

## REFERENCE KEYS

A	GRID LINE REFERENCE
NAME	
#	ROOM ID
XX	KEY NOTE
XX	DOOR ID
XX	WINDOW ID

DETAIL No. SHEET No. SECTION

X A5.1	EXTERIOR ELEVATION
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DETAIL No. SHEET No. DETAIL

X A5.3 X	INTERIOR ELEVATION
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## SHEET INDEX

ARCHITECTURAL
A1.0 SITE PLAN
A2.0 FLOOR PLAN
A3.0 EXTERIOR ELEVATIONS
A4.0 FOUNDATION & ROOF PLAN
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A5.0 INTERIOR ELEVATIONS & FLOOR FINISHES
E1.0 ELECTRICAL PLAN
M1.0 MECHANICAL PLAN
P1.0 PLUMBING PLAN

## PROJECT DATA

OWNER: TANG  
ADDRESS: XXXX CHESTNUT AVENUE  
REDLANDS, CA 92373

PARCEL NUMBER: 0173-211-22-0000  
SCOPE OF WORK: ADDITION OF OFFICE WITH  
WALK-IN STORAGE & BATHROOM

TRACT / BLOCK: -  
LOT: -  
ZONE: R-S  
OCCUPANCY: SINGLE FAMILY RESIDENTIAL  
CONSTRUCTION TYPE: Vb [b]  
HEIGHT: SINGLE STORY

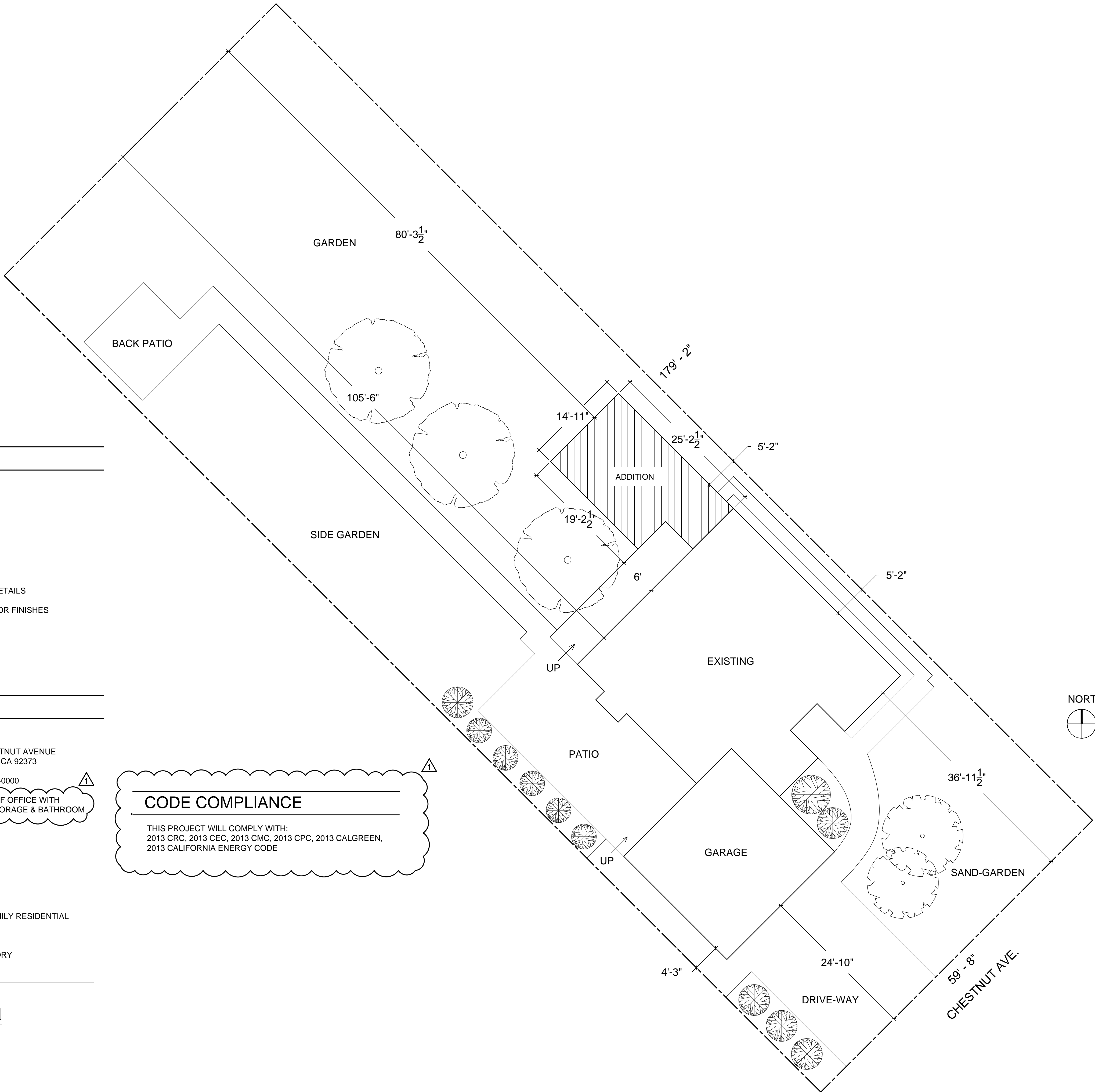
## AREA ANALYSIS

EXISTING AREA: 1168.3 SF  
PROPOSED AREA: 339.9 SF  
TOTAL AREA: 1508.2 SF

LOT AREA: 10,680.3 SF

## CODE COMPLIANCE

THIS PROJECT WILL COMPLY WITH:  
2013 CRC, 2013 CEC, 2013 CMC, 2013 CPC, 2013 CALGREEN,  
2013 CALIFORNIA ENERGY CODE



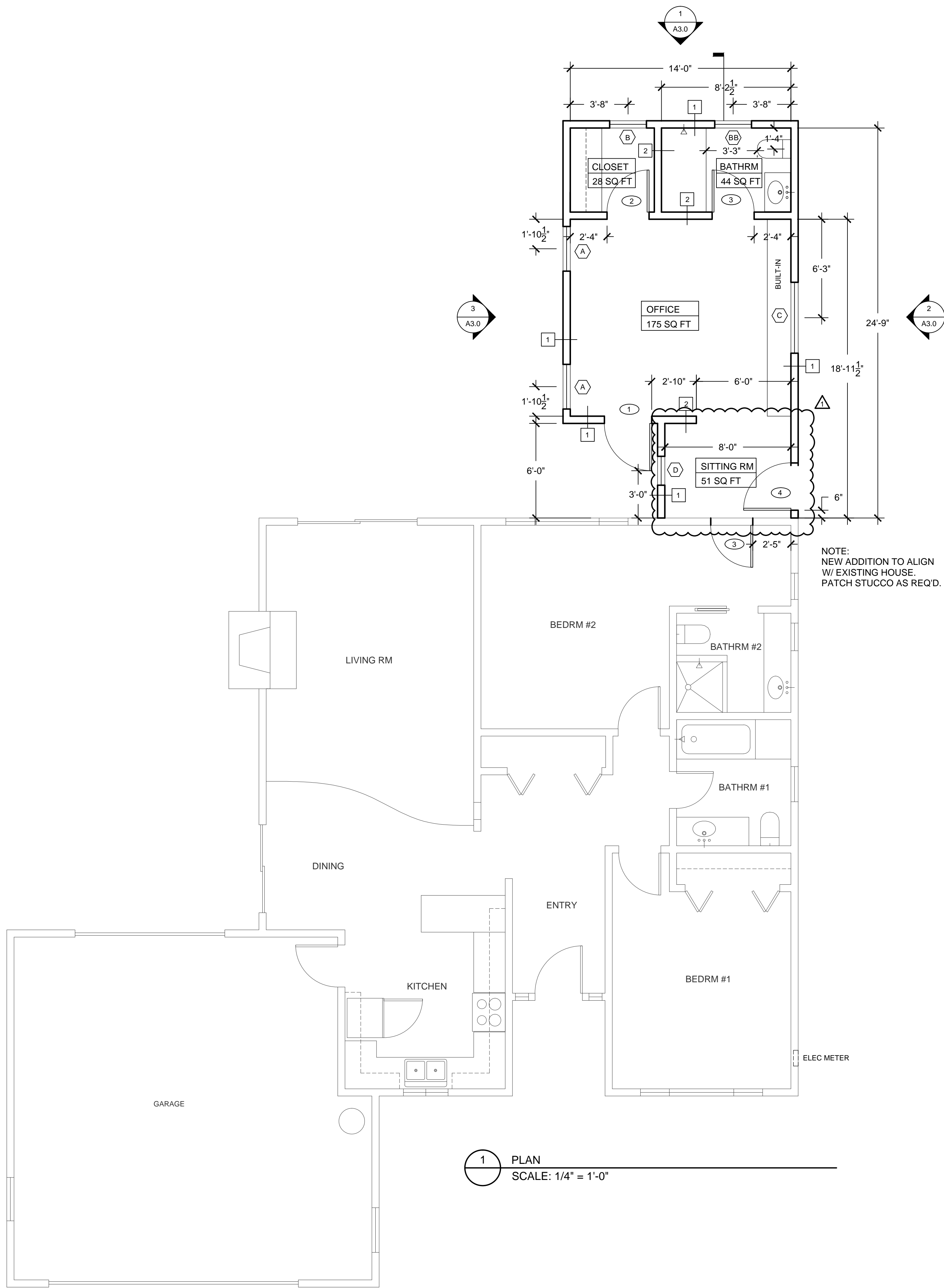
SITE PLAN

TANG RESIDENCE  
REDLANDS, CA 92373

DRAWING NO.

