPORTED BY APPROVED FRAMING OR ON LEDGER STRIPS NOT LESS THAN NOMINAL 2-INCH BY 2-INCH.

### 3. LATERAL RESTRAINT

A. JOIST SHALL BE SUPPORTED Laterally AT THE ENDS BY FULL-DEPTH SOLID BLOCKING NOT LESS THAN 2-INCHES NOMINAL IN THICKNESS; OR BY ATTACHMENT TO A HEADER, BAND, OR RIM JOIST, OR TO AN ADJOINING STUD; OR SHALL BE OTHERWISE PROVIDED WITH LATERAL SUPPORT TO PREVENT ROTATION.

### 4. DRILLING AND NOTCHING

A. STRUCTURAL FLOOR MEMBERS SHALL NOT BE CUT, BORED, OR NOTCHED IN EXCESS OF THE LIMITATIONS SPECIFIED IN THIS SECTION:

DEPTH OF MEMBER	D
NOTCH	D/6 (TOP OR BOTTOM; ON THE END 1/3 OF LENGTH)
END NOTCH	D/4 (TOP OR BOTTOM; MAXIMUM D FROM END)
DRILLED HOLES	D/3 (2-INCHES FOR TOP OR BOTTOM)

B. CUTS, NOTCHES AND HOLES BORED IN TRUSSES, LAMINATED VENEER LUMBER, GLUE-LAMINATED MEMBERS OF 1-JOIST ARE NOT PERMITTED UNLESS THE EFFECTS OF SUCH PENETRATIONS ARE SPECIFICALLY CONSIDERED IN THE DESIGN OF THE MEMBER.

### 5. FASTENING

A. FLOOR FRAMING SHALL BE NAILED IN ACCORDANCE WITH IRC SECTION 2304.8.3.2 WHERE POSTS AND BEAM OR GIRDER CONSTRUCTION IS USED TO SUPPORT FLOOR FRAMING, POSITIVE CONNECTIONS SHALL BE PROVIDED TO ENSURE AGAINST UPLIFT AND LATERAL DISPLACEMENT.

### 6. FRAMING OF OPENINGS

A. OPENINGS IN FLOOR FRAMING SHALL BE FRAMED WITH A HEADER AND TRIMMER JOISTS. WHEN THE HEADER JOIST SPAN DOES NOT EXCEED 4- FEET, THE HEADER MAY BE A SINGLE MEMBER THE SAME SIZE AS THE FLOOR JOIST. A SINGLE TRIMMER JOIST MAY BE USED TO CARRY A SINGLE HEADER JOIST THAT IS LOCATED WITHIN 3- FEET OF THE TRIMMER JOIST BEARING. WHEN THE HEADER JOIST SPAN EXCEEDS 4- FEET, THE TRIMMER JOIST AND THE HEADER JOIST SHALL BE DOUBLED AND OF SUFFICIENT CROSS SECTION TO SUPPORT THE FLOOR JOIST FRAMING INTO THE HEADER.

### 7. WOOD TRUSSES

A. THE DESIGN AND MANUFACTURE OF METAL PLATE CONNECTED WOOD TRUSSES SHALL COMPLY WITH ANSI/TPI 1. THE TRUSS DESIGN SHALL BE PREPARED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS.

B. THE ERECTION PLANS WILL INDICATE ALL TRUSS BRACING FOR CONSTRUCTION AND FINAL BRACING AS WELL AS THE REQUIRED END BEARING FOR THE TRUSSES. ALL SPECIAL CONNECTIONS, HANGERS, AND DOUBLE TRUSSES SHALL ALSO BE INDICATED.

### 8. ENGINEERED WOOD JOIST

A. THE DESIGN AND MANUFACTURE OF ENGINEERED WOOD JOIST SHALL COMPLY WITH GOOD ENGINEERING PRACTICE. THE JOIST DESIGN SHALL BE PREPARED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS.

B. THE ERECTION PLANS WILL INDICATE ALL TRUSS BRACING FOR CONSTRUCTION AND FINAL BRACING AS WELL AS THE REQUIRED END BEARING FOR THE TRUSSES. ALL SPECIAL CONNECTIONS, HANGERS, AND DOUBLE TRUSSES SHALL ALSO BE INDICATED.

## FLOOR SHEATHING

### 1. SPAN

A. MAXIMUM ALLOWABLE SPAN FOR LUMBER USED AS FLOOR SHEATHING SHALL CONFORM TO IRC TABLES 2304.7(1), 2304.7(2), 2304.7(3), 2304.7(4) & 2304.7(5)

B. THE MAXIMUM ALLOWABLE SPAN FOR WOOD STRUCTURAL PANELS USED AS SUBFLOOR OR COMBINATION SUBFLOOR UNDERLAYMENT SHALL BE AS SET FORTH IN IRC TABLE 2304.7(4) THE MAXIMUM SPAN FOR SANDED PLYWOOD COMBINATION SUBFLOOR UNDERLAYMENT SHALL BE AS SET FORTH IN IRC TABLE 2304.7(4)

### 2. END JOINTS

A. END JOINTS IN LUMBER USED AS SUBFLOORING SHALL OCCUR OVER SUPPORTS UNLESS END-MATCHED LUMBER IS USED, IN WHICH CASE EACH PIECE SHALL BEAR ON AT LEAST TWO JOIST. SUBFLOORING MAY BE OMITTED WHEN JOIST SPACING DOES NOT EXCEED 16-INCHES AND A 1-INCH NOMINAL TONGUE-AND-GROOVE WOOD STRIP FLOORING IS APPLIED PERPENDICULAR TO THE JOIST.

## WALL CONSTRUCTION

1. GRADE (SEC 2308)  
 A. STUDS SHALL BE A MINIMUM NO. 2, STUD GRADE LUMBER.

B. NON-BEARING STUDS MAY BE UTILITY GRADE LUMBER, PROVIDE THE STUDS ARE SPACED IN ACCORDANCE WITH IRC TABLE 2308.9.1

2. EXTERIOR BEARING WALLS  
 A. COMPONENTS OF EXTERIOR WALLS SHALL BE FASTENED IN ACCORDANCE WITH IRC TABLES 2308.9.3(1) TO 2308.9.3(4)

B. LOAD BEARING STUDS SHALL BE LIMITED TO 10- FEET. SEE "ALLOWABLE LENGTH OF EXTERIOR WALL STUDS" ON SF-2 FOR LOAD BEARING STUDS USED IN BUILDINGS THAT ARE FULLY SHEATHED OR EMPLOY THE PROVISIONS OF THE BRACED WALL.

C. WOOD STUD WALLS SHALL BE CAPPED WITH A DOUBLE TOP PLATE INSTALLED TO PROVIDE OVERLAPPING AT CORNERS AND INTERSECTIONS WITH BEARING PARTITIONS. EACH JOINT IN TOP PLATE SHALL BE OFFSET AT LEAST 24-INCHES.

D. STUDS SHALL HAVE FULL BEARING ON NOMINAL 2 BY OR LARGER PLATE OF SILL HAVING A WIDTH AT LEAST EQUAL TO THE WIDTH OF THE STUD.

3. INTERIOR LOAD-BEARING WALLS  
 A. INTERIOR LOAD-BEARING WALLS SHALL BE CONSTRUCTED, FRAMED, AND FIREBLOCKED AS SPECIFIED FOR EXTERIOR WALLS.

### 4. INTERIOR NONBEARING WALLS

A. INTERIOR NONBEARING WALLS SHALL BE PERMITTED TO BE CONSTRUCTED WITH 2-INCH BY 3-INCH STUDS SPACED 24-INCHES ON CENTER OR, WHEN NOT PART OF A BRACED WALL LINE, 2-INCH BY 4-INCH FLAT STUDS SPACED AT 16-INCHES ON CENTER. INTERIOR NONBEARING WALLS SHALL BE CAPPED WITH AT LEAST A SINGLE TOP PLATE. INTERIOR NONBEARING WALLS SHALL BE FIREBLOCKED IN ACCORDANCE WITH IRC SECTION 2308.9.3

### 5. DRILLING AND NOTCHING OF STUDS

A. ANY STUD IN AN EXTERIOR WALL OR BEARING PARTITION MAY BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25 PERCENT OF ITS WIDTH. STUDS IN NONBEARING PARTITIONS MAY BE NOTCHED TO A DEPTH NOT TO EXCEED 40 PERCENT OF A SINGLE STUD WIDTH. ANY STUD MAY BE BORED OR DRILLED, PROVIDED THAT THE DIAMETER OF THE RESULTING HOLE IS NO GREATER THAN 40 PERCENT OF THE STUD WIDTH, THE EDGE OF THE HOLE IS NO CLOSER THAN 5/8-INCH TO THE EDGE OF THE STUD, AND THE HOLE IS NOT LOCATED IN THE SAME SECTION AS A CUT OR NOTCH. SEE IRC FIGURES 2308.9.10 AND 2308.9.11.

B. WHEN PIPING OR DUCTWORK IS PLACED IN OR PARTLY IN AN EXTERIOR WALL OR INTERIOR, BRACED OR LOAD-BEARING WALL, NECESSITATING A CUTTING OF THE TOP PLATE BY MORE THAN 50 PERCENT OF ITS WIDTH, A GALVANIZED METAL TIE NOT LESS THAN 0.054-INCH THICK (16 GAGE) AND 1.5-INCHES WIDE SHALL BE FASTENED TO EACH PLATE ACROSS AND TO EACH SIDE OF THE OPENING WITH NOT LESS THAN SIX 16D NAILS. SEE IRC FIGURE 2309.9

### 6. HEADERS

A. WOOD STRUCTURAL PANEL BOX HEADERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH IRC TABLE 2308.9.5 AND IRBC TABLE 2308.9.6

B. LOAD-BEARING HEADERS ARE NOT REQUIRED IN INTERIOR OR EXTERIOR NONBEARING WALLS.

### 7. FIREBLOCKING

A. FIREBLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTH VERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE.

## ROOF - CEILING CONSTRUCTION

### 1. ROOF FRAMING

A. RAFTERS SHALL BE FRAMED TO RIDGE BOARD OR TO EACH OTHER WITH A GUSSET PLATE AS A TIE. RIDGE BOARD SHALL BE AT LEAST 1-INCH NOMINAL THICKNESS AND NOT LESS IN DEPTH THAN THE CUT END OF THE RAFTER. AT ALL VALLEYS AND HIPs THERE SHALL BE A VALLEY OR HIP RAFTER NOT LESS THAN 2-INCHES NOMINAL THICKNESS AND NOT LESS IN DEPTH THAN THE CUT END OF THE RAFTER. HIP AND VALLEY RAFTERS SHALL BE SUPPORTED AT THE RIDGE BY A BRACE TO A BEARING PARTITION.

### 2. SPANS

A. SPANS FOR CEILING JOIST SHALL BE INDICATED ON THE FRAMING PLAN IN THE "FLOOR AND CEILING FRAMING MATERIALS TABLE". THE GRADE OF LUMBER USED FOR THE PROJECT SHALL BE NOTED ON THE FRAMING DRAWINGS.

B. SPANS FOR RAFTERS SHALL BE INDICATED ON THE FRAMING PLAN IN THE "ROOF FRAMING MATERIALS TABLE". THE GRADE OF LUMBER USED FOR THE PROJECT SHALL BE NOTED ON THE ROOF FRAMING DRAWINGS.

### 3. BEARING

A. THE ENDS OF EACH RAFTER OR CEILING JOIST SHALL HAVE NOT LESS THAN 1-1/2-INCHES OF BEARING ON WOOD OR METAL AND NOT LESS THAN 3-INCHES ON MASONRY OR CONCRETE.

### 4. CUTTING AND NOTCHING

A. NOTCHES IN SOLID LUMBER JOISTS, RAFTERS AND BEAMS SHALL NOT EXCEED ONE-SIXTH OF THE DEPTH OF THE MEMBER. HOLES SHALL NOT BE LONGER THAN ONE-THIRD OF THE DEPTH OF THE MEMBER AND SHALL NOT BE LOCATED IN THE MIDDLE ONE-THIRD OF THE SPAN. NOTCHES AT THE ENDS OF THE MEMBER SHALL NOT EXCEED ONE-FOURTH OF THE DEPTH OF THE MEMBER. THE TENSION SIDE OF MEMBER 4-INCHES OR GREATER IN NOMINAL THICKNESS SHALL NOT BE NOTCHED EXCEPT AT THE ENDS OF THE MEMBERS.

B. THE DIAMETER OF THE HOLES BORED OR CUT INTO MEMBERS SHALL NOT EXCEED ONE-THIRD OF THE DEPTH OF THE MEMBER. HOLES SHALL NOT BE CLOSER THAN 2-INCHES TO THE TOP OR BOTTOM OF THE MEMBER, OR TO ANY OTHER HOLE LOCATED IN THE MEMBER. WHERE THE MEMBER IS ALSO NOTCHED, THE HOLE SHALL NOT BE CLOSER THAN 2-INCHES TO THE NOTCH.

C. CUTS, NOTCHES AND HOLES BORED IN LAMINATED VENEER LUMBER, GLUE-LAMINATED MEMBERS, OR 1-JOISTS ARE NOT PERMITTED UNLESS THE EFFECT OF SUCH PENETRATIONS ARE SPECIFICALLY CONSIDERED IN THE DESIGN OF THE MEMBER.

### 5. LATERAL SUPPORT

A. RAFTERS AND CEILING JOISTS HAVING A DEPTH-TO-THICKNESS RATIO EXCEEDING 5 TO 1 BASED ON NOMINAL DIMENSIONS SHALL BE PROVIDED WITH LATERAL SUPPORT AT POINTS OF BEARING TO PREVENT ROTATION.

B. RAFTERS AND CEILING JOISTS HAVING A DEPTH-TO-THICKNESS RATIO EXCEEDING 6 TO 1 BASED ON NOMINAL DIMENSIONS SHALL BE SUPPORTED Laterally BY SOLID BLOCKING, DIAGONAL BRIDGING OR CONTINUOUS 1-INCH BY 3-INCH WOOD STRIP NAILED ACROSS THE RAFTERS OR CEILING JOISTS AT INTERVAL NOT EXCEEDING 8- FEET.

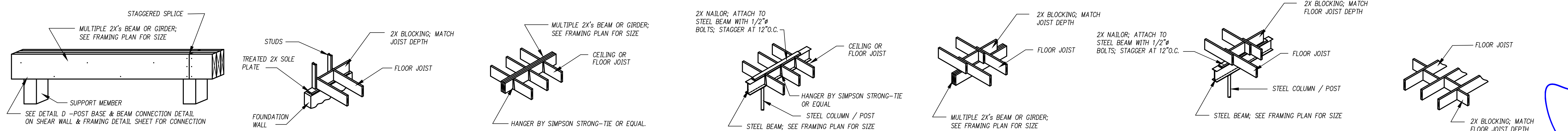
### 6. FRAMING OF OPENINGS

A. OPENINGS IN FLOOR FRAMING SHALL BE FRAMED WITH A HEADER AND TRIMMER JOISTS. WHEN THE HEADER JOIST SPAN DOES NOT EXCEED 4- FEET, THE HEADER MAY BE A SINGLE MEMBER THE SAME SIZE AS THE FLOOR JOIST. A SINGLE TRIMMER JOIST MAY BE USED TO CARRY A SINGLE HEADER JOIST THAT IS LOCATED WITHIN 3- FEET OF THE TRIMMER JOIST BEARING. WHEN THE HEADER JOIST SPAN EXCEEDS 4- FEET, THE TRIMMER JOIST AND THE HEADER JOIST SHALL BE DOUBLED AND OF SUFFICIENT CROSS SECTION TO SUPPORT THE FLOOR JOIST FRAMING INTO THE HEADER.

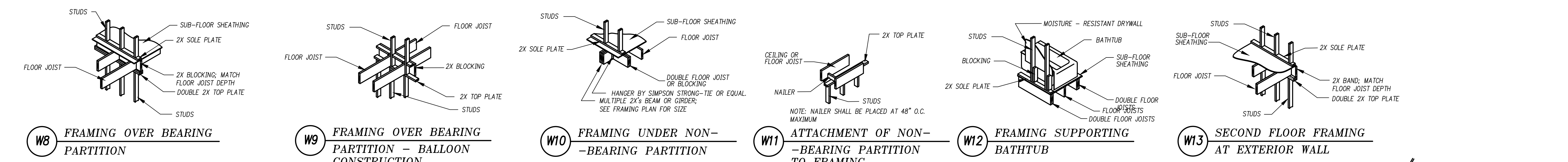
## ROOF SHEATHING

### 1. LUMBER SHEATHING

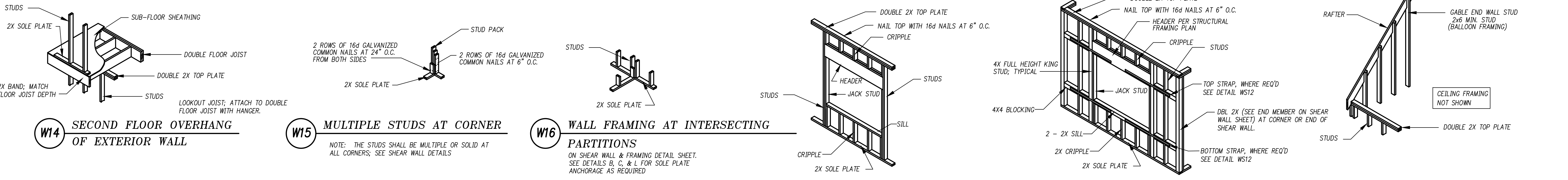
2. WOOD STRUCTURAL PANEL SHEATHING (2304.6.1)



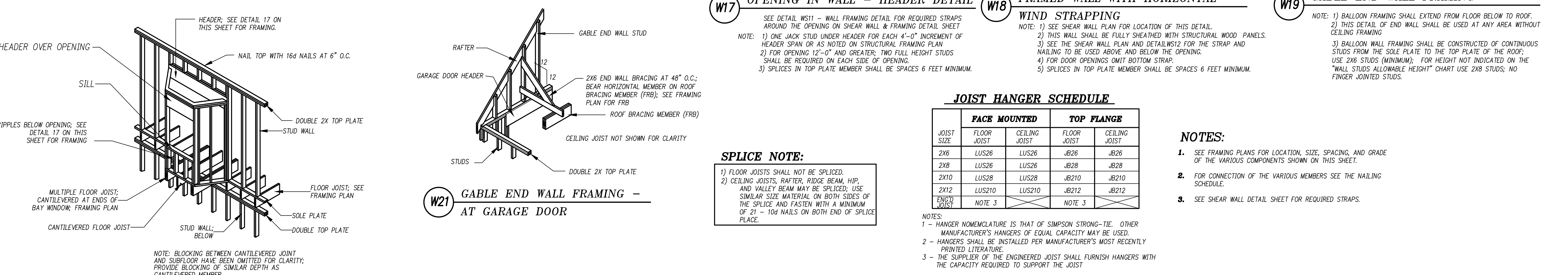
**W1 BUILT-UP BEAM AND GIRDER NAILING** **W2 JOIST END BEARING ON FOUNDATION WALL** **W3 FLOOR OR CEILING JOIST SUPPORT ON BEAM WITH HANGER** **W4 FLOOR OR CEILING JOIST SUPPORT ON STEEL BEAM** **W5 FLOOR OR CEILING JOIST SUPPORT OVER BEAM OR GIRDER** **W6 FLOOR OR CEILING JOIST SUPPORT OVER STEEL BEAM** **W7 SOLID BLOCKING BETWEEN JOIST**



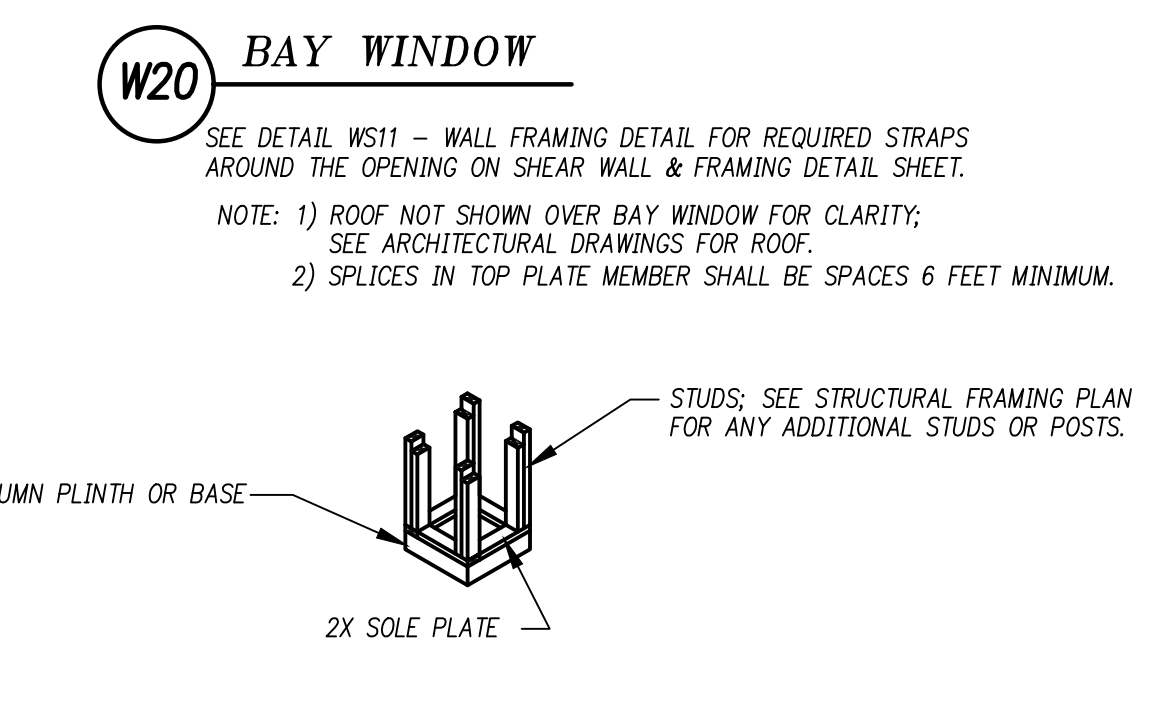
**W8 FRAMING OVER BEARING PARTITION** **W9 FRAMING OVER BEARING PARTITION - BALLOON CONSTRUCTION** **W10 FRAMING UNDER NON-BEARING PARTITION** **W11 ATTACHMENT OF NON-BEARING PARTITION TO FRAMING** **W12 FRAMING SUPPORTING BATHTUB** **W13 SECOND FLOOR FRAMING AT EXTERIOR WALL**



