SITE PLAN NOTES

PROJECTS LOCATED IN THE FLOOD HAZARD AREA SHALL HAVE A FINISHED FLOOR ELEVATION OF NOT LESS THAN 1' ABOVE THE 100 YEAR FLOOD LEVEL.

NO ON-SITE WATER RETENTION OR DRAINAGE ONTO ADJACENT PROPERTIES SHALL BE PERMITTED.

FINISHED FLOOR ELEVATION SHALL BE A MINIMUM OF 8" ABOVE FINISHED GRADE

THE ENTIRE SITE SHALL HAVE A MINIMUM OF 0.5 PERCENT SLOPE FOR DRAINAGE. ALL WATER DRAINAGE SHALL BE TO THE STREET (OR OTHER APPROVED LOCATION).

PROVIDE A MINIMUM OF 6 INCHES OF SLOPE AWAY FROM ALL BUILDINGS FOR A DISTANCE OF AT LEAST TEN FEET. WHERE THIS REQUIREMENT CANNOT BE MET AN ALTERNATE METHOD SHALL BE REQUIRED THAT WILL PROVIDE ADEQUATE DRAINAGE. (CRC 401.3) ALTERNATE DRAINAGE SHALL BE DONE USING LANDSCAPE DRAINS WITH INLETS NOT TO EXCEED 15' INTERVALS.

IMPERVIOUS SURFACES WITHIN 10' OF THE BUILDING FOUNDATION SHALL SLOPE A MINIMUM OF 2% AWAY FROM BUILDING.

ANY GRADE DIFFERENTIALS GREATER THAN ONE FOOT SHALL BE DONE WITH AN APPROVED RETAINING WALL.

ALL PIPES IN TRENCHES REQUIRE MIN. 18" COVERAGE

ANY HVAC EQUIPMENT LOCATED ON SITE SHALL NOT BE LOCATED WITHIN THE BUILDING SET-BACKS.

DRIVEWAYS TO RESIDENTIAL GARAGES SHALL HAVE A MAX. SLOPE OF 12 PERCENT FOR A MIN. OF 20'-0" FROM THE GARAGE. NO PORTION OF THE DRIVEWAY SHALL EXCEED A GRADE OF 18 PERCENT.

BUILDING SITE SHALL BE CLEANED AND ALL VEGETATION, TREE ROOTS OR OTHER FOREIGN MATTER SHALL BE REMOVED TO A MINIMUM DEPTH OF 12"

ANY SURVEY MONUMENTS WITHIN THE AREA OF CONSTRUCTION SHALL BE PRESERVED OR RESET BY A REGISTERED CIVIL ENGINEER OR LICENSED LAND SURVEYOR.

REPAIR ANY DAMAGED OFF-SITE CONCRETE IMPROVEMENTS AS DETERMINED BY THE CONSTRUCTION MANAGEMENT DIVISION PRIOR TO OCCUPANCY.

2 WORKING DAYS BEFORE COMMENCING EXCAVATION OPERATIONS WITHIN THE STREET RIGHT-OF-WAY AND/OR UTILITY EASEMENTS, ALL EXISTING UNDERGROUND FACILITIES SHALL HAVE BEEN LOCATED BY UNDERGROUND SERVICES ALERT (USA) CALL 1-800-642-2444

CONSTRUCT CONCRETE SIDEWALKS, CURBS, GUTTERS AND DRIVEWAY APPROACHES TO PUBLIC WORKS STANDARDS SPECIFICATIONS.

OVER EXCAVATE THE SITE AS NEEDED TO REMOVE DEBRIS, ORGANICS AND FILLS THAT MAY BE LEFT FROM A PREVIOUS DEMOLISHED HOME OR PLANT MATERIALS. REPLACE FILLS AS NECESSARY WITH 90% COMPACTION FOR ALL FILLS GREATER THAN 6 INCHES ABOVE THE EXISTING SURROUNDING GRADE. COMPACTION REPORT REQUIRED.

ALL EXTERIOR WALLS SHALL NOT BE LESS THAN 5 FEET FROM THE PROPERTY LINES

GENERAL NOTES

CONSTRUCTION SHALL COMPLY WITH THE 2019 CALIFORNIA RESIDENTIAL (CRC), MECHANICAL (CMC), PLUMBING (CPC) AND ELECTRICAL (CEC) CODES, AND THE 2019 CALIFORNIA ENERGY CODE AS AMENDED BY LOCAL ORDINANCES.

PLANS SHALL NOT BE SCALED. ALL WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS. ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN IN THESE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGNER.

DISCREPANCIES OR ERRORS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGNER FOR CORRECTION BEFORE THE WORK AFFECTED THEREBY IS BIDED OR EXECUTED. ALL WORK SHALL COMPLY IN EVERY RESPECT WITH CURRENT GOVERNING LAWS, CALIFORNIA BUILDING CODE AND ALL APPLICABLE ORDINANCES.

PROPERTY OWNER SHALL BE RESPONSIBLE FOR LOCATING, VERIFYING AND STAKING OUT ALL DIMENSIONS, GRADES AND OTHER CONDITIONS AT JOB SITE PRIOR TO THE START OF ANY WORK. ACCEPTANCE OR APPROVAL BY THE DESIGNER SHALL NOT CONSTITUTE RELIEF OF THE PROPERTY OWNER'S RESPONSIBILITY OF ACCURACY.

IT IS THE RESPONSIBILITY OF THE PROPERTY OWNERS TO VERIFY ALL FIELD MEASUREMENTS AND CONDITIONS FOR THE CONFORMANCE OF THESE PLANS. SHOULD THERE BE ANY ERRORS, OMISSIONS AND/OR DISCREPANCIES IN THE PLANS, THEY SHOULD BE BROUGHT TO THE ATTENTION OF THE DESIGNER OR PROJECT ENGINEER FOR CORRECTION AND/OR CLARIFICATION. THE PROPERTY OWNER AND DESIGNER OR PROJECT ENGINEER SHALL RESOLVE ANY ERRORS, OMISSIONS AND/OR DISCREPANCIES PRIOR TO COMMENCING WITH THAT PORTION OF THE WORK AFFECTED. ANY CHANGES MADE TO THE PLANS SHALL REQUIRE THE APPROVAL OF THE OWNER, DESIGNER AND/OR THE PROJECT ENGINEER.

PROPERTY OWNERS SHALL OBTAIN AND PAY FOR ANY PERMITS, NOTICES, INSPECTIONS OR TESTS THAT ARE REQUIRED FOR THEIR PARTICULAR WORK. EACH SUB-CONTRACTOR SHALL VISIT THE SUBJECT PROPERTY AND INSPECT THE PREMISES AND SHALL VERIFY THE WORK TO BE DONE, THE EXISTING CONDITIONS AND SHALL NOTIFY THE PROPERTY OWNER OF ANY AND ALL DISCREPANCIES PRIOR TO SUBMITTING A BID AND/OR STARTING ANY WORK.

ALL MATERIALS, EQUIPMENT AND SYSTEMS SPECIFIED IN THE PLANS SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE MANUFACTURER'S LATEST SPECIFICATIONS.

PROVIDE STREET ADDRESS NUMERALS AT LEAST FOUR INCHES HIGH USING A 1/2" STROKE MOUNTED ON A CONTRASTING BACKGROUND AND LOCATED ON THE BUILDING AS TO BE CLEARLY VISIBLE FROM THE ALLEY PRIOR TO CALLING FOR THE FIRST INSPECTION. ALL REQUIRED ADDRESS SIGNS SHALL COMPLY WITH CITY ORDINANCES

CONCRETE COMPRESSION STRENGTH SHALL BE 2500 PSI MINIMUM IN 28 DAYS.

ALL REINFORCING STEEL SHALL BE INTERMEDIATE GRADE, DEFORMED BARS CONFORMING TO A.S.T.M. GRADE 40 (U.N.O.)

ALL LUMBER SHALL BE GRADE MARKED, DF STD, OR BETTER MIN. EXCEPT AS NOTED ON PLANS. ALL POSTS SHALL BE D.F. #2. PLYWOOD SHALL BE DOUGLAS FIR CONFORMING TO PS1-74 U.S. DEPT. OF COMMERCE, AND SHALL BE GRADE STAMPED 'D.F.P.A.'

ALL NAILING SHALL BE IN COMPLIANCE WITH C.R.C TABLE R602.3(1) AND R602.3(2).

"REGISTERED" COPIES OF THE CF-3R AND CF-2R FORMS SHALL BE SUBMITTED PRIOR TO FINAL INSPECTION, SIGNED BY CERTIFIED INSTALLER FOR THE CF-3R FORM AND THE HERS RATER FOR FIELD VERIFICATION AND DIAGNOSTIC TESTING ON THE CF-2R FORM

WHEN FIELD VERIFICATION IS NEEDED TO SHOW COMPLIANCE, A HERS CERTIFICATE SHALL BE PROVIDED BEFORE THE BUILDING DEPARTMENT WILL APPROVE THE FINAL INSPECTION

COVER SHEET NOTES

THESE PLANS AND RELATED DOCUMENTS MUST BE AVAILABLE AT THE JOB SITE DURING ANY INSPECTION ACTIVITY.

CHANGES FROM THE APPROVED PLANS DURING THE COURSE OF CONSTRUCTION SHALL CAUSE CONSTRUCTION TO BE SUSPENDED UNTIL SUCH TIME AS THE PLANS CAN BE AMENDED BY THE DESIGNER AND SUBMITTED TO THE BUILDING DEPARTMENT FOR REVIEW AND APPROVAL.

SPECIAL NOTES

A SUB-CONTRACTORS LIST IS REQUIRED FOR OWNER/BUILDER PROJECTS AND SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT UPON APPLYING FOR A PERMIT.

A COMPACTION REPORT IS REQUIRED. AS AN OPTION, THE PROPERTY OWNER MAY PROVIDE A SOILS REPORT FOR THIS PROJECT FROM A LICENSED PROFESSIONAL.

PROVIDE A "WILL SERVE" LETTER FROM AN APPROVED CONSTRUCTION DEBRIS RECYCLING/WASTE HAULER FOR THIS PROJECT. THIS LETTER IS TO BE PROVIDED BY & SIGNED BY THE WASTE/RECYCLING HAULER PRIOR TO THE ISSUANCE OF ANY PERMIT. (2019 CAL. GREEN CODE 4.408)

IF FIRE SPRINKLERS ARE REQUIRED, OBTAIN FIRE SPRINKLER FINAL INSPECTION APPROVAL PRIOR TO BUILDING FINAL INSPECTION.

THIS PROJECT DOES NOT INCLUDE LANDSCAPING, BUT IT IS UNDERSTOOD THAT PRIOR TO LANDSCAPING BEING INSTALLED, IT SHALL COMPLY WITH THE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO) REQUIREMENTS PER TITLE 23 OF THE CALIFORNIA CODE OF REGULATIONS, DIVISION 2, CHAPTER 2.7 WHICH WILL REQUIRE PLANS, PERMITS AND INSPECTIONS.

ONE UNCOVERED PARKING SPACE MUST BE PROVIDED ON SITE, AND SHALL BE SHOWN ON THE PLOT PLAN FORM AT THE TIME OF PERMITS.

A CERTIFICATE OF ELEVATION IS TO BE PROVIDED ON ALL LOTS LOCATED IN A FLOOD ZONE. TWO ELEVATION CERTIFICATES ARE REQUIRED TO BE PROVIDED TO THE INSPECTOR. THE FIRST IS REQUIRED AT THE FOUNDATION INSPECTION AND THE SECOND IS REQUIRED AT THE BUILDING FINAL INSPECTION.

ALL OWNER/BUILDER PROJECTS REQUIRE A COMPLETED SUB-CONTRACTORS LIST PRIOR TO THE ISSUANCE OF THE BUILDING PERMIT.

DEFERRED SUBMITTALS

1. PHOTOVOLTAIC SYSTEM

1.1. PHOTOVOLTAIC SYSTEM DESIGN AND SPECIFICATIONS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL UNDER A SEPARATE PERMIT

1.2. A MINIMUM 2.27 KWDC PHOTOVOLTAIC SYSTEM IS REQUIRED PER THE ENERGY CODE COMPLIANCE DOCUMENTATION

1.3. PHOTOVOLTAIC SYSTEM SHALL BE INSTALLED AND APPROVED BY THE JURISDICTION HAVING AUTHORITY PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

IF THE PRIMARY EXISTING DWELLING IS PROVIDED WITH FIRE SPRINKLERS, THEN THIS ACCESSORY DWELLING UNIT IS REQUIRED TO INCLUDE FIRE SPRINKLER PLANS AND CALCULATIONS.

AREA SCHEDULE AT BASE PLAN

RESIDENCE:	1st FLOOR	47 S.F.
	2nd FLOOR	448 S.F.
	TOTAL:	495 S.F.
GARAGE & STORAGE:		552 S.F.
PORCH:		37 S.F.
BALCONY:		80 S.F.
TOTAL BUILDING AREA:		1336 S.F.
TOTAL COVERED AREA:		690 S.F.

AREA SCHEDULE AT CARPORT OPTION

RESIDENCE:	1st FLOOR	47 S.F.
	2nd FLOOR	448 S.F.
	TOTAL:	495 S.F.
GARAGE & STORAGE:		552 S.F.
PORCH:		37 S.F.
CARPORT:		230 S.F.
BALCONY:		310 S.F.
TOTAL BUILDING AREA:		1796 S.F.
TOTAL COVERED AREA:		920 S.F.

SHEET INDEX

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4	BUILDING SECTIONS
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N1	TYPICAL PLAN NOTES

PROJECT DATA

STANDARD PLAN #	CHOWCHILLA #3
PROPERTY ADDRESS	
ZONE DISTRICT:	R1
OCCUPANCY GROUP:	R-3/U
TYPE OF CONSTRUCTION:	VB
NO. OF STORIES:	2
ENERGY METHOD	ENERGYPRO V 8.3
CODE EDITIONS:	2019 CRC,CEC,CMC,CPC,CFC 2019 CAL. ENERGY CODE 2019 CAL. GREEN CODE

CONSULTANTS

OWNER:	CITY OF CHOWCHILLA 130 S. 2nd STREET CHOWCHILLA, CA 93610 (559) 665-8615
DESIGNER:	CWB DESIGNS 491 HERNDON AVE. #2245 CLOVIS, CA 93612 (559) 294-6534
STRUCTURAL ENGINEER	ENGINEEREING DESIGNS 5155 N. FIRST ST. FRESNO, CA 93710 (559) 225-2525
TRUSS MANUFACTURER	CENTRAL VALLEY TRUSS CO. 10715 E. AMERICAN AVE. DEL RAY, CA 93616 (559) 888-2160
ENERGY CONSULTANT	ENERCAL SOLUTIONS 244 S. OLYMPIC ST. KERMAN, CA 93630 (559) 696-7922

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REGISTERED PROFESSIONAL ENGINEER HASAN A. MOHAMMAD No. 45997 CIVIL STATE OF CALIFORNIA

7/8/22



COTTAGE HOME - PLAN # 3

CITY OF CHOWCHILLA, CALIFORNIA

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2ND 06.03.22
SUB 06.17.22

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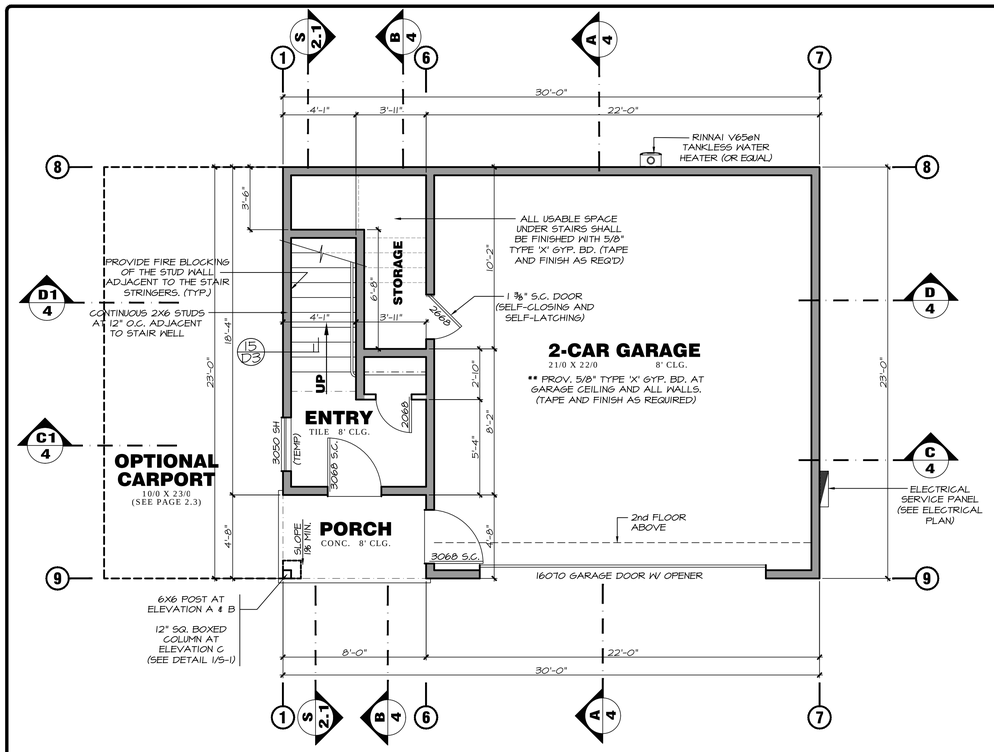
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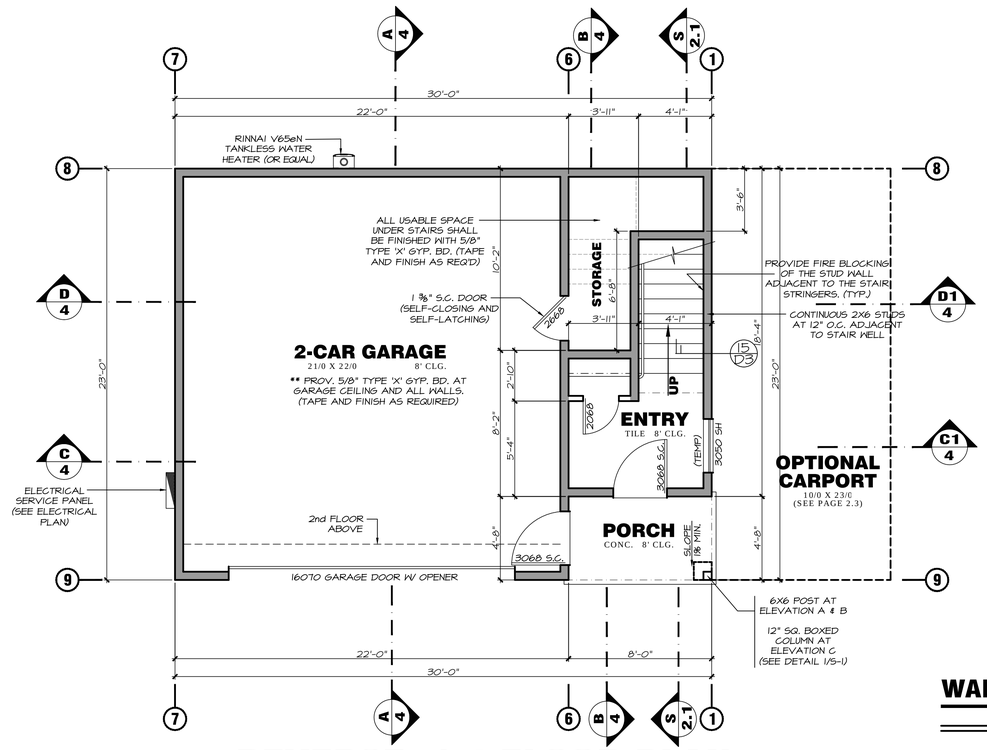
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130 S 2ND STREET
CHOWCHILLA, CA 93610
PHONE: 559-665-8615

SHEET 1 OF 26 COVER SHEET

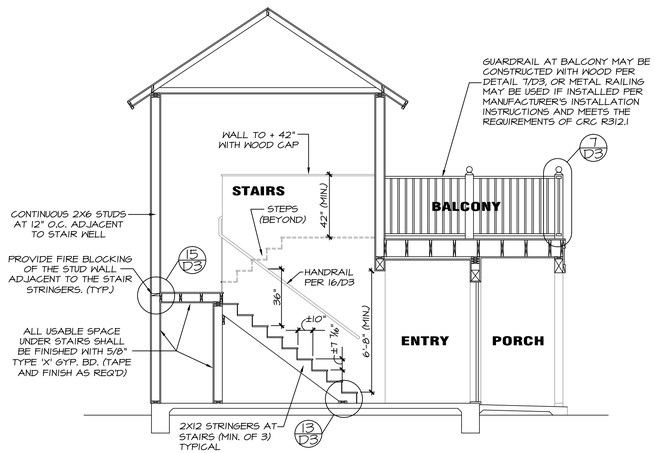
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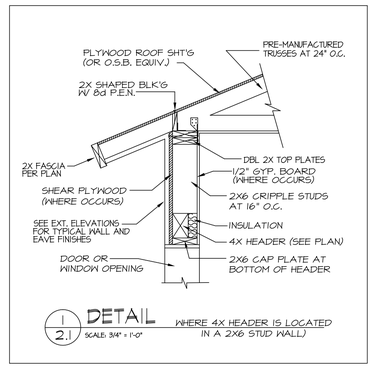
1st FLOOR PLAN
SCALE: 1/4" = 1'-0"



REVERSE 1st FLOOR PLAN
SCALE: 1/4" = 1'-0"



SECTION S-S AT STAIRS
SCALE: 1/4" = 1'-0"



1/2.1 DETAIL — WHERE 4X HEADER IS LOCATED IN A 2X6 STUD WALL
SCALE: 3/4" = 1'-0"

WALL LEGEND

2X4 STUDS AT 16" O.C.

2X6 D.F. #2 CONTINUOUS STUDS AT 16" O.C. (U.N.O.)

AREA SCHEDULE		
RESIDENCE:	1st FLOOR	47 S.F.
	2nd FLOOR	448 S.F.
	TOTAL:	495 S.F.
GARAGE & STORAGE:		552 S.F.
PORCH:		37 S.F.
BALCONY:		80 S.F.
TOTAL BUILDING AREA:		1336 S.F.
TOTAL COVERED AREA:		690 S.F.

FLOOR PLAN NOTES

CONSTRUCTION SHALL COMPLY WITH THE **2019** CALIFORNIA RESIDENTIAL (CRC), MECHANICAL (CMC), PLUMBING (CPC) AND ELECTRICAL (CEC) CODES, AND THE **2019** CALIFORNIA ENERGY CODE AS AMENDED BY LOCAL ORDINANCES.

CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AT JOBSITE PRIOR TO THE START OF ANY WORK.

IF ERRORS ARE FOUND WITHIN THESE DRAWINGS, THE DESIGNER SHALL BE CONSULTED FOR CORRECTIONS PRIOR TO CONTINUANCE OF WORK AFFECTED.

ALL FRAMING LUMBER SHALL BE D.F. #2 OR BETTER UNLESS NOTED OTHERWISE PROVIDE FIRE BLOCKING AT FLOORS, CEILING COVES AND SOFFITS AND AT 10'-0" INTERVALS

PROVIDE FIRE-STOP AT ALL FURRED DOWN AREAS INCLUDING ARCHED AREAS AT MAX. 10'-0" O.C. HORIZONTAL AND VERTICAL, AND AT ALL FLOOR AND CEILING LEVELS.

PROVIDE FIRE-STOP AT ALL COLUMNS AT MAX. 10'-0" HIGH.

FINGER JOINTED STUDS MUST BE GRADE STAMPED BY AN APPROVED ICBO INSPECTION AGENCY, AND CLEARLY SPECIFIED ON PLANS. (NO FINGER JOINTED STUDS SHALL BE USED IN ANY SHEAR WALL)

WINDOW SILL HEIGHT SHALL NOT EXCEED 44" FROM THE BOTTOM OF THE NET CLEAR OPENING TO THE FINISHED FLOOR IN ALL SLEEPING ROOMS.

FLOOR AND LANDINGS ON EACH SIDE OF DOORWAYS SHALL CONFORM TO THE REQUIREMENTS OF CRC R311.3:

A. THE WIDTH OF EACH LANDING SHALL NOT BE LESS THAN THE DOOR SERVED AND SHALL EXTEND A MINIMUM DIMENSION OF 36 INCHES MEASURED IN THE DIRECTION OF TRAVEL.

B. LANDINGS SHALL BE NO MORE THAN 1 ½" LOWER THAN THE TOP OF THE THRESHOLD.

C. LANDINGS MAY BE NO MORE THAN 7 ¾" BELOW THE TOP OF THE THRESHOLD PROVIDED THE DOOR DOES NOT SWING OVER THE LANDING OR FLOOR.

D. THE MINIMUM NET HEIGHT OF REQUIRED EGRESS DOORS SHALL BE NOT LESS THAN 78" MEASURED FROM THE TOP OF THE THRESHOLD TO THE BOTTOM OF THE DOOR STOP

THE ATTIC ACCESS SHALL BE WEATHER-STRIPPED AND INSULATION EQUIVALENT TO THAT OF THE CEILING SHALL BE INSTALLED ON THE ACCESS PANEL

FASTENERS AND CONNECTORS IN DIRECT CONTACT WITH PRESERVITIVE-TREATED WOOD SHALL BE APPROVED SILICON BRONZE OR COPPER, STAINLESS STEEL OR HOT-DIPPED ZINC-COATED GALVANIZED STEEL PER **CRC R317.3.1**

AFTER INSTALLING HVAC EQUIPMENT AND WATER HEATING SYSTEMS, THE INSTALLER SHALL SUBMIT TO THE BUILDING DEPARTMENT AND THE OWNER, REGISTERED COPIES OF THE CF-6R SIGNED BY THE INSTALLER, LISTING THE EQUIPMENT INSTALLED, AND THAT IT MEETS OR EXCEEDS THE REQUIREMENTS OF THE ENERGY DOCUMENTATION.

WATER CLOSET COMPARTMENTS MUST HAVE 30" WIDTH AND 24" CLEAR IN FRONT OF THE FIXTURE, THE WATER CLOSET SHALL NOT BE SET CLOSER THAN 15" FROM IT'S CENTER TO ANY SIDE WALL OR OBSTRUCTION.

CEMENT, FIBER CEMENT OR GLASS MAT GYPSUM BACKERS SHALL BE USED AS A BASE FOR WALL TILES IN TUB AND SHOWER AREAS. WATER RESISTIVE GYP. BOARD IS NOT PERMITTED AT THESE LOCATIONS.

REGISTERED COPIES OF THE CF-4R FORM SHALL BE SUBMITTED PRIOR TO FINAL INSPECTION, SIGNED BY CERTIFIED HERS RATER, FOR FIELD VERIFICATION AND DIAGNOSTIC TESTING.

AFTER INSTALLING WALL, CEILING, OR FLOOR INSULATION, THE INSTALLER SHALL MAKE AVAILABLE TO THE ENFORCEMENT AGENCY OR POST IN A CONSPICUOUS LOCATION IN THE BUILDING A CERTIFICATE SIGNED BY THE INSTALLER STATING THAT THE INSTALLATION IS CONSISTENT WITH THE PLANS AND SPECIFICATIONS. THE CERTIFICATE SHALL ALSO STATE THE MANUFACTURER'S NAME AND MATERIAL IDENTIFICATION, THE INSTALLED R-VALUE, AND (IN APPLICATIONS OF LOOSE FILL INSULATION) THE MINIMUM INSTALLED WEIGHT PER SQUARE FOOT CONSISTENT WITH THE MANUFACTURER'S LABELED INSTALLED DESIGN DENSITY FOR THE DESIRED R-VALUE.

JOINTS AND OTHER OPENINGS IN THE BUILDING ENVELOPE THAT ARE POTENTIAL SOURCES OF AIR LEAKAGE SHALL BE CAULKED, EQUIPPED WITH GASKETS, WEATHER-STRIPPED, OR OTHERWISE SEALED TO LIMIT INTERNAL OR EXTERNAL AIR FILTRATION

EVERY MANUFACTURED AND SITE-BUILT FENESTRATION PRODUCT OR FENESTRATION SYSTEM INSTALLED IN CONSTRUCTION SUBJECT TO TITLE 24, PART 6 SHALL HAVE ATTACHED TO IT A CLEARLY VISIBLE TEMPORARY LABEL OR HAVE AN ASSOCIATED LABEL CERTIFICATE THAT LISTS THE U-FACTOR, THE SOLAR HEAT GAIN COEFFICIENT (SHGC) OF THAT PRODUCT AND THE METHOD USED TO DERIVE THOSE VALUES, AND CERTIFIES COMPLIANCE WITH AIR LEAKAGE REQUIREMENTS OF THE CALIFORNIA ENERGY CODE, SECTION 116(A) 1. THE LABEL SHALL NOT BE REMOVED UNTIL APPROVED BY THE BUILDING INSPECTOR.

SHEET ROCK NAILING INSPECTION IS REQUIRED PER R109.1.4.2. NAILING SHALL BE IN ACCORDANCE WITH TABLE R702.3.5 (SEE SHEET 4)

VERTICAL CLEARANCE ABOVE THE COOKING SURFACE TO COMBUSTIBLES SHALL BE 30" UNPROTECTED, OR 24" PROTECTED, AND HORIZONTAL CLEARANCES SHALL BE PER THE PERMANENT MARKING LISTED ON THE UNIT.

BLOWN OR POURED TYPE INSULATION MATERIAL SHALL ONLY BE USED IN ATTIC SPACES WHERE THE SLOPE OF THE CEILING DOES NOT EXCEED MORE THAN 2.5:12 PITCH.

ANY OPERABLE WINDOW WITH A SILL LOCATED LESS THAN 24" ABOVE THE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR HAVE FIXED GLASS. GUARDS CANNOT HAVE OPENINGS THAT A 4" SPHERE IN DIAMETER CAN PASS THROUGH.

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REGISTERED PROFESSIONAL ENGINEER — HASAN A. MOHAMMAD — No. 45997 — CIVIL — STATE OF CALIFORNIA

7/8/22

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2ND | 05.27.22
SUB | 06.17.22

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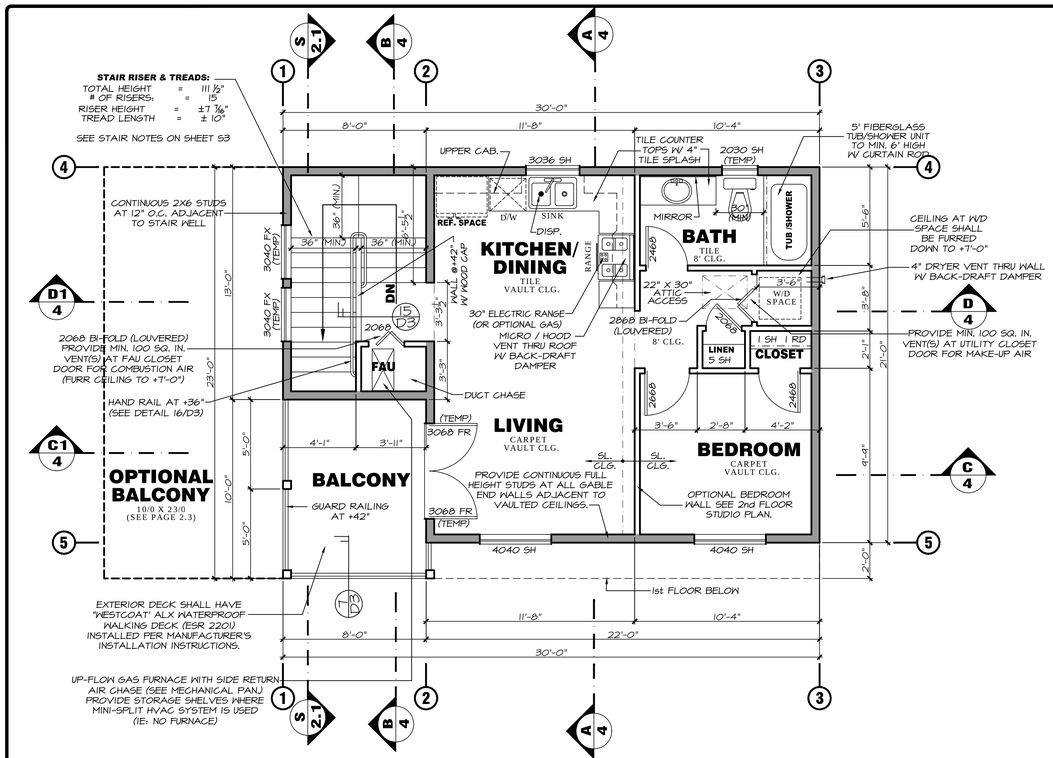
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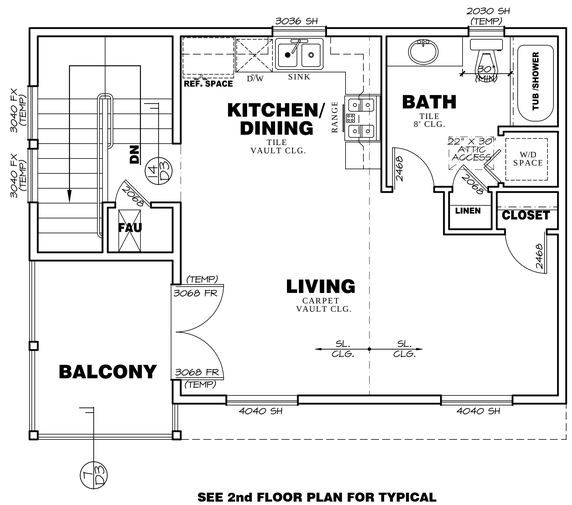
SHEET 2.1 OF 26
1st FLOOR PLAN

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2nd FLOOR PLAN

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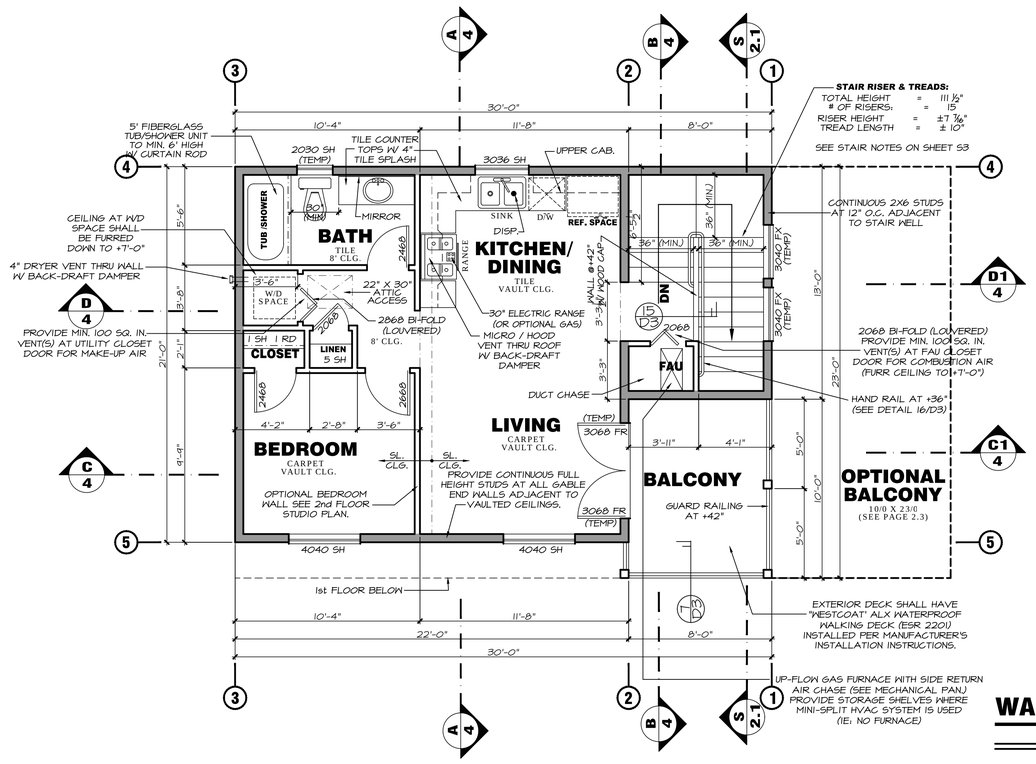


SEE 2nd FLOOR PLAN FOR TYPICAL NOTES AND DIMENSIONS.

2nd FLOOR STUDIO PLAN

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

STUDIO PLAN



REVERSE 2nd FLOOR PLAN

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

WALL LEGEND

2X4 STUDS AT 16" O.C.

2X6 D.F. #2 CONTINUOUS STUDS AT 16" O.C. (U.N.O.)

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TOTAL COVERED AREA:		690 S.F.

FLOOR PLAN NOTES

CONSTRUCTION SHALL COMPLY WITH THE **2019** CALIFORNIA RESIDENTIAL (CRC), MECHANICAL (CMC), PLUMBING (CPC) AND ELECTRICAL (CEC) CODES, AND THE **2019** CALIFORNIA ENERGY CODE AS AMENDED BY LOCAL ORDINANCES.

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B. LANDINGS SHALL BE NO MORE THAN 1 ½" LOWER THAN THE TOP OF THE THRESHOLD.

C. LANDINGS MAY BE NO MORE THAN 7 ¾" BELOW THE TOP OF THE THRESHOLD PROVIDED THE DOOR DOES NOT SWING OVER THE LANDING OR FLOOR.

D. THE MINIMUM NET HEIGHT OF REQUIRED EGRESS DOORS SHALL BE NOT LESS THAN 78" MEASURED FROM THE TOP OF THE THRESHOLD TO THE BOTTOM OF THE DOOR STOP

THE ATTIC ACCESS SHALL BE WEATHER-STRIPPED AND INSULATION EQUIVALENT TO THAT OF THE CEILING SHALL BE INSTALLED ON THE ACCESS PANEL

FASTENERS AND CONNECTORS IN DIRECT CONTACT WITH PRESERVITIVE-TREATED WOOD SHALL BE APPROVED SILICON BRONZE OR COPPER, STAINLESS STEEL OR HOT-DIPPED ZINC-COATED GALVANIZED STEEL PER **CRC R317.3.1**

AFTER INSTALLING HVAC EQUIPMENT AND WATER HEATING SYSTEMS, THE INSTALLER SHALL SUBMIT TO THE BUILDING DEPARTMENT AND THE OWNER, REGISTERED COPIES OF THE CF-6R SIGNED BY THE INSTALLER, LISTING THE EQUIPMENT INSTALLED, AND THAT IT MEETS OR EXCEEDS THE REQUIREMENTS OF THE ENERGY DOCUMENTATION.

