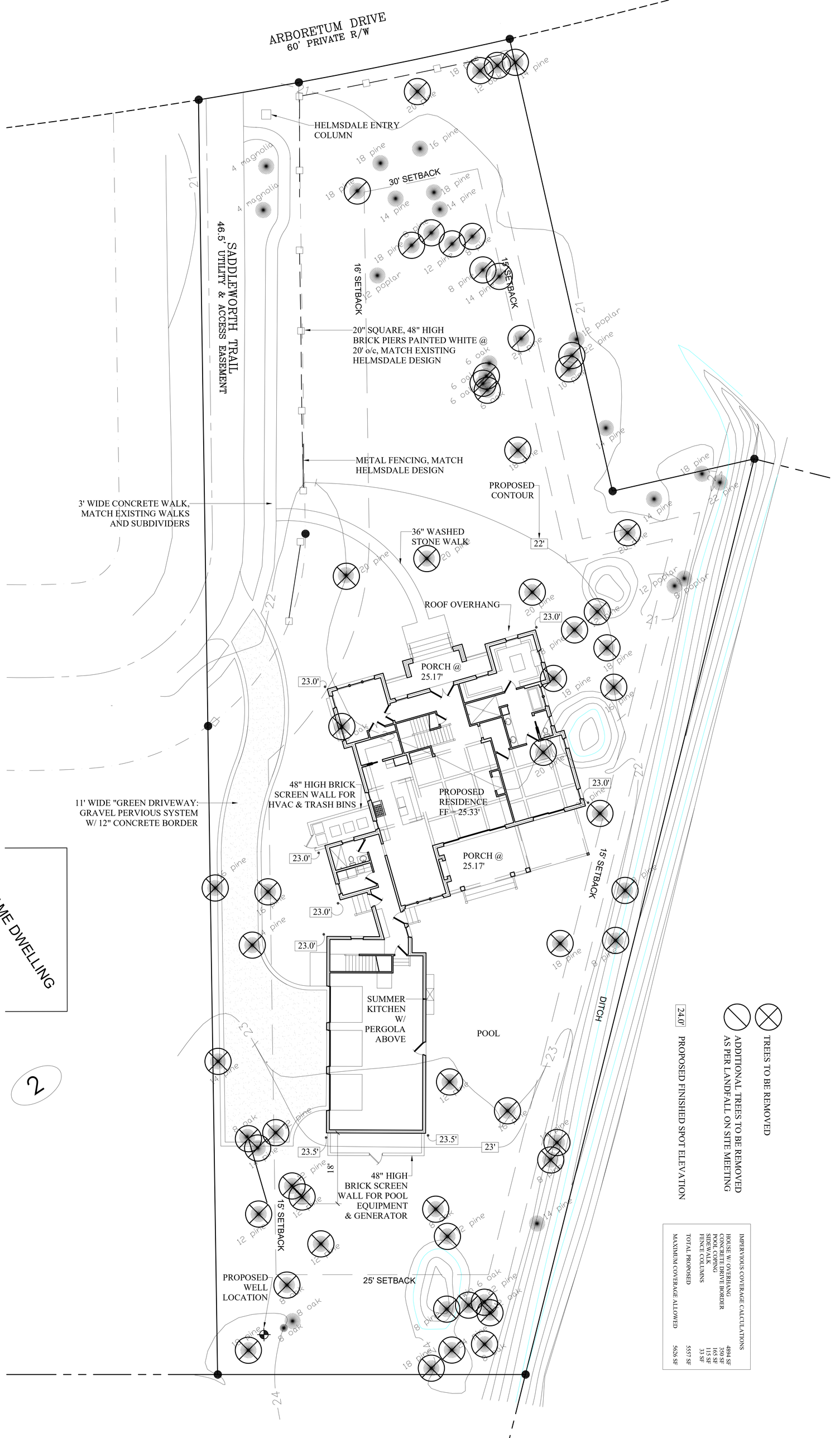
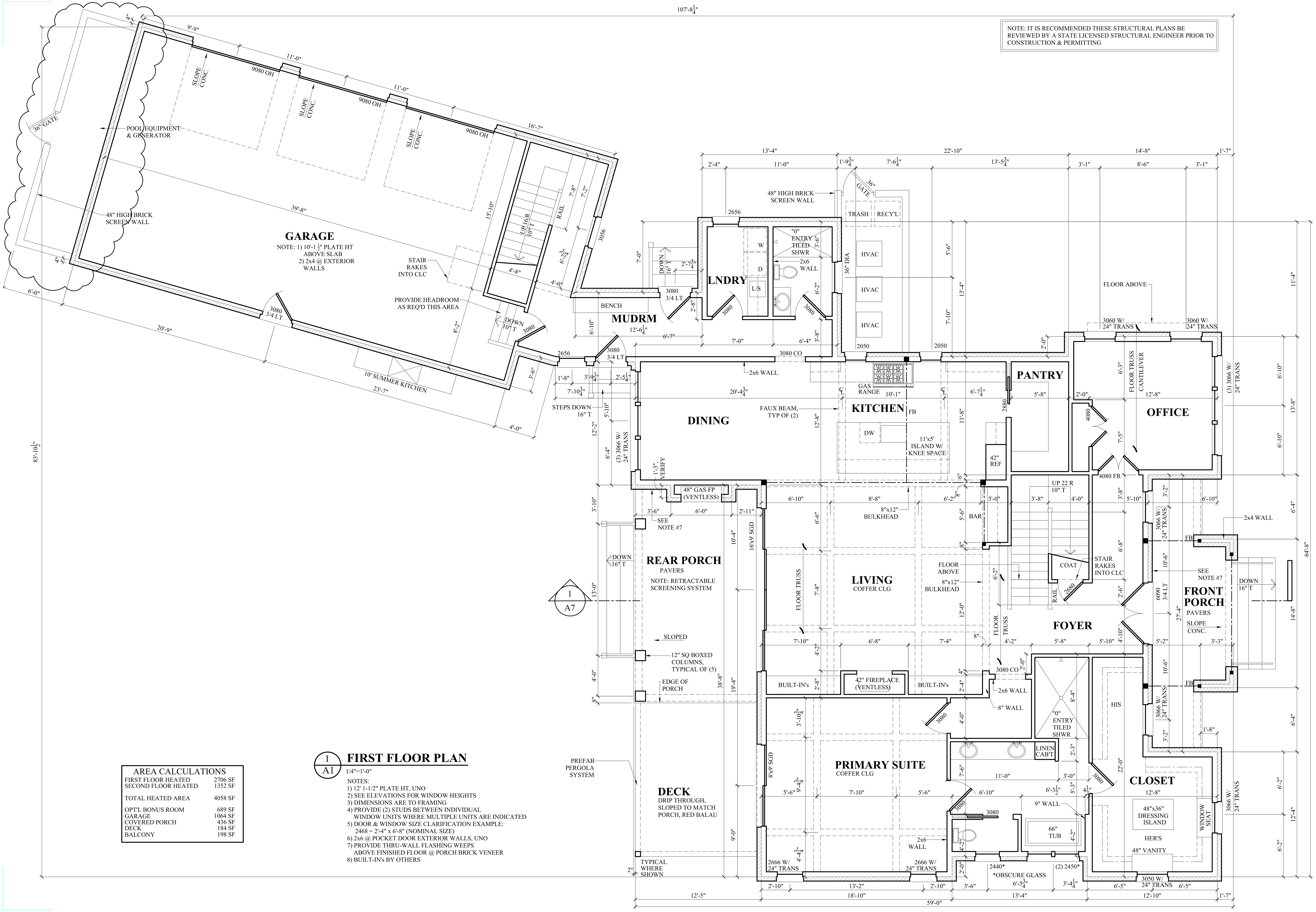

ARBORETUM DRIVE
60' PRIVATE R/W
HELMSDALE ENTRY COLUMN
30' SETBACK
16' SETBACK
15' SETBACK
SADDLEWORTH TRAIL
46.5' UTILITY & ACCESS EASEMENT
20" SQUARE, 48" HIGH BRICK PIERS PAINTED WHITE @ 20' o/c, MATCH EXISTING HELMSDALE DESIGN
METAL FENCING, MATCH HELMSDALE DESIGN
PROPOSED CONTOUR
3' WIDE CONCRETE WALK, MATCH EXISTING WALKS AND SUBDIVIDERS
36" WASHED STONE WALK
ROOF OVERHANG
PORCH @ 25.17'
48" HIGH BRICK SCREEN WALL FOR HVAC & TRASH BINS
PROPOSED RESIDENCE FF = 25.33'
11' WIDE "GREEN DRIVEWAY: GRAVEL PERVIOUS SYSTEM W/ 12" CONCRETE BORDER
PORCH @ 25.17'
15' SETBACK
SUMMER KITCHEN W/ PERGOLA ABOVE
POOL
DITCH
48" HIGH BRICK SCREEN WALL FOR POOL EQUIPMENT & GENERATOR
15' SETBACK
PROPOSED WELL LOCATION
25' SETBACK
FRAME DWELLING
2
TREES TO BE REMOVED
ADDITIONAL TREES TO BE REMOVED AS PER LANDFALL ON SITE MEETING
24.0' PROPOSED FINISHED SPOT ELEVATION
IMPERVIOUS COVERAGE CALCULATIONS
HOUSE W/ OVERHANG 4894 SF
CONCRETE/DRIVE BORDER 304 SF
POOL COPING 165 SF
SIDEWALK 115 SF
FENCE COLUMNS 33 SF
TOTAL PROPOSED 5557 SF
MAXIMUM COVERAGE ALLOWED 5626 SF



FIRST FLOOR PLAN

1/A1

1/4"=1'-0"

NOTES:
1) 12' 1-1/2" PLATE HT, UNO
2) SEE ELEVATIONS FOR WINDOW HEIGHTS
3) DIMENSIONS ARE TO FRAMING
4) PROVIDE (2) STUDS BETWEEN INDIVIDUAL WINDOW UNITS WHERE MULTIPLE UNITS ARE INDICATED
5) DOOR & WINDOW SIZE CLARIFICATION EXAMPLE: 2468 = 2'-4" x 6'-8" (NOMINAL SIZE)
6) 2x6 @ POCKET DOOR EXTERIOR WALLS, UNO
7) PROVIDE THRU-WALL FLASHING WEEPS ABOVE FINISHED FLOOR @ PORCH BRICK VENEER
8) BUILT-IN's BY OTHERS

AREA CALCULATIONS	
FIRST FLOOR HEATED	2706 SF
SECOND FLOOR HEATED	1352 SF
TOTAL HEATED AREA	4058 SF
OPT'L BONUS ROOM	689 SF
GARAGE	1064 SF
COVERED PORCH	436 SF
DECK	184 SF
BALCONY	198 SF

Reeves Residence

7258 Saddleworth Trail
Wilmington, North Carolina

Revisions

date	description
6/11/25	pavers noted
2/16/26	bug screen
3/23/26	enclosure expanded

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date : 12/17/25

checked by : SRS

file name:REEVEShelmsdalev6

sheet number :