**W14 SECOND FLOOR OVERHANG OF EXTERIOR WALL** **W15 MULTIPLE STUDS AT CORNER** **W16 WALL FRAMING AT INTERSECTING PARTITIONS** **W17 OPENING IN WALL - HEADER DETAIL**



**W18 FRAMED WALL WITH HORIZONTAL WALL STRAPPING** **W19 GABLE END WALL FRAMING**



**W20 BAY WINDOW**

**ALLOWABLE LENGTH OF EXTERIOR WALL STUDS \***

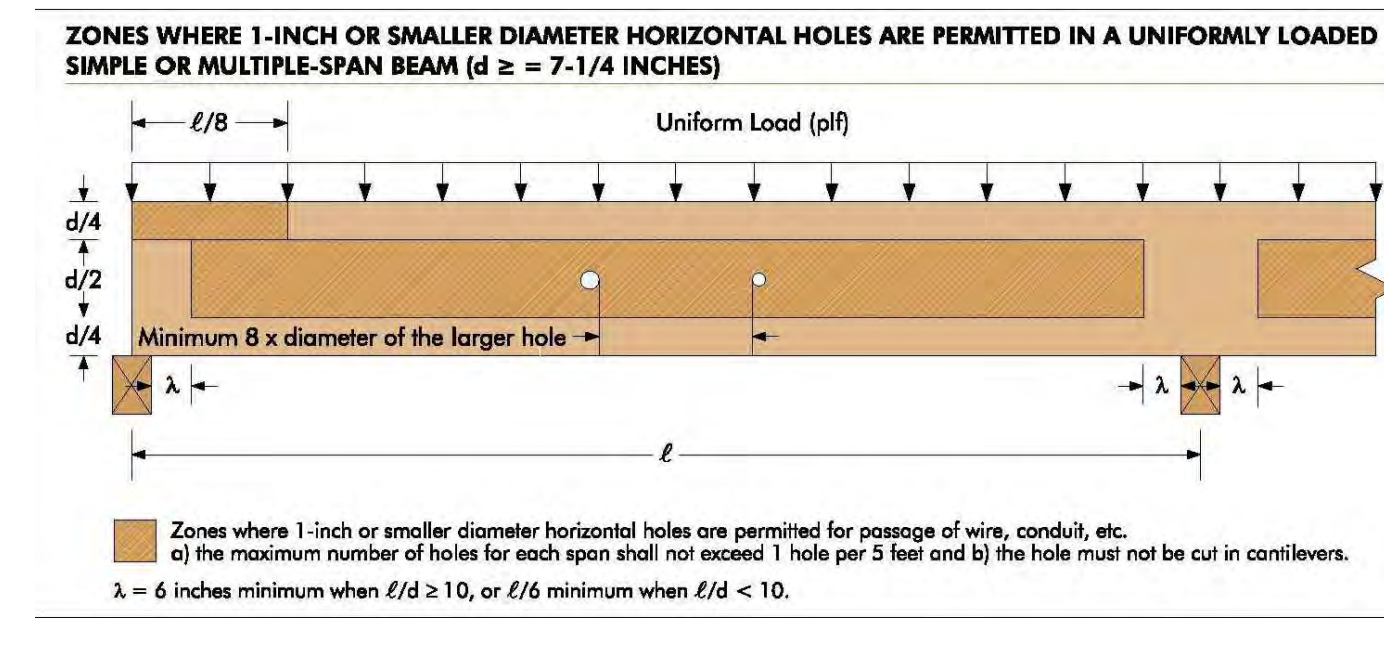
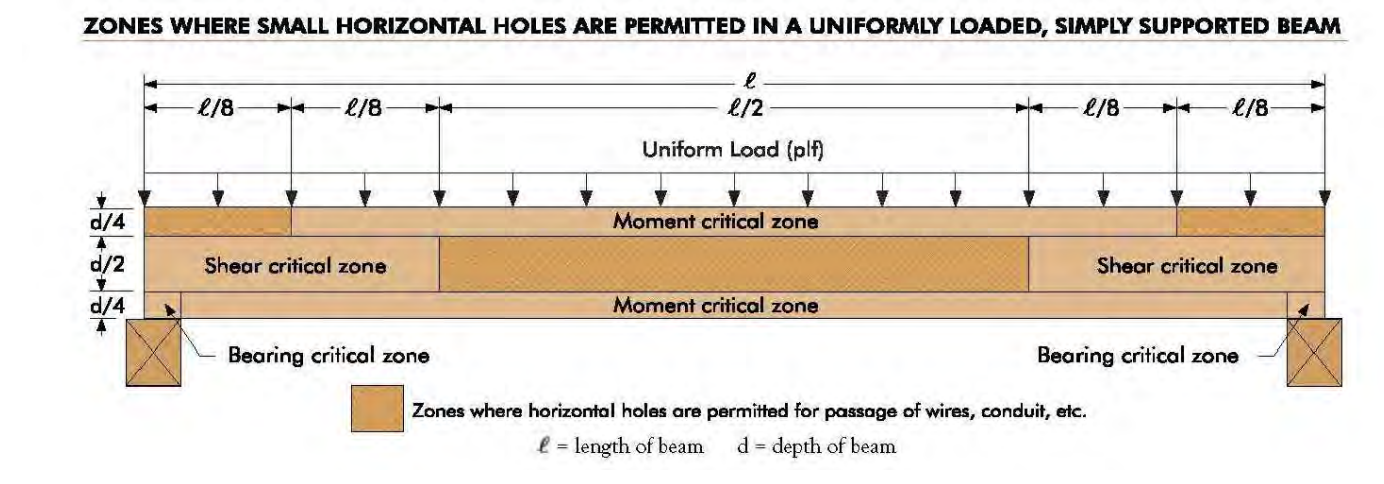
WIND SPEED = 100 MPH	110 MPH			120 MPH			130 MPH			STUD SIZE				
	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8					
NON-LOADBEARING STUDS	12" OC	13'-6"	19'-9"	12'-8"	19'-9"	19'-9"	11'-11"	19'-1"	19'-9"	11'-3"	18'-1"	19'-9"	12" OC	NON-LOADBEARING STUDS
LOADBEARING STUDS SUPPORTING ROOF & CEILING ONLY	12" OC	11'-9"	11'-9"	11'-9"	11'-9"	11'-9"	11'-9"	11'-9"	11'-9"	11'-9"	11'-9"	11'-9"	12" OC	LOADBEARING STUDS SUPPORTING ROOF & CEILING ONLY
LOADBEARING STUDS SUPPORTING ROOF, CEILING & 1 FLOOR ONLY	12" OC	11'-9"	11'-9"	11'-9"	11'-9"	11'-9"	11'-9"	11'-9"	11'-9"	11'-9"	11'-9"	11'-9"	12" OC	LOADBEARING STUDS SUPPORTING ROOF, CEILING & 1 FLOOR ONLY
LOADBEARING STUDS SUPPORTING ROOF, CEILING & 2 FLOORS ONLY	12" OC	11'-9"	11'-9"	11'-9"	11'-9"	11'-9"	11'-9"	11'-9"	11'-9"	11'-9"	11'-9"	11'-9"	12" OC	LOADBEARING STUDS SUPPORTING ROOF, CEILING & 2 FLOORS ONLY

**NOTES:**  
 1. THE USE OF THIS TABLE FOR EXTERIOR LOADBEARING STUDS SHALL BE VALID ONLY IF THE PROVISIONS OF THE BRACED WALL DETAILS ARE USED.  
 2. AN ENGINEERED DESIGN FOR A GIVEN LOCATION MAY INCREASE THE LENGTH OF SPECIFIC EXTERIOR STUDS. SEE THE FRAMING PLAN FOR THE LOCATION OF THE SPECIFIC STUDS.  
 3. WALL STUDS OF #2 GRADE LUMBER (INCLUDING DOUGLAS FIR-LARCH, HEM FIR, SOUTHERN PINE AND SPRUCE-PINE-FIR) SHALL NOT EXCEED THE MAXIMUM LENGTH SPECIFIED IN THE TABLE ABOVE.

**JOIST HANGER SCHEDULE**

JOIST SIZE	FACE MOUNTED		TOP FLANGE	
	FLOOR JOIST	CEILING JOIST	FLOOR JOIST	CEILING JOIST
2X6	LUS26	LUS26	JB26	JB26
2X8	LUS26	LUS26	JB28	JB28
2X10	LUS28	LUS28	JB210	JB210
2X12	LUS210	LUS210	JB212	JB212
ENG'D JOIST	NOTE 3		NOTE 3	

**NOTES:**  
 1 - HANGER NOMENCLATURE IS THAT OF SIMPSON STRONG-TIE. OTHER MANUFACTURER'S HANGERS OF EQUAL CAPACITY MAY BE USED.  
 2 - HANGERS SHALL BE INSTALLED PER MANUFACTURER'S MOST RECENTLY PRINTED LITERATURE.  
 3 - THE SUPPLIER OF THE ENGINEERED JOIST SHALL FURNISH HANGERS WITH THE CAPACITY REQUIRED TO SUPPORT THE JOIST



**CUSTOM HOME**

**DUONG RESIDENCE**

**PROJECT INFO.**

**SADDLE CREEK FOREST**

LOT.	14
BLK.	1
SECT.	6

27900 E. STALLION LN., WALLER, TX 77484

**PLAN NO.**

**STANDARD ROOF & WALL FRAMING DETAILS**

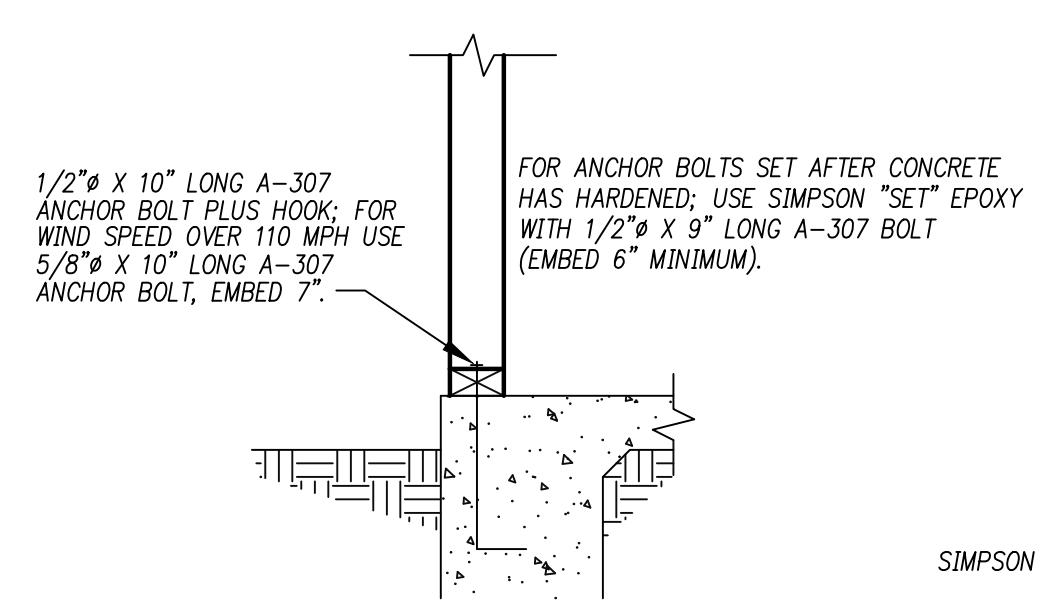
SCALE:  
 NOT TO SCALE

**REVISIONS**

DATE	REASON

CHECKED BY:  
 JG/BW  
 DRAWN BY:  
 BW  
 DATE:  
 3/2/22  
 JOB #  
 22104

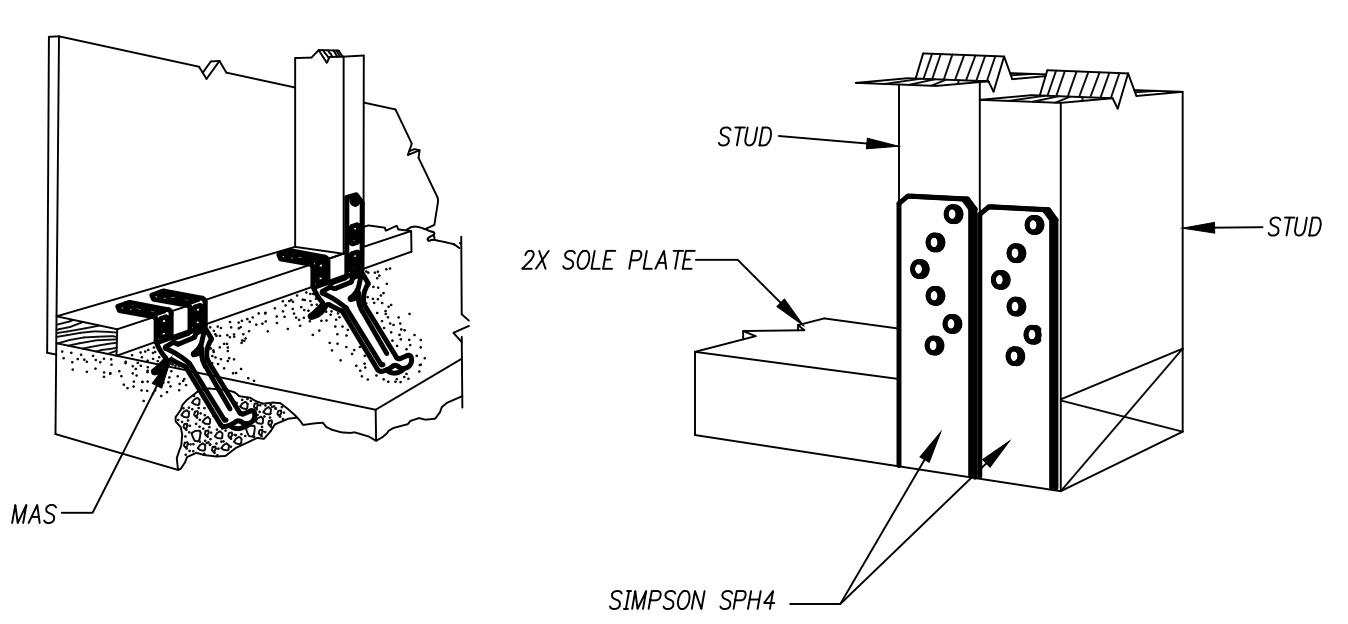
SF-2



**TYPICAL SILL PLATE ANCHOR DETAIL**

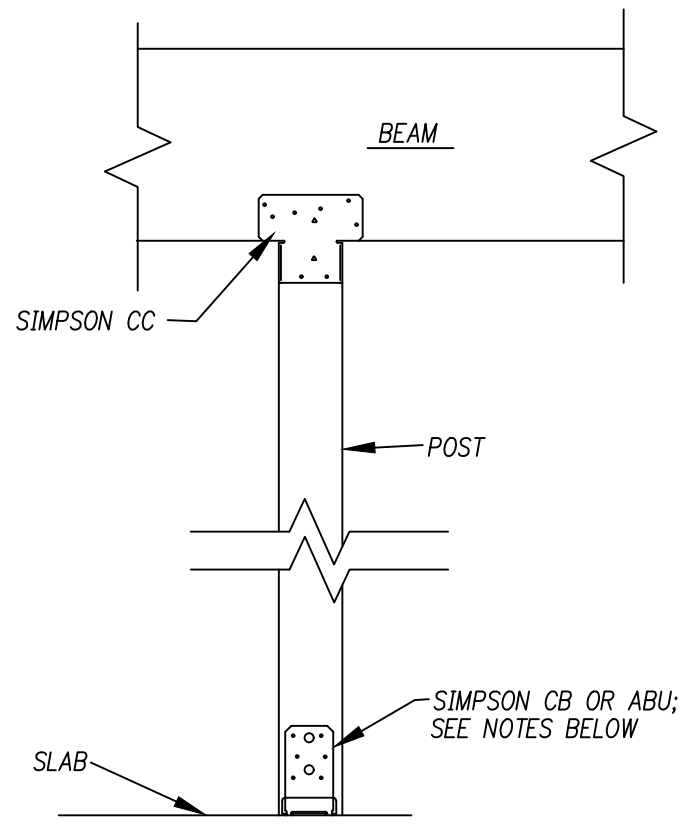
SPACING SHALL BE 4'-0" O.C. AND 12" FROM CORNERS EACH WAY AND 12" FROM DOOR OPENINGS IN EXTERIOR WALLS; NO LESS THAN TWO BOLTS PER PLATE; FOR WIND SPEED OF 110 MPH OR LESS; AT 32" OC OVER 110 MPH WIND SPEED.

NOTE: SOLE PLATE ANCHORS WITHIN THE LENGTH OF A SHEAR WALL SHALL BE 32" ON CENTER.

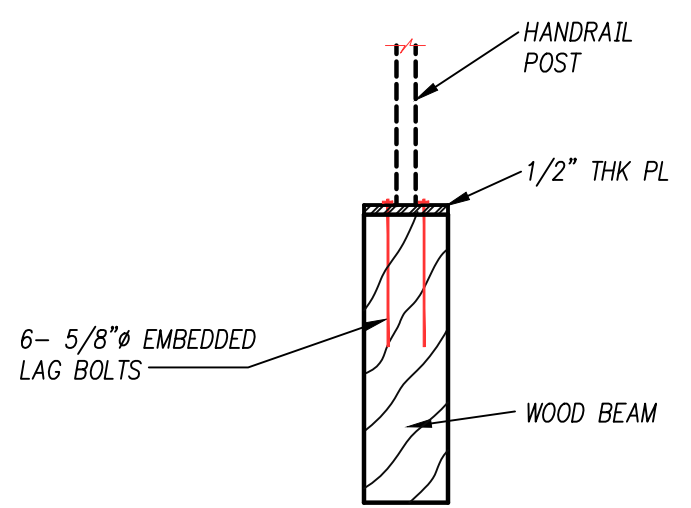


**ALTERNATE SILL PLATE ANCHOR DETAIL**

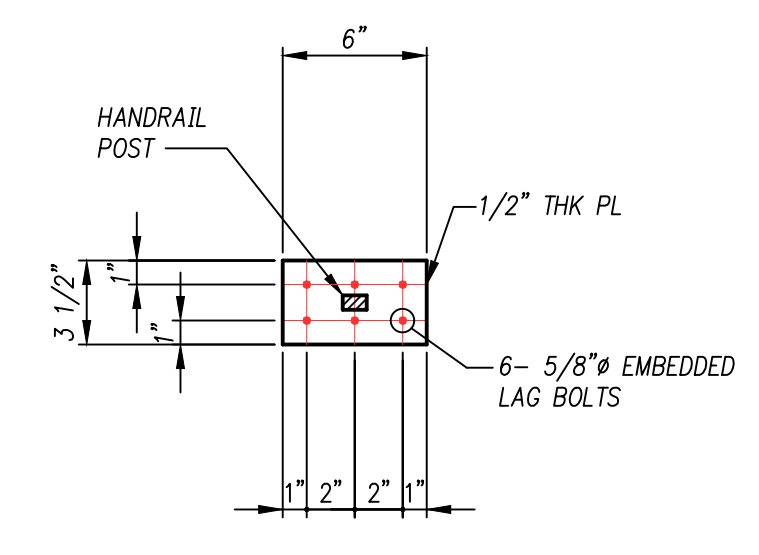
SPACING SHALL BE 3'-0" O.C. AND 12" FROM CORNERS EACH WAY AND 12" FROM DOOR OPENINGS IN EXTERIOR WALLS



NOTE:  
 1 - USE SIMPSON BASES AND CAPS AS INDICATED OR USP EQUAL FOR THE APPROPRIATE POST DIMENSIONS.  
 2 - FOR BOLTED BASES USE 1/2" Ø BOLT; USE SIMPSON "SET" HIGH STRENGTH EPOXY OR HILTI "HIT RE 500 EPOXY ADHESIVE (4 - 1/2" EMBED MINIMUM).

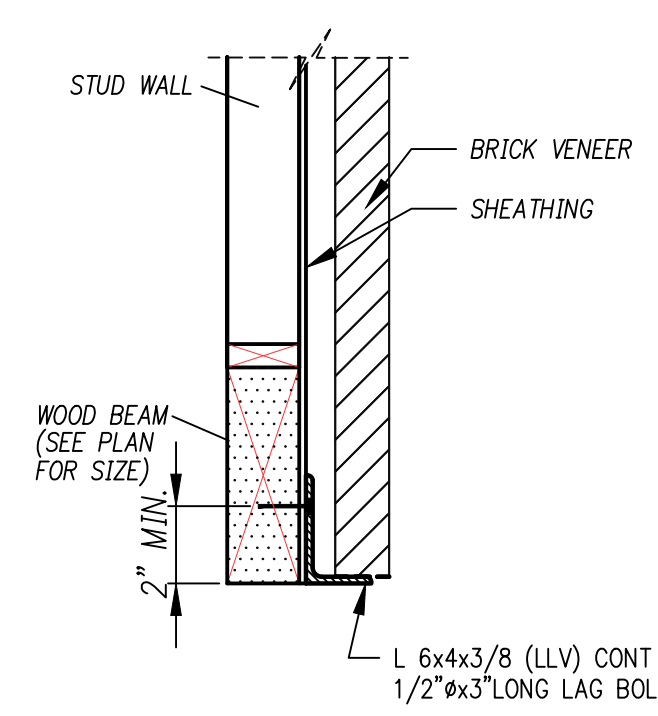


**SECTION VIEW**

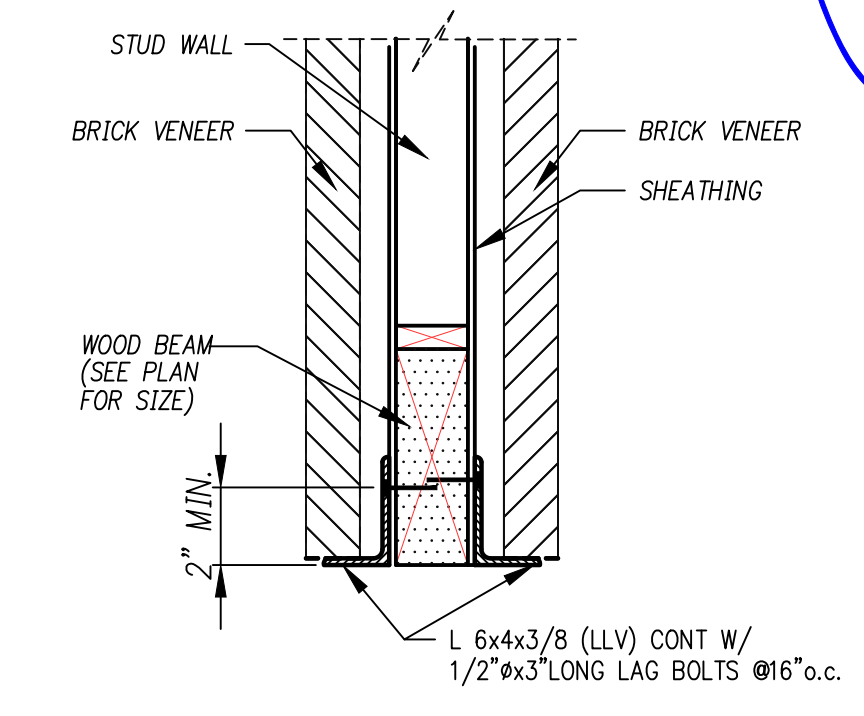


**PLAN VIEW**

**W24 HANDRAIL / GUARDRAIL DETAIL**  
 NOTE: DESIGNED FOR 50 PLF AND A CONCENTRATED LOAD OF 200 POUNDS PER SECTION 4.5.1 OF ASCE 7.