A1.0

SHT 1 OF 9



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

WINDOW SCHEDULE

	DESCRIPTION	QTY.	ESTIMATED FRAME SIZE		ESTIMATED ROUGH OPENING		REMARKS
			WIDTH	HEIGHT	WIDTH	HEIGHT	
A	2'-10" X 2'-8" SLIDING WINDOW	2	33 1/2"	31 1/2"	34"	32"	ALL LOW E GLAZING
B	2'-4" X 2'-2" SINGLE HUNG	1	27 1/2"	25 1/2"	28"	26"	STANDARD OBSCURE
BB	2'-4" X 2'-2" SINGLE HUNG	1	27 1/2"	25 1/2"	28"	26"	STANDARD OBSCURE TEMPERED GLASS
C	4'-6" X 1'-6" SLIDING WINDOW	1	43 1/2"	13 1/2"	54"	18"	
D	1'-10" X 2'-2" SINGLE HUNG	1	21 1/2"	25 1/2"	22"	26"	

ALL WINDOWS TO HAVE MINIMUM U-FACTOR OF 0.31 AND SHGC OF 0.21.

DOOR SCHEDULE

	DESCRIPTION	QTY.	MATERIAL	FINISH	SW.	REMARKS
1	3'-0" 6'-8" 1-3/4"	1	FIBERGLASS	PAINT	L	FROSTED, TEMPERED
2	2'-8" 6'-8" 1-3/4"	1	H.C. WOOD	PAINT	R	
3	2'-8" 6'-8" 1-3/4"	2	H.C. WOOD	PAINT	L	
4	3'-0" 6'-8" 1-3/4"	1	FIBERGLASS	PAINT	L	FROSTED, TEMPERED

LIGHT & VENT SCHEDULE

ROOM	SQ. FT.	4% VENT	ACTUAL VENT	8% LIGHT	ACTUAL LIGHT
CLOSET	28	N/A	1.5	N/A	3.0
BATHRM	44	N/A	1.5	N/A	3.0
OFFICE	175	7	7.2	14	25.4
SITTING RM	51	N/A	1.1	N/A	13.2

WALL SCHEDULE

	DESCRIPTION
1	EXTERIOR WALL CONSTRUCTION: 2X4 @ 16" O.C. WR-13 FIBER GLASS BATT INSULATION, 3/4" PLY WOOD & STUCCO ON THE OUTSIDE, 5/8" TYPE 'X' DRYWALL ON THE INSIDE.
2	INTERIOR PARTITION WALL CONSTRUCTION: 2 X4 @ 16" O.C. WR-13 KRAFT FACED INSULATION, 5/8" TYPE 'X' DRYWALL.

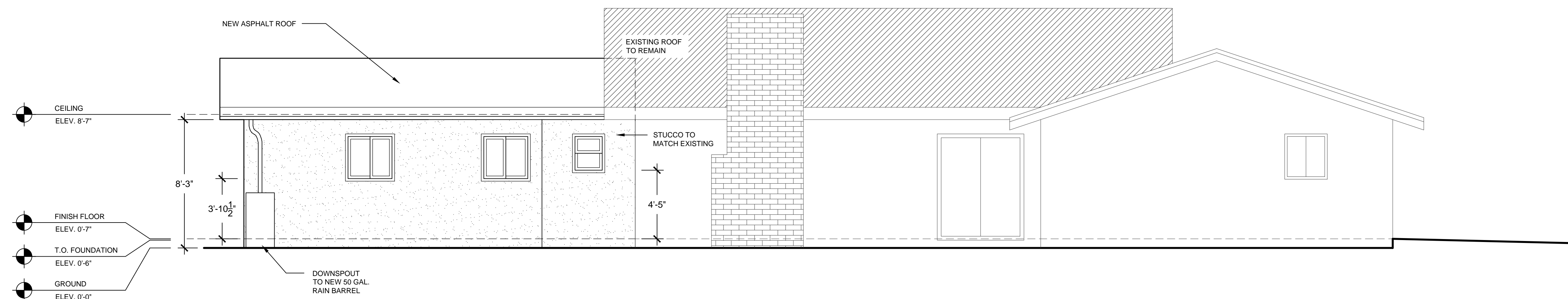
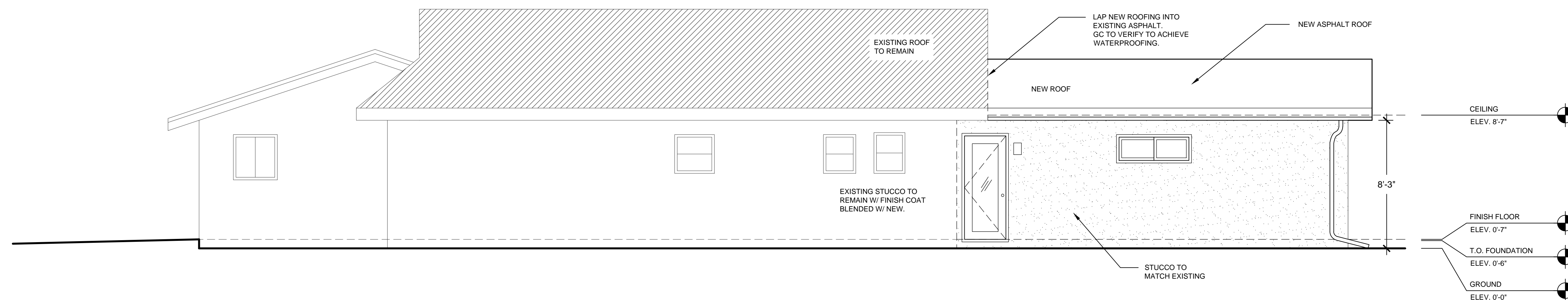
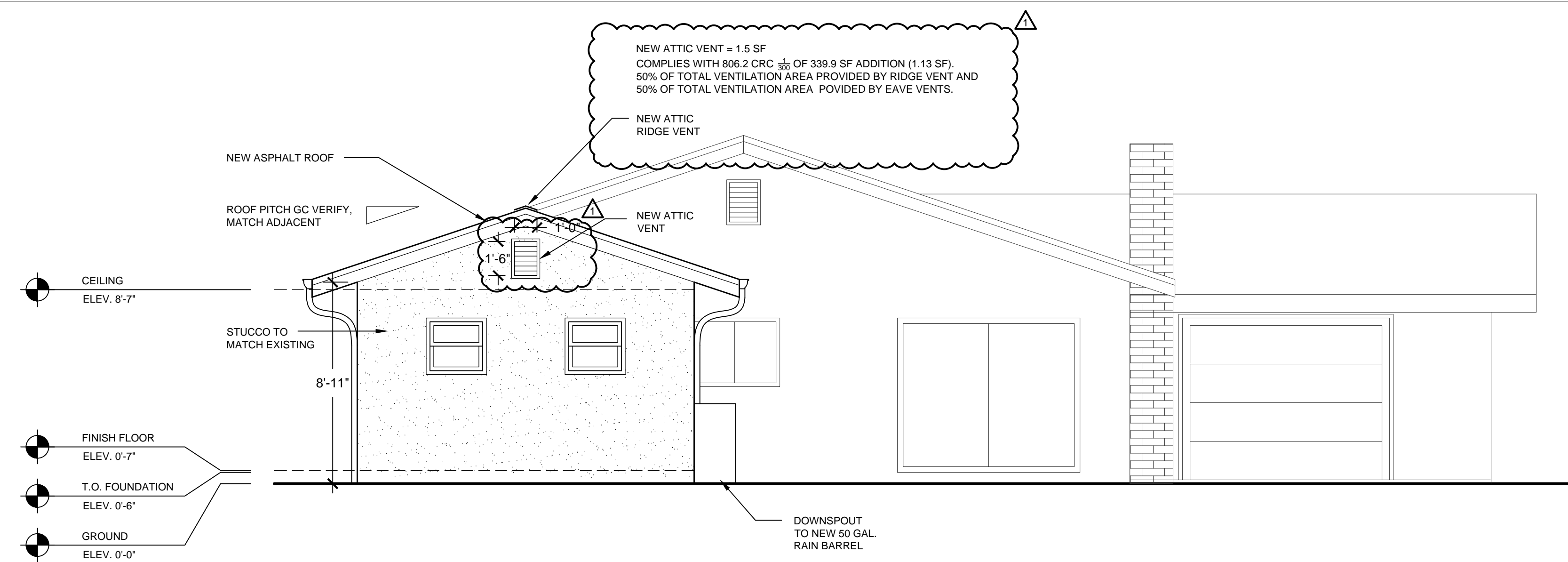
PLAN