A1

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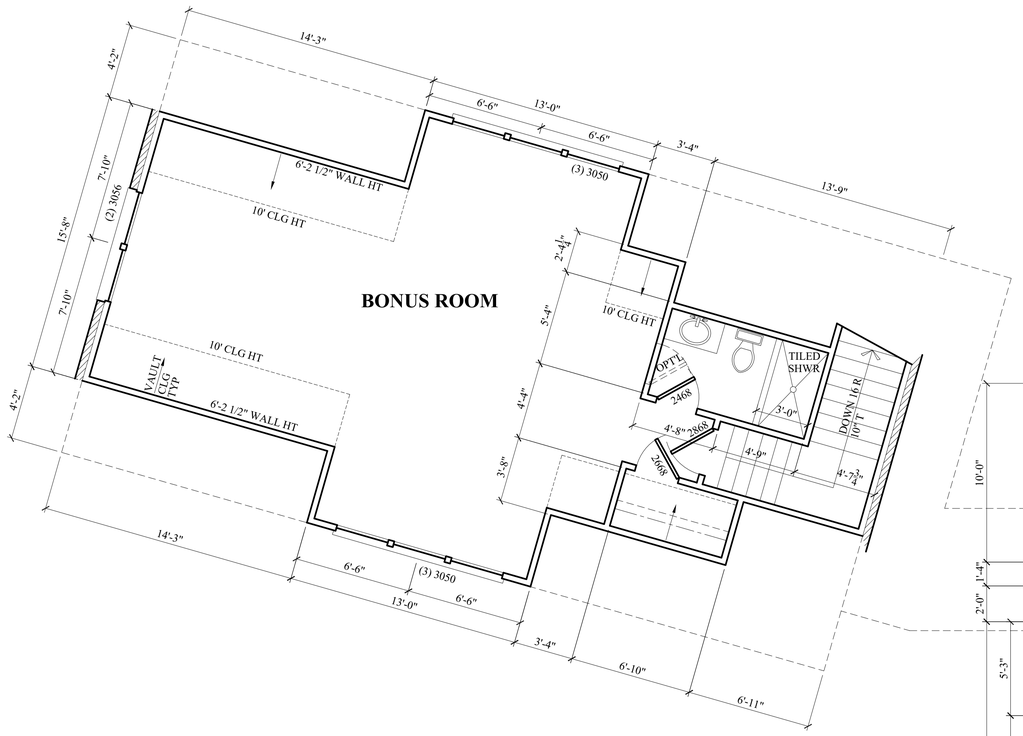
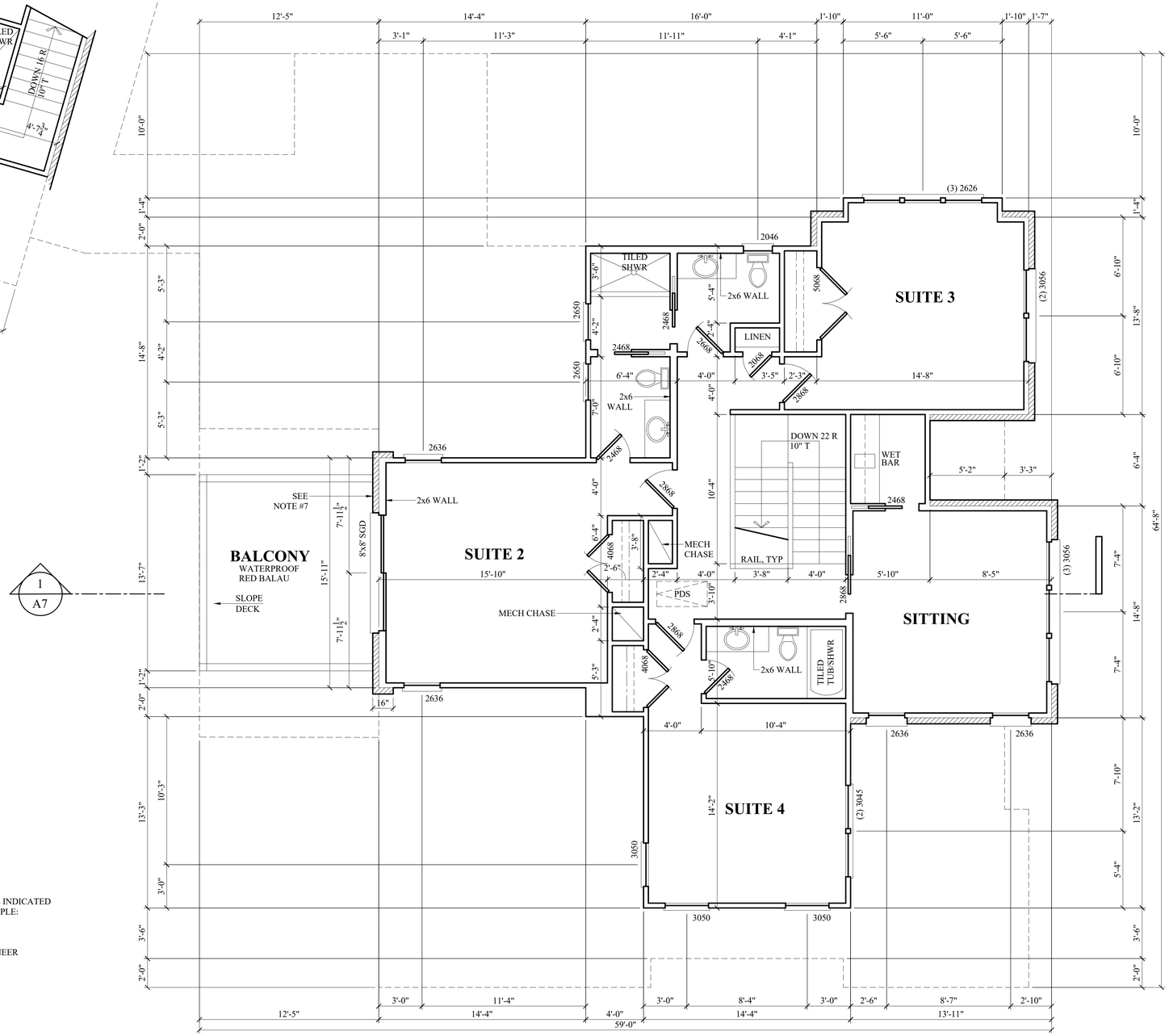


DRAWING INDEX

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
CATH	CATHEDRAL
CLG	CEILING
CONT	CONTINUOUS
DIA	DIAMETER
DBL	DOUBLE
DO	DOUBLE OVEN
DW	DISHWASHER
ELEV	ELEVATOR
FB	FLUSH BEAM, sized by others
FR	FRENCH
GWB	GYPSUM WALL BOARD
HT	HEIGHT
JST	JOIST
MO	MASONRY OPENING
O/C	ON CENTER
PT	PRESSURE TREATED
PDS	PULL-DOWN STAIR
QTR	QUARTER
R	RISER
REF	REFRIGERATOR
RO	ROUGH OPENING
SQ	SQUARE
SHWR	SHOWER
T	TREAD
T&G	TONGUE AND GROOVE
UNO	UNLESS NOTED OTHERWISE
W/	WITH
WWM	WELDED WIRE MESH



1 / A7

1 / A2

SECOND FLOOR PLAN

1/4"=1'-0"

NOTES:
1) 9' 1-1/2" PLATE HT, UNO
2) SEE ELEVATIONS FOR WINDOW HEIGHTS
3) DIMENSIONS ARE TO FRAMING
4) PROVIDE (2) STUDS BETWEEN INDIVIDUAL WINDOW UNITS WHERE MULTIPLE UNITS ARE INDICATED
5) DOOR & WINDOW SIZE CLARIFICATION EXAMPLE: 2468 = 2'-4" x 6'-8" (NOMINAL SIZE)
6) 2x6 @ POCKET DOOR WALLS
7) PROVIDE THRU-WALL FLASHING WEEPS ABOVE FINISHED FLOOR @ PORCH BRICK VENEER

Reeves Residence

7258 Saddleworth Trail
Wilmington, North Carolina

Revisions

date	description
6/30/25	suite 4 window
10/1/25	summer kitchen removed

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checked by : SRS

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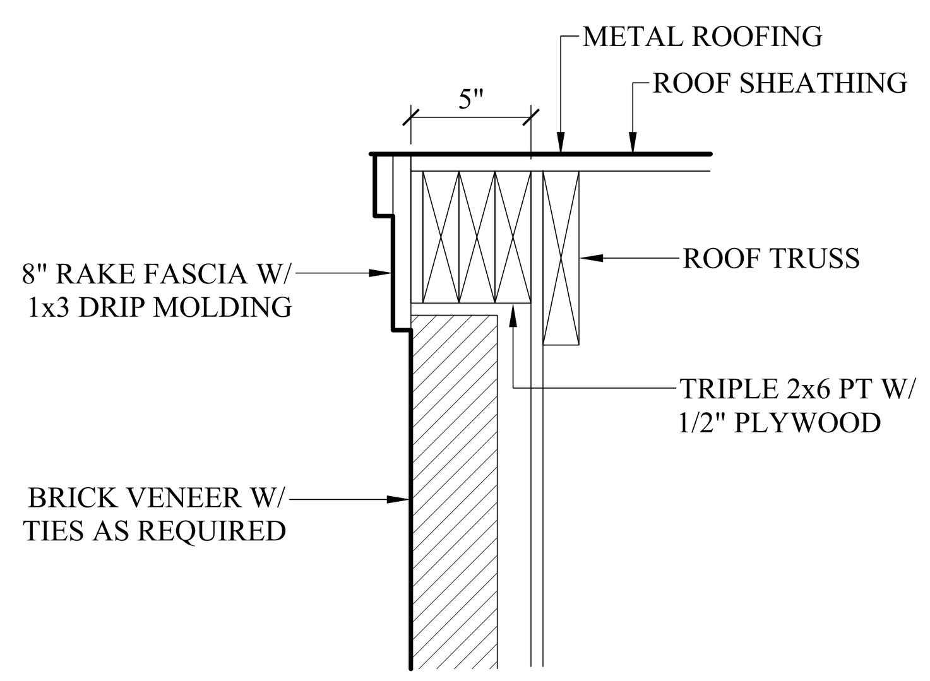
sheet number :

A2



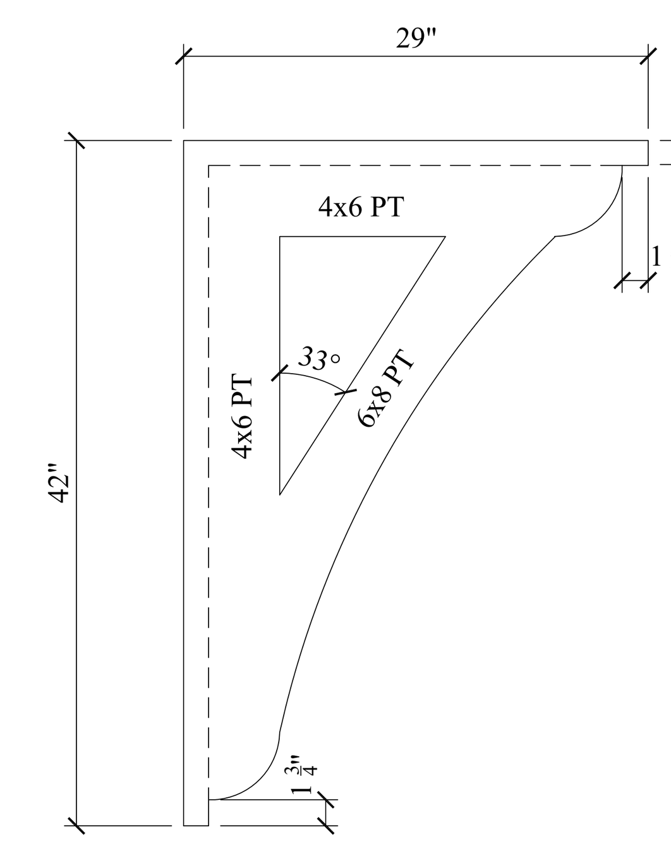
6 / A3 **RAKE SECTION**
1-1/2"=1'-0"

2 / A3 **REAR ELEVATION**
1/4"=1'-0"

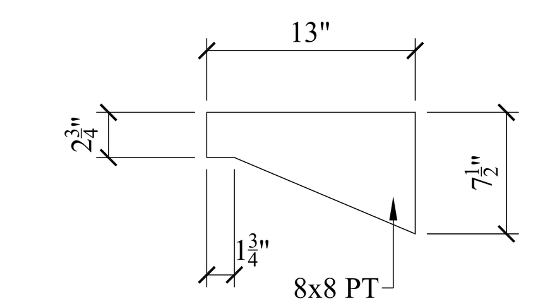
NOTE:
RUN "Z" FLASHING ABOVE ALL HORIZONTAL APPLIED EXTERIOR TRIM & CASINGS

NOTE:
SEE GARAGE ELEVATIONS FOR MATERIAL INFO

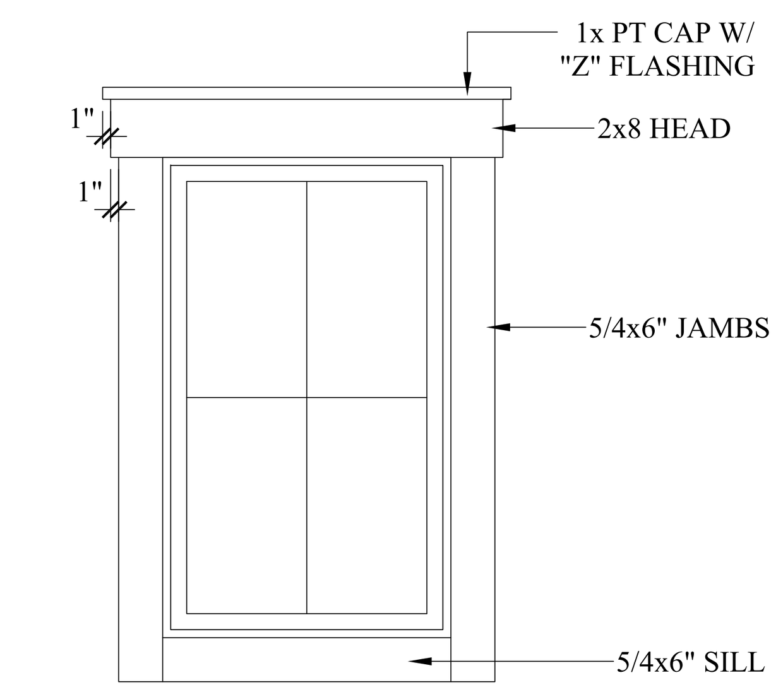
1 / A3 **FRONT ELEVATION**
1/4"=1'-0"



5 / A3 **EAVE BRACKET DETAIL**
1"=1'-0"



4 / A3 **CORBLE DETAIL**
1"=1'-0"



3 / A3 **CASING DETAIL**
1/2"=1'-0"