**W25 SUPPORT BY WOOD BEAM**

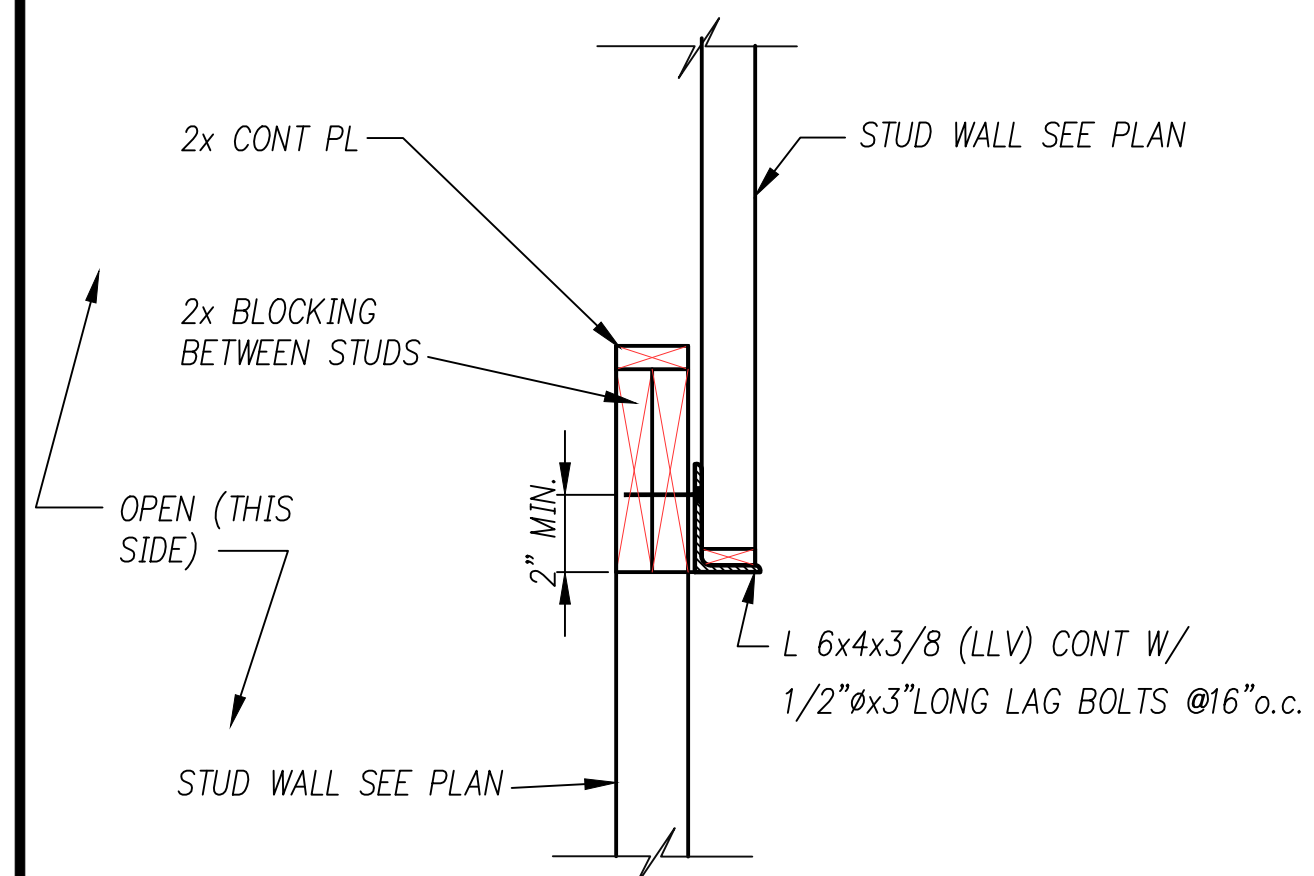


**W26 SUPPORT BOTH SIDES BY WOOD BEAM**

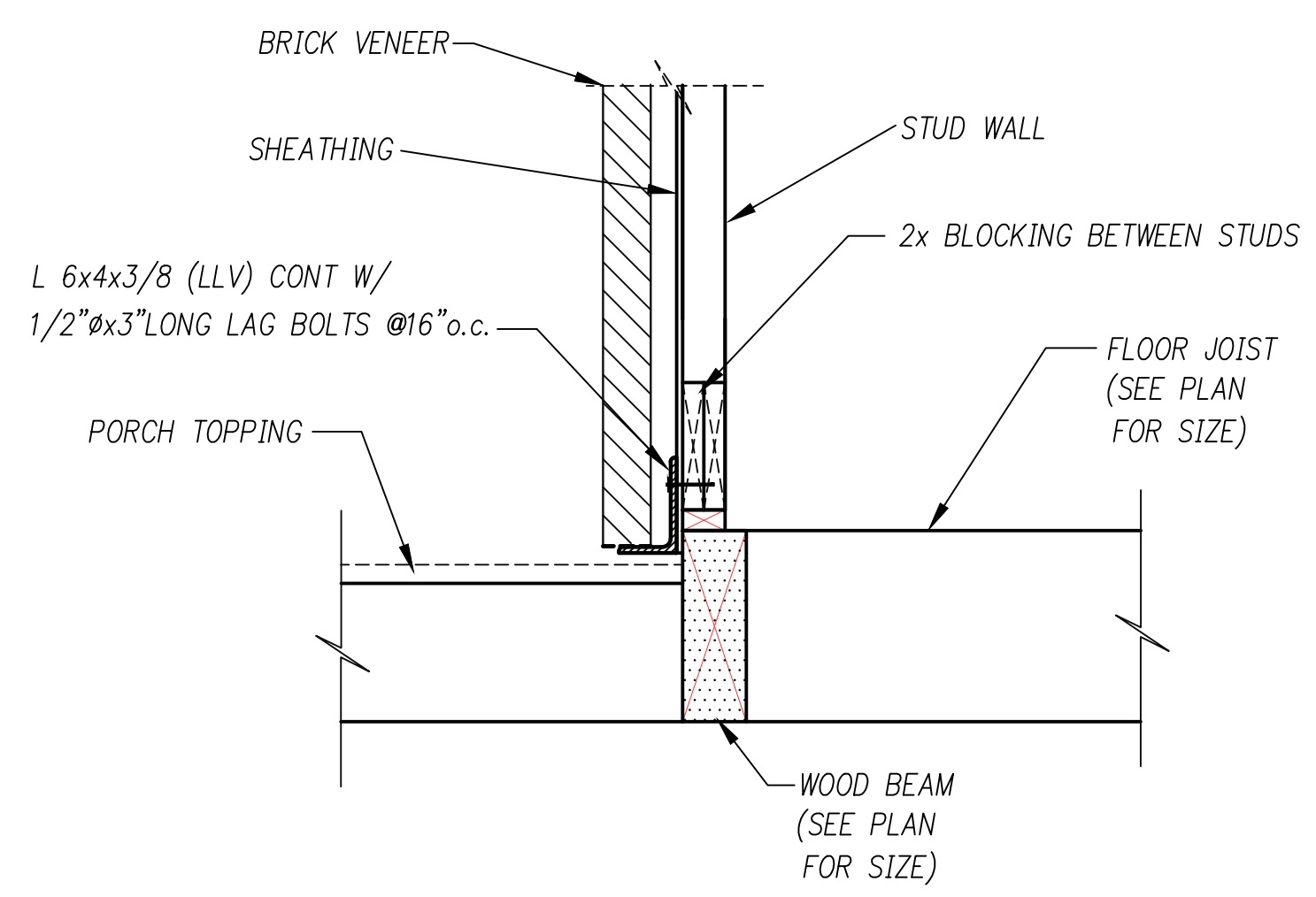
**W21 SILL PLATE ANCHORING DETAIL**

**W22 STUD TO SILL PLATE**

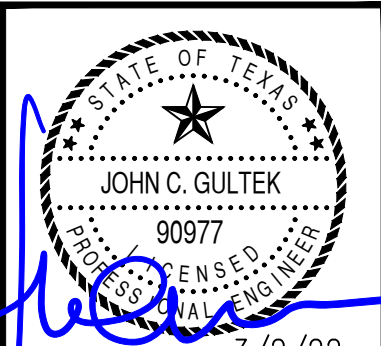
**W23 SINGLE POST BASE & BEAM CONNECTION DETAIL**



**W27 SECTION @ OFFSET WALL**



**W28 BRICK SUPPORT AT PORCHES**



**DTS**  
 ENGINEERING, INC.  
 7 Grogan's Park Dr. Suite 11, The Woodlands, TX 77380  
 Ph: (281) 298-8877 Fax: (281) 298-9856 Registration #F-7559

CUSTOM HOME

DUONG RESIDENCE

PROJECT INFO.

SADDLE CREEK FOREST

LOT.	14
BLK.	1
SECT.	6

27900 E. STALLION LN., WALLER, TX 77484

PLAN NO.

STANDARD WALL & FLOOR FRAMING DETAILS

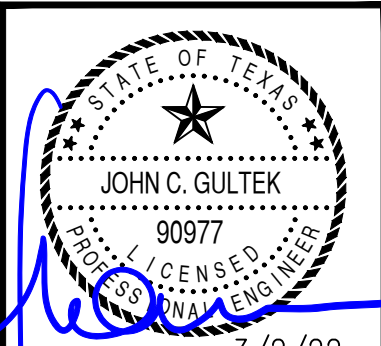
SCALE:  
 NOT TO SCALE

REVISIONS

DATE	REASON

CHECKED BY:  
 JG/BW  
 DRAWN BY:  
 BW  
 DATE:  
 3/2/22  
 JOB #  
 22104

SF-2A



**DTS**  
ENGINEERING, INC.  
7 Grogan's Park Dr. Suite 11, The Woodlands, TX 77380  
Ph: (281) 298-8877 Fax: (281) 298-9856 Registration #F-7539

**CUSTOM HOME**

**DUONG RESIDENCE**

PROJECT INFO.	
LOT.	14
BLK.	1
SECT.	6

27900 E. STALLION LN.,  
WALLER, TX 77484

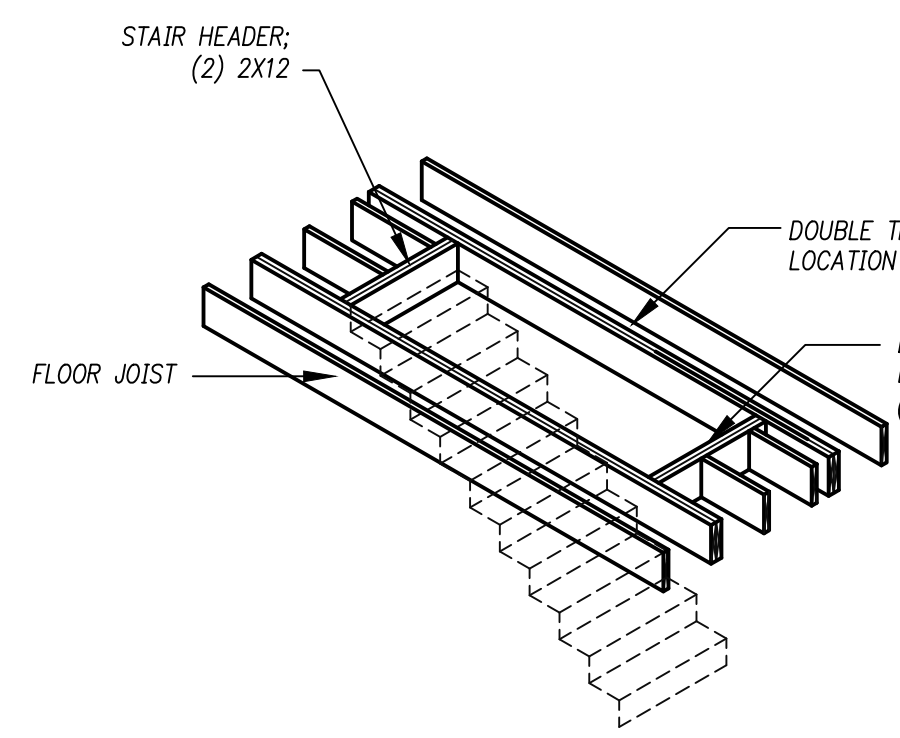
**STANDARD STAIR & ROOF FRAMING DETAILS**