TANG RESIDENCE  
REDLANDS, CA 92373

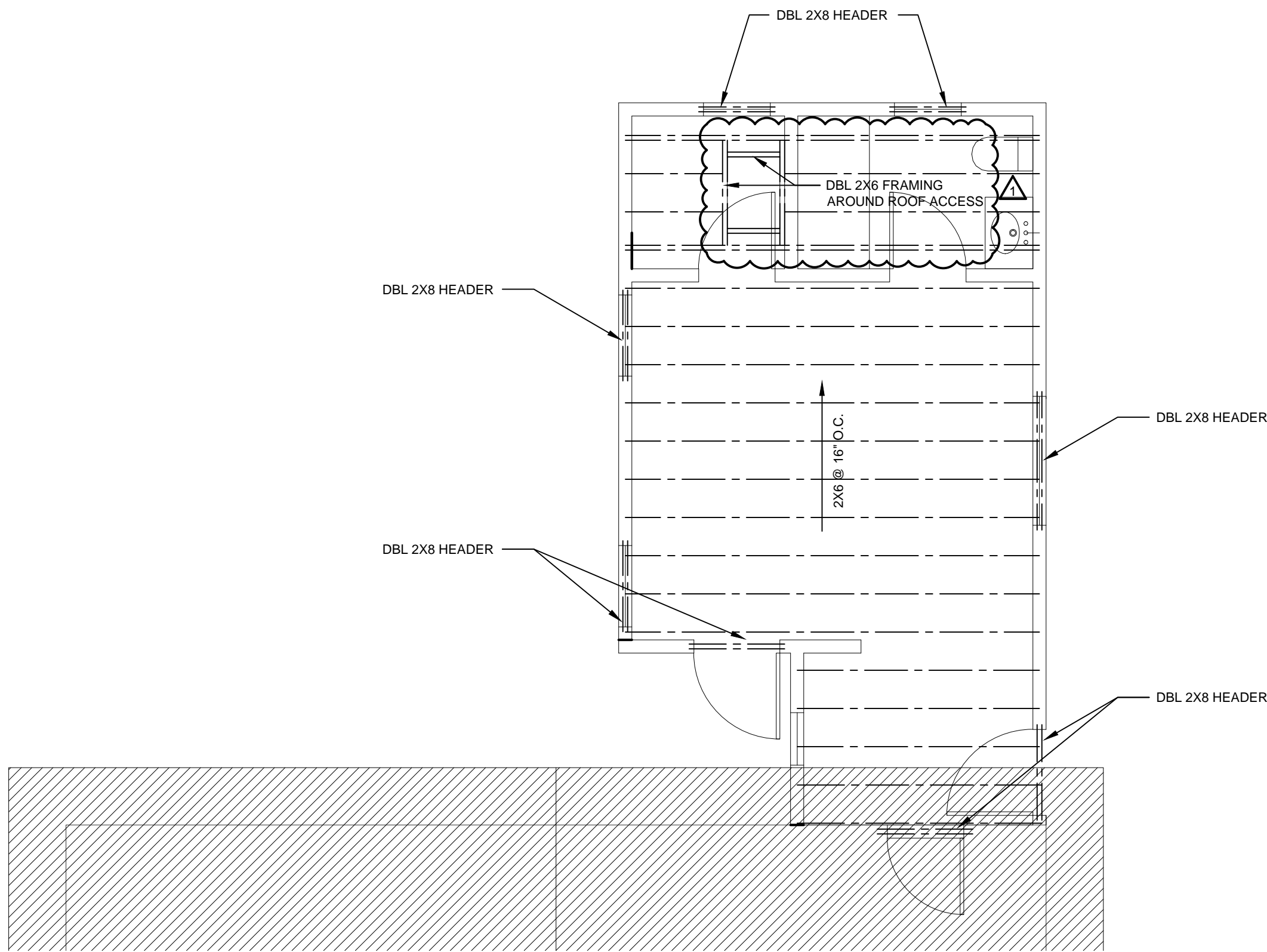
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A2.0