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Revisions

date	description
6/30/25	suite 4 window

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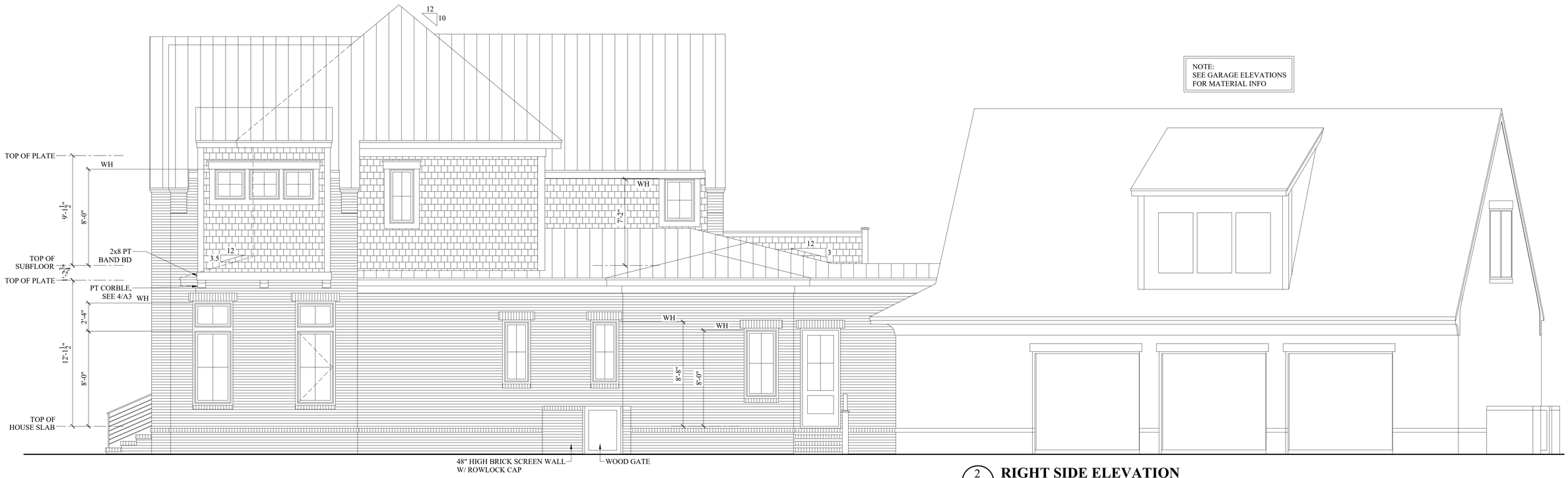
sheet number :

A3



NOTE:
SEE GARAGE ELEVATIONS FOR MATERIAL INFO

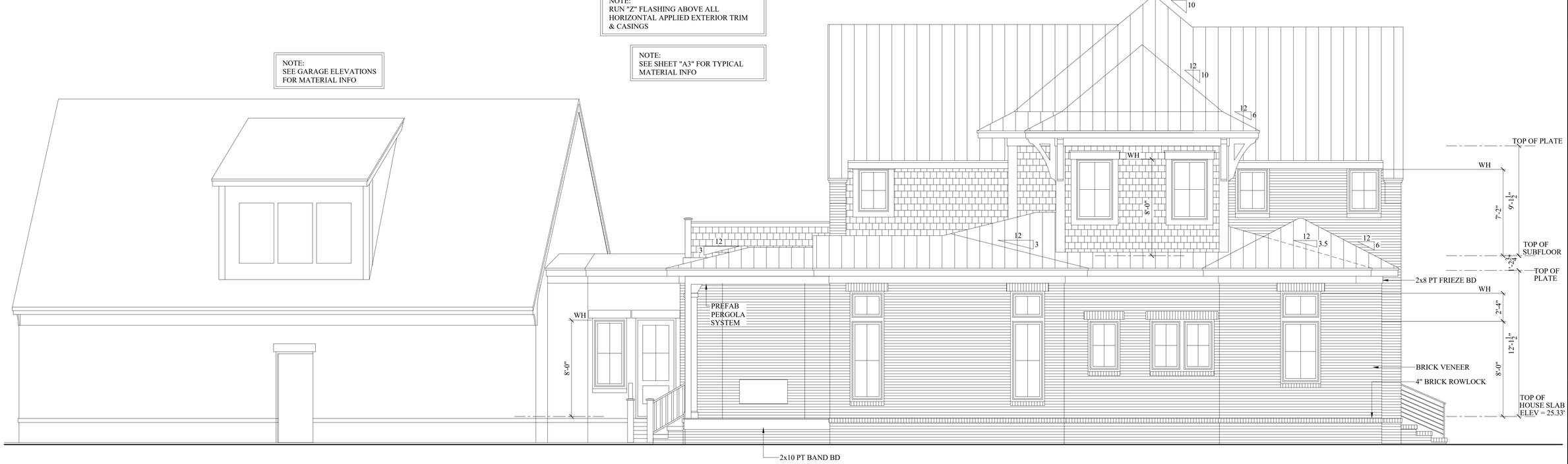
2 / A4 RIGHT SIDE ELEVATION

1/4"=1'-0"

NOTE:
RUN "Z" FLASHING ABOVE ALL HORIZONTAL APPLIED EXTERIOR TRIM & CASINGS

NOTE:
SEE SHEET "A3" FOR TYPICAL MATERIAL INFO

NOTE:
SEE GARAGE ELEVATIONS FOR MATERIAL INFO



1 / A4 LEFT SIDE ELEVATION

1/4"=1'-0"

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Revisions

description	date
window ht rev'd	5/24/25
kitchen window ht rev'd	6/9/25

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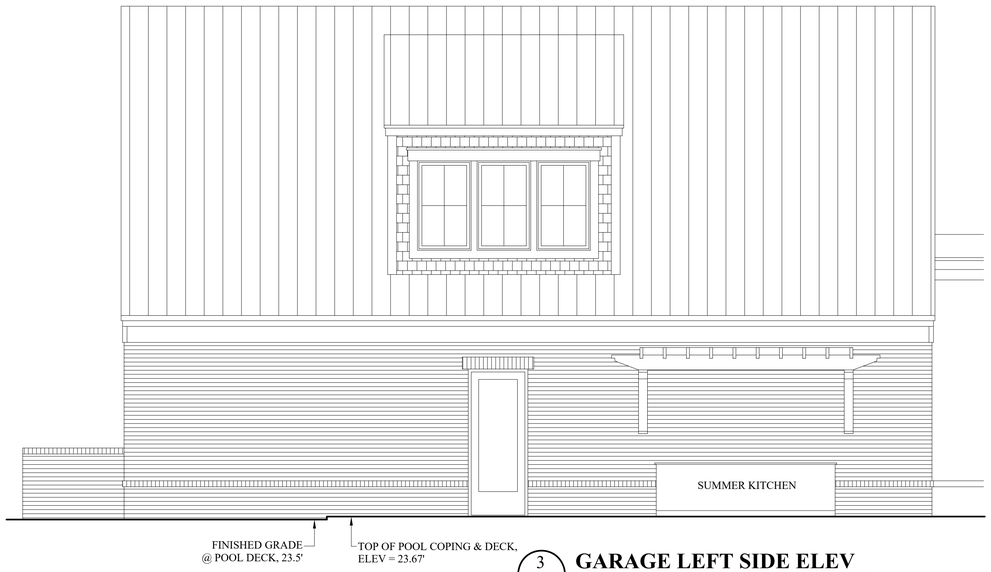
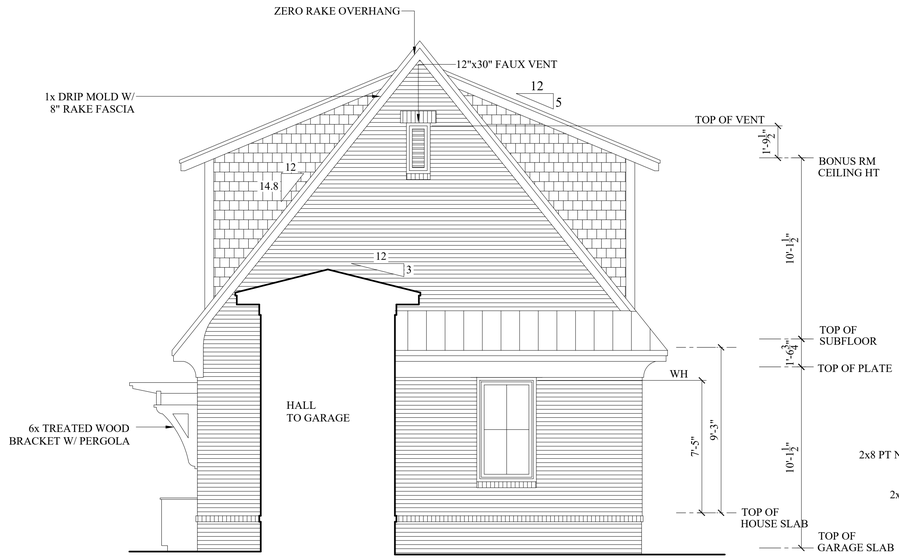
sheet number :

A4



3 / A5 **GARAGE LEFT SIDE ELEV**

1/4"=1'-0"

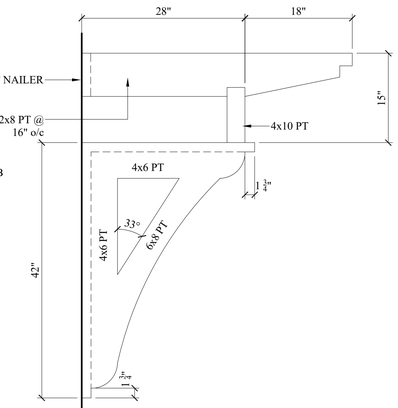


4 / A5 **GARAGE FRONT ELEV**

1/4"=1'-0"

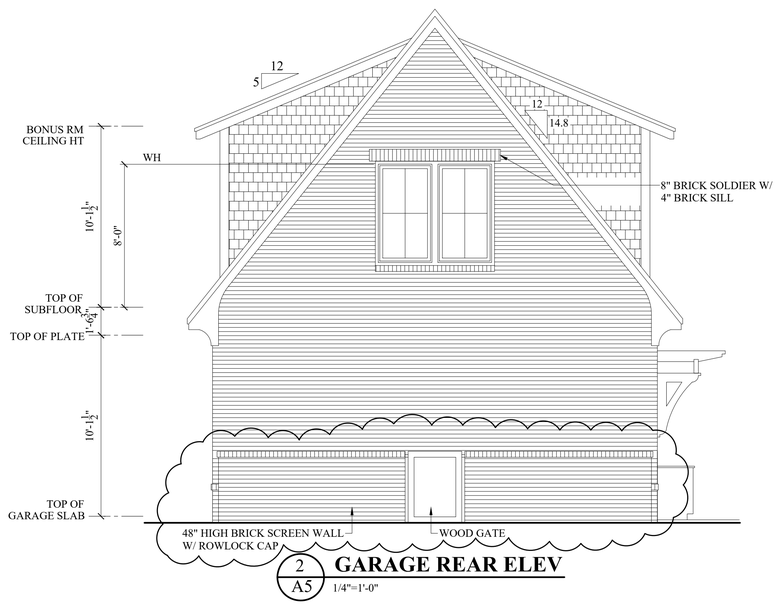
NOTE:
RUN "Z" FLASHING ABOVE ALL HORIZONTAL APPLIED EXTERIOR TRIM & CASINGS

NOTE:
SEE SHEET "A3" FOR TYPICAL MATERIAL INFO



5 / A5 **GARAGE PERGOLA**

1"=1'-0"



2 / A5 **GARAGE REAR ELEV**

1/4"=1'-0"

1 / A5 **GARAGE RIGHT SIDE ELEV**

1/4"=1'-0"

Reeves Residence

7258 Saddleworth Trail
Wilmington, North Carolina

Revisions

description	date
garage man door	4/15/25
garage door style	10/2/25
enclosure expanded	3/23/26

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file name:REEVESHelmsdalev6

sheet number :