SCALE:  
NOT TO SCALE

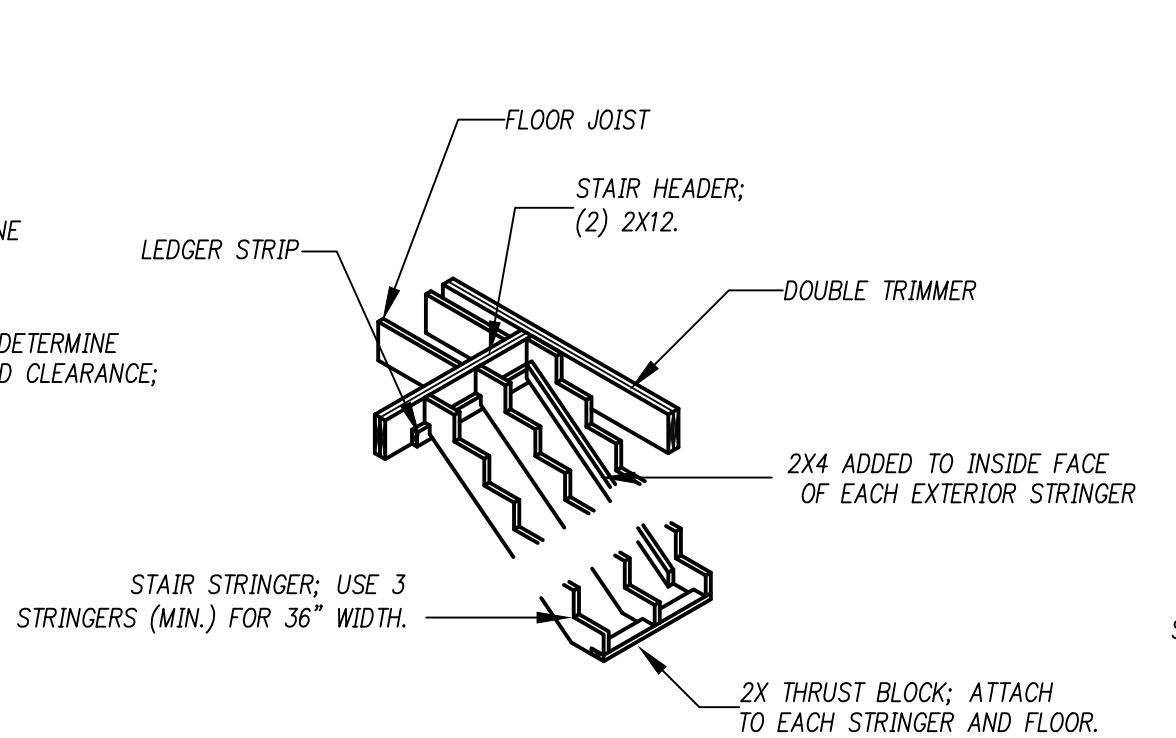
REVISIONS	
DATE	REASON

CHECKED BY:	JG/BW
DRAWN BY:	BW
DATE:	3/2/22
JOB #	22104

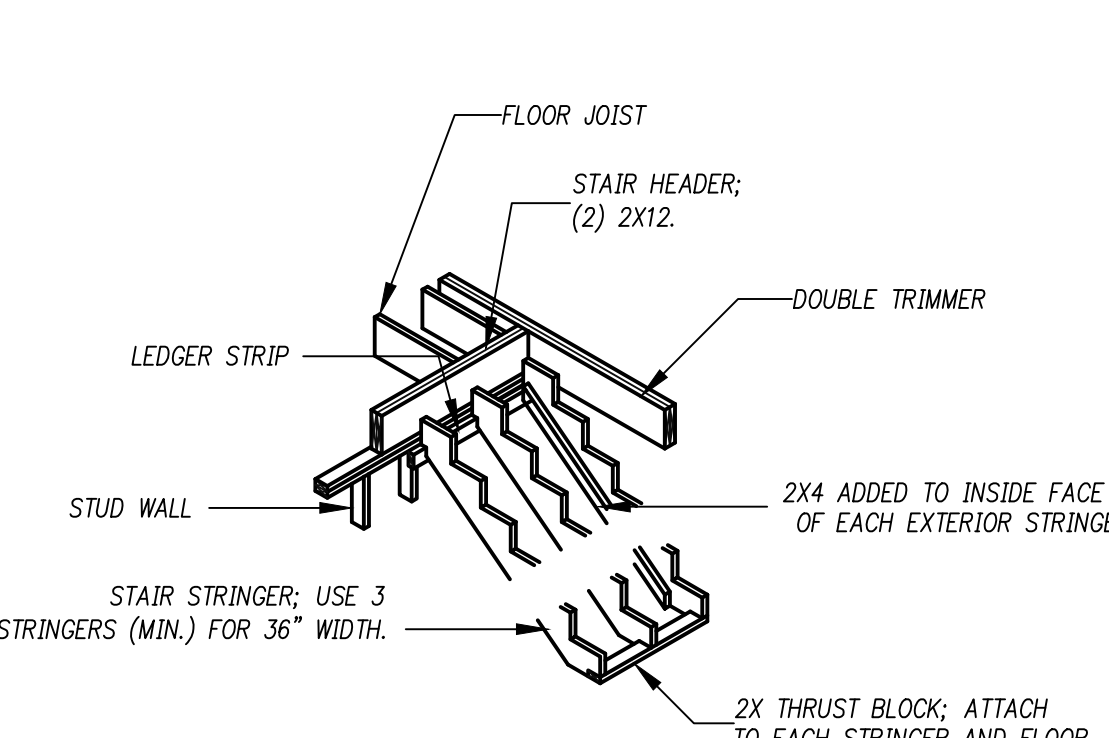
SF-3



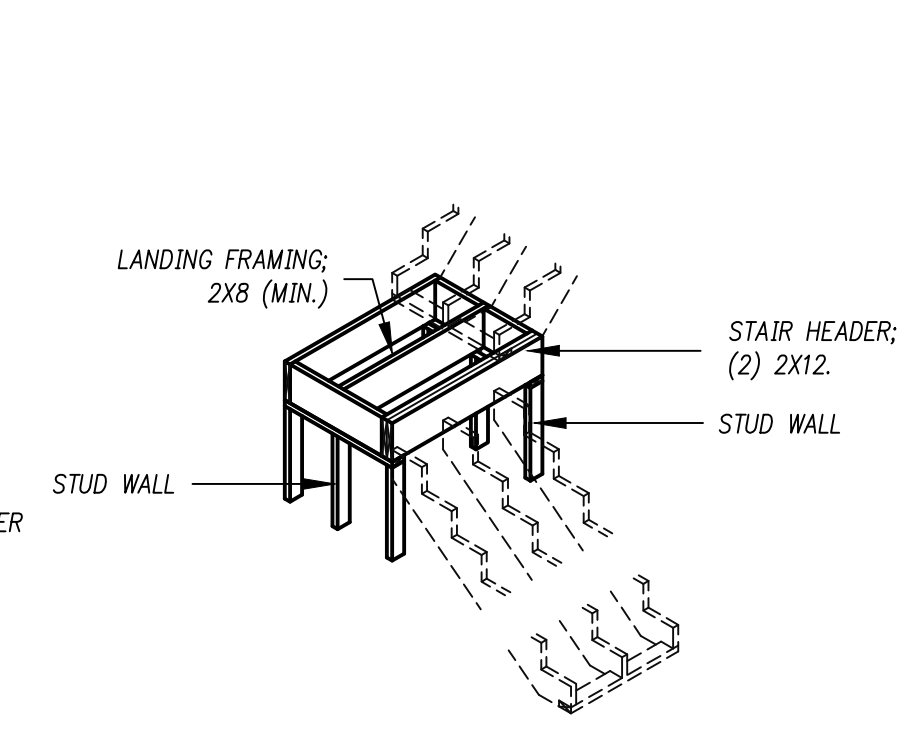
**S1 STAIR ROUGH OPENING**



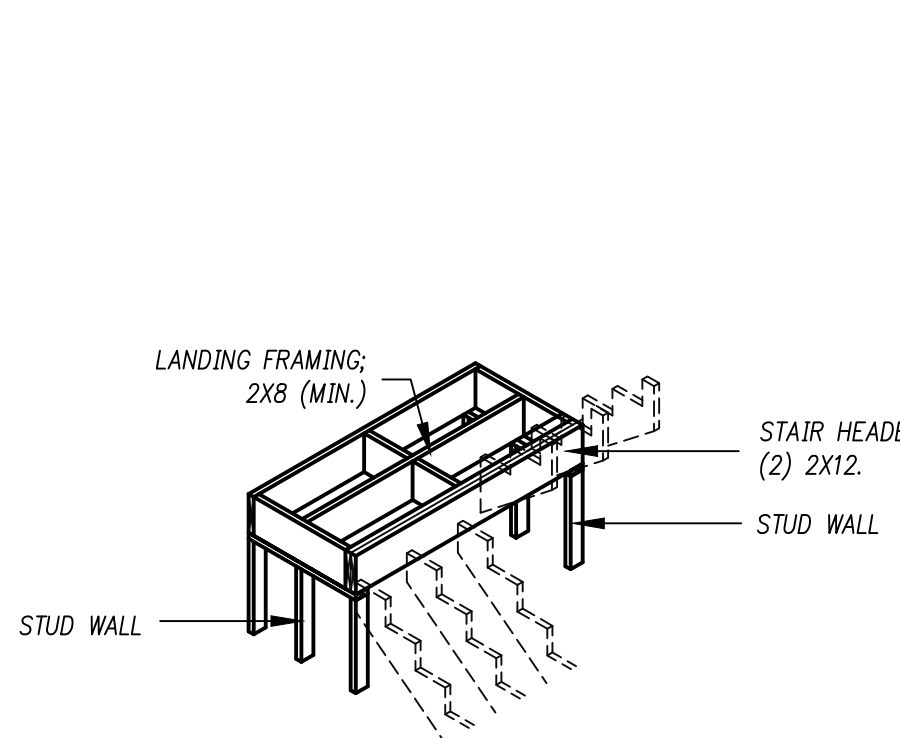
**S2 STAIR SUPPORT ON STAIR HEADER**



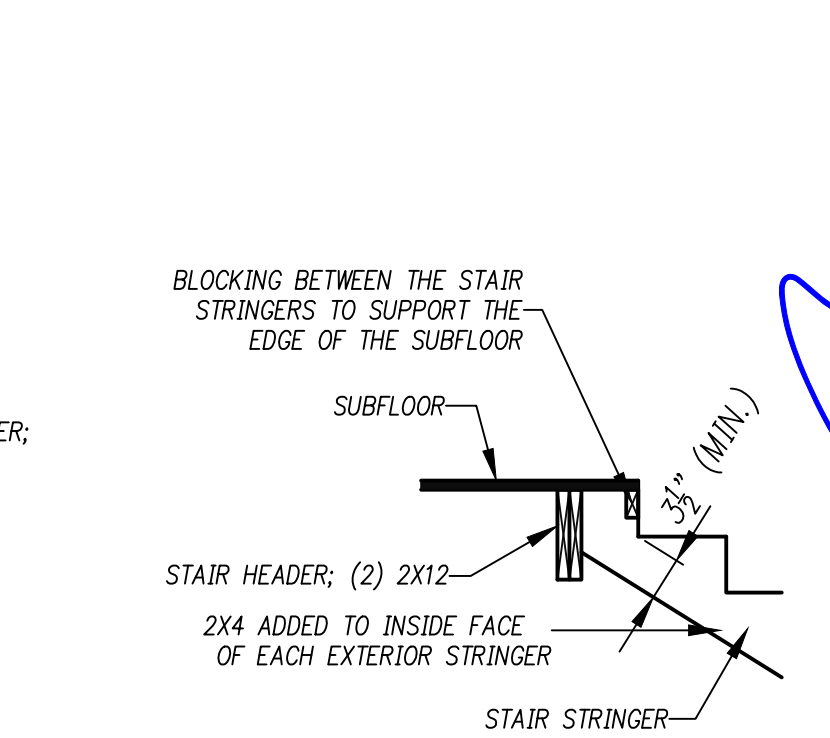
**S3 STAIR SUPPORT ON WALL**



**S4 STAIR LANDING - 90° STAIR**



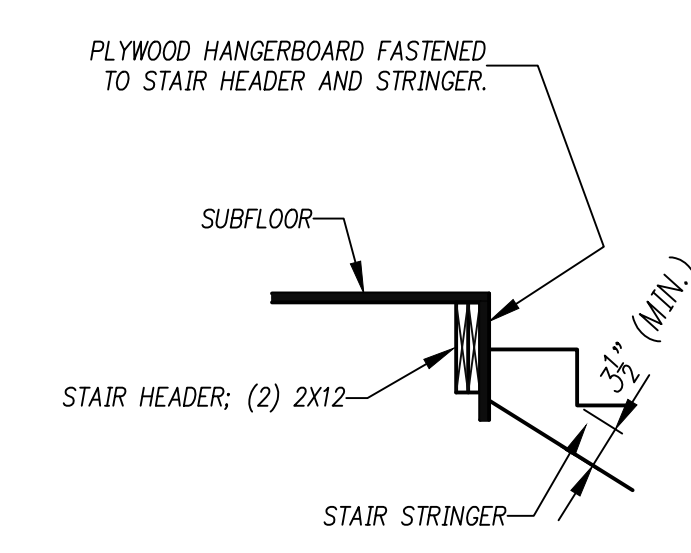
**S5 STAIR LANDING - 180° STAIR**



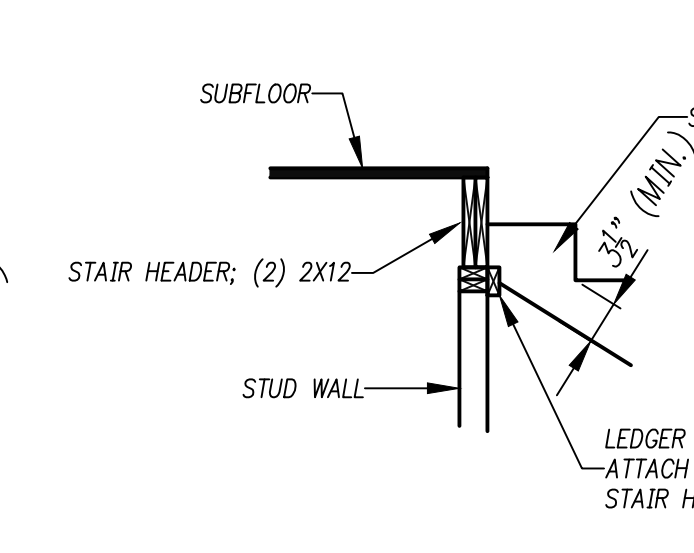
**S5 STAIR STRINGER - UPPER END**

**STAIR - GENERAL NOTES**

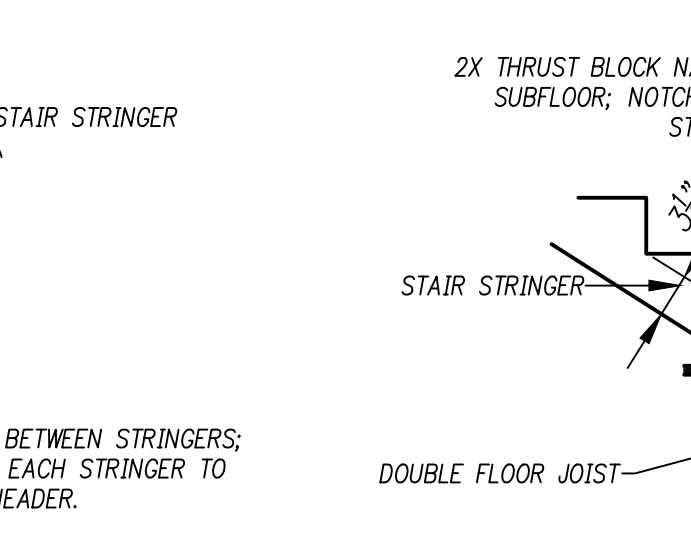
- 1) STAIR SHALL BE 36" (MIN.); OPENING IN FLOOR MUST INCLUDE FINISHES.
- 2) HEAD CLEARANCE SHALL BE 6'-8" (MIN.).
- 3) STAIR STRINGERS SHALL BE CUT FROM A #2 SOUTHERN YELLOW PINE 2X12; STRINGERS EQUALLY SPACED.
- 4) INTERMEDIATE LANDING DEPTH SHALL BE EQUAL TO THE WIDTH OF THE STAIR OR GREATER (36" MINIMUM).
- 5) FOR RISER AND TREAD DIMENSION; SEE ARCHITECTURAL DRAWINGS. RISER HEIGHT = 7 3/4" (MAXIMUM).
- 6) PROVIDE AND INSTALL 2X4 SPACER BETWEEN STRINGER AND WALL TO ALLOW WALL COVERING AND TRIM TO PASS STAIR TREADS.



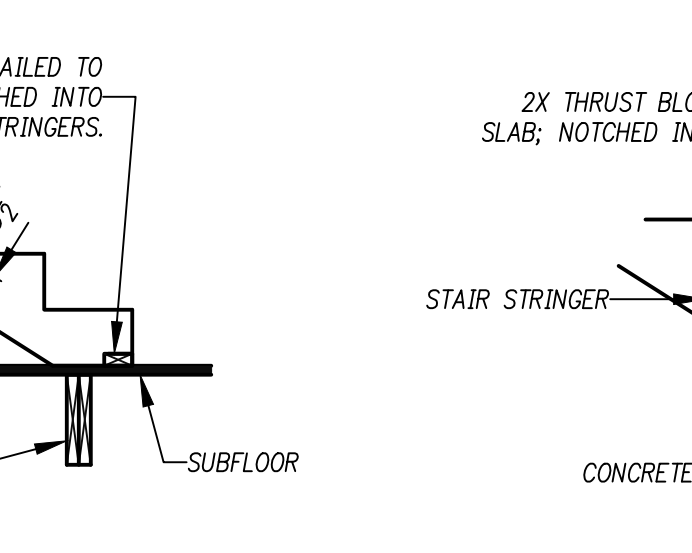
**S7 STAIR STRINGER - UPPER END**



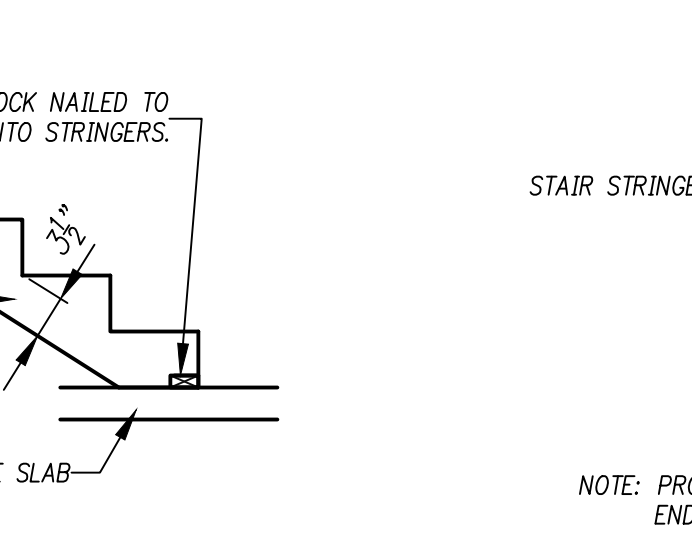
**S8 STAIR STRINGER - UPPER END**



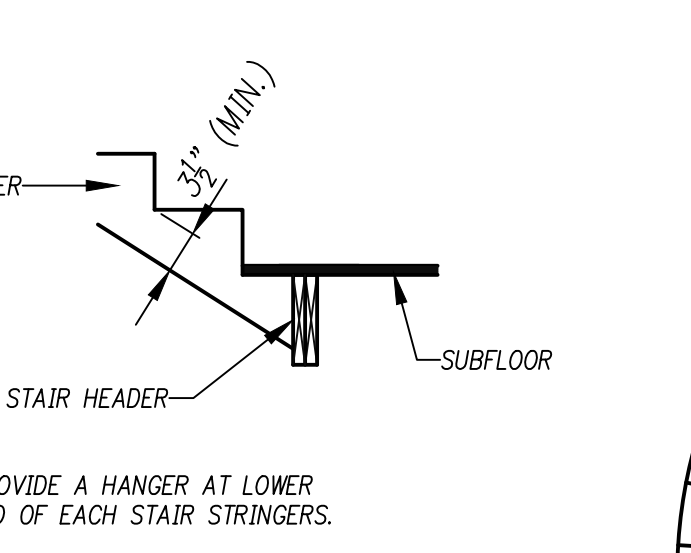
**S9 STAIR STRINGER - LOWER END**



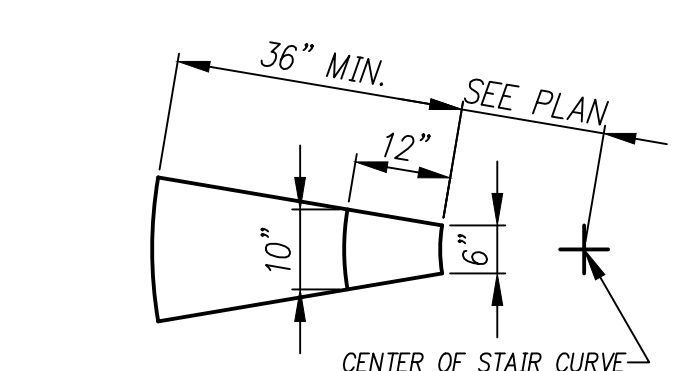
**S10 STAIR STRINGER - LOWER END**



**S11 STAIR STRINGER - LOWER END**

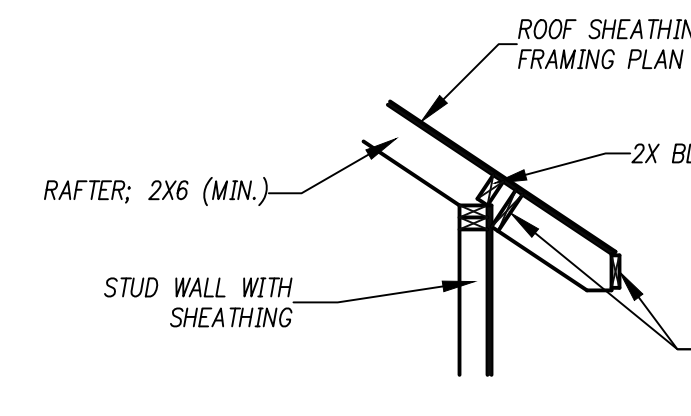


**S12 CIRCULAR STAIR - COMPLETELY SUPPORTED STRINGERS**

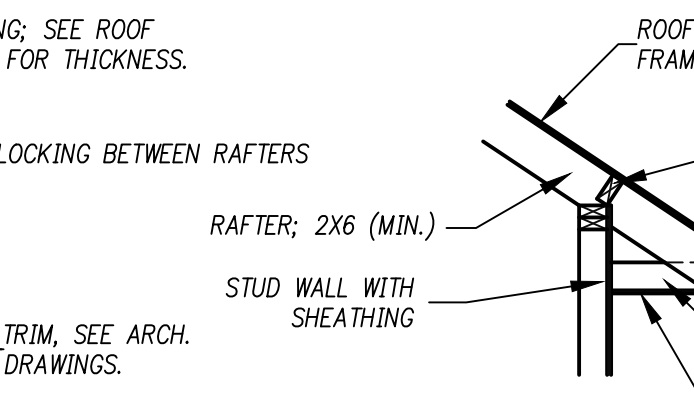


**S13 CIRCULAR STAIR - WINDER**

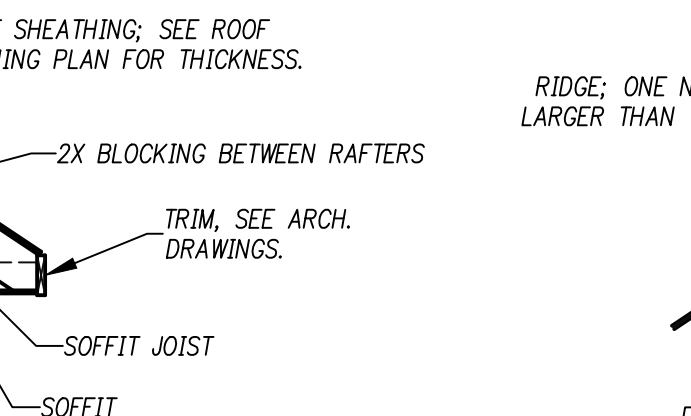
- MINIMUM DIMENSIONS
- NOTES:
- 1) PROFILE RADIUS = 9/16"
  - 2) NOSING = 3/4" TO 1-1/4"
  - 3) RISER HEIGHT = 7 3/4" (MAXIMUM)



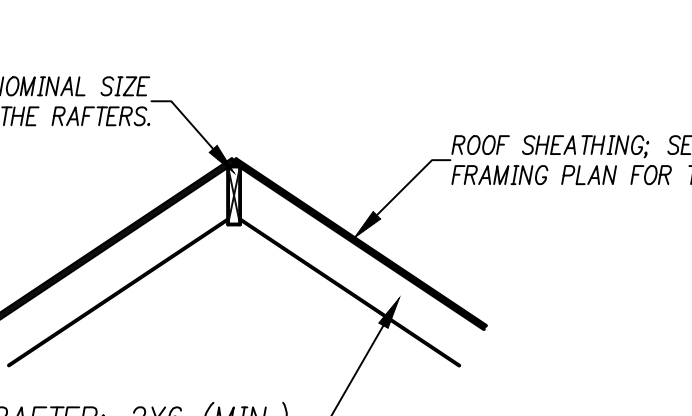
**R1 EXPOSED EAVE**



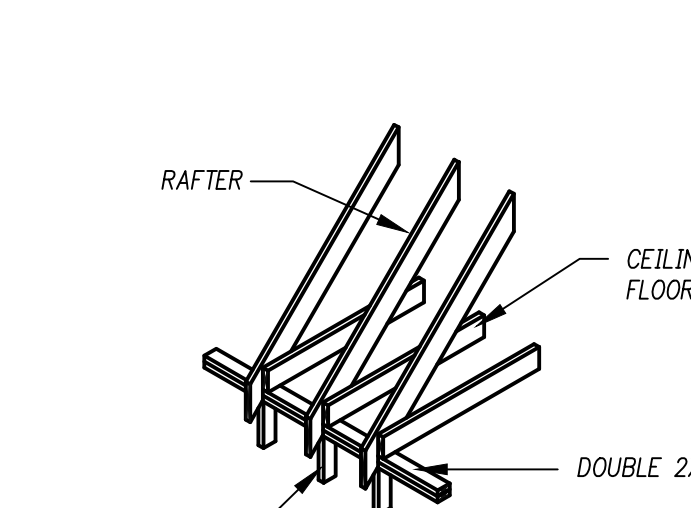
**R2 SOFFITED EAVE**



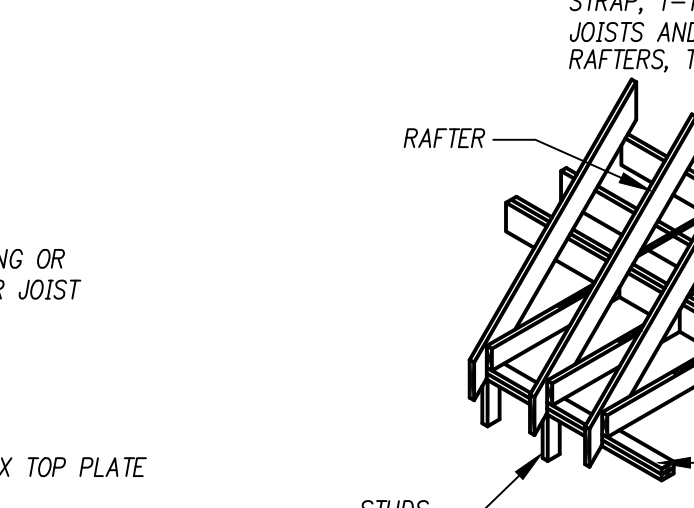
**R3 COMMON RIDGE**



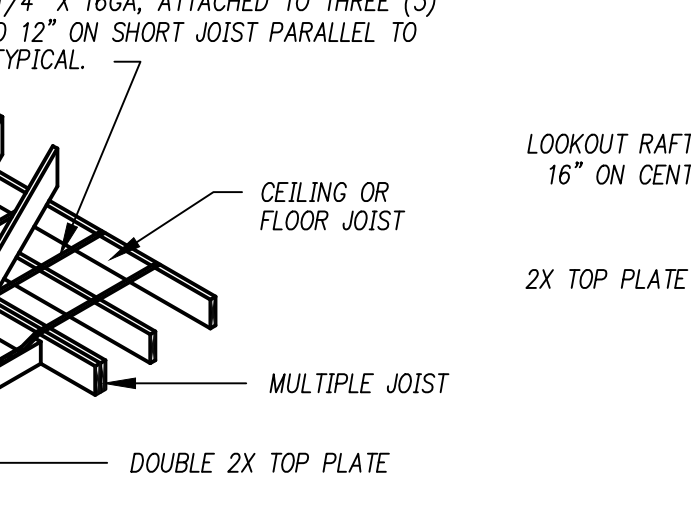
**R4 COLLAR TIE**



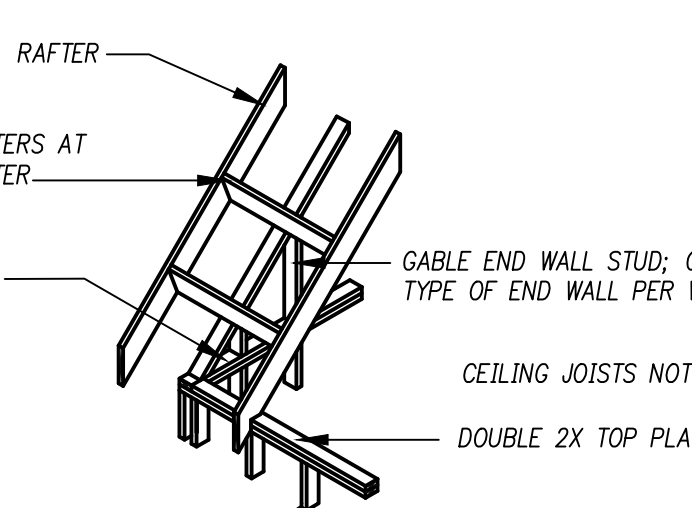
**R5 ROOF FRAMING - JOIST PARALLEL TO RAFTERS**



