

CORNELIA HABER
RESIDENTIAL DESIGN

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KUNZ RESIDENCE
1223 TOWNSEND TERRACE, SUNNYVALE, CA 94087

DATE 3.21.2017

REVISIONS

4.21.2017

A1

GENERAL NOTES

- ALL CONSTRUCTION SHALL CONFORM WITH THE FOLLOWING CODES AS ADOPTED BY THE CITY OF SUNNYVALE:
 - 2016 CALIFORNIA RESIDENTIAL CODE
 - 2016 CALIFORNIA MECHANICAL CODE
 - 2016 CALIFORNIA PLUMBING CODE
 - 2016 CALIFORNIA FIRE CODE
 - 2016 CALIFORNIA ELECTRICAL CODE
 - 2016 BUILDING ENERGY EFFICIENCY STANDARDS
 - 2016 CAL GREEN
 - 2016 CALIFORNIA BUILDING CODE
 - SUNNYVALE MUNICIPAL CODE
- ALL EXISTING CONDITIONS SHALL BE VERIFIED FOR COMPATIBILITY WITH NEW CONSTRUCTION SHOWN HEREIN.
- ALL NOTES AND DIMENSIONS SHALL BE FIELD VERIFIED.
- WRITTEN DIMENSIONS SHALL BE OBSERVED OVER SCALED DIMENSIONS.
- SIMILAR DETAILS SHALL APPLY TO SIMILAR CONDITIONS.
- IN THE EVENT THAT DISCREPANCIES ARE FOUND IN THE DRAWINGS, THE DESIGNER SHALL BE NOTIFIED BEFORE WORK CAN PROCEED.
 - ALL WORK REQUIRED TO PREPARE FOR NEW CONSTRUCTION.
 - THE REMOVAL OR RELOCATION OF ALL EXISTING PIPES, CONDUITS, WIRES, ETC., AS REQUIRED TO COMPLETE THE PROJECT.
 - THE MATCHING OF ALL NEW WALL, CEILING, ROOFING MATERIALS AND TEXTURES, UNLESS NOTED OTHERWISE.

PROJECT DATA

PROPERTY ADDRESS:
1223 TOWNSEND TERRACE, SUNNYVALE, CA 94087
PROPERTY OWNER:
ROBERT AND MEREDITH KUNZ
APN:
202-37-008
ZONING:
R15-FD
OCCUPANCY GROUP:
R-3/U
TYPE OF CONSTRUCTION:
V-B
LOT SIZE:
7,618 SQ.FT.
MAX. ALLOWED:
FAR: 3,809 SQ.FT. (1.6018X50%)
LOT COVERAGE: 3,041 SQ.FT. (1.6018X40%)
MAX. HEIGHT:
30 FT.
PROPOSED:
F.A.R.:
(E) LIVING SPACE FIRST FLOOR 1,112 SQ.FT.
(E) LIVING SPACE SECOND FLOOR 1,066 SQ.FT.
(N) LIVING SPACE FIRST FLOOR 260 SQ.FT.
(E) GARAGE 456 SQ.FT.
TOTAL FLOOR AREA 2,894 SQ.FT.
LOT COVERAGE:
FIRST FLOOR TOTAL: 1,828 SQ.FT.
PORCH 6 SQ.FT.
TOTAL 1,834 SQ.FT.

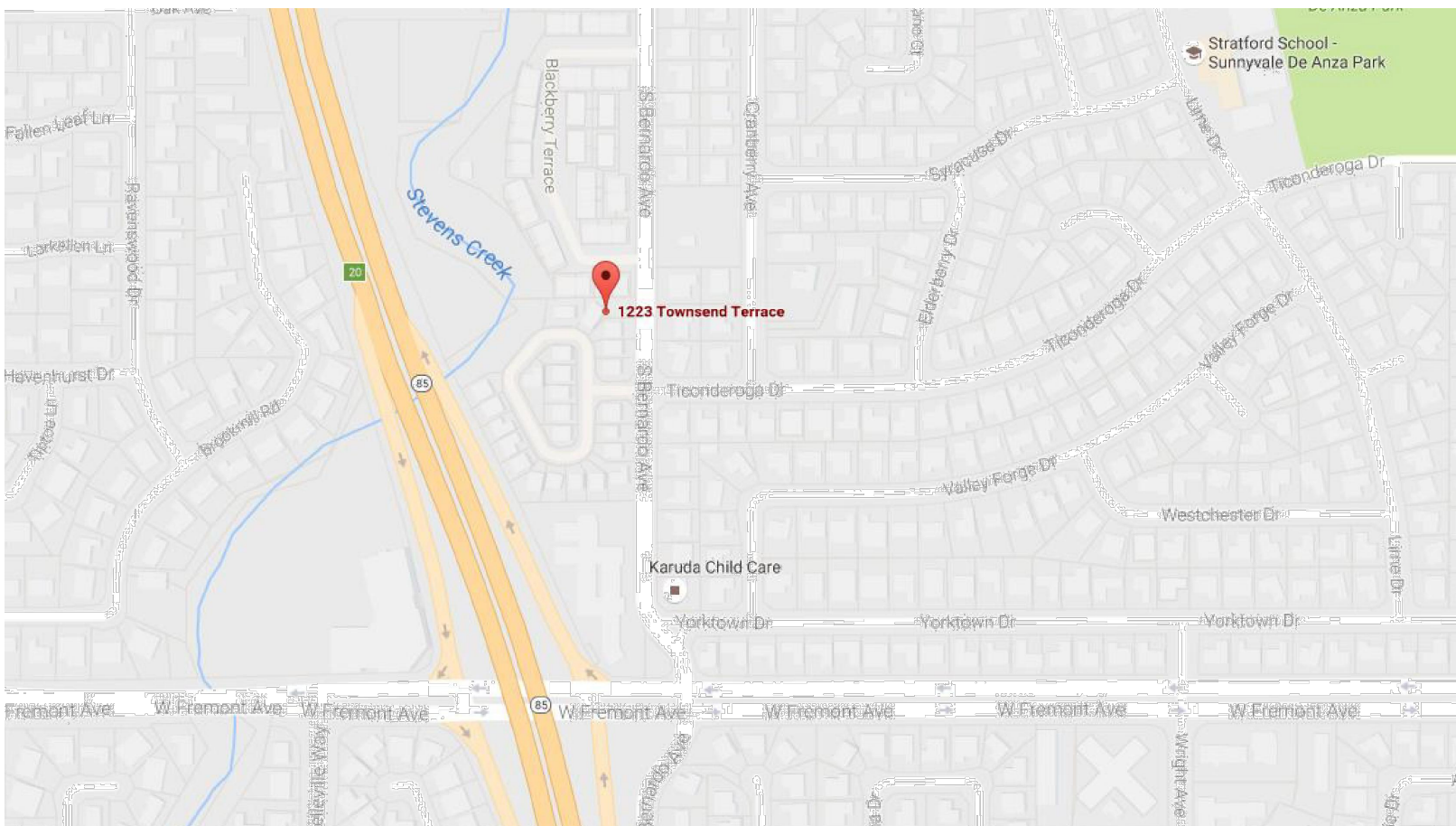
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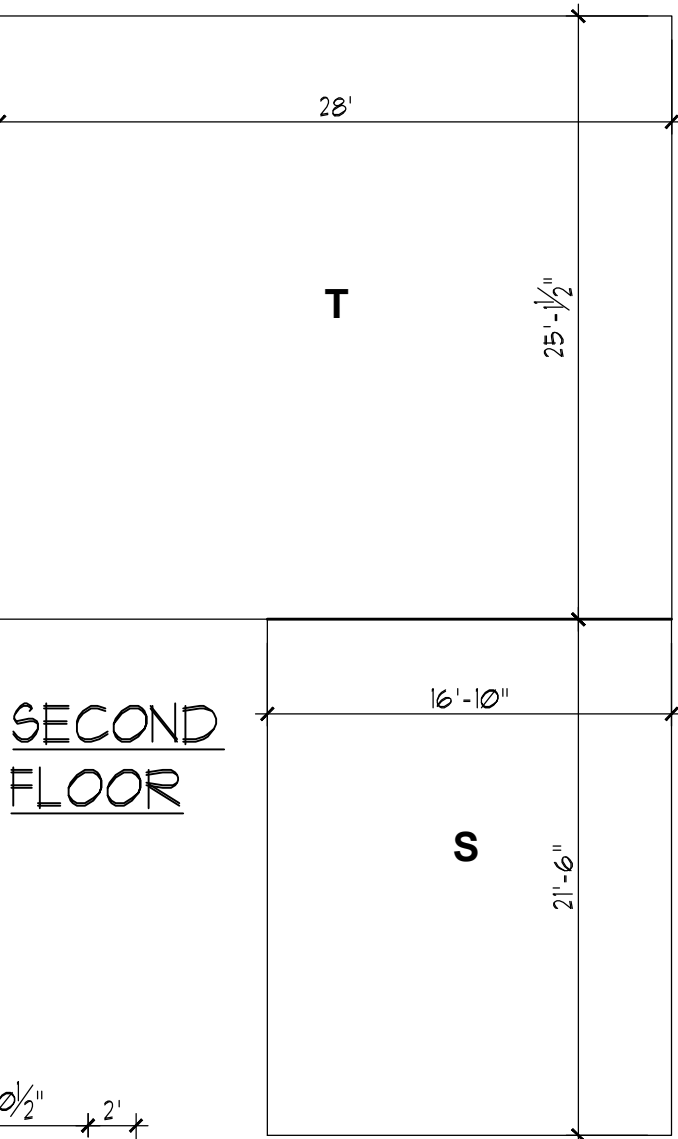
DESCRIPTION OF WORK

ADDITION TO EXISTING SINGLE FAMILY HOME:
EXTEND FAMILY ROOM BY 50 SQ.FT. AND KITCHEN BY 61 SQ.FT.
REMODEL EXISTING KITCHEN.
NEW LIBRARY 143 SQ.FT.

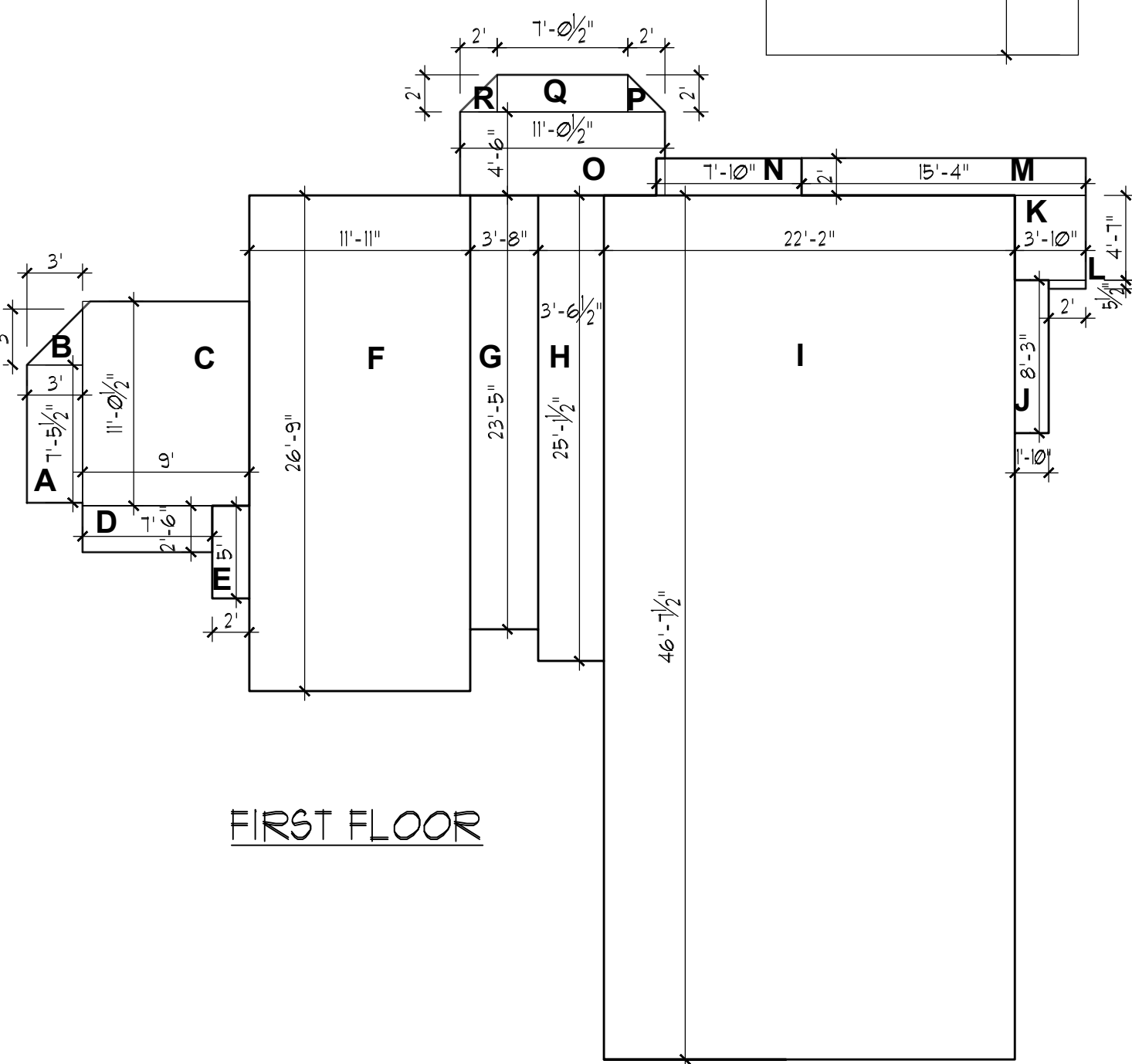
LOCATION MAP



AREAS		
AREA TAG	NEW/EXISTING	AREA (SQ.FT.)
A	N	22.3
B	N	4.5
C	N	99
D	N	115
E	E	10
F	E	318.1
G	E	85.8
H	E	89
I	E	1033.5
J	E	15
K	N	115
L	N	1
M	N	30.6
N	E	15.6
O	N	49.1
P	N	2
Q	N	14
R	N	2
TOTAL FIRST FLOOR		1821.1
S	E	362
T	E	103.6
TOTAL SECOND FLOOR		1065.6
TOTAL		2,886.7