WATER CLOSET COMPARTMENTS MUST HAVE 30" WIDTH AND 24" CLEAR IN FRONT OF THE FIXTURE, THE WATER CLOSET SHALL NOT BE SET CLOSER THAN 15" FROM IT'S CENTER TO ANY SIDE WALL OR OBSTRUCTION.

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BLOWN OR POURED TYPE INSULATION MATERIAL SHALL ONLY BE USED IN ATTIC SPACES WHERE THE SLOPE OF THE CEILING DOES NOT EXCEED MORE THAN 2.5:12 PITCH.

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ENGINEER'S SEAL AND SIGNATURE ON PLANS ARE LIMITED TO THE ITEMS ON THE PLANS ADDRESSED IN THE STRUCTURAL CALCULATIONS ONLY. NO OTHER APPROVAL, LIABILITY OR CONSENT FOR ANY OTHER ASPECT OR PHASE OF THIS STRUCTURE IS IMPLIED OR EXPRESSED.

REGISTERED PROFESSIONAL ENGINEER HASSAN A. MOHAMMED Exp. 45997 CIVIL STATE OF CALIFORNIA

7/8/22

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REVISIONS
REV DATE:
NEW 05.09.22
2ND 05.27.22
SUB 06.17.22

DRAWING FILE
F:\CHOWCHILLA\PLAN 3\A2B

DATE: 06-17-2022

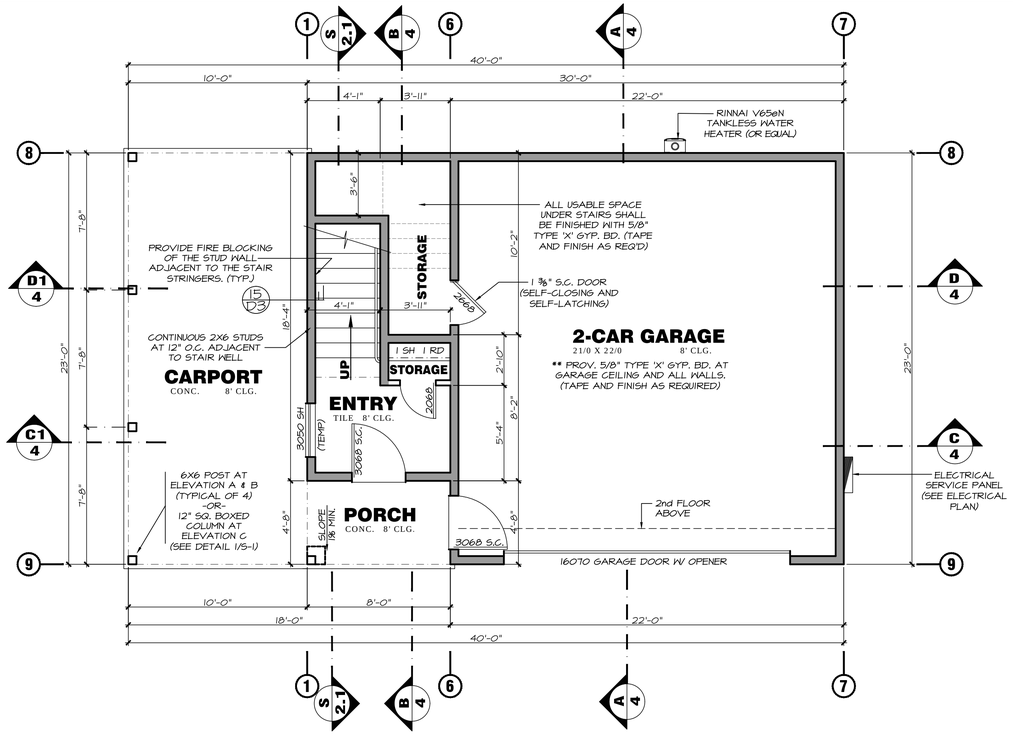
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SANGER, CA 93657
PHONE: 559.294.6534

STANDARD PLAN #3 FOR:
CITY OF CHOWCHILLA
130 S 2ND STREET
CHOWCHILLA, CA 93610
PHONE: 559-665-8615

SHEET 2.2 OF 26

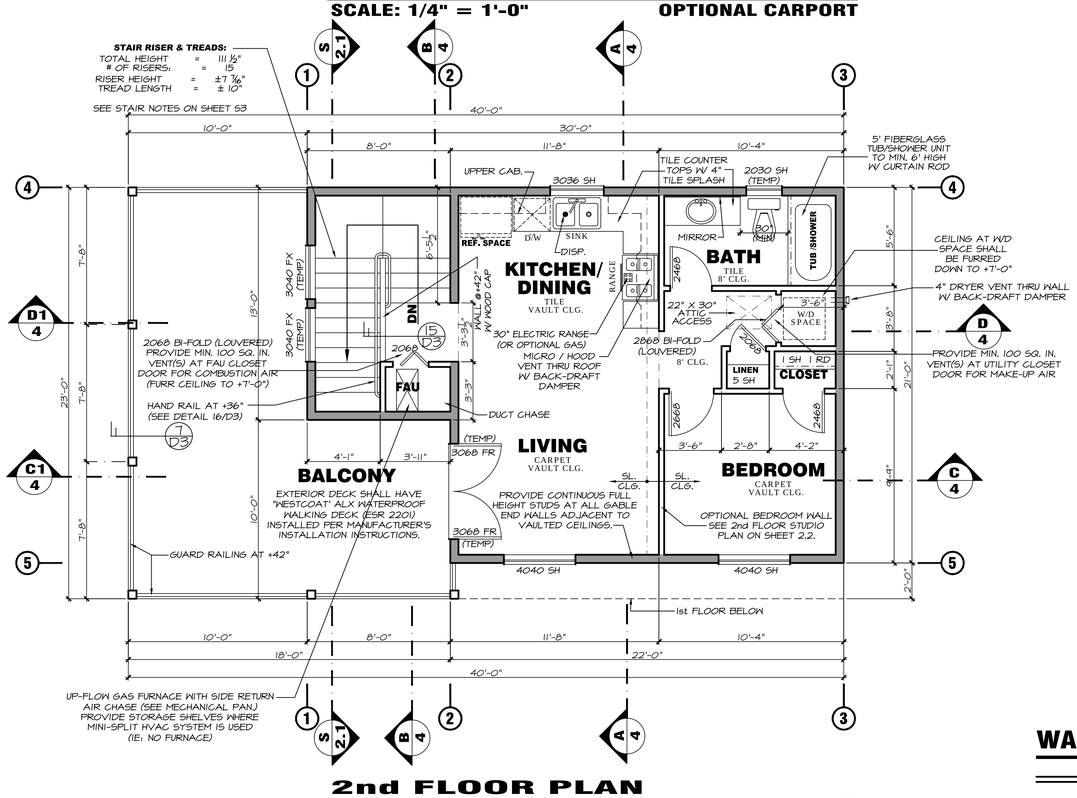
2nd FLOOR PLAN

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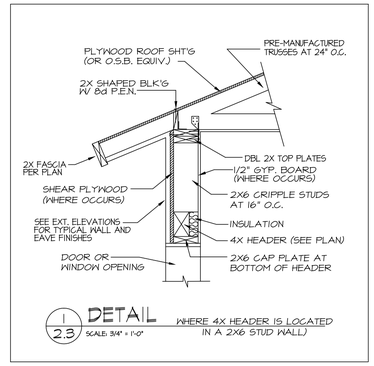
1st FLOOR PLAN

SCALE: 1/4" = 1'-0" **OPTIONAL CARPORT**



2nd FLOOR PLAN

SCALE: 1/4" = 1'-0" **OPTIONAL BALCONY**



1/2.3 DETAIL — SCALE: 3/4" = 1'-0" — WHERE 4X HEADER IS LOCATED IN A 2X6 STUD WALL)

WALL LEGEND

- 2X4 STUDS AT 16" O.C.
- 2X6 D.F. #2 CONTINUOUS STUDS AT 16" O.C. (U.N.O.)

AREA SCHEDULE		
RESIDENCE:	1st FLOOR	47 S.F.
	2nd FLOOR	448 S.F.
	TOTAL:	495 S.F.
GARAGE:		552 S.F.
PORCH:		37 S.F.
CARPORT:		230 S.F.
BALCONY:		310 S.F.
TOTAL BUILDING AREA:		1796 S.F.
TOTAL COVERED AREA:		920 S.F.

FLOOR PLAN NOTES

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REVISIONS
REV DATE:
NEW 05.09.22
2ND 05.27.22
SUB 06.17.22

DRAWING FILE
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DATE: 06-17-2022

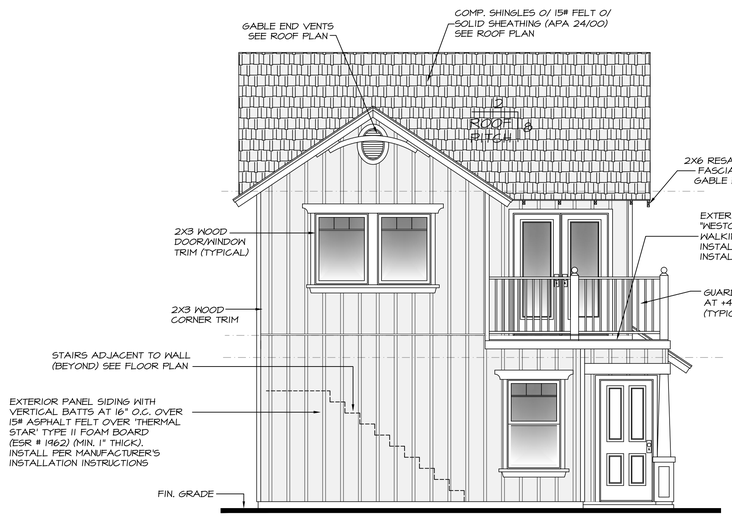
CWB DESIGNS
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PHONE: 559.294.6534

STANDARD PLAN #3 FOR:
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CHOWCHILLA, CA 93610
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SHEET 2.3 OF 26

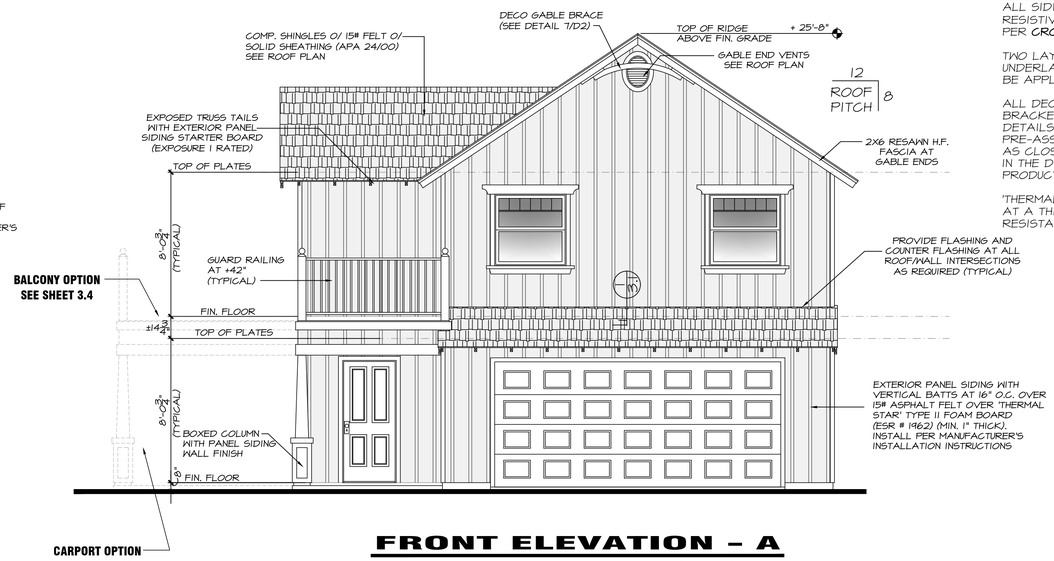
CARPORT FLOOR PLAN

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LEFT ELEVATION – A

SCALE: 1/4" = 1'-0" **THIS ELEVATION MAY FACE THE ALLEY**



FRONT ELEVATION – A

SCALE: 1/4" = 1'-0" **THIS ELEVATION MAY FACE THE ALLEY**

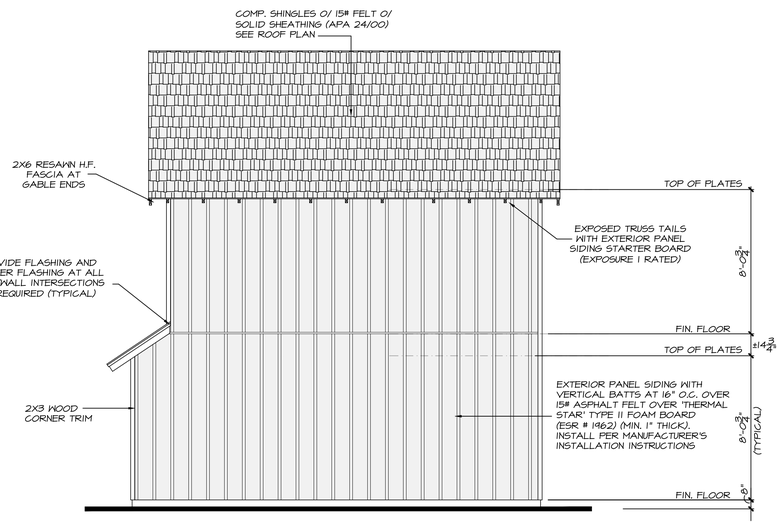
ELEVATION NOTES

ALL SIDING SHALL BE APPLIED OVER A WEATHER RESISTIVE BARRIER (TYPE 'D' BUILDING PAPER) PER CRC R703.2.

TWO LAYERS TYPE 'D' BUILDING PAPER UNDERLAYMENT IS REQUIRED WHERE LATH IS TO BE APPLIED OVER WOOD SHEATHING CRC R703.6.3

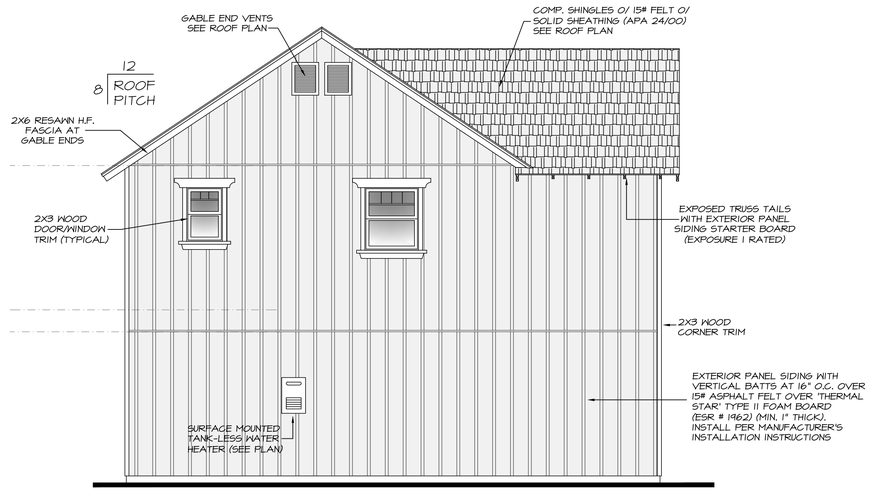
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'THERMAL STAR' TYPE II FOAM BOARD INSTALLED AT A THICKNESS OF 1" PROVIDES R-4 THERMAL RESISTANCE PER ESR # 1962



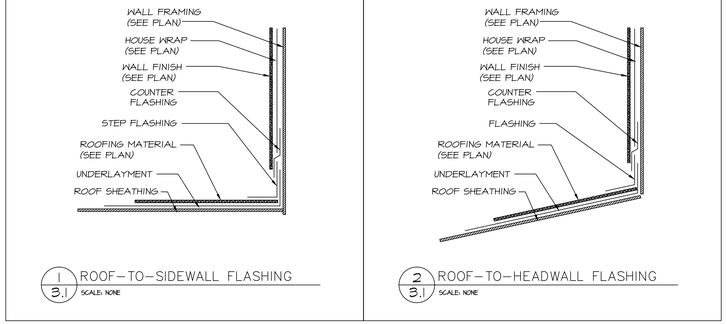
RIGHT ELEVATION – A

SCALE: 1/4" = 1'-0" **THIS ELEVATION MAY NOT FACE THE ALLEY**

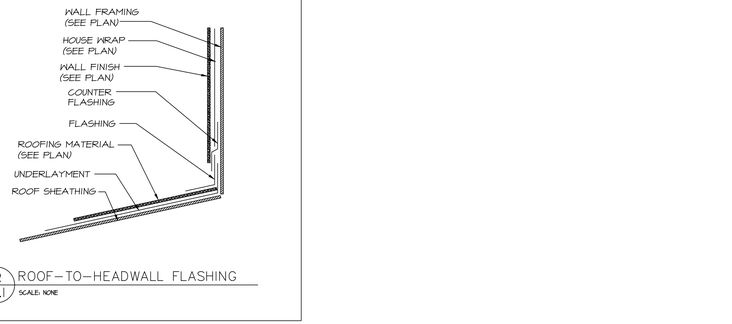


REAR ELEVATION – A

SCALE: 1/4" = 1'-0" **THIS ELEVATION MAY NOT FACE THE ALLEY**



1/3.1 ROOF–TO–SIDEWALL FLASHING
SCALE: NONE



2/3.1 ROOF–TO–HEADWALL FLASHING
SCALE: NONE

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REVISIONS

REV	DATE:
NEW	05.09.22
1ST	06.03.22
SUB	06.17.22

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PLAN 3 AAA

DATE: 06-17-2022

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SANGER, CA 93657
PHONE: 559.294.6534

STANDARD PLAN #3 FOR:

CITY OF CHOWCHILLA
130 S 2ND STREET
CHOWCHILLA, CA 93610
PHONE: 559-665-8615

SHEET 3.1 OF 26

ELEVATION A

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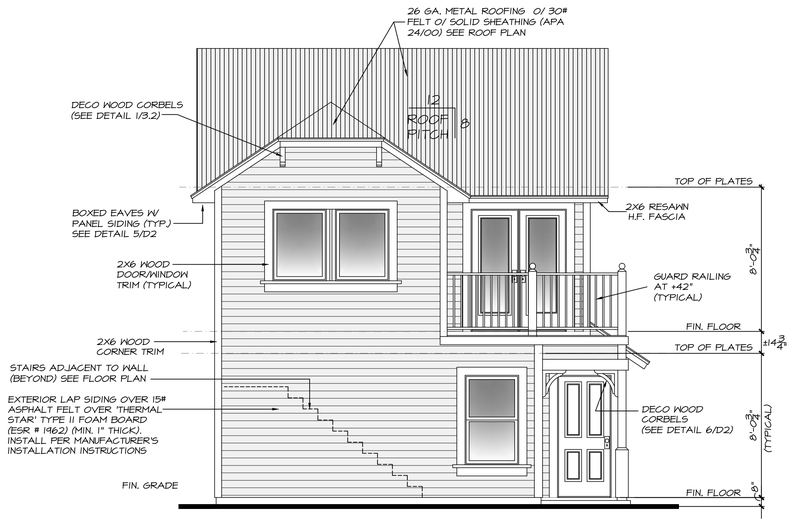
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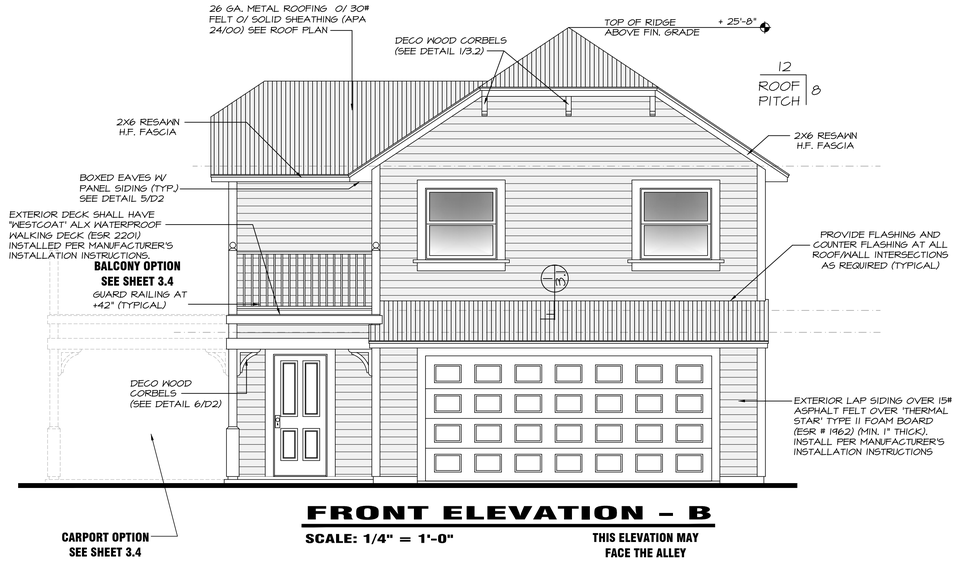
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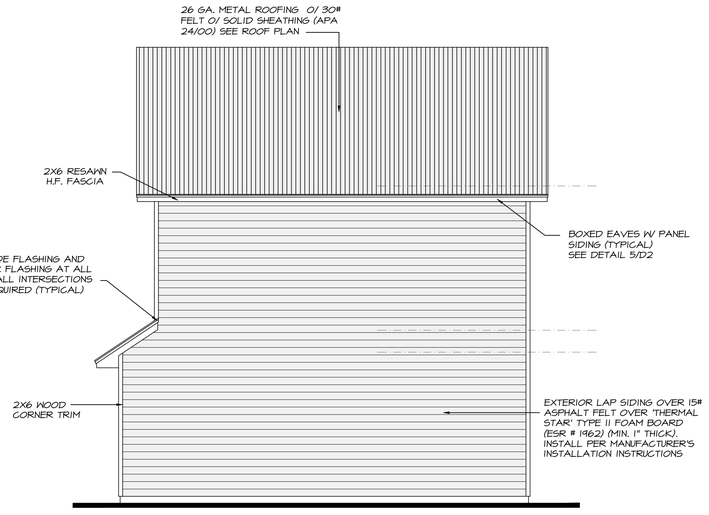
LEFT ELEVATION – B

SCALE: 1/4" = 1'-0" **THIS ELEVATION MAY FACE THE ALLEY**



FRONT ELEVATION – B

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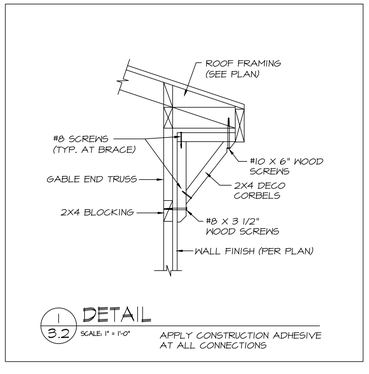
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REAR ELEVATION – B

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REVISIONS

REV	DATE:
NEW	05.09.22
NEW	05.25.22
SUB	06.17.22

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PLAN 3\A3B

CWB

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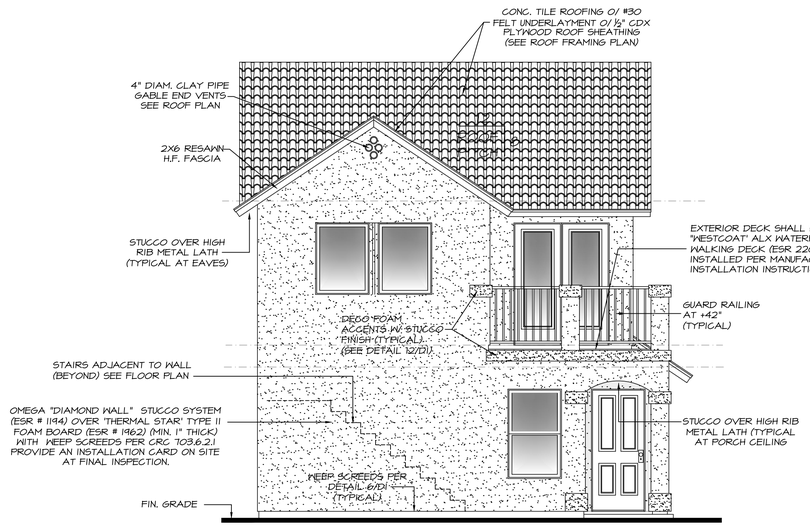
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SHEET 3.2 OF 26

ELEVATION B

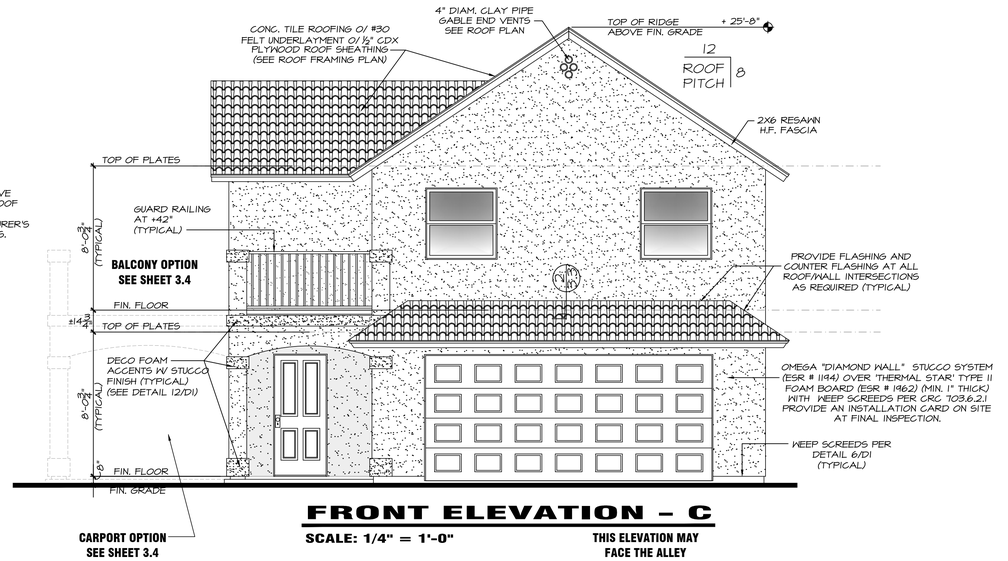
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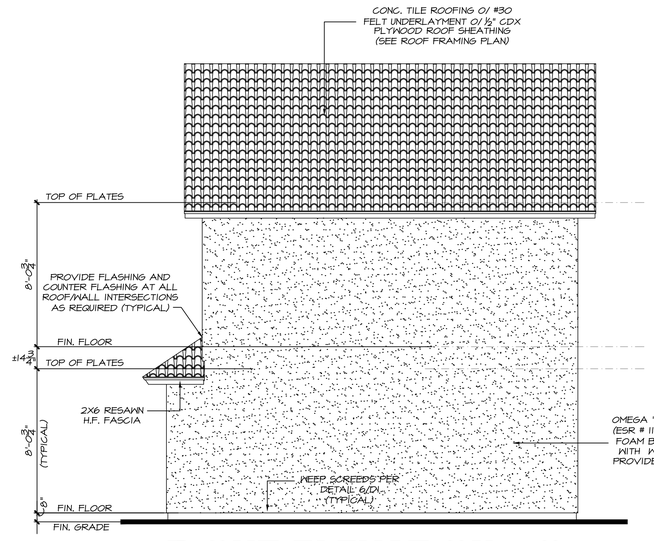
LEFT ELEVATION – C

SCALE: 1/4" = 1'-0" **THIS ELEVATION MAY FACE THE ALLEY**



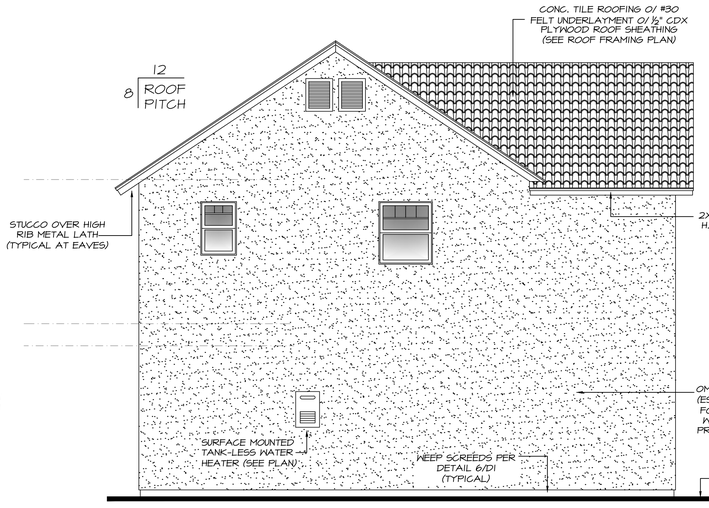
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SCALE: 1/4" = 1'-0" **THIS ELEVATION MAY FACE THE ALLEY**



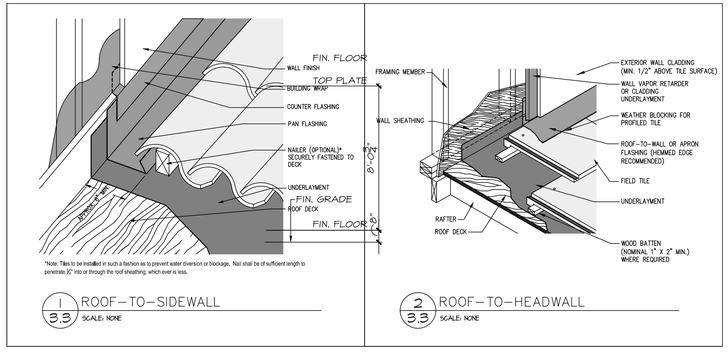
RIGHT ELEVATION – C

SCALE: 1/4" = 1'-0" **THIS ELEVATION MAY NOT FACE THE ALLEY**



REAR ELEVATION – C

SCALE: 1/4" = 1'-0" **THIS ELEVATION MAY NOT FACE THE ALLEY**



ELEVATION NOTES

ALL LATH AND PLASTER SHALL COMPLY WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND SHALL BE PROVIDED WITH WEEP SCREEDS PER **CRC 703.6.2.1**

ALL STUCCO LATH SHALL BE APPLIED OVER A WEATHER RESISTIVE BARRIER (TYPE 'D' BUILDING PAPER) PER **CRC R703.2.**

TWO LAYERS TYPE 'D' BUILDING PAPER UNDERLAYMENT IS REQUIRED WHERE LATH IS TO BE APPLIED OVER WOOD SHEATHING **CRC R703.6.3**

PER ICC REPORT ESR 1194, A SPECIAL INSPECTION IS REQUIRED FOR STUCCO:
1. LATH INSTALLATION, PRIOR TO COATING APPLICATION
2. FIELD BATCHING AND MIXING OF COMPONENTS.

ALL TILE ROOFING MUST HAVE AN ICC REPORT NUMBER. A COPY OF THE REPORT SHALL BE ON SITE DURING ROOFING INSPECTION.

ALL DECORATIVE CORBELS, BRACES AND BRACKETS MAY BE CONSTRUCTED IN FIELD PER DETAILS PROVIDED, OR OWNER MAY PURCHASE PRE-ASSEMBLED PIECES, PROVIDED THEY MATCH AS CLOSELY AS POSSIBLE TO THE PIECES SHOWN IN THE DRAWINGS AND ARE APPLIED AS PER THE PRODUCTS INSTALLATION INSTRUCTIONS.

'THERMAL STAR' TYPE II FOAM BOARD INSTALLED AT A THICKNESS OF 1" PROVIDES R-4 THERMAL RESISTANCE PER ESR # 1962

REVISIONS
REV | DATE:
NEW | 05.09.22
2ND | 06.02.22
SUB | 06.17.22

DRAWING FILE
E:\CHOWCHILLA\
PLAN 3\A3C

DATE: 06-17-2022

CWB DESIGNS
3838 N. CHICKADEE AVE.
SANGER, CA 93657
PHONE: 559.294.6534

STANDARD PLAN #3 FOR:

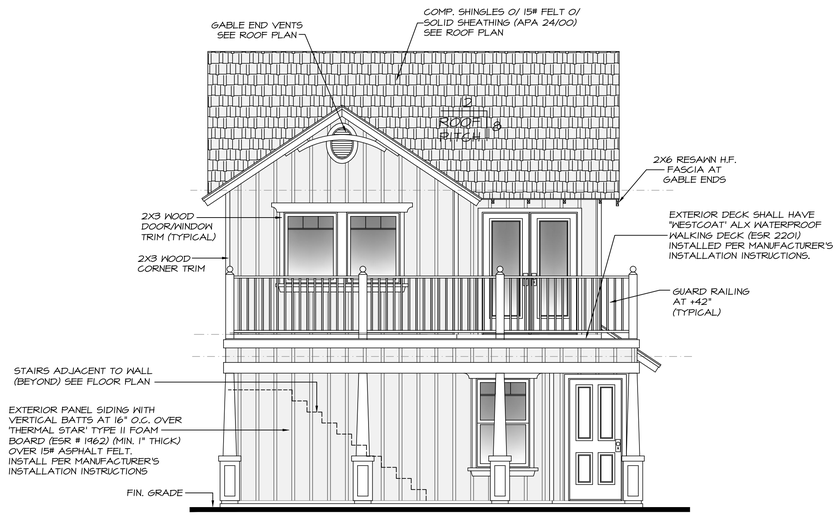
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130 S 2ND STREET
CHOWCHILLA, CA 93610
PHONE: 559-665-8615

SHEET 3.3 OF 26

ELEVATION C

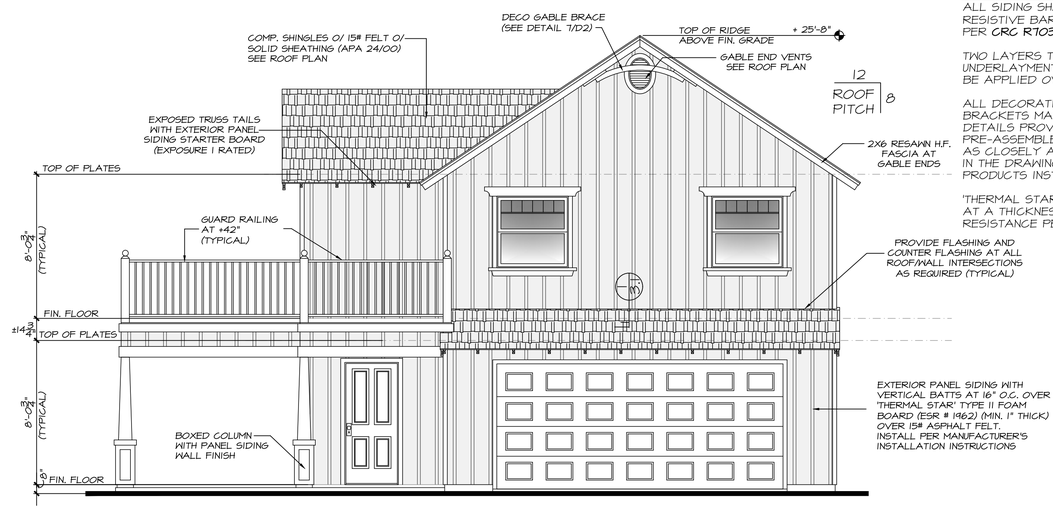
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LEFT ELEVATION – A

SCALE: 1/4" = 1'-0" **THIS ELEVATION MAY FACE THE ALLEY**



FRONT ELEVATION – A

SCALE: 1/4" = 1'-0" **THIS ELEVATION MAY FACE THE ALLEY**

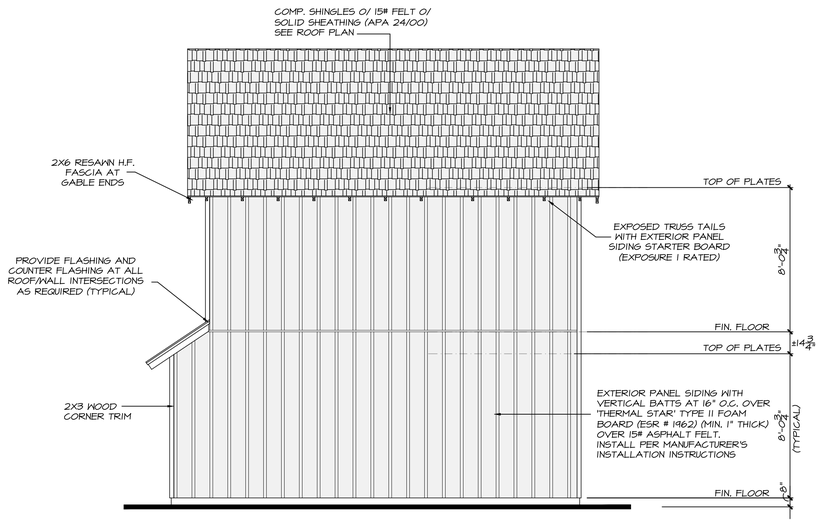
ELEVATION NOTES

ALL SIDING SHALL BE APPLIED OVER A WEATHER RESISTIVE BARRIER (TYPE 'D' BUILDING PAPER) PER **CRC R703.2.**

TWO LAYERS TYPE 'D' BUILDING PAPER UNDERLAYMENT IS REQUIRED WHERE LATH IS TO BE APPLIED OVER WOOD SHEATHING **CRC R703.6.3**

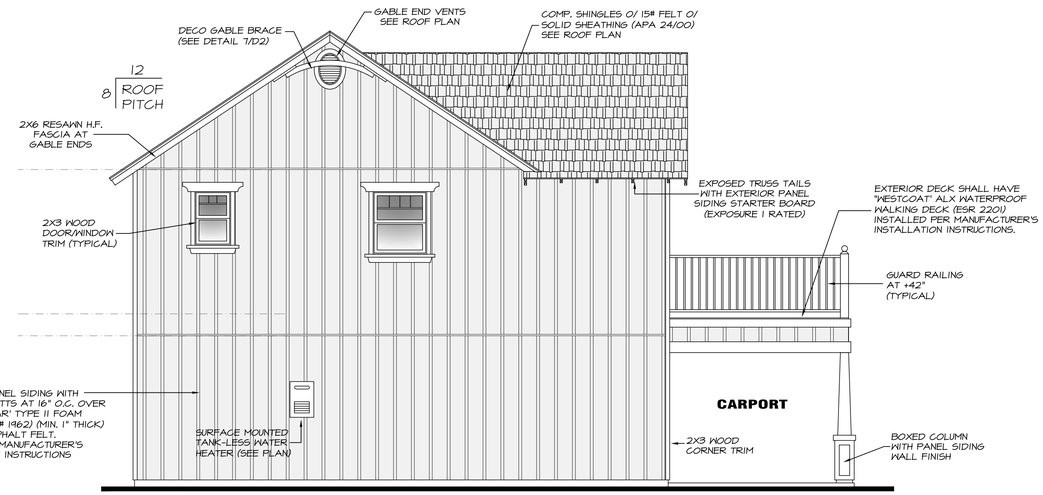
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'THERMAL STAR' TYPE II FOAM BOARD INSTALLED AT A THICKNESS OF 1" PROVIDES R-4 THERMAL RESISTANCE PER ESR # 1962