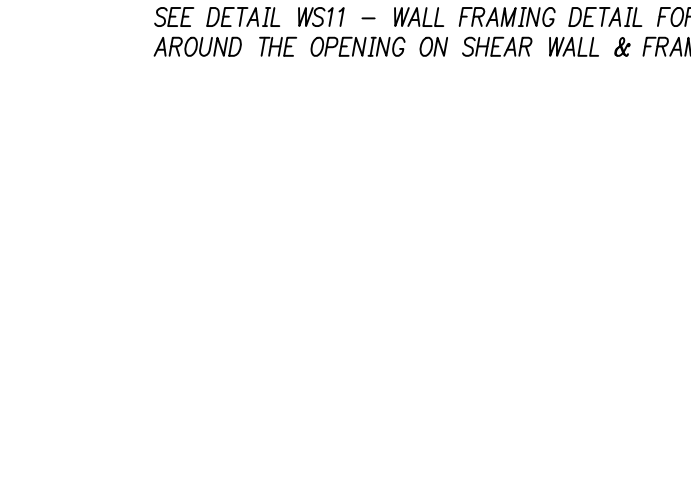
**R6 ROOF FRAMING - JOIST PERPENDICULAR TO RAFTERS**



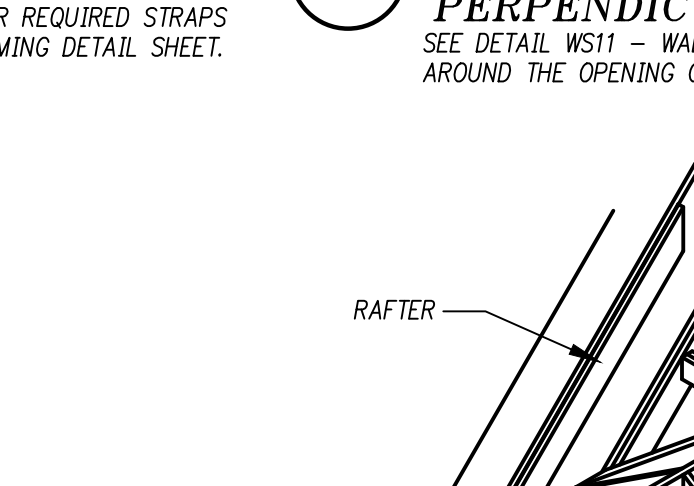
**R7 ROOF FRAMING - GABLE OVERHANG**



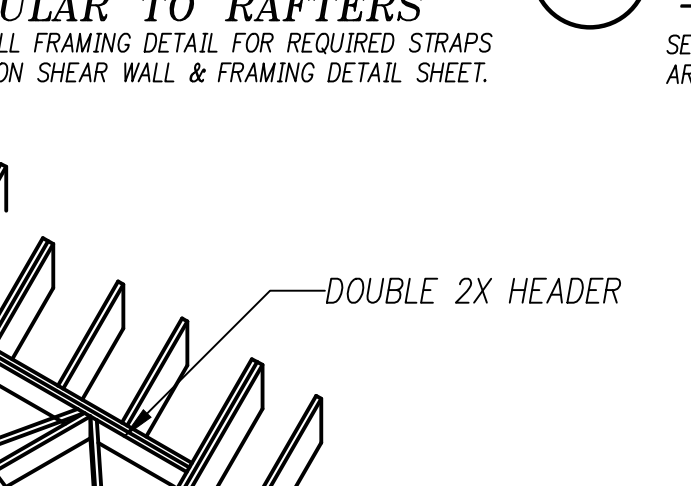
**R8 ROOF FRAMING - OPENING IN ROOF**



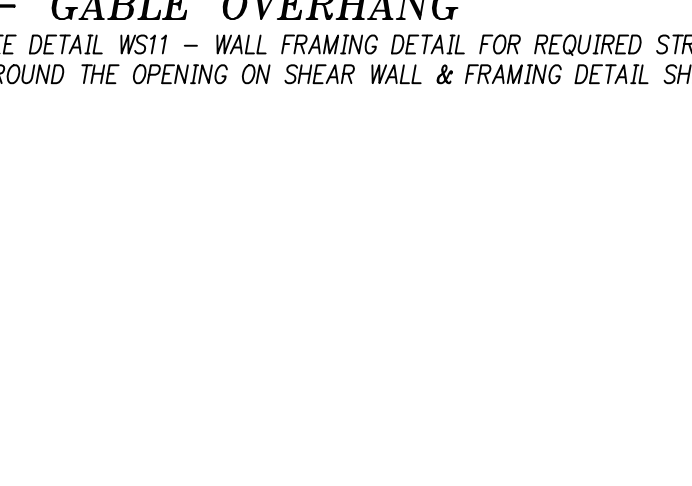
**R10 RAFTER SANDWICH**



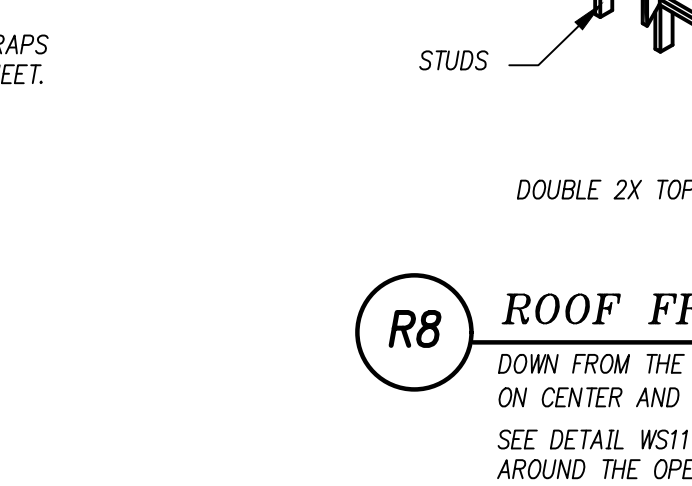
**R11 ROOF FRAMING - GABLE DORMER**



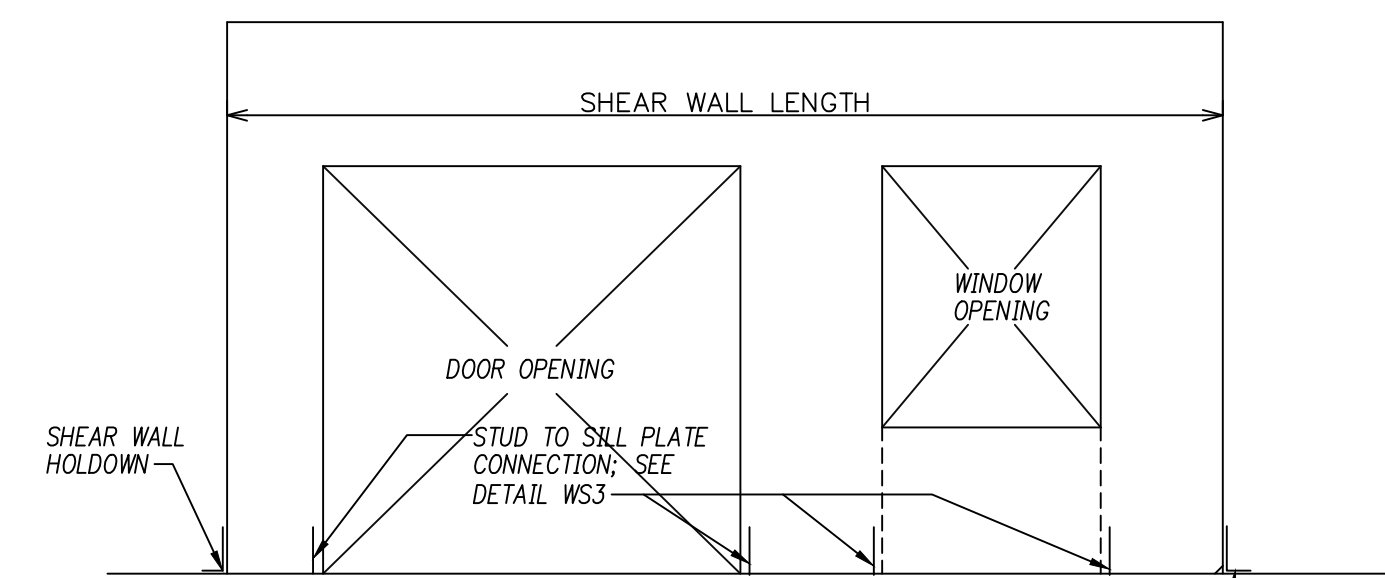
**R12 RAFTER SPLICE DETAIL**



**R13 BLOCKING BETWEEN RAFTERS**

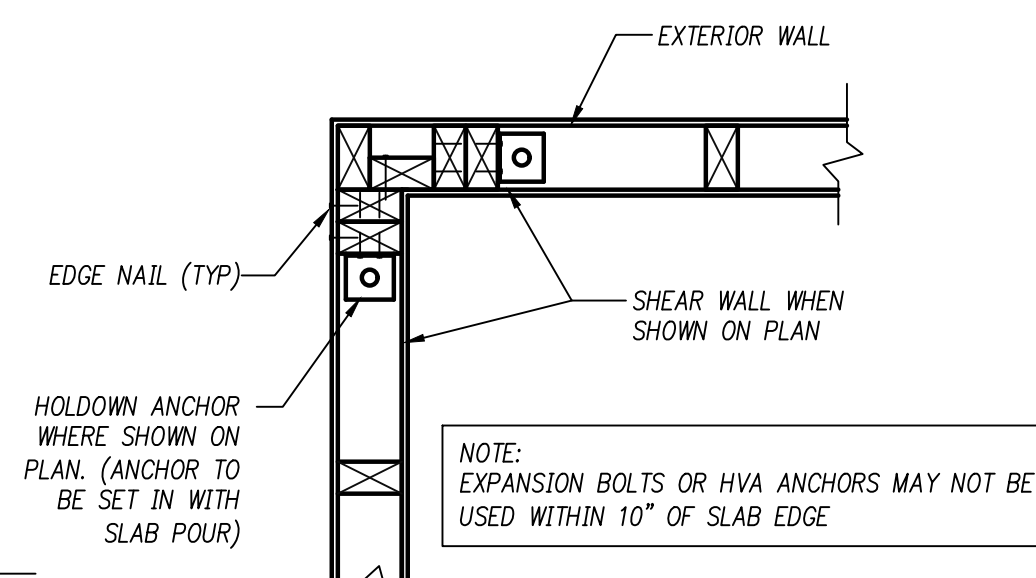


**R14 BRICK SUPPORT AT CHIMNEY**

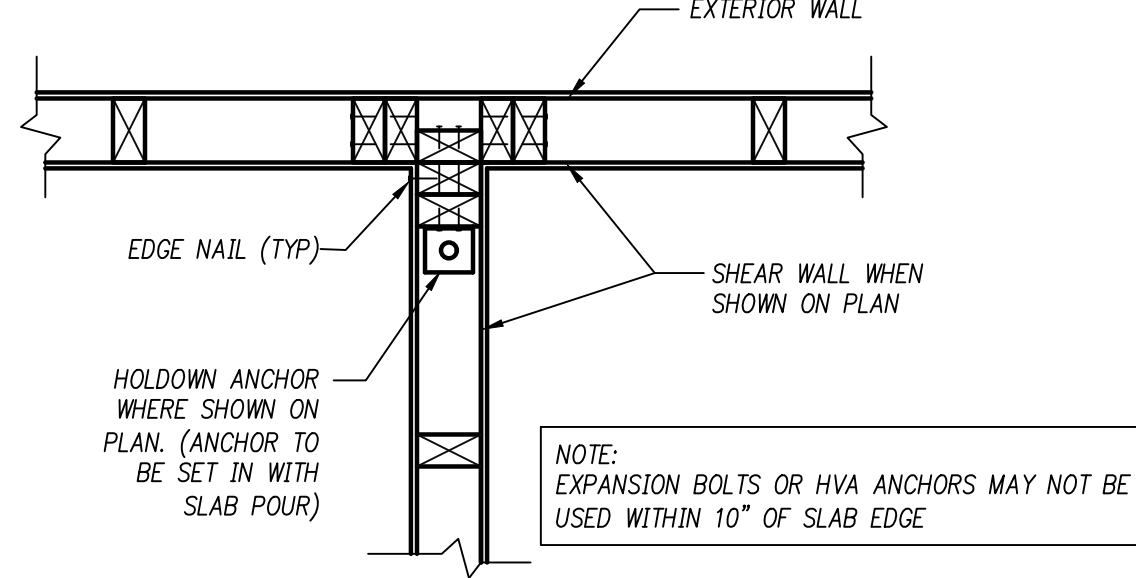


- NOTE:
1. 1/2" x 10" SOLE PLATE ANCHORS WITHIN THE LENGTH OF A SHEAR WALL SHALL BE 12" ON CENTER; 7" EMBED MINIMUM.
  2. 5/8" x 9" ANCHOR BOLTS @ 32" O.C. SHALL BE INSTALLED AFTER CONCRETE HARDENS. USE SIMPSON "SET" ADHESIVE SYSTEM WITH 6" EMBED.

**WS1** SHEAR WALL OPENING ELEVATION

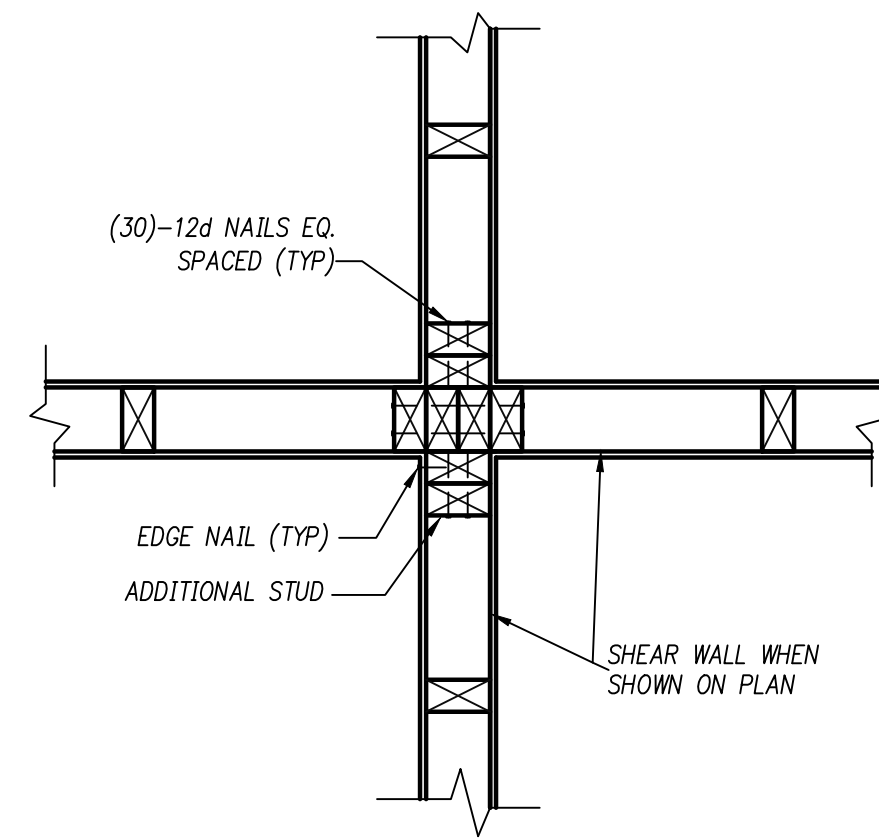


**WS2** CORNER FRAMING DETAIL

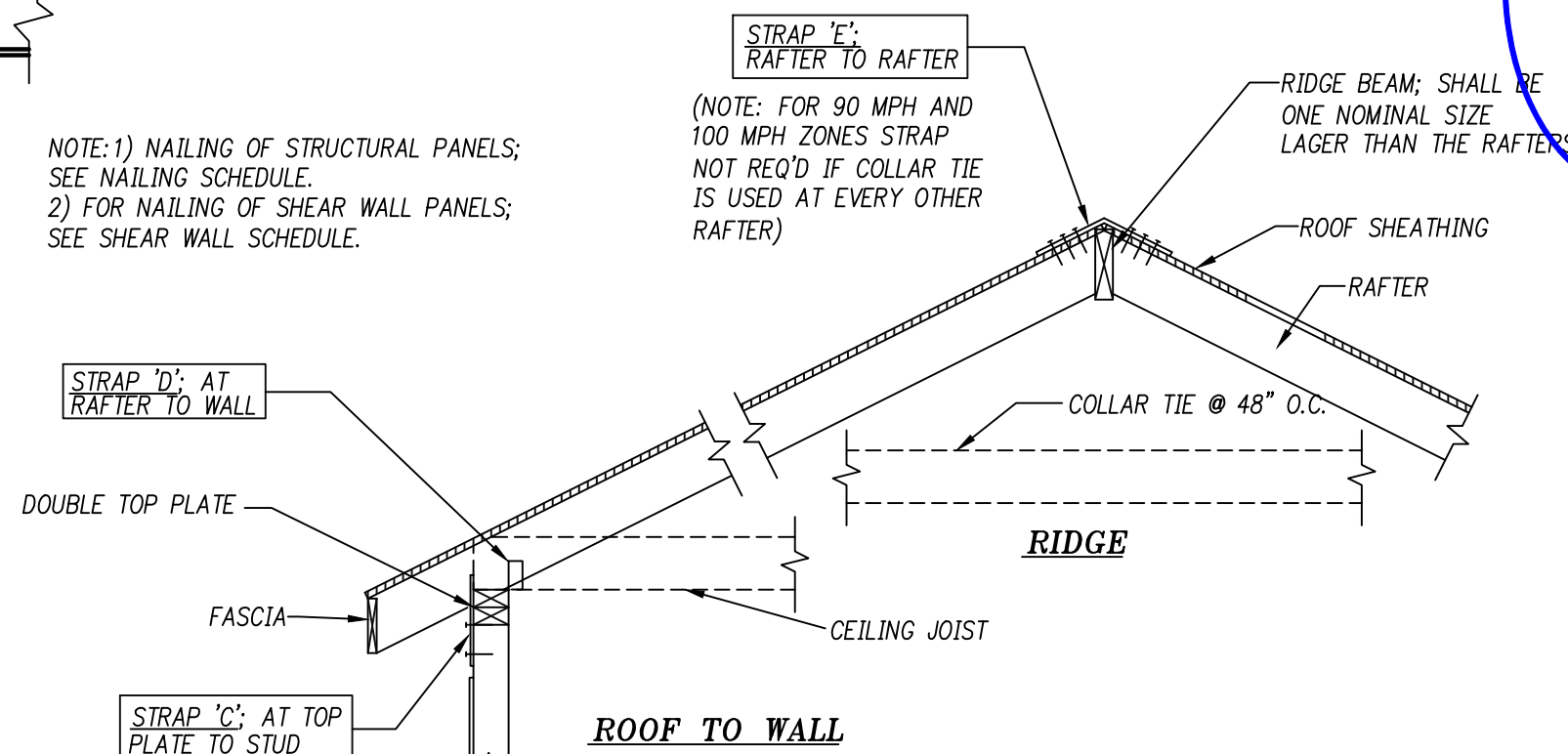


- NOTES:
- 1) SEE "SHEAR WALL SCHEDULE" FOR STRUCTURAL PANEL THICKNESS AND NAILING.
  - 2) SEE "CONCRETE & EPOXY EMBEDDED HOLD DOWN ANCHOR BOLTS SCHEDULE" FOR TYPE OF HOLDOWN FOR A SHEAR WALL.
  - 3) HOLDOWNS SHALL BE INSTALLED PER MANUFACTURER'S PRINTED LITERATURE AND IN ALIGNMENT WITH THE SHEAR WALL AS SHOWN ABOVE.
  - 4) STUDS SHALL BE SPACED AT 16" ON CENTER, MAXIMUM.