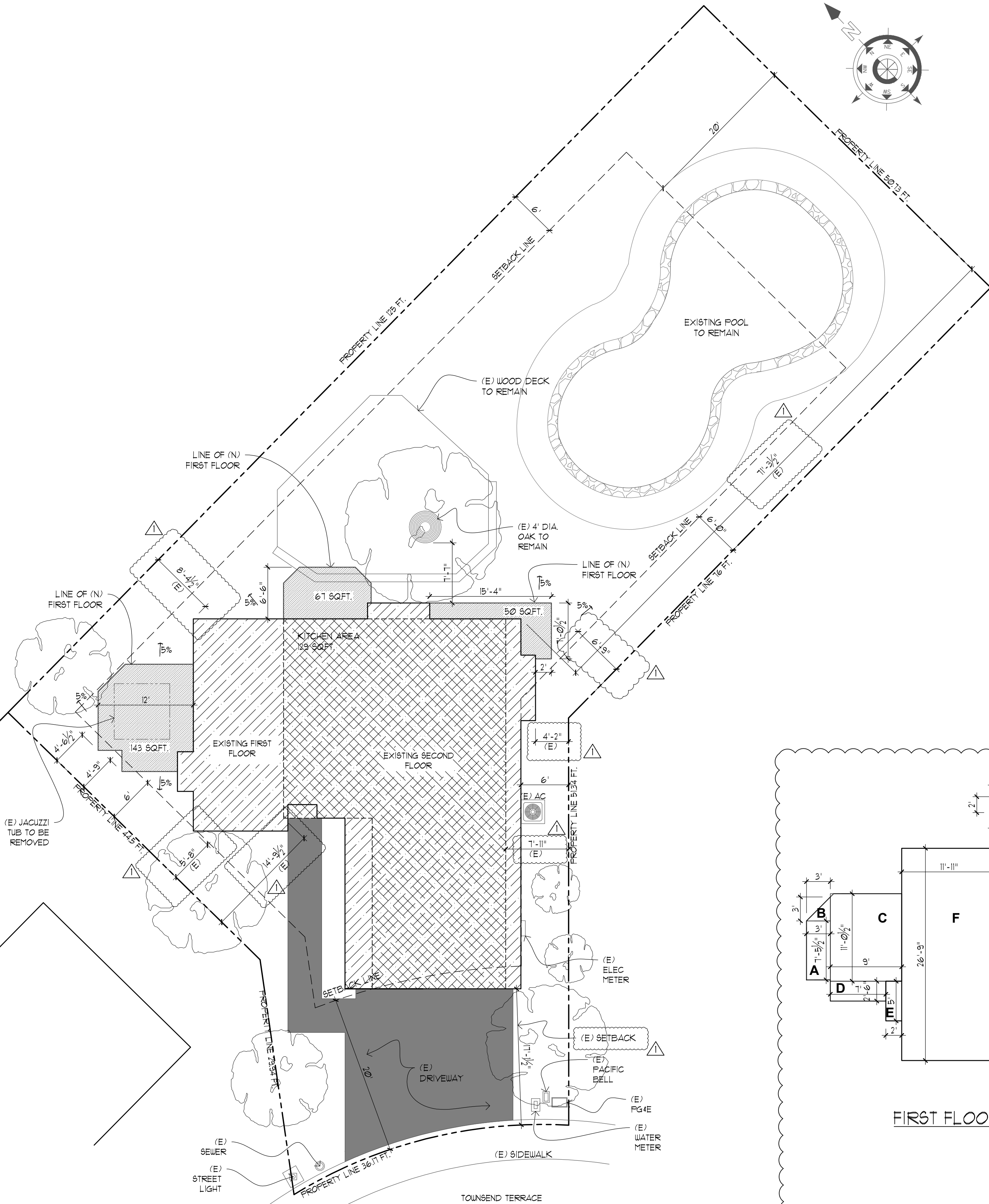
SECOND FLOOR



FIRST FLOOR

2 AREA DIAGRAMS
SCALE 1/8"=1'-0"

1 SITE PLAN
SCALE 1/8"=1'-0"

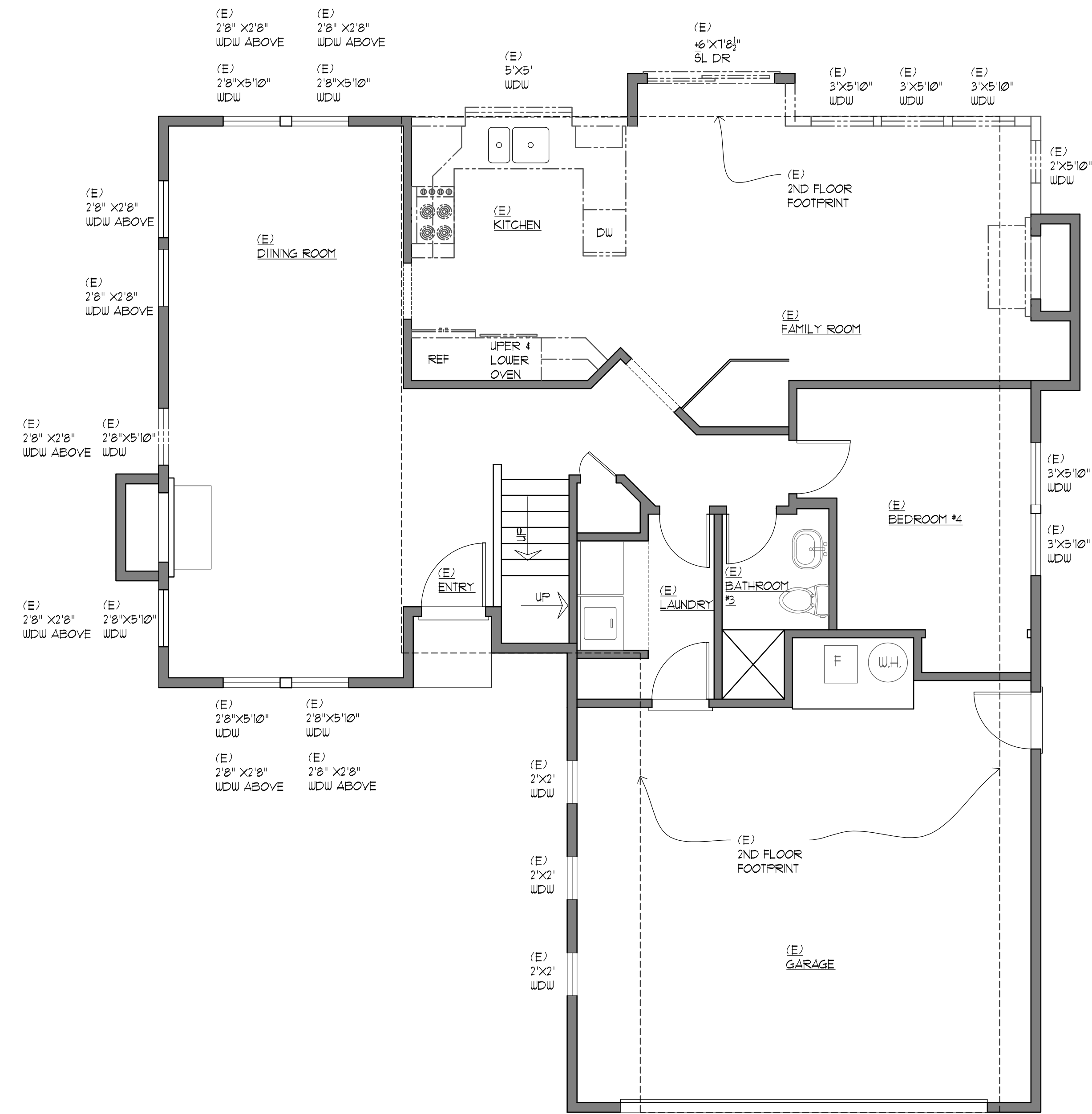


WALL LEDGEND

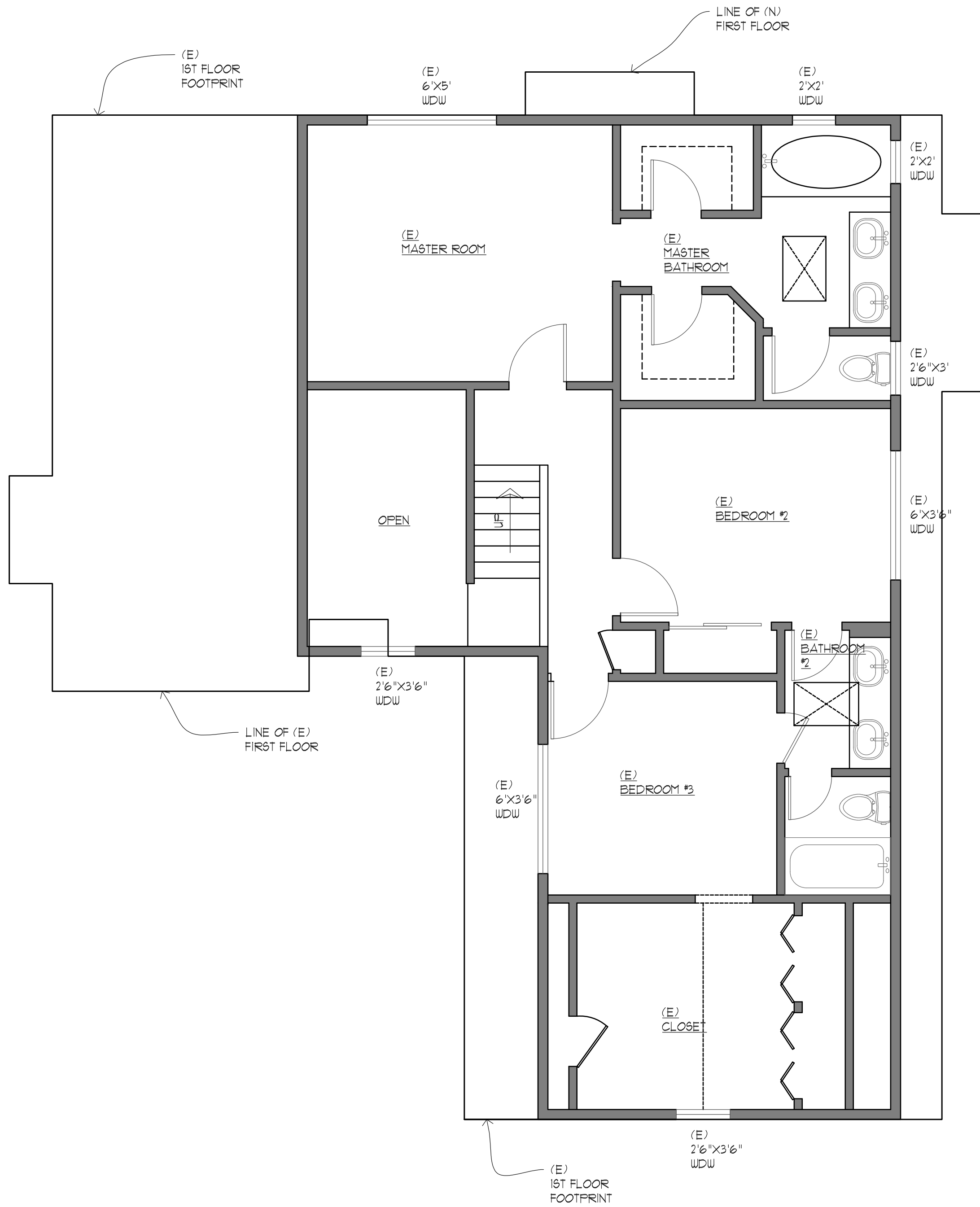
EXISTING WALL TO REMAIN

EXISTING WALL TO BE DEMOLISHED

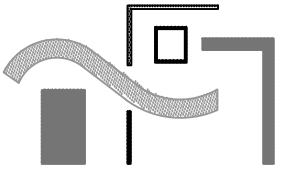
NEW WALL



1 EXISTING FIRST FLOOR PLAN
SCALE 1/4"=1'-0"



2 EXISTING SECOND FLOOR PLAN
SCALE 1/4"=1'-0"



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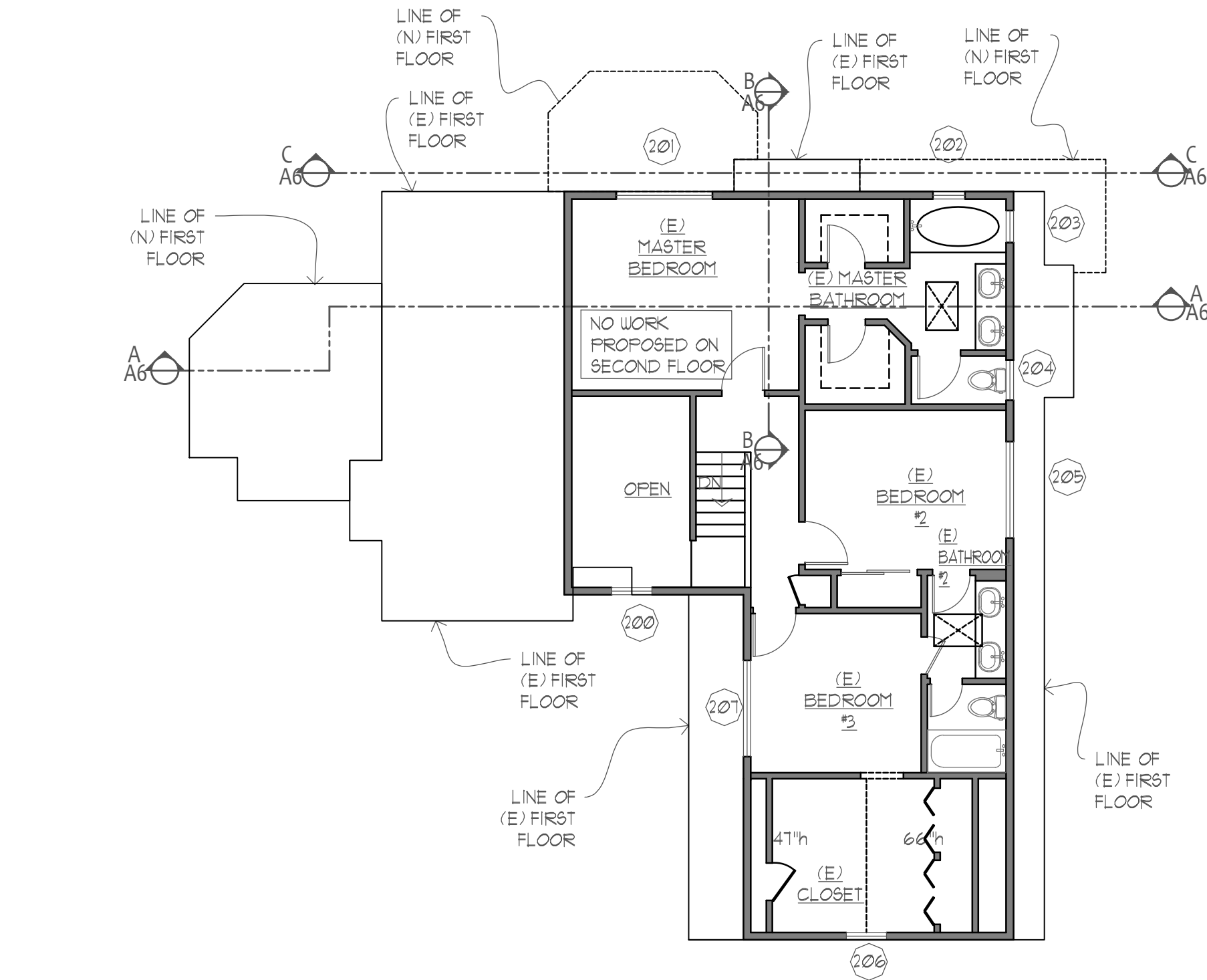
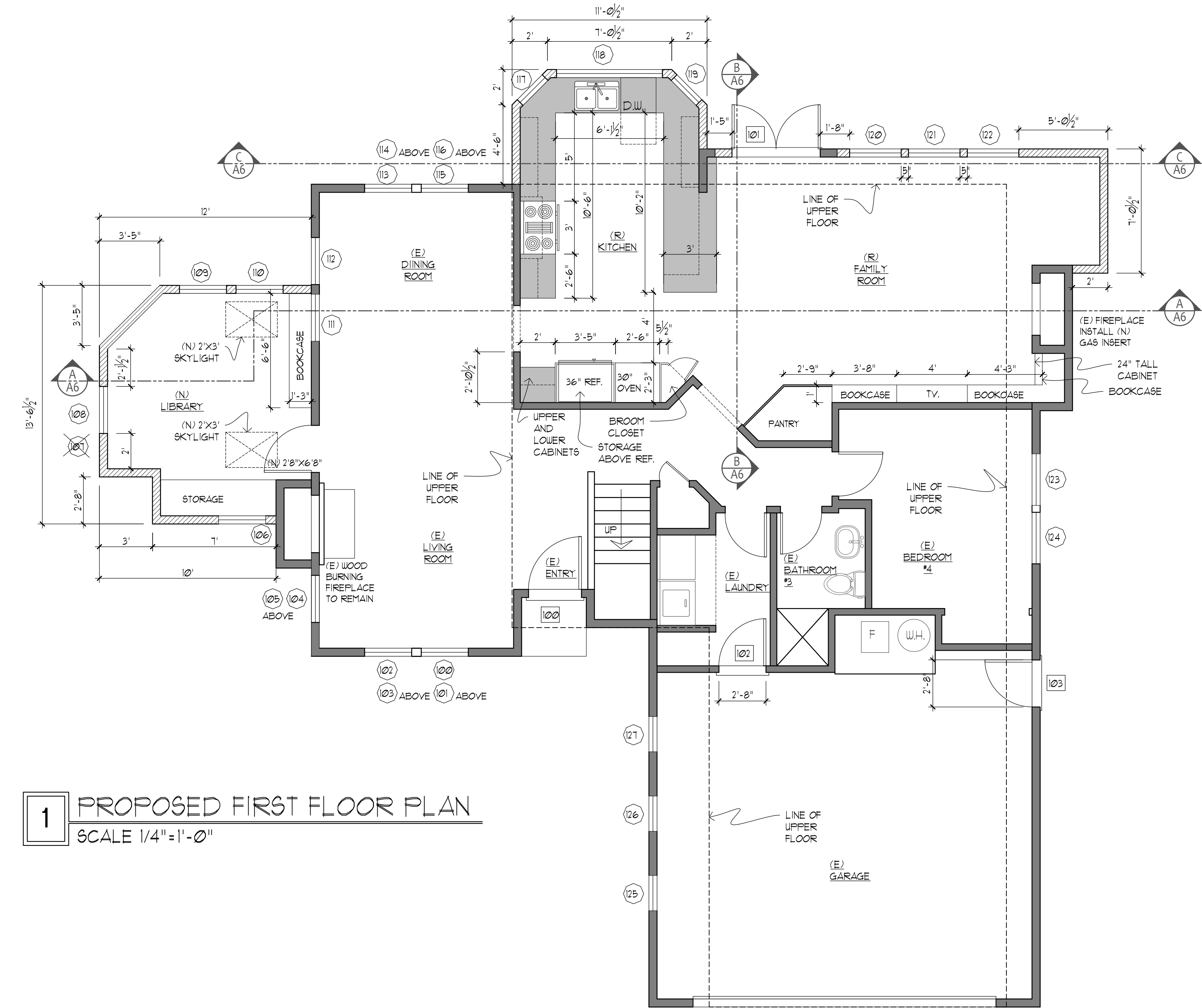
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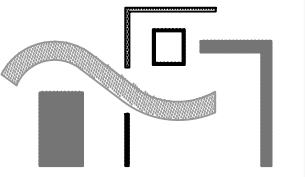
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WALL LEDGEND		
	EXISTING WALL TO REMAIN	
	EXISTING WALL TO BE DEMOLISHED	
	NEW WALL	