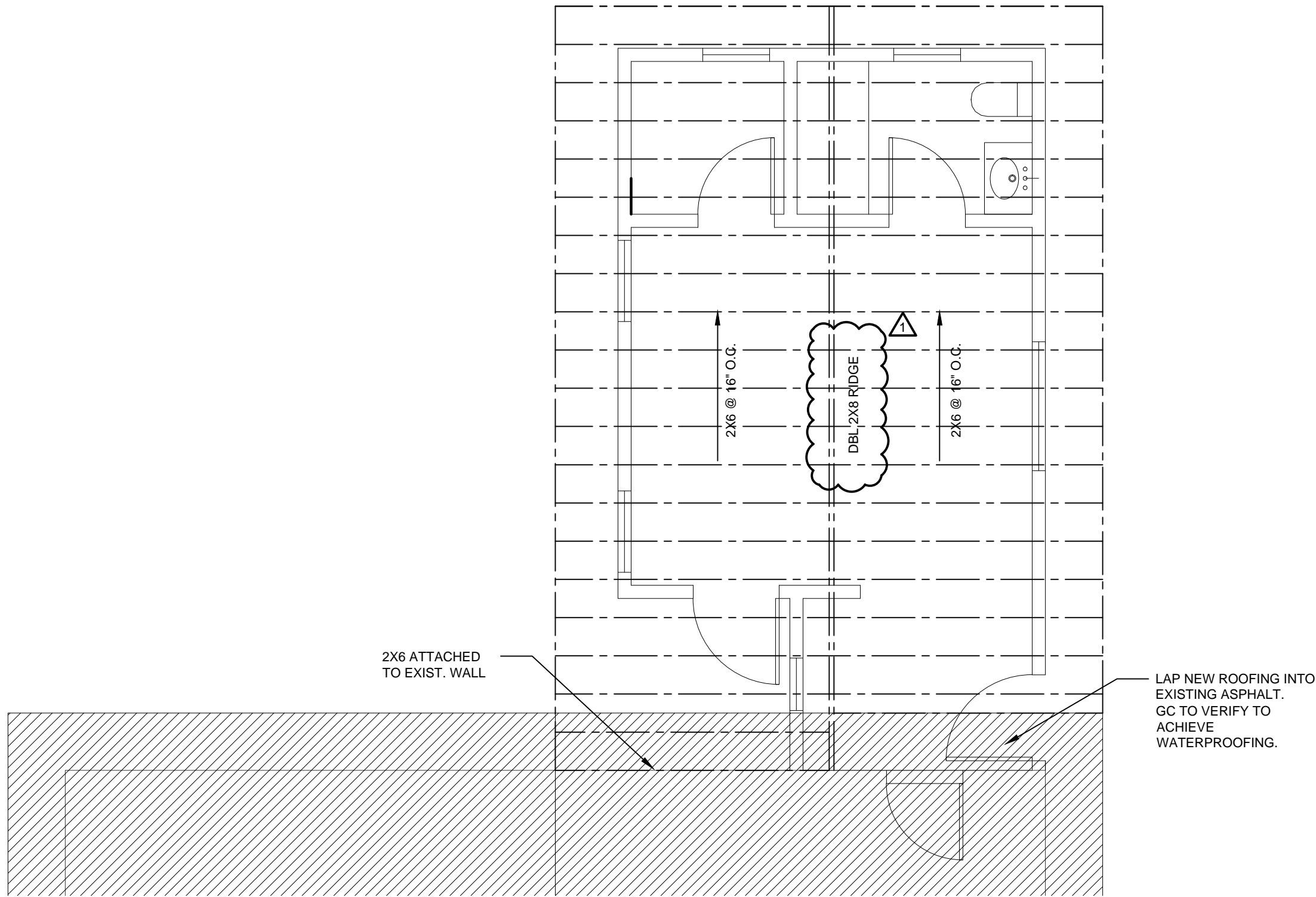
SHT 2 OF 9



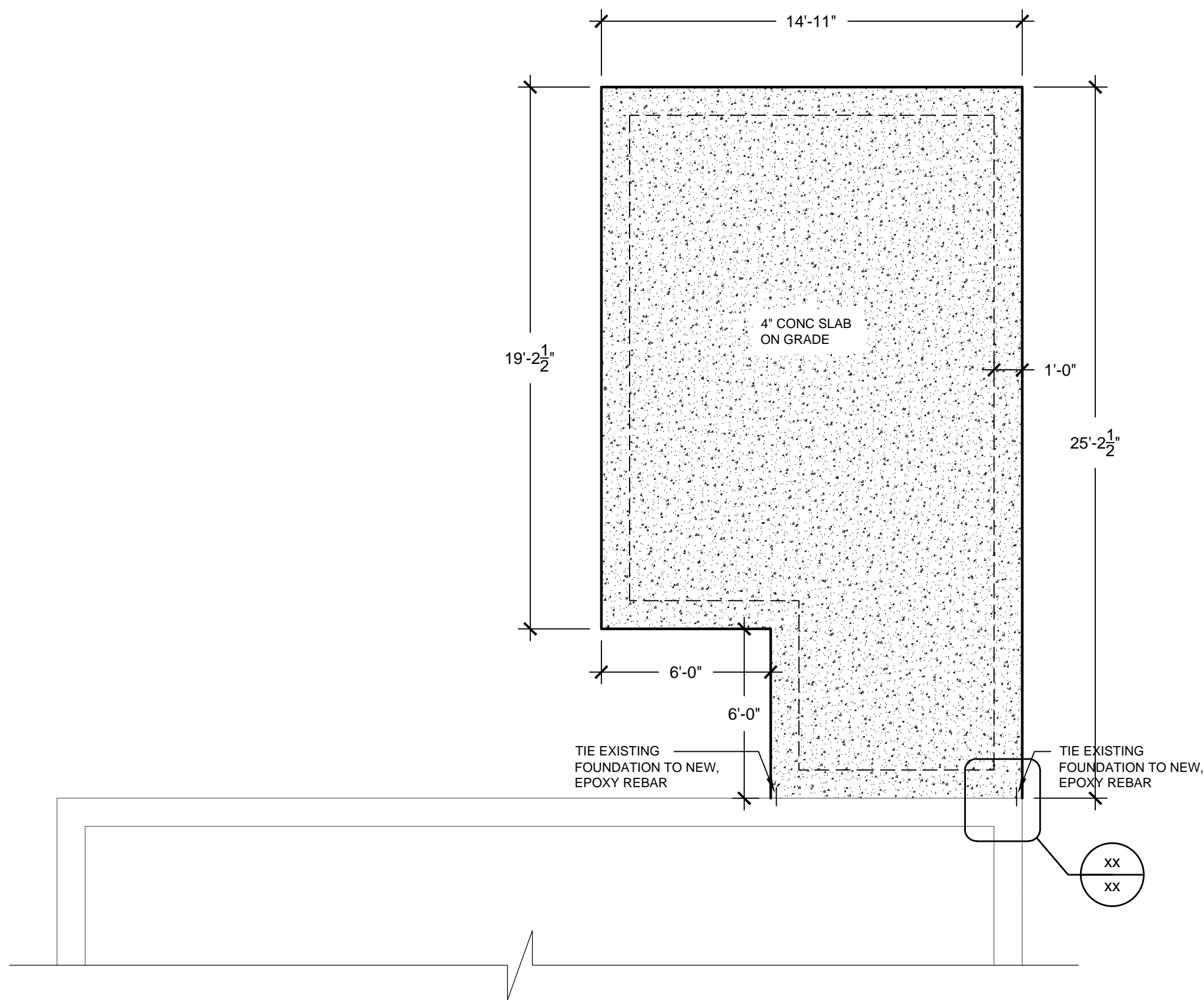
TANG RESIDENCE		EXTERIOR ELEVATIONS			
DRAWING NO.		DATE	PROJECT NO.		
A3.0		08/24/16	TANG		
REDLANDS, CA 92373		SCALE	DWG.		
		1/4" = 1'-0"	PERMIT SET		
		DRAWN BY	CHECKED BY	2	08/24/16
		FSN		1	05/31/16
				NO.	DATE
				REVISION	



1 ATTIC FRAMING PLAN  
SCALE: 1/4" = 1'-0"



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



3 FOUNDATION PLAN  
SCALE: 1/4" = 1'-0"

FOUNDATION, ATTIC  
AND ROOF PLAN

TANG RESIDENCE  
REDLANDS, CA 92373

DRAWING NO.

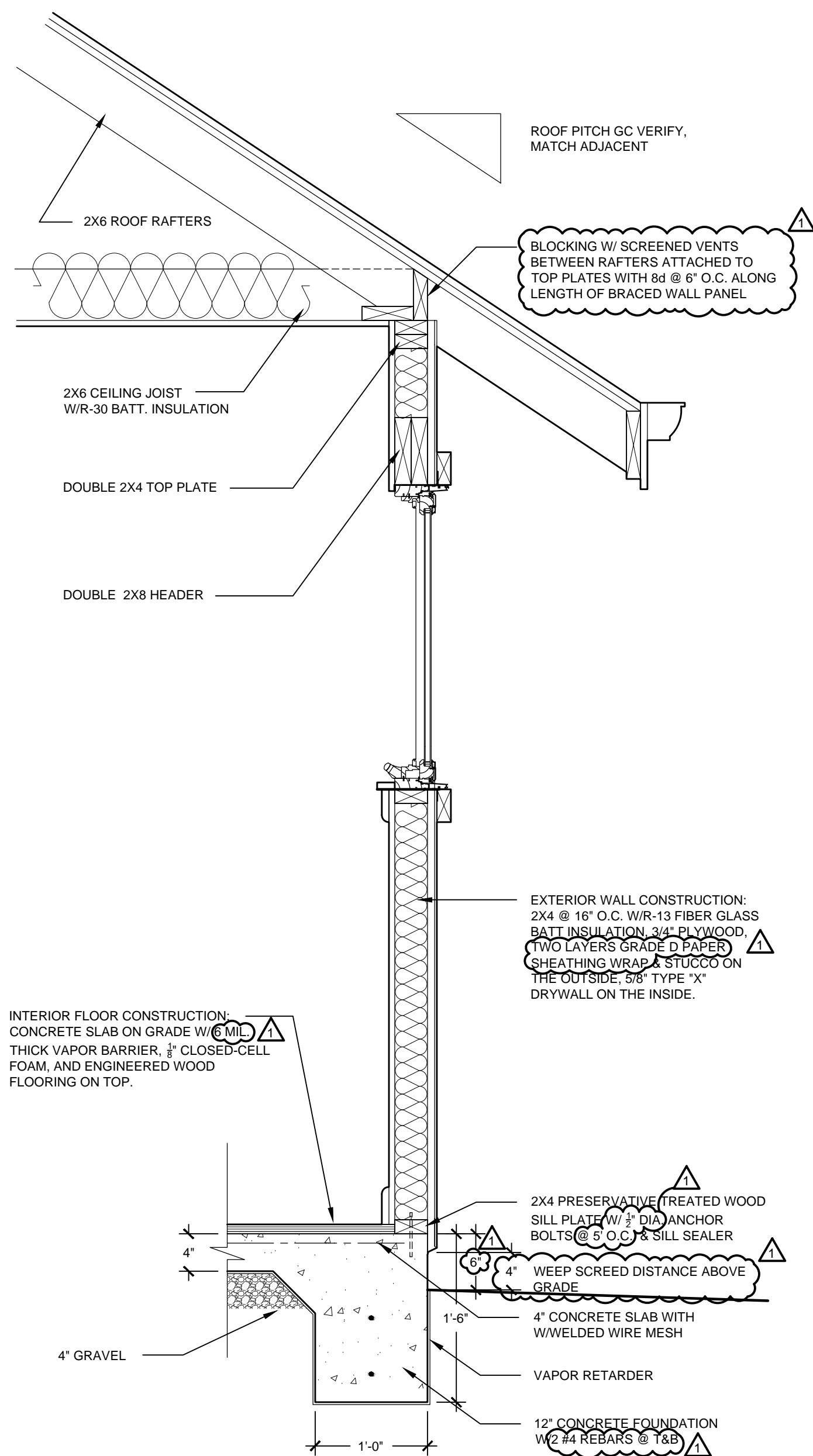
A4.0

SHT 4 OF 9

DATE	PROJECT NO.	TANG
08/24/16	DWG.	PERMIT SET
SCALE	AS NOTED	CHECKED BY
DRAWN BY	FSN	NO.

2	PERMIT REVISION	08/24/16
1	PERMIT REVISION	05/31/16
NO.	REVISION	DATE





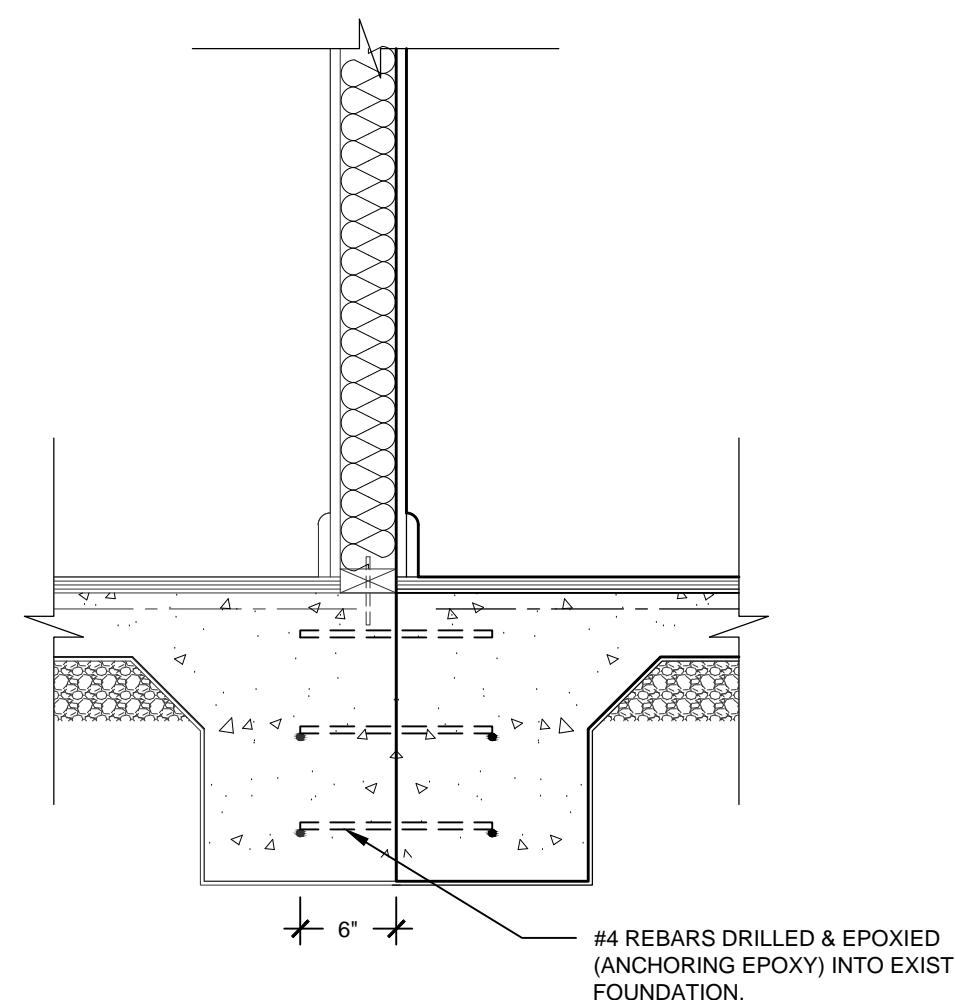
1 WALL SECTION DETAIL  
SCALE: 1" = 1'-0"