RIGHT ELEVATION – A

SCALE: 1/4" = 1'-0" **THIS ELEVATION MAY NOT FACE THE ALLEY**



REAR ELEVATION – A

SCALE: 1/4" = 1'-0" **THIS ELEVATION MAY NOT FACE THE ALLEY**

THESE ELEVATIONS REPRESENT THE REQUIREMENTS FOR THE OPTIONAL CARPORT / BALCONY ONLY. SEE SHEETS 3.1 - 3.3 FOR ELEVATION SPECIFIC REQUIREMENTS

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NEW 05.09.22
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SUB 06.17.22

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PLAN 3 ADD

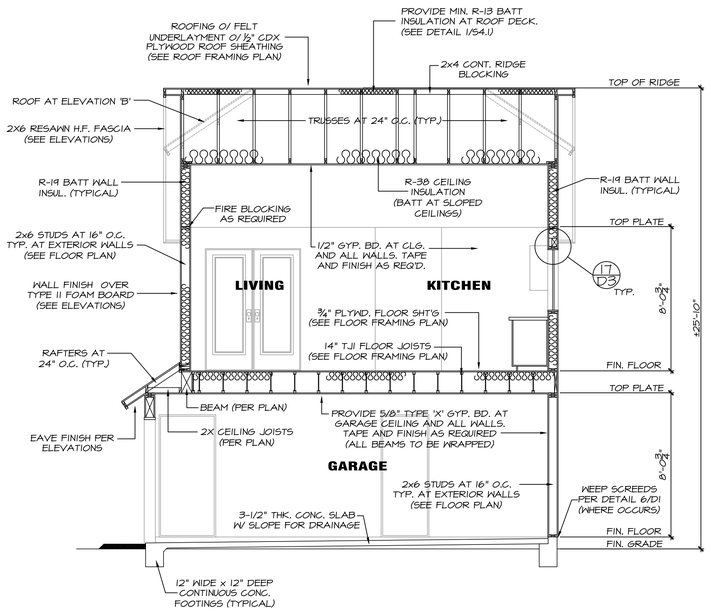
DATE: 06-17-2022

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SANGER, CA 93657
PHONE: 559.294.6534

STANDARD PLAN #3 FOR:
CITY OF CHOWCHILLA
130 S 2ND STREET
CHOWCHILLA, CA 93610
PHONE: 559-665-8615

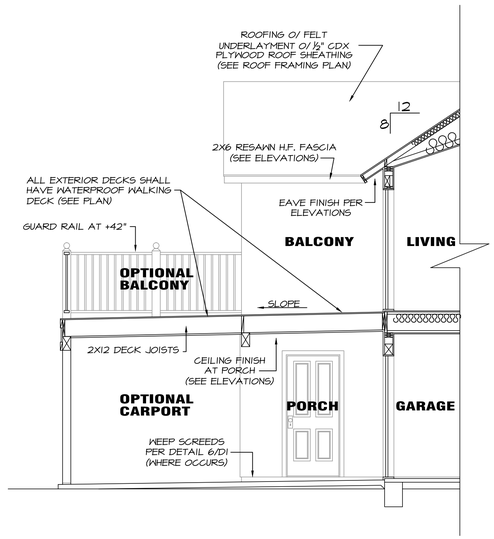
SHEET 3.4 OF 26
CARPORT ELEVATION

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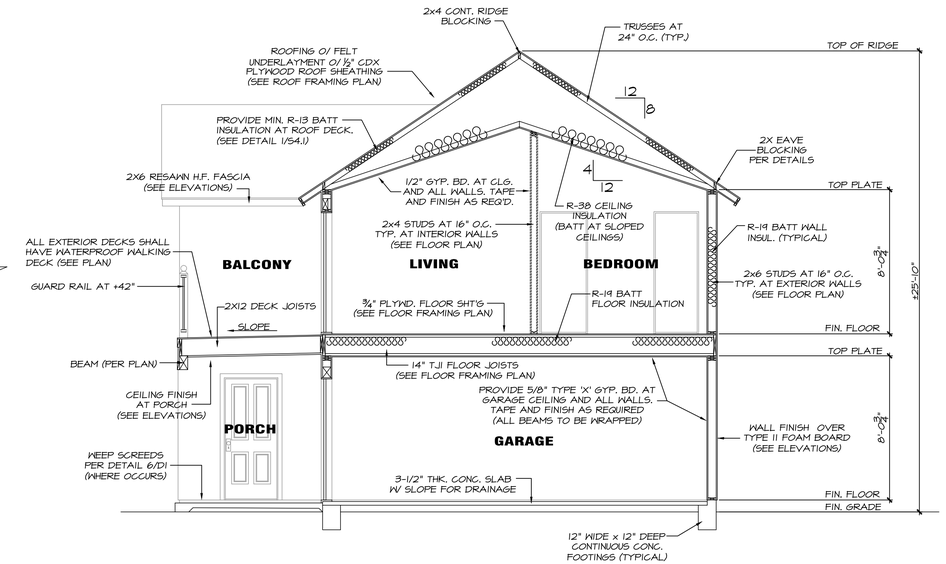
SECTION A–A

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



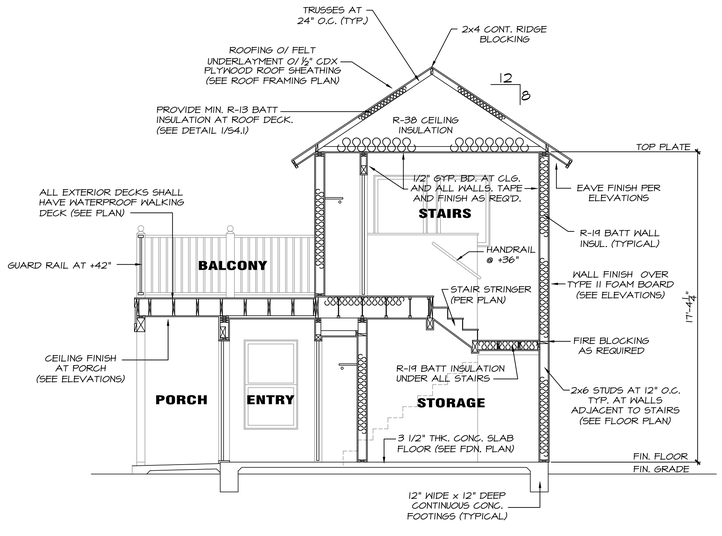
SECTION C1–C

SCALE: 1/4" = 1'-0" AT CARPORT OPTION



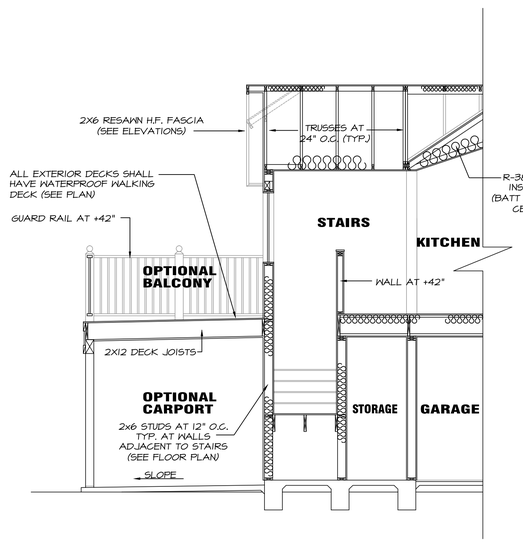
SECTION C–C

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



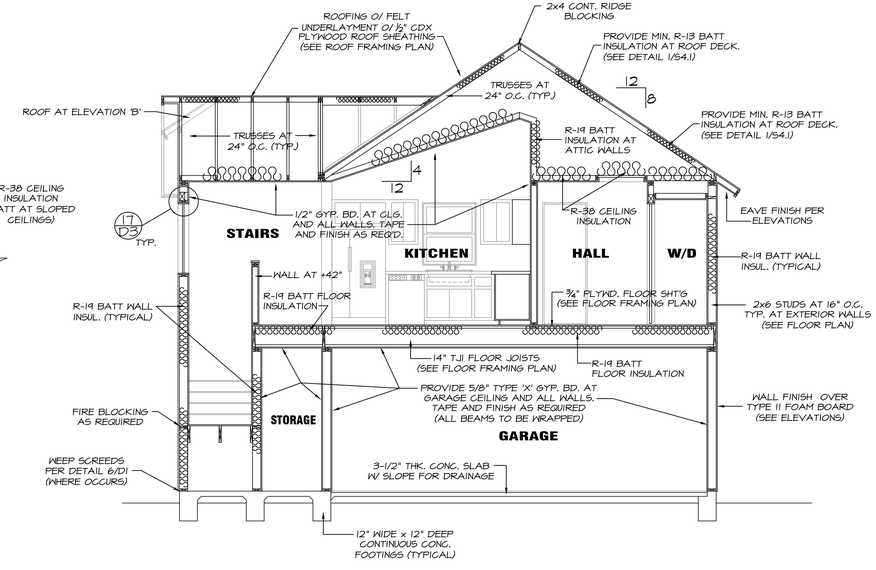
SECTION B–B

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



SECTION D1–D

SCALE: 1/4" = 1'-0" AT CARPORT OPTION



SECTION D–D

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

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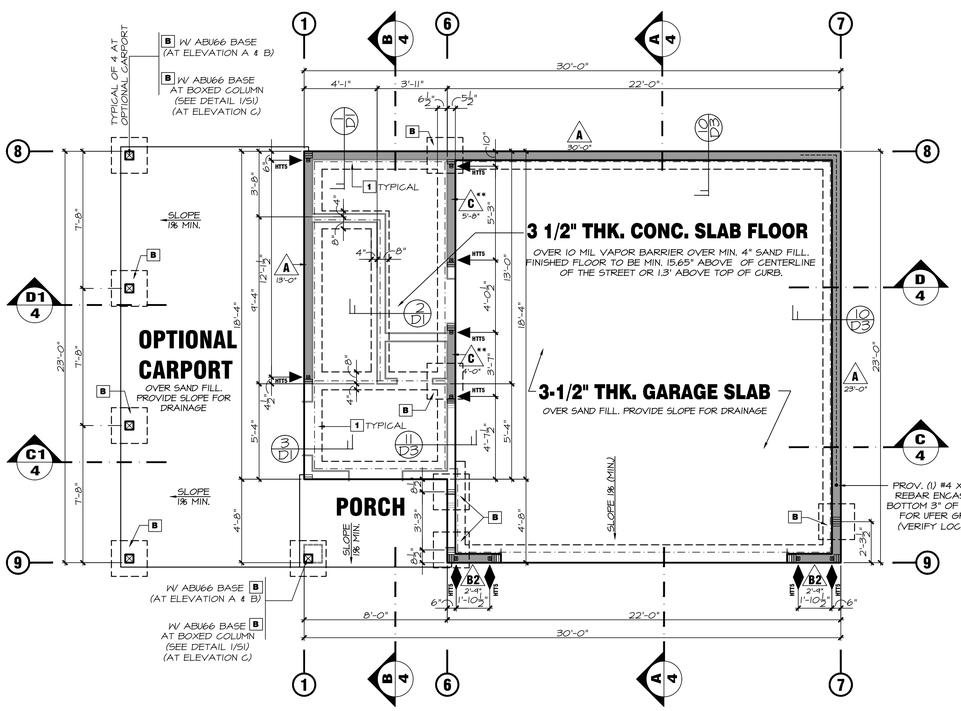
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SANGER, CA 93657
PHONE: 559.294.6534

STANDARD PLAN #3 FOR:
CITY OF CHOWCHILLA
130 S 2ND STREET
CHOWCHILLA, CA 93610
PHONE: 559-665-8615

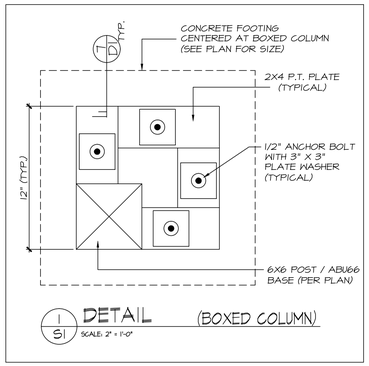
SHEET 4 OF 26
SECTIONS

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FOUNDATION PLAN

SCALE: 1/4" = 1'-0" **OPTIONAL CARPORT**



FOOTING SCHEDULE

MARK	FOOTING SIZE	REINFORCING
1	12" WIDE X 12" DEEP CONT. FOOTING PER DETAIL 1/D1	(1) #4 REBAR T & B
A	18" X 18" X 12" DEEP	(2) #4 REBAR E.W.
B	24" X 24" X 12" DEEP	(3) #4 REBAR E.W.

CONCRETE SHALL HAVE AN ULTIMATE COMPRESSION STRENGTH OF 2500 P.S.I. IN 28 DAYS.
SEE FOUNDATION PLAN FOR POST BASE AND SPECIAL REQUIREMENTS

SHEAR WALL SCHEDULE

SHEARWALLS

MARK	WALL SHEATHING	EDGE NAILING D.F. #2	ANCHOR BOLTS
A	3/8" CDX PLY. PSR 24/00 or 7/16" O.S.B. PSR 24/16	8d @ 6" O.C.	1/2" DIAM. @48" O.C. or MASA @ 48" O.C.
B1	3/8" CDX PLY. PSR 24/00 or 7/16" O.S.B. PSR 24/16	8d @ 4" O.C.	1/2" DIAM. @ 32" O.C. or MASA @ 32" O.C.
B2	3/8" CDX PLY. PSR 24/00 or 7/16" O.S.B. PSR 24/16	8d @ 4" O.C.	1/2" DIAM. @ 24" O.C. or MASA @ 24" O.C.
C**	3/8" CDX PLY. PSR 24/00 or 7/16" O.S.B. PSR 24/16	8d @ 3" O.C.	5/8" DIAM. @ 24" O.C. or MASA @ 24" O.C.

** ALL FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS SHALL BE NOT LESS THAN 3X MEMBER, OR 2-2X MEMBERS FASTENED TOGETHER WITH 16d NAILS AT 9" O.C.. PLYWOOD JOINT AND SILL PLATE NAILING SHALL BE STAGGARED.

NOTES:

MASA = 'SIMPSON' MUD SILL ANCHORS - ESR-2555 (OR EQUAL) INSTALLED PER MANIF. INSTALLATION INSTRUCTIONS.

ALL SILL PLATES SHALL BE PRESSURE TREATED DOUGLAS FIR #2.

ALL EXTERIOR FOOTINGS SHALL HAVE ½" DIAMETER X 10" ANCHOR BOLTS (OR MASA) AT 72" O.C. UNLESS NOTED OTHERWISE IN SHEAR WALL SCHEDULE.

FASTENERS FOR PRESERVATIVE-TREATED AND FIRE-RETARDAND-TREADED WOOD SHALL BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER.

HOLDOWN SCHEDULE

MARK	HOLDOWNS
	HTT5 W/ SSTB16 ANCHOR BOLT PER DETAIL 4/D1 -OR- STHD10 PER DETAIL 5/D1
	HTT5 W/ SSTB20 ANCHOR BOLT PER DETAIL 12/D3 -OR- STHD10 PER DETAIL 5/D1
	1- CS16 STRAP TO 2X STUD PER DETAIL 9A/D3 2- CS16 STRAPS TO 2-2X STUDS PER DETAIL 9B/D3

NOTES:

STHD10 HOLDOWN MAY BE SUBSTITUTED WHERE HTT5 HOLDOWN IS SPECIFIED. CONTRACTOR SHALL VERIFY STRAP / BOLT LOCATION WHERE DIFFERENT FROM THAT LISTED ON PLANS.

ALL HOLDOWNS DIMENSIONED ON PLAN ARE MEASURED TO THE CENTER OF THE HOLDOWN DEVICE (BOLT OR STRAP)

FOUNDATION NOTES:

PRIOR TO CALLING FOR A BUILDING DIVISION FOUNDATION INSPECTION, PRELIMINARY GRADING AND COMPACTION REPORTS SHALL BE SUBMITTED TO AND APPROVED BY THE BUILDING DIVISION GRADING INSPECTOR.

LOCATE AND EXPOSE ALL PROPERTY CORNERS AND STRING SIDE YARD PROPERTY LINES PRIOR TO THE FOUNDATION INSPECTION.

THE MAXIMUM ALLOWABLE SOIL BEARING CAPACITY IS 1500 LBS. PER S.F.

CONCRETE SHALL HAVE AN ULTIMATE COMPRESSION STRENGTH OF 2500 P.S.I. IN 28 DAYS.

THE CONCRETE SLABS SHALL HAVE A MINIMUM THICKNESS OF 3 1/2" APPLIED OVER 2" OF SAND (ASTM-C33) OVER MIN. 10 MIL. VAPOR BARRIER AND SHALL BE PLACED OVER COMPACTED SUB-GRADE OR ENGINEERED FILL.

THE SOILS REPORT (IF REQUIRED) SHALL BE REVIEWED BY THE CONTRACTOR FOR SPECIAL REQUIREMENTS AND RECOMMENDATIONS PRIOR TO START OF FOUNDATION WORK. PROVIDE A COPY OF THE SOILS REPORT ON SITE FOR INSPECTION PURPOSES.

SLABS AND FOOTING SHALL BE POURED MONOLITHICALLY. IF 2-POUR SYSTEM IS TO BE USED, AUTHORIZATION FROM ENGINEER IS REQUIRED PRIOR TO WORK STARTED.

ALL HOLDOWNS, SPECIAL ANCHOR BOLTING REQUIREMENTS AND STRAPS THAT ARE APPLICABLE TO THE BUILDING MUST BE SECURELY IN PLACE AT TIME OF FOUNDATION INSPECTION.

VERIFY THE LOCATION OF ALL HOLDOWNS WITH THE FRAMING CONTRACTOR.

FOUNDATION CONTRACTOR SHALL VERIFY AND PROVIDE CONTROL JOINTS TO CONTROL CRACKING.

PROVIDE (1) #4 REBAR TOP AND BOTTOM IN ALL FOOTINGS

UNLESS NOTED OTHERWISE FOR SHEAR WALLS, ALL EXTERIOR WALLS SHALL HAVE 1/2" DIAMETER X 10" LONG ANCHOR BOLTS INSTALLED AT 72" O.C. WITH MIN. 7" EMBEDMENT. PROVIDE MIN. 2 A.B. PER WALL AND NOT MORE THAN 12" FROM END OR SPLICES IN BOTTOM PLATES. 14" LONG ANCHOR BOLTS ARE REQUIRED AT THE GARAGE STEM WALLS.

ALL ANCHOR BOLTS ARE REQUIRED TO BE INSTALLED IN THE MIDDLE 1/3 OF THE PLATE.

PROVIDE A 3" X 3" X 0.229" STEEL PLATE WASHER AT ALL ANCHOR BOLTS. *(CRC R602.11.)*
A STANDARD CUT WASHER SHALL BE PLACED BETWEEN THE PLATE WASHER AND THE NUT.
WASHERS SHALL EXTEND TO WITHIN ½" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE WITH WALL SHEATHING. (SDPWS-08 SECTION 4.3.6.4.3)

POWDER DRIVEN FASTENERS SHALL NOT BE LOCATED IN STEM WALLS LESS THAN 5 1/2" WIDE OR GREATER THAN 5 1/2" HIGH.

FASTENERS AT INTERIOR NON-LOAD BEARING WALLS SHALL BE 'RAMSET' #3348 AT 48" O.C. (ESR 1749). FOR SHEAR WALLS USE A.B. PER FOUND. PLAN

THE FASTENERS EMBEDDED IN CONCRETE SHALL BE ATTACHED TO, OR HOOKED AROUND, REINFORCING STEEL OR OTHERWISE TERMINATE TO EFFECTIVELY TRANSFER FORCES TO THE REINFORCING STEEL.

FASTENERS IN PRESERVATIVE-TREATED WOOD (ANCHOR BOLTS, NAILS, SCREWS, ECT. (EXCLUDING INTERIOR WALLS) SHALL BE APPROVED SILICON BRONZE OR COPPER, STAINLESS STEEL OR HOT DIPPED ZINC-COATED STEEL. ALTERNATE MATERIALS AND METHODS MUST BE SUBMITTED FOR REVIEW AND APPROVED PRIOR TO PERMIT ISSUANCE.

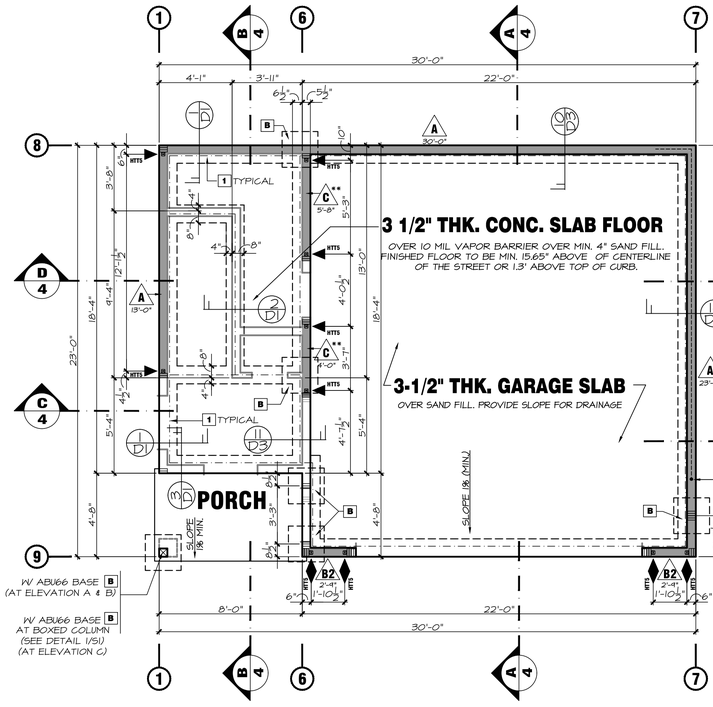
WOOD FRAMING MEMBERS, INCLUDING WOOD SHEATHING, THAT REST ON EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 8" FROM EXPOSED EARTH SHALL BE OF NATURALLY DURABLE OR PRESERVATIVE-TREATED WOOD.

SURFACE WATER WILL BE DRAINED AWAY FROM THE BUILDING FOR AT LEAST THE FIRST 10' WITH A MINIMUM GRADE OF 6". WHERE THIS REQUIREMENT CANNOT BE MET BECAUSE THE DISTANCE BETWEEN THE STRUCTURE AND THE PROPERTY LINE IS LESS THAN 10', PROVIDE LANDSCAPE DRAINS & INLETS NOT TO EXCEED 15' AT SIDE YARDS. -2019 CRC R401.3

SUBTERRANEAN TERMITE CONTROL "METHODS OF PROTECTION" SHALL BE DONE WITH CHEMICAL TERMITICIDE TREATMENT, AS PROVIDED IN SECTION R318.2. PRIOR TO FOUNDATION INSPECTION.

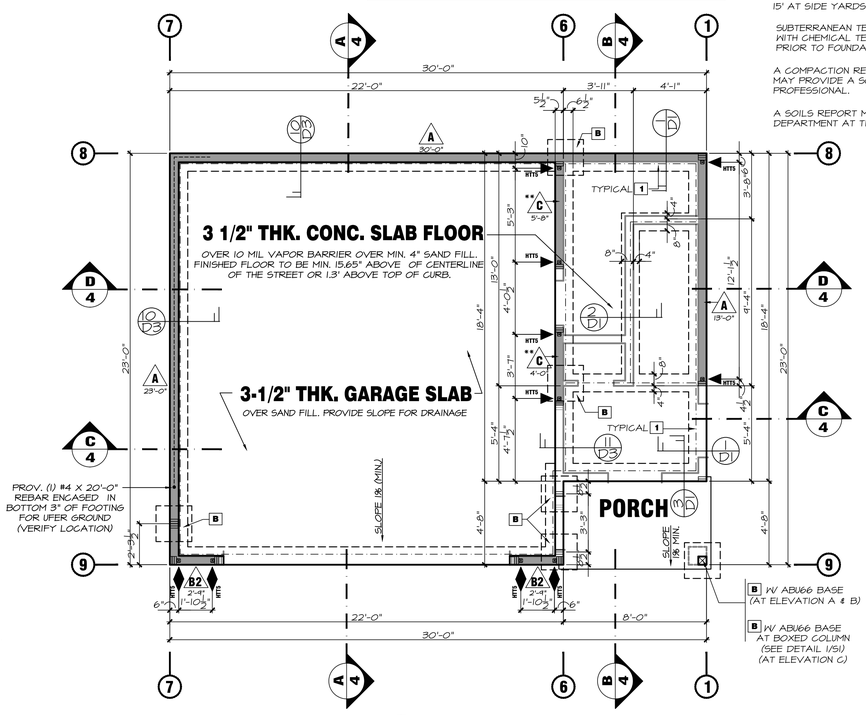
A COMPACTION REPORT IS REQUIRED, AS AN OPTION, THE PROPERTY OWNER MAY PROVIDE A SOILS REPORT FOR THIS PROJECT FROM A LICENSED PROFESSIONAL.

A SOILS REPORT MAY BE REQUESTED BY THE CITY OF CLOVIS BUILDING DEPARTMENT AT TIME OF PERMIT APPLICATION.



FOUNDATION PLAN

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



REVERSED FOUNDATION PLAN

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

ENGINEER'S SEAL AND SIGNATURE ON PLANS ARE LIMITED TO THE ITEMS ON THE PLANS ADDRESSED IN THE STRUCTURAL CALCULATIONS ONLY. NO OTHER APPROVAL, LIABILITY OR CONSENT FOR ANY OTHER ASPECT OR PHASE OF THIS STRUCTURE IS IMPLIED OR EXPRESSED.

REGISTERED PROFESSIONAL ENGINEER — HASAN A. MOHAMAD — No. 45997 — CIVIL — STATE OF CALIFORNIA

7/8/22

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2ND 05.25.22
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PLAN 3-S1A

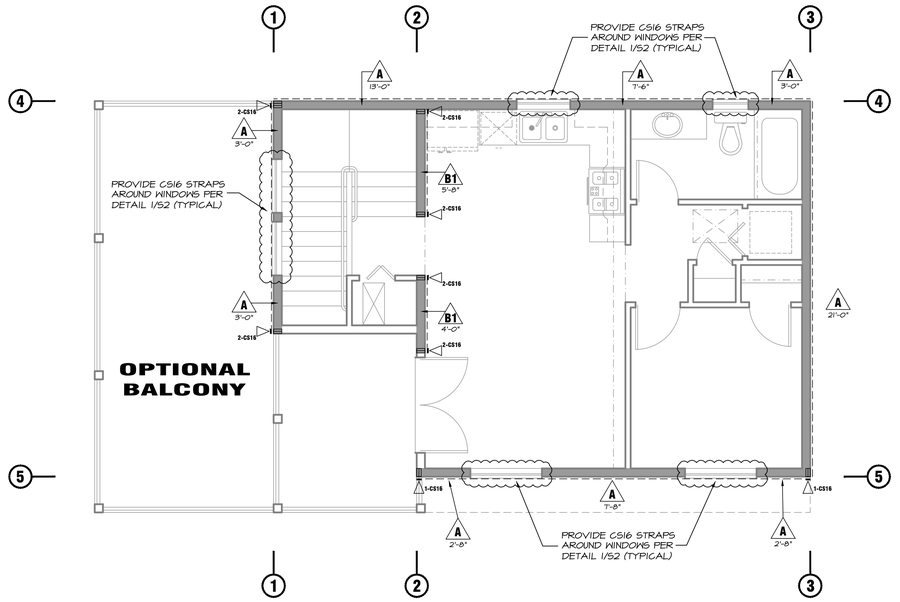
DATE: 06-17-2022

CWB DESIGNS
3838 N. CHICKADEE AVE.
SANGER, CA 93657
PHONE: 559.294.6534

STANDARD PLAN #3 FOR:
CITY OF CHOWCHILLA
130 S 2ND STREET
CHOWCHILLA, CA 93610
PHONE: 559-665-8615

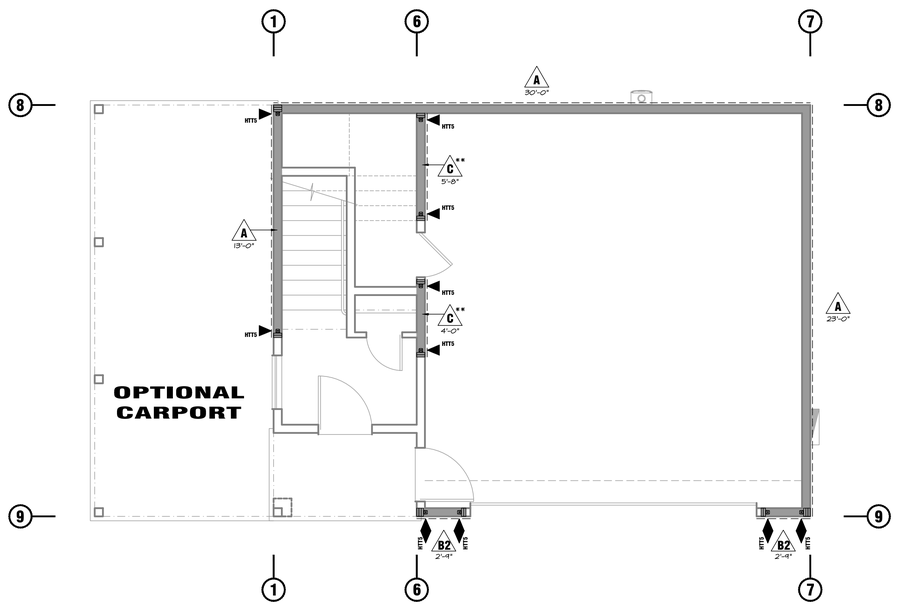
SHEET S1 OF 26 FOUNDATION

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2nd FLOOR SHEARWALL PLAN

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



1st FLOOR SHEARWALL PLAN

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

SHEAR WALL SCHEDULE

SHEARWALLS

MARK	WALL SHEATHING	EDGE NAILING D.F. #2	ANCHOR BOLTS
A	3/8" CDX PLY. PSR 24/00 or 7/16" O.S.B. PSR 24/16	8d @ 6" O.C.	1/2" DIAM. @48" O.C. or MASA @ 48" O.C.
B1	3/8" CDX PLY. PSR 24/00 or 7/16" O.S.B. PSR 24/16	8d @ 4" O.C.	1/2" DIAM. @ 32" O.C. or MASA @ 32" O.C.
B2	3/8" CDX PLY. PSR 24/00 or 7/16" O.S.B. PSR 24/16	8d @ 4" O.C.	1/2" DIAM. @ 24" O.C. or MASA @ 24" O.C.
C**	3/8" CDX PLY. PSR 24/00 or 7/16" O.S.B. PSR 24/16	8d @ 3" O.C.	5/8" DIAM. @ 24" O.C. or MASA @ 24" O.C.

** ALL FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS SHALL BE NOT LESS THAN 3X MEMBER, OR 2-2X MEMBERS FASTENED TOGETHER WITH 16d NAILS AT 4" O.C.. PLYWOOD JOINT AND SILL PLATE NAILING SHALL BE STAGGARED.

NOTES:

MASA = 'SIMPSON' MUD SILL ANCHORS - ESR-2555 (OR EQUAL) INSTALLED PER MANIF. INSTALLATION INSTRUCTIONS.

ALL SILL PLATES SHALL BE PRESSURE TREATED DOUGLAS FIR #2.

NAILING AT INTERMEDIATE MEMBERS TO BE SPACED AT 12" O.C. (TYPICAL U.N.O.)

NAILING OF PLYWOOD SHEAR WALLS OR PLYWOOD DIAPHRAGMS SHALL BE DONE WITH COMMON OR GALVANIZED BOX NAILS ONLY. GALVANIZED NAILS SHALL BE HOT DIPPED OR TUMBLED.

ALL WOOD SHEAR WALLS AND DIAPHRAGMS SHALL CONFORM TO CBC SECTION 2305.2.4.

A) SHEETS USED IN THE CONSTRUCTION OF DIAPHRAGMS AND SHEAR WALLS SHALL NOT BE LESS THEN 4' X 8' IN SIZE

B) MINIMUM SIZE SHEET AT BOUNDARIES AND CHANGES IN FRAMING SHALL BE 24" UNLESS ALL EDGES ARE BLOCKED AND NAILED.

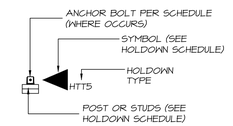
C) PROVIDE FRAMING MEMBERS OR BLOCKING AT ALL PANEL EDGES IN SHEAR WALLS

ALL EXTERIOR FOOTINGS SHALL HAVE 1/2" DIAMETER X 10" ANCHOR BOLTS (OR MASA) AT 72" O.C. UNLESS NOTED OTHERWISE IN SHEAR WALL SCHEDULE.

FASTENERS FOR PRESERVATIVE-TREATED AND FIRE-RETARDAND-TREADED WOOD SHALL BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER.

HOLDOWN SCHEDULE

MARK	HOLDOWNS
	HTT5 W/ SSTB16 ANCHOR BOLT PER DETAIL 4/D1 -OR- STHD10 PER DETAIL 5/D1
	HTT5 W/ SSTB20 ANCHOR BOLT PER DETAIL 12/D3 -OR- STHD10 PER DETAIL 5/D1
	1- CS16 STRAP TO 2X STUD PER DETAIL 9A/D3 2- CS16 STRAPS TO 2-2X STUDS PER DETAIL 9B/D3



LEGEND

NOTES:

STHD10 HOLDOWN MAY BE SUBSTITUTED WHERE HTT5 HOLDOWN IS SPECIFIED. CONTRACTOR SHALL VERIFY STRAP / BOLT LOCATION WHERE DIFFERENT FROM THAT LISTED ON PLANS.

ALL HOLDOWNS DIMENSIONED ON PLAN ARE MEASURED TO THE CENTER OF THE HOLDOWN DEVICE (BOLT OR STRAP)

ENGINEER'S SEAL AND SIGNATURE ON PLANS ARE LIMITED TO THE ITEMS ON THE PLANS ADDRESSED IN THE STRUCTURAL CALCULATIONS ONLY. NO OTHER APPROVAL, LIABILITY OR CONSENT FOR ANY OTHER ASPECT OR PHASE OF THIS STRUCTURE IS IMPLIED OR EXPRESSED.

REGISTERED PROFESSIONAL ENGINEER HAMAN A. MOHAMMADI No. 45997 CIVIL STATE OF CALIFORNIA

7/8/22

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REVISIONS

REV	DATE:
NEW	05.09.22
NEW	05.17.22
SUB	06.17.22

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PLAN 3\S2A

DATE: 06-17-2022

CWB DESIGNS
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SANGER, CA 93657
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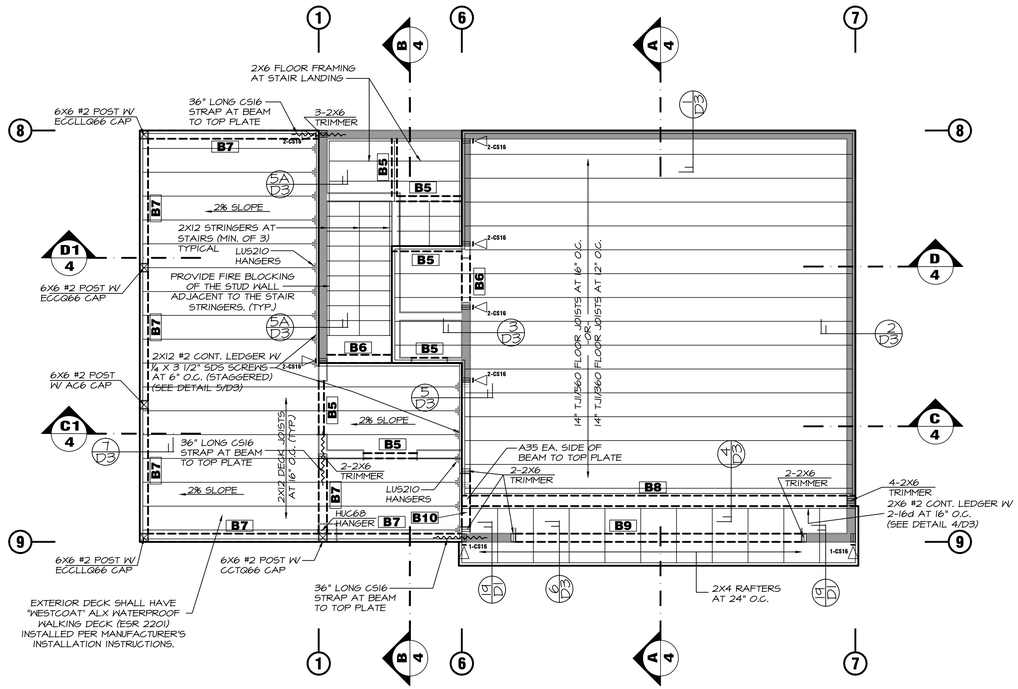
STANDARD PLAN #3 FOR:

CITY OF CHOWCHILLA
130 S 2ND STREET
CHOWCHILLA, CA 93610
PHONE: 559-665-8615

SHEET S2 OF 26

SHEARWALLS

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FLOOR FRAMING PLAN

SCALE: 1/4" = 1'-0" **OPTIONAL CARPORT**

HEADER & BEAM SCHEDULE			
MARK	BEAM SIZE	GRADE	REMARKS
B1	4X6	D.F. #2	
B2	4X10	D.F. #2	
B5	4X6	D.F. #2	
B6	6X8	D.F. #2	
B7	6X10	D.F. #2	
B8	7X14 PARALLAM	PSL 1.8E	
B9	6X12	D.F. #1	
B9	5 1/2" X 12" G.L.B.	24F-V4	
B10	6X12	D.F. #2	

NOTES:
- BEAM DESIGN NO. AS REFERENCED IN ENGINEER'S CALCULATIONS
- ALL LUMBER SHALL BE GRADE MARKED, DF STD. OR BETTER, U.N.O.
- GLUE-LAMINATED WOOD TO BE 24F-V4 DF/DF, U.N.O.
- ALL BEAMS SHALL HAVE SOLID SUPPORT TO FOUNDATION. UNLESS NOTED OTHERWISE, PROVIDE MIN (1) 2X TRIMMER AT EACH END.