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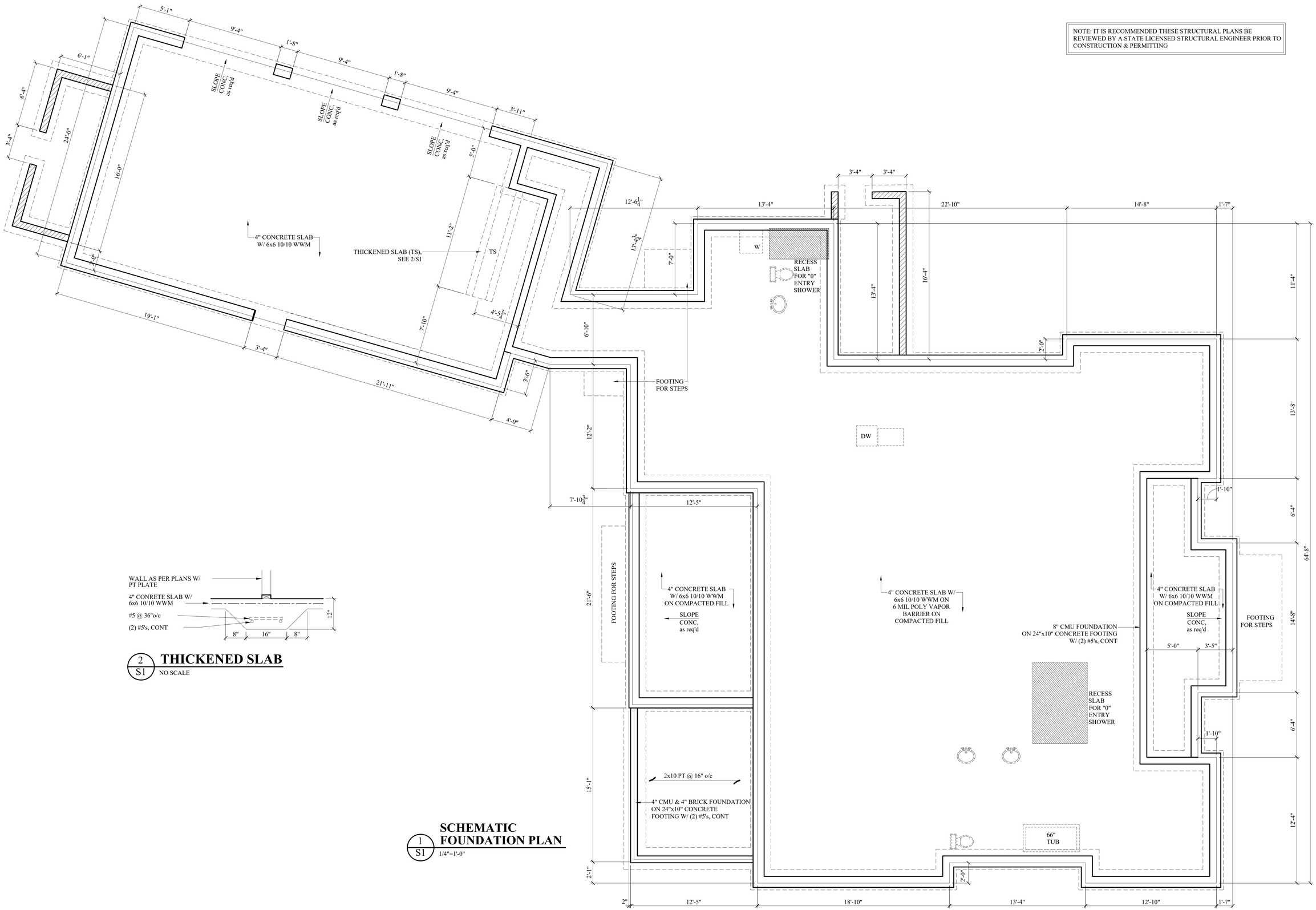

2/S1 **THICKENED SLAB**
NO SCALE

1/S1 **SCHEMATIC FOUNDATION PLAN**
1/4"=1'-0"

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Revisions

date	description

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sheet number :
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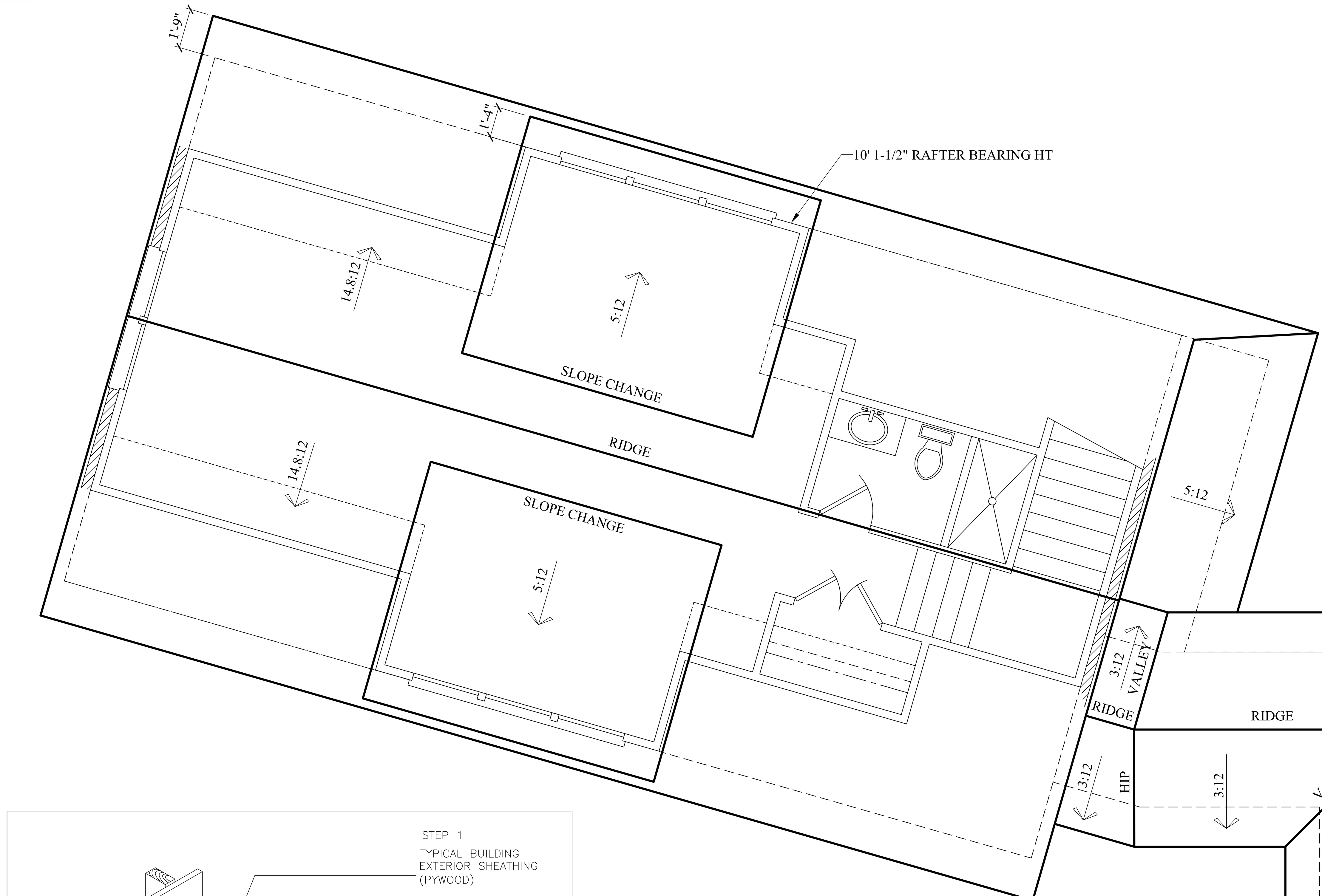
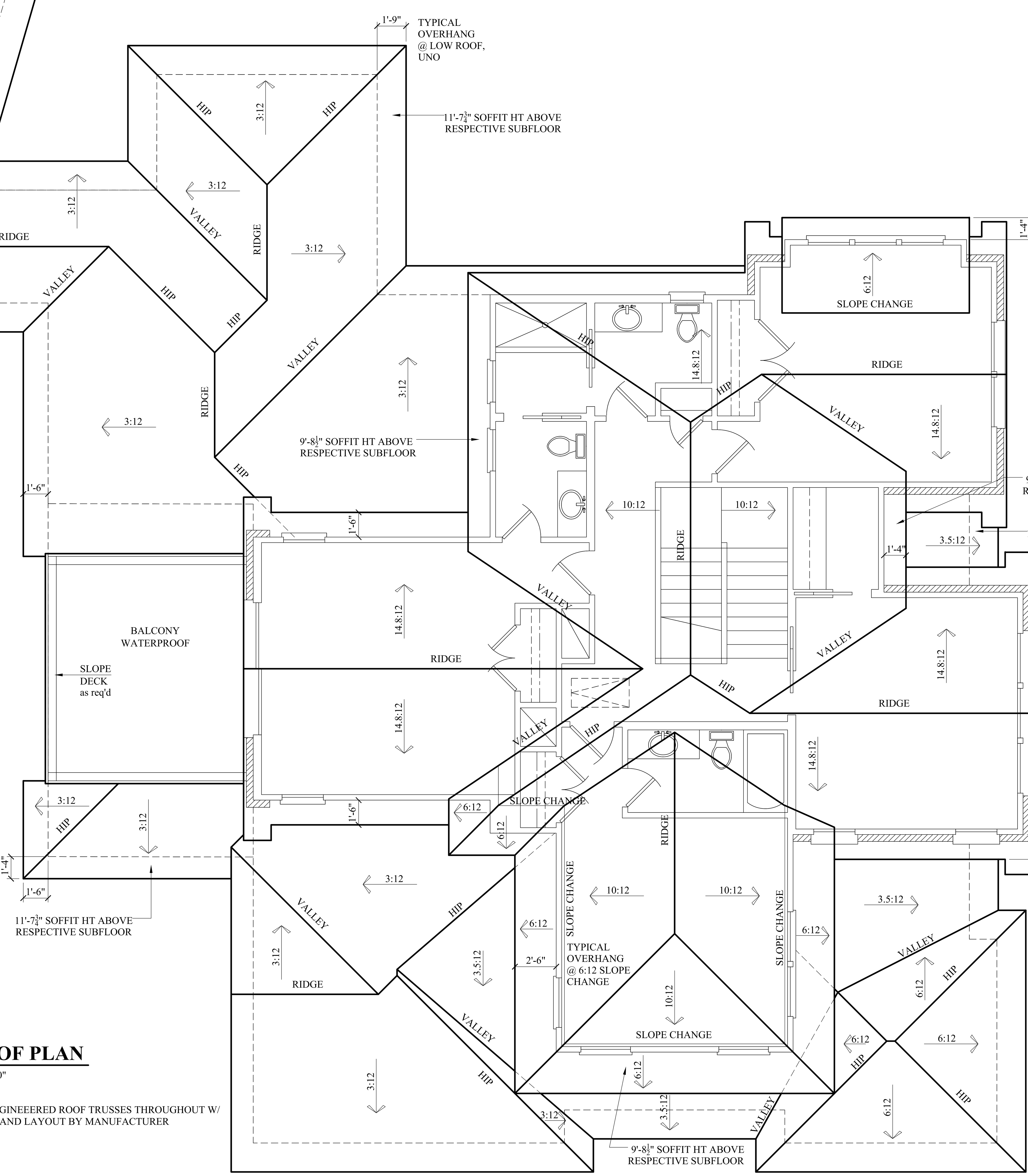
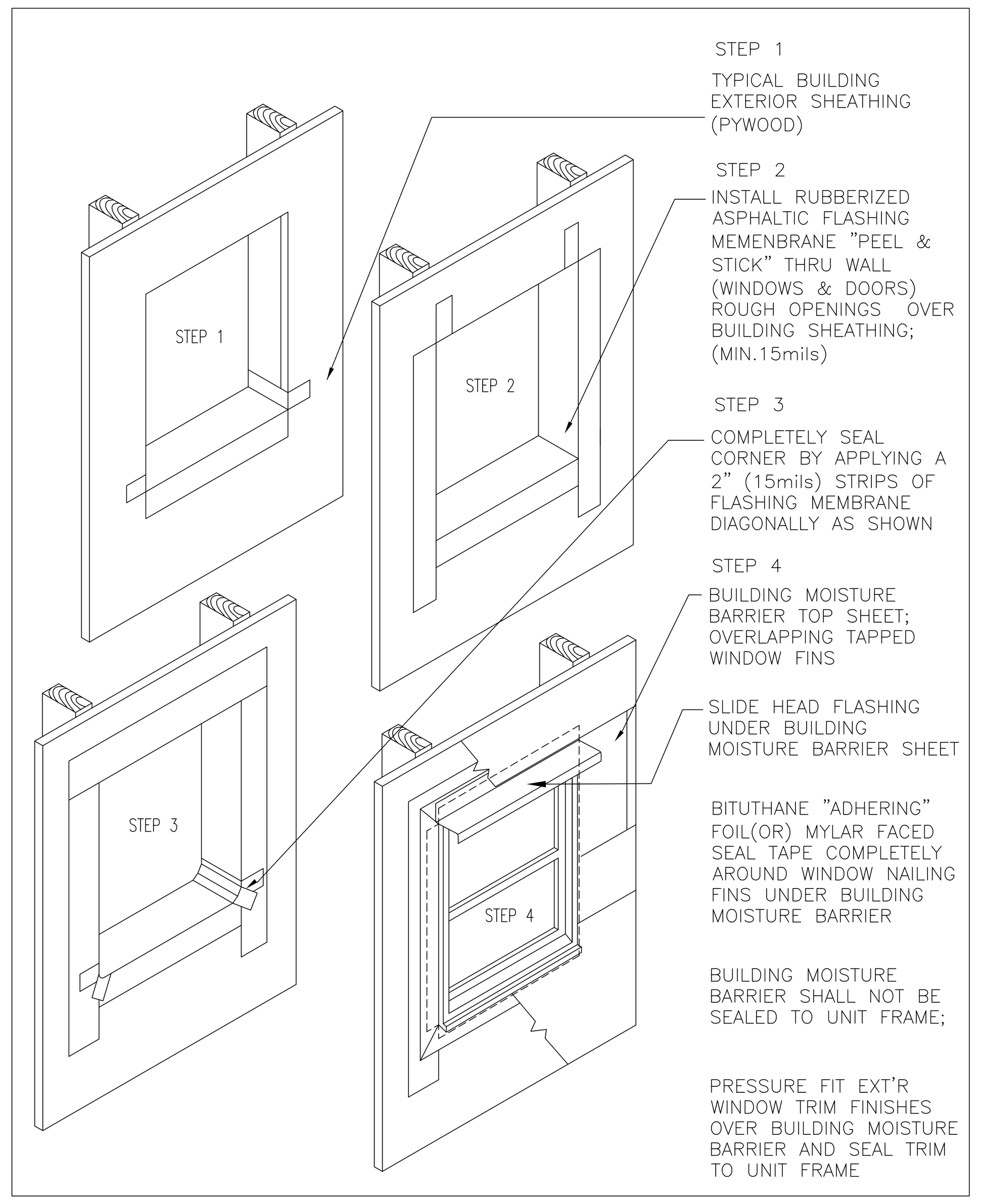
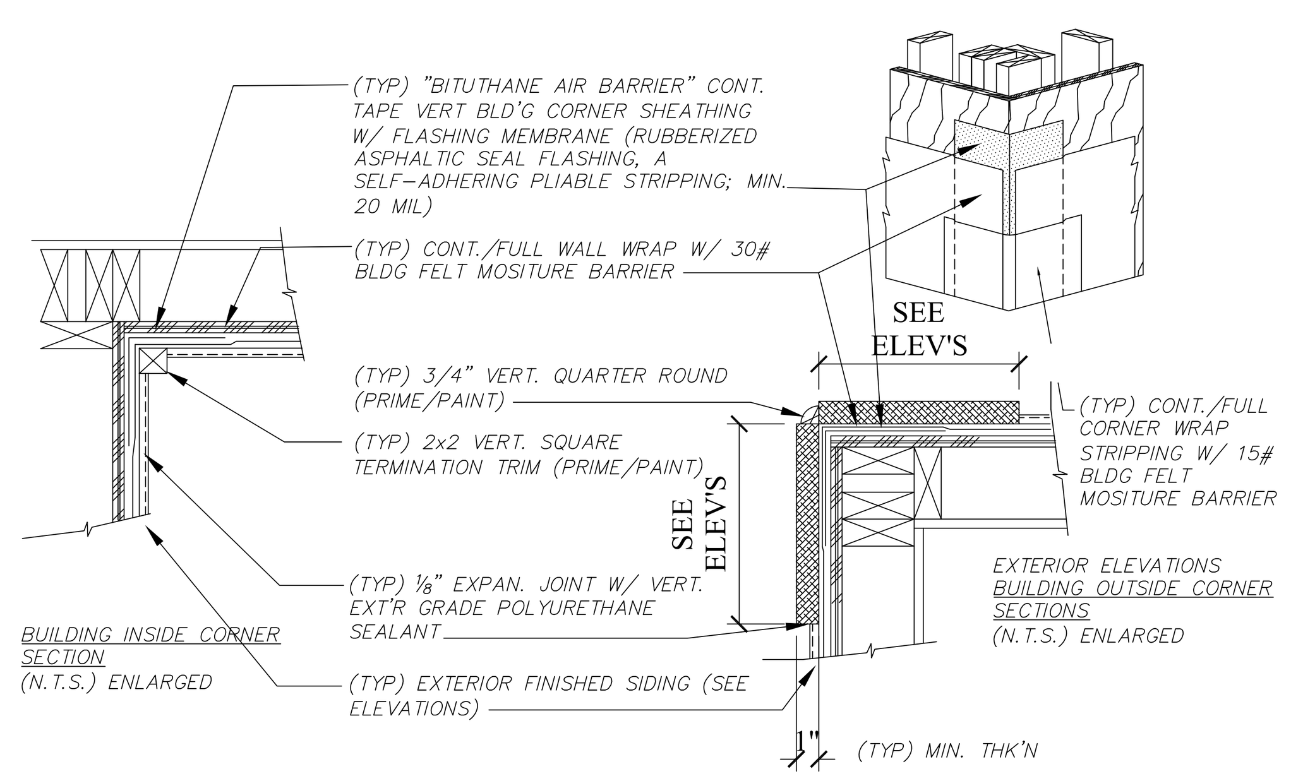