EXTERIOR DOOR SCHEDULE						
MARK	WIDTH	HEIGHT	TYPE	GLASS	LOCATION	REMARKS
100	3'-0"	6'-8"	SWING	N/A	ENTRY	EXISTING
101	5'-0"	7'-8"	SWING DBL	CLEAR TEMPERED	FAMILY ROOM	NEW
102	2'-8"	6'-8"	SWING	N/A	GARAGE	EXISTING FIRE RATED
103	2'-8"	6'-8"	SWING	N/A	GARAGE	EXISTING
104	11'-0"	7'-0"	ROLL-UP	N/A	GARAGE	EXISTING



WINDOW SCHEDULE								
MARK	WIDTH	HEIGHT	TYPE	GLASS	LOCATION	FRAME	REMARKS	MANUFACTURER
100	2'-8"	5'-10"	DOUBLE HUNG	CLEAR	LIVING ROOM	VNTL	EXISTING	
101	2'-8"	2'-8"	FIXED	CLEAR	LIVING ROOM	VNTL	EXISTING	
102	2'-8"	5'-10"	DOUBLE HUNG	CLEAR	LIVING ROOM	VNTL	EXISTING	
103	2'-8"	2'-8"	FIXED	CLEAR	LIVING ROOM	VNTL	EXISTING	
104	2'-8"	5'-10"	DOUBLE HUNG	CLEAR	LIVING ROOM	VNTL	EXISTING	
105	2'-8"	2'-8"	FIXED	CLEAR	LIVING ROOM	VNTL	EXISTING	
106	2'-8"	2'-8"	DOUBLE HUNG	CLEAR	LIBRARY	VNTL	NEW	
107			OMIT					
108	2'-8"	5'-10"	DOUBLE HUNG	CLEAR	LIBRARY	VNTL	NEW	
109	2'-8"	5'-10"	DOUBLE HUNG	CLEAR	LIBRARY	VNTL	NEW	
110	2'-8"	5'-10"	DOUBLE HUNG	CLEAR	LIBRARY	VNTL	NEW	
111	2'-8"	2'-8"	FIXED	CLEAR	LIBRARY	VNTL	EXISTING INTERIOR	
112	2'-8"	2'-8"	FIXED	CLEAR	DINING ROOM	VNTL	EXISTING	
113	2'-8"	5'-10"	DOUBLE HUNG	CLEAR	DINING ROOM	VNTL	EXISTING	
114	2'-8"	5'-0"	DOUBLE HUNG	CLEAR	DINING ROOM	VNTL	EXISTING	
115	2'-8"	5'-10"	DOUBLE HUNG	CLEAR	DINING ROOM	VNTL	EXISTING	
116	2'-8"	2'-8"	DOUBLE HUNG	CLEAR	DINING ROOM	VNTL	EXISTING	
117	2'-0"	5'-0"	DOUBLE HUNG	CLEAR	KITCHEN	VNTL	NEW	
118	6'-0"	5'-0"	SLIDING	CLEAR	KITCHEN	VNTL	NEW	
119	2'-0"	5'-0"	DOUBLE HUNG	CLEAR	KITCHEN	VNTL	NEW	
120	3'-0"	5'-10"	DOUBLE HUNG	CLEAR	FAMILY ROOM	VNTL	EXISTING	
121	3'-0"	5'-10"	DOUBLE HUNG	CLEAR	FAMILY ROOM	VNTL	EXISTING	
122	3'-0"	5'-10"	DOUBLE HUNG	CLEAR	FAMILY ROOM	VNTL	EXISTING	
123	3'-0"	5'-10"	DOUBLE HUNG	CLEAR	BEDROOM 14	VNTL	EXISTING	
124	3'-0"	5'-10"	DOUBLE HUNG	CLEAR	BEDROOM 14	VNTL	EXISTING	
125	2'-0"	2'-0"	FIXED	CLEAR	GARAGE	VNTL	EXISTING	
126	2'-0"	2'-0"	FIXED	CLEAR	GARAGE	VNTL	EXISTING	
127	2'-0"	2'-0"	FIXED	CLEAR	GARAGE	VNTL	EXISTING	
200	2'-6"	3'-6"	FIXED	CLEAR	ENTRY	VNTL	EXISTING	
201	6'-0"	5'-0"	DOUBLE DOUBLE HUNG	CLEAR	MASTER BEDROOM	VNTL	EXISTING	
202	2'-0"	2'-0"	SLIDING	CLEAR TEMPERED	MASTER BATHROOM	VNTL	EXISTING	
203	2'-0"	2'-0"	SLIDING	CLEAR TEMPERED	MASTER BATHROOM	VNTL	EXISTING	
204	2'-6"	3'-0"	DOUBLE HUNG	CLEAR	MASTER BATHROOM	VNTL	EXISTING	
205	6'-0"	2'-6"	SLIDING	CLEAR	MASTER BATHROOM	VNTL	EXISTING	
206	2'-0"	3'-6"	DOUBLE HUNG	CLEAR	BEDROOM 12	VNTL	EXISTING	
207	6'-0"	3'-6"	SLIDING	CLEAR	BEDROOM 13	VNTL	EXISTING	



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LIBRARY ATTIC SPACE VENTILATION CALCULATION

AREA OF NEW ATTIC: 138 SQFT.
REQUIRED VENT AREA: 138 SQFT. / 150 = .92 SQFT.
NUMBER OF VENTS TO BE DISPLACED: 2 = .29 SQFT.
TOTAL VENTING REQUIRED: .92 + .29 = 1.24 SQFT.

AREA OF VENTS PER EVERY BAY: 1 3" Ø HOLE = .049 SQFT. X 1 BAYS = .34 SQFT.

AREA OF PROPOSED GABLE VENTS: 0 SQFT.
AREA OF DORMER VENT = .30 SQFT. X 1 DORMER VENTS = .211 SQFT.
TOTAL AREA OF VENTING 2.16 SQFT. + .34 SQFT. = 2.45 SQFT.

KITCHEN ATTIC SPACE VENTILATION CALCULATION

AREA OF NEW ATTIC: 61 SQFT.
REQUIRED VENT AREA: 61 SQFT. / 150 = .44 SQFT.
NUMBER OF VENTS TO BE DISPLACED: 0

AREA OF VENTS PER EVERY 2ND BAY: 3X3" Ø HOLES = .141 SQFT.

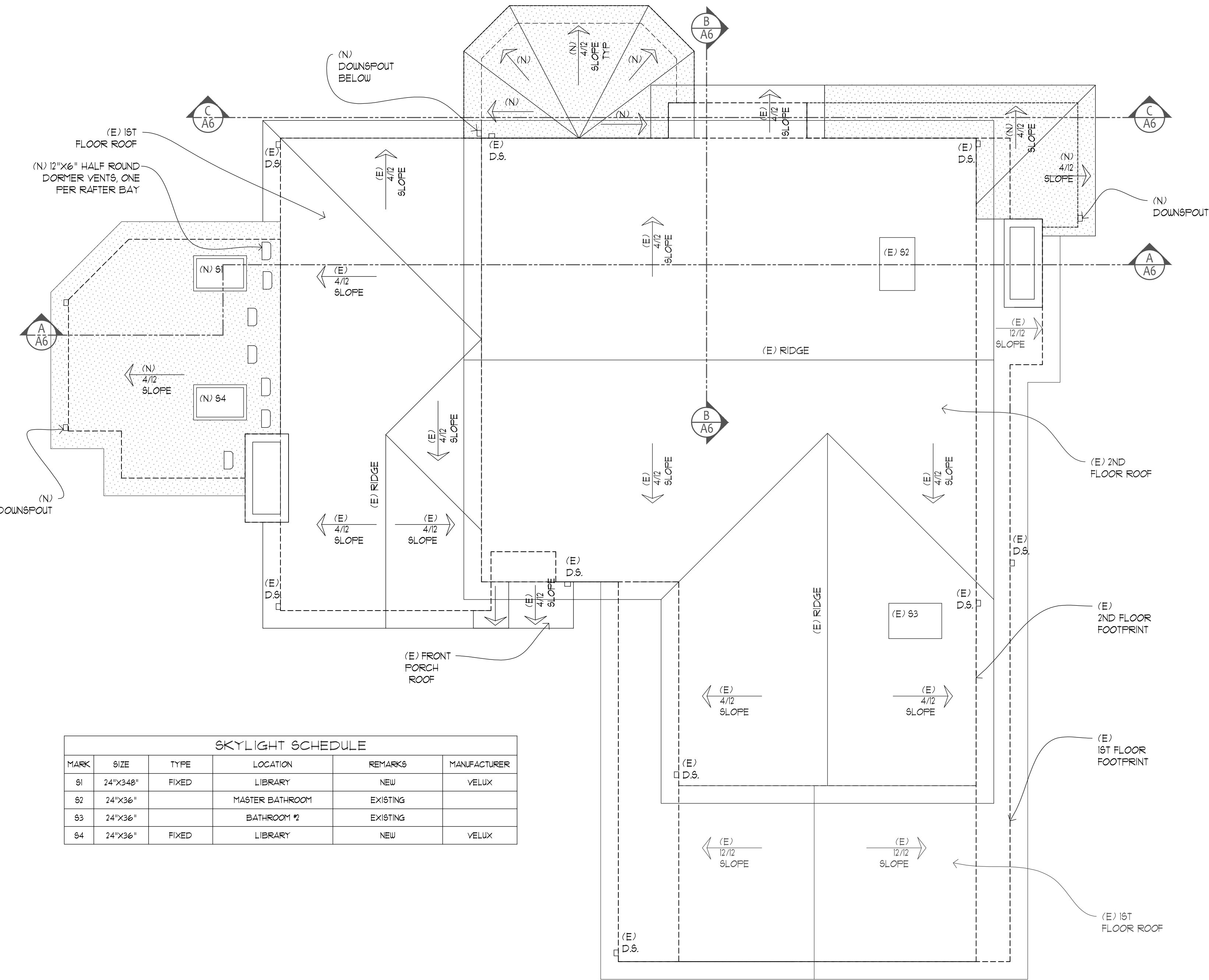
AREA OF PROPOSED GABLE VENTS: 0 SQFT.
TOTAL NUMBER OF VENTS AT BAYS TO BE PROVIDED: 4 = .58 SQFT.
TOTAL VENTING AREA PROPOSED: .58 SQFT

FAMILY ROOM ATTIC SPACE VENTILATION CALCULATION

AREA OF NEW ATTIC: 50 SQFT.
REQUIRED VENT AREA: 50 SQFT. / 150 = .33 SQFT.
NUMBER OF VENTS TO BE DISPLACED: 0

AREA OF VENTS PER BAY: 3X3" Ø HOLES = .141 SQFT.

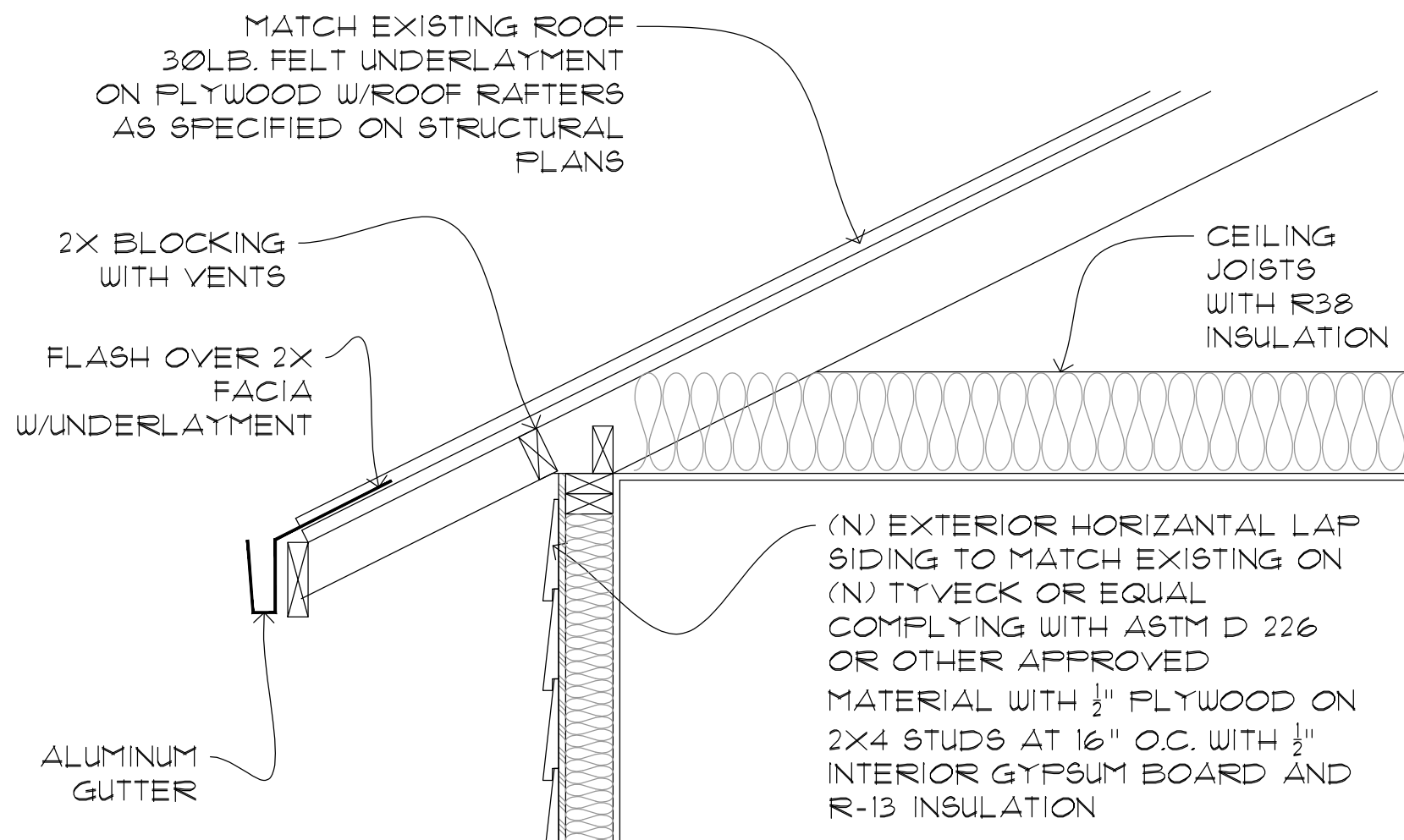
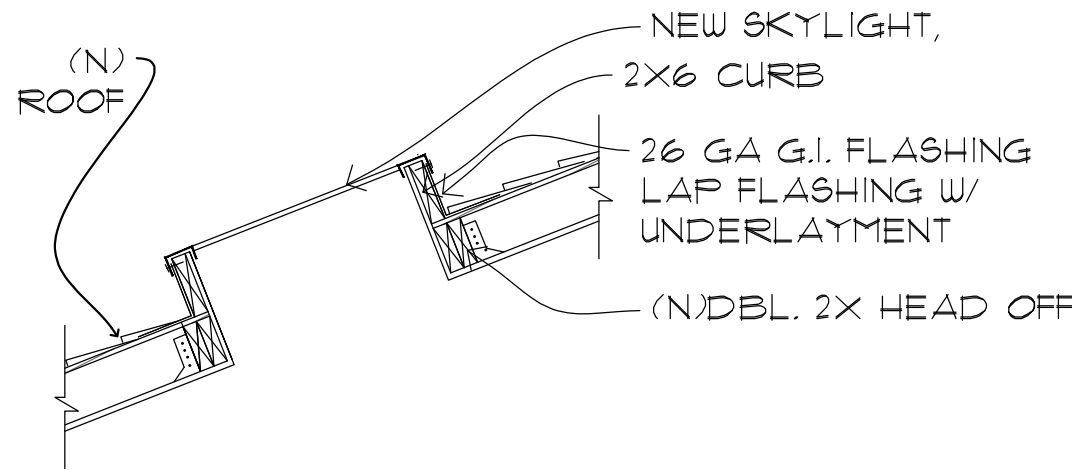
AREA OF PROPOSED GABLE VENTS: 0 SQFT.
TOTAL NUMBER OF VENTS AT BAYS TO BE PROVIDED: 3 = .44 SQFT.
TOTAL VENTING AREA PROPOSED: .44 SQFT