STAIR NOTES

HANDRAILS AND GUARDS SHALL BE DESIGNED TO RESIST A CONCENTRATED LOAD OF 200 POUNDS IN ACCORDANCE WITH SECTION 4.5.1 OF ASCE 7.

INTERMEDIATE RAILS (ALL THOSE EXCEPT THE HANDRAIL), BALUSTERS AND PANEL FILLERS SHALL BE DESIGNED TO RESIST A CONCENTRATED LOAD OF 50 POUNDS IN ACCORDANCE WITH SECTION 4.5.1 OF ASCE 7.

SPACING OF INTERMEDIATE RAILS FOR OPEN GUARDRAILS SHALL BE SPACED SUCH THAT A SPHERE 4" IN DIAMETER CANNOT PASS THROUGH, AND A 6" SPHERE CANNOT PASS THROUGH THE TRIANGLE AREA FORMED BY THE TREAD, RISER AND THE GUARDRAIL.

ALL GUARDRAILS SHALL BE A MIN. 42" IN HEIGHT. HORIZONTAL SPACING BETWEEN VERTICAL MEMBERS SHALL BE A MAXIMUM OF 4" O.C.

THE RISE OF STEPS IN STAIRWAYS SHALL NOT EXCEED 7 ¾" NOR BE LESS THAN 4" IN HEIGHT, AND THE RUN SHALL BE NOT LESS THAN 10" IN DEPTH.

THE TREAD WIDTH AND THE RISER HEIGHT SHALL BE EQUAL FOR THE ENTIRE LENGTH OF THE STAIRWAY (WITHIN 3/8").

WINDER TREADS SHALL HAVE A MINIMUM TREAD DEPTH OF 10 INCHES AT THE INTERSECTIONS WITH THE WALK LINE.

MINIMUM HEADROOM CLEARANCES FOR STAIRWAYS SHALL BE 6'-8", MEASURED FROM A LINE TANGENT TO THE TREAD NOSING

PROVIDE FIRE BLOCKING OF THE STUD WALL ADJACENT TO THE STAIR STRINGER

FLOOR FRAMING NOTES:

REFER TO TYPICAL NOTES ON SHEET N-1 FOR ADDITIONAL FRAMING REQUIREMENTS.

STRUCTURAL FLOOR MEMBERS SHALL NOT BE CUT, BORED OR NOTCHED IN EXCESS OF THE LIMITATIONS SPECIFIED IN CRC FIGURE R502.8.

ALL FLOOR JOISTS TO BE 14" TJI / 560 JOISTS AT 16" O.C. -OR- 14" TJI / 360 JOISTS AT 12" O.C. (UNLESS NOTED OTHERWISE)

FLOOR SHEATHING TO BE 3/4" CDX T&G PLYWOOD (PSR 40/20 OR OSB EQUIV.) GLUE AND NAIL TO JOISTS W/ 10d COMMON AT 6" O.C. EDGES, 12" O.C. FIELD. PROVIDE STAGGERED END JOINT PATTERNS AS REQUIRED.

PROVIDE 1 ¼ " TIMBERSTRAND LSL RIM BOARD AT PERIMETER OF FLOOR FRAMING OR PROVIDE TJI BLOCKING AS REQUIRED.

PROVIDE DOUBLE FLOOR JOISTS BELOW ALL PARALLEL WALLS ABOVE. MAXIMUM OFFSET TO BE NOT MORE THAN ONE JOIST DEPTH

STRUCTURAL FLOOR MEMBERS SHALL NOT BE CUT, BORED OR NOTCHED IN EXCESS OF THE LIMITATIONS SPECIFIED IN FIGURE R502.8., OR AS RECOMMENDED BY THE JOIST MANUFACTURER.

INTERIOR LOAD-BEARING WALLS SHALL BE CONSTRUCTED, FRAMED AND FIRE BLOCKED AS SPECIFIED FOR EXTERIOR WALLS.

ALL EXTERIOR DECKS WHERE PLYWOOD IS USED AS A SUB FLOOR, THE PLYWOOD SHALL BE EXTERIOR GRADE, EXPOSURE 1 RATED.

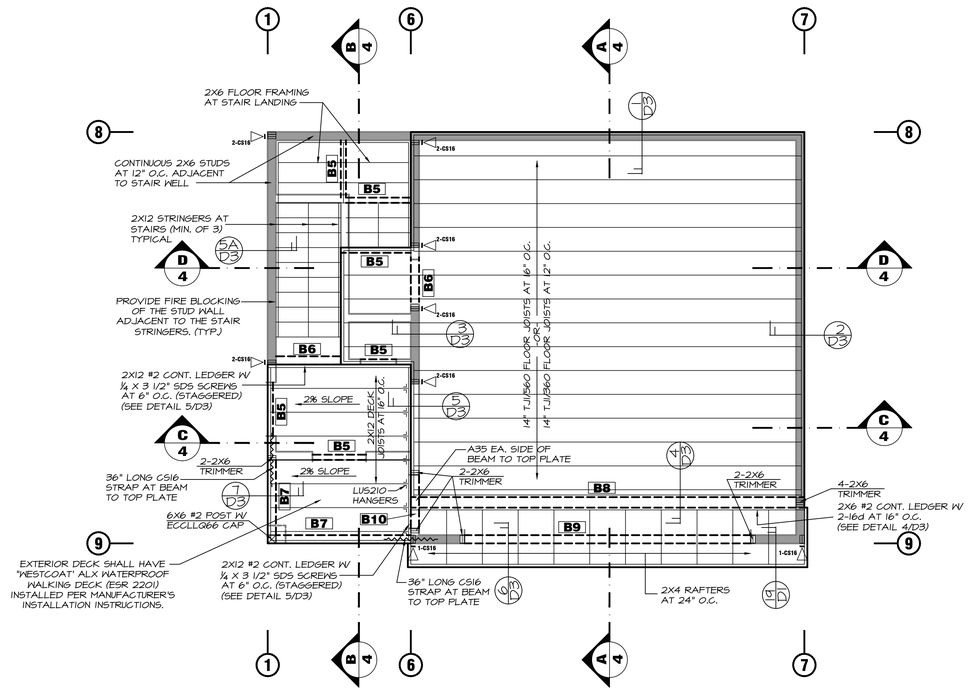
GUARDRAILS SHALL BE PROVIDED AT OPEN SIDE OF LANDINGS, DECKS AND BALCONIES AND SHALL COMPLY WITH THE REQUIREMENTS OF CRC R312. PROVIDE WOOD GUARD RAILS PER PLANS & DETAILS. USE OF PRE-FABRICATED WROUGHT IRON RAILING CAN BE USED, PROVIDED IT CONFORMS TO THE REQUIREMENTS OF CRC R312, AND IS INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

HOLDOWN SCHEDULE

MARK	HOLDOWNS
	HTT5 W/ SSTB16 ANCHOR BOLT PER DETAIL 4/D1 -OR- STHD10 PER DETAIL 5/D1
	HTT5 W/ SSTB20 ANCHOR BOLT PER DETAIL 12/D3 -OR- STHD10 PER DETAIL 5/D1
	1- CS16 STRAP TO 2X STUD PER DETAIL 9A/D3 2- CS16 STRAPS TO 2-2X STUDS PER DETAIL 9B/D3

NOTES:
STHD10 HOLDOWN MAY BE SUBSTITUTED WHERE HTT5 HOLDOWN IS SPECIFIED. CONTRACTOR SHALL VERIFY STRAP / BOLT LOCATION WHERE DIFFERENT FROM THAT LISTED ON PLANS.

ALL HOLDOWNS DIMENSIONED ON PLAN ARE MEASURED TO THE CENTER OF THE HOLDOWN DEVICE (BOLT OR STRAP)



FLOOR FRAMING PLAN

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

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REGISTERED PROFESSIONAL ENGINEER HASSAN A. MOHAMMAD No. 45997 CIVIL STATE OF CALIFORNIA

7/8/22

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REVISIONS
REV DATE:
NEW 05.09.22
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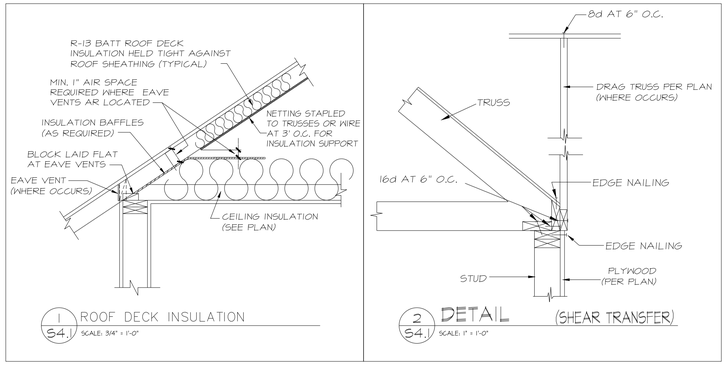
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SANGER, CA 93657
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STANDARD PLAN #3 FOR:
CITY OF CHOWCHILLA
130 S 2ND STREET
CHOWCHILLA, CA 93610
PHONE: 559-665-8615

SHEET S3 OF 26
FLOOR FRAMING

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HEADER & BEAM SCHEDULE

MARK	BEAM SIZE	GRADE	REMARKS
B1	4X6	D.F. #2	
B2	4X10	D.F. #2	
B5	4X6	D.F. #2	
B6	6X8	D.F. #2	
B7	6X10	D.F. #2	
B8	7X14 PARALLAM	PSL 1.8E	
B9	6X12	D.F. #1	
B9	5 1/2" X 12" G.L.B.	24F-V4	
B10	6X12	D.F. #2	

NOTES:

BEAM DESIGN NO. AS REFERENCED IN ENGINEER'S CALCULATIONS

ALL LUMBER SHALL BE GRADE MARKED, DF STD. OR BETTER, U.N.O.

GLUE-LAMINATED WOOD TO BE 24F-V4 DF/DF, U.N.O.

ALL BEAMS SHALL HAVE SOLID SUPPORT TO FOUNDATION. UNLESS NOTED OTHERWISE, PROVIDE MIN (1) 2X TRIMMER AT EACH END.

VENTILATION CALCULATIONS: (AT ELEVATION A)

TOTAL ATTIC AREA: 566 SQ. FT.
566 SQ. FT. X 1/150 = 3.77 S.F. REQ'D
3.77 SQ. FT. X 144 = 544 SQ. IN. REQ'D.
COMBUSTION AIR:
(80K / 4K) = 20 S.I. ADDITIONAL REQ'D

(5) 3 ½" X 22 ½ " EAVE VENTS	235 S.I.
(2) 14" X 18" GABLE END VENTS	236 S.I.
(2) 21" X 27" OVAL GABLE END VENTS	114 S.I.
TOTAL VENTILATION PROVIDED:	585 S.I.

ALL VENTS SHALL HAVE CORROSION RESISTANT SCREENS WITH OPENINGS AT LEAST 1/16", AND NOT MORE THAN ¼" MAXIMUM.

PROVIDE 1" MIN. AIR SPACE BETWEEN INSULATION AND ROOF SHEATHING.

PROVIDE MIN. 4'-0" LONG BAFFLES AT EAVE VENTS WHERE LOOSE FILLED INSULATION IS USED IN THE ATTIC ADJACENT TO THE VENTS.

ROOF FRAMING NOTES:

USE PRE-MANUFACTURED TRUSSES AT 24" O.C. UNLESS NOTED OTHERWISE IN DRAWINGS. TRUSS DRAWINGS SHALL BE SUBMITTED TO AND APPROVED BY THE BUILDING DEPARTMENT PRIOR TO FABRICATION OF ANY TRUSSES.

SEE TYPICAL TRUSS AND ROOF FRAMING NOTES AT SHEET N-1

APPROVED TRUSS DRAWINGS SHALL BE ON SITE FOR INSPECTION PURPOSES

SEE TRUSS DRAWINGS FOR WEB BRACING REQUIREMENTS AND/OR ANY ADDITIONAL REQUIREMENTS.

ALL FRAMING LUMBER TO BE D.F. #2 OR BETTER UNLESS NOTED OTHERWISE IN DRAWINGS.

ALL FASCIA TO BE 2x8 RESAWN HEM FIR

ROOF COVERING TO BE CLASS "A", COMPOSITION SHINGLES OVER 30 # FELT OVER 1/2" CDX RATED 24/00 PLYWOOD ROOF SHEATHING (OR 7/16" OSB RATED 24/16) WITH 8D AT 6" O.C. AT EDGE AND BOUNDARY NAILING AND 8D AT 12" O.C. AT FIELD NAILING. THE ENTIRE PERIMETER SHALL BE BLOCKED AND EDGE NAILED.

NAILING OF PLYWOOD SHEAR WALLS OR PLYWOOD DIAPHRAGMS SHALL BE DONE WITH COMMON WIRE NAILS, U.N.O. SHOULD THE CONTRACTOR DESIRE TO USE ANY OTHER FASTENERS, HE SHALL OBTAIN WRITTEN APPROVAL FROM THE ENGINEER AND/OR DESIGNER PRIOR TO THE USE OF SUCH FASTENERS IN THE FIELD.

ENTIRE PERIMETER OF ROOF SHALL BE BLOCKED AND EDGE NAILED

PROVIDE 1/8" GAP AT ALL PLYWOOD PANEL EDGES.

PLYWOOD ROOF DIAPHRAGM SHALL BE CONTINUOUS BELOW ALL CALIFORNIA FILL FRAMING. PROVIDE 22" X 30" OPENING FOR ACCESS AND VENTILATION. BLOCK ALL EDGES OF OPENING.

ALL PLYWOOD ROOF SHEATHING SHALL BE LAID PERPENDICULAR TO RAFTERS WITH STAGGERED END JOINT PATTERNS.

ALL PLYWOOD EXPOSED TO THE WEATHER SHALL BE 'EXPOSURE ONE' RATED.

PROVIDE STEPPED FLASHING AT ALL ROOF JUNCTIONS TO VERTICAL SURFACES. (WALLS, SKYLIGHTS AND FIREPLACES)

ANY EXTERIOR TOP PLATE THAT CANNOT LAP DUE TO CHANGES IN PLATE HEIGHT OR AT CORNERS WHERE RAKED WALLS INTERSECT LEVEL WALLS, SHALL USE 28" LONG 'CS16' STRAPS TO TIE THEM TOGETHER. (SEE DETAIL 10/D1)

ALL WOOD SHEAR WALLS AND DIAPHRAGMS SHALL CONFORM TO THE FOLLOWING:

A) SHEETS USED IN THE CONSTRUCTION OF DIAPHRAGMS AND SHEAR WALLS SHALL NOT BE LESS THEN 4' X 8' IN SIZE

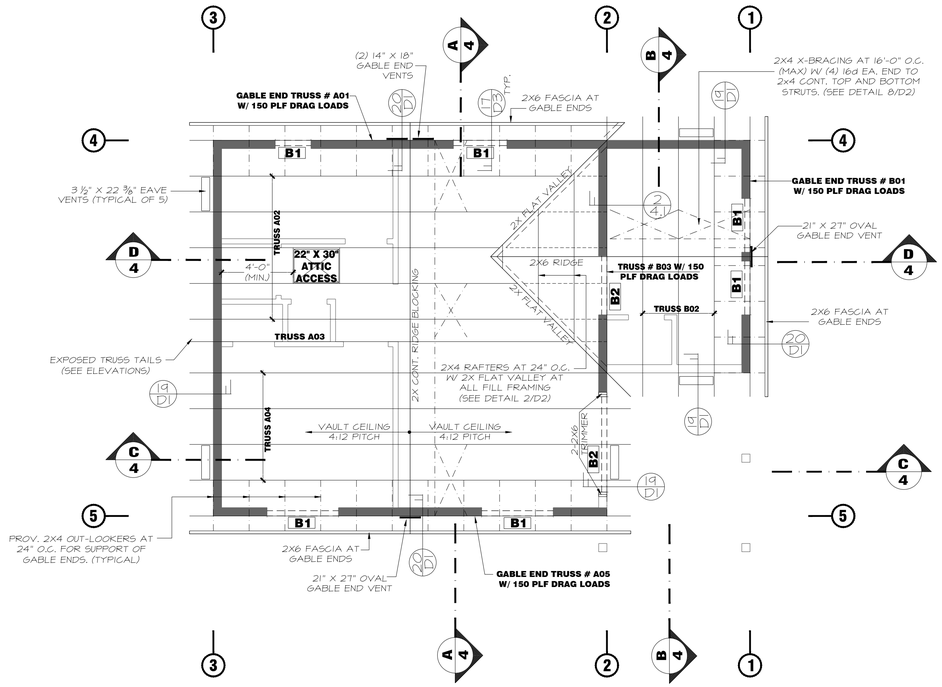
B) MINIMUM SIZE SHEET AT BOUNDARIES AND CHANGES IN FRAMING SHALL BE 24" UNLESS ALL EDGES ARE BLOCKED AND NAILED.

C) PROVIDE FRAMING MEMBERS OR BLOCKING AT ALL PANEL EDGES IN SHEAR WALLS

ALL ELEVATIONS ARE GIVEN FROM TOP OF FLOOR SLAB.

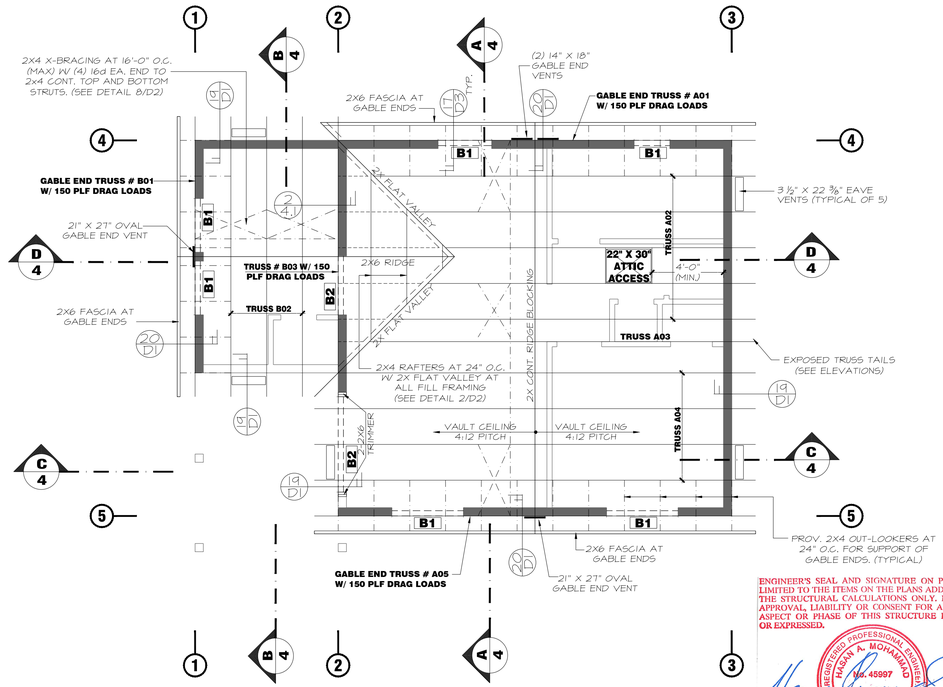
SEE DETAIL 1/D2 FOR TYPICAL BEAM CONNECTION DETAILS

ALL ATTIC ACCESS OPENINGS SHALL BE GASKETED TO PREVENT AIR LOSS.



ROOF FRAMING PLAN

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



ROOF FRAMING PLAN

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

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7/8/22

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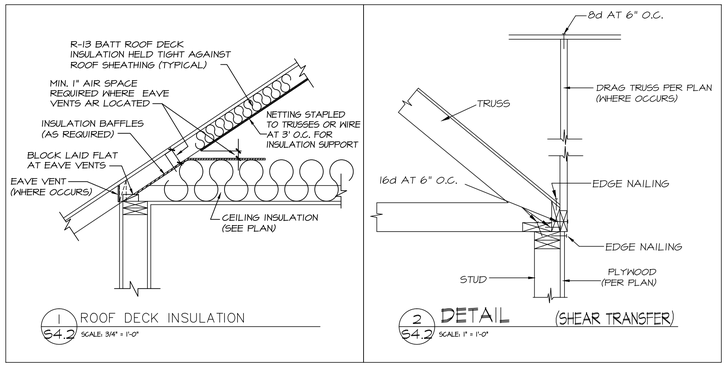
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SHEET S4.1 OF 26
ROOF FRAMING-A

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HEADER & BEAM SCHEDULE

MARK	BEAM SIZE	GRADE	REMARKS
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B5	4X6	D.F. #2	
B6	6X8	D.F. #2	
B7	6X10	D.F. #2	
B8	7X14 PARALLAM	PSL 1.8E	
B9	6X12	D.F. #1	
B9	5 1/2" X 12" G.L.B.	24F-V4	
B10	6X12	D.F. #2	

NOTES:

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ALL LUMBER SHALL BE GRADE MARKED, DF STD. OR BETTER, U.N.O.

GLUE-LAMINATED WOOD TO BE 24F-V4 DF/DF, U.N.O.

ALL BEAMS SHALL HAVE SOLID SUPPORT TO FOUNDATION, UNLESS NOTED OTHERWISE, PROVIDE MIN (1) 2X TRIMMER AT EACH END.

VENTILATION CALCULATIONS: (AT ELEVATION B)

TOTAL ATTIC AREA: 566 SQ. FT.
566 SQ. FT. X 1/150 = 3.77 S.F. REQ'D
3.77 SQ. FT. X 144 = 544 SQ. IN. REQ'D.
COMBUSTION AIR;
(80K / 4K) = 20 S.I. ADDITIONAL REQ'D

(7) 3 ½" X 22 ½ " EAVE VENTS	329 S.I.
(2) 14" X 18" GABLE END VENTS	236 S.I.
TOTAL VENTILATION PROVIDED;	565 S.I.

ALL VENTS SHALL HAVE CORROSION RESISTANT SCREENS WITH OPENINGS AT LEAST 1/16", AND NOT MORE THAN ¼" MAXIMUM.

PROVIDE 1" MIN. AIR SPACE BETWEEN INSULATION AND ROOF SHEATHING.

PROVIDE MIN. 4'-0" LONG BAFFLES AT EAVE VENTS WHERE LOOSE FILLED INSULATION IS USED IN THE ATTIC ADJACENT TO THE VENTS.

ROOF FRAMING NOTES:

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PROVIDE 1/8" GAP AT ALL PLYWOOD PANEL EDGES.

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A) SHEETS USED IN THE CONSTRUCTION OF DIAPHRAGMS AND SHEAR WALLS SHALL NOT BE LESS THEN 4' X 8' IN SIZE

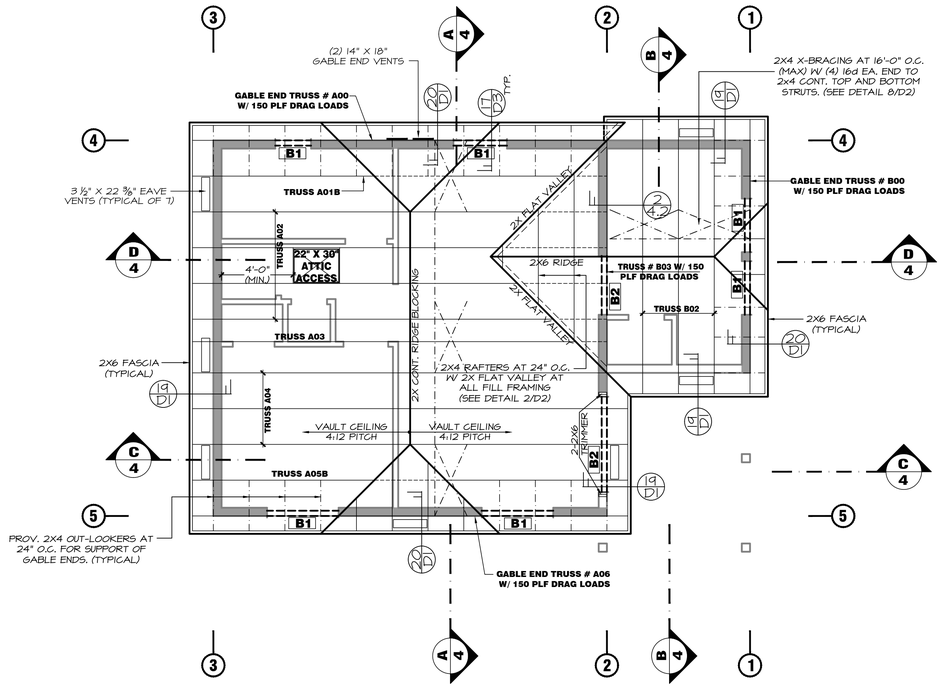
B) MINIMUM SIZE SHEET AT BOUNDARIES AND CHANGES IN FRAMING SHALL BE 24" UNLESS ALL EDGES ARE BLOCKED AND NAILED.

C) PROVIDE FRAMING MEMBERS OR BLOCKING AT ALL PANEL EDGES IN SHEAR WALLS

ALL ELEVATIONS ARE GIVEN FROM TOP OF FLOOR SLAB.

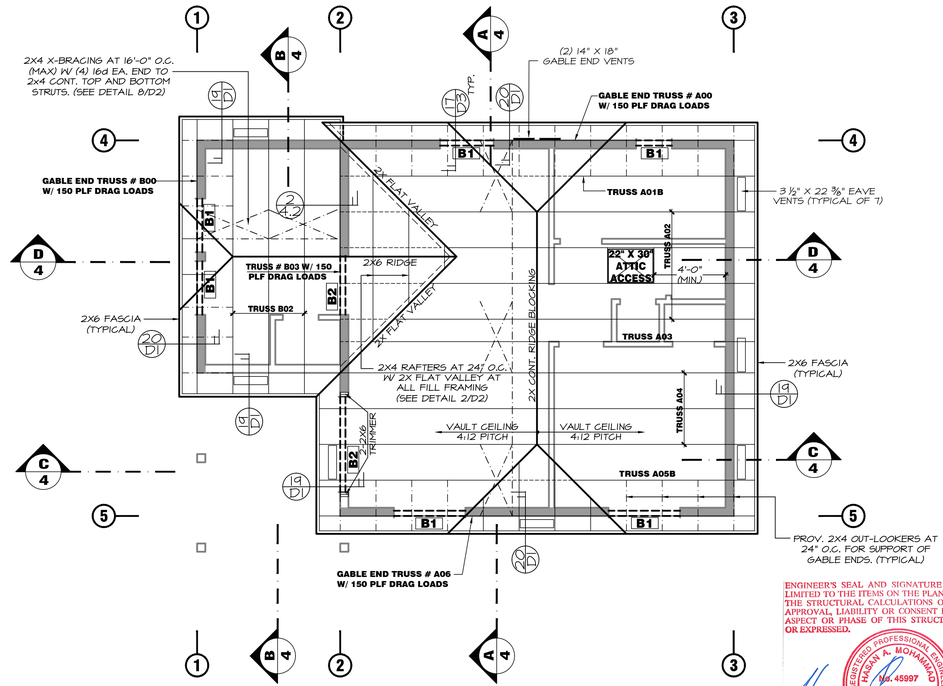
SEE DETAIL 1/D2 FOR TYPICAL BEAM CONNECTION DETAILS

ALL ATTIC ACCESS OPENINGS SHALL BE GASKETED TO PREVENT AIR LOSS.



ROOF FRAMING PLAN

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



ROOF FRAMING PLAN

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

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REGISTERED PROFESSIONAL ENGINEER — HASAN A. MOHAMMAD — No. 45997 — CIVIL — STATE OF CALIFORNIA

7/8/22

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REVISIONS

REV	DATE:
NEW	05.09.22
1ST	05.25.22
SUB	06.17.22

DRAWING FILE E:\CHOWCHILLA\ PLAN 3 SUB

DATE: 06-17-2022

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SANGER, CA 93657
PHONE: 559.294.6534

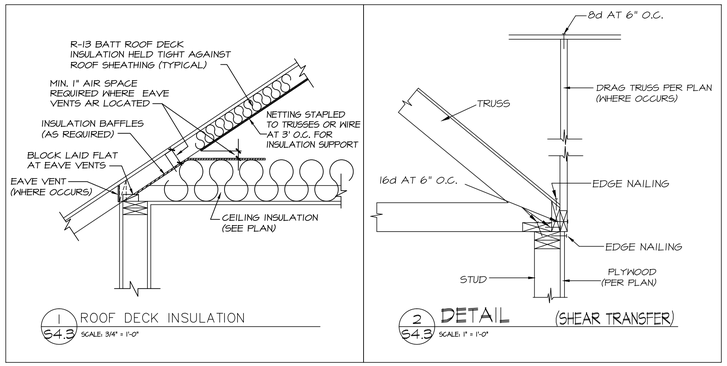
STANDARD PLAN #3 FOR:

CITY OF CHOWCHILLA
130 S 2ND STREET
CHOWCHILLA, CA 93610
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SHEET S4.2 OF 26

ROOF FRAMING-B

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HEADER & BEAM SCHEDULE

MARK	BEAM SIZE	GRADE	REMARKS
B1	4X6	D.F. #2	
B2	4X10	D.F. #2	
B5	4X6	D.F. #2	
B6	6X8	D.F. #2	
B7	6X10	D.F. #2	
B8	7X14 PARALLAM	PSL 1.8E	
B9	6X12	D.F. #1	
B9	5 1/2" X 12" G.L.B.	24F-V4	
B10	6X12	D.F. #2	

NOTES:

BEAM DESIGN NO. AS REFERENCED IN ENGINEER'S CALCULATIONS

ALL LUMBER SHALL BE GRADE MARKED, DF STD. OR BETTER, U.N.O.

GLUE-LAMINATED WOOD TO BE 24F-V4 DF/DF, U.N.O.

ALL BEAMS SHALL HAVE SOLID SUPPORT TO FOUNDATION, UNLESS NOTED OTHERWISE, PROVIDE MIN (1) 2X TRIMMER AT EACH END.

VENTILATION CALCULATIONS: (AT ELEVATION C)

TOTAL ATTIC AREA: 566 SQ. FT.
566 SQ. FT. X 1/150 = 3.77 S.F. REQ'D
3.77 SQ. FT. X 144 = 544 SQ. IN. REQ'D.
COMBUSTION AIR:
(80K / 4K) = 20 S.I. ADDITIONAL REQ'D

(6) 3 ½" X 22 ½ " EAVE VENTS	282 S.I.
(2) 14" X 18" GABLE END VENTS	236 S.I.
(2) 4- 4" DIAM. CLAY PIPE VENTS	67 S.I.
TOTAL VENTILATION PROVIDED:	585 S.I.

ALL VENTS SHALL HAVE CORROSION RESISTANT SCREENS WITH OPENINGS AT LEAST 1/16", AND NOT MORE THAN 1/4" MAXIMUM.

PROVIDE 1" MIN. AIR SPACE BETWEEN INSULATION AND ROOF SHEATHING.

PROVIDE MIN. 4'-0" LONG BAFFLES AT EAVE VENTS WHERE LOOSE FILLED INSULATION IS USED IN THE ATTIC ADJACENT TO THE VENTS.

ROOF FRAMING NOTES:

USE PRE-MANUFACTURED TRUSSES AT 24" O.C. UNLESS NOTED OTHERWISE IN DRAWINGS. TRUSS DRAWINGS SHALL BE SUBMITTED TO AND APPROVED BY THE BUILDING DEPARTMENT PRIOR TO FABRICATION OF ANY TRUSSES.

SEE TYPICAL TRUSS AND ROOF FRAMING NOTES AT SHEET N-1

APPROVED TRUSS DRAWINGS SHALL BE ON SITE FOR INSPECTION PURPOSES

SEE TRUSS DRAWINGS FOR WEB BRACING REQUIREMENTS AND/OR ANY ADDITIONAL REQUIREMENTS.

ALL FRAMING LUMBER TO BE D.F. #2 OR BETTER UNLESS NOTED OTHERWISE IN DRAWINGS.

ALL FASCIA TO BE 2x8 RESAWN HEM FIR

ROOF COVERING TO BE CLASS "A", COMPOSITION SHINGLES OVER 30 # FELT OVER 1/2" CDX RATED 24/00 PLYWOOD ROOF SHEATHING (OR 7/16" OSB RATED 24/16) WITH 8D AT 6" O.C. AT EDGE AND BOUNDARY NAILING AND 8D AT 12" O.C. AT FIELD NAILING. THE ENTIRE PERIMETER SHALL BE BLOCKED AND EDGE NAILED.

NAILING OF PLYWOOD SHEAR WALLS OR PLYWOOD DIAPHRAGMS SHALL BE DONE WITH COMMON WIRE NAILS, U.N.O. SHOULD THE CONTRACTOR DESIRE TO USE ANY OTHER FASTENERS, HE SHALL OBTAIN WRITTEN APPROVAL FROM THE ENGINEER AND/OR DESIGNER PRIOR TO THE USE OF SUCH FASTENERS IN THE FIELD.

ENTIRE PERIMETER OF ROOF SHALL BE BLOCKED AND EDGE NAILED

PROVIDE 1/8" GAP AT ALL PLYWOOD PANEL EDGES.

PLYWOOD ROOF DIAPHRAGM SHALL BE CONTINUOUS BELOW ALL CALIFORNIA FILL FRAMING, PROVIDE 22" X 30" OPENING FOR ACCESS AND VENTILATION. BLOCK ALL EDGES OF OPENING.

ALL PLYWOOD ROOF SHEATHING SHALL BE LAID PERPENDICULAR TO RAFTERS WITH STAGGERED END JOINT PATTERNS.

ALL PLYWOOD EXPOSED TO THE WEATHER SHALL BE 'EXPOSURE ONE' RATED.

PROVIDE STEPPED FLASHING AT ALL ROOF JUNCTIONS TO VERTICAL SURFACES. (WALLS, SKYLIGHTS AND FIREPLACES)

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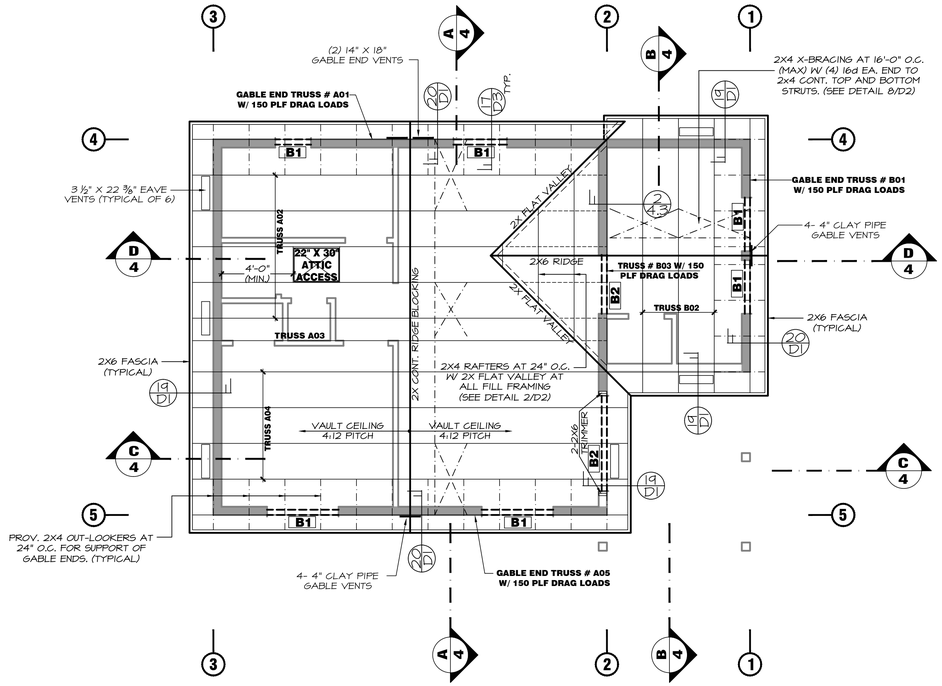
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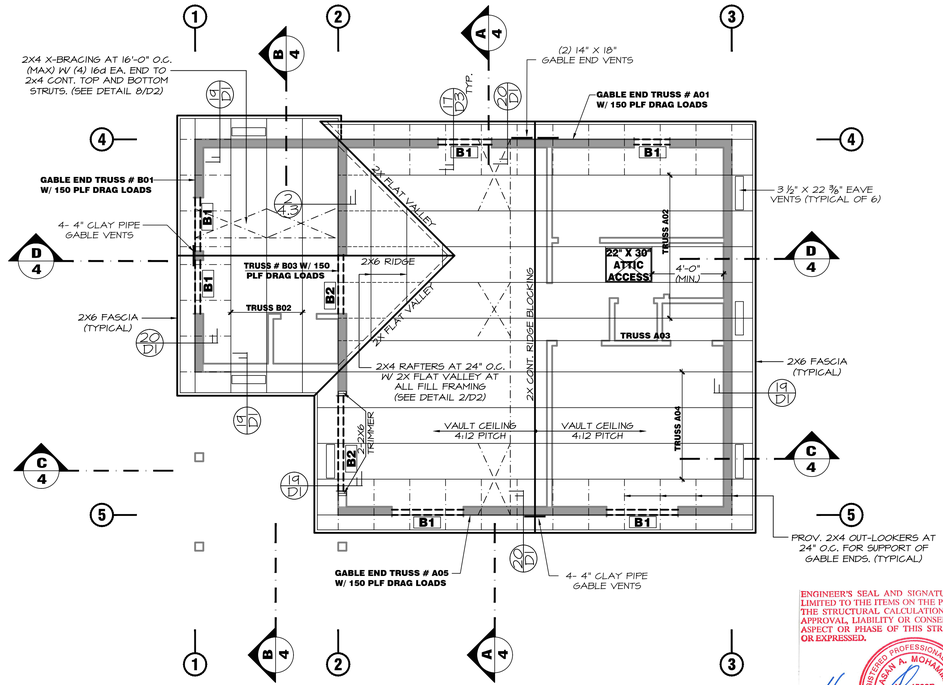
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ROOF FRAMING PLAN

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



ROOF FRAMING PLAN

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

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7/8/22

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SHEET S4.3 OF 26
ROOF FRAMING-C

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1 D1 DETAIL (EXT. BEARING)
SCALE: 1" = 1'-0"

ALL ANCHOR BOLTS ARE REQUIRED TO BE INSTALLED IN THE MIDDLE 1/3 OF THE PLATE.