EXTERIOR WRAP AROUND PERIMETER BUILDING SHEATHING OF WINDOWS & DOORS (EXTENDING THRU ROUGH OPENING ALL FOUR EDGES) W/ MYLAR FACE FINISHED RUBBERIZED ASPHALTIC FLASHING; A SELF-ADHERING PLIABLE STRIP MEMBRANE (MIN. 15mils); MIN. 6" VERT. & HORZ SURFACE MITER CORNERS COVERAGE) (SIMILAR PRODUCT FLASHING MFG: W.R.GRACE "ICE AND WATER SHIELD)

3 / A6 TYP WINDOW FLASHING DTL

NTS



2 / A6 TYPICAL EXTERIOR CORNERS

NTS

1 / A6 ROOF PLAN

1/4"=1'-0"

NOTE:
PRE-ENGINEEERED ROOF TRUSSES THROUGHOUT W/ SIZING AND LAYOUT BY MANUFACTURER

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date	description

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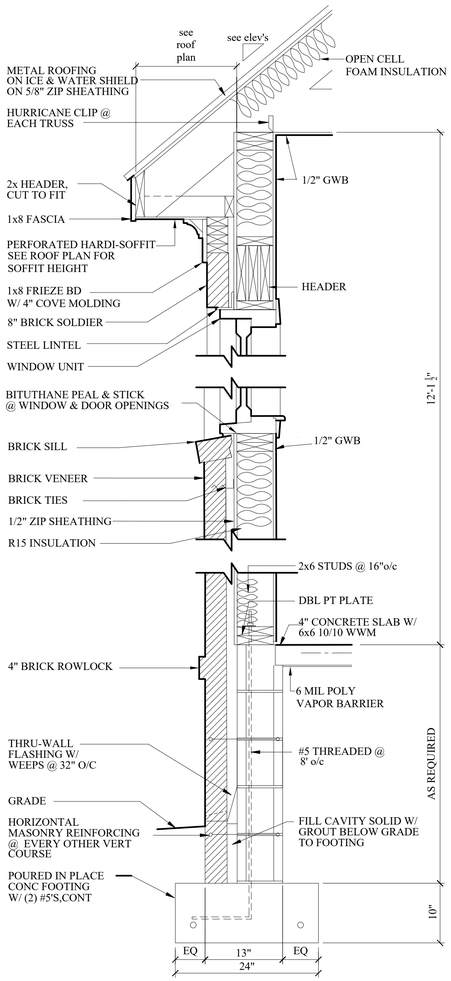
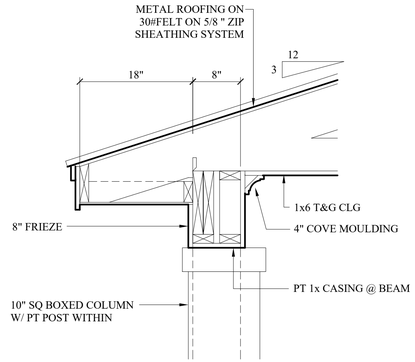
sheet number :
A6



2 / A7 TYPICAL WALL SECTION

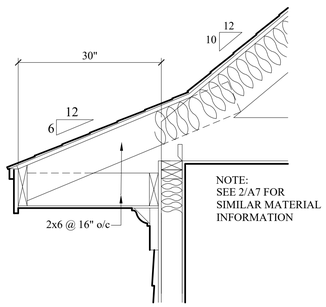
1"=1'-0"

GENERAL NOTE:
CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL PRODUCTS IN THIS HOUSE AS PER THE MANUFACTURER'S RECOMMENDATIONS.



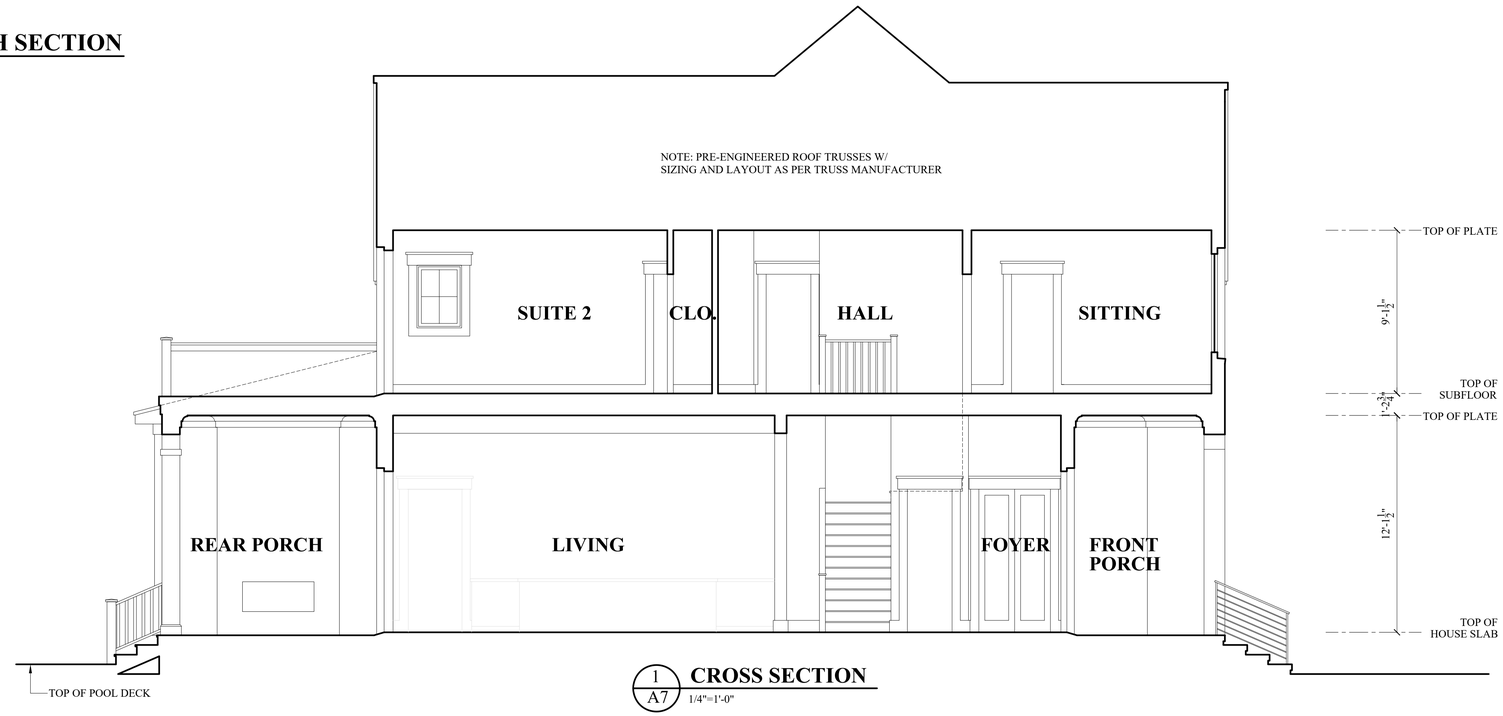
3 / A7 PORCH SECTION

1"=1'-0"



4 / A7 ROOF EAVE

1"=1'-0"



1 / A7 CROSS SECTION

1/4"=1'-0"