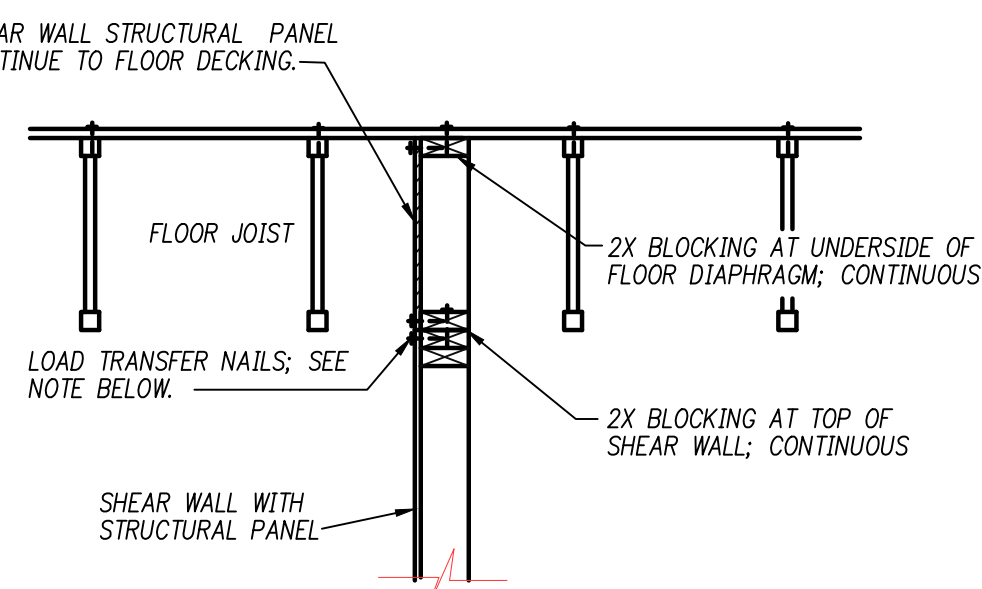
**WS3** INTERSECTING SHEAR WALL



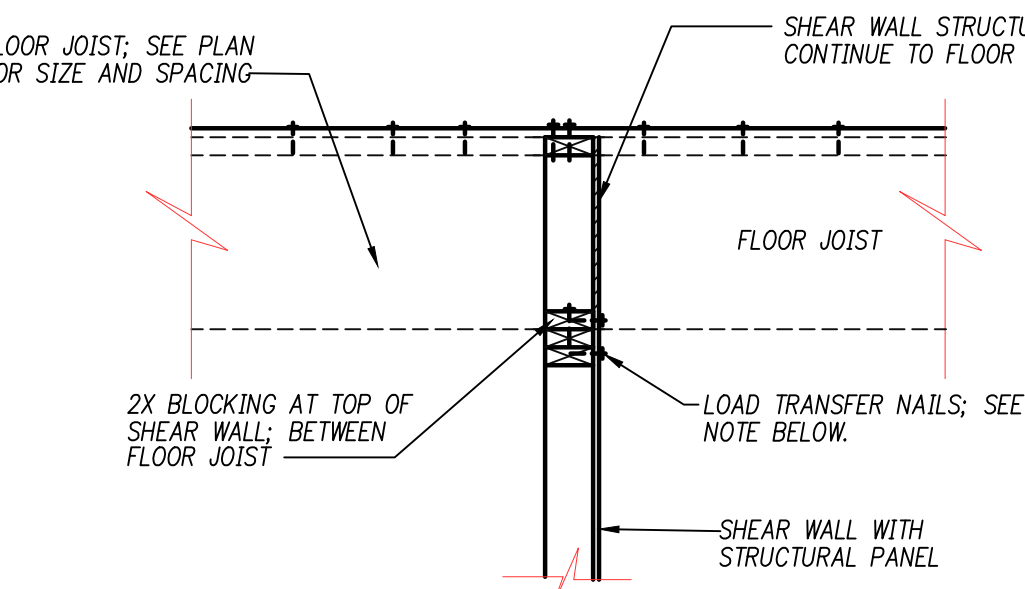
**WS4** INTERSECTING SHEAR WALL



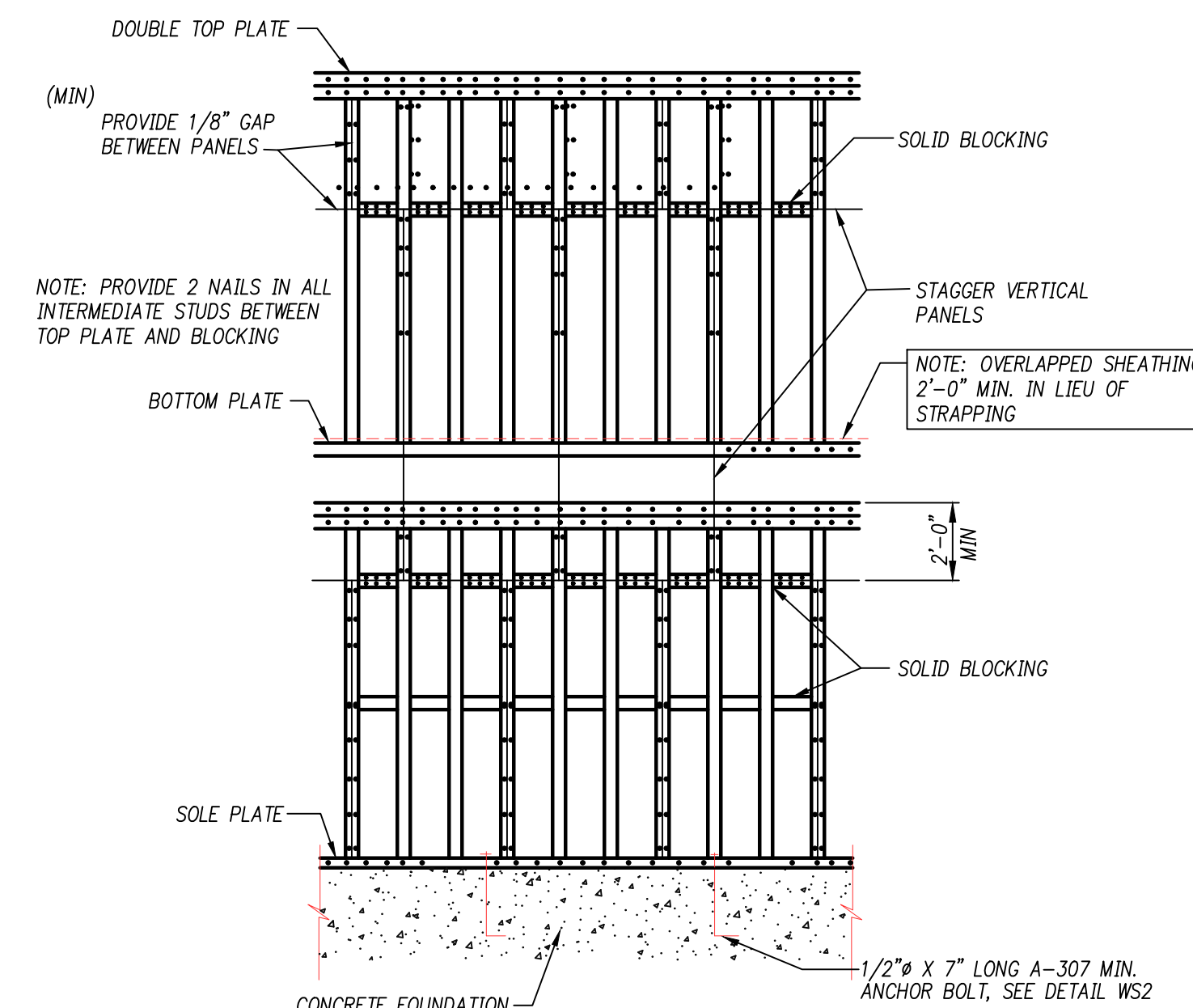
**WS5** SHEAR WALL AT SECOND FLOOR NO WALL BELOW



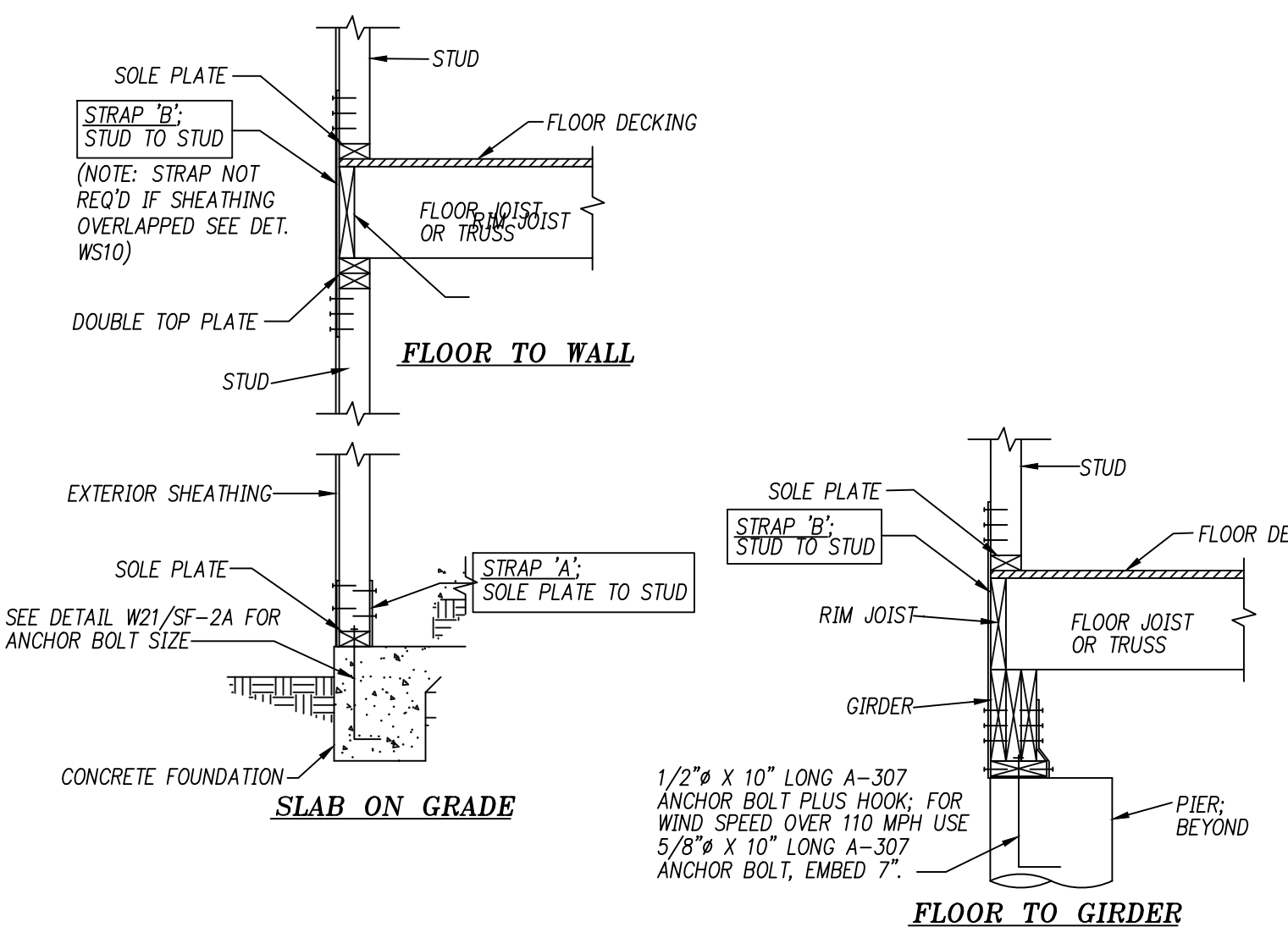
**WS6** SHEAR WALL PARALLEL TO FLOOR JOIST



**WS7** SHEAR WALL PERPENDICULAR TO FLOOR JOIST



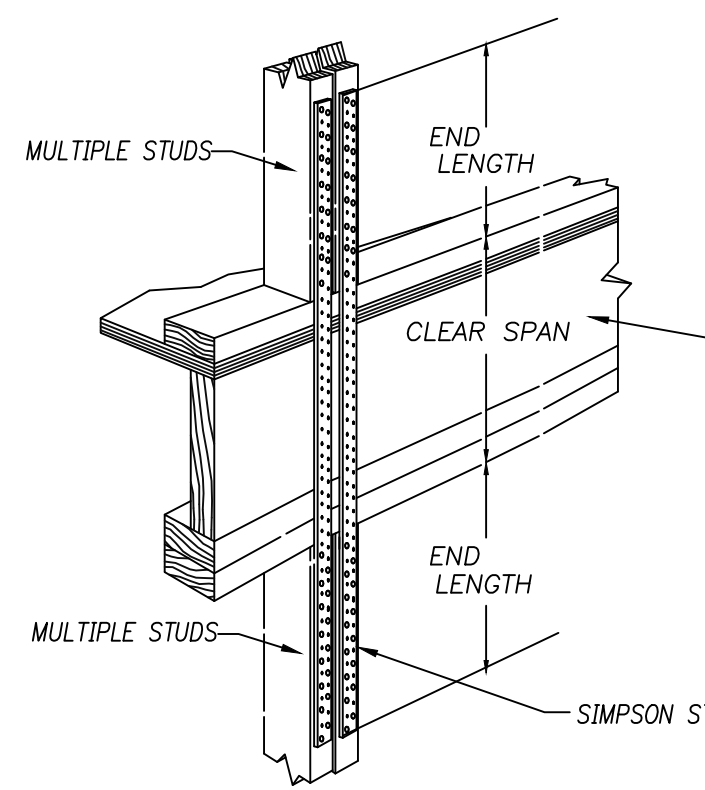
**WS10** EXTERIOR WALL DETAIL WITH FULL SHEATHING



WINDSTORM STRAP SCHEDULE				
LOCATION	STRAP	90 MPH	100 MPH	110 MPH
SOLE PLATE TO STUD	'A'	H8 @ 48"	H8 @ 32"	H8 @ 32"
STUD TO STUD	'B'	CS16 @ 48"	CS16 @ 32"	CS16 @ 32"
TOP PLATE TO STUD	'C'	-	-	H2.5A @ 32"
RAFTER TO WALL	'D'	H2.5A@48"	H2.5A@32"	H2.5A@32"
RAFTER TO RAFTER	'E'	LSTA12 @ 48"	LSTA12 @ 32"	LSTA12 @ 32"

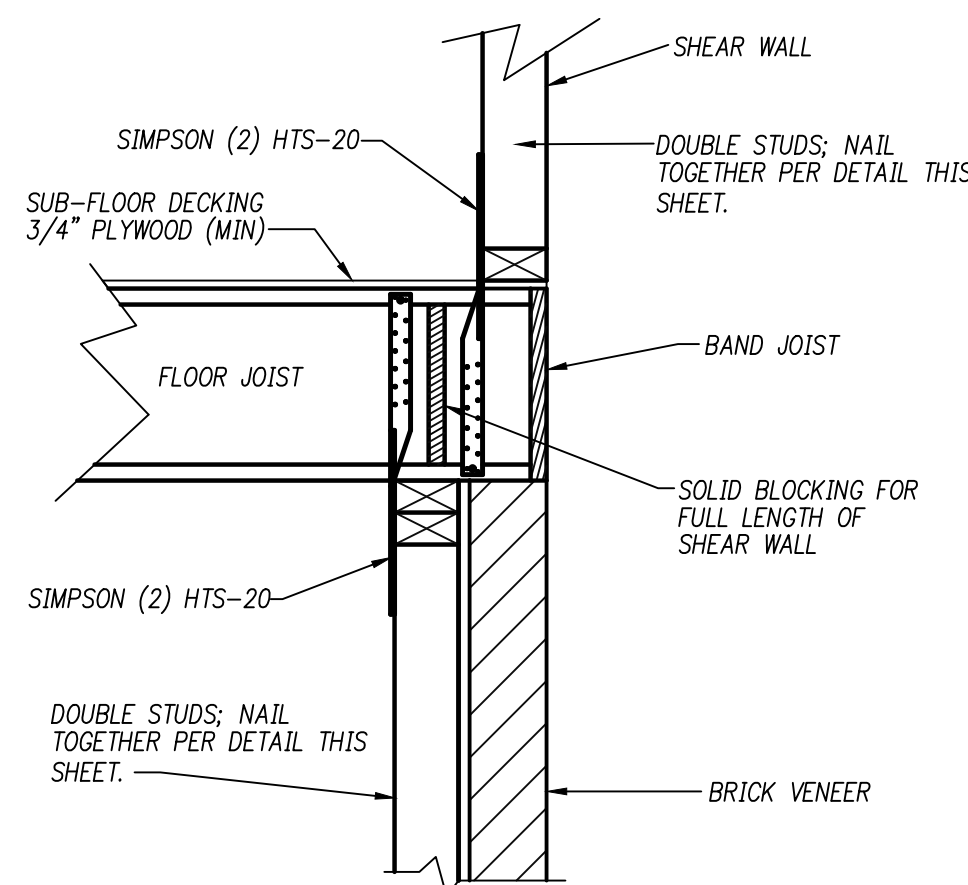
- 1) ALL STRAP DESIGNATIONS ARE TAKEN FROM SIMPSON STRONG-TIE OR USP STRUCTURAL CONNECTOR.
- 2) STRAPS SHALL BE INSTALLED IN A VERTICAL ALIGNMENT SO TO PROVIDE A STRAIGHT LOAD PATH DOWN THE SIDE OF THE WALL.
- 3) STRAP 'B' SHALL BE CLEAR SPAN PLUS 31" (SEE DETAIL '14' ON THIS SHEET)
- 4) FOR USE IN T.D.L. AREAS, SEE "TDI CORROSION RESISTANCE REQUIREMENTS FOR METAL CONNECTORS AND FASTENERS" ON THE FRAMING NOTES SHEET.

**WS11** WALL FRAMING DETAIL

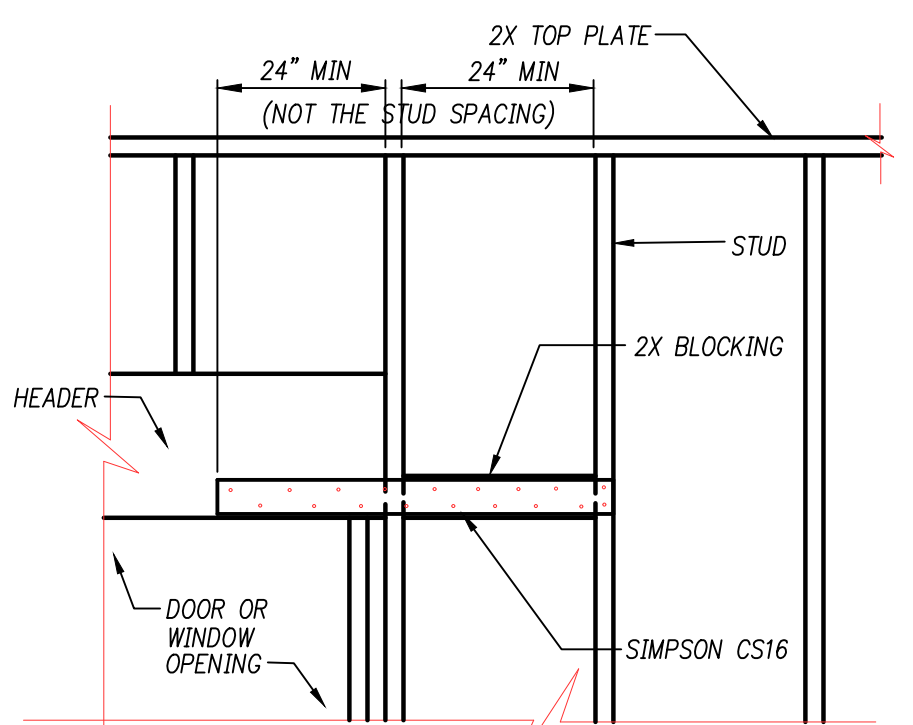


**WS8** HOLDOWN AT END OF SHEAR WALL BETWEEN 1st & 2nd FLOORS

SIMPSON STRAPS	NAIL	NAIL SPACING	END LENGTH
CMST12	16d	1 3/4"	45"
CMST14	16d	1 3/4"	35"
CMST16	16d SINKER	1 1/2"	27"
CS14	10d	2 1/16"	19"
CS16	8d	2 1/6"	17"

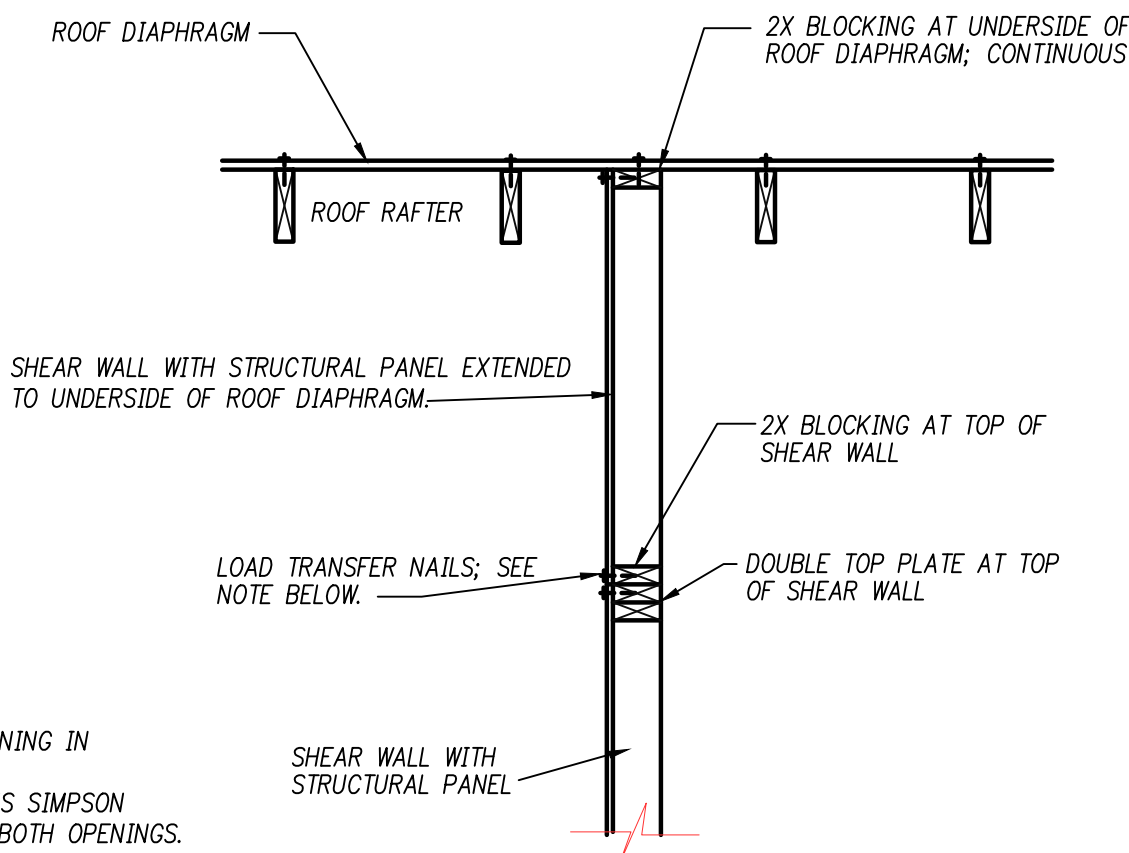


**WS9** OFFSET SHEAR WALL DETAIL

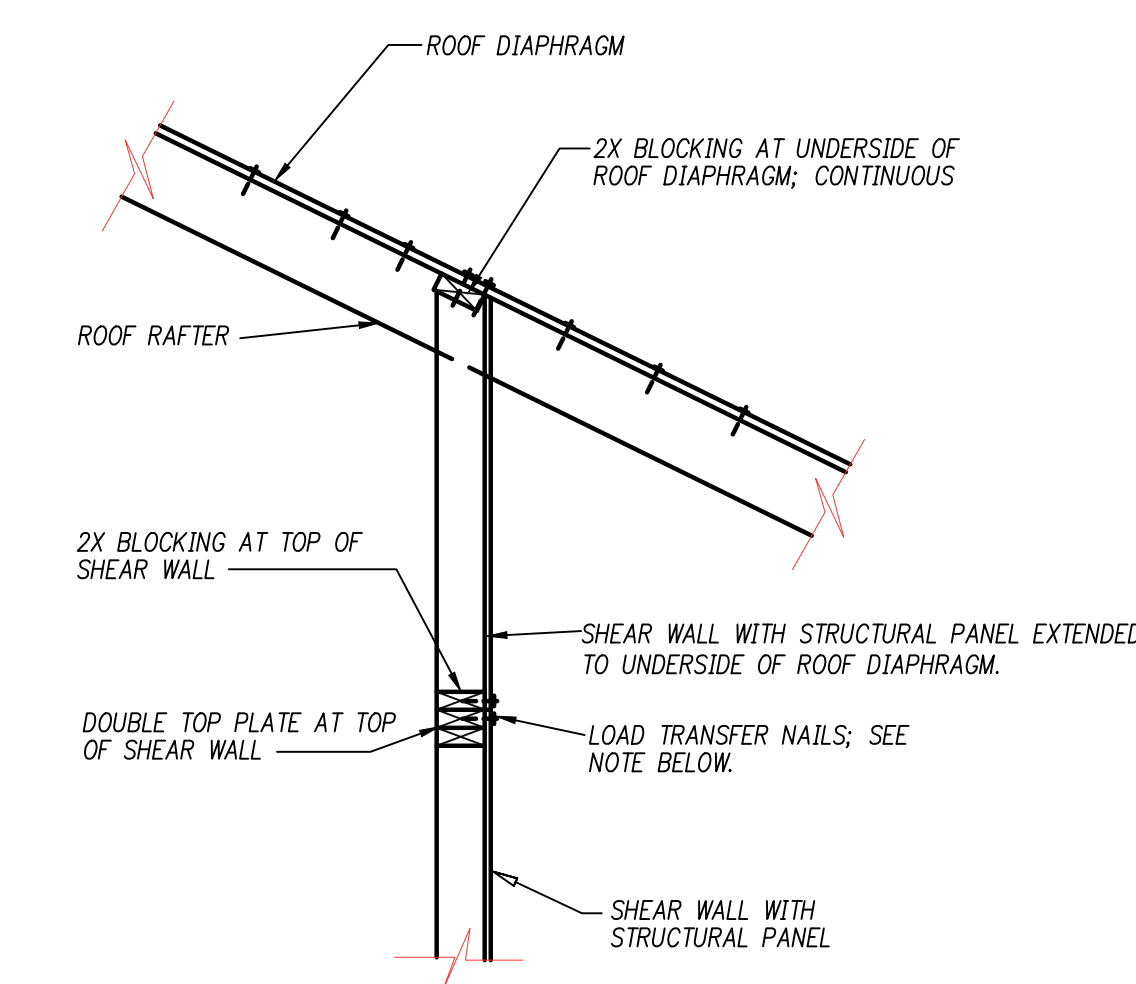


- NOTES:
- 1) STRAP SHALL BE USED AT THE HEADER OF EACH END OF OPENING IN A DESIGNATED SHEAR WALL.
  - 2) IF TWO OPENINGS ARE CLOSER THAN 4 FEET, USE CONTINUOUS SIMPSON CS16 STRAP SO THAT 24 INCHES LENGTH IS OBTAINED OVER BOTH OPENINGS.
  - 3) WHERE REQUIRED STRAP SHALL BE USED AT BOTTOM OF WINDOW OPENING SIMILAR TO THAT SHOWN AND STATED ABOVE.
  - 4) IN THE EVENT THAT TWO OPENINGS ARE CLOSER THAN 4 FEET AND THE HEADERS AND SILL PLATES ARE NOT OF EQUAL HEIGHT, USE A STRAP AT THE HEADER OF THE HIGHER OPENING AND SILL PLATE OF THE LOWER OPENING AS INSTRUCTED IN NOTE 2.