## FASTENER SCHEDULE

TABLE R602.3(1) FASTENER SCHEDULE FOR STRUCTURAL MEMBERS			
ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER <sup>1,2</sup>	SPACING OF FASTENERS
<b>Roof</b>			
1	Blocking between joists or rafters to top plate, toe nail	3-8d (2 1/2" x 0.113")	—
2	Ceiling joists to plate, toe nail	3-8d (2 1/2" x 0.113")	—
3	Ceiling joists not attached to parallel rafters, laps over partitions, face nail	3-10d	—
4	Collar tie to rafter, face nail or 1 1/2" x 20 gage ridge strap	3-10d (3" x 0.128")	—
5	Rafter or roof truss to plate, toe nail	3-16d box nails (3 1/2" x 0.135") or 3-10d common nails (3" x 0.148")	2 toe nails on one side and 1 toe nail on opposite side of each rafter or truss
6	Roof rafters to ridge, valley or hip rafters: toe nail face nail	4-16d (3 1/2" x 0.135") 3-16d (3 1/2" x 0.135")	—
<b>Wall</b>			
7	Built-up studs: face nail	10d (3" x 0.128")	24" o.c.
8	Abutting studs at intersecting wall corners, face nail	16d (3 1/2" x 0.135")	12" o.c.
9	Built-up header, two pieces with 1/2" spacer	16d (3 1/2" x 0.135")	16" o.c. along each edge
10	Continued header, two pieces	16d (3 1/2" x 0.135")	16" o.c. along each edge
11	Continuous header to stud, toe nail	4-8d (2 1/2" x 0.113")	—
12	Double studs, face nail	10d (3" x 0.128")	24" o.c.
13	Double top plates, face nail	10d (3" x 0.128")	24" o.c.
14	Double top plates, minimum 24-inch offset of end joints, face nail in lapped area	8-16d (3 1/2" x 0.135")	—
15	Sole plate to joist or blocking, face nail	16d (3 1/2" x 0.135")	16" o.c.
16	Sole plate to joist or blocking at braced wall panels	3-16d (3 1/2" x 0.135")	16" o.c.
17	Stud to sole plate, toe nail	2-16d (3 1/2" x 0.135") or 3-8d (2 1/2" x 0.113")	—
18	Top or sole plate to stud, end nail	2-16d (3 1/2" x 0.135")	—
19	Top plates, laps at corners and intersections, face nail	2-10d (3" x 0.128")	—
20	1" brace to each stud and plate, face nail	2-8d (2 1/2" x 0.113") 2 staples 1 1/2"	—
21	1" x 6" sheathing to each bearing, face nail	2-8d (2 1/2" x 0.113") 2 staples 1 1/2"	—
22	1" x 8" sheathing to each bearing, face nail	3-8d (2 1/2" x 0.113") 3 staples 1 1/2"	—
23	Wider than 1" x 8" sheathing to each bearing, face nail	3-8d (2 1/2" x 0.113") 4 staples 1 1/2"	—
<b>Floor</b>			
24	Joist to sill or girder, toe nail	3-8d (2 1/2" x 0.113")	—
25	Rim joist to top plate, toe nail (roof applications also)	8d (2 1/2" x 0.113")	6" o.c.
26	Rim joist or blocking to sill plate, toe nail	8d (2 1/2" x 0.113")	6" o.c.
27	1" x 6" subfloor or less to each joist, face nail	2-8d (2 1/2" x 0.113") 2 staples 1 1/2"	—
28	2" subfloor to joist or girder, blind and face nail	2-16d (3 1/2" x 0.135")	—
29	2" planks (plank & beam - floor & roof)	2-16d (3 1/2" x 0.135")	at each bearing
30	Built-up girders and beams, 2-inch lumber layers	10d (3" x 0.128")	Nail each layer as follows: 32" o.c. at top and bottom and staggered. Two nails at ends and at each splice.
31	Ledger strip supporting joists or rafters	3-16d (3 1/2" x 0.135")	At each joist or rafter

2013 CALIFORNIA RESIDENTIAL CODE

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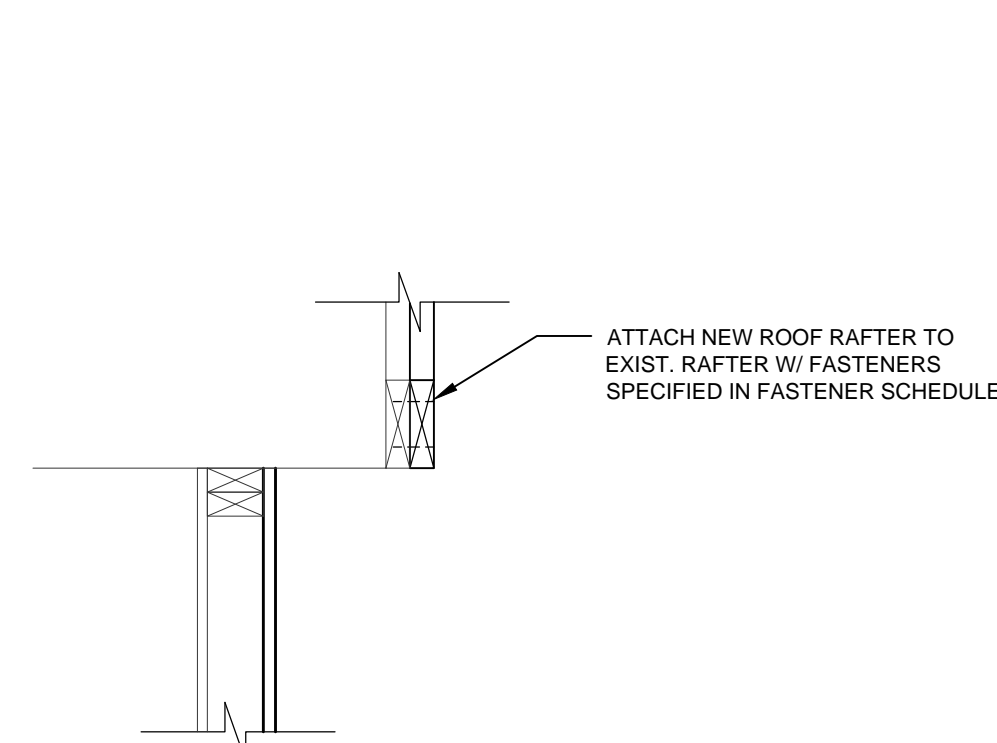
2 NEW FOUNDATION ATTACH TO EXIST. FOUNDATION DETAIL  
SCALE: 1" = 1'-0"

TABLE R602.3(1)—continued FASTENER SCHEDULE FOR STRUCTURAL MEMBERS			
ITEM	DESCRIPTION OF BUILDING MATERIALS	DESCRIPTION OF FASTENER <sup>1,2</sup>	SPACING OF FASTENERS
<b>Wood structural panels, subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing</b>			
32	1/2" - 1/2"	6d common (2 1/2" x 0.113") nail (subfloor, wall) 8d common (2 1/2" x 0.131") nail (roof)	6 12"
33	1/2" - 1/2"	8d common nail (2 1/2" x 0.131")	6 12"
34	1 1/2" - 1 1/2"	10d common (3" x 0.148") nail or 8d (2 1/2" x 0.131") deformed nail	6 12"
<b>Other wall sheathing</b>			
35	1/2" structural cellulose fiberboard sheathing	1 1/2" galvanized roofing nail, 7/16" crown or 1" crown staple 16 ga., 1 1/2" long	3 6
36	3/8" structural cellulose fiberboard sheathing	1 1/2" galvanized roofing nail, 7/16" crown or 1" crown staple 16 ga., 1 1/2" long	3 6
37	1/2" gypsum sheathing	1 1/2" galvanized roofing nail: staple galvanized, 1 1/2" long; 1 1/4" screws, Type W or S	7 7
38	3/8" gypsum sheathing	1 1/2" galvanized roofing nail: staple galvanized, 1 1/2" long; 1 1/4" screws, Type W or S	7 7
<b>Wood structural panels, combination subfloor underlayment to framing</b>			
39	1/2" and less	6d deformed (2" x 0.120") nail or 8d common (2 1/2" x 0.131") nail	6 12"
40	1/2" - 1"	8d common (2 1/2" x 0.131") nail or 8d deformed (2 1/2" x 0.120") nail	6 12"
41	1 1/2" - 1 1/2"	10d common (3" x 0.148") nail or 8d deformed (2 1/2" x 0.120") nail	6 12"