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Revisions

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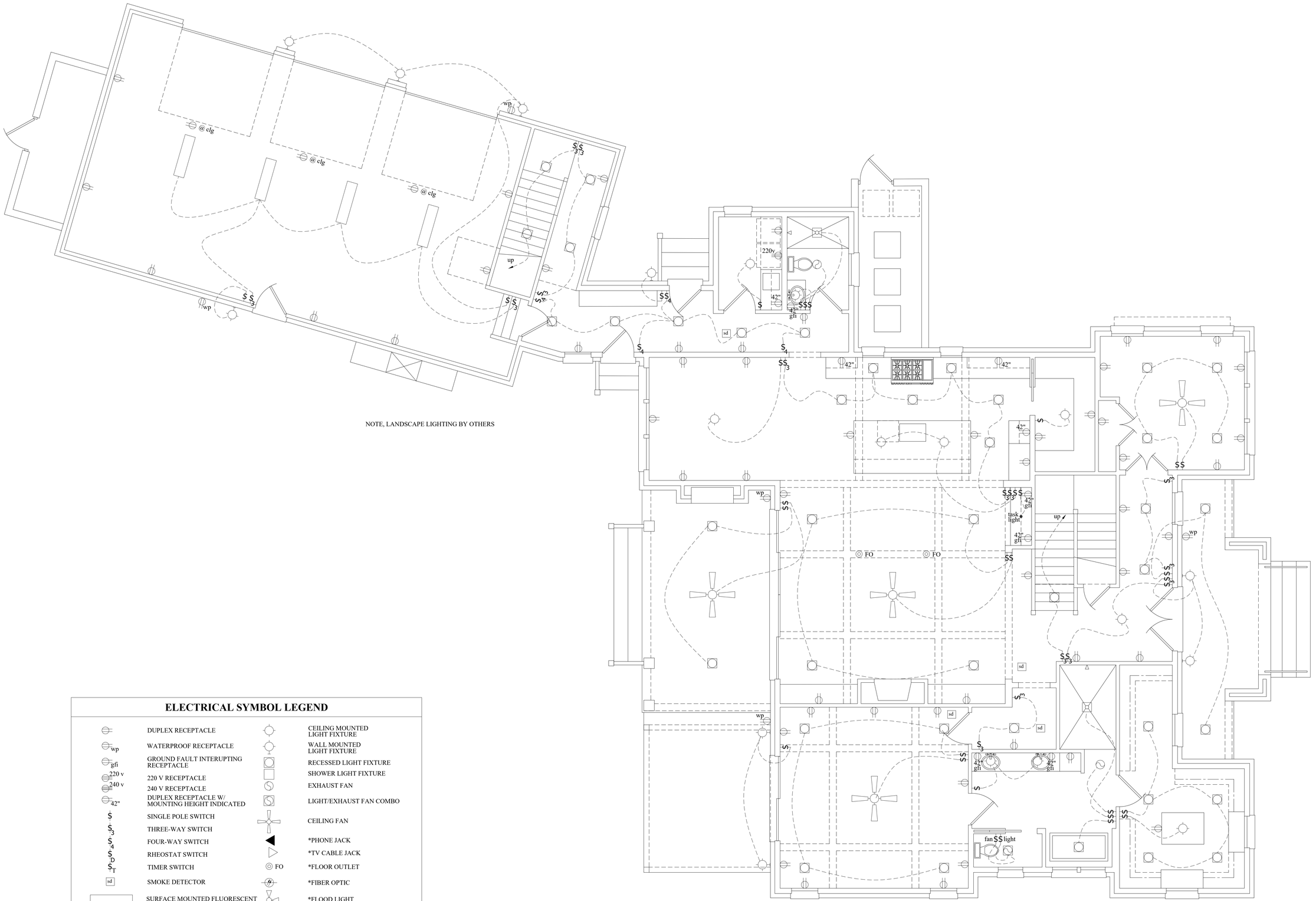
sheet number :

A7



NOTE, LANDSCAPE LIGHTING BY OTHERS

ELECTRICAL SYMBOL LEGEND

	DUPLEX RECEPTACLE		CEILING MOUNTED LIGHT FIXTURE
wp	WATERPROOF RECEPTACLE		WALL MOUNTED LIGHT FIXTURE
gfi	GROUND FAULT INTERUPTING RECEPTACLE		RECESSED LIGHT FIXTURE
220 v	220 V RECEPTACLE		SHOWER LIGHT FIXTURE
240 v	240 V RECEPTACLE		EXHAUST FAN
42"	DUPLEX RECEPTACLE W/ MOUNTING HEIGHT INDICATED		LIGHT/EXHAUST FAN COMBO
$	SINGLE POLE SWITCH		CEILING FAN
$3	THREE-WAY SWITCH	◀	*PHONE JACK
$4	FOUR-WAY SWITCH	▷	*TV CABLE JACK
$D	RHEOSTAT SWITCH	FO	*FLOOR OUTLET
$T	TIMER SWITCH		*FIBER OPTIC
sd	SMOKE DETECTOR		*FLOOD LIGHT
	SURFACE MOUNTED FLUORESCENT		

* LOCATED ON SITE BY OWNER

1 / E1 **FIRST FLOOR ELECTRICAL PLAN**

1/4"=1'-0"

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Revisions

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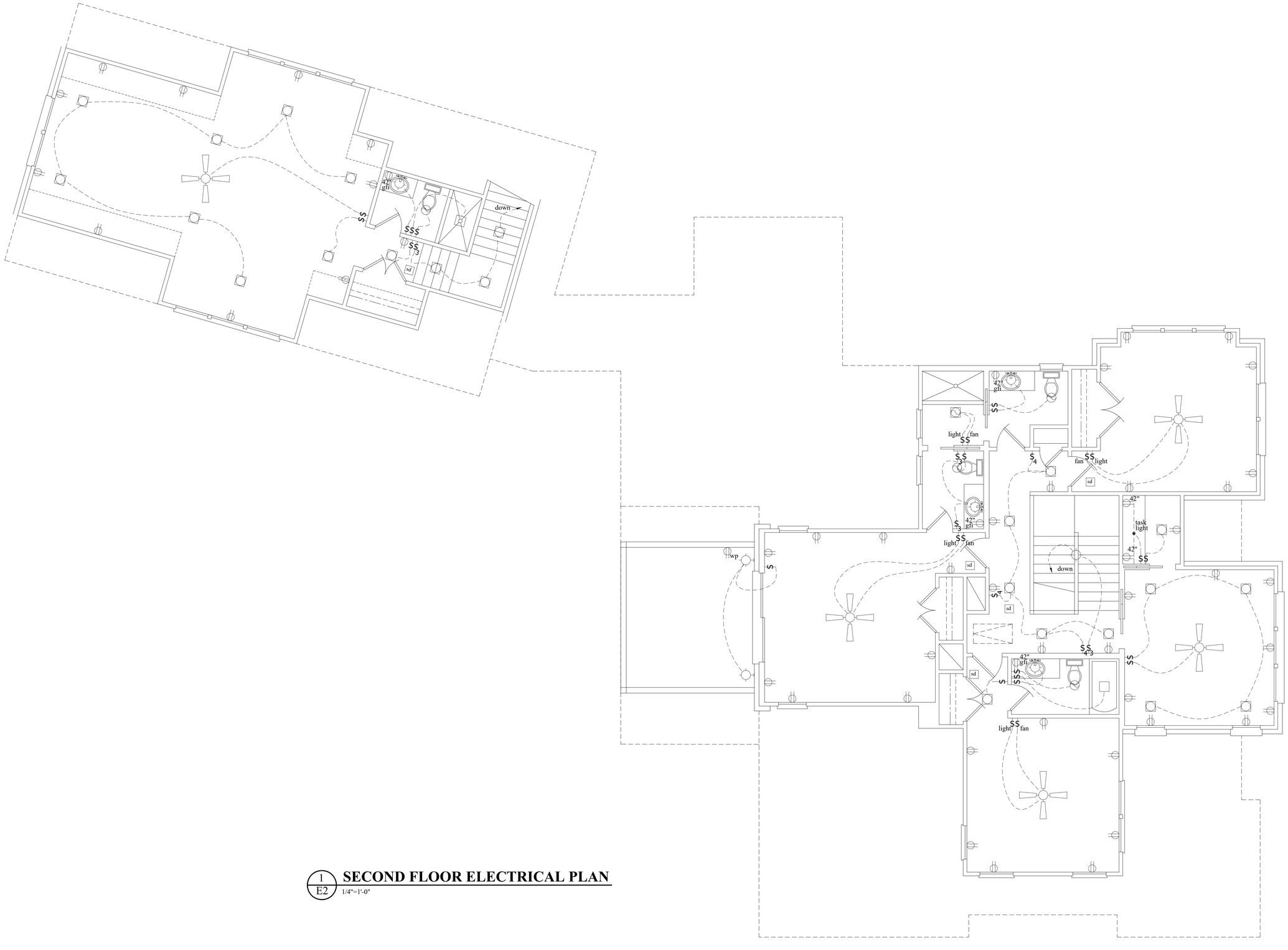
file name:REEVESheImsdalev6

sheet number :

E1



1 E2 **SECOND FLOOR ELECTRICAL PLAN**

1/4"=1'-0"

Reeves Residence

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Revisions

date	description

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checked by : SRS

file name:REEVESHelmsdalev6

sheet number :

E2

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2. THIS STRUCTURE IS ONLY STABLE IN ITS COMPLETED FORM. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED TEMPORARY BRACING DURING CONSTRUCTION TO STABILIZE THE STRUCTURE.
3. SDC IS NOT RESPONSIBLE FOR CONSTRUCTION SEQUENCES, METHODS, OR TECHNIQUES IN CONNECTION WITH THE CONSTRUCTION OF THIS STRUCTURE. THE SDC WILL NOT BE HELD RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CONFORM TO THE CONSTRUCTION DOCUMENTS, SHOULD ANY NON-CONFORMITIES OCCUR.
4. ANY STRUCTURAL ELEMENTS OR DETAILS NOT FULLY DEVELOPED ON THE CONSTRUCTION DRAWINGS BY SDC SHALL BE COMPLETED UNDER THE DIRECTION OF A STRUCTURAL ENGINEER LICENSED IN THE STATE THE STRUCTURE WILL BE CONSTRUCTED. ALL INFORMATION PROVIDED BY A STRUCTURAL ENGINEER SHALL OVERRIDE THIS PAGE.
5. VERIFICATION OF ASSUMED FIELD CONDITIONS IS NOT THE RESPONSIBILITY OF SDC. THE CONTRACTOR SHALL VERIFY THE FIELD CONDITIONS FOR ACCURACY AND REPORT ANY DISCREPANCIES OR CONDITIONS THAT WOULD AFFECT CONSTRUCTION TO SDC BEFORE CONSTRUCTION BEGINS.
6. THIS STRUCTURE AND ALL CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE SECTIONS OF THE CURRENT INTERNATIONAL RESIDENTIAL CODE AND ANY LOCAL LAWS WHERE THE STRUCTURE IS TO BE CONSTRUCTED. IN ALL CASES CURRENT CODES TAKE PRECEDENT OVER THE INFORMATION ON THESE HOUSE PLANS.

THE FOLLOWING SECTIONS ARE TO BE REVIEWED BY THE GENERAL CONTRACTOR FOR CONFORMANCE TO LOCAL REQUIREMENTS AND CONDITIONS PRIOR TO THE COMMENCEMENT OF PERMITTING AND CONSTRUCTION

DESIGN LOADS

MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES, ASCE 7-10

1.ROOF LOADS	
2.1 DEAD LOAD	AS PER R301.4
2.2 LIVE LOAD	AS PER TABLE R301.6
2.FLOOR LOADING:	
3.1 ATTIC DEAD LOAD	AS PER R301.4
3.2 TYPICAL FLOOR DEAD LOAD	AS PER R301.4
3.3 LIVE LOADS	
3.3.1 ROOMS OTHER THAN SLEEPING ROOMS	40 PSF
3.3.2 SLEEPING ROOMS	30 PSF
3.3.3 STAIRS AND DECKS	40 PSF
3.3.4 BALCONIES	40 PSF

FOUNDATIONS

1. THE FOUNDATION IS BASED UPON AN ASSUMED SOIL BEARING CAPACITY OF 2000 PSF NET BEARING. VERIFICATION OF THIS ASSUMED VALUE IS THE RESPONSIBILITY OF THE OWNER OR CONTRACTOR SHOULD ANY ADVERSE SOIL CONDITION BE ENCOUNTERED A LICENSED PROFESSIONAL ENGINEER MUST BE CONTACTED BEFORE PROCEEDING.
2. THE BOTTOM OF ALL FOOTINGS SHALL EXTEND BELOW THE FROST LINE FOR THE REGION IN WHICH THE STRUCTURE IS TO BE CONSTRUCTED. HOWEVER, THE TOP SHALL A MINIMUM OF 12" BELOW GRADE.
3. ANY FILL SHALL BE PLACED UNDER THE DIRECTION OR RECOMMENDATION OF A LICENSED PROFESSIONAL ENGINEER. THE RESULTING SOIL SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT MAXIMUM DRY DENSITY.
4. EXCAVATION FOR FOOTINGS SHALL BE LINED TEMPORARY WITH A 6 mil POLYETHYLENE IF PLACEMENT OF CONCRETE DOES NOT OCCUR WITHIN 24 HOURS OF EXCAVATION.
5. NO CONCRETE SHALL BE POURED AGAINST ANY SUBGRADE CONTAINING WATER, ICE, FROST, OR LOOSE MATERIAL.

TIMBER PILES

1. TIMBER PILES SHALL BE SYP MATERAL WITH THE FOLLOWING MINIMUM DESIGN STRESS:

1.1	COMPRESSION PARALLEL TO GRAIN	1200 PSI
1.2	BENDING	2400 PSI
1.3	HORIZONTAL SHEAR	110 PSI
1.4	COMPRESSION PERPENDICULAR TO GRAIN	250 PSI
1.5	MODULUS OF ELASTICITY	1,500,000 PSI

2. TIMBER PILES SHALL CONFORM TO ASTM D25
3. PRESERVATIVE TREATMENT OF TIMBER PILES SHALL CONFORM TO THE REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE CHAPTER 4.
4. SHOULD ANY SUDDEN DECREASE IN DRIVING RESISTANCE BE ENCOUNTER CONTACT A SOILS ENGINEER BEFORE PROCEEDING.
5. PILES ARE DESIGNED AS FRICTION PILES WITH AN ALLOWABLE LOAD OF 1/2 TON PER FOOT OF EMBEDMENT IN SUPPORTING STRATUM.
6. ALL PILINGS SHALL HAVE MINIMUM TIP PENETRATION OF NOT LESS THAN 8'-0" BELOW THE NATURAL OR FINISHED GRADE WHICHEVER IS LOWER. PILINGS WITHIN OCEAN HAZARD AREAS SHALL HAVE A TIP PENETRATION OF AT LEAST 5'-0" BELOW MSL OR 16' BELOW AVERAGE ORIGINAL GRADE WHICHEVER IS LEAST.