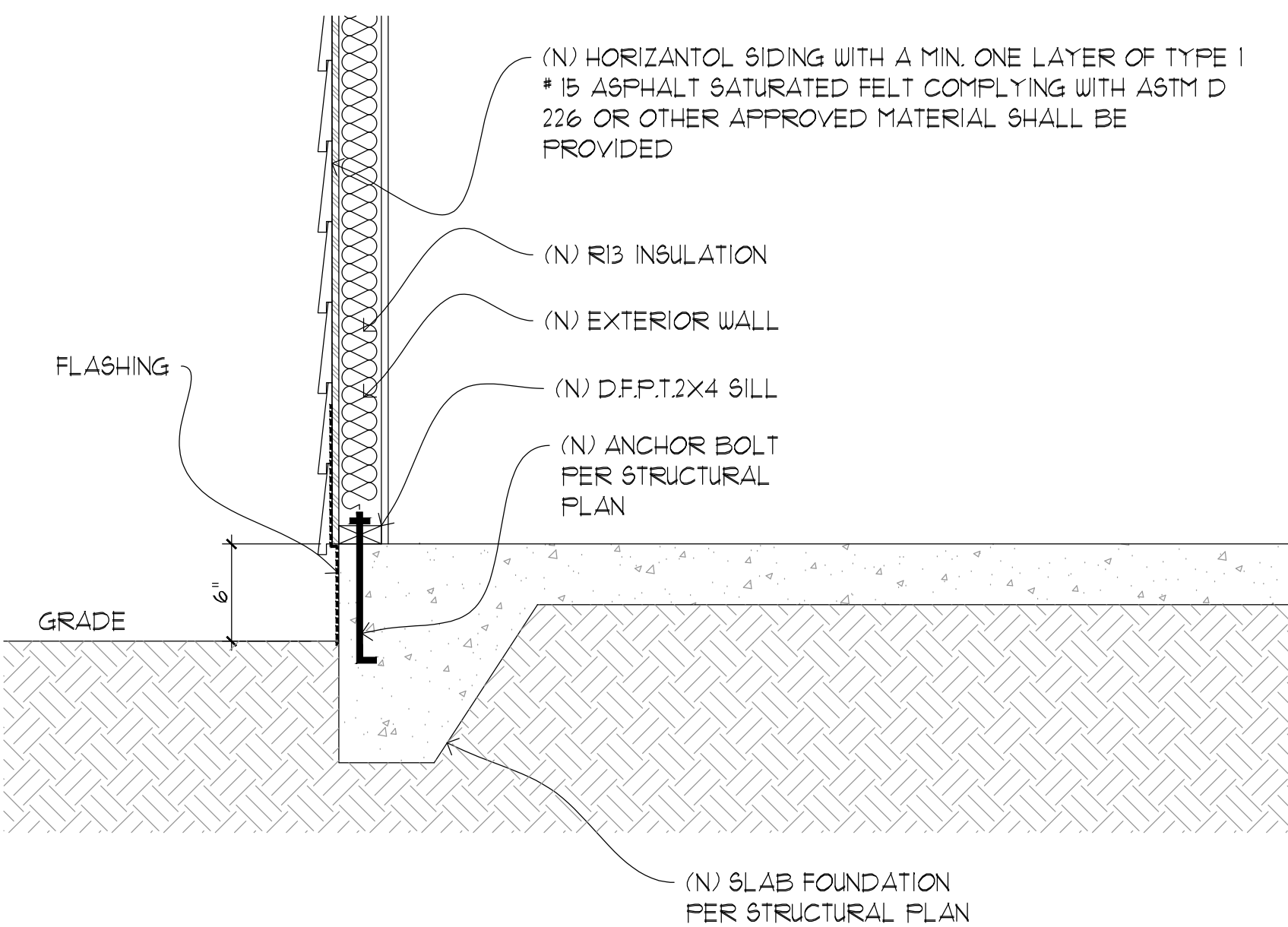
SKYLIGHT SCHEDULE					
MARK	SIZE	TYPE	LOCATION	REMARKS	MANUFACTURER
51	24\"X348\"	FIXED	LIBRARY	NEW	VELUX
52	24\"X36\"		MASTER BATHROOM	EXISTING	
53	24\"X36\"		BATHROOM #2	EXISTING	
54	24\"X36\"	FIXED	LIBRARY	NEW	VELUX

1 PROPOSED ROOF PLAN
SCALE 1/4\"=1'-0\"

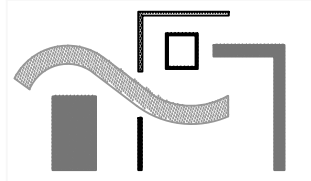
2 SKY LIGHT DETAIL
SCALE 3/4\"=1'-0\"



3 EAVE DETAIL
SCALE 3/4\"=1'-0\"



4 FOUNDATION DETAIL
SCALE 3/4\"=1'-0\"



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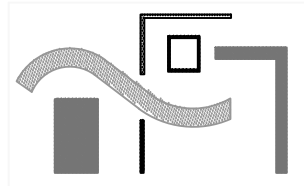
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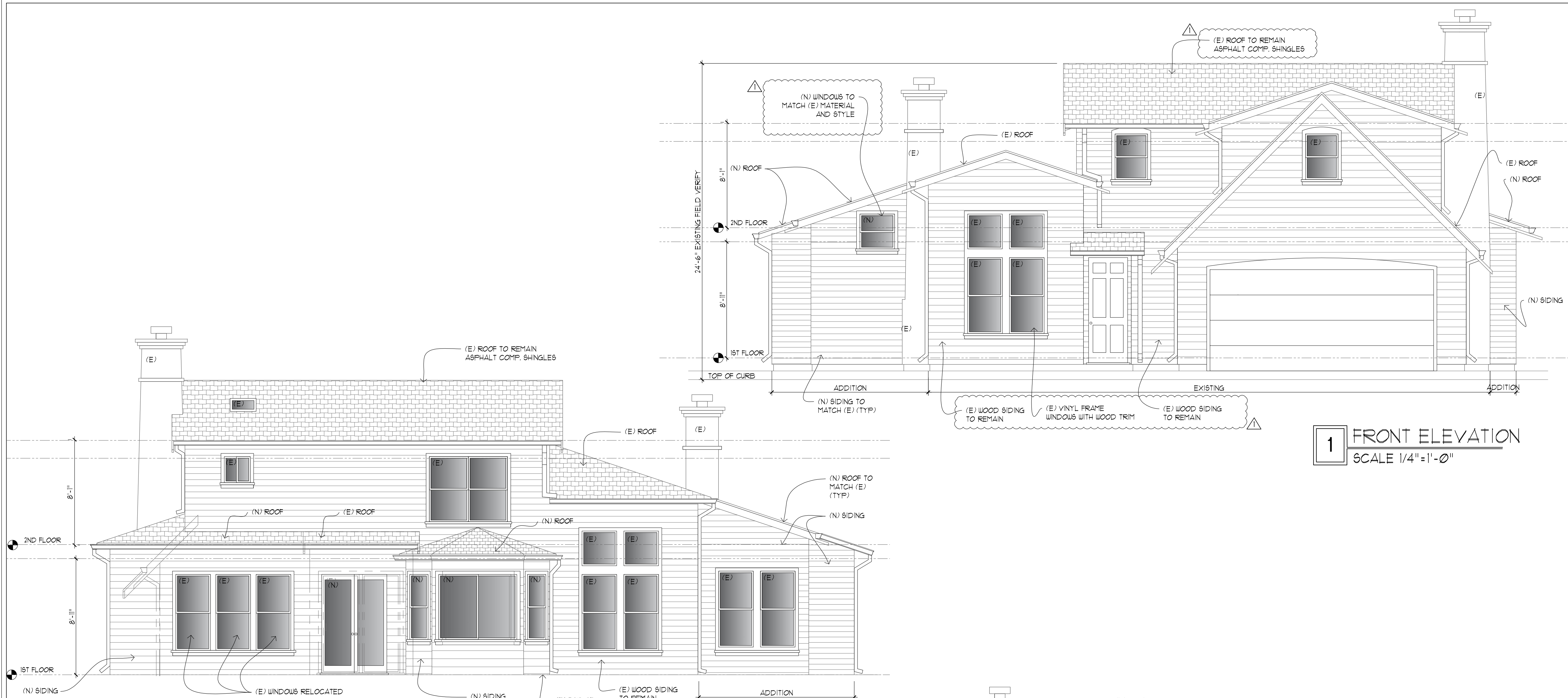
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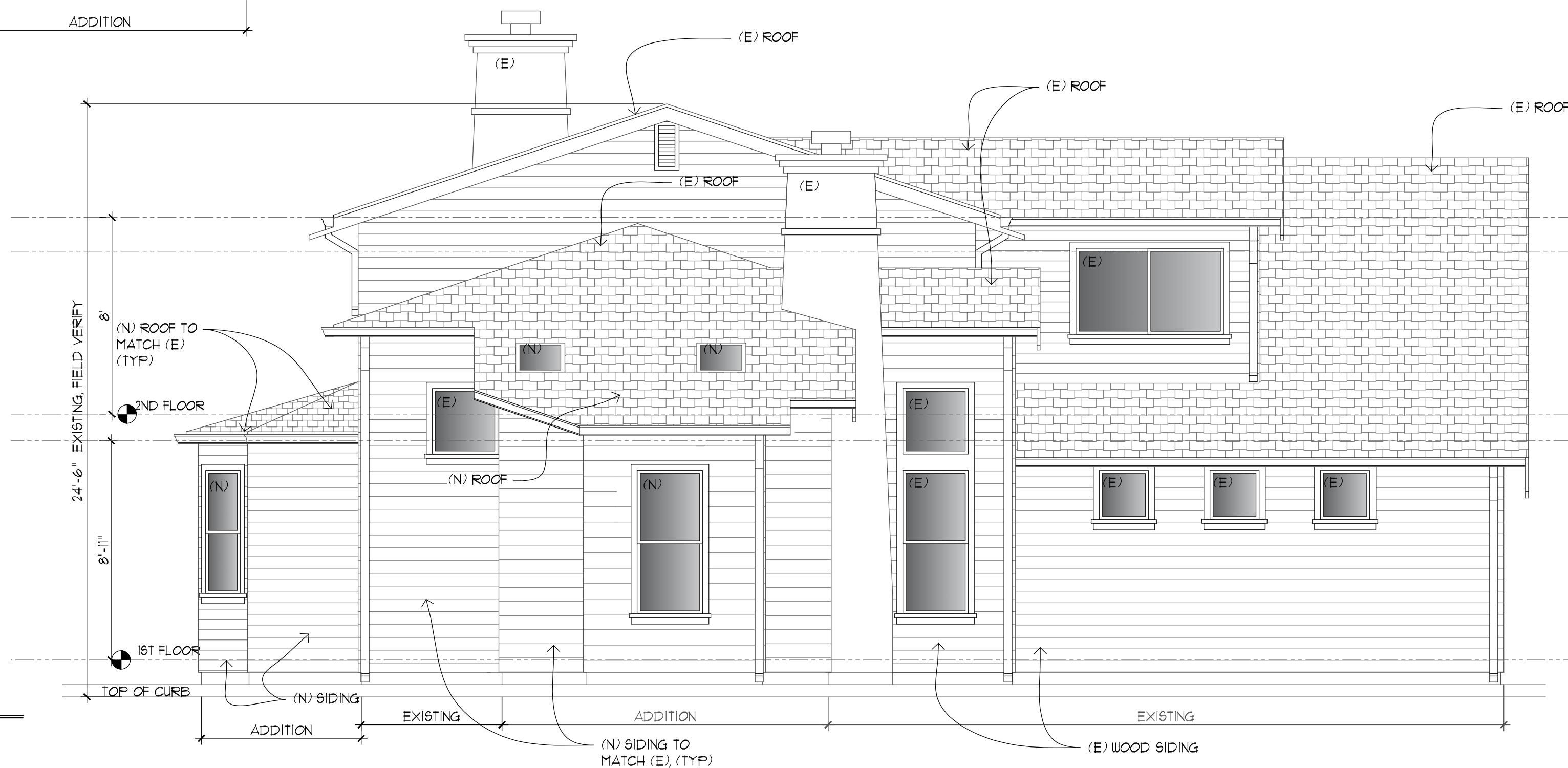
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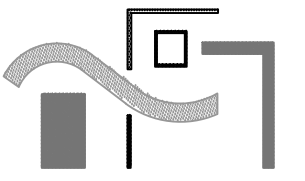


EXTERIOR FINISH NOTES

- SIDING SHALL BE APPLIED OVER A WATER RESISTIVE BARRIER. ONE LAYER OF #15 ASPHALT FELT OR THE EQUIVALENT OF TWO LAYERS GRADE "D" BUILDING PAPER INSTALLED PER CODE REQUIREMENTS (2016 CRC R102.2).
- ROOF SLOPES LESS THAN 4/12 SHALL HAVE TWO LAYERS OF 15 LB. FELT APPLIED SHINGLE STYLE. (2016 CRC R302.2.1).
- ROOFING SHALL BE CLASS "A" ASPHALT COMPOSITION TILES TO MATCH EXISTING.
- ROOF OVERHANG TO MATCH EXISTING.
- METAL GUTTER (ØØ32" THICK ALUMINUM) ON 2X FASCIA.
- INSTALL METAL DOWNSPOUT PER ROOF PLAN.
- FLASH ALL VALLEYS, ROOF WALL INTERSECTIONS, AND PENETRATIONS THROUGH ROOF WITH 26 GA. G.S.M. FLASHING.
- ADDRESS NUMBER ON BUILDING VISIBLE FROM THE STREET FRONTING THE PROPERTY, MINIMUM 4" HIGH (2016 CRC R313.1).
- EXTERIOR FINISH NOTES TABLE: WATER RESISTIVE BARRIERS SHALL BE INSTALLED SUCH THAT THE FIRST COURSE IS UNDER THE FLASHING AND THE TOP COURSE SHALL BE INSTALLED OVER THE FLASHING.
- ATTIC VENTS SHALL HAVE CORROSION-RESISTANT WIRE MESH OR OTHER APPROVED MATERIAL WITH 1/8" IN. MINIMUM AND 1/4" IN. MAXIMUM OPENING (R306.1, R306.2).
- A MINIMUM OF 1 IN. AIRSPACE SHALL BE PROVIDED BETWEEN INSULATION AND ROOF SHEATHING (R306.3).