2 D1 DETAIL (INT. BEARING)
SCALE: 1" = 1'-0"

3 D1 DETAIL (EXT. BEARING AT PORCH/PATIO)
SCALE: 1"-1'-0"

4 D1 DETAIL (HTT5 HOLDOWN)
SCALE: 1" = 1'-0"

5 D1 DETAIL (STHD10 HOLDOWN)
SCALE: NONE

6 D1 DETAIL (WEEP SCREEDS)
SCALE: NONE

7 D1 DETAIL
SCALE: NONE

TYP. TITEN INSTALLATION
1- DRILL A HOLE IN THE BASE MATERIAL USING A CARBIDE DRILL BIT THE SAME DIAMETER AS THE NOMINAL DIAMETER OF THE ANCHOR TO BE INSTALLED. DRILL THE HOLE TO THE SPECIFIED EMBEDMENT DEPTH PLUS 1/2" MINIMUM TO ALLOW THE THREAD TAPPING DUST TO SETTLE AND BLOW IT CLEAR USING COMPRESSED AIR. DUST INSTALLATIONS NEED NOT BE BLOWN CLEAN. ALTERNATIVELY, DRILL THE HOLE DEEP ENOUGH TO ACCOMMODATE EMBEDMENT DEPTH AND DUST FROM DRILLING AND TAPPING.
2-INSERT THE ANCHOR THROUGH THE FIXTURE AND INTO THE HOLE.
3-TIGHTEN THE ANCHOR INTO THE BASE MATERIAL UNTIL THE HEX WASHER HEAD CONTACTS THE FIXTURE.
4-IF THE ANCHOR WILL NOT INSTALL COMPLETELY, REMOVE THE ANCHOR AND ASSURE THAT ALL DUST HAS BEEN EVACUATED OR DRILL THE HOLE DEEPER. BEGIN RE-INSTALLATION OF THE ANCHOR BY HAND TO PREVENT CROSS-THREADING.

CAUTION. OVERSIZED HOLES IN THE BASE MATERIAL WILL REDUCE OR ELIMINATE THE MECHANICAL INTERLOCK OF THE THREADS WITH THE BASE MATERIAL AND WILL REDUCE THE ANCHOR'S LOAD CAPACITY. USE A TITEN HD SCREW ANCHOR ONE TIME ONLY. INSTALLING THE ANCHOR MULTIPLE TIMES MAY RESULT IN EXCESSIVE THREAD WEAR AND REDUCE LOAD CAPACITY.

8 D1 DETAIL AT MISSING ANCHOR BOLTS
SCALE: NONE

NOTE;
PROVIDE MIN. 4'-0" BETWEEN TOP PLATE SPLICES

9 D1 DETAIL (TOP PLATE SPLICE)
SCALE: 1" = 1'-0"

10 D1 DETAIL (TOP PLATE STRAP)
SCALE: NONE

11 D1 DETAIL (BEAM TIES)
SCALE: NONE

12 D1 DETAIL
SCALE: 1" = 1'-0"

13 D1 DETAIL NOTCHING/BORING EXTERIOR & BEARING
SCALE: 1/2" = 1'-0"

14 D1 DETAIL NOTCHING/BORING INTERIOR NON-BEARING
SCALE: 1/2" = 1'-0"

15 D1 DETAIL TOP PLATE NOTCHING
SCALE: 1/2" = 1'-0"

NOTES:
HOLES, NOTCHES AND SLOTS ARE NOT TO BE LOCATED ADJACENT TO UNSOUND OR LOOSE KNOTS.

PREFERRED LOCATION OF NOTCH IS AT TOP OF MEMBERS

NOMINAL	ACTUAL	D/6	D/4	D/3
4"	3½"	⅝"	⅞"	1⅛"
6"	5½"	1"	1⅜"	1⅞"
8"	7¼"	1⅜"	1⅞"	2⅜"
10"	9¼"	1⅝"	2⅜"	3⅛"
12"	11¼"	1⅞"	2⅞"	3⅞"
14"	13¼"	2⅜"	3⅜"	4⅝"

16 D1 DETAIL (NOTCHING/BORING) (JOIST/RAFTER)
SCALE: 1/2" = 1'-0"

17 D1 DETAIL (DIA. BRACING)
SCALE: 3/4" = 1'-0"

18 D1 DETAIL (NON-BEARING)
SCALE: 3/4" = 1'-0"

19 D1 DETAIL (TYP. EAVE)
SCALE: 3/4" = 1'-0"

** REFER TO TRUSS DRAWINGS AND DETAILS FOR ADDITIONAL REQUIREMENTS.

20 D1 DETAIL (GABLE-END) (DRAG TRUSS)
SCALE: 1/2" = 1'-0"

21 D1 DETAIL (EAVE AT BEAM)
SCALE: 3/4" = 1'-0"

22 D1 DETAIL (INTERIOR-BEARING)
SCALE: 2" = 1'-0"

23 D1 DETAIL (LEDGER AT ROOF)
SCALE: 3/4" = 1'-0"

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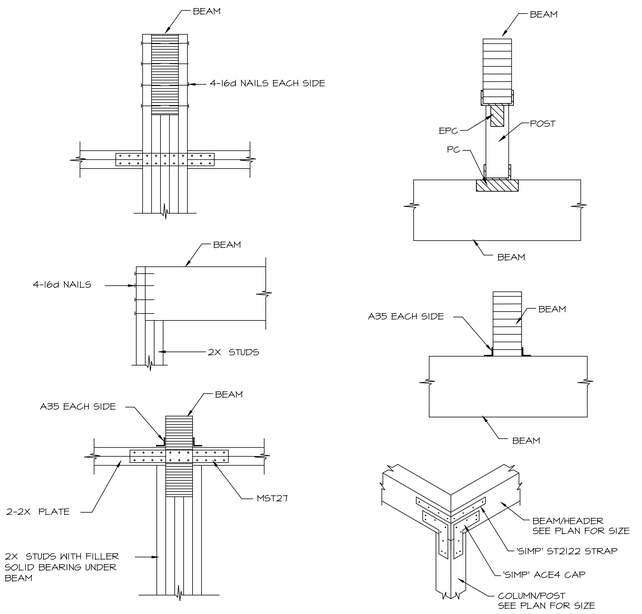
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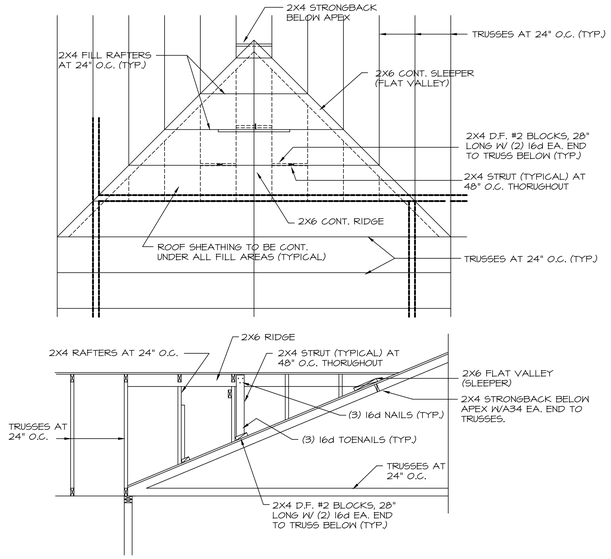
SHEET D1 OF 26
DETAILS

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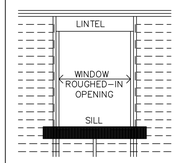
ALL BEAMS & GIRDER TRUSSES SHALL HAVE SOLID SUPPORT TO FOUNDATION

1 D2 DETAIL (BEAM CONNECTIONS)
SCALE: 3/4" = 1'-0"



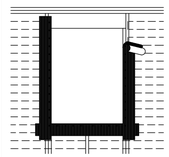
2 D2 DETAIL (CALIF. FILL)
SCALE: 1/4" = 1'-0"

STEP 1



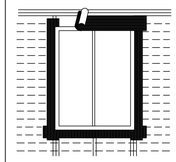
ATTACH A SILL STRIP OF ASPHALT-SATURATED ROOFING FELT PAPER, OR APPROVED FLASHING MATERIAL AT LEAST 8" WIDE WITH THE TOP EDGE EVEN WITH THE TOP EDGE OF THE ROUGH SILL. EXTEND THIS SILL STRIP AT LEAST 8" BEYOND THE EDGE OF THE ROUGH OPENING FOR WINDOW.

STEP 2



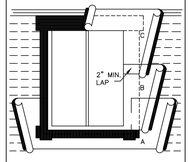
AFTER SILL STRIP IS IN PLACE, ATTACH JAMB STRIPS INSIDE OF OPENING AT LEAST 8" WIDE WITH INSIDE EDGE OF FELT EVEN WITH EDGE OF WINDOW OPENING. EXTEND JAMB STRIPS 4" ABOVE THE TOP OF WINDOW OPENING.

STEP 3



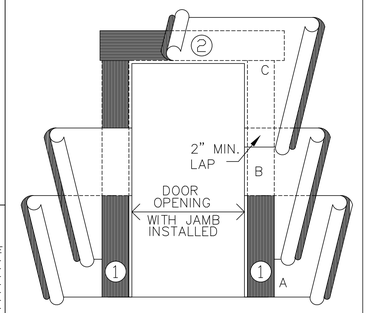
APPLY A BEAD CAULKING TO THE BACK SURFACES OF THE WINDOW. THEN PLACE THE WINDOW INTO THE ROUGH OPENING WITH FLANGES OVER THE INSTALLED FLASHING STRIPS. AFTER WINDOW IS PLACED, INSTALL THE HEAD FLASHING OVER THE WINDOW FLANGE. THIS IS ANOTHER STRIP OF FELT AT LEAST 4" WIDE.

STEP 4



STARTING AT THE BOTTOM OF THE WALL (SOLE PLATE), LAY WATER-RESISTANT PAPER UNDER THE SILL STRIP AND CUT TO FIT (A). INSTALL SUCCEEDING COURSES OF WATER-RESISTANT PAPER (B, C, ETC.) OVER JAMB AND HEAD FLANGES IN SHINGLE-BOARD FASHION.

3 D2 DETAIL REQUIRED FLASHING EXTERIOR OPENINGS WITH RAILINS FLANGE
SCALE: NONE



STUCCO MOLDING OR TRIM INSTALLED AFTER FLASHING PAPER

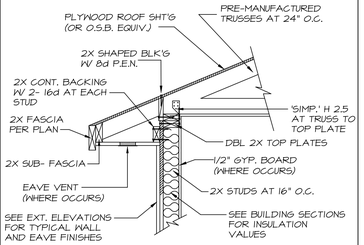
1. INSTALL MIN. 8" WIDE ASPHALT-SATURATED ROOFING FELT OR APPROVED FLASHING MATERIAL SECURED TO JAMB FROM FLOOR TO 4" ABOVE TOP OF JAMB.

2. 4" WIDE ASPHALT-SATURATED ROOFING FELT OR APPROVED FLASHING MATERIAL SECURED TO JAMB HEADER. STUCCO MOULDING OR TRIM IS INSTALLED AFTER FLASHING IS INSTALLED.

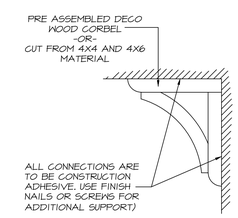
A) FIRST COURSE OF WATER-RESISTANT PAPER IS INSTALLED UNDER FLASHING MATERIAL.

B&C) ALL SUBSEQUENT LAYERS ARE INSTALLED OVER FLASHING MATERIAL

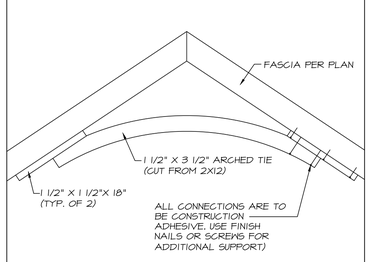
4 D2 DETAIL REQUIRED FLASHING EXTERIOR OPENINGS
SCALE: NONE



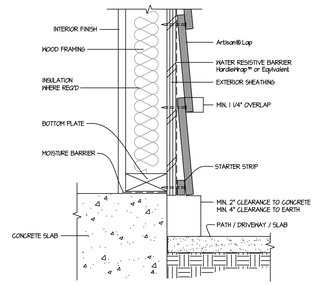
5 D2 DETAIL (TYP. EAVE)
SCALE: 3/4" = 1'-0"
SEE DETAIL 19/D1 FOR ADDITIONAL REQUIREMENTS



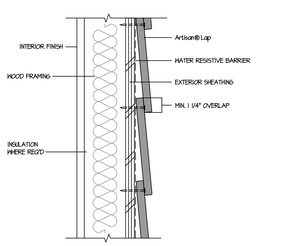
6 D2 DETAIL
SCALE: 1" = 1'-0"
APPLY CONSTRUCTION ADHESIVE AT ALL CONNECTIONS



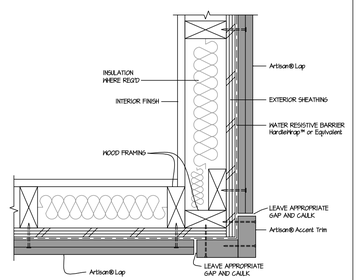
7 D2 DETAIL
SCALE: 3/4" = 1'-0"
APPLY CONSTRUCTION ADHESIVE AT ALL CONNECTIONS



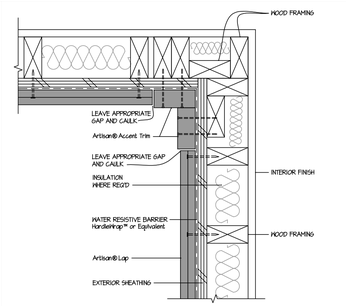
H1 HARDSCAPE CLEARANCES, PORCHES, PATIOS, WALKWAYS, ETC.
SCALE: NONE



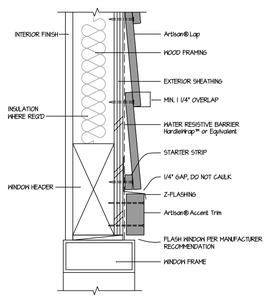
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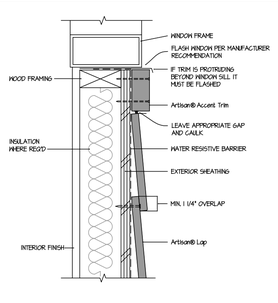
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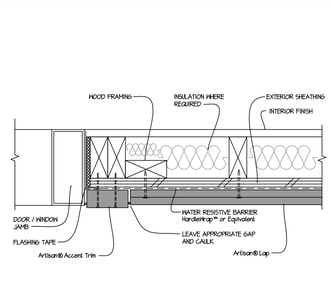
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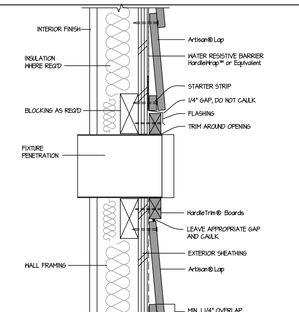
H5 WINDOW/DOOR HEAD
SCALE: NONE



H6 WINDOW SILL
SCALE: NONE



H7 DOOR / WINDOW JAMB
SCALE: NONE



H8 FIXTURE PENETRATION
SCALE: NONE

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7/8/22

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REV DATE:
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PLN 1 06.03.22
SUB 06.17.22

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DATE: 06-17-2022

CWB DESIGNS
3838 N. CHICKADEE AVE.
SANGER, CA 93657
PHONE: 559.294.6534

STANDARD PLAN #3 FOR:
CITY OF CHOWCHILLA
130 S 2ND STREET
CHOWCHILLA, CA 93610
PHONE: 559-665-8615

SHEET D2 OF 26
DETAILS

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1 D3 DETAIL
SCALE: 1" = 1'-0"

2 D3 DETAIL
SCALE: 1" = 1'-0"

3 D3 DETAIL
SCALE: 1" = 1'-0"

4 D3 DETAIL
SCALE: 1" = 1'-0"

5 D3 DETAIL
SCALE: 3/4" = 1'-0"

5A D3 DETAIL
SCALE: 3/4" = 1'-0"

6 D3 DETAIL
SCALE: 1" = 1'-0"

7 D3 DETAIL
SCALE: 1" = 1'-0"

8 D3 DETAIL (STRAPPING)
SCALE: 1/2" = 1'-0"

9A D3 DETAIL (HOLDOWN)
SCALE: 1" = 1'-0"

9B D3 DETAIL (HOLDOWN)
SCALE: 1" = 1'-0"

10 D3 DETAIL (CURB AT GARAGE)
SCALE: 1" = 1'-0"

11 D3 DETAIL (SLAB AT GARAGE)
SCALE: 1" = 1'-0"

12 D3 DETAIL (HTT5 HOLDOWN)
SCALE: 1" = 1'-0"

13 D3 DETAIL (STAIR AT FLOOR)
SCALE: 3/4" = 1'-0"

14 D3 DETAIL (STAIR AT HEADER)
SCALE: 3/4" = 1'-0"

15 D3 DETAIL
SCALE: 3/4" = 1'-0"

16 D3 DETAIL
SCALE: 3" = 1'-0"

17 D3 DETAIL (INSULATED HEADER)
SCALE: 1/2" = 1'-0"

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REV 06.07.22
SUB 06.17.22

DRAWING FILE
E:\CHOWCHILLA\
PLAN 3\ADC

DATE: 06-17-2022

CWB DESIGNS
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SANGER, CA 93657
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STANDARD PLAN #3 FOR:
CITY OF CHOWCHILLA
130 S 2ND STREET
CHOWCHILLA, CA 93610
PHONE: 559-665-8615

SHEET D3 OF 26
DETAILS

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TABLE R602.3(1)
FASTENING SCHEDULE

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a,b,c]	SPACING AND LOCATION
	Roof		
1	Blocking between ceiling joists or rafters to top plate	4-8d box (2½" × 0.113"); or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Toe nail
2	Ceiling joists to top plate	4-8d box (2½" × 0.113"); or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Per joist, toe nail
3	Ceiling joist not attached to parallel rafter, laps over partitions (see Section R802.5.2 and Table R802.5.2)	4-10d box (3" × 0.128"); or 3-16d common (3½" × 0.162"); or 4-3" × 0.131" nails	Face nail
4	Ceiling joist attached to parallel rafter (heel joint) (see Section R802.5.2 and Table R802.5.2)	Table R802.5.2	Face nail
5	Collar tie to rafter, face nail or 1¼" × 20 ga. ridge strap to rafter	4-10d box (3" × 0.128"); or 3-10d common (3" x 0.148"); or 4-3" × 0.131" nails	Face nail each rafter
6	Rafter or roof truss to plate	3-16d box nails (3½" × 0.135"); or 3-10d common nails (3" x 0.148"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	2 toe nails on one side and 1 toe nail on opposite side of each rafter or truss[i]
7	Roof rafters to ridge, valley or hip rafters or roof rafter to minimum 2" ridge beam	4-16d (3½" × 0.135"); or 3-10d common (3" × 0.148"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	Toe nail
		3-16d box 3½" × 0.135"); or 2-16d common (3½" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	End nail
	Wall		
8	Stud to stud (not at braced wall panels)	16d common (3½" × 0.162")	24" o.c. face nail
		10d box (3" × 0.128"); or 3" × 0.131" nails	16" o.c. face nail
9	Stud to stud and abutting studs at intersecting wall corners (at braced wall panels)	16d box (3½" × 0.135"); or 3" × 0.131" nails	12" o.c. face nail
		16d common (3½" × 0.162")	16" o.c. face nail
10	Built-up header (2" to 2" header with ½" spacer)	16d common (3½" × 0.162")	16" o.c. each edge face nail
		16d box (3½" × 0.135")	12" o.c. each edge face nail
11	Continuous header to stud	5-8d box (2½" × 0.113"); or 4-8d common (2½" × 0.131"); or 4-10d box (3" × 0.128")	Toe nail
12	Top plate to top plate	16d common (3½" × 0.162")	16" o.c. face nail
		10d box (3" × 0.128"); or 3" × 0.131" nails	12" o.c. face nail
13	Double top plate splice	8-16d common (3½" × 0.162"); or 12-16d box (3½" × 0.135"); or 12-10d box (3" × 0.128"); or 12-3" × 0.131" nails	Face nail on each side of end joint (minimum 24" lap splice length each side of end joint)

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a,b,c]	SPACING AND LOCATION
14	Bottom plate to joist, rim joist, band joist or blocking (not at braced wall panels)	16d common (3½" × 0.162")	16" o.c. face nail
		16d box (3½" × 0.135"); or 3" × 0.131" nails	12" o.c. face nail
15	Bottom plate to joist, rim joist, band joist or blocking (at braced wall panel)	3-16d box (3½" × 0.135"); or 2-16d common (3½" × 0.162"); or 4-3" × 0.131" nails	3 each 16" o.c. face nail 2 each 16" o.c. face nail 4 each 16" o.c. face nail
16	Top or bottom plate to stud	4-8d box (2½" × 0.113"); or 3-16d box (3½" × 0.135"); or 4-8d common (2½" × 0.131"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	Toe nail
		3-16d box (3½" × 0.135"); or 2-16d common (3½" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	End nail
17	Top plates, laps at corners and intersections	3-10d box (3" × 0.128"); or 2-16d common (3½" × 0.162"); or 3-3" × 0.131" nails	Face nail
18	1" brace to each stud and plate	3-8d box (2½" × 0.113"); or 2-8d common (2½" × 0.131"); or 2-10d box (3" × 0.128"); or 2 staples 1½"	Face nail
19	1" × 6" sheathing to each bearing	3-8d box (2½" × 0.113"); or 2-8d common (2½" × 0.131"); or 2-10d box (3" × 0.128"); or 2 staples, 1" crown, 16 ga., 1¼" long	Face nail
20	1" × 8" and wider sheathing to each bearing	3-8d box (2½" × 0.113"); or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 3 staples, 1" crown, 16 ga., 1¼" long	Face nail
		Wider than 1" × 8" 4-8d box (2½" × 0.113"); or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 4 staples, 1" crown, 16 ga., 1¼" long	
	Floor		
21	Joist to sill, top plate or girder	4-8d box (2½" × 0.113"); or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Toe nail
22	Rim joist, band joist or blocking to sill or top plate (roof applications also)	8d box (2½" × 0.113")	4" o.c. toe nail
		8d common (2½" × 0.131"); or 10d box (3" × 0.128"); or 3" × 0.131" nails	6" o.c. toe nail
23	1" × 6" subfloor or less to each joist	3-8d box (2½" × 0.113"); or 2-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 2 staples, 1" crown, 16 ga., 1¼" long	Face nail

TABLE 602.3(1)
FASTENING SCHEDULE—continued

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a,b,c]	SPACING AND LOCATION
	Floor		
24	2" subfloor to joist or girder	3-16d box (3½" × 0.135"); or 2-16d common (3½" × 0.162")	Blind and face nail
25	2" planks (plank & beam—floor & roof)	3-16d box (3½" × 0.135"); or 2-16d common (3½" × 0.162")	At each bearing, face nail
26	Band or rim joist to joist	3-16d common (3½" × 0.162") 4-10 box (3" × 0.128"), or 4-3" × 0.131" nails; or 4-3" × 14 ga. staples, 7/16" crown	End nail
27	Built-up girders and beams, 2-inch lumber layers	20d common (4" × 0.192"); or	Nail each layer as follows: 32" o.c. at top and bottom and staggered.
		10d box (3" × 0.128"); or 3" × 0.131" nails	24" o.c. face nail at top and bottom staggered on opposite sides
		And: 2-20d common (4" × 0.192"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Face nail at ends and at each splice
28	Ledger strip supporting joists or rafters	4-16d box (3½" × 0.135"); or 3-16d common (3½" × 0.162"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	At each joist or rafter, face nail
29	Bridging or blocking to joist	2-10d box (3" × 0.128"), or 2-8d common (2½" × 0.131"; or 2-3" × 0.131") nails	Each end, toe nail
ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a,b,c]	SPACING OF FASTENERS: Edges (inches)[b] / Intermediate supports[c,d] (inches)
	Wood structural panels, subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing [see Table R602.3(3) for wood structural panel exterior wall sheathing to wall framing]		
30	7/16" – 1/2"	6d common (2" × 0.113") nail (subfloor, wall)[f] 8d common (2½" × 0.131") nail (roof); or RSRS-01 (2⅜" × 0.113") nail (roof)[j]	6 / 12[f]
31	15/32" – 1"	8d common nail (2½" × 0.131"); or RSRS-01; (2⅜" × 0.113") nail (roof)[j]	6 / 12[f]
32	1 1/8" – 1 1/4"	10d common (3" x 0.148") nail; or 8d (2½" × 0.131") deformed nail	6 / 12
	Other wall sheathing[g]		
33	1/2" structural cellulosic fiberboard sheathing	1½" galvanized roofing nail, 7/16" head diameter, or 1¼" long 16 ga. staple with 7/16" or 1" crown	3 / 6
34	25/32" structural cellulosic fiberboard sheathing	1½" galvanized roofing nail, 7/16" head diameter, or 1½" long 16 ga. staple with 7/16" or 1" crown	3 / 6
35	1/2" gypsum sheathing[i]	1½" galvanized roofing nail; staple galvanized, 1½" long; 1¼" screws, Type W or S	7 / 7
36	5/8" gypsum sheathing[i]	1¾" galvanized roofing nail; staple galvanized, 1¾" long; 1¼" screws, Type W or S	7 / 7
	Wood structural panels, combination subfloor underlayment to framing		
37	3/4" and less	6d deformed (2" x 0.120") nail; or 8d common (2½" x 0.131") nail	6 / 12
38	7/8" – 1"	8d common (2½" x 0.131") nail; or 8d deformed (2½" x 0.120") nail	6 / 12
39	1 1/8" – 1 1/4"	10d common (3" x 0.148") nail; or 8d deformed (2½" x 0.120") nail	6 / 12

a. 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 d ameter 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. Face fast 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 wood structural panel roof sheathing attached to gable end roof framing and to intermediate supports within 48 inches of roof edges and ridges, nails shall be spaced at 6 inches on center where the ultimate design wind speed is less than 130 mph and shall be spaced 4 inches on center where the ultimate design wind speed is 130 mph or greater but less than 140 mph.
g. Gypsum sheathing shall conform to ASTM C1396 and shall be installed in accordance with GA 253. Fiberboard sheathing shall conform to ASTM C208.
h. Spacing of fasteners on floor sheathing panel edges applies to panel edges supported by framing members and required blocking and at 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.
i. 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.
j. RSRS-01 is a Roof Sheathing Ring Shank nail meeting the specifications in ASTM F1667.

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

NOMINAL MATERIAL THICKNESS (inches)	DESCRIPTION[a] OF FASTENER AND LENGTH (inches)	SPACING[e] OF FASTENERS: Edges (inches)	Intermediate supports (inches)
Wood structural panels subfloor, roof[f] and wall sheathing to framing and particleboard wall sheathing to framing[f]			
Up to 1/2	Staple 15 ga. 1 1/4	4	8
	0.097 - 0.099 Nail 2 1/4	3	6
	Staple 16 ga. 1 1/4	3	6
19/32 and 5/8	0.113 Nail 2	3	6
	Staple 15 and 16 ga. 2	4	8
	0.097 - 0.099 Nail 2 1/4	4	8
23/32 and 3/4	Staple 14 ga. 2	4	8
	Staple 15 ga. 1 1/4	3	6
	0.097 - 0.099 Nail 2 1/4	4	8
1	Staple 16 ga. 2	4	8
	Staple 14 ga. 2 1/4	4	8
	0.113 Nail 2 1/2	3	6
	Staple 15 ga. 2 1/2	4	8
	0.097 - 0.099 Nail 2 1/2	4	8
NOMINAL MATERIAL THICKNESS (inches)	DESCRIPTION[a] OF FASTENER AND LENGTH (inches)	SPACING[e] OF FASTENERS: Edges (inches)	Body of panel[f] (inches)
Floor underlayment; plywood-hardboard-particleboard[d]-fiber-cement[b]			
Fiber-cement			
1/4	3d, corrosion-resistant, ring shank nails (finished flooring other than tile)	3	6
	Staple 18 ga., 7/8 long, 1/2 crown (finished flooring other than tile)	3	6
	1 1/4 long × .121 shank × .375 head diameter corrosion-resistant (galvanized or stainless steel) roofing nails (for tile finish)	8	8
	1 1/4 long, No. 8 × .375 head diameter, ribbed wafer-head screws (for tile finish)	8	8
Plywood			
1/4 and 5/16	1 1/4 ring or screw shank nail-minimum 12½ ga. (0.099") shank diameter	3	6
	Staple 18 ga., 7/8, 7/16 crown width	2	5
11/32, 3/8, 13/32, and 7/16	1 1/4 ring or screw shank nail-minimum 12½ ga. (0.099") shank diameter	6	8[g]
15/32, 1/2, 17/32 and 9/16	1 1/4 ring or screw shank nail-minimum 12½ ga. (0.099") shank diameter	6	8
	Staple 16 ga. 1 1/2	6	8
Hardboard[d]			
0.200	1 1/2 long ring-grooved underlayment nail	6	6
	4d cement-coated sinker nail	6	6
	Staple 18 ga., 7/8 long (plastic coated)	3	6
Particleboard			
1/4	4d ring-grooved underlayment nail	3	6
	Staple 18 ga., 7/8 long, 7/16 crown	3	6
3/8	6d ring-grooved underlayment nail	6	10
	Staple 16 ga., 1 1/4 long, 7/16 crown	3	6
1/2, 5/8	6d ring-grooved underlayment nail	6	10
	Staple 16 ga., 1 1/4 long, 7/16 crown	3	6

a. Nail is a general description and shall be permitted to be T-head, modified round head or round head.
b. Staples shall have a minimum crown width of 7/16-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 5-ply panels, intermediate nails shall be spaced not more than 12 inches on center each way.
f. Hardboard underlayment shall conform to CPA/ANSI A135.4
g. Specified alternate attachments for roof sheathing shall be permitted where the ultimate design wind speed is less than 130 mph. Fasteners attaching wood structural panel roof sheathing to gable end wall framing shall be installed using the spacing listed for panel edges.
h. Fiber-cement underlayment shall conform to ASTM C1288 or ISO 8336, Category C.

TABLE R702.3.5
MINIMUM THICKNESS AND APPLICATION OF GYPSUM BOARD AND GYPSUM PANEL PRODUCTS

THICKNESS OF GYPSUM BOARD OR GYPSUM PANEL PRODUCTS (inches)	APPLICATION	ORIENTATION OF GYPSUM BOARD OR GYPSUM PANEL PRODUCTS TO FRAMING	MAXIMUM SPACING OF FRAMING MEMBERS (inches o.c.)	MAXIMUM SPACING OF FASTENERS (inches): Nails[a]	Screws[b]	SIZE OF NAILS FOR APPLICATION TO WOOD FRAMING[c]
			Application without adhesive			
3/8	Ceiling[d]	Perpendicular	16	7	12	13 gage, 1 1/4" long, 19/64" head; 0.098" diameter, 1 1/4" long, annular-ringed; or 4d cooler nail, 0.080" diameter, 1 1/4" long, 7/32" head.
	Wall	Either direction	16	8	16	
1/2	Ceiling	Either direction	16	7	12	13 gage, 1 1/4" long, 19/64" head; 0.098" diameter, 1 1/4" long, annular-ringed; 5d cooler nail, 0.086" diameter, 1 1/4" long, 19/64" head; or gypsum board nail, 0.086" diameter, 1 1/4" long, 7/32" head.
	Ceiling[d]	Perpendicular	24	7	12	
	Wall	Either direction	24	8	12	
	Wall	Either direction	16	8	16	
5/8	Ceiling	Either direction	16	7	12	13 gage, 1 1/4" long, 19/64" head; 0.098" diameter, 1 1/4" long, annular-ringed; 6d cooler nail, 0.092" diameter, 1 1/4" long, 19/64" head; or gypsum board nail, 0.0915" diameter, 1 1/4" long, 7/32" head.
	Ceiling	Perpendicular	24	7	12	
	Type X at garage ceiling beneath habitable rooms	Perpendicular	24	6	6	1 1/4" long 6d coated nails or equivalent drywall screws. Screws shall comply with Section R702.3.5.1
	Wall	Either direction	24	8	12	13 gage, 1 1/4" long, 19/64" head; 0.098" diameter, 1 1/4" long, annular-ringed; 6d cooler nail, 0.092" diameter, 1 1/4" long, 19/64" head; or gypsum board nail, 0.0915" diameter, 1 1/4" long, 7/32" head.
	Wall	Either direction	16	8	16	
	Application with adhesive					
3/8	Ceiling[d]	Perpendicular	16	16	16	Same as above for 3/4" gypsum board and gypsum panel products.
	Wall	Either direction	16	16	24	
1/2 or 5/8	Ceiling	Either direction	16	16	16	Same as above for 1/2" and 5/8" gypsum board and gypsum panel products, respectively.
	Ceiling[d]	Perpendicular	24	12	16	
	Wall	Either direction	24	16	24	
Two 3/8 layers	Ceiling	Perpendicular	16	16	16	Base ply nailed as above for 1/2" gypsum board and gypsum panel products; face ply installed with adhesive.
	Wall	Either direction	24	24	24	

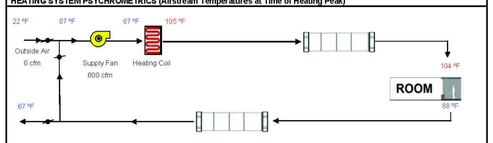
a. For application without adhesive, a pair of nails spaced not less than 2 inches apart or more than 2½ inches apart shall be permitted to be used with the pair of nails spaced 12 inches on center.
b. Screws shall be in accordance with Section R702.3.5.1. Screws for attaching gypsum board or gypsum panel products to structural insulated panels shall penetrate the wood structural panel facing not less than 7/16 inch.
c. Where cold-formed steel framing is used with a clinching design to receive nails by two edges of metal, the nails shall be not less than 7/8 inch longer than the gypsum board or gypsum panel product thickness and shall have ringed shanks. Where the cold-formed steel framing has a nailing groove formed to receive the nails, the nails shall have barbed shanks or be 5d, 13/5 gage, 1 7/8 inches long, 21/64-inch head for 1/2 inch gypsum board or gypsum panel product; and 6d, 13 gage, 1 7/8 inches long, 21/64-inch head for 5/8-inch gypsum board or gypsum panel product.
d. Three-eighths-inch-thick single-ply gypsum board or gypsum panel product shall not be used on a ceiling where a water-based textured finish is to be applied, or where it will be required to support insulation above a ceiling. On ceiling applications to receive a water-based texture material, either hand or spray applied, the gypsum board or gypsum panel product shall be applied perpendicular to framing. Where applying a water-based texture material, the minimum gypsum board thickness shall be increased from 3/8 inch to 1/2 inch for 16-inch on center framing, and from 1/2 inch to 5/8 inch for 24-inch on center framing or 1/2-inch sag-resistant gypsum ceiling board shall be used.

HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

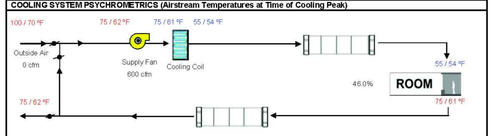
Project Name: Plan 3 — Date: 6/16/2022
System Name: HVAC — Floor Area: 495

ENGINEERING CHECKS		SYSTEM LOAD	COIL COOLING PEAK CFM	COIL COOLING PEAK Sensible	COIL COOLING PEAK Latent	COIL HTG. PEAK CFM	COIL HTG. PEAK Sensible
Number of Systems							
Heating System							
Output per System	80,000	Total Room Loads	303	6,342	205	224	8,707
Total Output (Btuh)	80,000	Return Vented Lighting		0			
Output (Btuh/sqft)	161.6	Return Air Ducts		292			438
Cooling System		Return Fan		0			0
Output per System	18,000	Ventilation	0	0	0	0	0
Total Output (Btuh)	18,000	Supply Fan		0			0
Total Output (Tons)	1.5	Supply Air Ducts		292			438
Total Output (Btuh/sqft)	36.4						
Total Output (sqft/Ton)	330.0	TOTAL SYSTEM LOAD		6,926	205		9,583
Air System							
CFM per System	600	**HVAC EQUIPMENT SELECTION**					
Airflow (cfm)	600	Split System - 16 SEER/13.0 EER/95% AFUE		14,396	1,669		80,000
Airflow (cfm/sqft)	1.21						
Airflow (cfm/Ton)	400.0						
Outside Air (%)	0.0%	Total Adjusted System Output (Adjusted for Peak Design conditions)		14,396	1,669		80,000
Outside Air (cfm/sqft)	0.00						
Note: values above given at ARI conditions		TIME OF SYSTEM PEAK		Aug 3 PM			Jan 1 AM

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)



COOLING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Cooling Peak)

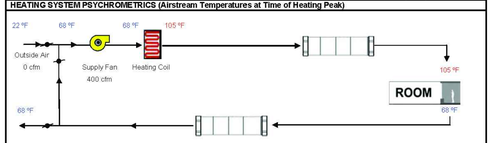


HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

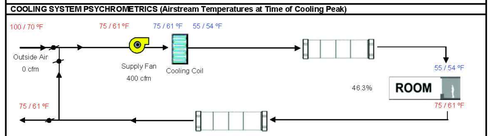
Project Name: Plan 3 w-Mini Split HP — Date: 6/16/2022
System Name: HVAC - Mini Split HP — Floor Area: 495

ENGINEERING CHECKS		SYSTEM LOAD	COIL COOLING PEAK CFM	COIL COOLING PEAK Sensible	COIL COOLING PEAK Latent	COIL HTG. PEAK CFM	COIL HTG. PEAK Sensible
Number of Systems							
Heating System							
Output per System	12,000	Total Room Loads	281	6,022	205	207	8,229
Total Output (Btuh)	12,000	Return Vented Lighting		0			
Output (Btuh/sqft)	24.3	Return Air Ducts		0			0
Cooling System		Return Fan		0			0
Output per System	9,000	Ventilation	0	0	0	0	0
Total Output (Btuh)	9,000	Supply Fan		0			0
Total Output (Tons)	0.8	Supply Air Ducts		0			0
Total Output (Btuh/sqft)	18.2						
Total Output (sqft/Ton)	660.0	TOTAL SYSTEM LOAD		6,022	205		8,229
Air System							
CFM per System	400	**HVAC EQUIPMENT SELECTION**					
Airflow (cfm)	400	Ductless Mini Split HP		6,493	1,531		6,689
Airflow (cfm/sqft)	0.81						
Airflow (cfm/Ton)	533.3						
Outside Air (%)	0.0%	Total Adjusted System Output (Adjusted for Peak Design conditions)		6,493	1,531		6,689
Outside Air (cfm/sqft)	0.00						
Note: values above given at ARI conditions		TIME OF SYSTEM PEAK		Aug 3 PM			Jan 1 AM

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)



COOLING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Cooling Peak)



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REVISIONS
REV | DATE:
NEW | 05.09.22
2ND | 06.07.22
SUB | 06.17.22

DRAWING FILE
F:\CWB\CHILLA\
PLAN 3 ADD

DATE: 06-17-2022

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3838 N. CHICKADEE AVE.
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STANDARD PLAN #3 FOR:
CITY OF CHOWCHILLA
130 S 2ND STREET
CHOWCHILLA, CA 93610
PHONE: 559-665-8615

SHEET D4 OF 26
NAILING SCHEDULES

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WATER HEATING MANDATORY MEASURES

WATER HEATING SYSTEMS USING GAS TO SERVE INDIVIDUAL DWELLING UNITS SHALL INCLUDE THE FOLLOWING COMPONENTS:

WATER HEATING SYSTEMS USING GAS OR PROPANE TO SERVE INDIVIDUAL DWELLING UNITS SHALL INCLUDE THE FOLLOWING COMPONENTS:

A. A DEDICATED 125 VOLT, 20 AMP RECEPTACLE THAT IS CONNECTED TO THE ELECTRIC PANEL WITH A 120/240 VOLT 3 CONDUCTOR, 10 AWG COPPER BRANCH CIRCUIT, WITHIN 3' FROM THE WATER HEATER AND ACCESSIBLE TO THE WATER HEATER WITH NO OBSTRUCTIONS. IN ADDITION, ALL OF THE FOLLOWING:

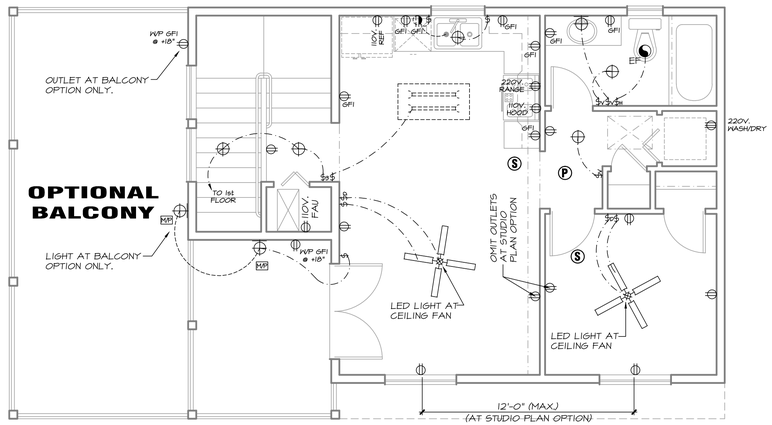
   1. BOTH ENDS OF THE UNUSED CONDUCTOR SHALL BE LABELED WITH THE WORD "SPARE" AND BE ELECTRICALLY ISOLATED; AND

   2. A RESERVED SINGLE POLE CIRCUIT POLE BREAKER SIGNS IN THE ELECTRICAL PANEL ADJACENT TO THE CIRCUIT BREAKER FOR THE BRANCH CIRCUIT IN A ABOVE AND LABELED WITH THE WORDS, "FUTURE 240 VOLT USE"; AND

B. A CATEGORY III OR IV VENT, OR A TYPE B VENT WITH STRAIGHT PIPE BETWEEN THE OUTSIDE TERMINATION AND THE SPACE WHERE THE WATER HEATER IS INSTALLED; AND

C. A CONDENSATE DRAIN THAT IS NO MORE THAN 2 INCHES HIGHER THAN THE BASE OF THE INSTALLED WATER HEATER, AND ALLOWS NATURAL DRAINING WITHOUT PUMP ASSISTANCE, AND

D. A GAS SUPPLY LINE WITH A CAPACITY OF AT LEAST 200,000 BTU/HR. - 2019 CEC 150(N)



2nd FLOOR ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"

ELECTRICAL SYMBOL SCHEDULE	
	DUPLEX RECEPTACLE, WALL MOUNTED +12", 15a 3w
	DUPLEX RECEPTACLE, 1/2 SWITCHED, +12", 15a 3w
	220 V SPECIAL OUTLET MOUNTED +12"
J	JUNCTION BOX, MOUNTED +18"
	PUSH BUTTON, LOW VOLTAGE, MOUNTED +54"
$	SWITCH, SINGLE POLE MOUNTED +54"
$3	3-WAY SWITCH
$D	DIMMER SWITCH
$H	HUMIDISTAT SWITCH (SEE NOTES)
$V	VACANCY SENSOR SWITCH
	RECESSED LED CAN LIGHT FIXTURE
	CEILING MOUNTED LED LIGHT FIXTURE
	WALL MOUNTED BRACKET LED LIGHT
MS	MOTION SENSOR W/ PHOTO CELL
S	SMOKE DETECTOR, CEILING MOUNTED
C	CARBON MONOXIDE DETECTOR, CEILING MOUNTED
P	COMBINATION SMOKE DETECTOR / CARBON MONOXIDE DETECTOR
	GAS OUTLET
	EXHAUST FAN (SEE ALSO SHEET M1)
EV	ELECTRIC VEHICLE (EV) CHARGING STATION. (SEE NOTE)
	SERVICE ENTRANCE WITH UFER GROUND
	ILLUMINATED ADDRESS SIGN. NUMBERS TO BE MIN. OF 4" HIGH USING A MIN 1/2" STROKE WIDTH

ELECTRICAL CALCULATIONS	
AREA OF BUILDING:	495 S.F.
LIGHTING: 3 WATTS PER SQ. FT.:	1485 WATTS
TWO SMALL APPLIANCES:	3000 WATTS
DISHWASHER	1000 WATTS
DISPOSAL 1/2 H.P.	500 WATTS
CLOTHES WASHER	1500 WATTS
CLOTHES DRYER	5000 WATTS
MICROWAVE	1500 WATTS
RANGE	12000 WATTS
SUBTOTAL	25985 WATTS
PER TABLE 220-30 N.E.C.: FIRST 10KW AT 100%	10000 WATTS
REMAINING 15985 AT 40%	6394 WATTS
TOTAL COMPUTED LOAD:	16394 WATTS 71.3 AMPS
A/C UNIT 15 AMPS AT 125%:	18.7 AMPS
E.V. CHARGING (FUTURE)	40.0 AMPS
TOTAL AMPS REQUIRED:	130.0 AMPS
PROVIDE 200 AMP ELECTRICAL SERVICE PANEL. SERVICE RATING AT 120/240 VOLTS SINGLE PHASE, THREE WIRE WITH #4 COPPER GROUND. SEE DETAIL 1/E1 FOR UFER GROUND REQUIREMENTS.	

ELECTRICAL PLAN NOTES

PROVIDE AN APPROVED SMOKE DETECTOR LOCATED BETWEEN THE KITCHEN AND ANY BEDROOM, ON THE KITCHEN SIDE AND AT LEAST 36" FROM THE AIR OUTLET OR RETURN. SMOKE DETECTORS SHALL ALSO BE INSTALLED IN EACH STORY OF A DWELLING, AT THE TOP OF VAULTED CEILINGS ADJACENT TO HALLS AND SLEEPING AREAS, AND ONE IN EACH ROOM USED FOR SLEEPING. DETECTORS SHALL BE HARD WIRED INTO THE ELECTRICAL SYSTEM, INTERCONNECTED TO SOUND SIMULTANEOUSLY, AND SHALL BE EQUIPPED WITH A BATTERY BACKUP. ALARMS TO SOUND IN THE SLEEPING AREAS.

PROVIDE AN APPROVED CARBON MONOXIDE DETECTOR OUTSIDE OF EACH SEPARATE DWELLING UNIT SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOM(S). CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING AND SHALL BE EQUIPPED WITH A BATTERY BACK-UP. WHERE MORE THAN ONE CARBON MONOXIDE ALARM IS REQUIRED, THE ALARMS SHALL BE INTERCONNECTED IN A MANNER THAT ACTIVATION OF ONE ALARM SHALL ACTIVATE ALL OF THE 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.

ELECTRIC RANGES AND CLOTHES DRYER SHALL BE PROVIDED WITH AN EQUIPMENT GROUNDING CONDUCTOR BY MEANS OF A SEPARATE FLEXIBLE WIRE OR STRAP. (4 CONDUCTORS REQUIRED)

EACH DISCONNECTING MEANS REQUIRED BY THE NEC FOR MOTORS AND APPLIANCES, AND EACH SERVICE, FEEDER, OR BRANCH CIRCUIT AT THE POINT WHERE IT ORIGINATES, SHALL BE LEGIBLY MARKED TO INDICATE ITS PURPOSE UNLESS LOCATED AND ARRANGED SO THE PURPOSE IS EVIDENT. THE MARKING SHALL BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED. (PROPER IDENTIFICATION IS TO BE SPECIFIC.)

EACH DISCONNECT SHALL BE ADJACENT TO AND IN SIGHT FROM THE EQUIPMENT SERVED

AN EXHAUST FAN WITH A CAPACITY OF 50 CFM INTERMITTENT OR 25 CFM CONTINUOUS SHALL BE PROVIDED IN PRIVATE BATHROOMS.

BATHROOM EXHAUST FANS THAT ARE NOT A COMPONENT OF THE WHOLE HOUSE VENTILATION SYSTEM MUST BE CONTROLLED BY A READILY ACCESSIBLE HUMIDISTAT, CAPABLE OF ADJUSTMENT BETWEEN A RELATIVE HUMIDITY RANGES OF < 50 TO 80 PERCENT. HUMIDISTAT FUNCTION OF FAN SHALL NOT BE CAPABLE OF BEING OVERRIDDEN. (USE PANASONIC #FV-NCGS1-H CONDENSATION SENSOR SWITCH OR EQUAL)

PROVIDE ILLUMINATED ADDRESS SIGN AS SHOWN ON PLANS. STREET ADDRESS NUMBERS SHALL BE A MINIMUM OF FOUR INCHES HIGH USING A MINIMUM STROKE WIDTH OF 1/2" AND LOCATED AS TO BE CLEARLY VISIBLE FROM THE ALLEY.

PROVIDE DESIGNATED 20 AMP CIRCUIT FOR:
A) 2 SMALL APPLIANCE CIRCUITS IN THE KITCHEN
B) THE LAUNDRY ROOM
C) BUILT-IN MICROWAVE OVENS

ALL 125 VOLT, SINGLE PHASE, 15 AMP AND 20 AMP BRANCH CIRCUITS SUPPLYING OUTLETS INSTALLED IN DWELLING UNIT FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUN ROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR OTHER SIMILAR ROOMS OR AREAS, SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER (AFCI), COMBINATION TYPE, INSTALLED TO PROVIDE PROTECTION OF THE ENTIRE BRANCH CIRCUIT. (THE BREAKER MUST STATE "COMBINATION" AFCI)

INTER SYSTEM BONDING IS REQUIRE FOR THIS RESIDENCE

BUILDER MUST PROVIDE THE NEW HOMEOWNER WITH A LUMINAIRE SCHEDULE THAT INCLUDES A LIST OF LAMPS INSTALLED IN THE LUMINAIRES.

BUILDER IS REQUIRED TO PROVIDE THE INSPECTOR WITH A COMPLETED LUMINAIRE SCHEDULE FOR REVIEW.

LIGHTING:

LIGHTING IN CLOTHES CLOSETS SHALL COMPLY W/ **CEC SECTION 410-16.**

ALL PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH EFFICACY IN ACCORDANCE WITH TABLE 150.0-A

ALL LIGHTING RECESSED INTO CEILINGS SHALL CONFORM TO THE FOLLOWING:
1. BE RATED FOR ZERO CLEARANCE INSULATION CONTACT (IC)
2. MUST HAVE A LABEL THAT CERTIFIED THE FIXTURE AS AIRTIGHT
3. MUST BE SEALED WITH A GASKET OR CAULKING BETWEEN THE HOUSING AND THE CEILING.
4. FOR LUMINAIRES WITH HARDWIRED BALLASTS OR DRIVERS, ALLOW BALLAST OR DRIVER MAINTENANCE AND REPLACEMENT TO BE READILY ACCESSIBLE TO BUILDING OCCU-PANTS FROM BELOW THE CEILING WITHOUT REQUIRING THE CUTTING OF HOLES IN THE CEILING
5. SHALL NOT CONTAIN SCREW BASED SOCKETS.
6. SHALL CONTAIN LIGHT SOURCES THAT COMPLY WITH REF-ERENCES JOINT APPENDIX JA8, INCLUDING THE ELE-VATED TEMPERATURE REQUIREMENTS, AND THAT ARE MARKED @JA8-2016-E# AS SPECIFIED IN REFERENCE JOINT APPENDIX JA8.

ALL FLUORESCENT LAMPS ARE REQUIRED TO HAVE AN EFFICIENCY OF NOT LESS THAN 45 LUMENS PER WATTS.

ALL FLUORESCENT LAMPS RATED AT 13 WATTS OR GREATER SHALL HAVE AN ELECTRONIC BALLAST

PROVIDE MIN. (1) SWITCHED LIGHT FIXTURE IN ATTIC USED FOR STORAGE OR CONTAINING EQUIPMENT REQUIRING SERVICING. SWITCH SHALL BE LOCATED AT THE ATTIC ACCESS PANEL.

NO PARTS OF CORD CONNECTED FIXTURES, HANGING FIXTURES, TRACK LIGHTING, PENDANTS, OR CEILING FANS SHALL BE LOCATED DIRECTLY ABOVE ANY BATHTUB OR WITHIN A ZONE MEASURED 3 FT. HORIZONTALLY AND 8 FT. VERTICALLY FROM THE BATHTUB RIM.

ALL LED LIGHTING MUST BE CERTIFIED TO CEC. IF THE LIGHTING IS NOT CERTIFIED IT MUST BE CONSIDERED AS "LOW EFFICACY LIGHTING" ALL LED LIGHTING USED AS "HIGH EFFICACY LIGHTING" SHALL HAVE THE DATA PROVIDED AT THE JOBSITE FOR INSPECTION PURPOSES.

OUTDOOR LIGHTING:

ALL OUTDOOR LIGHTING THAT IS ATTACHED TO THE BUILDING OR ANY OTHER BUILDING PROVIDED WITH COMMERCIAL POWER IS REQUIRED TO BE HIGH EFFICACY.

LIGHT FIXTURES INSTALLED ON THE OUTSIDE OF THE BUILDING MUST BE LISTED FOR DAMP LOCATIONS.

ALL LUMINAIRES PROVIDING RESIDENTIAL OUTDOOR LIGHTING SHALL BE CONTROLLED BY A MANUAL ON AND OFF SWITCH AND BE CONTROLLED BY PHOTOCELL AND MOTION SENSOR.

CONTROLS THAT OVERRIDE TO ON SHALL NOT BE ALLOWED UNLESS THE OVERRIDE AUTOMATICALLY REACTIVATES THE MOTION SENSOR WITHIN 6 HOURS

ALL EXTERIOR LIGHTING SHALL BE DIRECTED DOWNWARD AND SHIELDED TO CONFINE THE LIGHTING WITHIN THE BOUNDARIES OF THE SUBJECT PARCEL.

EXTERIOR LIGHTING SHALL NOT EXCEED 150 WATTS AND MUST NOT BE VISIBLE FROM ADJACENT PROPERTIES.

SWITCHING:

EXHAUST FANS SHALL BE SWITCHED SEPARATELY FROM LIGHTING SYSTEM.

LUMINAIRES SHALL BE SWITCHED WITH READILY ACCESSIBLE CONTROLS THAT PERMIT THE LUMINAIRES TO BE MANUALLY SWITCHED ON AND OFF.

NO CONTROLS SHALL BYPASS A DIMMER OR VACANCY SENSOR FUNCTION WHERE THAT DIMMER OR VACANCY SENSOR HAS BEEN INSTALLED TO COMPLY WITH SECTION 150.0(K).

AT LEAST ONE LIGHTING FIXTURE INSTALLED IN BATHROOMS, UTILITY ROOMS AND GARAGES SHALL BE CONTROLLED BY A VACANCY SENSOR.

ANY LED LIGHTING THAT IS NOT CERTIFIED AS HIGH EFFICACY TO THE CALIFORNIA ENERGY COMMISSION MUST BE JOINT APPENDIX JA8 COMPLIANT AND MUST BE SWITCHED WITH A DIMMER SWITCH OR VACANCY SENSOR.

DIMMERS OR VACANCY SENSORS SHALL CONTROL ALL LUMINAIRES REQUIRED TO HAVE LIGHT SOURCES COMPLIANT WITH REFERENCE JOINT APPENDIX JA8. (EXCEPT IN HALLWAYS AND/OR CLOSETS LESS THAN 70 S.F.)

ANY UNDER CABINET LIGHTING MUST BE SWITCHED SEPARATELY FROM OTHER LIGHTING SYSTEMS.

RECEPTACLES:

THE NUMBER OF ELECTRICAL BOXES THAT ARE MORE THAN 5 FEET ABOVE THE FINISHED FLOOR AND DO NOT CONTAIN A LUMINAIRE OR OTHER DEVICE SHALL BE NO GREATER THAN THE NUMBER OF BEDROOMS. THESE ELECTRICAL BOXES MUST BE SERVED BY A DIMMER, VACANCY SENSOR CONTROL, OR FAN SPEED CONTROL.

BATHROOM RECEPTACLES MUST BE SERVED BY A SEPARATE 20 AMP CIRCUIT WITH NO OTHER OUTLETS SERVED FROM THAT CIRCUIT. (ONE CIRCUIT MAY SERVE ALL BATHROOMS)

PROVIDE RECEPTACLE WITH IN 25 FEET AND ON THE SAME LEVEL OF MECHANICAL EQUIPMENT.

FOR RECEPTACLES SERVING COUNTER TOPS:

A) RECEPTACLE OUTLETS SHALL NOT BE INSTALLED IN A FACE UP POSITION IN THE WORK SURFACES.

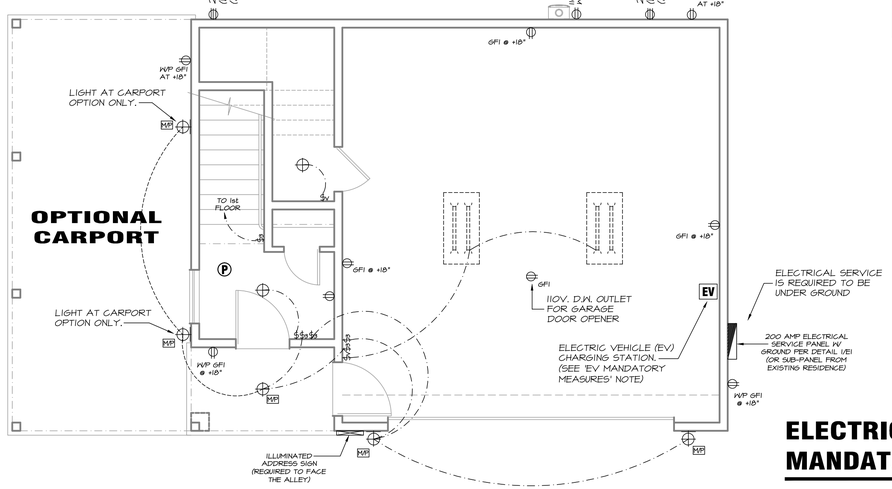
B) RECEPTACLE OUTLETS SHALL BE LOCATED ABOVE, BUT NOT MORE THAN 20" ABOVE THE COUNTER TOPS

C) RECEPTACLE OUTLETS SHALL BE PERMITTED TO BE MOUNTED NOT MORE THAN 12" BELOW THE COUNTERTOP PROVIDED THE COUNTERTOP DOES NOT EXTEND MORE THEN 6" BEYOND IT'S SUPPORT BASE.

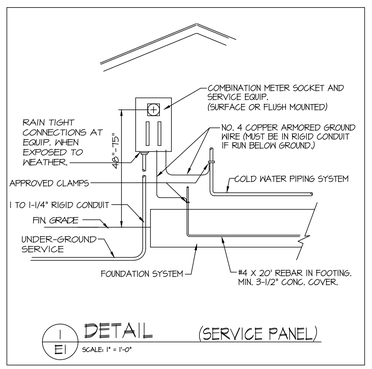
D) ON ISLAND AND PENINSULAR COUNTER TOPS, RECEPTACLES MAY BE MOUNTED A MAX. 12" BELOW COUNTER TOP PROVIDED THERE ARE NO BACK SPLASHES OR DIVIDERS AND NO MEANS TO MOUNT WITHIN 18" ABOVE COUNTERTOP, SUCH AS AN OVERHEAD CABINET.

ALL DWELLING UNIT RECEPTACLES SHALL BE LISTED TAMPER RESISTANT RECEPTACLES PER CEC 406.12

A BATTERY BACK-UP SHALL BE INSTALLED ON ALL AUTOMATIC GARAGE DOOR OPENERS.



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



ELECTRICAL VEHICLE (EV) MANDATORY MEASURES

THE FOLLOWING MINIMUM REQUIREMENTS SHALL APPLY TO FACILITATE FUTURE INSTALLATION OF ELECTRICAL VEHICLE (EV) CHARGING IN NEW CONSTRUCTION. ALL ELECTRICAL VEHICLE SUPPLY EQUIPMENT (EVSE) SHALL BE INSTALLED IN ACCORDANCE WITH THE 2019 CALIFORNIA ELECTRICAL CODE.

INSTALL A LISTED RACEWAY TO ACCOMMODATE A DEDICATED 208/240 VOLT BRANCH CIRCUIT OF NOT LESS THAN NOMINAL 1" INSIDE DIAMETER.

THE RACEWAY SHALL ORIGINATE AT THE MAIN SERVICE OR SUB PANEL AND SHALL TERMINATE IN A LISTED CABINET, BOX, OR ENCLOSURE IN CLOSE PROXIMITY TO THE PROPOSED LOCATION OF THE EV CHARGER. RACEWAYS ARE REQUIRED TO BE CONTINUOUS AT ENCLOSED, INACCESSIBLE OR CONCEALED AREAS AND SPACES. THE RACEWAY TERMINATION LOCATION SHALL BE PERMANENTLY AND VISIBLY MARKED AS "EV CAPABLE".

THE SERVICE PANEL AND/OR SUBPANEL SHALL PROVIDE CAPACITY TO INSTALL A 40-AMP MINIMUM DEDICATED BRANCH CIRCUIT AND SPACE(S) RESERVED TO PERMIT INSTALLATION OF A BRANCH CIRCUIT OVERCURRENT PROTECTIVE DEVICE. THE SERVICE PANEL OR SUBPANEL SHALL IDENTIFY THE OVERCURRENT PROTECTIVE DEVICE SPACE(S) RESERVED FOR FUTURE EV CHARGING AS "EV CAPABLE".

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REVISIONS
REV DATE:
NEW 05.09.22
NEW 06.02.22
SUB 06.17.22

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DATE: 06-17-2022

CWB DESIGNS
3838 N. CHICKADEE AVE.
SANGER, CA 93657
PHONE: 559.294.6534

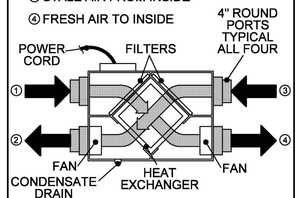
STANDARD PLAN #3 FOR:
CITY OF CHOWCHILLA
130 S 2ND STREET
CHOWCHILLA, CA 93610
PHONE: 559-665-8615

SHEET E1 OF 26
ELECTRICAL

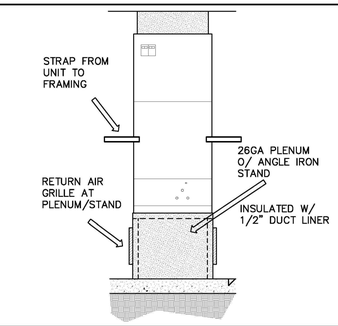
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HRV

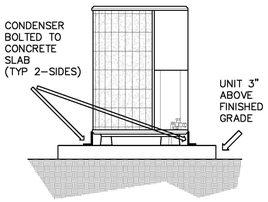
① FRESH AIR FROM OUTSIDE
② EXHAUST TO OUTSIDE
③ STALE AIR FROM INSIDE
④ FRESH AIR TO INSIDE



4 | NO SCALE | HRV | HRV TYPICAL DETAIL



1 | NO SCALE | UPFL. DET. | UPFLOW FURNACE MOUNTING DETAIL



2 | NO SCALE | COND. DETAIL | CONDENSER MOUNTING DETAIL

TANKLESS WATER HEATER

0.91 - UEF

DUCT INSULATION

R-8.0

MINIMUM FRESH AIR

Enter Eq. 4.1a Calculation:

A_{floor} = 495
N_{br} = 1
Q_{fan} = 28

(Eq. 4.1a)

$Q_{fan} = 0.03A_{floor} + 7.5\ (N_{br}+1)$

Where:

A_{floor} = conditioned floor area, ft²
N_{br} = number of bedrooms; not to be less than one
Q_{fan} = ventilation air requirement = fan flow rate, (cfm)

MINIMUM FRESH AIR VENTILATION REQUIRED TO BE MET BY A BALANCED SYSTEM "HRV"

PERFORMANCE RATINGS AIRZONE EXHAUST FANS

HVI PERFORMANCE					
SYMBOL	MODEL	STATIC PRESSURE (Ps)	CFM	SONES	WATTS
E/F 1	SE090	0.10	90	0.3	23.3
		0.25	70		
E/F 2	SE110	0.10	110	0.6	33.5
		0.25	87		
E/F 3	SE140	0.10	140	1.1	51.3
		0.25	128		

PERFORMANCE RATINGS AIR KING EXHAUST FAN

HVI PERFORMANCE					
SYMBOL	MODEL	STATIC PRESSURE (Ps)	CFM	SONES	WATTS
E/F 4	BFQ50	0.25	30	0.5	28

HERS VERIFICATIONS

- ☐ VERIFIED EER
- ☐ VERIFIED AIRFLOW
- ☐ DUCT LEAKAGE (5%)
- ☐ VERIFIED REFRIGERANT CHARGE
- ■ QUALITY INSULATION INSTALLATION INSPECTION
- ☐ FAN EFFICACY WATTS/CFM
- ■ IAQ
- ☐ BUILDING ENVELOPE AIR LEAKAGE @__ ACH50
- ☐ VERIFIED SEER
- ☐ LOW LEAKAGE AIR HANDLER
- ■ KITCHEN RANGE HOOD

(DUCTLESS SYSTEM)

■ INDICATES REQUIRED HERS VERIFICATION

HERS VERIFICATIONS

- ■ VERIFIED EER
- ■ VERIFIED AIRFLOW
- ■ DUCT LEAKAGE (5%)
- ■ VERIFIED REFRIGERANT CHARGE
- ■ QUALITY INSULATION INSTALLATION INSPECTION
- ■ FAN EFFICACY WATTS/CFM
- ■ IAQ
- ☐ BUILDING ENVELOPE AIR LEAKAGE @__ ACH50
- ■ VERIFIED SEER
- ☐ LOW LEAKAGE AIR HANDLER
- ■ KITCHEN RANGE HOOD

(DUCTED SYSTEM)

■ INDICATES REQUIRED HERS VERIFICATION

EQUIPMENT SCHEDULE

A/C 2 — 1.5 TON - HEAT PUMP DUTCLESS MINI SPLIT

HPSF: 9
SEER: 16
EER: 10.8
–
–
–

EQUIPMENT SCHEDULE

A/C 1 — 1.5 TON - SPLIT SYSTEM

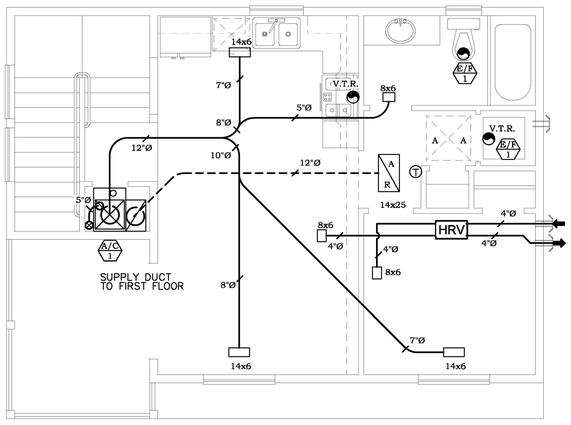
16.0 SEER
13.0 EER
18,000 BUTH COOLOING
–

FURNACE: 95% AFUE
–
–
–

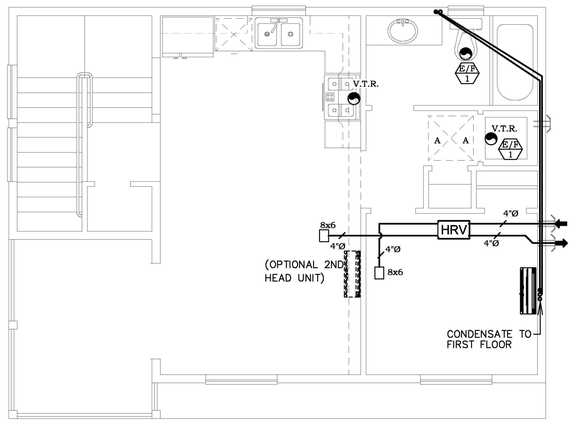
MECHANICAL NOTES

1. FURNACE TO BE SECURELY FASTENED TO BUILDING PLATFORM.
2. A COMPLETED "REGISTERED" CF3R FORM TO BE SUBMITTED PRIOR TO FINAL INSPECTION, SIGNED BY THE CERTIFIED HERS RATER, FOR FIELD VERIFICATION AND DIAGNOSTIC TESTING.
3. AFTER INSTALLING WATER HEATING SYSTEMS, FENESTRATION, AND HVAC EQUIPMENT THE INSTALLER SHALL POST IN A CONSPICUOUS LOCATION AN "INSTALLATION CERTIFICATE" (CF2R FORM), COMPLETED AND SIGNED BY THE INSTALLER, LISTING THE EQUIPMENT INSTALLED, (MANUFACTURER, MODEL, AND EFFICIENCIES, U-VALUES AND SHGC-VALUES, ETC.) AND THAT IT MEETS OR EXCEEDS THE REQUIREMENTS OF THE ENERGY DOCUMENTATION. (CEES section 10-103(a)(3)). REGISTERED COPIES SHALL BE PROVIDED WHEN HERS VERIFICATION IS REQUIRED.
4. ELECTRICAL CONTRACTOR TO PROVIDE LIGHT FIXTURE WITH SWITCH AT ATTIC ACCESS.
5. MINIMUM 30"X30" ATTIC ACCESS DOOR REQUIRED FOR ATTIC MOUNTED FURANCE.
6. ANY CATWALKS TO ATTIC MOUNTED MECHANICAL EQUIPMENT TO BE MINIMUM 24" WIDE (NOT TO EXCEED 20' LONG).
7. ALL ATTIC MOUNTED MECHANICAL EQUIPMENT TO HAVE A MINIMUM 30" CLEAR IN FRONT FOR SERVICE (BY 48" HIGH).

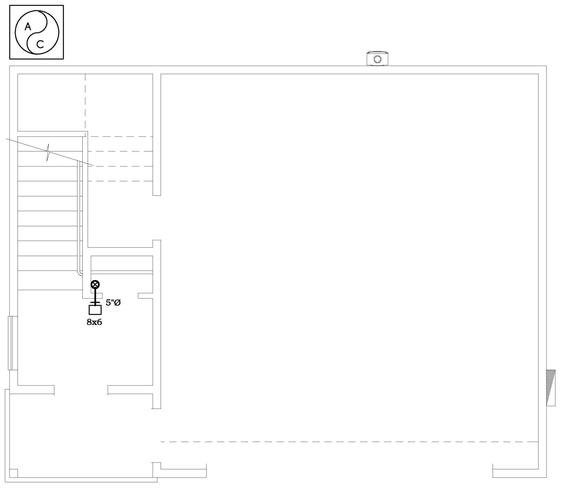
   ALL BEDROOM DOORS TO UNDERCUT TO ALLOW FOR AIR RETURN.
8. SMOKE DETECTOR PROVIDED FOR THE PROTECTION OF THE SLEEPING ROOMS IS REQUIRED TO BE PLACED IN FRONT OF THE RETURN GRILL.
9. CONTRACTOR SHALL PROVIDE THE ORIGINAL OCCUPANT WITH A LIST OF THE HEATING, COOLING, WATER HEATING, LIGHTING SYSTEMS, AND CONSERVATION OR SOLAR DEVICES INSTALLED IN THE BUILDING AND INSTRUCTIONS ON HOW TO USE THEM EFFICIENTLY.
10. ALL KITCHENS AND BATHROOMS SHALL HAVE LOCAL EXHAUST SYSTEMS VENTED TO THE OUTDOORS, EACH LOCAL VENTILATION SYSTEM SHALL BE EITHER INTERMITTENT OR CONTINUOUS MECHANICAL EXHAUST SYSTEM, KITCHEN HOOD EXHAUST AIR FLOW RATE TO BE 100 CFM.
11. AIR INLETS THAT ARE PART OF THE VENTILATION DESIGN SHALL BE LOCATED A MINIMUM 10 FEET FROM KNOWN SOURCES OF CONTAMINATION SUCH AS STACK, VENT, EXHAUST HOOD OR VEHICLE EXHAUST.
12. MECHANICAL SYSTEMS INCLUDING HEATING AND AIR CONDITIONING SYSTEMS THAT SUPPLY AIR TO HABITABLE SPACES SHALL HAVE MERV 6 FILTERS OR BETTER.
13. WHEN A LIVING SPACE ADJOINS A GARAGEM THE DESIGN MUST PREVENT MIGRATION OF CONTAMINANTS FROM THE GARAGE TO THE ADJOINING LIVING SPACE. DOORS BETWEEN THE LIVING SPACE AND THE GARAGE SHALL HAVE GASKETS INSTALLED OR MADE SUBSTANTIALLY AIRTIGHT WITH WEATHER-STRIPPING.
14. MINIMUM 50 CFM EXHAUST FAN(VENTED TO EXTERIOR) WITH INTERMITTENT SWITCH REQUIRED AT ALL BATHROOMS AND LAUNDRY PER SHRAE 62.2-2004
15. KITCHEN HOOD TO HAVE A MINIMUM 100 CFM @ <3 SONES (VENTED TO EXTERIOR).
16. AIR CONDITIONING EQUIPMENT DESIGNED TO BE IN A FIXED POSITION SHALL BE SECURELY FASTENED, PER MANUFACTURER'S INSTALLATION INSTRUCTIONS, INSTALLATION INSTRUCTIONS SHALL BE PROVIDED TO THE FIELD INSPECTOR. (CMC SECTION 903.4).
17. CONDENSING UNITS SHALL NOT BE PLACED WITHIN 5 FEET OF A DRYER VENT.
18. DUCT INSTALLATION MUST COMPLY WITH 2016 CALIFORNIA CODE SECTIONS 601-605 AND CALIFORNIA BUILDING ENERGY EFFICIENY STANDARDS EFFECTIVE JANUARY, 2017.
19. MANDATORY HERS TESTING FOR NEW DUCTED SYSTEMS (MAXIMUM LEAKGE 5%)
20. FICTURES ABOVE BATHTUBES: NO PART OF CORDS CONNECTED FIXTURES, HANGING FIXTURES, TRACK LIGHTING, PENDANTS, OR CEILING FANS SHALL BE LOCATED DIRECTLY ABOVE THE TUB AND WITHIN A ZONE MEASURED 3 FEET HORIZONTALLY AND 8 FEET VERTICALLY FROM THE BATHTUB RIM. (CEC 410.1(D)).
21. FOR ATTIC MOUNTED FURNACES:
    a. PROVIDE MINIMUM 24" WIDE SOLID FLOORING CATWALK FROM THE ATTIC ACCESS TO WORK PLATFORM ON THE CONTROL SIDE OF THE FURNACE
    b.PROVIDE 30:X30" ATTIC ACCESS WITHIN 20' OF FURNACE. ACCESS MAY BE SMALLER, PROVIDED FURNACE PARTS WILL PASS THROUGH. (PROVIDE DOCUMENTATION)
    c. SEE ELECTRICAL PLAN FOR LIGHT AND ELECT. RECEPTACLE LOCATION
    d. PROVIDE CONDENSATE DRIP PAN AND OVERFLOW LINES FOR COOLING COILS
22. AFTER INSTALLING HVAC EQUIPMENT AND WATER HEATING SYSTEMS, THE INSTALLER SHALL POST IN A CONSPICUOS LOCATION AT THE BUILDING SITE, AN "INSTALLATION CERTIFICATE" (CF-2R FORM) SUGNED BY THE INSTALLER, LISTING THE EQUIPMENT INSTALLED (MANUFACTURER, MODEL AND EFFICIENCIES) AND THAT IT MEETS OR EXCEEDS THE REQUIREMENTS OF THE ENERGY DOCUMENTATION.
23. AIR CONDITIONING EQUIPMENT DESIGNED TO BE IN A FIXED POSITION SHALL BE SECURELY FASTENED TO STRUCTURE.
24. WHERE MECHANICAL VENTILATION IS USED IN BATHROOMS, EXHAUST FAN SHALL PROVIDE A MIN. OF FIVE AIR CHANGES PER HOUR, VENTED DIRECTLY TO THE OUTSIDE. THE POINT OF DISCHARGE OF EXHAUST AIR SHALL BE AT LEAST 5 FEET FROM ANY MECHANICAL VENTILATION INTAKE AND 3 FEET MIN. FROM PROPERTY LINES.
25. CLOTHES DRYER SHALL BE VENTED TO EXTERIOR OF BUILDING PER U.M.C. 504.3 AND DRYER DUCTS SHALL NOT EXCEED A TOTAL HORIZONTAL AND VERTICAL LENGTH OF 14 FEET. 2 FEET SHALL BE DUCTED FOR EACH 90 DEGREE ELBOW IN EXCESS OF TWO. WHERE A DRYER SPACE IS PROVIDED, A MIN. 4 INCH DRYER VENT MUST BE INSTALLED.
26. ALL DUCTS SHALL BE CONSTRUCTED, INSTALLED AND INSULATED PER CHAPTER 6 OF THE CURRENT C.M.C.