CONCRETE

1. CONCRETE SHALL HAVE NORMAL WEIGHT AGGREGATE AND A MINIMUM COMPRESSIVE STRENGTH (Fc) AT 28 DAYS AS LISTED BELOW.

1.1	FOOTINGS	3000 PSI
1.2	SLABS-ON-GRADE	4000 PSI
1.3	ELEVATED SLABS	3500 PSI

2. CONCRETE SHALL BE PROPORTIONED, MIXED, AND PLACED IN ACCORDANCE WITH ACI 318 LATEST EDITION "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" AND ACI 301 LATEST EDITION "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDING"
3. LIGHTWEIGHT CONCRETE SHALL HAVE A WEIGHT OF 115 PCF. (CONCRETE NOT SPECIFICALLY NOTED AS LIGHTWEIGHT SHALL BE NORMAL WEIGHT- 145 PCF)
4. GROUT FOR BASE PLATES SHALL BE NON-SHRINKAGE GROUT AND HAVE A MINIMUM COMPRESSIVE STRENGTH (Fc) AT 28 DAYS OF 5000 PSI.

CONCRETE SLABS ON GRADE

1. CONCRETE SLABS ON GRADE SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACI 302.1R-96 "GUIDE FOR CONCRETE SLAB AND SLAB CONSTRUCTION".
2. THE CONCRETE SLAB ON GRADE HAS BEEN DESIGNED USING A SUBGRADE MODULUS OF k= 250 PCI AND A DESIGN LOADING OF 200 PSF. THE SER IS NOT RESPONSIBLE FOR DIFFERENTIAL SETTLEMENT, SLAB CRACKING OR OTHER FUTURE DEFECTS RESULTING FROM UNREPORTED CONDITIONS MITIGATING THE ABOVE ASSUMPTIONS
3. CONTROL JOINTS SHALL BE SPACED IN SLABS ON GRADE AT A MAXIMUM OF 20'-0" O.C. UNLESS NOTED OTHERWISE.
4. CONTROL JOINTS SHALL BE PRODUCED USING CONVENTIONAL PROCESSES WITHIN 4 TO 12 HOURS AFTER THE SLAB HAS BEEN FINISHED.
5. REINFORCING STEEL SHALL NOT EXTEND THROUGH THE CONTROL JOINT.
6. ALL WELDED WIRE FABRIC FOR CONCRETE SLAB ON GRADE SHALL BE SUPPLIED IN FLAT SHEETS. THE WELDED WIRE FABRIC SHALL BE PLACED 2" FROM THE TOP OF SLAB AND SECURELY SUPPORTED DURRING THE CONCRETE POUR.

REINFORCING STEEL

1. REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A615, GRADE 60.
2. DETAILING, FABRICATION, AND PLACEMENT OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ACI 315 LATEST EDITION " MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES.
3. HORIZONTAL FOOTING AND WALL REINFORCEMENT SHALL BE CONTINUOUS AND SHALL HAVE 90° BENDS OR CORNER BARS SHALL BE INSTALLED. THE CORNER BAR SHALL HAVE THE SAME SIZE AND SPACING AS THE HORIZONTAL REINFORCEMENT WITH A CLASS B TENSION SPLICE.
4. LAP REINFORCEMENT AS REQUIRED A MINIMUM OF 40 BAR DIAMETERS FOR TENSION OR COMPRESSION UNLESS NOTED OTHERWISE. SPLICES IN MASONRY SHALL BE A MINIMUM OF 48 BAR DIAMETERS.
5. WHERE REINFORCING DOWELS ARE REQUIRED THEY SHALL BE EQUILIVAENT SIZE AND SPACING AS THE VERTICAL REINFORCEMENT. THE DOWEL SHALL EXTEND 48 BAR DIAMETERS VERTICALLY AND 20 BAR DIAMETERS INTO FOOTING.
6. WHERE REINFORCING STEEL IS REQUIRED VERTICALLY DOWELS SHALL BE PROVIDED UNLESS NOTED OTHERWISE.

CONCRETE MASONRY

1. CONCRETE MASONRY UNITS (CMU) SHALL BE ERECTED AS LOAD BEARING CONCRETE MASONRY. COMPLY WITH ACI 530.1 "SPECIFICATION FOR MASONRY STRUCTURES" FOR MATERIALS, METHODS, AND WORKMANSHIP.
2. CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90 WITH A NET COMPRESSIVE STRENGTH OF 1900 PSI.
3. CMU MINIMUM COMPRESSIVE STRENGTH (f'm) SHALL BE 1500 PSI.
4. MORTAR SHALL BE TYPE "M"OR "S" CONFORMING TO ASTM C270.
5. ALL CELLS CONTAINING REINFORCEMENT, CELLS BELOW GRADE, AND ANY LOCATIONS NOTED ON THE PLANS SHALL BE GROUTED SOLID. GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH (fm) OF 2000 PSI.
6. PROVIDE PREFABRICATED " LADDER-WIRE "JOINT REINFORCEMENT AT 16" O.C. VERTICALLY. REINFORCEMENT SHALL HAVE AT LEAST ONE CROSS WIRE OF AT LEAST NO. 9 GAGE STEEL FOR EACH TWO SQUARE FEET OF WALL AREA. LONGITUDINAL WIRES SHALL BE THOROUGHLY EMBEDDED IN THE BED JOINT MORTAR. JOINT REINFORCEMENT SHALL BE INSTALLED IN THE FIRST TWO BED JOINTS ABOVE LINTELS AT OPENINGS. JOINT REINFORCEMENT SHALL NOT EXTEND THROUGH CONTROL JOINTS.
7. BEAMS OR GIRDERS (OR POINT LOADS TRANSMITTED TO THE CMU WALL BY A COLUMN) WHICH HAVE A REACTION EXCEEDING 10 KIPS (AS NOTED ON THE DRAWINGS) SUPPORTED ON CMU WALLS SHALL HAVE A MINIMUM BEARING LENGTH OF 8 INCHES OR THE FULL WIDTH OF THE CMU WALL WHICHEVER IS LESS. THE BLOCK UNDER THE BEAM SHALL BE GROUTED SOLID FOR A DISTANCE OF THE BEARING AREA PLUS FOUR TIMES THE WALL THICKNESS. WHERE VERTICAL REINFORCING STEEL IS REQUIRED IN THE CMU WALL THE BEARING AREA SHALL HAVE A MINIMUM OF TWO REINFORCING BARS CONTINUOUS TO THE FOOTING. THESE ADDITIONAL BARS SHALL MATCH THE VERTICAL BAR SIZE.
8. LOOSE STEEL ANGLES SERVING AS LINTELS FOR BRICK VENEER SHALL HAVE A MINIMUM OF 6" OF BEARING UNLESS NOTED OTHERWISE.
9. PROVIDE A SOLID GROUT COURSE AT THE TOP OF THE MASONRY ELEVATIONS.

STRUCTURAL WOOD PANELS

1. FABRICATION, AND PLACEMENT OF STRUCTURAL SHEATHING SHALL BE IN ACCORDANCE WITH THE APA DESIGN / CONSTRUCTION GUIDE " RESIDENTIAL AND COMMERCIAL". AND ALL OTHER APPLICABLE APA STANDARDS.
2. ALL STRUCTURALLY REQUIRED SHEATHING SHALL BEAR THE MARK OF THE APA.
3. WALL SHEATHING SHALL BE APA RATED STRUCTURAL I SHEATHING. WALL SHEATHING SHALL BE ATTACHED TO ITS SUPPORTING WALL FRAMING WITH 1-8d CC NAIL AT 6" O.C. AT PANELS EDGES AND @ 12" O.C. IN PANEL FIELD UNLESS OTHERWISE NOTED ON THE PLANS. SHEATHING SHALL HAVE A SPAN RATING CONSTANT WITH THE FRAMING SPACING. APPLY BUILDING PAPER OVER THE SHEATHING AS REQUIRED.
4. ROOF SHEATHING SHALL BE APA RATED SHEATHING EXPOSURE 1 OR 2. ROOF SHEATHING SHALL BE CONTINUOUS OVER TWO SUPPORTS AND ATTACHED TO ITS SUPPORTING ROOF FRAMING WITH 1-8d CC NAIL AT 6" O.C. AT PANELS EDGES AND @ 12" O.C. IN PANEL FIELD UNLESS OTHERWISE NOTED ON THE PLANS. SHEATHING SHALL BE APPLIED PERPENDICULAR TO FRAMING. SHEATHING SHALL HAVE A SPAN RATING CONSTANT WITH THE FRAMING SPACING. USE SUITABLE EDGE SUPPORT BY USE OF PLYWOOD CLIPS OR LUMBER BLOCKING UNLESS OTHERWISE NOTED. PANEL END JOINTS SHALL OCCUR OVER FRAMING. APPLY BUILDING PAPER OVER THE SHEATHING AS REQUIRED.
5. FLOOR SHEATHING SHALL BE APA RATED SHEATHING EXPOSURE 1 OR 2. ATTACH SHEATHING TO ITS SUPPORTING FRAMING WITH 1-8d CC NAIL AT 6" O.C. AT PANELS EDGES AND @ 12" O.C. IN PANEL FIELD UNLESS OTHERWISE NOTED ON THE PLANS. SHEATHING SHALL BE APPLIED PERPENDICULAR TO FRAMING. SHEATHING SHALL HAVE A SPAN RATING CONSTANT WITH THE FRAMING SPACING. USE SUITABLE EDGE SUPPORT BY USE OF T&G PLYWOOD OR LUMBER BLOCKING UNLESS OTHERWISE NOTED. PANEL END JOINTS SHALL OCCUR OVER FRAMING. APPLY BUILDING PAPER OVER THE SHEATHING AS REQUIRED.
6. SHEATHING SHALL HAVE A 1/8" GAP AT PANEL ENDS AND EDGES AS RECOMMENDED IN ACCORDANCE WITH THE APA.

TIMBER

1. SOLID SAWN WOOD FRAMING SHALL CONFORM TO THE SPECIFICATIONS AS LISTED IN THE NATIONAL FOREST PRODUCTS ASSOCIATION " NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" LATEST EDITION (NDS). THE FRAMING SHALL BE OF THE SPECIES AND GRADE AS LISTED BELOW:

1.1	JOISTS, RAFTERS, AND WOOD GIRDERS AND BEAMS	SPRUCE PINE FIR No. 2
1.2	STUDS	SPRUCE PINE FIR No. 3 OR STUD GRADE

2. LVL OR PSL SHALL THE FOLLOWING MINIMUM DESIGN STRESSES:
   - 2.1 E = 1.9 X 10E6
   - 2.2 Fb = 2600 PSI
   - 2.3 Fv = 285 PSI
   - 2.4 Fc = 700 PSI
3. LUMBER IN CONTACT WITH CONCRETE, MASONRY, OR EARTH SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AWPA STANDARD C-15. ALL OTHER EXPOSED TIMBER SHALL BE TREATED IN ACCORDANCE WITH AWPA STANDARD C-2.
4. NAILS SHALL BE COMMON WIRE NAILS UNLESS OTHERWISE NOTED.
5. LAG SCREWS SHALL CONFORM TO ANSI / ASME STANDARD B18.2.1-1981. LEAD HOLES FOR LAG SCREWS SHALL BE IN ACCORDANCE WITH NDS SPECIFICATIONS.
6. ALL BEAM BEARING ON TIMBER FRAMING SHALL HAVE FULL BEARING FOR THE WIDTH OF THE BEAM AND SUPPORTED BY A MINIMUM OF THREE STUDS. WHERE BEAMS BEAR ONTO A WALL PARALLEL TO THE BEAM THE BEAM SHALL HAVE A MINIMUM BEARING LENGTH OF 4-1/2" .
7. STUDS WALLS SHALL CONSIST OF 2X4 STUDS @ 16" O.C. UNLESS OTHERWISE NOTED. STUDS SHALL BE CONTINUOUS FROM THE SOLE PLATE TO THE DBL. TOP PLATE AT THE CEILING OR ROOF. STUDS SHALL ONLY BE DISCONTINUOUS AT BEAMS / HEADERS FOR WINDOW OR DOOR OPENINGS. HEADER SHALL HAVE A MINIMUM OF ONE KING STUD AT EACH END OF THE HEADER. KING STUDS SHALL BE CONTINUOUS WITH THE SAME REQUIREMENT AS STUD WALLS.
8. INDIVIDUAL STUDS FORMING A COLUMN SHALL BE ATTACHED TOGETHER WITH ONE 10d CC NAIL @ 6" O.C. STAGGERDED. THE STUD COLUMN SHALL BE CONTINUOUS TO THE FOUNDATION OR BEAM. THE COLUMN SHALL BE PROPERLY BLOCKED AT ALL FLOOR LEVELS TO ENSURE PROPER LOAD TRANSFER.
9. BEAMS CONTAINING MULTIPLE PLIES OF LUMBER SHALL HAVE EACH PLY ATTACHED TO ITS ADJACENT PLY WITH 3 12d CC NAILS @ 12" O.C.
10. FLITCH PLATE BEAMS SHALL BE ATTACHED W/ 1/2" THROUGH BOLTS AT 24" O.C. STAGGERED W/ (2) BOLTS 6" FROM EA. END.
11. STEEL BEAMS SHALL BE ATTACHED TO EACH COLUMN SUPPORT WITH TWO LAG SCREWS (1/2" DIAMETER x 4" LONG). LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDING THE JOISTS ARE TOE NAILED TO THE SOLE PLATE, AND THE SOLE PLATE IS NAILED OR BOLTED TO THE BEAM FLANGE @ 48" O.C.