3 LEFT SIDE ELEVATION
SCALE 1/4" = 1'-0"





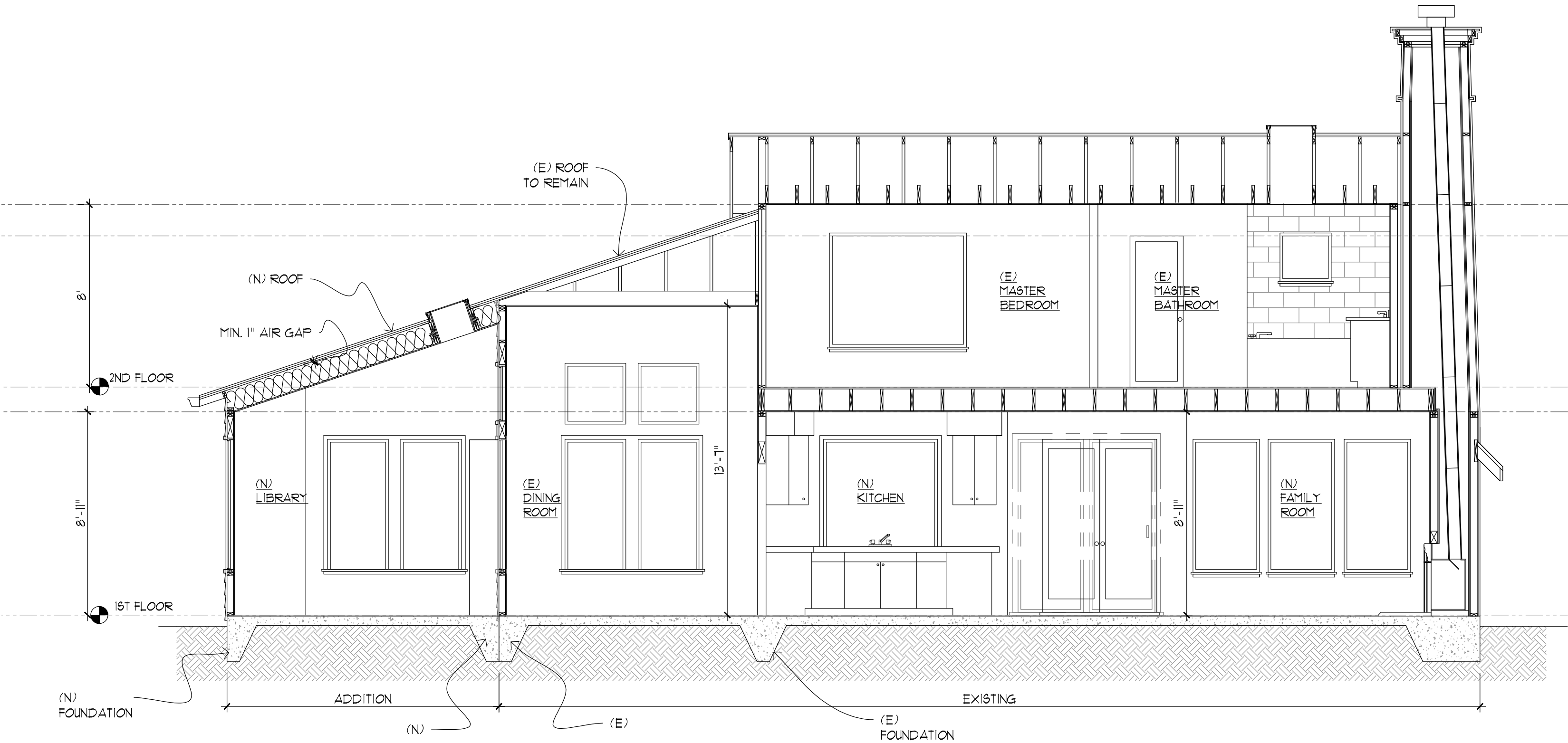
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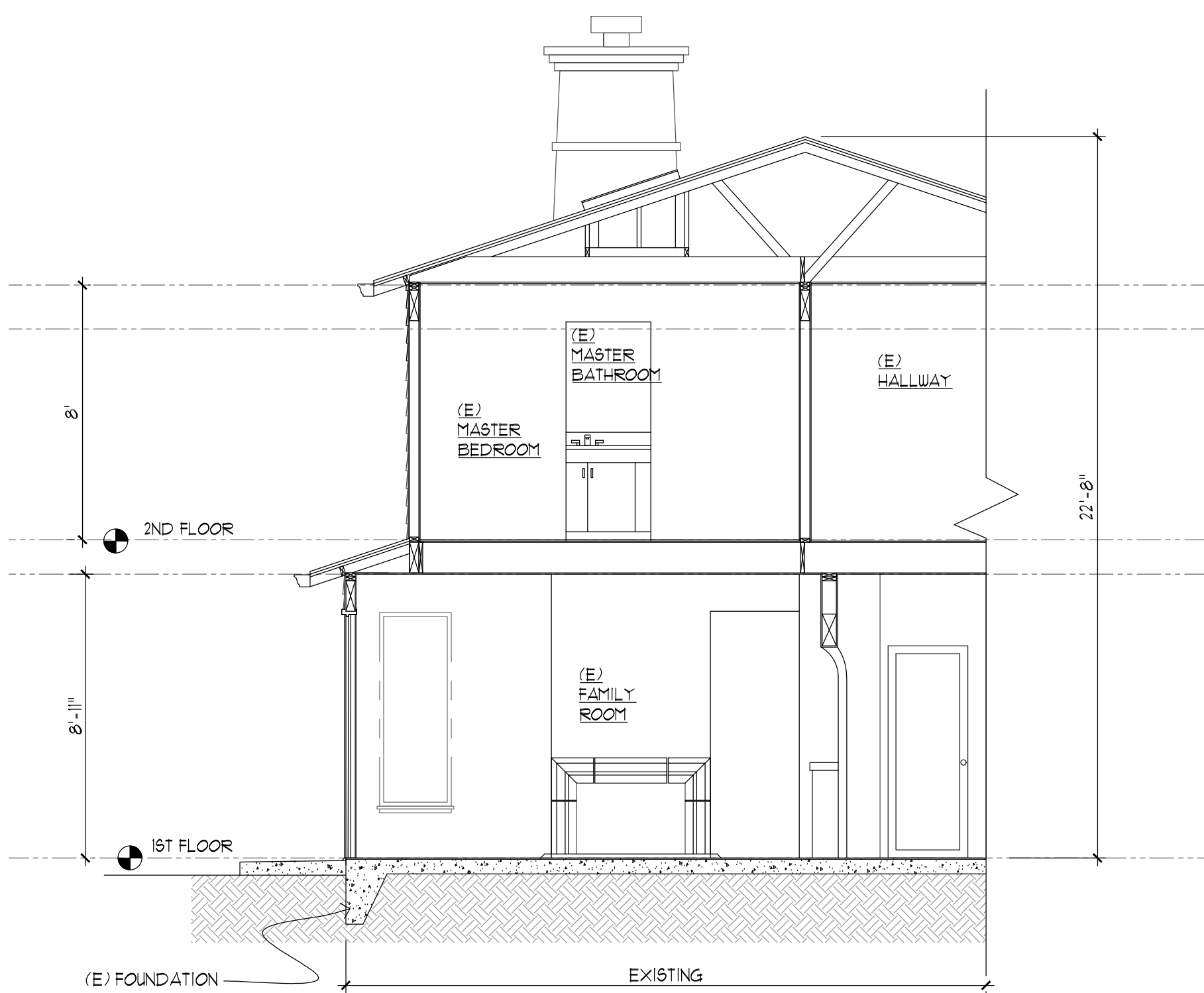
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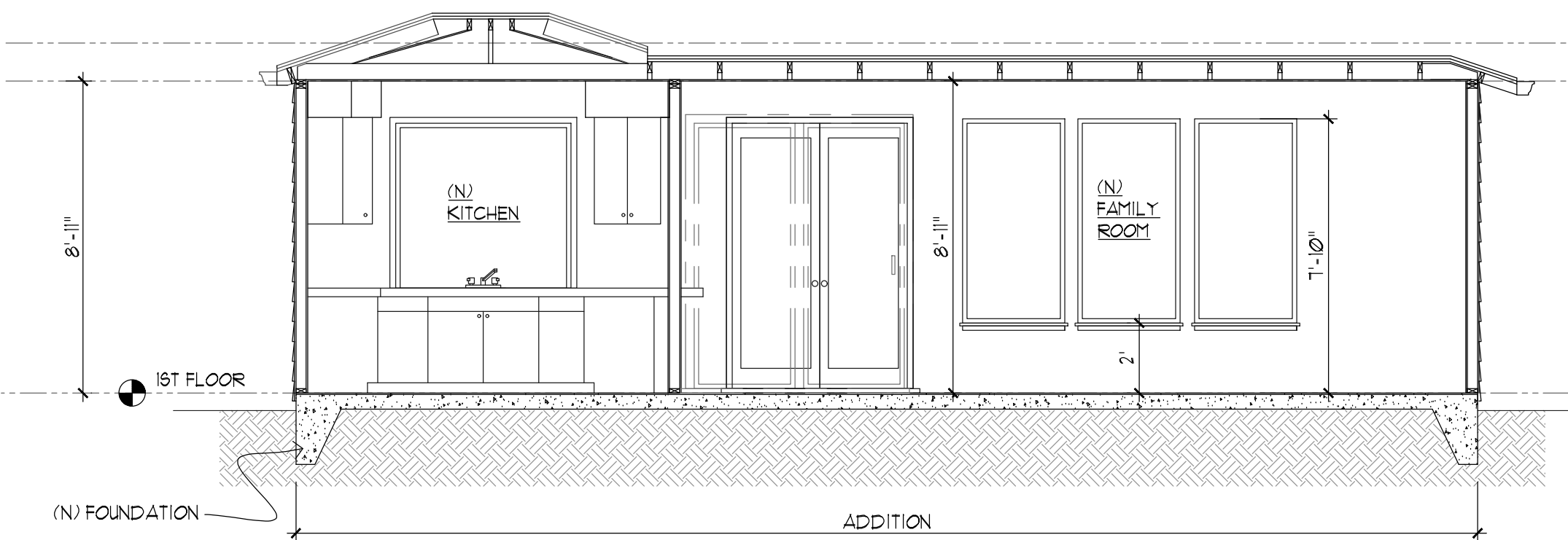
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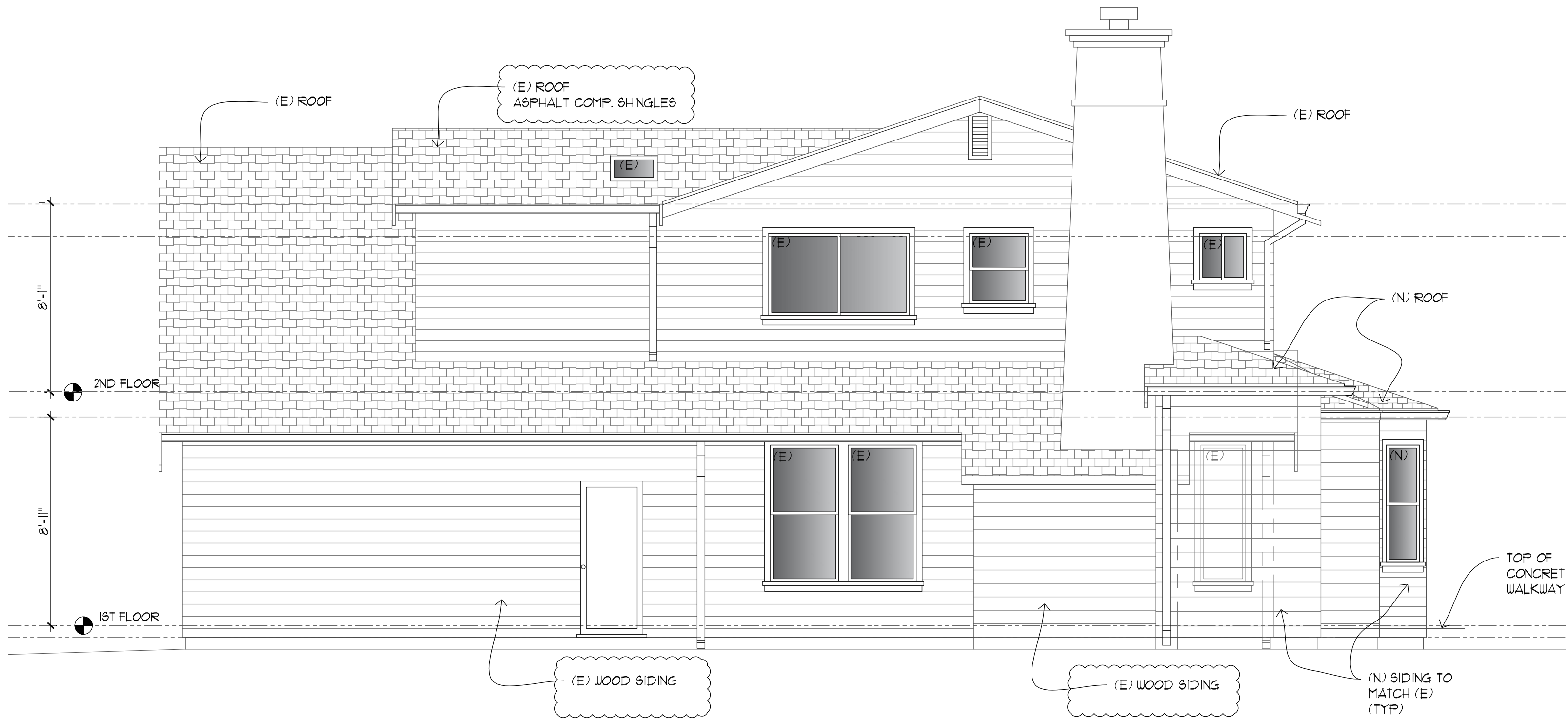
1 SECTION A-A
SCALE 1/4" = 1'-0"