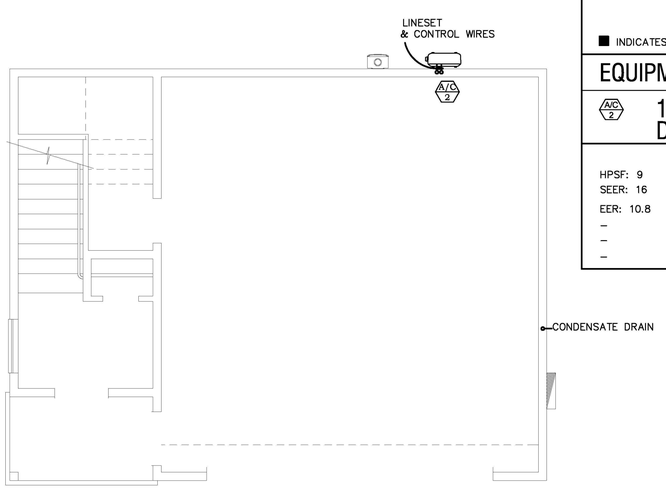
2nd FLOOR MECHANICAL PLAN
SCALE: 1/4" = 1'-0" STD. SPLIT



2nd FLOOR MECHANICAL PLAN
SCALE: 1/4" = 1'-0" MINI SPLIT H.P.



1st FLOOR MECHANICAL PLAN
SCALE: 1/4" = 1'-0" STD. SPLIT



1st FLOOR MECHANICAL PLAN
SCALE: 1/4" = 1'-0" MINI SPLIT H.P.

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REVISIONS
REV | DATE:
NEW | 05.09.22
2ND | 05.25.22
SUB | 06.17.22

DRAWING FILE
F:\CHOWCHILLA\PLAN 3\AMA

DATE: 06-17-2022

CWB DESIGNS
3838 N. CHICKADEE AVE.
SANGER, CA 93657
PHONE: 559.294.6534

STANDARD PLAN #3 FOR:
CITY OF CHOWCHILLA
130 S 2ND STREET
CHOWCHILLA, CA 93610
PHONE: 559-665-8615

SHEET M1 OF 26 MECHANICAL

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CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: Plan 3 **Calculation Date/Time:** 2022-06-16T13:21:20-07:00 **(Page 1 of 13)**

Calculation Description: Title 24 Analysis **Input File Name:** Plan 3 - v2019.rBd19k

GENERAL INFORMATION					
01	Project Name	Plan 3			
02	Run Title	Title 24 Analysis			
03	Project Location	TBD			
04	City	Chowchilla	05	Standards Version	2019
06	Zip code	93610	07	Software Version	EnergyPro 8.3
08	Climate Zone	13	09	Front Orientation (deg/ Cardinal)	180/orientations
10	Building Type	Single family	11	Number of Dwelling Units	1
12	Project Scope	New/Construction	13	Number of Bedrooms	1
14	Addition Cond. Floor Area (ft²)	0	15	Number of Stories	2
16	Existing Cond. Floor Area (ft²)	n/a	17	Fenestration Average U-factor	0.3
18	Total Cond. Floor Area (ft²)	695	19	Glazing Percentage (%)	26.97%
20	ADU Bedroom Count	n/a	21	ADU Conditioned Floor Area	n/a
22	Is Natural Gas Available?	Yes			

COMPLIANCE RESULTS	
01	Building Complies with Computer Performance
02	This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider.
03	This building incorporates one or more Special Features shown below

Registration Number: 222-P010119889A-000-000-0000000-0000 Registration Date/Time: 2022-06-16 17:31:37 HERS Provider: CalCERTS Inc.
CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.2.000 Schema Version: rev 20200901 Report Generated: 2022-06-16 13:22:26

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: Plan 3 **Calculation Date/Time:** 2022-06-16T13:21:20-07:00 **(Page 2 of 13)**

Calculation Description: Title 24 Analysis **Input File Name:** Plan 3 - v2019.rBd19k

ENERGY DESIGN RATING				
	Energy Design Ratings			
	Efficiency[1] (EDR)	Total[2] (EDR)	Efficiency[1] (EDR)	Total[2] (EDR)
Standard Design	49.7	24.3		
Proposed Designs				
North Facing	46.2	20.9	3.5	3.4
East Facing	47.4	22.1	2.3	2.2
South Facing	48.3	23	1.4	1.3
West Facing	48.6	23.3	1.1	1
RESULT: [3] COMPLIES				

[1] Efficiency EDR includes improvements to the building envelope and more efficient equipment
[2] Total EDR includes efficiency and demand response measures such as photovoltaic (PV) systems and batteries
[3] Building complies when efficiency and total compliance margins are greater than or equal to zero

- Standard Design PV Capacity: 2.27 kWdc
- Proposed PV kWh output exceeds proposed electricity use by 2.9% which may violate NEM rules. Contact local utility.
- Proposed PV Capacity Scaling: North (2.27 kWdc) East (2.27 kWdc) South (2.27 kWdc) West (2.27 kWdc)

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CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: Plan 3 **Calculation Date/Time:** 2022-06-16T13:21:20-07:00 **(Page 3 of 13)**

Calculation Description: Title 24 Analysis **Input File Name:** Plan 3 - v2019.rBd19k

ENERGY USE SUMMARY				
Energy Use (kTDV/ft²-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	25.67	22.91	2.76	10.8
Space Cooling	89.47	79.48	9.99	11.2
IAQ Ventilation	9.66	3.8	5.86	60.7
Water Heating	35.35	32.11	3.24	9.2
Self Utilization Credit	n/a	0	0	n/a
North Facing Compliance Total	160.15	138.3	21.85	13.6
Space Heating	25.67	20.75	4.92	19.2
Space Cooling	89.47	89.27	0.2	0.2
IAQ Ventilation	9.66	3.8	5.86	60.7
Water Heating	35.35	32.11	3.24	9.2
Self Utilization Credit	n/a	-8	8	n/a
East Facing Compliance Total	160.15	145.93	14.22	8.9
Space Heating	25.67	21.37	4.3	16.8
Space Cooling	89.47	94.18	-4.71	-5.3
IAQ Ventilation	9.66	3.8	5.86	60.7
Water Heating	35.35	32.11	3.24	9.2
Self Utilization Credit	n/a	0	0	n/a
South Facing Compliance Total	160.15	151.46	8.69	5.4
Space Heating	25.67	24.53	1.14	4.4
Space Cooling	89.47	92.85	-3.38	-3.8
IAQ Ventilation	9.66	3.8	5.86	60.7
Water Heating	35.35	32.11	3.24	9.2
Self Utilization Credit	n/a	0	0	n/a
West Facing Compliance Total	160.15	153.29	6.86	4.3

Registration Number: 222-P010119889A-000-000-0000000-0000 Registration Date/Time: 2022-06-16 17:31:37 HERS Provider: CalCERTS Inc.
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CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: Plan 3 **Calculation Date/Time:** 2022-06-16T13:21:20-07:00 **(Page 4 of 13)**

Calculation Description: Title 24 Analysis **Input File Name:** Plan 3 - v2019.rBd19k

REQUIRED PV SYSTEMS - SIMPLIFIED											
01	02	03	04	05	06	07	08	09	10	11	12
DC System Size (kWdc)	Exception	Module Type	Array Type	Power Electronics	CFI	Azimuth (deg)	Tilt Input	Array Angle (deg)	Tilt: (x in 12)	Inverter Eff. (%)	Annual Solar Access (%)
2.27	NA	Standard	fixed	none	true	150-270	n/a	n/a	<=7:12	96	98

REQUIRED SPECIAL FEATURES
The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.
• Indoor air quality, balanced fan • IAQ Ventilation System: as low as 0.25 W/CFM • IAQ Ventilation System: Heat Recovery: minimum 69 SRE and 75 ASRE • IAQ Ventilation System: supply outside air inlet, filter, and HERV/ERV cores accessible per RACM Reference Manual • Insulation below roof deck • Window overhangs and/or fins

HERS FEATURE SUMMARY
The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry.
Building-level Verifications: • Quality insulation installation (QII) • Indoor air quality ventilation • Kitchen range hood Cooling System Verifications: • Minimum Airflow • Verified EER • Verified SEER • Verified Refrigerant Charge • Fan Efficacy Watts/CFM Heating System Verifications: • -- None -- HVAC Distribution System Verifications: • Duct leakage testing Domestic Hot Water System Verifications: • -- None --

Registration Number: 222-P010119889A-000-000-0000000-0000 Registration Date/Time: 2022-06-16 17:31:37 HERS Provider: CalCERTS Inc.
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CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: Plan 3 **Calculation Date/Time:** 2022-06-16T13:21:20-07:00 **(Page 5 of 13)**

Calculation Description: Title 24 Analysis **Input File Name:** Plan 3 - v2019.rBd19k

BUILDING - FEATURES INFORMATION						
01	02	03	04	05	06	07
Project Name	Conditioned Floor Area (ft²)	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
Plan 3	695	1	2	0	1	1

ZONE INFORMATION						
01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft²)	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2
1st Floor	Conditioned	HVAC1	47	8	DHW Sys 1	N/A
2nd Floor	Conditioned	HVAC1	448	8	DHW Sys 1	N/A

OPAQUE SURFACES							
01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft²)	Window and Door Area (ft2)	Tilt (deg)
Front Wall	1st Floor	R-19 Wall +R4.1 EPS	0	Front	104	20	90
Left Wall	1st Floor	R-19 Wall +R4.1 EPS	90	Left	147	15	90
Back Wall	1st Floor	R-19 Wall +R4.1 EPS	180	Back	104	6	90
Front Wall 2	2nd Floor	R-19 Wall +R4.1 EPS	0	Front	240	32	90
Left Wall 2	2nd Floor	R-19 Wall +R4.1 EPS	90	Left	168	63.999	90
Back Wall 2	2nd Floor	R-19 Wall +R4.1 EPS	180	Back	240	16.5	90
Right Wall	2nd Floor	R-19 Wall +R4.1 EPS	270	Right	168	0	90
Wall to Garage	1st Floor>>__Garage__	R-19 Wall	n/a	n/a	147	17	n/a
Interior Surface	2nd Floor>>Attic 2nd Floor	R-19 Wall	n/a	n/a	37	0	n/a
Roof 2	2nd Floor	R-38 Ceiling-R13	n/a	n/a	448	n/a	n/a
Floor to 1st Floor	2nd Floor	R-0 Floor No Crawlspace	n/a	n/a	104	n/a	n/a
Floor to Garage	2nd Floor	R-19 Floor No Crawlspace	n/a	n/a	462	n/a	n/a

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CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: Plan 3 **Calculation Date/Time:** 2022-06-16T13:21:20-07:00 **(Page 6 of 13)**

Calculation Description: Title 24 Analysis **Input File Name:** Plan 3 - v2019.rBd19k

OPAQUE SURFACES							
01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft²)	Window and Door Area (ft2)	Tilt (deg)
Garage - Front Wall	__Garage__	R-0 Wall w/1 EPS	0	Front	176	112	90
Garage - Left Wall	__Garage__	R-0 Wall w/1 EPS	90	Left	37	0	90
Garage - Back Wall	__Garage__	R-0 Wall w/1 EPS	180	Back	176	0	90
Garage - Right Wall	__Garage__	R-0 Wall w/1 EPS	270	Right	184	0	90

OPAQUE SURFACES - CATHEDRAL CEILINGS										
01	02	03	04	05	06	07	08	09	10	11
Name	Zone	Construction	Azimuth	Orientation	Area (ft²)	Skylight Area (ft²)	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Cool Roof
Roof	1st Floor	R-38 Roof Cathedral	0	Front	47	0	0	0.1	0.85	No

ATTIC							
01	02	03	04	05	06	07	08
Name	Construction	Type	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Radiant Barrier	Cool Roof
Attic 2nd Floor	Attic RoofZnd Floor	Ventilated	8	0.1	0.85	No	No

FENESTRATION / GLAZING													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft²)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
3050 SH	Window	Left Wall	Left	90			1	15	0.3	NFRC	0.23	NFRC	Bug Screen
2030 SL	Window	Back Wall	Back	180			1	6	0.3	NFRC	0.23	NFRC	Bug Screen
4040 SH	Window	Front Wall 2	Front	0			1	16	0.3	NFRC	0.23	NFRC	Bug Screen
4040 SH 2	Window	Front Wall 2	Front	0			1	16	0.3	NFRC	0.23	NFRC	Bug Screen
6068 FR	Window	Left Wall 2	Left	90	6	6.7	0	40	0.3	NFRC	0.23	NFRC	Bug Screen

Registration Number: 222-P010119889A-000-000-0000000-0000 Registration Date/Time: 2022-06-16 17:31:37 HERS Provider: CalCERTS Inc.
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CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: Plan 3 **Calculation Date/Time:** 2022-06-16T13:21:20-07:00 **(Page 7 of 13)**

Calculation Description: Title 24 Analysis **Input File Name:** Plan 3 - v2019.rBd19k

FENESTRATION / GLAZING													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft²)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
3040 FX	Window	Left Wall 2	Left	90			1	12	0.3	NFRC	0.23	NFRC	Bug Screen
3040 FX 2	Window	Left Wall 2	Left	90			1	12	0.3	NFRC	0.23	NFRC	Bug Screen
3036 SH	Window	Back Wall 2	Back	180			1	10.5	0.3	NFRC	0.23	NFRC	Bug Screen
2030 SH	Window	Back Wall 2	Back	180			1	6	0.3	NFRC	0.23	NFRC	Bug Screen

OPAQUE DOORS				
01	02	03	04	
Name	Side of Building	Area (ft²)	U-factor	
Door Entry	Front Wall	20	0.5	
Door to Garage	Wall to Garage	17	0.5	
16070 Roll Up - Metal	Garage - Front Wall	112	1	

OVERHANGS AND FINS														
01	02	03	04	05	06	07	08	09	10	11	12	13	14	
Window	Overhang					Left Fin				Right Fin				
	Depth	Dist Up	Left Extent	Right Extent	Flap Ht.	Depth	Top Up	Dist L	Bot Up	Depth	Top Up	Dist R	Bot Up	
6068 FR	R	0.1	1	1	0	0	0	0	0	0	0	0	0	

SLAB FLOORS							
01	02	03	04	05	06	07	08
Name	Zone	Area (ft²)	Perimeter (ft)	Edge Insul. R-value and Depth	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
Slab-on-Grade	1st Floor	47	34	none	0	80%	No

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CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

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SLAB FLOORS							
01	02	03	04	05	06	07	08
Name	Zone	Area (ft²)	Perimeter (ft)	Edge Insul. R-value and Depth	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
Slab-on-Grade 2	__Garage__	506	72	none	0	0%	No

OPAQUE SURFACE CONSTRUCTIONS							
01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-0 Wall w/1 EPS	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-0	None / R-4	0.145	Inside Finish: Gypsum Board Cavity / Frame: no insul. / 2x4 Sheathing / Insulation: R-4 Sheathing Exterior Finish: Synthetic Stucco
R-19 Wall +R4.1 EPS	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-19	None / R-4	0.055	Inside Finish: Gypsum Board Cavity / Frame: R-19 in 5-1/2 in. (R-18) / 2x6 Sheathing / Insulation: R-4 Sheathing Exterior Finish: Synthetic Stucco
R-38 Roof Cathedral	Cathedral Ceilings	Wood Framed Ceiling	2x12 @ 16 in. O. C.	R-38	None / None	0.03	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/Sheathing/Decking Cavity / Frame: R-38 / 2x12 Inside Finish: Gypsum Board
R-19 Wall	Interior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-19	None / None	0.069	Inside Finish: Gypsum Board Cavity / Frame: R-19 in 5-1/2 in. (R-18) / 2x6 Other Side Finish: Gypsum Board

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CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

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OPAQUE SURFACE CONSTRUCTIONS						
01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
Attic RoofZnd Floor	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-15	None / None	0.078	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking: Cavity / Frame: R-13.0 / 2x4 Around Roof Joists: R-4.0 insul.
R-38 Ceiling-R13	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-38	None / None	0.025	Over Ceiling Joists: R-28.9 insul. Cavity / Frame: R-13 / 2x4 Inside Finish: Gypsum Board
R-0 Floor No Crawlspace	Interior Floors	Wood Framed Floor	2x12 @ 16 in. O. C.	R-0	None / None	0.196	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x12 Ceiling Below Finish: Gypsum Board
R-19 Floor No Crawlspace	Interior Floors	Wood Framed Floor	2x6 @ 16 in. O. C.	R-19	None / None	0.049	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: R-19 in 5-1/2 in. (R-18) / 2x6 Ceiling Below Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION			
01	02	03	04
Quality Insulation Installation (QII)	High R-value Spray Foam Insulation	Building Envelope Air Leakage	CFM50
Required	Not Required	Not Required	n/a

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WATER HEATING SYSTEMS						
01	02	03	04	05	06	07
Name	System Type	Distribution Type	Water Heater Name (#)	Solar Heating System	Compact Distribution	HERS Verification
DHW Sys 1	Domestic Hot Water (DHW)	Standard Distribution System	DHW Heater 1 (1)	n/a	None	n/a

WATER HEATERS											
01	02	03	04	05	06	07	08	09	10	11	12
Name	Heating Element Type	Tank Type	# of Units	Tank Vol. (gal)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value (int/Ext)	Standby Loss or Recovery Eff	1st Hr. Rating or Flow Rate	NEEA Heat Pump Brand or Model	Tank Location or Ambient Condition
DHW Heater 1	Gas	Consumer Instantaneous	1	0	0.93-UEF	<= 200 kBtu/hr	0	n/a	n/a	n/a	n/a

WATER HEATING - HERS VERIFICATION							
01	02	03	04	05	06	07	08
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Central DHW Distribution	Shower Drain Water Heat Recovery
DHW Sys 1 - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required

SPACE CONDITIONING SYSTEMS										
01	02	03	04	05	06	07	08	09	10	11
Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Required Thermostat Type	Status	Verified Existing Condition	Heating Equipment Count	Cooling Equipment Count
HVAC1	Heating and cooling system other	Heating Component 1	Cooling Component 1	HVAC Fan 1	Air Distribution System 1	Setback	New	NA	1	1

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HVAC - HEATING UNIT TYPES			
01	02	03	04
Name	System Type	Number of Units	Heating Efficiency
Heating Component 1	Central gas furnace	1	AFUE-95

HVAC - COOLING UNIT TYPES							
01	02	03	04	05	06	07	08
Name	System Type	Number of Units	Efficiency EER/CEER	Efficiency SEER	Zonally Controlled	Multi-speed Compressor	HERS Verification
Cooling Component 1	Central split AC	1	13	16	Not Zonal	Single Speed	Cooling Component 1-hers-cool

HVAC COOLING - HERS VERIFICATION						
01	02	03	04	05	06	
Name	Verified Airflow	Airflow Target	Verified EER	Verified SEER	Verified Refrigerant Charge	
Cooling Component 1-hers-cool	Required	350	Required	Required	Required	

HVAC - DISTRIBUTION SYSTEMS											
01	02	03	04	05	06	07	08	09	10	11	12
			Duct Ins. R-value		Duct Location		Surface Area				
Name	Type	Design Type	Supply	Return	Supply	Return	Supply	Return	Bypass Duct	Duct Leakage	HERS Verification
Air Distribution System 1	Unconditioned attic	Non-Verified	R-8	R-8	Attic	Attic	n/a	n/a	No Bypass Duct	Sealed and Tested	Air Distribution System 1-hers-dist

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CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

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HVAC DISTRIBUTION - HERS VERIFICATION								
01	02	03	04	05	06	07	08	09
Name	Duct Leakage Verification	Duct Leakage Target (%)	Verified Duct Location	Verified Duct Design	Buried Ducts	Deeply Buried Ducts	Low-leakage Air Handler	Low Leakage Ducts Entirely in Conditioned Space
Air Distribution System 1-hers-dist	Yes	5.0	Not Required	Not Required	Not Required	Credit not taken	Not Required	No

HVAC - FAN SYSTEMS			
01	02	03	04
Name	Type	Fan Power (Watts/CFM)	Name
HVAC Fan 1	HVAC Fan	0.45	HVAC Fan 1-hers-fan

HVAC FAN SYSTEMS - HERS VERIFICATION		
01	02	03
Name	Verified Fan Watt Draw	Required Fan Efficacy (Watts/CFM)
HVAC Fan 1-hers-fan	Required	0.45

IAQ (INDOOR AIR QUALITY) FANS						
01	02	03	04	05	06	07
Dwelling Unit	IAQ CFM	IAQ Watts/CFM	IAQ Fan Type	IAQ Recovery Effectiveness - SRE	IAQ Recovery Effectiveness - ASRE	HERS Verification
SFam IAQVentRpt 1-1	28	0.25	Balanced	69	75	Yes

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CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

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Calculation Description: Title 24 Analysis **Input File Name:** Plan 3 - v2019.rBd19k

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name: Juvenal Martinez	Documentation Author Signature: Juvenal Martinez
Company: EnerCal Solutions	Signature Date: 2022-06-16 13:33:16
Address: 244 S. Olympic St.	CEA / HERS Certification Identification (if applicable): na
City/State/Zip: Kerman, CA 93630	Phone: 559-846-4327

RESPONSIBLE PERSON'S DECLARATION STATEMENT	
I certify the following under penalty of perjury, under the laws of the State of California: 1. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance. 2. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. 3. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.	
Responsible Designer Name: Clifton W Barnes	Responsible Designer Signature: Clifton W Barnes
Company: CWB Designs	Date Signed: 2022-06-16 17:31:37
Address: 491 Herndon Ave #2245	License: n/a
City/State/Zip: Clovis, CA 93612	Phone: 559-294-6534

Digitally signed by CalCERTS. This digital signature is provided in order to secure the content of this registered document, and in no way implies Registration Provider responsibility for the accuracy of the information.

Easy to Verify at CalCERTS.com

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CalCERTS, Inc. HERS PROVIDER

REVISIONS
REV DATE:
NEW 05.09.22
ADD 05.17.22
SUB 06.17.22

DRAWING FILE
F:\CWB\CHILLA\
PLAN 3.AMB

DATE: 06-17-2022

STANDARD PLAN #3 FOR:
CITY OF CHOWCHILLA
130 S 2ND STREET
CHOWCHILLA, CA 93610
PHONE: 559-665-8615

CWB DESIGNS
3838 N. CHICKADEE AVE.
SANGER, CA 93657
PHONE: 559.294.6534

SHEET M2.1 OF 26
FAU
CF-1R FORMS

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CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: Plan 3 w-Mini Split HP **Calculation Date/Time:** 2022-06-16T13:26:10-07:00 **(Page 1 of 11)**

Calculation Description: Title 24 Analysis **Input File Name:** Plan 3 - Mini Split HP - v2019.ribd19x

GENERAL INFORMATION					
01	Project Name	Plan 3 w-Mini Split HP			
02	Run Title	Title 24 Analysis			
03	Project Location	TBD			
04	City	Chowchilla	05	Standards Version	2019
06	Zip code	93610	07	Software Version	EnergyPro 8.3
08	Climate Zone	13	09	Front Orientation (deg/ Cardinal)	ABOrientations
10	Building Type	Single family	11	Number of Dwelling Units	1
12	Project Scope	NewConstruction	13	Number of Bedrooms	1
14	Addition Cond. Floor Area (ft²)	0	15	Number of Stories	2
16	Existing Cond. Floor Area (ft²)	n/a	17	Fenestration Average U-factor	0.3
18	Total Cond. Floor Area (ft²)	495	19	Glazing Percentage (%)	26.97%
20	ADU Bedroom Count	n/a	21	ADU Conditioned Floor Area	n/a
22	Is Natural Gas Available?	Yes			

COMPLIANCE RESULTS	
01	Building Complies with Computer Performance
02	This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider.
03	This building incorporates one or more Special Features shown below

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CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: Plan 3 w-Mini Split HP **Calculation Date/Time:** 2022-06-16T13:26:10-07:00 **(Page 2 of 11)**

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ENERGY DESIGN RATING				
	Energy Design Ratings			
	Efficiency[1] (EDR)	Total[2] (EDR)	Efficiency[1] (EDR)	Total[2] (EDR)
Standard Design	52	26.4		
Proposed Designs				
North Facing	49	23.5	3	2.9
East Facing	50.4	24.9	1.6	1.5
South Facing	51.4	25.9	0.6	0.5
West Facing	51.5	26	0.5	0.4

RESULT: [3] COMPLIES

[1] Efficiency EDR include improvements to the building envelope and more efficient equipment
[2] Total EDR includes efficiency and demand response measures with asymptotical (PV) systems and batteries
[3] Building complies when efficiency and total compliance margins are greater than or equal to zero

- Standard Design PV Capacity: 2.27 kWdc
- Proposed PV Capacity Scaling: North (2.27 kWdc) East (2.27 kWdc) South (2.27 kWdc) West (2.27 kWdc)

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ENERGY USE SUMMARY				
Energy Use (kTDV/ft²-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	34.02	29.43	4.59	13.5
Space Cooling	93.58	88.19	5.39	5.8
IAQ Ventilation	9.66	3.8	5.86	60.7
Water Heating	35.35	32.11	3.24	9.2
Self Utilization Credit	n/a	0	0	n/a
North Facing Compliance Total	**172.61**	**153.53**	**19.08**	**11.1**
Space Heating	34.02	27.46	6.56	19.3
Space Cooling	93.58	98.86	-5.28	-5.6
IAQ Ventilation	9.66	3.8	5.86	60.7
Water Heating	35.35	32.11	3.24	9.2
Self Utilization Credit	n/a	0	0	n/a
East Facing Compliance Total	**172.61**	**162.23**	**10.38**	**6**
Space Heating	34.02	28.23	5.79	17
Space Cooling	93.58	104.53	-10.95	-11.7
IAQ Ventilation	9.66	3.8	5.86	60.7
Water Heating	35.35	32.11	3.24	9.2
Self Utilization Credit	n/a	0	0	n/a
South Facing Compliance Total	**172.61**	**168.67**	**3.94**	**2.3**
Space Heating	34.02	31.29	2.73	8
Space Cooling	93.58	101.99	-8.41	-9
IAQ Ventilation	9.66	3.8	5.86	60.7
Water Heating	35.35	32.11	3.24	9.2
Self Utilization Credit	n/a	0	0	n/a
West Facing Compliance Total	**172.61**	**169.19**	**3.42**	**2**

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Calculation Description: Title 24 Analysis **Input File Name:** Plan 3 - Mini Split HP - v2019.ribd19x

REQUIRED PV SYSTEMS - SIMPLIFIED											
01	02	03	04	05	06	07	08	09	10	11	12
DC System Size (kWdc)	Exception	Module Type	Array Type	Power Electronics	CFI	Azimuth (deg)	Tilt Input	Array Angle (deg)	Tilt: (x in 12)	Inverter Eff. (%)	Annual Solar Access (%)
2.27	NA	Standard	fixed	none	true	150-270	n/a	n/a	<=7:12	96	98

REQUIRED SPECIAL FEATURES
The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.
• Indoor air quality, balanced fan • IAQ Ventilation System: as low as 0.25 W/CFM • IAQ Ventilation System Heat Recovery: minimum 69 SRE and 75 ASRE • IAQ Ventilation System: supply outside air inlet, filter, and H/ERV cores accessible per RACM Reference Manual • Insulation below roof deck • Window overhangs and/or fins

HERS FEATURE SUMMARY
The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry.
Building-level Verifications: • Quality insulation installation (QII) • Indoor air quality ventilation • Kitchen range hood Cooling System Verifications: • Verified Refrigerant Charge Heating System Verifications: • Verified heat pump rated heating capacity HVAC Distribution System Verifications: • — None — Domestic Hot Water System Verifications: • — None —

Registration Number: 222-P010119890A-000-000-0000000-0000 Registration Date/Time: 2022-06-16 17:34:25 HERS Provider: CalCERTS Inc.

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BUILDING - FEATURES INFORMATION						
01	02	03	04	05	06	07
Project Name	Conditioned Floor Area (ft²)	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
Plan 3 w-Mini Split HP	495	1	1	2	0	1

ZONE INFORMATION						
01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft²)	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2
2nd Floor	Conditioned	HVAC - Mini Split HP1	468	8	DHW Sys 1	N/A
1st Floor	Conditioned	HVAC - Mini Split HP1	47	8	DHW Sys 1	N/A

OPAQUE SURFACES							
01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft²)	Window and Door Area (ft2)	Tilt (deg)
Front Wall	2nd Floor	R-21 Wall + R4.1 EPS	0	Front	240	32	90
Left Wall	2nd Floor	R-21 Wall + R4.1 EPS	90	Left	168	64.02	90
Back Wall	2nd Floor	R-21 Wall + R4.1 EPS	180	Back	240	16.5	90
Right Wall	2nd Floor	R-21 Wall + R4.1 EPS	270	Right	168	0	90
Front Wall 2	1st Floor	R-21 Wall + R4.1 EPS	0	Front	104	20	90
Left Wall 2	1st Floor	R-21 Wall + R4.1 EPS	90	Left	147	15	90
Back Wall 2	1st Floor	R-21 Wall + R4.1 EPS	180	Back	104	6	90
Interior Surface	2nd Floor>>Attic 2nd Floor	R-19 Wall	n/a	n/a	37	0	n/a
Wall to Garage	1st Floor>>__Garage_	R-21 Wall	n/a	n/a	147	17	n/a
Roof	2nd Floor	R-38 Ceiling+R13	n/a	n/a	448	n/a	n/a
Floor to 1st Floor	2nd Floor	R-19 Floor No Crawlspace	n/a	n/a	104	n/a	n/a
Floor to Garage	2nd Floor	R-19 Floor No Crawlspace	n/a	n/a	462	n/a	n/a

Registration Number: 222-P010119890A-000-000-0000000-0000 Registration Date/Time: 2022-06-16 17:34:25 HERS Provider: CalCERTS Inc.

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CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

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OPAQUE SURFACES							
01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft²)	Window and Door Area (ft2)	Tilt (deg)
Garage - Front Wall	__Garage__	R-0 Wall w/1 EPS	0	Front	176	112	90
Garage - Left Wall	__Garage__	R-0 Wall w/1 EPS	90	Left	37	0	90
Garage - Back Wall	__Garage__	R-0 Wall w/1 EPS	180	Back	176	0	90
Garage - Right Wall	__Garage__	R-0 Wall w/1 EPS	270	Right	184	0	90

ATTIC							
01	02	03	04	05	06	07	08
Name	Construction	Type	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Radiant Barrier	Cool Roof
Attic 2nd Floor	Attic RoofDnd Floor	Ventilated	8	0.1	0.85	No	No

FENESTRATION / GLAZING														
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft²)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
4040 SH	Window	Front Wall	Front	0			1	16	0.3	NFRC	0.22	NFRC	Bug Screen
4040 SH 2	Window	Front Wall	Front	0			1	16	0.3	NFRC	0.22	NFRC	Bug Screen
6068 FR	Window	Left Wall	Left	90	6	6.67	1	40.02	0.3	NFRC	0.22	NFRC	Bug Screen
3040 FX	Window	Left Wall	Left	90			1	12	0.3	NFRC	0.22	NFRC	Bug Screen
3040 FX 2	Window	Left Wall	Left	90			1	12	0.3	NFRC	0.22	NFRC	Bug Screen
3036 SH	Window	Back Wall	Back	180			1	10.5	0.3	NFRC	0.22	NFRC	Bug Screen
2030 SH	Window	Back Wall	Back	180			1	6	0.3	NFRC	0.22	NFRC	Bug Screen
3050 SH	Window	Left Wall 2	Left	90	3	5	1	15	0.3	NFRC	0.22	NFRC	Bug Screen
2030 SL	Window	Back Wall 2	Back	180			1	6	0.3	NFRC	0.22	NFRC	Bug Screen

Registration Number: 222-P010119890A-000-000-0000000-0000 Registration Date/Time: 2022-06-16 17:34:25 HERS Provider: CalCERTS Inc.

CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.2.000 Schema Version: rev 20200901 Report Generated: 2022-06-16 13:27:12

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: Plan 3 w-Mini Split HP **Calculation Date/Time:** 2022-06-16T13:26:10-07:00 **(Page 7 of 11)**

Calculation Description: Title 24 Analysis **Input File Name:** Plan 3 - Mini Split HP - v2019.ribd19x

OPAQUE DOORS			
01	02	03	04
Name	Side of Building	Area (ft²)	U-factor
Door Entry	Front Wall 2	20	0.2
Door to Garage	Wall to Garage	17	0.2
16070 Roll Up - Metal	Garage - Front Wall	132	1

OVERHANGS AND FINS														
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Window	Overhang					Left Fin				Right Fin			
	Depth	Dist Up	Left Extent	Right Extent	Flap Ht.	Depth	Top Up	Dist L	Bot Up	Depth	Top Up	Dist R	Bot Up
6068 FR	8	0.1	1	1	0	0	0	0	0	0	0	0	0
3050 SH	1	0.1	2	2	0	0	0	0	0	0	0	0	0

SLAB FLOORS							
01	02	03	04	05	06	07	08
Name	Zone	Area (ft²)	Perimeter (ft)	Edge Insul. R-value and Depth	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
Slab-on-Grade	1st Floor	47	34	none	0	80%	No
Slab-on-Grade 2	__Garage__	506	72	none	0	0%	No

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Calculation Description: Title 24 Analysis **Input File Name:** Plan 3 - Mini Split HP - v2019.ribd19x

OPAQUE SURFACE CONSTRUCTIONS							
01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-0 Wall w/1 EPS	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-0	None / R-4	0.145	Inside Finish: Gypsum Board Cavity / Frame: no insul. / 2x4 Sheathing / Insulation: R-4 Sheathing Exterior Finish: Synthetic Stucco
R-21 Wall +R4.1 EPS	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-21	None / R-4	0.051	Inside Finish: Gypsum Board Cavity / Frame: R-21 / 2x6 Sheathing / Insulation: R-4 Sheathing Exterior Finish: Synthetic Stucco
R-19 Wall	Interior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-19	None / None	0.069	Inside Finish: Gypsum Board Cavity / Frame: R-21 / 2x6 Other Side Finish: Gypsum Board
R-21 Wall	Interior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-21	None / None	0.064	Inside Finish: Gypsum Board Cavity / Frame: R-21 / 2x6 Other Side Finish: Gypsum Board
Attic RoofDnd Floor	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-13	None / None	0.078	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/Sheathing/decking Cavity / Frame: R-13.0 / 2x4 Around Roof Joists: R-0.0 insul.
R-38 Ceiling+R13	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-38	None / None	0.025	Over Ceiling Joists: R-28.9 insul. Cavity / Frame: R-9.1 / 2x4 Inside Finish: Gypsum Board
R-19 Floor No Crawlspace	Interior Floors	Wood Framed Floor	2x6 @ 16 in. O. C.	R-19	None / None	0.049	Floor Surface: Carpeted Floor Deck: Wood Siding/Sheathing/decking Cavity / Frame: R-19 in 5-1/2 in. (R-18) / 2x6 Ceiling Below Finish: Gypsum Board

Registration Number: 222-P010119890A-000-000-0000000-0000 Registration Date/Time: 2022-06-16 17:34:25 HERS Provider: CalCERTS Inc.

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CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: Plan 3 w-Mini Split HP **Calculation Date/Time:** 2022-06-16T13:26:10-07:00 **(Page 9 of 11)**

Calculation Description: Title 24 Analysis **Input File Name:** Plan 3 - Mini Split HP - v2019.ribd19x

BUILDING ENVELOPE - HERS VERIFICATION			
01	02	03	04
Quality Insulation Installation (QII)	High R-value Spray Foam Insulation	Building Envelope Air Leakage	CFM50
Required	Not Required	Not Required	n/a

WATER HEATING SYSTEMS						
01	02	03	04	05	06	07
Name	System Type	Distribution Type	Water Heater Name (#)	Solar Heating System	Compact Distribution	HERS Verification
DHW Sys 1	Domestic Hot Water (DHW)	Standard Distribution System	DHW Heater 1 (1)	n/a	None	n/a

WATER HEATERS											
01	02	03	04	05	06	07	08	09	10	11	12
Name	Heating Element Type	Tank Type	# of Units	Tank Vol. (gal)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value (inch/ft)	Standby Loss or Recovery Eff.	1st Hr. Rating or Flow Rate	NEEA Heat Pump Brand or Model	Tank Location or Ambient Condition
DHW Heater 1	Gas	Consumer Instantaneous	1	0	0.93 UEF	<=200 kBtu/hr	0	n/a	n/a	n/a	n/a

WATER HEATING - HERS VERIFICATION							
01	02	03	04	05	06	07	08
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Central DHW Distribution	Shower Drain Water Heat Recovery
DHW Sys 1 - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required

Registration Number: 222-P010119890A-000-000-0000000-0000 Registration Date/Time: 2022-06-16 17:34:25 HERS Provider: CalCERTS Inc.

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CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: Plan 3 w-Mini Split HP **Calculation Date/Time:** 2022-06-16T13:26:10-07:00 **(Page 10 of 11)**

Calculation Description: Title 24 Analysis **Input File Name:** Plan 3 - Mini Split HP - v2019.ribd19x

SPACE CONDITIONING SYSTEMS										
01	02	03	04	05	06	07	08	09	10	11
Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Required Thermostat Type	Status	Verified Existing Condition	Heating Equipment Count	Cooling Equipment Count
HVAC - Mini Split HP1	Heat pump heating cooling	Heat Pump System 1	Heat Pump System 1	n/a	n/a	Setback	New	NA	1	1

HVAC - HEAT PUMPS										
01	02	03	04	05	06	07	08	09	10	11
Name	System Type	Number of Units	Heating			Cooling		Zonally Controlled	Compressor Type	HERS Verification
			HSPF/COP	Cap 47	Cap 17	SEER	EER/CEER			
Heat Pump System 1	Ductless Minisplit HP	1	9	12000	8500	16	10.8	Not Zonal	Single Speed	Heat Pump System 1 hers Hpsmp

HVAC HEAT PUMPS - HERS VERIFICATION								
01	02	03	04	05	06	07	08	09
Name	Verified Airflow	Airflow Target	Verified EER	Verified SEER	Verified Refrigerant Charge	Verified HSPF	Verified Heating Cap 47	Verified Heating Cap 17
Heat Pump System 1 hers Hpsmp	Not Required	0	Not Required	Not Required	Yes	No	Yes	Yes

IAQ (INDOOR AIR QUALITY) FANS						
01	02	03	04	05	06	07
Dwelling Unit	IAQ CFM	IAQ Watts/CFM	IAQ Fan Type	IAQ Recovery Effectiveness - SRE	IAQ Recovery Effectiveness - ASRE	HERS Verification
Sfam IAQVentRpt 1-1	28	0.25	Balanced	69	75	Yes

Registration Number: 222-P010119890A-000-000-0000000-0000 Registration Date/Time: 2022-06-16 17:34:25 HERS Provider: CalCERTS Inc.