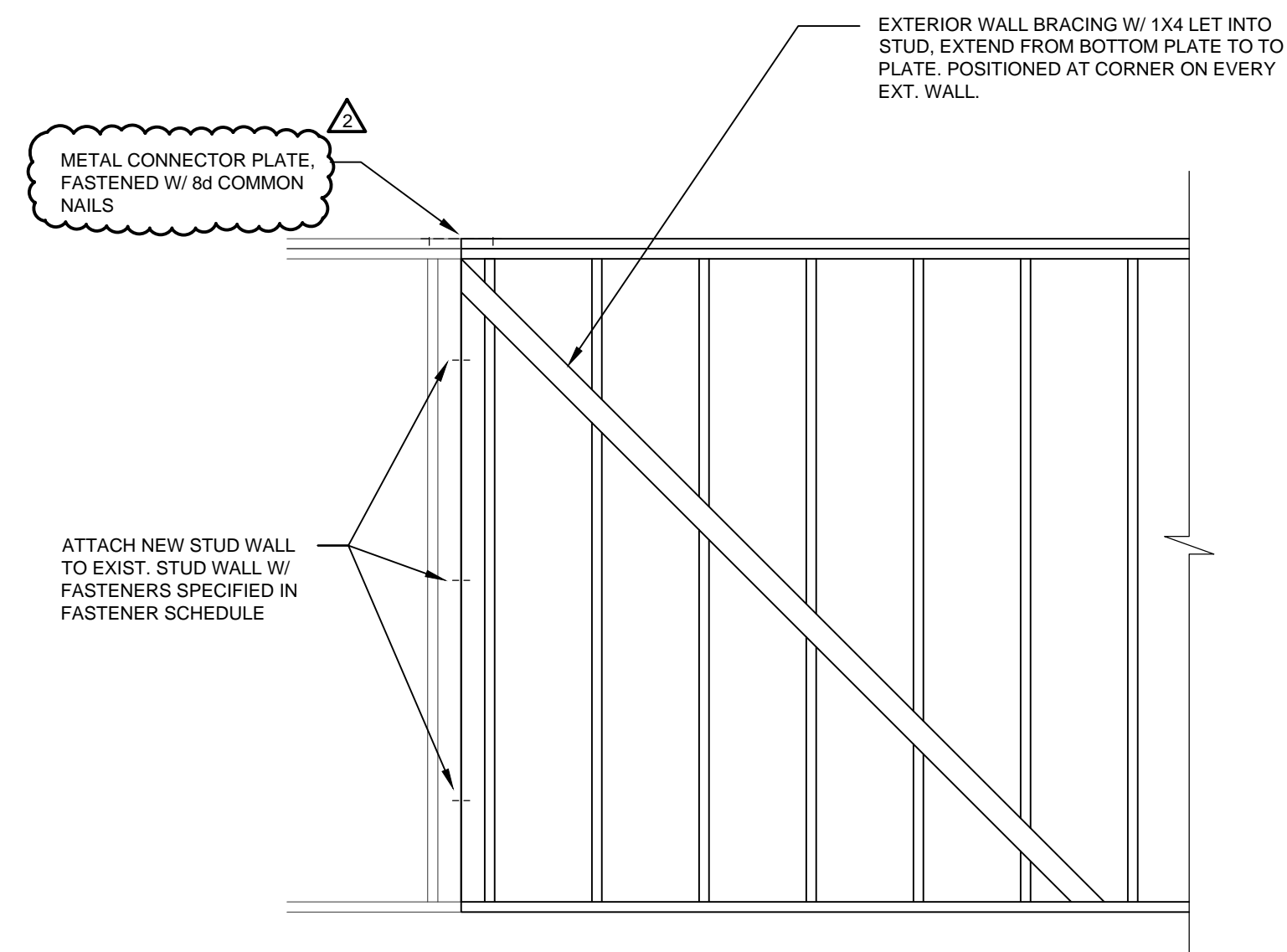
For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 mile per hour = 0.447 m/s, 1 ksi = 6.895 MPa.  
a. All nails are smooth-common, box or deformed shanks except where otherwise stated. Nails used for framing and sheathing connections shall have minimum average bending yield strengths as shown: 80 ksi for shank diameter of 0.192 inch (20d common nail), 90 ksi for shank diameters larger than 0.142 inch but not larger than 0.177 inch, and 100 ksi for shank diameters of 0.142 inch or less.  
b. Staples are 16 gage wire and have a minimum 7/16-inch on 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. Four-foot by 8-foot or 4-foot by 9-foot panels shall be applied vertically.  
e. Spacing of fasteners not included in this table shall be based on Table R602.3(2).  
f. For regions having basic wind speed of 110 mph or greater: 8d deformed (2 1/2" x 0.120) 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 basic wind speed of 100 mph or less: nails for attaching wood structural panel roof sheathing in gable end wall framing shall be spaced 6 inches on center. When basic wind speed is greater than 100 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, and 4 inches on center to gable end wall framing.  
h. For regions having basic wind speed of 100 mph or less: 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, and 4 inches on center to gable end wall framing.  
i. Gypsum sheathing shall conform to ASTM C 1396 and shall be installed in accordance with GSA 243. Fiberboard sheathing shall conform to ASTM C 208.  
j. Spacing of fasteners on floor sheathing panel edges applies to panel edges supported by framing members and required blocking and at all floor perimeters only. Spacing of fasteners on roof sheathing panel edges applies to panel edges supported by framing members and required blocking. Blocking of roof or floor sheathing panel edges perpendicular to the framing members need not be provided except as required by other provisions of this code. Floor perimeter shall be supported by framing members or solid blocking.  
k. Where a rafter is fastened to an adjacent parallel ceiling joist in accordance with this schedule, provide two toe nails on one side of the rafter and toe nails from the ceiling joist to top plate in accordance with this schedule. The toe nail on the opposite side of the rafter shall not be required.

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2013 CALIFORNIA RESIDENTIAL CODE



3 NEW RAFTER ATTACH TO EXIST. RAFTER DETAIL  
SCALE: 1" = 1'-0"



4 NEW EXTERIOR WALL ATTACHMENT TO OLD & WALL BRACING DETAIL  
SCALE: 1/2" = 1'-0"

WALL CONSTRUCTION

**TABLE R602.3(2)  
ALTERNATE ATTACHMENTS TO TABLE R602.3(1)**

NOMINAL MATERIAL THICKNESS (inches)	DESCRIPTION <sup>1,2</sup> OF FASTENER AND LENGTH (inches)	SPACING <sup>3</sup> OF FASTENERS (inches)	
		Edges (inches)	Intermediate supports (inches)
<b>Wood structural panels subfloor, roof<sup>4</sup> and wall sheathing to framing and particleboard wall sheathing to framing<sup>5</sup></b>			
Up to 1/2	Staple 15 ga. 1 1/2	4	8
	0.097 - 0.099 Nail 2 1/2	3	6
	Staple 16 ga. 1 1/2	3	6
1/2 and 3/4	0.113 Nail 2	3	6
	Staple 15 and 16 ga. 2	4	8
	0.097 - 0.099 Nail 2 1/2	4	8
3/4 and 1	Staple 14 ga. 2	4	8
	Staple 15 ga. 1 1/2	3	6
	0.097 - 0.099 Nail 2 1/2	4	8
1	Staple 16 ga. 2	4	8
	Staple 14 ga. 2 1/2	4	8
	0.113 Nail 2 1/2	3	6
1 1/2	Staple 15 ga. 2 1/2	4	8
	0.097 - 0.099 Nail 2 1/2	4	8
NOMINAL MATERIAL THICKNESS (inches)	DESCRIPTION <sup>1,2</sup> OF FASTENER AND LENGTH (inches)	SPACING <sup>3</sup> OF FASTENERS (inches)	
		Edges (inches)	Body of panel <sup>6</sup> (inches)
<b>Floor underlayment: plywood-hardboard-particleboard<sup>7</sup></b>			
<b>Plywood</b>			
1/2 and 3/4	1 1/2" ring or screw shank nail—minimum 12 1/2 ga. (0.099") shank diameter	3	6
	Staple 18 ga., 1/2" crown width	2	5
	1 1/2" ring or screw shank nail—minimum 12 1/2 ga. (0.099") shank diameter	6	8
3/4 and 1	1 1/2" ring or screw shank nail—minimum 12 1/2 ga. (0.099") shank diameter	6	8
	Staple 16 ga. 1 1/2	6	8
	1 1/2" ring or screw shank nail—minimum 12 1/2 ga. (0.099") shank diameter	6	8
<b>Hardboard</b>			
0.200	1 1/2" long ring-grooved underlayment nail	6	6
	4d cement-coated sinker nail	6	6
	Staple 18 ga., 1/2 long (plastic coated)	3	6
<b>Particleboard</b>			
1/2	4d ring-grooved underlayment nail	3	6
	Staple 18 ga., 1/2 long, 7/16 crown	3	6
	6d ring-grooved underlayment nail	6	10
3/4	Staple 16 ga., 1 1/2 long, 7/16 crown	3	6
	6d ring-grooved underlayment nail	6	10
	Staple 16 ga., 1 1/2 long, 7/16 crown	3	6

For S1: 1 inch = 25.4 mm.

a. Nail is a general description and may be T-head, modified round head or round head.

b. Staples shall have a minimum crown width of 1/2 inch on diameter except as noted.

c. Nails or staples shall be spaced at not more than 6 inches on center at all supports where spans are 48 inches or greater. Nails or staples shall be spaced at not more than 12 inches on center at intermediate supports for floors.

d. Fasteners shall be placed in a grid pattern throughout the body of the panel.

e. For S-5 ply panels, intermediate nails shall be spaced at not more than 12 inches on center each way.

f. Hardboard underlayment shall conform to CPAN-NSI A13.4.

g. Specified alternate attachments for roof sheathing will be permitted for windspeeds less than 100 mph. Fasteners attaching wood structural panel roof sheathing to gable end wall framing shall be installed using the spacing listed for panel edges.