2 SECTION B-B
SCALE 1/4" = 1'-0"



3 SECTION C-C
SCALE 1/4" = 1'-0"



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

ENERGY COMPLIANCE LIGHTING MEASURES

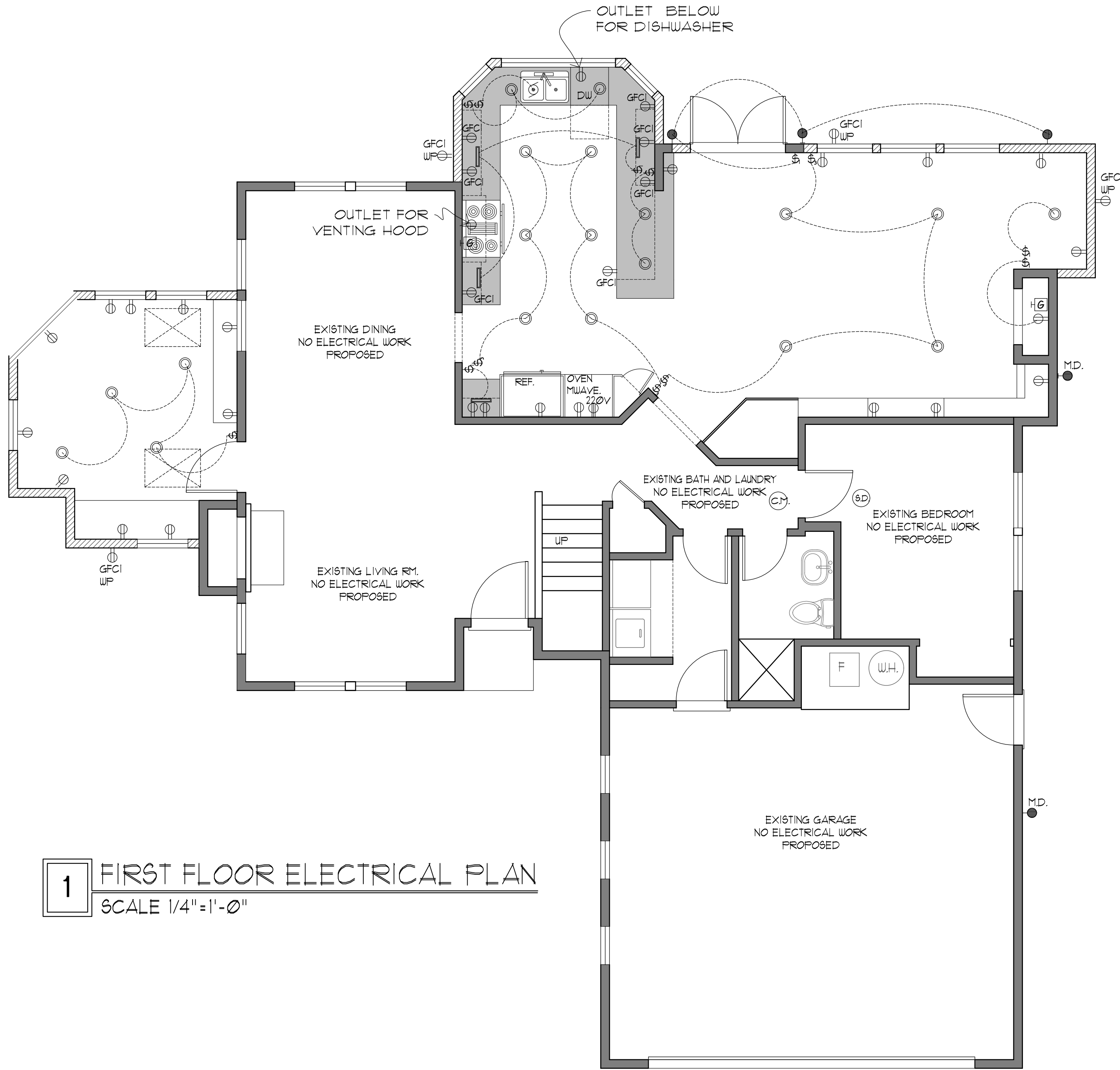
1. PERMANENTLY INSTALLED LUMINARIES IN KITCHENS, BATHROOMS, GARAGES, LAUNDRY ROOMS AND UTILITY ROOMS SHALL BE HIGH EFFICACY (E.G. FLUORESCENT FIXTURES), OR ARE CONTROLLED BY AN OCCUPANT SENSOR THAT REQUIRES A MANUAL ON AND AUTOMATIC OFF. (2013 CA TITLE 24 6.12)
2. PERMANENTLY INSTALLED LUMINARIES IN KITCHENS SHALL BE HIGH EFFICACY, A MINIMUM OF 50% OF THE TOTAL RATED LIGHTING WATTAGE (BASED ON MAXIMUM ALLOWED FOR EACH FIXTURE) SHALL BE FLUORESCENT. FIXTURES THAT ARE NOT HIGH EFFICACY SHALL BE CONTROLLED BY SWITCHES SEPARATE FROM THOSE CONTROLLING THE HIGH EFFICACY LUMINARIES. THE "RESIDENTIAL KITCHEN LIGHTING WORKSHEET" SHALL BE COMPLETED AND PROVIDED TO THE BUILDING INSPECTOR AT THE ROUGH ELECTRICAL INSPECTION.
3. NEW INSTALLED LIGHTING IN BEDROOMS, FAMILY ROOM, LIVING ROOMS, HALLWAYS, DINING ROOMS, ETC. SHALL BE HIGH EFFICIENCY FIXTURES (E.G. FLUORESCENT), OR ALL SWITCHES SHALL BE DIMMER SWITCHES, OR BE CONTROLLED BY AN OCCUPANT SENSOR WITH MANUAL ON AND AUTOMATIC OFF CONTROLS.
4. CEILING MOUNTED RECESSED LIGHTING FIXTURES SHALL BE RATED AS AIR-TIGHT (AT) TO LESS THAN 2.0 CFM AT 15 PASCALS, WHEN INSTALLED INTO INSULATED CEILINGS THEY ARE APPROVED FOR ZERO CLEARANCE INSULATION COVER (IC) AND CERTIFIED TO "ASTM E283".
5. OUTDOOR LIGHTING FIXTURES PERMANENTLY MOUNTED TO A RESIDENTIAL BUILDING OR TO OTHER BUILDINGS ON THE SAME LOT SHALL BE HIGH EFFICACY LUMINARIES (E.G. FLUORESCENT), OR CONTROLLED BY A MOTION SENSOR WITH INTEGRAL PHOTOCONTROL.
6. LIGHTING INTEGRAL TO EXHAUST FANS SHALL MEET THE APPLICABLE REQUIREMENTS OF 9500(K). THE INTEGRAL/COMBO LIGHTING SYSTEM SHALL BE SWITCHED SEPARATELY FROM LIGHTING SYSTEM. LIGHTING INTEGRAL TO AN EXHAUST FAN MUST BE HIGH EFFICACY. (2013 CA TITLE 24 6.3.11)
7. PERMANENTLY INSTALLED NIGHT LIGHTS AND NIGHT LIGHTS INTEGRAL TO AN INSTALLED LUMINAIRE OR EXHAUST FAN SHALL BE RATED TO CONSUME NO MORE THAN 5W OF POWER PER LUMINAIRE OR EXHAUST FAN, AS DETERMINED BY 9500(C). IT IS NOT REQUIRED TO BE CONTROLLED BY VACANCY SENSORS, REGARDLESS OF THE TYPE OF ROOM THEY ARE LOCATED IN. (2013 CA ENERGY TITLE 24 6.3.10)
8. LUMINAIRES RECESSED IN CEILINGS MUST MEET THREE REQUIREMENTS:
 - A. THEY SHALL BE LISTED, AS DEFINED IN 9500.1, FOR ZERO CLEARANCE INSULATION CONTACT (IC) BY UNDERWRITERS LABORATORIES OR OTHER NATIONALLY RECOGNIZED TESTING/RATING LABORATORIES. THIS ENABLES INSULATION TO BE PACKED IN DIRECT CONTACT WITH THE LUMINAIRE.
 - B. THEY SHALL HAVE A LABEL CERTIFYING THAT THE LUMINAIRE HAS AIRTIGHT CONSTRUCTION. AIRTIGHT CONSTRUCTION MEANS THAT LEAKAGE THROUGH THE LUMINAIRE WILL NOT EXCEED 2.0 CFM WHEN EXPOSED TO A 15 PASCALS PRESSURE DIFFERENCE, WHEN TESTED IN ACCORDANCE WITH ASTM E283 (AN EXHAUST FAN HOUSING SHALL NOT BE REQUIRED TO BE CERTIFIED AIRTIGHT).
 - C. THEY SHALL BE SEALED WITH A GASKET OR CAULKING BETWEEN THE LUMINAIRE HOUSING AND CEILING, AND SHALL HAVE ALL AIR LEAK PATHS BETWEEN CONDITIONED AND UNCONDITIONED SPACES SEALED WITH A GASKET OR CAULK, TO PREVENT THE FLOW OF HEATED OR COOLED AIR OUT OF THE LIVING AREAS AND INTO THE CEILING CAVITY. SEE SECTION 6.3.13 OF THIS CHAPTER FOR MORE HELPFUL INFORMATION.

ELECTRICAL NOTES

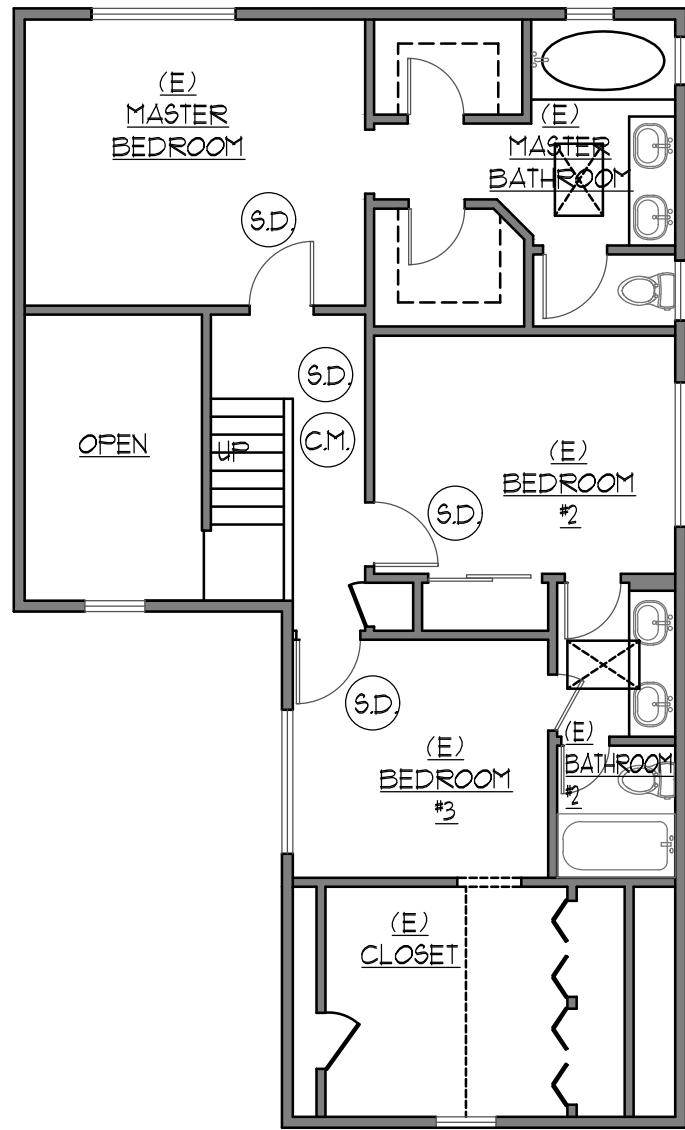
1. EXISTING ELECTRICAL SERVICE TO BE UPGRADED TO 200 AMP.
2. ALL 125-VOLT, 15 AND 20 AMP RECEPTACLE OUTLETS SHALL BE LISTED TAMPER-RESISTANT PER (2013 CEC 406.1) & 406.12.B.)
3. ALL RECEPTACLES AND LIGHTS AND BRANCH CIRCUITS THAT SUPPLY 120-VOLT, SINGLE PHASE, 15 AND 20 AMP OUTLETS INSTALLED IN DWELLING UNIT FAMILY ROOMS, LIVING ROOMS, DINING ROOMS, PARLORS, LIBRARIES, DEN, BEDROOMS, SUNROOMS, CREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS, SHALL BE ARC-FAULT CIRCUIT INTERRUPTER PROTECTED (AFCI). ALL RECEPTACLES AT BATHROOMS, POWDER ROOMS, KITCHEN, LAUNDRY, AND GARAGE SHALL BE GFCI PROTECTED. (CEC 210.12.B.)
4. ALL EXTERIOR RECEPTACLES SHALL BE GFCI, WEATHERPROOF, AND TAMPER RESISTANT.
5. PROVIDE TWO 20 AMP SMALL APPLIANCE BRANCH CIRCUITS IN KITCHEN. PROVIDE SEPARATE CIRCUITS FOR DISHWASHER, GARBAGE DISPOSER, REFRIGERATOR AND MICROWAVE OVEN.
6. ALL KITCHEN COUNTER RECEPTACLES SHALL BE GFCI, PROTECTED AND LOCATED SO THAT NO POINT IS MORE THAN 24" FROM A RECEPTACLE OUTLET. RECEPTACLES SHALL BE LOCATED NO MORE THAN 20" ABOVE THE COUNTER TOP. ISLANDS/PENINSULAS SHALL HAVE AT LEAST ONE RECEPTACLE. (2013 CEC 210.12.)
7. ALL 125 VOLT, 15 AMPERE AND 20 AMPERE RECEPTACLES IN AREAS SPECIFIED IN CEC 210.52 SHALL BE LISTED TAMPER RESISTANT RECEPTACLE.
8. KITCHEN LIGHTING SHALL BE PER ENERGY COMPLIANCE MEASURES ABOVE.
9. RECESSED LIGHTING FIXTURES IN INSULATED CEILINGS SHALL BE APPROVED, LISTED, ZERO-CLEARANCE INSULATION COVER (IC) TYPE, CERTIFIED AIR TIGHT (ASTME283) AND SEALED WITH A GASKET OR CAULKED BETWEEN HOUSING AND CEILING, AND SHALL BE CERTIFIED TO COMPLY WITH SECTION 119(n), AND ALLOW BALLAST MAINTENANCE AND REPLACEMENT TO BE READILY ACCESSIBLE TO BUILDING OCCUPANTS BELOW. (CEC 150(K)(2))
10. ALL RECEPTACLES IN BATHROOMS, GARAGES, ACCESSORY BUILDINGS, OUTDOORS, CRAWL SPACES, UNFINISHED BASEMENTS, KITCHENS (WHERE RECEPTACLES SERVE COUNTER TOP SURFACES, SEE NOTE 10 ABOVE), LAUNDRY, UTILITY, WET BAR SINKS (WITHIN 6' OF THE EDGE OF THE SINK), SHALL HAVE GROUND-FAULT CIRCUIT-INTERRUPTOR (GFCI) PROTECTION. (2013 CEC 210.8)
11. IN ALL BEDROOMS AND LIVING AREAS WHERE CEILING FANS ARE INSTALLED, THE FANS SHALL BE ENERGY STAR RATED. (A4.207.10)

ASHRAE 62.2 NOTES:

1. THE KITCHEN HOOD(S) ARE VENTED TO OUTSIDE AND DELIVER VENTILATION AIRFLOW AT 100 OR MORE CFM. A KITCHEN ¾" FOR PURPOSES OF INDOOR AIR QUALITY REQUIREMENTS% IS ANY ROOM CONTAINING COOKING APPLIANCES. RECIRCULATING RANGE HOODS THAT DO NOT EXHAUST POLLUTANTS TO THE OUTSIDE CANNOT BE USED TO MEET THE REQUIREMENTS OF ASHRAE 62.2.



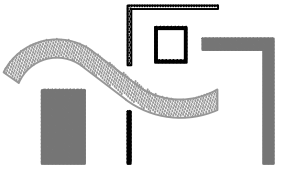
1 FIRST FLOOR ELECTRICAL PLAN
SCALE 1/4" = 1'-0"



2 SECOND FLOOR ELECTRICAL PLAN
SCALE 1/8" = 1'-0"

ELECTRICAL LEGEND

	DOUPLEX OUTLET
	QUADPLEX OUTLET
	220 VOLT OUTLET
	ONE WAY SWITCH
	TWO WAY SWITCH
	UNDER CABINET L.E.D. LIGHT
	CEILING H.E. LIGHT WITH FAN
	CEILING H.E. LIGHT FIXTURE
	WALL MOUNTED H.E. LIGHT FIXTURE
	EXTERIOR WALL MOUNTED H.E. LIGHT
	CEILING MOUNTED LIGHT FIXTURE
	CEILING RECESSED H.E. LIGHT FIXTURE
	TELEPHONE CONNECTION
	TV CONNECTION
	GARBAGE DISPOSAL
	SMOKE DETECTOR
	CARBON MONOXIDE DETECTOR
	GAS CONNECTION
	DATA CONNECTION
	GARAGE DOOR OPENER
	DOOR BELL
	CEILING FAN
	HOSE BIB
	GROUND FAULT CIRCUIT INTERRUPTOR
	HIGH EFFICACY
	DIMMER SWITCH
	MOTION DETECTOR
	WEATHER PROOF
	LOW VOLTAGE



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4.21.2017

A7

CAL GREEN CODE

INDOOR WATER USE

1. PER CGBC SECTION 4.303.1 PROVIDE A PLUMBING FIXTURES AND FITTINGS SCHEDULE TO SHOW A REDUCTION OF OVERALL USE OF PORTABLE WATER WITHIN THE BUILDING BY AT LEAST 20%. THE 20% REDUCTION IN PORTABLE WATER USE SHALL BE DEMONSTRATED BY ONE OF THE 2 METHODS IN CODE SECTION:
- a. EACH FIXTURE AND FITTING SHALL MEET REDUCED FLOW RATES SPECIFIED IN TABLE 4.303.2:
- | | |
|--------------------------------------|-----------------------|
| PREScriptive USE MAXIMUM FLOW RATES: | |
| SHOWERHEADS | 2 GPM AT 80 PSI |
| LAVATORY FAUCET | 1.5 GPM AT 60 PSI |
| KITCHEN AND UTILITY FAUCETS | 1.8 GPM |
| WATER CLOSET | 128 GALLONS PER FLUSH |
- b. A CALCULATION WHICH SHOWS A 20% REDUCTION IN THE BUILDING WATER USE BASELINE AS ESTABLISHED IN TABLE 4.303.1
2. SINGLE SHOWERHEADS OR MULTIPLE SHOWERHEADS SHALL HAVE A MAXIMUM COMBINED FLOW RATE OF ≤ 2.0 GPM AT 80 PSI. (2016 CAL GREEN 4.303.1.4.2)
3. SINGLE FLUSH TOILETS - THE EFFECTIVE FLUSH VOLUME SHALL NOT EXCEED 128 GALLONS (4.8 LITERS). THE EFFECTIVE FLUSH VOLUME IS THE AVERAGE FLUSH VOLUME WHEN TESTED IN ACCORDANCE WITH ASME A112.83.3.2.
4. DUAL FLUSH TOILETS - THE EFFECTIVE FLUSH VOLUME SHALL NOT EXCEED 128 GALLONS (4.8 LITERS). THE EFFECTIVE FLUSH VOLUME IS DEFINED AS THE COMPOSITE, AVERAGE FLUSH VOLUME OF TWO REDUCED FLUSHES AND ONE FULL FLUSH. FLUSH VOLUMES WILL BE TESTED IN ACCORDANCE WITH ASME A112.83.2 AND ASME A112.19.14.
5. LAVATORY FAUCETS HAVE A MAXIMUM FLOW RATE OF 1.5 GPM AT 60 PSI. THEY SHALL NOT HAVE A FLOW RATE ≤ 0.8 GPM AT 20 PSI. (2016 CAL GREEN 4.303.1.4.1)
6. PLUMBING FIXTURES AND FITTINGS REQUIRED IN SECTION 4.303.1 SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA PLUMBING CODE, AND SHALL MEET THE APPLICABLE REFERENCE STANDARDS. 4.303.2
7. PLUMBING FIXTURES (WATER CLOSETS AND URINALS) AND FITTINGS (FAUCETS AND SHOWERHEADS) SHALL COMPLY WITH SPECIFIED PERFORMANCE REQUIREMENTS. 4.303.3