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" AND VOLUMES I AND II OF THE MANUAL OF STEEL CONSTRUCTION "LOAD RESISTANCE FACTOR DESIGN" LATEST EDITION.
2. STRUCTURAL STEEL SHALL RECEIVE ONE COAT OF SHOP APPLIED RUST-INHIBITIVE PAINT. STEEL WHICH TO IS EMBEDDED IN CONCRETE, TOP FLANGES OF BEAMS WHICH HAVE SHEAR STUDS OR STEEL THAT WILL RECEIVE SPRAY-ON FIREPROOFING SHALL NOT BE PAINTED.
3. ALL STEEL SHALL HAVE THE FOLLOWING MINIMUM YIELD STRESS (Fy) LISTED BELOW:

	ELEMENT	Fy (ksi)
3.1	STEEL WIDE FLANGE BEAMS AND COLUMNS	50
3.2	STEEL PIPE COLUMNS	36
3.3	TUBE STEEL	46
3.4	STEEL ANGLES AND MISC. SHAPES	36

4. WELDING SHALL CONFORM TO AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE AWS D1.1 LATEST EDITION. ELECTRODES FOR SHOP AND FIELD WELDING SHALL BE CLASS E70XX. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS PER THE ABOVE STANDARDS.
5. ANCHOR BOLTS SHALL BE A36 STEEL UNLESS OTHERWISE NOTED.
6. STEEL TO STEEL CONNECTIONS SHALL BE DESIGNED BY THE STEEL FABRICATOR FOR THE REACTIONS AS SHOWN ON THE DRAWINGS (UNFACTORED REACTIONS) USING THE STANDARD SECTIONS AND DETAILS AS SHOWN ON THESE DRAWINGS. HOWEVER ALL CONNECTIONS SHALL USE A MINIMUM OF 3/4"Ø A-325 BOLTS AND WITH THE MINIMUM NUMBER OF BOLTS AS LISTED BELOW:

6.1	W8, W10, W12 BEAMS	2 ROWS OF BOLTS
6.2	W14, W16 BEAMS	3 ROWS OF BOLTS
6.3	W18 BEAMS	4 ROWS OF BOLTS
6.4	W21 BEAMS	5 ROWS OF BOLTS

7. BOLTS SHALL BE TIGHTENED TO A SNUG TYPE CONDITION UNO. THIS CONDITION IS ACHIEVED WHEN ALL PLIES OF A CONNECTION ARE IN FIRM CONTACT. BOLTS IN TENSION, COMBINED SHEAR AND TENSION OR REQUIRED BY LRFD SPECIFICATION SECTION J1.11 MUST BE FULLY TENSIONED IN BEARING TYPE CONNECTION.
8. ALL FILLET WELDS SHALL BE A MINIMUM OF ~4 INCH UNLESS NOTED OTHERWISE

EXTERIOR WOOD FRAMED DECKS

1. A DECK IS AN EXPOSED EXTERIOR WOOD FLOOR STRUCTURE WHICH MAY BE ATTACHED TO THE STRUCTURE OR FREESTANDING. ROOFED PORCHES MAY BE CONSTRUCTED USING THESE PROVISIONS.
2. SUPPORT POSTS FOR DECKS SHALL BE SUPPORTED ON A CAST-IN-PLACE CONCRETE FOOTING. SEE CONCRETE SECTION OF THESE SPECIFICATIONS FOR CONCRETE REQUIREMENTS. THE SIZE OF THE FOOTING SHALL BE NOTED ON THE PLANS.
3. LUMBER IN CONTACT WITH THE GROUND, CONCRETE OR MASONRY SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AWPA STANDARD C-15. ALL REMAINING DECK LUMBER SHALL B PRESSURE TREATED IN ACCIDENCE WITH AWPA STANDARD C-2 OR A STANDARD GIVING EQUAL PROTECTION.
4. WHEN ATTACHED TO A STRUCTURE, THE STRUCTURE TO WHICH ATTACHED SHALL HAVE A PRESSURE TREATED WOOD BAND FROM THE LENGTH OF THE DECK, OR METAL FLASHING SHALL BE USED TO PREVENT MOISTURE FROM COMING IN CONTACT WITH THE UNTREATED FRAMING OF THE STRUCTURE. THE DECK BAND AN THE STRUCTURE BAN SHALL BE CONSTRUCTED IN CONTACT WITH EACH OTHER EXCEPT ON BRICK VENEER STRUCTURES AND WHERE PLYWOOD SHEATHING IS REQUIRED AND PROPERLY LASHED. SIDING SHALL NOT BE INSTALLED BETWEEN THE STRUCTURE AN THE DECK BAND. IF ATTACHED TO A BRICK VENEER STRUCTURE, NEITHER FLASHING NOR A TREATED BAND FOR THE BRICK STRUCTURE IS REQUIRED. IN ADDITION, THE TREATED DECK BAND SHALL BE CONSTRUCTED IN CONTACT WITH THE BRICK VENEER.
5. THE FOLLOWING SCHEDULE SHALL BE USED WHEN THE DECK IS SUPPORTED AT THE STRUCTURE BY ATTACHMENT:

ALL STRUCTURES EXCEPT BRICK VENEER STRUCTURES

	MAX. JOIST SPAN	FASTENERS
5.1	8'-0"	5/8"Ø HDG BOLTS @ 42" O.C. AND 2-12d HDG NAILS @ 8" O.C.
5.2	16'-0"	5/8"Ø HDG BOLTS @ 20" O.C. AND 3-12d HDG NAILS @ 6" O.C.

BRICK VENEER STRUCTURES

	MAX. JOIST SPAN	FASTENERS
5.3	8'-0"	5/8"Ø HDG BOLTS @ 24" O.C.
5.4	16'-0"	5/8"Ø HDG BOLTS @ 16" O.C.

5.5 NOTES: MIN. EDGE DISTANCE FOR BOLTS IS 2-1/2"
MIN. NAIL PENETRATION IS 1-1/2"

6. THE FOLLOWING SCHEDULE SHALL BE USED FOR FLOOR DECKING. DECKING SHALL BE SYP No.2:

	JOIST SPACING	DECKING
6.1	12" O.C.	1" S4S (NOMINAL)
6.2	16" O.C.	1-1/4" S4S (NOMINAL) OR 1" T&G (NOMINAL)
6.3	24" O.C.	2" S4S (NOMINAL)

7. SUPPORT POSTS SHALL BE SYP No.2. ALL POST HEIGHTS SHALL BE MEASURE FROM THE TOP OF THE FOOTING TO THE BOTTOM OF THE GIRDER.

	POST SIZE	MAX. TRIBUTARY AREA	MAX. HEIGHT
7.1	4X4	25 SF	8'-0"
7.2	4X6	25 SF	8'-0"
7.3	6X6	25 SF	14'-0"
7.3	8X8	25 SF	20'-0"

8. DECKS SHALL BE BRACED TO PROVIDE LATERAL STABILITY BY ONE OF THE FOLLOWING METHODS:
   - 8.1 WHEN THE DECK FLOOR HEIGHT IS LESS THAN 4'-0" AND THE DECK IS ATTACHED TO THE STRUCTURE IN ACCORDANCE WITH 15.4 LATERAL BRACING IS NOT REQUIRED. WHEN THE BAND AND THE FLOOR JOISTS OF THE STRUCTURE ARE PARALLEL, ,FULL DEPTH BLOCKING SHALL BE INSTALLED @ 24" O.C. FOR A MIN. OF ONE JOIST SPACE ON THE STRUCTURE.
   - 8.2 2X6 DIAGONAL VERTICAL CROSS BRACING MAY BE PROVIDED IN TWO PERPENDICULAR DIRECTIONS FO FREESTANDING DECKS OR PARALLEL TO THE STRUCTURE AT THE EXTERIOR COLUMN LINE FOR ATTACHED DECKS. THE 2X6s SHALL BE ATTACHED TO THE POSTS WITH ONE 5/8" Ø HDG BOLT AT EACH BRACING MEMBER. BRACING SHALL RUN FROM THE GRADE LINE TO THE BOTTOM OF THE GIRDER.
   - 8.3 4X4 WOOD KNEE BRACE MAY BE PROVIDED ON EACH COLUMN IN BOTH DIRECTIONS. THE BRACE SHALL ATTACH TO EACH POST AT A POINT NOT LESS THAN 1/3 OF THE POST LENGTH FROM THE TOP OF THE POST. THE BRACES SHALL BE ANGLES BETWEEN 45° AND 60° FROM THE HORIZONTAL. ATTACH EACH BRACE TO THE POST AND THE GIRDER WITH 1-5/8" Ø HDG BOLT AT EACH END. THIS TYPE OF BRACING REQUIRES A MIN. POST SIZE OF 6X6.
   - 8.4 POSTS MAY BE EMBEDDED IN 3000 PSI CONCRETE FOR LATERAL STABILITY AS PER THE FOLLOWING SCHEDULE:

	POST SIZE	MAX. TRIBUTARY AREA	MAX. HEIGHT ABOVE TOP OF FTG.	EMBEDDED DEPTH	CONCRETE DIAMETER
8.4.1	6X6	25 SF	6'-0"	3'-6"	1'-8"
8.4.2	8X8	25 SF	10'-0"	4'-6"	2'-0"
8.4.3	8X8	25 SF	12'-0"	5'-4"	2'-0"

WOOD TRUSSES

1. THE WOOD TRUSS MANUFACTURER / FABRICATOR IS RESPONSIBLE FOR THE DESIGN OF THE WOOD TRUSSES. SUBMIT SEALED SHOP DRAWINGS AND SUPPORTING CALCULATION TO THE CONTRACTOR FOR REVIEW PRIOR TO FABRICATION. THE CONTRACTOR SHALL HAVE A MINIMUM OF FIVE (5) DAYS FOR REVIEW. THE REVIEW BY THE CONTRACTOR SHALL BE FOR OVERALL COMPLIANCE WITH THE DESIGN DOCUMENTS. THE CONTRACTOR SHALL ASSUME NO RESPONSIBILITY FOR THE CORRECTNESS FOR THE STRUCTURAL DESIGN FOR THE WOOD TRUSSES.
2. THE WOOD TRUSSES SHALL BE DESIGNED FOR ALL REQUIRED LOADINGS AS SPECIFIED IN THE NORTH CAROLINA RESIDENTIAL CODE, THE ASCE STANDARD "MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES" (ASCE 7-98), AND THE LOADING REQUIREMENT SHOWN ON THESE SPECIFICATIONS. THE TRUSS DRAWINGS SHALL BE COORDINATED WITH ALL OTHER CONSTRUCTION DOCUMENT AND PROVISIONS PROVIDED FOR LOADS SHOWN ON THESE DRAWINGS INCLUDING BUT NOT LIMITED TO HVAC EQUIPMENT, PIPING, AND ARCHITECTURAL FIXTURES ATTACHED TO THE TRUSSES.
3. THE TRUSSES SHALL BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" (NDS) LATEST EDITION AND THE LATEST EDITION OF THE "DESIGN SPECIFICATION FOR METAL PLATE CONNECTED WOOD TRUSSES".
4. THE TRUSS MANUFACTURER SHALL PROVIDE ADEQUATE BRACING INFORMATION IN ACCORDANCE WITH "COMMENTARY AND RECOMMENDATIONS FOR HANDLING, INSTALLING, AND BRACING METAL PLATE CONNECTED WOOD TRUSSES (HIB-91). THIS BRACING, BOTH TEMPORARY AND PERMANENT, SHALL BE SHOWN ON THE SHOP DRAWINGS. ALSO, THE SHOP DRAWINGS SHALL SHOW THE REQUIRED ATTACHMENTS FOR THE TRUSSES.
5. SUPPORT SHALL BE PROVIDED FOR ALL NON-LOAD BEARING PARTITIONS PARALLEL TO THE TRUSSES. THIS SUPPORT SHALL EITHER BE ACHIEVED BY INSTALLING AN EXTRA TRUSS UNDER THE PARTITION OR BY PROVIDING 2X BLOCKING ATTACHED TO EACH ADJACENT TRUSS WITH A JOIST HANGER. EITHER METHOD MAY BE USED, HOWEVER THIS DESIGN IS THE RESPONSIBLE OF THE TRUSS MANUFACTURER AND SHALL BE PROVIDED EVEN IF THE PARTITIONS ARE NOT SPECIFICALLY NOTED ON THE PROPOSED TRUSS LAYOUT.
6. ANY CHORDS OR TRUSS WEBS SHOWN ON THESE DRAWINGS HAVE BEEN SHOWN AS A REFERENCE ONLY. THE FINAL DESIGN OF THE TRUSSES SHALL BE PER THE MANUFACTURER.

Reeves Residence

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Revisions

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