2013 CALIFORNIA RESIDENTIAL CODE

201

For SI: 1 inch = 25.4 mm.  
a. Nail is a general description and may be T-head, modified round head or round head.  
b. Staples shall have a minimum crown width of 7/16-inch on diameters except as noted.  
c. Nails or staples shall be spaced at not more than 6 inches on center at all supports where spans are 48 inches or greater. Nails or staples shall be spaced at not more than 12 inches on center at intermediate supports for floors.  
d. Fasteners shall be placed in a grid pattern throughout the body of the panel.  
e. For 5-ply panels, intermediate nails shall be spaced not more than 12 inches on center each way.  
f. Hardboard underlayment shall conform to CPANANSI A135.4.  
g. Specified alternate attachments for roof sheathing shall be permitted for wind speeds less than 100 mph. Fasteners attaching wood structural panel roof sheathing to gable end wall framing shall be installed using the spacing listed for panel edges.

2013 CALIFORNIA RESIDENTIAL CODE

201

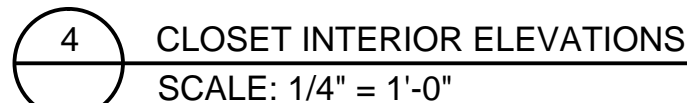
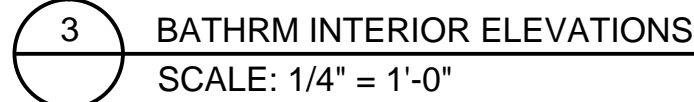
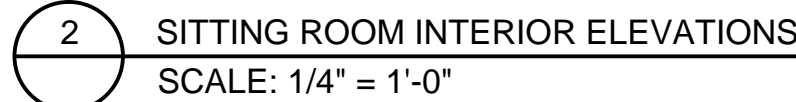
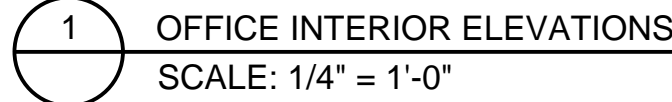
WALL SECTION DETAIL  
NEW TO OLD ATTACHMENT DETAILS  
FASTENER SCHEDULE

TANG RESIDENCE  
REDLANDS, CA 92373

DRAWING NO.

A4.1

SHT 5 OF 9



**TANG RESIDENCE**

**REDLANDS, CA 92373**

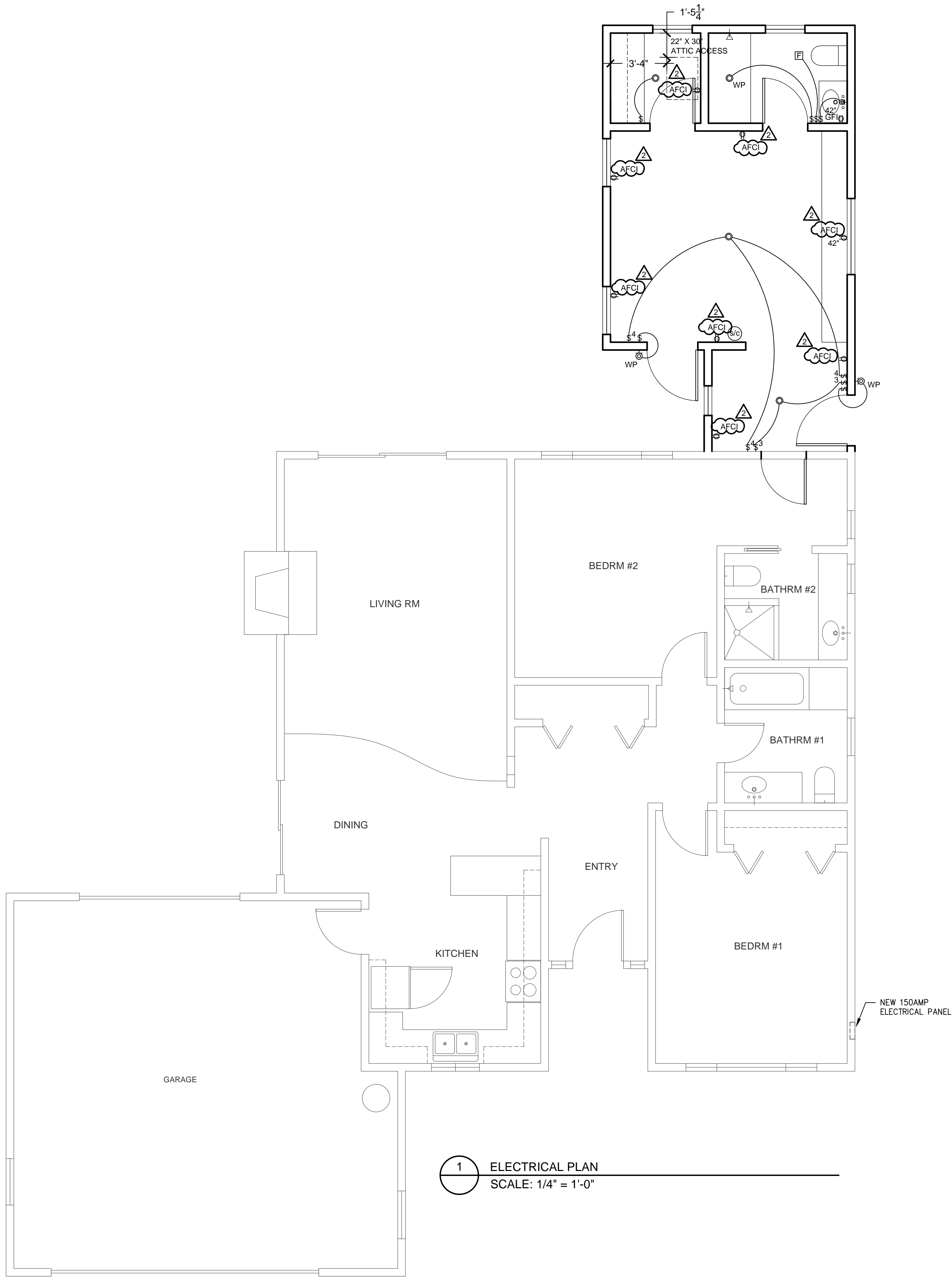
**FLOOR FINISHES & INTERIOR ELEVATIONS**

**A5.0**

SHT 6 OF 9

**DRAWING NO.**

DATE	08/24/16	PROJECT NO.	
SCALE	1/4" = 1'-0"	DWG.	TANG
DRAWN BY	PSN	PERMIT SET	2
CHECKED BY		PERMIT REVISION	08/24/16
NO.		PERMIT REVISION	05/31/16
NO.		REVISION	DATE