OUTDOOR WATER USE

8. WHEN LANDSCAPING IS PROVIDED, A WATER BUDGET (CALCULATIONS) SHALL BE DEVELOPED FOR LANDSCAPE IRRIGATION USE THAT CONFORMS TO THE LOCAL WATER EFFICIENT LANDSCAPE ORDINANCE OR TO THE CALIFORNIA DEPARTMENT OF WATER RESOURCES MODEL WATER EFFICIENT LANDSCAPE ORDINANCE, WHICHEVER IS MORE STRINGENT. 4.304.1
9. AUTOMATIC IRRIGATION SYSTEMS CONTROLLERS INSTALLED AT THE TIME OF FINAL INSPECTION SHALL BE WEATHER OR SOIL MOISTURE-BASED. 4.304.2
- MATERIAL CONSERVATION AND RESOURCE EFFICIENCY
10. ANNULAR SPACES AROUND PIPES, ELECTRIC CABLES, CONDUITS OR OTHER OPENINGS IN PLATES AT EXTERIOR WALLS SHALL BE PROTECTED AGAINST THE PASSAGE OF RODENTS BY CLOSING SUCH OPENINGS WITH CEMENT MORTAR, CONCRETE MASONRY OR SIMILAR METHOD ACCEPTABLE TO THE ENFORCING AGENCY (2016 CGBC 4.406.1).
11. VAPOR RETARDER AND CAPILLARY BREAK IS INSTALLED AT SLAB ON GRADE FOUNDATIONS (2016 CGBC 4.505.2 AND RS0623). THE USE OF A 4" THICK BASE OF ½" OR LARGER CLEAN AGGREGATE UNDER A 6 MIL VAPOR RETARDER WITH JOINT LAPPED NOT LESS THAN 6" WILL BE PROVIDED
12. MOISTURE CONTENT OF BUILDING MATERIALS THAT EXCEED 19% SHALL NOT BE ENCLOSED. MOISTURE CONTENT CAN BE DETERMINED WITH A PROBE-TYPE OR CONTACT-TYPE MOISTURE METER (2016 CGBC 4.505.3).
13. RECYCLE AND/OR SALVAGE FOR REUSE A MINIMUM OF 50 PERCENT OF THE NONHAZARDOUS CONSTRUCTION AND DEMOLITION WASTE IN ACCORDANCE WITH ONE OF THE FOLLOWING:
- a. COMPLY WITH A MORE STRINGENT LOCAL CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT ORDINANCE, OR
- b. A CONSTRUCTION WASTE MANAGEMENT PLAN PER SECTION 4.408.2, OR
- c. A WASTE MANAGEMENT COMPANY PER SECTION 4.408.3, OR
- d. THE WASTE STREAM REDUCTION ALTERNATIVE PER SECTION 4.408.4.
14. AN OPERATION AND MAINTENANCE MANUAL INCLUDING, AT A MINIMUM, THE ITEMS LISTED IN SECTION 4.410.1, SHALL BE COMPLETED AND PLACED IN THE BUILDING AT THE TIME OF FINAL INSPECTION. (2013 CGBC 4.410.1)

ENVIRONMENTAL QUALITY, CGBC&C DIV. 4.5

15. ANY INSTALLED GAS FIREPLACE SHALL BE DIRECT VENT SEALED COMBUSTION TYPE. ANY INSTALLED WOOD STOVE OR PELLET STOVE SHALL COMPLY WITH US EPA PHASE 2 EMISSION LIMITS WHERE APPLICABLE.
16. WOOD STOVES, PELLET STOVES, FIREPLACES SHALL ALSO COMPLY WITH APPLICABLE LOCAL ORDINANCES.
17. DUCT OPENINGS AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED DURING CONSTRUCTION.

POLLUTANT CONTROL (FINISHES)

18. ARCHITECTURAL PAINTS, STAINS AND COATINGS, ADHESIVES, CAULKS AND SEALANTS SHALL COMPLY WITH THE VOLATILE ORGANIC COMPOUND (VOC) LIMITS LISTED IN TABLES 4.504.1 AND 4.504.3, CAL GREEN CODE. (2016 CGBC 4.504.2.1, 4.504.2.2, 4.504.2.3) (LESS THAN 50 GRAMS PER LITER (GPL) VOCs REGARDLESS OF SHEEN)
19. THE VOC CONTENT VERIFICATION CHECKLIST SHALL BE COMPLETED AND VERIFIED PRIOR TO FINAL INSPECTION APPROVAL. THE MANUFACTURER'S SPECIFICATIONS SHOWING VOC CONTENT FOR ALL APPLICABLE PRODUCTS SHALL BE READILY AVAILABLE AT THE JOB SITE AND BE PROVIDED TO THE FIELD INSPECTOR FOR VERIFICATION. (2016 CGBC 4.504.2.4)
20. AEROSOL PAINTS AND COATINGS SHALL BE COMPLIANT WITH PRODUCT-WEIGHTED MIR LIMITS FOR ROC AND OTHER TOXIC COMPONENTS AS SPECIFIED BY SCAGMD RULE 113. (2016 CGBC 4.504.2.3)
21. CARPET AND CARPET SYSTEMS SHALL BE COMPLIANT WITH TESTING AND PRODUCT REQUIREMENTS INCLUDED IN CGBC&C 4.504.3.
22. ALL CARPET ADHESIVE SHALL MEET THE REQUIREMENTS OF TABLE 4.504.1
23. WHERE RESILIENT FLOORING IS INSTALLED, AT LEAST 80% OF THE FLOOR AREA RECEIVING RESILIENT FLOORING SHALL COMPLY WITH ONE OR MORE OF THE CRITERIA INCLUDED IN 2013 CGBC&C 4.504.3.2.
24. HARDWOOD, PLYWOOD, PARTICLEBOARD AND MEDIUM DENSITY FIBERBOARD COMPOSITE WOOD PRODUCTS USED ON THE INTERIOR OF THE BUILDING SHALL MEET THE REQUIREMENTS FOR FORMALDEHYDE AS SPECIFIED ON AEROSOL AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD (11 COR 93210 ET SEQ.) BY OR BEFORE THE DATES SPECIFIED IN THOSE SECTIONS, AS SHOWN IN TABLE 4.504.3 (2016 CGBC 4.504.5).

INDOOR AIR QUALITY AND EXHAUST

25. EXHAUST FANS THAT ARE ENERGY STAR COMPLIANT AND DUCTED TO TERMINATE OUTSIDE THE BUILDING, SHALL BE PROVIDED IN EVERY BATHROOM PER 2016 CAL GREEN SECTION 4.506.1

ENVIRONMENTAL COMFORT

26. DUCT SYSTEMS ARE SIZED, DESIGNED AND EQUIPMENT IS SELECTED USING THE FOLLOWING METHODS (2016 CALGREEN 4.507.2.):
- a. ESTABLISH HEAT LOSS AND HEAT GAIN VALUES ACCORDING TO ANSI/ACCA 2 MANUAL J-2004 OR EQUIVALENT.
- b. SIZE DUCT SYSTEMS ACCORDING TO ANSI/ACCA 1 MANUAL D-2009 OR EQUIVALENT.
- c. SELECT HEATING AND COOLING EQUIPMENT ACCORDING TO ANSI/ACCA 3 MANUAL S-2004 OR EQUIVALENT.
26. HVAC SYSTEM INSTALLERS ARE TRAINED AND CERTIFIED IN THE PROPER INSTALLATION OF HVAC SYSTEMS (2013 CALGREEN 102.1)
26. SPECIAL INSPECTORS EMPLOYED BY THE ENFORCING AGENCY MUST BE QUALIFIED AND ABLE TO DEMONSTRATE COMPETENCE IN THE DISCIPLINE THEY ARE INSPECTING. (2016 CALGREEN 102.2)
21. VERIFICATION OF COMPLIANCE WITH THIS CODE MAY INCLUDE CONSTRUCTION DOCUMENTS, PLANS, SPECIFICATIONS, BUILDER OR INSTALLER CERTIFICATION, INSPECTION REPORTS, OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY WHICH SHOW SUBSTANTIAL CONFORMANCE. (2016 CALGREEN 103.1)

PLUMBING AND MECHANICAL NOTES

1. EXISTING WATER HEATER TO REMAIN.
2. WHERE APPLICABLE, VERIFY OR PROVIDE AN 18" HIGH PLATFORM, INSULATION AND SEISMIC BRACING FOR THE WATER HEATER. INCLUDE COMBUSTION GAS CONNECTION, BRACING SHALL INCLUDE ANCHORS OR STRAPS AT POINTS WITHIN THE UPPER AND LOWER ONE-THIRD OF ITS VERTICAL DIMENSION, THE LOWER STRIP LOCATED TO MAINTAIN A MIN. 4" ABOVE THE CONTROLS.
3. PROVIDE AND INSTALL METAL PAN UNDER DISHWASHER.
4. PROVIDE AND INSTALL NON REMOVABLE TYPE BACKFLOW PREVENTION DEVICES AT ALL HOSE BIBS.
5. FIREPLACE SHALL BE A DIRECT VENT SEALED COMBUSTION TYPE. ANY INSTALLED WOODSTOVE OR PELLET STOVE SHALL COMPLY WITH US EPA PHASE II EMISSION LIMITS WHERE APPLICABLE. (2016 CGBC 4.503.1).
6. FIREPLACE SHALL BE INSTALLED IN ACCORDANCE WITH ITS LISTING AND MANUFACTURER'S INSTRUCTIONS.
7. THE MODEL OF THE GAS BURNING FIRE PLACE IS UNKNOWN YET, THE ICBO NUMBER SHALL BE PROVIDED UPON INSTALLATION, THE SPECIFIC UNIT SHALL BE SELECTED ACCORDING TO NOTE #14 AND #5 ABOVE.
8. INSTALL ENERGY STAR TYPE APPLIANCES AT KITCHEN.
9. RANGE HOOD: AT THE KITCHEN INSTALL A RANGE HOOD WITH LIGHT, VENTED DIRECTLY TO THE OUTSIDE.
10. ALL PIPE, PIPE FITTINGS, TRAPS, FIXTURE, MATERIALS, AND DEVICES USED IN A PLUMBING SYSTEM SHALL BE LISTED OR LABELED (THIRD-PARTY CERTIFIED BY A LISTING AGENCY (ACCREDITED CONFORMITY ASSESSMENT BODY) AND SHALL COMPLY WITH THE APPROVED APPLICABLE RECOGNIZED STANDARDS REFERENCED IN THIS CODE, AND SHALL BE FREE FROM DEFECTS. SEE MORE IN (2016 CGBC PLUMBING SECTION 301.11)

INTERIOR MATERIALS AND FINISH NOTES

1. TYPICAL TILE INSTALLATION SHALL BE: ONE LAYER WATER RESISTANT DRYWALL, 2 LAYERS OF ½ CRAFT PAPER, CERAMIC TILE PER OWNERS' SELECTION, SET IN MORTAR, IN COMPLIANCE WITH CRC R107.4.2.
- 2.
3. INSIDE WALL TEXTURE SHALL MATCH EXISTING.
4. INSTALL NEW WOOD BASEBOARDS, PAINTED, STYLE PER OWNER'S SELECTION.
5. INTERIOR TRIM SHALL BE 3", PROFILE PER OWNERS' SELECTION.
6. AT WINDOWS INSTALL 1 1/8" PAINTED WOOD STOODS AND 3 1/5" PAINTED WOOD AFRONS, COLOR TO MATCH WALL COLOR.
7. FLOOR FINISH AT LIVING ROOM, DINING ROOM, FAMILY ROOM, LIBRARY, AND KITCHEN, COORDINATE WOOD SPECIES AND STAIN COLOR WITH OWNER.
8. COUNTERTOP AT KITCHEN SHALL BE GRANITE WITH 18" BACKSPLASH, AND DECORATIVE ACCENT, PER OWNERS' SELECTION.
9. PROVIDE AND INSTALL ORGANIZER SHELVES AT THE PANTRY PER OWNERS' SELECTION.
10. PROVIDE BUILT IN BOOKCASE AT THE LIBRARY.

WINDOW AND DOOR NOTES

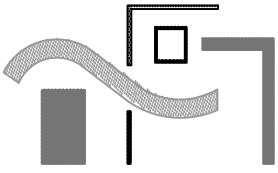
1. MAIN ENTRY DOOR SHALL HAVE AN APPROVED TYPE DOOR VIEWER WITH A MINIMUM FIELD VISION OF 180 DEGREES.
2. INSTALL LOCKSET AND DEADBOLT WITH HARDENED INSERT, 1" THROW AND 5/8" EMBEDMENT, TYPICAL AT ALL EXTERIOR SWING DOORS.
3. ALL EXTERIOR SWING DOORS TO BE 1 ¾" THICK.
4. ALL EXTERIOR DOORS AND WINDOWS SHALL BE WEATHER-STRIPPED. (CGBC 4.4407.6.) USE DOOR JAM KIT ON PATIO DOORS.
5. ALL NEW OR REPLACED WINDOWS SHALL BE CERTIFIED AND LABELED FOR COMPLIANCE TO ENERGY CONSERVATION REGULATIONS.
6. ALL NEW OR REPLACED WINDOWS AND SKYLIGHTS SHALL BE DOUBLE GLAZED, AND SHALL HAVE A MAX Ø58 U-FACTOR AND A MAX. Ø40 SOLAR HEAT GAIN COEFFICIENT. (CA TITLE 24 SECTION 152, 2016 CEC 3.5.3).
7. SKYLIGHTS SHALL HAVE TINTED GLASS, REFER TO "VELUX" CATALOG. SIZE SHALL BE AS SHOWN ON ROOF PLAN OR WINDOW SCHEDULE. (CBO NUMBER IS 216.
8. UNIT SKYLIGHTS AND TUBULAR DAYLIGHTING DEVICES SHALL BE TESTED BY AN APPROVED INDEPENDENT LABORATORY, AND BEAR A LABEL IDENTIFYING MANUFACTURER, PERFORMANCE GRADE RATING AND APPROVED INSPECTION AGENCY TO INDICATE COMPLIANCE WITH THE REQUIREMENTS OF "AAMA/WDI/NCMA 101/152/4440" (2016 CRC 308.6.9).
9. GLAZING IDENTIFICATION: THE NFRC LABEL WHICH STATES THE REQUIRED U-VALUE AND SGHC FOR ALL FENESTRATION PRODUCTS SHALL NOT BE REMOVED PRIOR TO INSPECTION OR REMOVAL BY A BUILDING INSPECTOR, AND SHALL REFLECT THE VALUES LISTED IN THE ENERGY REPORT. (2013 CRC R308.1)