**WS12** STRAP DETAIL AT WALL OPENING



**WS13** INTERIOR SHEAR WALL PARALLEL TO AND EXTENDED TO ROOF RAFTERS



**WS14** INTERIOR SHEAR WALL PERPENDICULAR TO AND EXTENDED TO ROOF RAFTERS

TDI AREA	STRUCTURAL PANEL THICKNESS (MINIMUM)	
	INLAND I	SEAWARD
	7/16"	15/32"

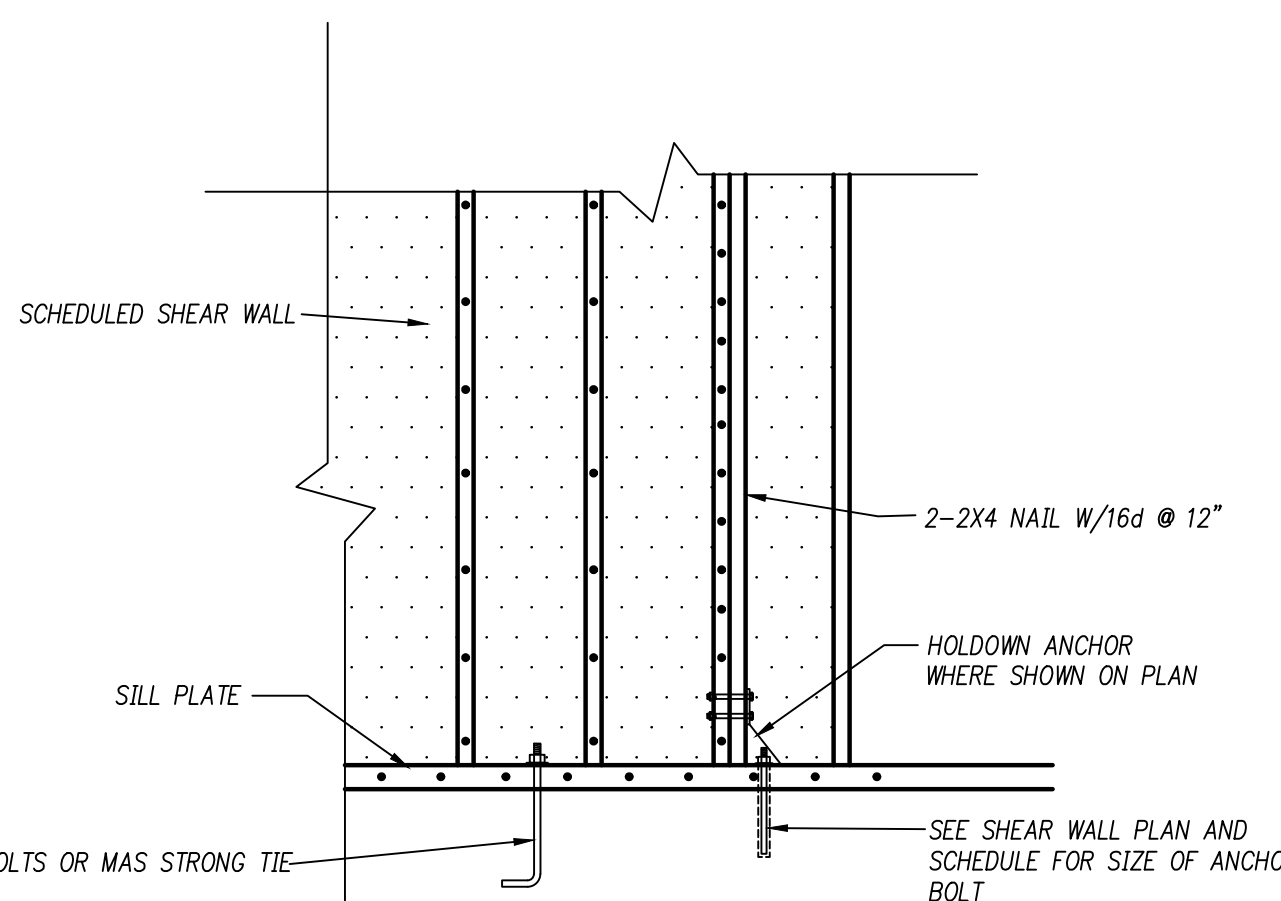
  

FASTENER TYPE	FASTENER SPACING		
	UP TO 4'-0"	OVER 4'-0" UP TO 6'-0"	OVER 6'-0" UP TO 8'-0"
2 1/2" #6 WOOD SCREW	16" O.C.	12" O.C.	9" O.C.
2 1/2" #8 WOOD SCREW	16" O.C.	16" O.C.	12" O.C.

- NOTES:
- 1) FASTENERS SHALL BE LOCATED AND INSTALLED OPPOSITE ONE ANOTHER AND 1" FROM EDGE OF THE PANEL (MINIMUM).
  - 2) FASTENERS SHALL BE LONG ENOUGH TO PENETRATE THROUGH THE EXTERIOR WALL COVERING AND 1 1/4" INTO THE WOOD FRAMING, CONCRETE BLOCK OR CONCRETE.
  - 3) WHERE SCREWS ARE ATTACHED TO MASONRY/STUCCO, THEY SHALL BE ATTACHED UTILIZING VIBRATION-RESISTANT ANCHORS HAVING AN ULTIMATE WITHDRAWAL CAPACITY OF 490 POUNDS (MINIMUM).
  - 4) STRUCTURAL PANELS SHALL BE PRECUT AND MARKED FOR A SPECIFIC OPENING, STORED WITH THE ATTACHMENT HARDWARE.
  - 5) STRUCTURAL PANELS SHALL BE INSTALLED ON THE EXTERIOR OF THE BUILDING.
  - 6) AN ALTERNATE TYPE OF AN APPROVED FASTENER IS THE PLYLOX CLIP BY PLYLOX (1-800-583-4289) FOR USE ON RESIDENCES WITH BRICK VENEER.

NOTE: USAGE OF STRUCTURAL PANELS ARE ALLOWED ON ONE AND TWO STORY RESIDENCES PER I.R.C.  
NOTE: USAGE OF STRUCTURAL PANELS DOES NOT CHANGE THE PRESSURE REQUIREMENT ON THE BUILDING OPENINGS.

**WS15** WINDBORNE DEBRIS PROTECTION - STRUCTURAL PANELS



**WS16** FOUNDATION DETAIL

STATE OF TEXAS  
JOHN C. GULTEK  
90977  
LICENSED PROFESSIONAL ENGINEER  
3/2/22

**DTS**  
ENGINEERING, INC.  
7 Grogan's Park Dr. Suite 11, The Woodlands, TX 77380  
Ph: (281) 298-8877 Fax: (281) 298-9856 Registration #P-7539

**CUSTOM HOME**

DUONG RESIDENCE

PROJECT INFO.  
SADDLE CREEK FOREST

LOT. 14  
BLK. 1  
SECT. 6

27900 E. STALLION LN.,  
WALLER, TX 77484

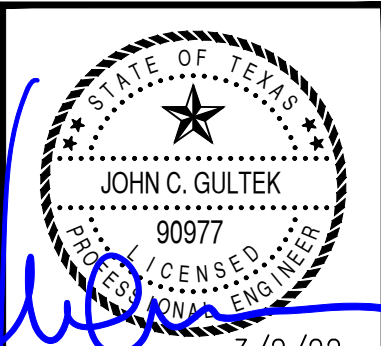
PLAN NO.

**SHEAR WALL & TYP. WALL FRAMING DETAILS**

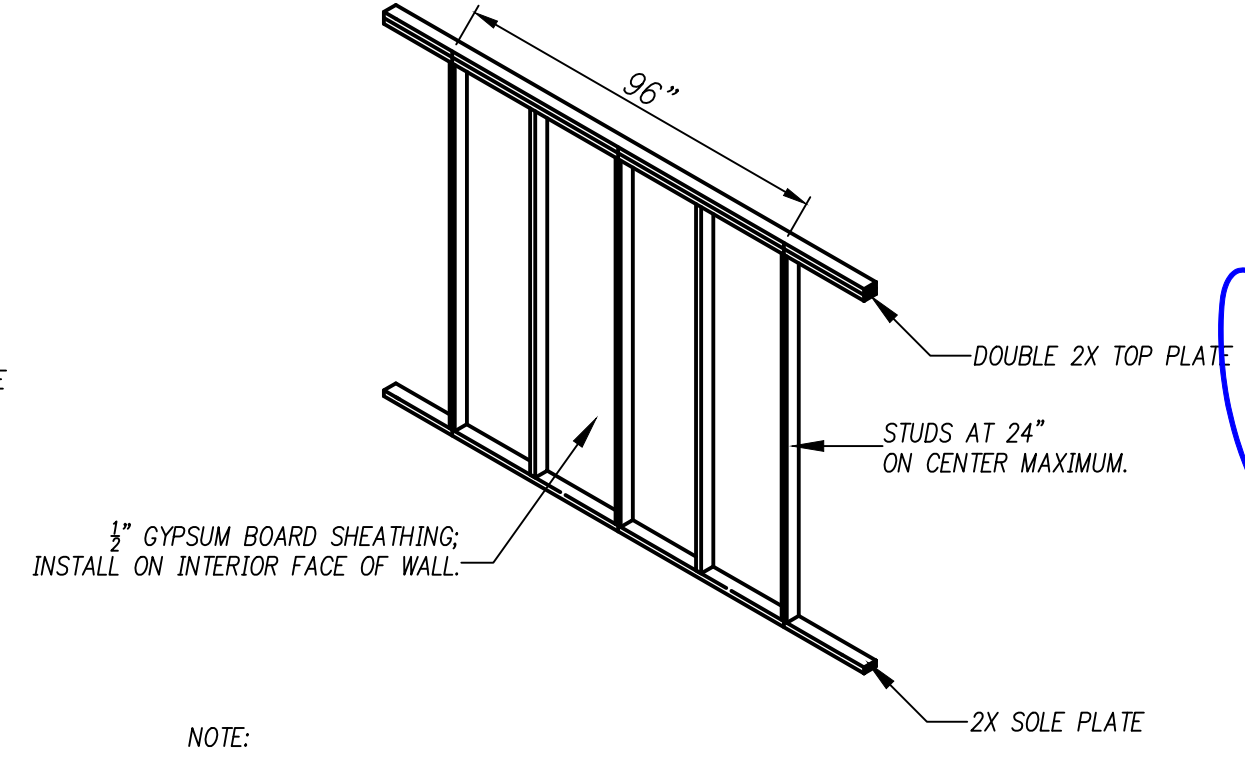
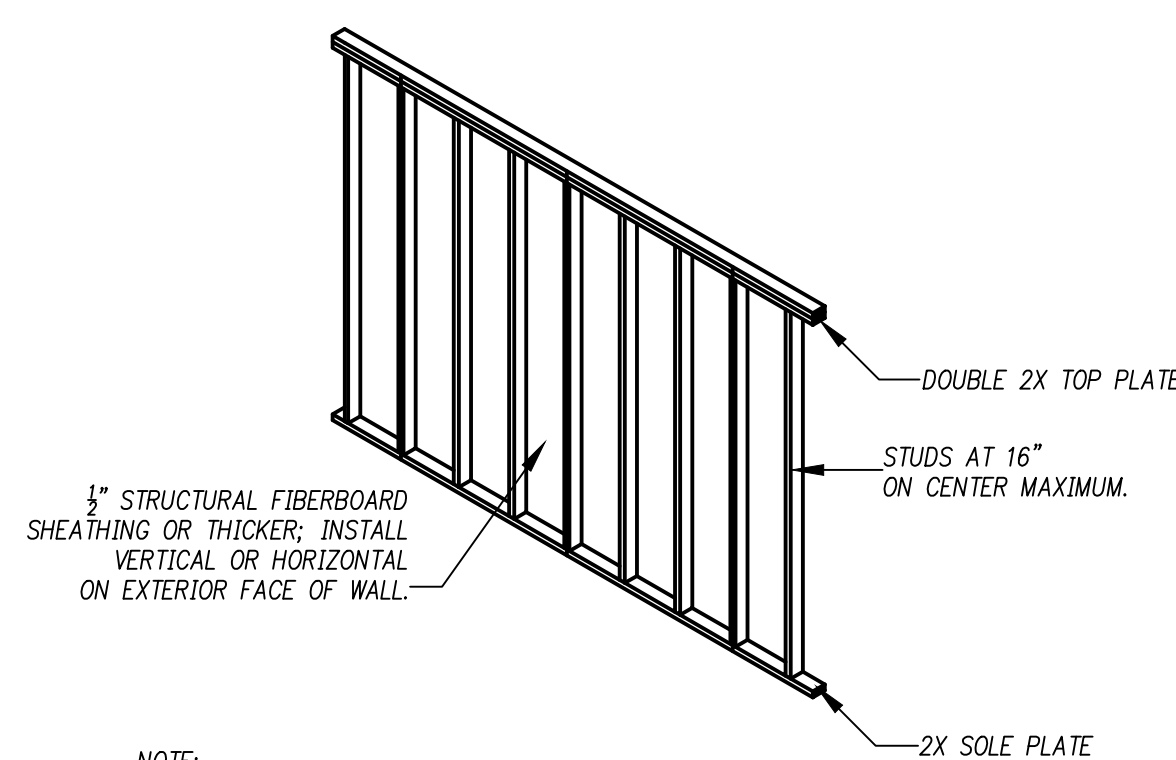
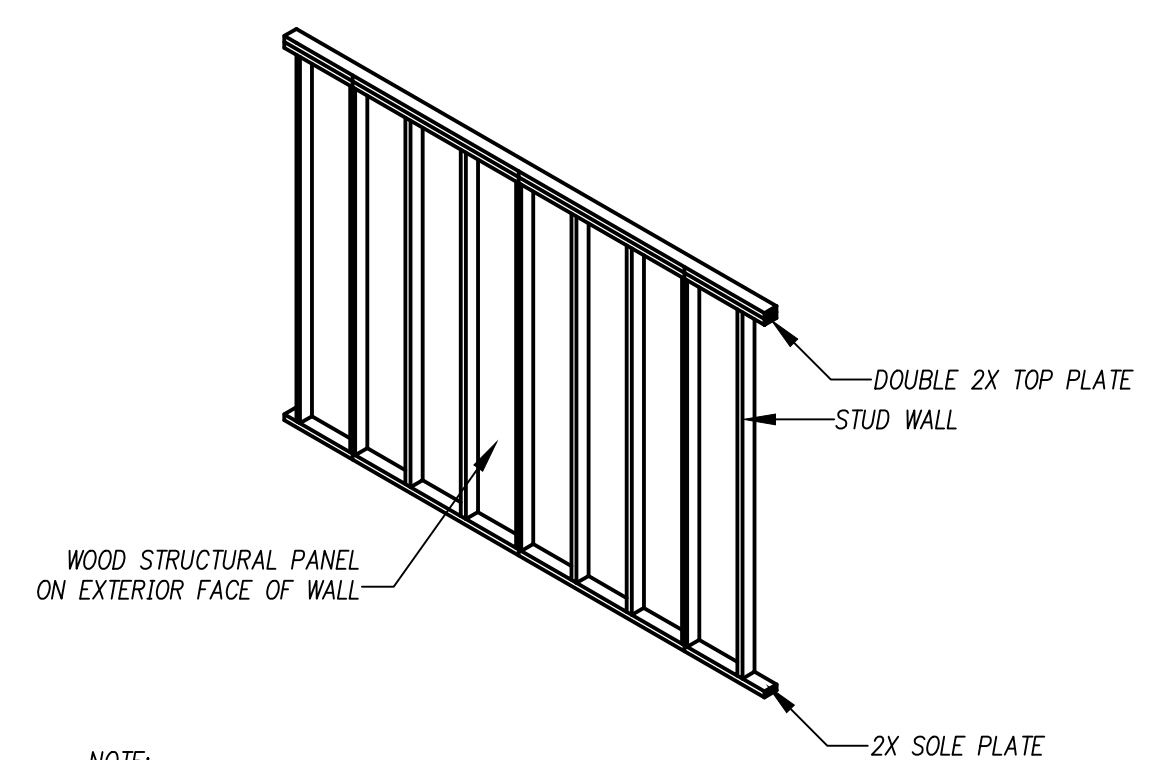
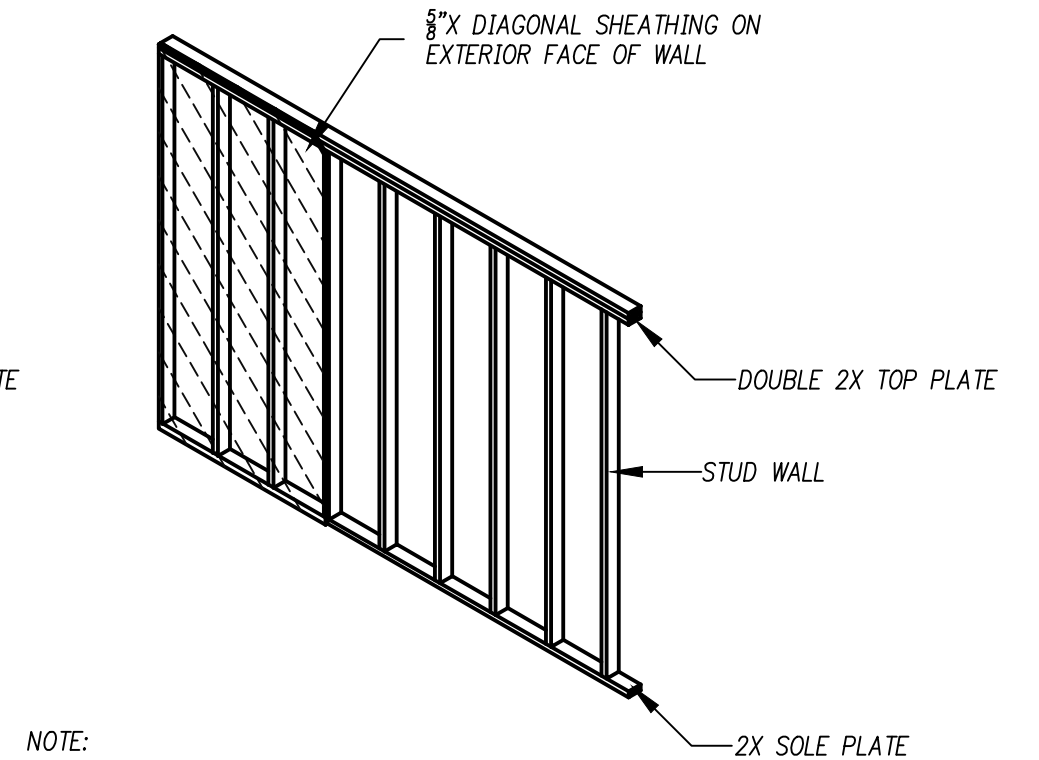
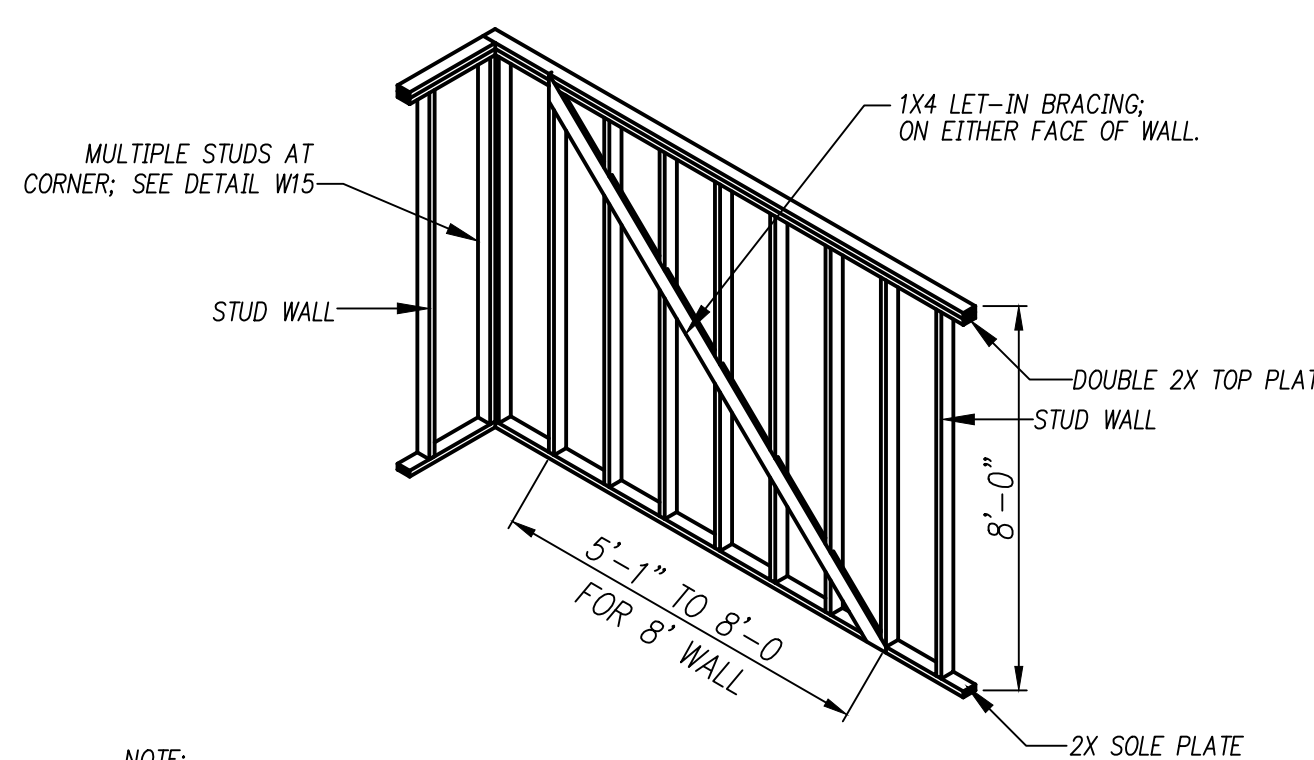
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REVISIONS	
DATE	REASON

CHECKED BY:  
JG/BW  
DRAWN BY:  
BW  
DATE:  
3/2/22  
JOB #  
22104  
SF-4



**DTS**  
ENGINEERING, INC.  
7 Grogan's Park Dr. Suite 11, The Woodlands, TX 77380  
Ph: (281) 298-8877 Fax: (281) 298-9856 Registration #F-7539



NOTE:  
A) 1X4 LET-IN BRACE SHALL BE INSTALLED AT ANGLES BETWEEN 45 DEGREES AND 60 DEGREES FROM THE HORIZONTAL.  
B) NAIL 1X4 TO TOP PLATE, EACH STUD AND BOTTOM PLATE WITH 2 - 8d NAILS.  
C) LET-IN BRACING OF STEEL MAY BE USED; SEE SIMPSON "TMB" OR "RCWB"; INSTALL ACCORDING TO MANUFACTURER'S PRINTED LITERATURE.