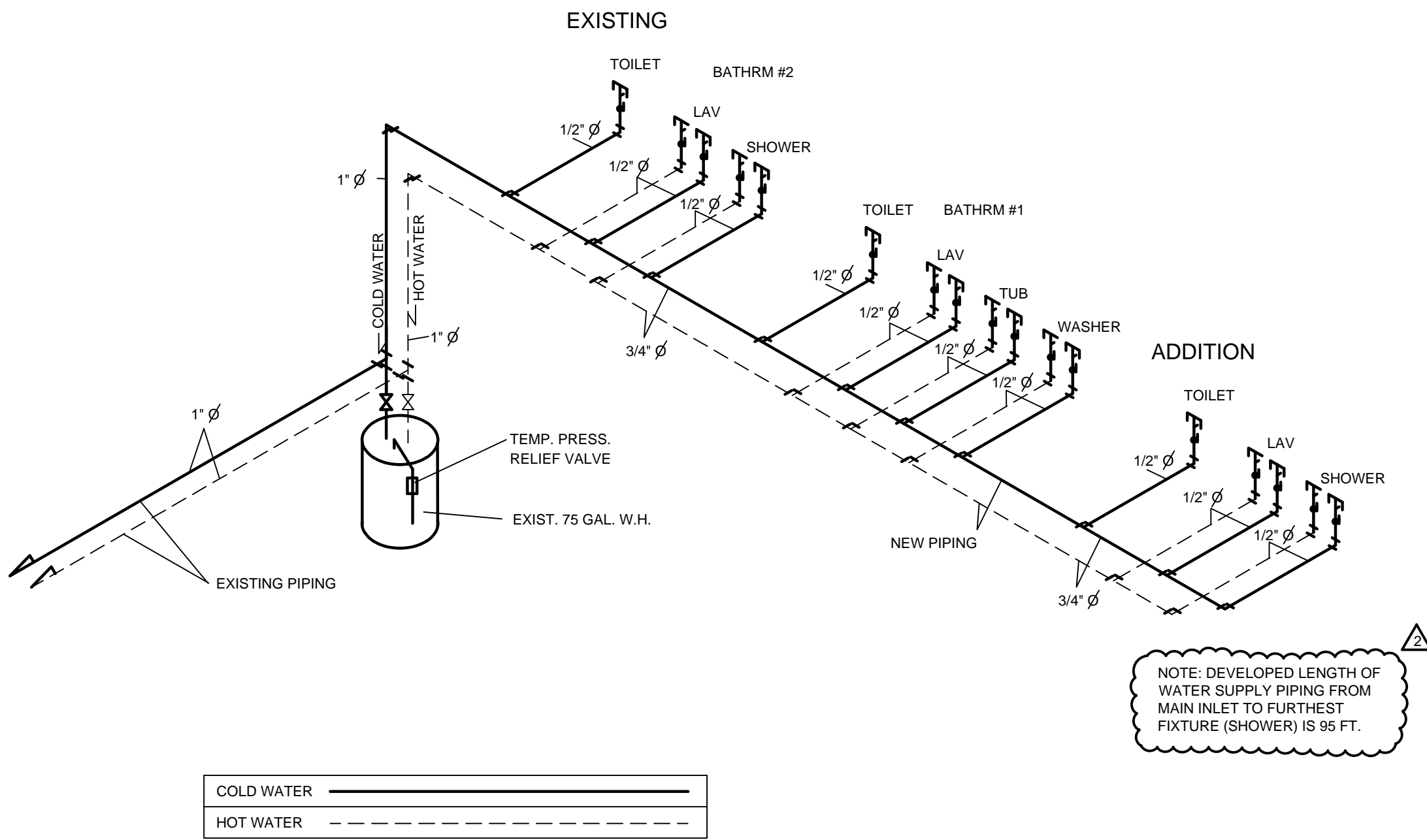
1 ELECTRICAL PLAN  
SCALE: 1/4" = 1'-0"

ELECTRICAL KEY	
Ø	DUPLEX OUTLET
Ø42"	DUPLEX OUTLET AT HEIGHT ABOVE FINISHED FLOOR
\$	2-WAY SWITCH
\$ <sup>3</sup>	3-WAY SWITCH
\$ <sup>4</sup>	4-WAY SWITCH
F	FAN/LIGHT COMBO, 50 CFM
Ø	WALL SCONCE LIGHT
○	CEILING LIGHT
GFI	GROUND FAULT INTERRUPTER
AFCI	ARC FAULT CIRCUIT INTERRUPTER
WP	WEATHER PROOF
⊗	ELEC. SMOKE & CARBON MONOXIDE DETECTOR W/ BATTERY BACKUP. SMOKE ALARMS INTERCONNECTED TO MEET REQ'S OF 2013 CRC R314.5

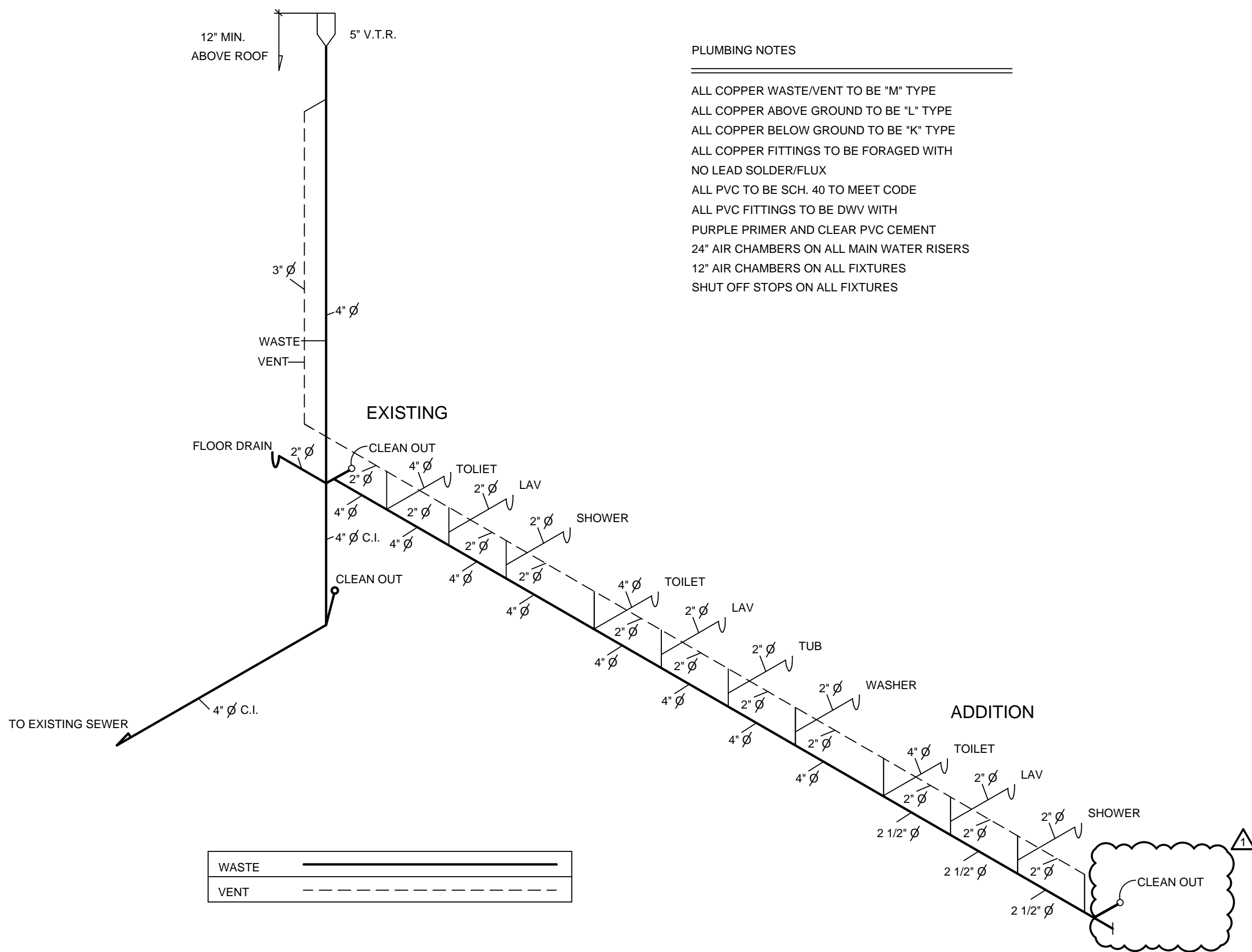
- NOTES:
1. ALL GENERAL USE OUTLETS TO BE AFCI-PROTECT.
  2. EXHAUST FAN TO BE ENERGY STAR COMPLIANT, MAXIMUM 2 SONES, W/ HUMIDITY CONTROL.
  3. ALL BATHROOM & OUTDOOR LIGHTING SHALL COMPLY W/ 2013 CEC SECTION 150(K)5 & 150(K)9.
  4. ALL LIGHTING BE HIGH EFFICIENCY LIGHTING, CFL BULB OR EQUIVALENT TO COMPLY W/ 2013 CEC 150(K)T.
  5. ELECTRICAL SUB-CONTRACTOR TO VERIFY EXIST. SERVICE AND PROVIDE NECESSARY CIRCUITS FOR NEW ADDITION'S LOAD.
  6. 20AMP CIRCUIT, #12 WIRING, OVERHEAD WIRING W/ NEW SUB PANEL LOCATED IN ADDITION







1 WATER SUPPLY RISER DIAGRAM  
P1.0 NO SCALE



2 WASTE & VENT RISER DIAGRAM  
P1.0 NO SCALE

PLUMBING FIXTURE SCHEDULE

ROOM	QTY.	FIXTURE				REMARKS
		TYPE	MANUFACTURER	CATALOG NUMBER	FINISH	
BATH RM	1	TOILET	KOHLER			OR EQUAL
	1	LAVATORY	KOHLER			OR EQUAL
	1	SHOWER FAUCET	KOHLER			OR EQUAL
TOTALS	3					

PLUMBING NOTES

- ALL COPPER WASTE/VENT TO BE "M" TYPE
- ALL COPPER ABOVE GROUND TO BE "L" TYPE
- ALL COPPER BELOW GROUND TO BE "K" TYPE
- ALL COPPER FITTINGS TO BE FORAGED WITH NO LEAD SOLDER/FLUX
- ALL PVC TO BE SCH. 40 TO MEET CODE
- ALL PVC FITTINGS TO BE DWV WITH PURPLE PRIMER AND CLEAR PVC CEMENT
- 24" AIR CHAMBERS ON ALL MAIN WATER RISERS
- 12" AIR CHAMBERS ON ALL FIXTURES
- SHUT OFF STOPS ON ALL FIXTURES

DATE	08/24/16	SCALE	AS NOTED	DRAWN BY	PSN	PROJECT NO.	TANG DWG.	PERMIT SET	CHECKED BY	NO.	DATE
								2	PERMIT REVISION	08/24/16	
								1	PERMIT REVISION	05/31/16	
									NO.	REVISION	