PLAN NOTES

1. ALL DIMENSIONS ARE TO THE FACE OF FINISHED WALL, UNLESS NOTED OTHERWISE. DO NOT SCALE PLANS, USE NOTED DIMENSIONS, PLEASE CONTACT DESIGNER FOR ANY DISCREPANCIES.
2. MEANS OF EGRESS: EACH BEDROOM OR SLEEPING ROOMS (BELOW 4TH STORY) SHALL HAVE ONE WINDOW THAT MEETS EGRESS REQUIREMENTS: MIN. 20" NET CLEAR WIDTH, MIN. 24" NET CLEAR HEIGHT WHEN OPEN, MIN. 5.7 SQFT. NET CLEAR OPENING (5.0 SQFT. FOR GRADE LEVEL ROOMS), AND MAX. HEIGHT OF 44" FROM THE FINISHED FLOOR TO THE BOTTOM OF THE CLEAR OPENING. (2016 CBC 1029.2).
3. TEMPERED GLAZING: SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS (2016 CBC 2406.3 AND 2016 CRC R308.4.):
- WITHIN A 24 INCH ARC OF EITHER THE EDGE OF A DOOR, AND WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60" ABOVE THE WALKING SURFACE
 - GLAZING IN ALL FIXED AND OPERABLE PANELS OF SWINGING, SLIDING AND BIFOLD DOOR
 - GLAZING IN ENCLOSURES FOR OR WALLS FACING A TUB OR SHOWER WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS ≤ 60" ABOVE THE WALKING SURFACE.
 - ANY GLAZING IN WINDOWS MEETING ALL THE FOLLOWING CONDITIONS:
- EXPOSED AREA OF AN INDIVIDUAL PANE IS GREATER THAN 9 SQFT.
 - BOTTOM EDGE OF THE GLAZING IS LESS 18" ABOVE THE FINISHED FLOOR
 - TOP EDGE OF GLAZING IS GREATER THAN 36" ABOVE THE FINISHED FLOOR
 - WITHIN 36" HORIZONTALLY AND IN A STRAIGHT LINE OF A WALKING SURFACE
 - GLAZING IN WALLS AND FENCES ADJACENT TO SWIMMING POOLS, HOT TUBS AND SPAS WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60" ABOVE THE WALKING SURFACE.
4. PROVIDE SMOKE ALARMS IN THE FOLLOWING LOCATIONS (2016 CBC 907.2.8.2 AND 2016 CRC R314.):
- IN EACH SLEEPING ROOM.
 - OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
 - ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS BUT NOT INCLUDING CRAWL SPACES AND UNINHABITABLE ATTICS, IN DWELLINGS OR DWELLING UNITS WITH SPLIT LEVELS AND WITHOUT AN INTERVENING DOOR BETWEEN THE ADJACENT LEVELS, A SMOKE ALARM INSTALLED ON THE UPPER LEVEL SHALL SUFFICE FOR THE ADJACENT LOWER LEVEL PROVIDED THAT THE LOWER LEVEL IS LESS THAN ONE FULL STORY BELOW THE UPPER LEVEL.
5. PROVIDE CARBON MONOXIDE ALARMS OUTSIDE EACH SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
- 5a. DUAL SENSOR PHOTOELECTRIC MULTIPLE-PURPOSE ALARMS, CARBON MONOXIDE ALARMS COMBINED WITH SMOKE ALARMS SHALL COMPLY WITH SECTION R315, ALL APPLICABLE STANDARDS, AND REQUIREMENTS FOR LISTING AND APPROVAL BY THE OFFICE OF THE STATE FIRE MARSHAL, FOR SMOKE ALARMS.
- 5b. DUAL SENSOR (PHOTO/ION) ALARMS SHALL BE USED IF LOCATED 20 FEET OR MORE FROM A KITCHEN, FIREPLACE, OR WOOD-BURNING STOVE.
6. ATTIC ACCESS: FOR ATTIC WITH AN AREA BIGGER THAN 30 SQFT AND VERTICAL HEIGHT LARGER THAN 30 INCHES, PROVIDE MIN. 22" X 30" ATTIC ACCESS, LOCATION PER PLAN. ATTIC ACCESS LADDER: A FULL-DOWN CEILING PANEL WITH FOLDING STAIRWAY SHALL BE PROVIDED FOR ATTIC ACCESS WHERE SHOWN ON THE PLAN. UNIT SHALL BE SELF CONTAINED WITH ITS OWN FRAME AND REQUIRE NO HEADROOM OR ATTIC CLEARANCE. MINIMUM WIDTH OF ACCESS OPENING TO BE 22" AND MINIMUM LENGTH OF OPENING TO BE 30". MINIMUM LOAD CAPACITY OF LADDER TO BE 300#. (2016 CRC R807.1)
7. MEANS OF EGRESS: PROVIDE DWELLING WITH A MEANS OF EGRESS. THE MEANS OF EGRESS SHALL PROVIDE A CONTINUOUS AND UNOBSTRUCTED PATH OF VERTICAL

AND HORIZONTAL EGRESS TRAVEL FROM ALL PORTIONS OF THE DWELLING TO THE EXTERIOR OF THE DWELLING AT THE REQUIRED EGRESS DOOR WITHOUT REQUIRING TRAVEL THROUGH A GARAGE.

8. MEANS OF EGRESS: PROVIDE AT LEAST ONE EGRESS DOOR. THE EGRESS DOOR SHALL BE SIDE-HINGED, AND SHALL PROVIDE A MINIMUM CLEAR WIDTH OF 32 INCHES WHEN MEASURED BETWEEN THE FACE OF THE DOOR AND THE STOP, WITH THE DOOR OPEN 90 DEGREES, THE MINIMUM CLEAR HEIGHT OF THE DOOR IS 78 INCHES MEASURED FROM THE TOP OF THE THRESHOLD TO THE BOTTOM OF THE STOP. OTHER DOORS SHALL NOT BE REQUIRED TO COMPLY WITH THESE MINIMUM DIMENSIONS. EGRESS DOORS SHALL BE READILY OPENABLE FROM INSIDE THE DWELLING WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.
9. LANDING: THERE SHALL BE A LANDING OR FLOOR ON EACH SIDE OF EACH EXTERIOR DOOR. THE WIDTH OF EACH LANDING SHALL NOT BE LESS THAN THE DOOR SERVED. EVERY LANDING SHALL HAVE A MINIMUM DIMENSION OF 36 INCHES MEASURED IN THE DIRECTION OF TRAVEL. EXTERIOR LANDINGS SHALL BE PERMITTED TO HAVE A SLOPE NOT TO EXCEED ¼ UNIT VERTICAL IN 12 UNITS HORIZONTAL (2 PERCENT). (2016 CRC R311.3.1)
10. LANDINGS OR FLOORS AT THE REQUIRED EGRESS DOOR SHALL NOT BE MORE THAN 1 ½ INCHES LOWER THAN THE TOP OF THE THRESHOLD. EXCEPTION: THE EXTERIOR LANDING OR FLOOR SHALL NOT BE MORE THAN 1 ¾ INCHES BELOW THE TOP OF THE THRESHOLD PROVIDED THAT THE DOOR DOES NOT SWING OVER THE LANDING OR FLOOR. 2016 CRC R311.3.1)
11. WHEN LANDINGS OR FLOORS SERVING THE REQUIRED EGRESS DOOR ARE NOT AT GRADE, THEY SHALL BE PROVIDED WITH ACCESS TO GRADE BY MEANS OF A RAMP OR A STAIRWAY.
12. DOORS OTHER THAN THE REQUIRED EGRESS DOOR SHALL BE PROVIDED WITH LANDINGS OR FLOORS NOT MORE THAN 1 ¾ INCHES BELOW THE TOP OF THE THRESHOLD. EXCEPTION: A LANDING IS NOT REQUIRED WHERE A STAIRWAY OF TWO OR FEWER RISERS IS LOCATED ON THE EXTERIOR SIDE OF THE DOOR, PROVIDED THE DOOR DOES NOT SWING OVER THE STAIRWAY. 2016 CRC R311.3.2)
13. EXCEPTION: A LANDING IS NOT REQUIRED WHERE A STAIRWAY OF TWO OR FEWER RISERS IS LOCATED ON THE EXTERIOR SIDE OF THE DOOR, PROVIDED THE DOOR DOES NOT SWING OVER THE STAIRWAY.
14. TYPICAL THERMAL INSULATION SHALL BE:
15. R-38/R19 FOR THE ATTIC/ROOF
16. R-13 FOR THE EXTERIOR WALLS
17. R-42 FOR HEATING AND COOLING DUCTS
18. INSULATION SHALL CONFORM TO FLAME-SPREAD RATING AND SMOKE DENSITY REQUIREMENTS OF 2013 CALIFORNIA RESIDENTIAL CODE 302.101 TO 302.10.5 (2016 CRC 302.10)
19. AFTER INSTALLING INSULATION, THE INSTALLER SHALL POST AN "INSULATION CERTIFICATE", SIGNED BY THE INSTALLER AND THE BUILDER, IN A CONSPICUOUS LOCATION IN THE BUILDING, STATING THAT THE INSTALLATION CONFORMS WITH THE REQUIREMENTS OF TITLE 24, PART 2, CHAPTER 2-53 OF THE THE CALIFORNIA ADMINISTRATIVE CODE.
20. PER CALIFORNIA CIVIL CODE ARTICLE 1101.4 AND CAL-GREEN SECTION 301.1, FOR ALL BUILDING ALTERATIONS OR IMPROVEMENTS TO A SINGLE FAMILY RESIDENTIAL PROPERTY, EXISTING PLUMBING FIXTURES IN THE ENTIRE HOUSE THAT DO NOT MEET COMPLIANT FLOW RATES WILL NEED TO BE UPGRADED.



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4.21.2017

A8



CALGREEN MANDATORY CHECKLIST RESIDENTIAL PROJECTS

THESE REQUIREMENTS APPLY TO BUILDING PERMITS SUBMITTED ON OR AFTER JANUARY 1, 2017

Following is a standardized checklist of the 2016 California Green Building Standards Code (CalGreen) requirements that may be used to demonstrate compliance with the CalGreen Mandatory Measures (chapter 4). This checklist is required for all new buildings and additions/alterations that increase the building's conditioned area. The requirements shall apply only to and/or within the specific area of the addition or alteration.

CALGreen Reference	Description	Designer's Comments with Plan Sheet Reference	City Use Only Field Insp. Verification
4.1 Planning and Design	4.106.2 Storm water drainage and retention during construction. A plan is developed and implemented to manage storm water drainage during construction.		Initials: _____ Date: _____
4.1 Planning and Design	4.106.3 Grading and paving. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows keep water from entering buildings.	Sheet: A1	Initials: _____ Date: _____
4.1 Planning and Design	4.106.4 EV Charging. Provide capability for electric vehicle charging in one- and two-family dwellings and in townhouses with attached private garages; and 12.5% of total parking spaces, as specified, for multi-family dwellings.	Sheet: A1	Initials: _____ Date: _____
4.2 Energy Efficiency	4.201.1 Scope Building meets or exceeds the requirements of the California Building Energy Efficiency Standards	Sheet: A7	Initials: _____ Date: _____
		Sheet: T24	

4.3 Water Efficiency and Conservation	4.303.1 Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) installed in residential buildings shall comply with the prescriptive requirements of Sections 4303.1.1 through 4303.1.4.4. 4.303.1.1 Water closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-type Toilets. Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush. 4.303.1.2 Urinals. The effective flush volume of wall mounted urinals shall not exceed 0.125 gallons per flush. The effective flush volume of all other urinals shall not exceed 0.5 gallons per flush. 4.303.1.3 Showerheads. 4.303.1.3.1 Single showerhead. Showerheads shall have a maximum flow rate of not more than 2.0 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads. 4.303.1.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 2.0 gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time. Note: A hand-held shower shall be considered a Showerhead. 4.303.1.4 Faucets. 4.303.1.4.1 Residential lavatory faucets. The maximum flow rate of residential lavatory faucets shall not exceed 1.2 gallons per minute at 60 psi. The minimum flow rate of residential lavatory faucets shall not be less than 0.8 gallons per minute at 20 psi. 4.303.1.4.2 Lavatory faucets in common and public use areas. The maximum flow rate of lavatory faucets installed in common and public use areas (outside of dwellings or sleeping units) in residential buildings shall not exceed 0.5 gallons per minute at 60 psi. 4.303.1.4.3 Metering faucets. Metering faucets when installed in residential buildings shall not deliver more than 0.25 gallons per cycle. 4.303.1.4.4 Kitchen faucets. The maximum flow rate of kitchen faucets shall not exceed 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi. Note: Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.		Initials: _____ Date: _____
	4.303.2 Standards for plumbing fixtures and fittings. Plumbing fixtures and fittings required in Section 4.303.1 shall be installed in accordance with the California Plumbing Code, and shall meet the applicable referenced standards.	Sheet: A8	Initials: _____ Date: _____
4.3 Water Efficiency and Conservation		Sheet: A8	

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4.3 Water Efficiency and Conservation	4.304.1 Outdoor potable water use in landscape areas. After December 1, 2015, new residential developments with an aggregate landscape area equal to or greater than 500 square feet shall comply with one of the following options: 1. A local water efficient landscape ordinance or the current California Department of Water Resources Model Water Efficient Landscape Ordinance (MWEL0), whichever is more stringent; or 2. Projects with aggregate landscape areas less than 2,500 square feet may comply with the MWEL0's Appendix D Prescriptive Compliance Option. Notes: 1. The Model Water Efficient Landscape Ordinance (MWEL0) and supporting documents are available at: www.water.ca.gov/wateruseefficiency/landscapeordnance/ 2. A water budget calculator is available at: www.water.ca.gov/wateruseefficiency/landscapeordnance/ Sheet: N/A	Initials: _____ Date: _____
4.4 Material Conservation and Resource Efficiency	4.406.1 Rodent proofing. Annular spaces around pipes, electric cables, conduits or other openings in sole/bottom plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or a similar method acceptable to the enforcing agency.	Initials: _____ Date: _____
4.4 Material Conservation and Resource Efficiency	4.408.1 Construction waste management. Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance with one of the following: 1. Comply with a more stringent local construction and demolition waste management ordinance; or 2. A construction waste management plan, per Section 4.408.2; or 3. A waste management company, per Section 4.408.3; or 4.The waste stream reduction alternative, per Section 4.408.4.	Initials: _____ Date: _____
4.4 Material Conservation and Resource Efficiency	4.410.1 Operation and maintenance manual. An operation and maintenance manual shall be provided to the building occupant or owner.	Initials: _____ Date: _____
4.4 Material Conservation and Resource Efficiency	4.410.2 Recycling by Occupants. Where 5 or more multifamily dwelling units are constructed on a building site, provide readily accessible area(s) that serves all buildings on the site and is identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals, or meet a lawfully enacted local recycling ordinance, if more restrictive.	Initials: _____ Date: _____
4.5 Environmental Quality	4.503.1 Fireplace. Any installed gas fireplace shall be a direct vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits. Woodstoves, pellet stoves and fireplaces shall also comply with applicable local ordinances.	Initials: _____ Date: _____
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4.5 Environmental Quality	4.504.1 Covering of duct openings and protection of mechanical equipment during construction. Duct openings and other related air distribution component openings shall be covered during construction. 4.504.2 Finish material pollutant control. 4.504.2.1 Adhesives, sealants and caulks. Adhesives, sealants and caulks shall be compliant with VOC and other toxic compound limits. 4.504.2.2 Paints and coatings. Paints, stains and other coatings shall be compliant with VOC limits. 4.504.2.3 Aerosol paints and coatings. Aerosol paints and coatings shall be compliant with product weighted MIR limits for ROC and other toxic compounds. 4.504.2.4 Verification. Documentation shall be provided to verify that compliant VOC limit finish materials have been used. 4.504.3 Carpet systems. All carpet installed in the building interior shall meet the testing and product requirements of one of the following: 1. Carpet and Rug Institute's Green Label Plus Program. 2. California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.1, February 2010 (also known as Specification 01350.) 3. NSF/ANSI 140 at the Gold level. 4. Scientific Certifications Systems Indoor Advantage™ Gold. 4.504.3.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute's Green Label program. 4.504.3.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 4.504.1. 4.504.4 Resilient flooring systems. Where resilient flooring is installed, at least 80 percent of floor area receiving resilient flooring shall comply with one or more of the following: 1. Products compliant with the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.1, February 2010 (also known as Specification 01350), certified as a CHPS Low-Emitting Material in the Collaborative for High Performance Schools (CHPS) High Performance Products Database. 2. Products certified under UL GREENGUARD Gold (formerly the Greenguard Children & Schools program). 3. Certification under the Resilient Floor Covering Institute (RFCI) FloorScore program. 4. Meet the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.1, February 2010 (also known as Specification 01350). 4.504.5 Composite wood products. Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the building shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure for Composite Wood (17 CCR 93120 et seq.), by or before the dates specified in those sections, as shown in Table 4.504.5.	Initials: _____ Date: _____
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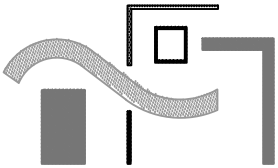
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4.5 Environmental Quality	4.505.2 Concrete slab foundations. Vapor retarder and capillary break is installed at slab-on-grade foundations.	Initials: _____ Date: _____
4.5 Environmental Quality	4.503.3 Moisture content of building materials. Moisture content of building materials used in wall and floor framing is checked before enclosure.	Initials: _____ Date: _____
4.5 Environmental Quality	4.507.2 Heating and air-conditioning system design. Duct systems are sized, designed, and equipment is selected using the following methods: 1. Establish heat loss and heat gain values according to ANSI/ACCA 2 Manual J-2011 or equivalent. 2. Size duct systems according to ANSI/ACCA 1 Manual D-2014 or equivalent. 3. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S-2014 or equivalent.	Initials: _____ Date: _____
Chapter 7 Installer and Special Inspector Qualifications	702.1 Installer Training. HVAC system installers are trained and certified in the proper installation of HVAC systems. 702.2 Special Inspection. Special inspectors employed by the enforcing agency must be qualified and able to demonstrate competence in the discipline they are inspecting. 703.1 Documentation. Verification of compliance with this code may include construction documents, plans, specifications builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which show substantial conformance.	Initials: _____ Date: _____
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REVISIONS

4.21.2017

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