NOTE:  
A) 5/8\"/>

NOTE:  
A) NAILING:  
5/16\"/>

NOTE:  
A) NAILING:  
1/2\"/>

NOTE:  
A) NAILING:  
1/2\"/>

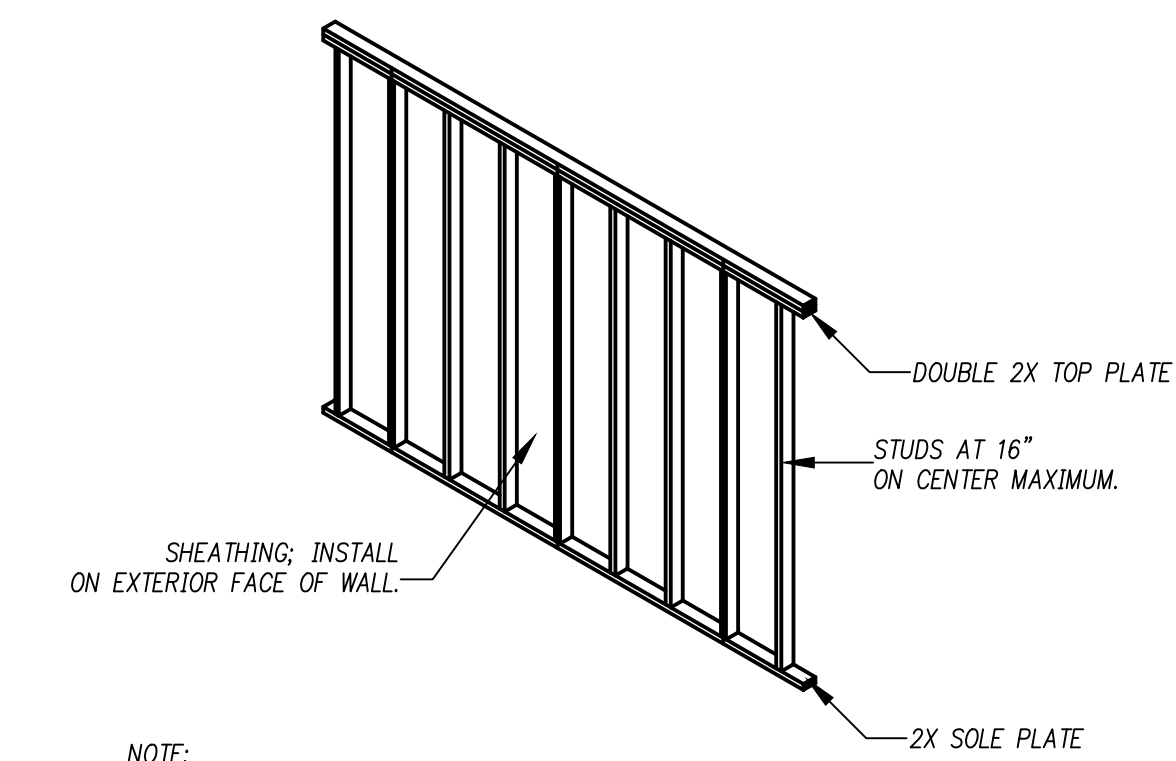
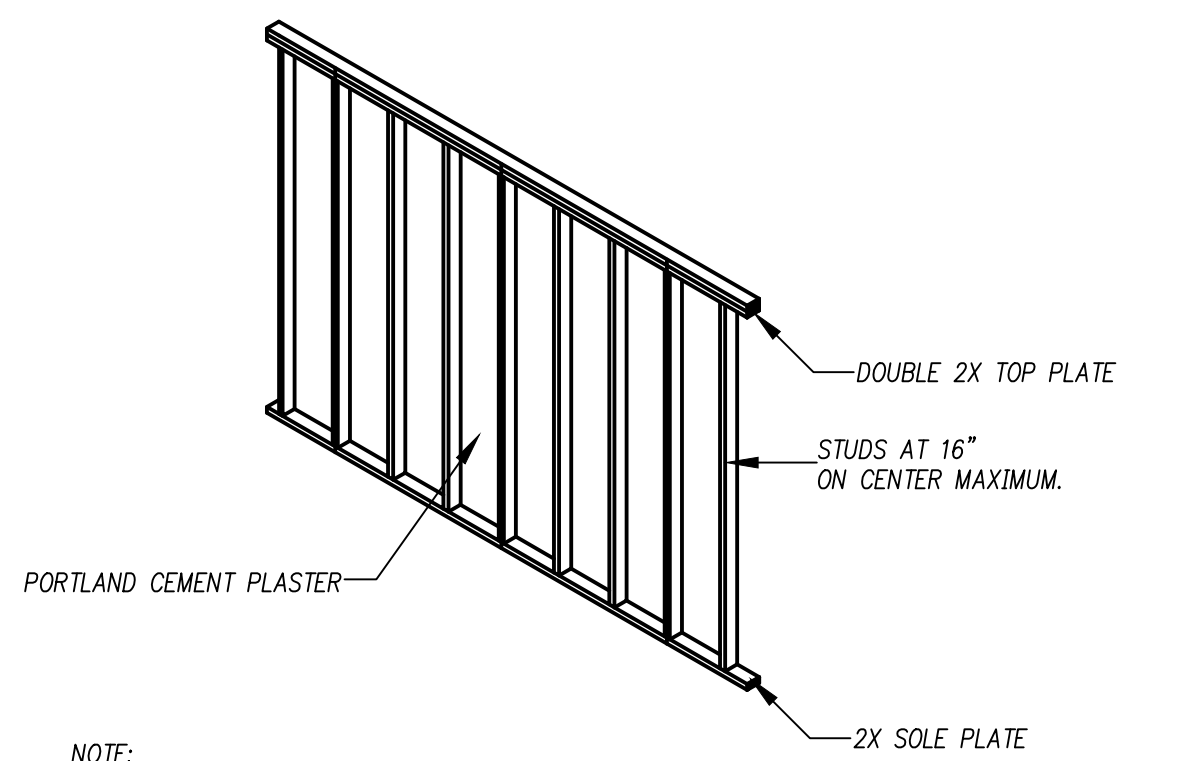
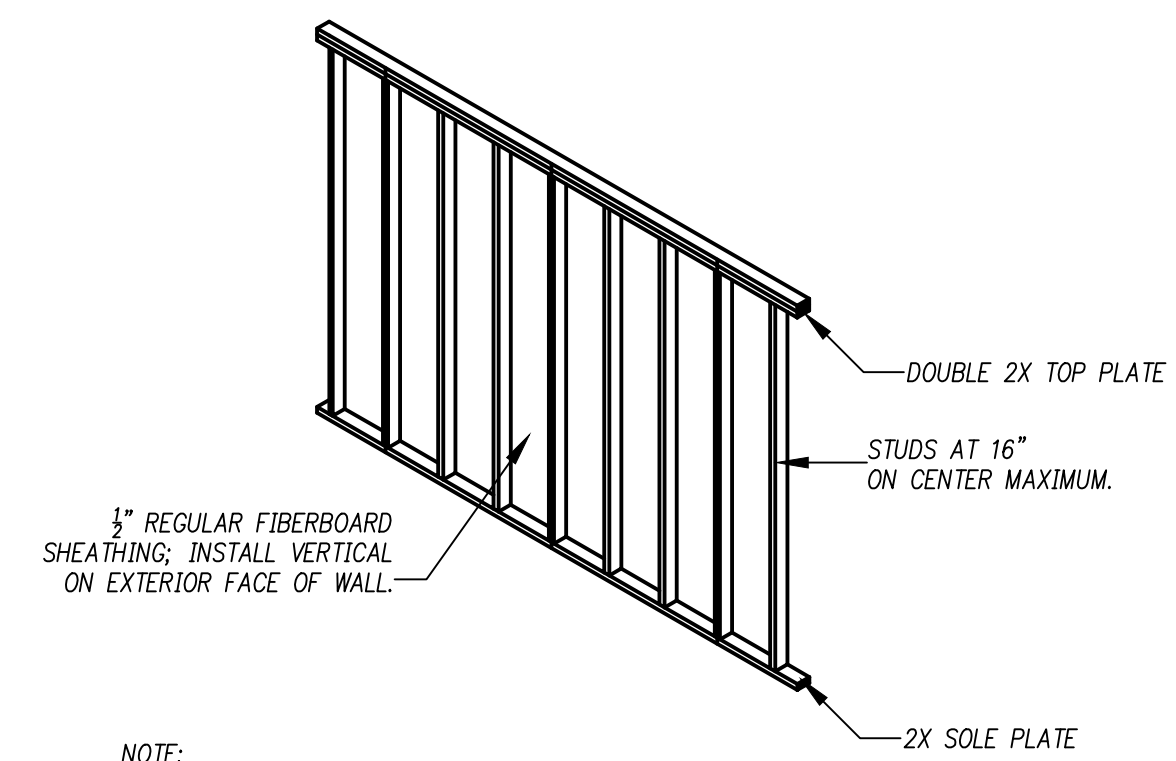
**BW1** METHOD #1

**BW2** METHOD #2

**BW3** METHOD #3

**BW4** METHOD #4

**BW5** METHOD #5



NOTE:  
A) NAILING:  
1/2\"/>

NOTE:  
A) EXPANDED CORROSION RESISTANT LATH ATTACHED TO STUDS WITH 1 1/2\"/>

NOTE:  
A) HARDBOARD SIDING SHALL COMPLY TO AHA135.6 AND SHALL BE 7/16\"/>

**BW6** METHOD #6

**BW7** METHOD #7

**BW8** METHOD #8

**Braced Wall Construction**

R602.10 Walls shall be braced in accordance with this section. In addition, interior braced wall lines shall be provided in accordance with Section R602.10.1.1. Exception: Alternate braced wall panels constructed in accordance with Section R602.10.6 shall be permitted to replace any of the above methods of bracing wall panels.

R602.10.1 Braced wall lines shall consist of braced wall panels construction methods in accordance with Section R602.10.3. The amount and location of bracing shall be in accordance with Table R602.10.1. Braced wall panel shall begin no more than 12.5-feet from each end of a braced wall line. Braced wall panels that are counted as part of a braced wall line shall be in line, except that offsets out-of-plane of up to 4-feet shall be permitted provided that the total out-to-out offset dimension in any braced wall in not more than 8-feet.

R602.10.1.1 Spacing of braced wall lines shall not exceed 35-feet on center in both the longitudinal and transverse directions in each story. Exception: Spacing of braced wall lines not exceeding 50-feet shall be permitted where:  
1. The wall bracing provided equals or exceeds the amount of bracing required by Table R602.10.1 multiplied by a factor equal to the braced wall line spacing divided by 35-feet and on center in both the longitudinal and transverse directions in each story.  
2. The length-to-width ratio for the floor/wall diaphragm does not exceed 3:1.

R602.10.2 Cripple walls shall be braced with an amount and type of bracing are required for the wall above in accordance with Table R602.10.1 with the following modifications for the cripple wall bracing:  
1. The percent bracing amount as determined from Table R602.10.1 shall be increased by 15 percent.  
2. The wall panel spacing shall be decreased to 18-feet instead of 25-feet.

R602.10.3 The construction of braced wall panels shall be in accord with one of the following methods:  
1. Nominal 1-inch by 4-inch continuous diagonal braces let in to the top and bottom plates and the intervening studs or approved metal strap devices installed in accordance with the manufacturer's specifications. The let-in bracing shall be placed at an angle not more than 60-degrees or less than 45-degrees from the horizontal.  
2. Wood boards of 5/8-inch net minimum thickness applied diagonally on studs spaced a maximum of 24-inches. Diagonal boards shall be attached to studs in a accord with Table R602.3(1).  
3. Wood structural panel sheathing with a thickness not less than 5/16-inch for 16-inch stud spacing and not less than 3/8-inch for 24-inch stud spacing. Wood structural panels shall be installed in accordance with Table R602.3(1).  
4. One half inch or 25/32-inch thick structural fiberboard sheathing applied vertically on studs spaced a maximum of 16-inch on center. Structural fiberboard sheathing shall be installed in accordance with Table R602.3(1).  
5. Gypsum board with minimum 1/2-inch thickness placed on studs spaced a maximum of 24-inches on center and fastened at 7-inches on center with nails in accordance with Table R602.3(1).  
6. Particleboard wall sheathing panels installed in accordance with Table R602.3(1).  
7. Portland cement plaster on studs spaced a maximum of 16-inches on center and installed in accordance with Section R703.6 [Exterior plaster].  
8. Hardboard panel siding when installed in accordance with Table R703.4  
Exception: Alternate braced wall panels constructed in accordance with Section R602.10.6 shall be permitted to replace any of the above methods of bracing wall panels.

R602.10.4 For Methods 2, 3, 4, 6, 7 and 8 above, each braced wall panel shall be at least 48-inch in length, covering a minimum of three 24-inches of center. For Method 5 above, each braced wall panel shall be at least 96-inch in length where applied to one face of the braced wall panel and at least 48-inches where applied to both faces.

Exceptions:  
1. Length of braced wall panels for continuous wood structural panels sheathing shall be in accordance with Section R602.10.5.  
2. Length of alternate braced wall panels shall be in accordance with Section R602.10.6.

R602.10.5 When continuous wood structural panel sheathing is provided in accordance with Method 3 of Section R602.10.3, including areas above and below openings, braced wall panel lengths shall be in accordance with Table R602.10.5. Wood structural panel sheathing at corners shall be installed in accordance with Figure R602.10.5. The bracing amounts in Table R602.10.1 for Method 3 shall be permitted to be multiplied by a factor of 0.9 for walls with maximum opening height that does not exceed 85 percent of the wall height or a factor of 0.8 for walls with maximum opening height that does not exceed 67 percent of the wall height.

R602.10.6 Alternate braced wall lines constructed in accordance with one of the following provisions shall be permitted to replace each 4-feet of braced wall panel as required by Section R602.10.4:  
1. In one-story buildings, each panel shall have a length of not less than 2-feet 8-inch and a height not more than 10-feet. Each panel shall be sheathed on one face with 3/8-inch minimum thickness wood structural panel sheathing nailed with 8d common or galvanized box nails in accordance with Table R602.3(1) and blocked at all wood structural panel sheathing edges. Two anchor bolts installed in accordance with Figure R403.1(1) shall be provide in each panel. Anchor bolts shall be placed at panel quarter points. Each panel end stud shall have a tie-down device fastened to the foundation, capable of providing an uplift capacity of at least 1800 pounds. The tie-down device shall be installed in accordance with the manufacturer's recommendations. The panels shall be supported directly on a foundation or a floor framing support directly on a foundation which is continuous across the entire length of the braced wall line. The foundation shall be reinforced with not less than one-#4 top and bottom. This reinforcement shall be lapped 15inches with the reinforcement required in the continuous foundation located directly under the braced wall line.  
2. In the first story of two-story buildings, each braced wall panel shall be in accordance with Item 1 above, except that the wood structural panel sheathing shall be provided on both faces, at least three anchor bolts shall be placed at one-fifth point, and tie down device uplift capacity shall not be less than 3000 pounds.

R602.10.7 All vertical joints of panel sheathing shall occur over studs. Horizontal joints in braced wall panels shall occur over blocking of a minimum of 1 1/2-inch thickness.  
Exception: Blocking is not required behind horizontal joints where permitted by the manufacturer's installation requirements for the specific sheathing material.

R602.10.8 Braced wall panel sole plates shall be fastened to the floor framing and top plates shall be connected to the framing above in accordance with Table R602.3(1). Sills shall be fastened to the foundation or slab in accordance with Section R403.1.6 and R602.11. Where joists are perpendicular to the braced wall line above, blocking shall be provided under and in line with the braced wall panels.

R602.10.10 Where a building, or portion thereof, does not comply with one or more of the bracing requirements in this section, those portions shall be designed and constructed in accordance with accepted engineering practice.

**Table R602.10.5**  
Length Requirements for Braced Wall Panels in a Continuously Sheathed Wall

Minimum Length of Braced Wall Panel (Inches)		Maximum Opening Height next to the Braced Wall Panel (% of wall height)	
8-foot wall	9-foot wall	10-foot wall	
48	54	60	100%
32	36	40	85%
24	27	30	65%

**WALL BRACING (IRC- TABLE R602.10.1)**

WIND SPEED	CONDITION	TYPE OF BRACE	AMOUNT OF BRACING
100 MPH OR LESS	ONE STORY TOP OF TWO OR THREE STORY	METHODS 1, 2, 3, 4, 5, 6, 7, OR 8	LOCATED AT EACH END AND AT LEAST EVERY 25- FEET ON CENTER BUT NOT LESS THAN 16% OF BRACED WALL LINE.
	FIRST STORY OF TWO STORY SECOND STORY OF THREE STORY	METHODS 1, 2, 3, 4, 5, 6, 7, OR 8	LOCATED AT EACH END AND AT LEAST EVERY 25- FEET ON CENTER BUT NOT LESS THAN 16% OF BRACED WALL LINE FOR METHOD 3 AND 25% OF BRACED WALL LINE FOR METHODS 2, 4, 5, 6, 7, OR 8.
	FIRST STORY OF THREE STORY	METHODS 2, 3, 4, 5, 6, 7, OR 8	MINIMUM 48-INCH WIDE PANELS LOCATED AT EACH END AND AT LEAST 25- FEET ON CENTER BUT NOT LESS THAN 25% OF BRACED WALL LINE FOR METHOD 3 AND 35% OF BRACED WALL LINE FOR METHODS 4, 5, 6, 7, OR 8.
LESS THAN 110 MPH	ONE STORY TOP OF TWO OR THREE STORY	METHODS 1, 2, 3, 4, 5, 6, 7, OR 8	LOCATED AT EACH END AND AT LEAST EVERY 25- FEET ON CENTER BUT NOT LESS THAN 16% OF BRACED WALL LINE FOR METHOD 3 AND 25% OF BRACED WALL LINE FOR METHODS 2, 4, 5, 6, 7, OR 8.
	FIRST STORY OF TWO STORY SECOND STORY OF THREE STORY	METHODS 2, 3, 4, 5, 6, 7, OR 8	LOCATED AT EACH END AND AT LEAST EVERY 25- FEET ON CENTER BUT NOT LESS THAN 30% OF BRACED WALL LINE FOR METHOD 3 AND 45% OF BRACED WALL LINE FOR METHODS 2, 4, 5, 6, 7, OR 8.
	FIRST STORY OF THREE STORY	METHODS 2, 3, 4, 5, 6, 7, OR 8	LOCATED AT EACH END AND AT LEAST EVERY 25- FEET ON CENTER BUT NOT LESS THAN 45% OF BRACED WALL LINE FOR METHOD 3 AND 60% OF BRACED WALL LINE FOR METHODS 2, 4, 5, 6, 7, OR 8.

**GENERAL NOTES**

1) NONE OF THE METHODS SHOWN ON THIS SHEET ARE APPROVED FOR USE IN TEXAS DEPARTMENT OF INSURANCE AREAS ALONG THE COAST OF TEXAS OR IN AREAS WITH WIND SPEEDS EQUAL TO OR GREATER THAN 110 MPH.

CUSTOM HOME

DUONG RESIDENCE

**PROJECT INFO.**

SADDLE CREEK FOREST	
LOT.	14
BLK.	1
SECT.	6

27900 E. STALLION LN., WALLER, TX 77484

PLAN NO.

**WALL BRACING DETAILS**

SCALE:  
NOT TO SCALE

**REVISIONS**

DATE	REASON

CHECKED BY:  
JG/BW  
DRAWN BY:  
BW  
DATE:  
3/2/22  
JOB #  
22104

SF-4A