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CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

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Calculation Description: Title 24 Analysis **Input File Name:** Plan 3 - Mini Split HP - v2019.ribd19x

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
I, I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name: Juvenal Martinez	Documentation Author Signature: Juvenal Martinez
Company: EnerCal Solutions	Signature Date: 2022-06-16 13:33:16
Address: 244 S. Olympic St.	CEA/ HERS Certification Identification (if applicable): na
City/State/Zip: Kerman, CA 93630	Phone: 559-846-4327

RESPONSIBLE PERSON'S DECLARATION STATEMENT	
I certify the following under penalty of perjury, under the laws of the State of California: 1. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance. 2. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. 3. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.	
Responsible Designer Name: Clifton W Barnes	Responsible Designer Signature: Clifton W Barnes
Company: CWB Designs	Date Signed: 2022-06-16 17:34:25
Address: 491 Herndon Ave #2245	License: n/a
City/State/Zip: Clovis, CA 93612	Phone: 559-294-6534

Digitally signed by CalCERTS. This digital signature is provided in order to secure the content of this registered document, and in no way implies Registration Provider responsibility for the accuracy of the information.

Easy to Verify at CalCERTS.com

Registration Number: 222-P010119890A-000-000-0000000-0000 Registration Date/Time: 2022-06-16 17:34:25 HERS Provider: CalCERTS Inc.

CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.2.000 Schema Version: rev 20200901 Report Generated: 2022-06-16 13:27:12

REVISIONS	
REV	DATE:
NEW	05.09.22
2ND	06.03.22
SUB	06.17.22

DRAWING FILE
F:\CHOWCHILLA\
PLAN 3 AMB2

CWB

DATE: 06-17-2022

CWB DESIGNS
3838 N. CHICKADEE AVE.
SANGER, CA 93657
PHONE: 559.294.6534

STANDARD PLAN #3 FOR:

CITY OF CHOWCHILLA
130 S 2ND STREET
CHOWCHILLA, CA 93610
PHONE: 559-665-8615

SHEET **M2.2** OF 26

DUCTLESS
CF-1R FORMS

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D:\AUTOCADDWG\CHOWCHILLA\PLAN 3\AMB-2 (MINI SPLIT).dwg, 6/17/2022 2:21:18 PM

DRAINAGE FIXTURE VALUES

FIXTURE	F.U. EA.	QUANT.	F.U. TOTAL
WC	3	1	3
TUB/SHWR	2	1	2
LAV	1	1	1
SINK	2	1	2
WASHER	3	1	3
TOTAL		5	11

WASTE PIPE SIZING- UNIT LOADING TABLE (703.2)

PIPE SIZE	WASTE F.U.	WASTE MAX. LENGTH	VENT F.U.
1 ¼"	1	45'	1
1 ½"	1	65'	8
2"	8	85'	24
2 ½"	14	148'	48
3"	35	212'	84
4"	216	300'	256

WASTE PIPE SHALL HAVE MIN. ¼" PER FOOT SLOPE

GAS LINE FIXTURE VALUES

(TABLE 1208.4.1)

FIXTURE TYPE	B.T.U.H. (X 1000)	C.F.H.
WATER HEATER	200	181.8
FURNACE	40	36.4
GAS RANGE	65	59.0
GAS DRYER	35	31.8
TOTAL	340	309

LENGTH FROM METER TO FARTHEST FIXTURE : NOT TO EXCEED 150'-0"

GAS PIPE SIZING- TABLE 1216.2(1)

PIPE SIZE	CFM
1 ½"	482
1 ¼"	322
1"	157
¾"	83
½"	40

1 1/2" NATURAL GAS SERVICE
DISTANCE TO REMOTE FIXTURE 150'
PRESSURE DROP 0.5" W.C.
SPECIFIC GRAVITY 0.60

WATER SUPPLY FIXTURE VALUES

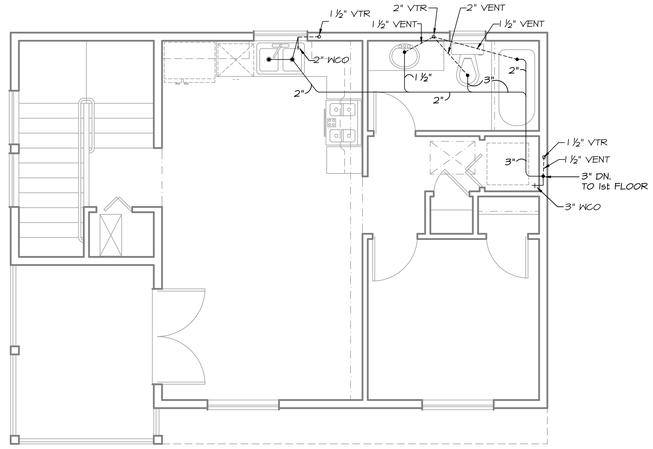
FIXTURE	F.U. EA.	QUANT.	F.U. TOTAL
WC	2.5	1	2.5
TUB/SHWR	4	1	4
LAV	1	1	1
SINK	1.5	1	1.5
WASHER	4	1	4
H.B.	2.5 / 1	4	5.5
REF	1	1	1
TOTAL		10	19.5

DISTANCE FROM WATER SERVICE TO MOST REMOTE PLUMBING FIXTURE = 150'-0"

WATER PIPE SIZING- FIXTURE UNIT TABLE (610.4)

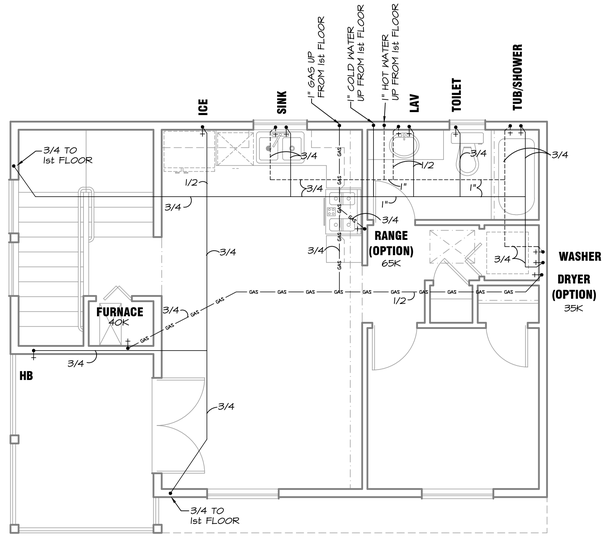
PIPE SIZE	FIXTURE UNITS
1 ¼"	32
1"	20
¾"	9
½"	2

1" METER SERVICE
150' DISTANCE TO REMOTE FIXTURE
30 - 45 PSI AVAILABE STATIC PRESSURE



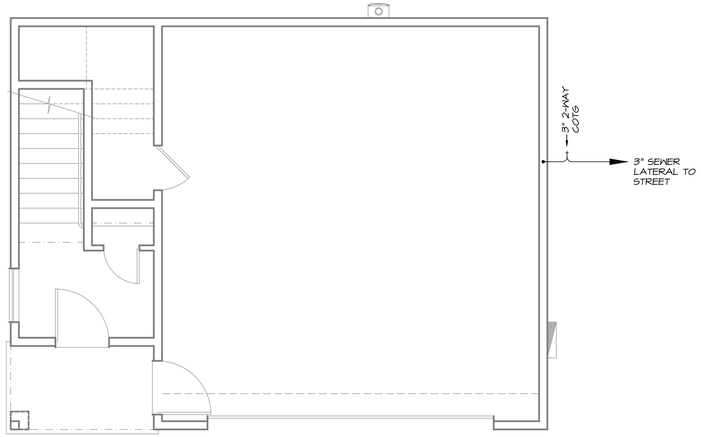
2nd FLOOR WASTE PLAN

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



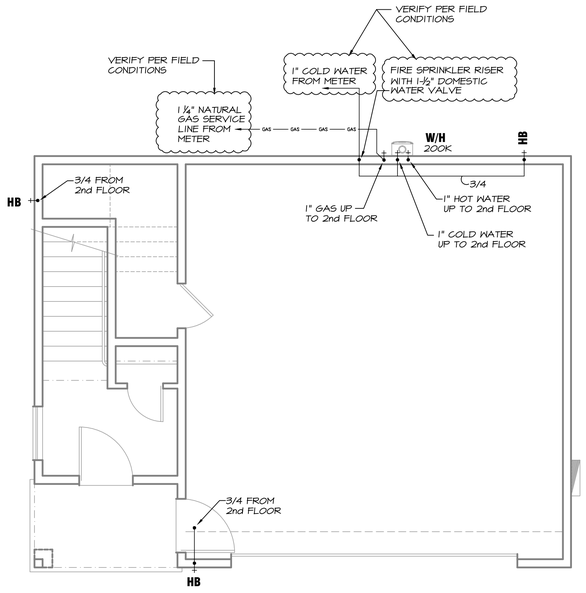
2nd FLOOR WATER & GAS PIPING PLAN

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



1st FLOOR WASTE PLAN

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



1st FLOOR WATER & GAS PIPING PLAN

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

WATER HEATING MANDATORY MEASURES

WATER HEATING SYSTEMS USING GAS TO SERVE INDIVIDUAL DWELLING UNITS SHALL INCLUDE THE FOLLOWING COMPONENTS:

WATER HEATING SYSTEMS USING GAS OR PROPANE TO SERVE INDIVIDUAL DWELLING UNITS SHALL INCLUDE THE FOLLOWING COMPONENTS:

A. A DEDICATED 125 VOLT, 20 AMP RECEPTACLE THAT IS CONNECTED TO THE ELECTRIC PANEL WITH A 120/240 VOLT 3 CONDUCTOR, 10 AWG COPPER BRANCH CIRCUIT, WITHIN 3' FROM THE WATER HEATER AND ACCESSIBLE TO THE WATER HEATER WITH NO OBSTRUCTIONS. IN ADDITION, ALL OF THE FOLLOWING:

1. BOTH ENDS OF THE UNUSED CONDUCTOR SHALL BE LABELED WITH THE WORD "SPARE" AND BE ELECTRICALLY ISOLATED; AND

2. A RESERVED SINGLE POLE CIRCUIT POLE BREAKER SPACE IN THE ELECTRICAL PANEL ADJACENT TO THE CIRCUIT BREAKER FOR THE BRANCH CIRCUIT IN A ABOVE AND LABELED WITH THE WORDS, "FUTURE 240 VOLT USE"; AND

B. A CATEGORY III OR IV VENT, OR A TYPE B VENT WITH STRAIGHT PIPE BETWEEN THE OUTSIDE TERMINATION AND THE SPACE WHERE THE WATER HEATER IS INSTALLED; AND

C. A CONDENSATE DRAIN THAT IS NO MORE THAN 2 INCHES HIGHER THAN THE BASE OF THE INSTALLED WATER HEATER, AND ALLOWS NATURAL DRAINING WITHOUT PUMP ASSISTANCE, AND

D. A GAS SUPPLY LINE WITH A CAPACITY OF AT LEAST 200,000 BTU/HR. - 2019 CEC 150(N)

SPECIAL NOTES

THE ABOVE WATER AND GAS PIPING PLANS AND THE WASTE PIPING PLANS ARE SUBJECT TO CHANGE PER LOT SPECIFIC FIELD CONDITIONS. ONCE THE FIELD CONDITIONS HAVE BEEN VERIFIED, THE CITY OF CLOVIS BUILDING DEPARTMENT MUST REVIEW AND APPROVE THE PLANS PRIOR TO COMMENCING WITH THE PLUMBING INSTALLATION IN THE FIELD.

GAS PIPING PLANS ARE BASED ON A MAXIMUM DEVELOPED LENGTH OF 150'-0" FROM METER TO MOST REMOTE FIXTURE. THIS DISTANCE SHOULD BE VERIFIED IN THE FIELD AS WELL AS THE PIPE SIZE AT THE SERVICE. PG&E MAY NEED TO REPLACE EXISTING SERVICE TO ACCOMMODATE FOR 1 1/4" GAS PIPING.

PLUMBING PLAN NOTES

WATER HAMMER ARRESTORS TO BE INSTALLED AT THE FOLLOWING QUICK-ACTING SHUTOFF VALVES:
A. AUTOMATIC WASHING MACHINE (HOT & COLD WATER)
B. ICE MAKER
C. DISHWASHER
D. FRONT & REAR SPRINKLER OUTLETS.

ALL HOSE BIBS SHALL BE EQUIPPED WITH NON-REMOVABLE BACK FLOW PREVENTERS.

ALL WATER CLOSETS SHALL BE LOW-FLOW WITH MAX. 1.28 GAL. PER FLUSH

SHOWER COMPARTMENTS AND WALLS ABOVE BATHTUBS WITH INSTALLED SHOWER HEADS SHALL BE FINISHED WITH A NONABSORBENT SURFACE TO A HEIGHT NOT LESS THAN 6 FEET ABOVE THE FLOOR PER **CRC R307.2.**

ALL TUB-SHOWER OPENINGS SHALL BE RODENT PROOF, WITH 1" CEMENT COVERING IN AN APPROVED MANNER.

ALL TUB AND SHOWER VALVES ARE TO BE SINGLE CONTROL PRESSURE BALANCING OR THERMOSTATIC MIXING TYPE. THE DEVICE IS REQUIRED TO LIMIT THE WATER TEMPERATURE TO A MAXIMUM OF 120 DEGREES. (SUCH DEVICES SHALL CONFORM TO ASSE 1070 OR CSA B125.3) THE WATER HEATER THERMOSTAT SHALL NOT BE CONSIDERED AS MEETING THIS PROVISION

PROVIDE WATERPROOF FINISH MATERIALS AT SHOWER WALLS TO +6'-0". SHOWER DOORS AND GLASS TUB ENCLOSURES SHALL BE SAFETY GLASS OR INSTALL ROD AND CURTAIN.

PROVIDE 12" X 12" TUB AND SHOWER ACCESS PANELS OR PROVIDE BRASS FERRULE OVERFLOW AND DRAIN.

GAS VENTS TO TERMINATE NOT LESS THAN 48" FROM OPENINGS OR PROPERTY LINES, AND NOT LESS THEN 12" ABOVE A DOOR, OPENABLE WINDOW OR GRAVITY AIR INLET.

CEMENT, FIBER CEMENT OR GLASS MAT GYPSUM BACKERS SHALL BE USED AS A BASE FOR WALL TILES IN TUB AND SHOWER AREAS. WATER RESISTIVE GYP. BOARD IS NOT PERMITTED AT THESE LOCATIONS.

ALL EQUIPMENT IN THE POTABLE WATER DELIVERY SYSTEM SHALL COMPLY WITH AB 1953 FOR LEAD CONTENT. THIS APPLIES TO ALL PIPING, FIXTURES AND FITTINGS THAT CONVEY OR DISPENSE WATER FOR HUMAN CONSUMPTION.

HOT AND COLD WATER PIPING IN UNCONDITIONED SPACE LEADING TO AND FROM WATER HEATER SHALL BE PROVIDED WITH A MINIMUM 1" THICK PIPE INSULATION FOR THE FIRST FIVE FEET OF PIPE CLOSEST TO THE WATER HEATER.

ALL DOMESTIC HOT WATER PIPING SHALL BE INSULATED. ALL HOT WATER PIPE INSULATION SHALL HAVE A MINIMUM WALL THICKNESS OF NOT LESS THAN THE DIAMETER OF THE PIPE UP TO 2"

THE MAXIMUM HOT WATER TEMPERATURE DISCHARGE SHALL BE LIMITED FOR THE FOLLOWING:
a. BATHTUBS AND WHIRLPOOL BATHTUBS SHALL BE LIMITED TO 120°F BY A DEVICE THAT CONFORMS TO ASSE 1070 OR CSA B125.3. (CPC SECTION 409.4) (THE WATER HEATER THERMOSTAT SHALL NOT BE CONSIDERED A CONTROL FOR MEETING THIS PROVISION.)
b. SHOWERS AND TUB/SHOWER COMBINATIONS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE, THERMOSTATIC, OR COMBINATION PRESSURE BALANCE/THERMOSTATIC MIXING VALVES TYPE THAT PROVIDE SCALD AND THERMAL SHOCK PROTECTION FOR THE RATED FLOW RATE OF THE INSTALLED SHOWERHEAD. THESE VALVES SHALL BE INSTALLED AT THE POINT OF USE AND IN ACCORDANCE WITH ASSE 1016 OR ASME AL 12.18.1/CSAB 125.1 (CPC SECTION 408.3)

AT THE TIME OF FINAL INSPECTION, THE PERMIT APPLICANT MUST PROVIDE THE OWNER OF THE PROPERTY WITH A CERTIFICATE OF COMPLETION, CERTIFICATE OF INSTALLATION, IRRIGATION SCHEDULE OF LANDSCAPE AND IRRIGATION MAINTENANCE.

THE WATER HEATER SHALL BE PROVIDED WITH A TEMPERATURE AND PRESSURE RELIEF VALVE HAVING A FULL SIZED DRAIN OF GALVANIZED STEEL OR HARD DRAWN COPPER TO THE OUTSIDE OF THE BUILDING WITH THE END OF THE PIPE NOT MORE THAN 24" NOR LESS THAN 6" ABOVE GRADE, POINTING DOWNWARD WITH THE TERMINAL END BEING UNTHREADED.

PEX PIPING MATERIAL SHALL BE USED FOR WATER DELIVERY.
AT THE TIME OF FILL, EACH FIXTURE SHALL HAVE A REMOVABLE TAG APPLIED STATING: 'THIS NEW PLUMBING SYSTEM WAS FIRST FILLED AND FLUSHED ON _____ (DATE) BY _____ (NAME). THE STATE OF CALIFORNIA REQUIRES THAT THE SYSTEM BE FLUSHED AFTER STANDING AT LEAST ONE WEEK AFTER THE FILL DATE SPECIFIED ABOVE. IF THIS SYSTEM IS USED EARLIER THAN ONE WEEK AFTER THE FILL DATE, THE WATER MUST BE ALLOWED TO RUN FOR AT LEAST TWO MINUTES PRIOR TO USE FOR HUMAN CONSUMPTION. THIS TAG MAY NOT BE REMOVED PRIOR TO THE COMPLETION OF THE REQUIRED SECOND FLUSHING, EXCEPT BY THE OWNER OR OCCUPANT.' - 2013 CPC 604.1.2

CONDENSATE DRAIN LINES SHALL BE CONFIGURED OR PROVIDED WITH A CLEANOUT TO PERMIT THE CLEARING OF BLOCKAGES AND FOR MAINTENANCE WITHOUT REQUIRING THE DRAIN LINE TO BE CUT.

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THE ABOVE DRAWINGS AND SPECIFICATIONS AND IDEAS, DESIGNS AND ARRANGEMENTS REPRESENTED THEREBY ARE AND SHALL REMAIN THE PROPERTY OF C. W. B. DESIGNS AND NO PART THEREOF SHALL BE COPIED, DISCLOSED TO OTHERS OR USED IN CONNECTION WITH ANY WORK OR PROJECT OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED AND DEVELOPED, WITHOUT THE WRITTEN CONSENT OF C. W. B. DESIGNS. VISUAL CONTACT WITH THESE DRAWINGS OR SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS.

REVISIONS
REV DATE:
NEW 05.09.22
2ND 05.25.22
SUB 06.17.22

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CWB

DATE: 06-17-2022

CWB DESIGNS
3838 N. CHICKADEE AVE.
SANGER, CA 93657
PHONE: 559.294.6534

STANDARD PLAN #3 FOR:
CITY OF CHOWCHILLA
130 S 2ND STREET
CHOWCHILLA, CA 93610
PHONE: 559-665-8615

SHEET P1 OF 26
PLUMBING

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2019 CALIFORNIA GREEN BUILDING STANDARDS

SECTION 4.106
SITE DEVELOPMENT
4.106.1 *GENERAL*. *PRESERVATION AND USE OF AVAILABLE NATURAL RESOURCES SHALL BE ACCOMPLISHED THROUGH EVALUATION AND CAREFUL PLANNING TO MINIMIZE NEGATIVE EFFECTS ON THE SITE AND ADJACENT AREAS. PRESERVATION OF SLOPES, MANAGEMENT OF STORM WATER DRAINAGE AND EROSION CONTROLS SHALL COMPLY WITH THIS SECTION.*

4.106.2 STORM WATER DRAINAGE AND RETENTION DURING CONSTRUCTION. *PROJECTS WHICH DISTURB LESS THAN ONE ACRE OF SOIL AND ARE NOT PART OF A LARGER COMMON PLAN OF DEVELOPMENT*
WHICH IN TOTAL DISTURBS ONE ACRE OR MORE, SHALL MANAGE STORM WATER DRAINAGE DURING CONSTRUCTION. IN ORDER TO MANAGE STORM WATER DRAINAGE DURING CONSTRUCTION, ONE OR MORE OF THE FOLLOWING MEASURES SHALL BE IMPLEMENTED TO PREVENT FLOODING OF ADJACENT PROPERTY, PREVENT EROSION AND RETAIN SOIL RUNOFF' ON THE SITE,

1. RETENTION BASINS OF SUFFICIENT SIZE SHALL BE UTILIZED TO RETAIN STORM WATER ON THE SITE.
2. WHERE STORM WATER IS CONVEYED TO A PUBLIC DRAINAGE SYSTEM, COLLECTION POINT, GUTTER OR SIMILAR DISPOSAL
METHOD, WATER SHALL BE FILTERED BY USE OF A BARRIER SYSTEM, WATTLE OR OTHER METHOD APPROVED BY THE ENFORCING AGENCY.
3. COMPLIANCE WITH A LAWFULLY ENACTED STORM WATER MANAGEMENT ORDINANCE.

4.106.3 *GRADING AND PAVING*. *CONSTRUCTION PLANS SHALL INDICATE HOW THE SITE GRADING OR DRAINAGE SYSTEM WILL MANAGE ALL SURFACE WATER FLOWS TO KEEP WATER FROM ENTERING BUILDINGS. EXAMPLES OF METHODS TO MANAGE SURFACE WATER INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:*

1. SWALES
2. WATER COLLECTION AND DISPOSAL SYSTEMS
3. *FRENCH DRAINS*
4. WATER RETENTION GARDENS
5. OTHER WATER MEASURES WHICH KEEP SURFACE WATER AWAY FROM BUILDINGS AND AID IN GROUNDWATER RECHARGE.

EXCEPTION: ADDITIONS AND ALTERATIONS NOT ALTERING THE DRAINAGE PATH.

4.106.4 ELECTRIC VEHICLE (EV) CHARGING FOR NEW CONSTRUCTION. *NEW CONSTRUCTION SHALL COMPLY WITH SECTIONS 4.106.4.1 AND 4.106.4.2 TO FACILITATE FUTURE INSTALLATION AND USE OF EV*
CHARGERS. ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE) SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE, ARTICLE 625.
EXCEPTIONS: *ON A CASE-BY-CASE BASIS, WHERE THE LOCAL ENFORCING AGENCY HAS DETERMINED EV CHARGING AND INFRASTRUCTURE ARE NOT FEASIBLE BASED UPON ONE OR MORE OF THE FOLLOWING CONDITIONS:*

1. WHERE THERE IS NO COMMERCIAL POWER SUPPLY.
2. WHERE THERE IS EVIDENCE SUBSTANTIATING THAT MEETING THE REQUIREMENTS WILL ALTER THE LOCAL UTILITY INFRASTRUCTURE
DESIGN REQUIREMENTS ON THE UTILITY SIDE OF THE METER SO AS TO INCREASE THE UTILITY SIDE COST TO THE HOMEOWNER OR THE DEVELOPER BY MORE THAN $400.00 PER DWELLING UNIT.

4.106.4.1 NEW ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOUSES WITH ATTACHED PRIVATE GARAGES. *FOR EACH DWELLING UNIT, INSTALL A LISTED RACEWAY TO ACCOMMODATE A DEDICATED 208/240-VOLT BRANCH CIRCUIT. THE RACEWAY SHALL NOT BE LESS THAN TRADE SIZE 1" (NOMINAL 1-INCH INSIDE DIAMETER). THE RACEWAY SHALL ORIGINATE AT THE MAIN SERVICE OR SUBPANEL AND SHALL TERMINATE INTO A LISTED CABINET, BOX OR OTHER ENCLOSURE IN CLOSE PROXIMITY TO THE PROPOSED LOCATION OF AN EV CHARGER. RACEWAYS ARE REQUIRED TO BE CONTINUOUS AT ENCLOSED, INACCESSIBLE OR CONCEALED AREAS AND SPACES. THE SERVICE PANEL AND/OR SUBPANEL SHALL PROVIDE CAPACITY TO INSTALL A 40-AMPERE MINIMUM DEDICATED BRANCH CIRCUIT AND SPACES RESERVED TO PERMIT INSTALLATION OF A BRANCH CIRCUIT OVERCURRENT PROTECTIVE DEVICE.*

4.106.4.1.1 IDENTIFICATION. *THE SERVICE PANEL OR SUBPANEL CIRCUIT DIRECTORY SHALL IDENTIFY THE OVERCURRENT*
PROTECTIVE DEVICE SPACE(S) RESERVED FOR FUTURE EV CHARGING AS "EV CAPABLE". THE RACEWAY TERMINATION LOCATION SHALL BE PERMANENTLY AND VISIBLY MARKED AS "EV CAPABLE".

4.106.4.2 NEW MULTIFAMILY DWELLINGS. *WHERE 17 OR MORE MULTIFAMILY DWELLING UNITS ARE CONSTRUCTED ON A BUILDING*
SITE, 3 PERCENT OF THE TOTAL NUMBER OF PARKING SPACES PROVIDED FOR ALL TYPES OF PARKING FACILITIES, BUT IN NO CASE LESS THAN ONE, SHALL BE ELECTRIC VEHICLE CHARGING SPACES (EV SPACES) CAPABLE OF SUPPORTING FUTURE EVSE. CALCULATIONS FOR THE REQUIRED NUMBER OF EV SPACES SHALL BE ROUNDED UP TO THE NEAREST WHOLE NUMBER.

NOTE: *CONSTRUCTION DOCUMENTS ARE INTENDED TO DEMONSTRATE THE PROJECT'S CAPABILITY AND CAPACITY FOR FACILITATING*
FUTURE EV CHARGING, THERE IS NO REQUIREMENT FOR EV SPACES TO BE CONSTRUCTED OR AVAILABLE UNTIL EV CHARGERS ARE PROVIDED FOR ALL TYPES OF PARKING FACILITIES, BUT IN NO CASE LESS ARE INSTALLED FOR USE.

4.106.4.2.1 ELECTRIC VEHICLE CHARGING SPACE (EV SPACE) LOCATIONS. *CONSTRUCTION DOCUMENTS SHALL INDICATE*
THE LOCATION OF PROPOSED EV SPACES. AT LEAST ONE EV SPACE SHALL BE LOCATED IN COMMON USE AREAS AND AVAILABLE FOR USE BY ALL RESIDENTS. WHEN EV CHARGERS ARE INSTALLED, EV SPACES REQUIRED
BY SECTION 4.106.4.2.2, ITEM 3, SHALL COMPLY WITH AT LEAST ONE OF THE FOLLOWING OPTIONS:

1. *THE EV SPACE SHALL BE LOCATED ADJACENT TO AN ACCESSIBLE PARKING SPACE MEETING THE REQUIREMENTS*
OF THE CALIFORNIA BUILDING CODE, CHAPTER 11A, TO ALLOW USE OF THE EV CHARGER FROM THE ACCESSIBLE PARKING SPACE.
2. *THE EV SPACE SHALL BE LOCATED ON AN ACCESSIBLE ROUTE, AS DEFINED IN THE CALIFORNIA BUILDING CODE,*
CHAPTER 2, TO THE BUILDING.

4.106.4.2.2 ELECTRIC VEHICLE CHARGING SPACE (EV SPACE) DIMENSIONS. *THE EV SPACES SHALL BE DESIGNED TO COMPLY WITH THE FOLLOWING:*

1. THE MINIMUM LENGTH OF EACH EV SPACE SHALL BE *18 FEET (5486 MM).*
2. THE MINIMUM WIDTH OF EACH EV SPACE SHALL BE *9 FEET (2743 MM).*
3. ONE IN EVERY 25 EV SPACES, *BUT NOT LESS THAN ONE,* SHALL ALSO HAVE AN *8-FOOT (2438 MM)* WIDE MINIMUM
aisle. A 5-FOOT (1524 MM) WIDE MINIMUM AISLE SHALL BE PERMITTED PROVIDED THE MINIMUM WIDTH OF THE EV SPACE IS *12 FEET (3658 MM).*

a. *SURFACE SLOPE FOR THIS EV SPACE AND THE AISLE SHALL NOT EXCEED 1 UNIT VERTICAL IN 48 UNITS HORIZONTAL (2.083 PERCENT SLOPE) IN ANY DIRECTION.*

4.106.4.2.3 SINGLE EV SPACE REQUIRED. *INSTALL A LISTED RACEWAY CAPABLE OF ACCOMMODATING A 2081240-VOLT DEDICATED BRANCH CIRCUIT. THE RACEWAY SHALL NOT BE LESS THAN TRADE SIZE 1" (NOMINAL I/INCH INSIDE DIAMETER. THE*
RACEWAY SHALL ORIGINATE AT THE MAIN SERVICE OR SUBPANEL AND SHALL TERMINATE INTO A LISTED CABINET, BOX OR ENCLOSURE
IN CLOSE PROXIMITY TO THE PROPOSED LOCATION OF THE EV SPACES. CONSTRUCTION DOCUMENTS SHALL IDENTIFY THE RACEWAY TERMINATION POINT, THE SERVICE PANEL AND/OR SUBPANEL SHALL PROVIDE CAPACITY TO INSTALL A 40-AMPERE
MINIMUM DEDICATED BRANCH CIRCUIT AND SPACE(S) RESERVED TO PERMIT INSTALLATION OF A BRANCH CIRCUIT OVERCURRENT
PROTECTIVE DEVICE.

4.106.4.2.4 MULTIPLE EV SPACES REQUIRED. *CONSTRUCTION DOCUMENTS SHALL INDICATE THE RACEWAY TERMINATION*
POINT AND PROPOSED LOCATION OF FUTURE EV SPACES AND EV CHARGERS. CONSTRUCTION DOCUMENTS SHALL ALSO PROVIDE
INFORMATION ON AMPERAGE OF FUTURE EVSE, RACEWAY METHOD(S), WIRING SCHEMATICS AND ELECTRICAL LOAD CALCULATIONS
TO VERIFY THAT THE ELECTRICAL PANEL SERVICE CAPACITY AND ELECTRICAL SYSTEM, INCLUDING ANY ON-SITE DISTRIBUTION TRANSFORMER(S), HAVE SUFFICIENT CAPACITY TO SIMULTANEOUSLY CHARGE ALL EVS AT ALL REQUIRED EV SPACES AT THE FULL RATED AMPERAGE OF THE EVSE. PLAN DESIGN SHALL HE BASED UPON A 40-AMPERE MINIMUM BRANCH CIRCUIT. RACEWAYS AND RELATED COMPONENTS THAT ARE PLANNED TO BE INSTALLED UNDERGROUND, ENCLOSED, INACCESSIBLE OR IN CONCEALED AREAS AND SPACES SHALL BE INSTALLED AT THE TIME OF ORIGINAL CONSTRUCTION.

4.106.4.2.5 IDENTIFICATION. *THE SERVICE PANEL OR SUBPANEL CIRCUIT DIRECTORY SHALL IDENTIFY THE OVERCURRENT*
PROTECTIVE DEVICE SPACE(S) RESERVED FOR FUTURE EV CHARGING PURPOSES AS "EV CAPABLE IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE.
NOTES:

1. *THE CALIFORNIA DEPARTMENT OF TRANSPORTATION ADOPTS AND PUBLISHES THE "CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CALIFORNIA MUTCD)" TO PROVIDE UNIFORM STANDARDS*
AND SPECIFICATIONS FOR ALL OFFICIAL TRAFFIC CONTROL DEVICES IN CALIFORNIA. ZERO EMISSION VEHICLE SIGNS AND PAVEMENT MARKINGS CAN BE FOUND IN THE NEW POLICIES & DIRECTIVES NUMBER 13-01, WEBSITE: HTTP://WWW.DOT.CA.GOV/TRAFFICOPS/POLICY/L3-01 ,PDF
2. *SEE VEHICLE CODE SECTION 22511FOR EV CHARGING SPACE SIGNAGE IN OFF-STREET PARKING FACILITIES AND FOR USE OF EV CHARGING SPACES.*
3. *THE GOVERNOR'S OFFICE OF PLANNING AND RESEARCH (OPR) PUBLISHED A "ZERO-EMISSION VEHICLE COMMUNITY READINESS GUIDEBOOK" WHICH PROVIDES HELPFUL INFORMATION FOR LOCAL GOVERNMENTS, RESIDENTS AND BUSINESSES. WEBSITE: HTTP://OPR.CA.GOV/DOCS/ZEV-GUIDEBOOK.PDF.*

SECTION 4.303
INDOOR WATER USE
4.303.1 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. *PLUMBING FIXTURES, (WATER CLOSETS & URINALS) AND FITTINGS (FAUCETS AND SHOWERHEADS) SHALL COMPLY WITH THE FOLLOWING:*

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 A RESIDENTIAL LAVATORY FAUCET 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.

SECTION 4.304
OUTDOOR WATER USE
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 (MWELO), WHICHEVER IS STRINGENT; OR.*
2. *PROJECTS WITH AGGREGATE LANDSCAPE AREAS LESS THAN 2,500 SQUARE FEET MAY COMPLY WITH THE MWELO'S APPENDIX*
D PRESCRIPTIVE COMPLIANCE OPTION.

NOTES:
1. THE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO) AND SUPPORTING DOCUMENTS ARE AVAILABLE AT HTTP:WWW.WATER.CA.GOV/WATERUSEEFFICIENCY/LANDSCAPEORDINANCE/
2. A WATER BUDGET CALCULATOR IS AVAILABLE AT: HTTP://WWW.WATER.CA.GOV/WATERUSCCFFICIENCY/LANDSCAPEORDINANCE/

SECTION 4.406
ENHANCED DURABILITY
AND REDUCED MAINTENANCE
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.*

SECTION 4.408
CONSTRUCTION WASTE REDUCTION,
DISPOSAL AND RECYCLING
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 EITHER SECTION 4.408.2, 4.408.3 OR 4.408.4, OR MEET A MORE STRINGENT LOCAL CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT ORDINANCE.*
EXCEPTIONS:

1. EXCAVATED SOIL AND LAND-CLEARING DEBRIS.
2. ALTERNATE WASTE REDUCTION METHODS DEVELOPED BY WORKING WITH LOCAL AGENCIES IF DIVERSION OR RECYCLE
FACILITIES CAPABLE OF COMPLIANCE WITH THIS ITEM DO NOT EXIST OR ARE NOT LOCATED REASONABLY CLOSE TO THE
JOBSITE.
3. *THE ENFORCING AGENCY MAY MAKE EXCEPTIONS TO THE REQUIREMENTS OF THIS SECTION WHEN ISOLATED JOBSITES*
ARE LOCATED IN AREAS BEYOND THE HAUL BOUNDARIES OF THE DIVERSION FACILITY.

4.408.2 CONSTRUCTION WASTE MANAGEMENT PLAN. *SUBMIT A CONSTRUCTION WASTE MANAGEMENT PLAN IN CONFORMANCE WITH ITEMS 1 THROUGH 5. THE CONSTRUCTION WASTE MANAGEMENT PLAN SHALL BE UPDATED AS NECESSARY AND SHALL BE AVAILABLE DURING CONSTRUCTION FOR EXAMINATION BY THE ENFORCING AGENCY.*

1. IDENTIFY THE CONSTRUCTION AND DEMOLITION WASTE MATERIALS TO BE DIVERTED FROM DISPOSAL BY RECYCLING, REUSE ON
THE PROJECT OR SALVAGE FOR FUTURE USE OR SALE.
2. SPECIFY IF CONSTRUCTION AND DEMOLITION WASTE MATERIALS WILL BE SORTED ON-SITE *(SOURCE-SEPARATED) OR BULK MIXED*
(SINGLE STREAM).
3. IDENTIFY DIVERSION FACILITIES WHERE THE CONSTRUCTION AND DEMOLITION WASTE MATERIAL WILL BE *TAKEN.*
4. IDENTIFY CONSTRUCTION METHODS EMPLOYED TO REDUCE THE AMOUNT OF CONSTRUCTION AND DEMOLITION WASTE GENERATED.
5. SPECIFY THAT THE AMOUNT OF CONSTRUCTION AND DEMOLITION WASTE MATERIALS DIVERTED SHALL BE *CALCULATED BY WEIGHT*
OR VOLUME, BUT NOT BY BOTH.

4.408.3 WASTE MANAGEMENT COMPANY. *UTILIZE A WASTE MANAGEMENT COMPANY, APPROVED BY THE ENFORCING AGENCY, WHICH CAN PROVIDE VERIFIABLE DOCUMENTATION THAT THE PERCENTAGE OF CONSTRUCTION AND DEMOLITION WASTE MATERIAL DIVERTED FROM THE LANDFILL COMPLIES WITH SECTION 4.408.1.*
NOTE: THE OWNER OR CONTRACTOR MAY MAKE THE DETERMINATION IF THE CONSTRUCTION AND DEMOLITION WASTE MATERIALS WILL
BE DIVERTED BY A WASTE MANAGEMENT COMPANY.

4.408.4 WASTE STREAM REDUCTION ALTERNATIVE [LR]. *PROJECTS THAT GENERATE A TOTAL COMBINED WEIGHT OF CONSTRUCTION AND DEMOLITION WASTE DISPOSED OF IN LANDFILLS, WHICH DO NOT EXCEED 3.4 POUNDS PER SQUARE FOOT OF THE BUILDING AREA SHALL MEET THE MINIMUM 65 PERCENT CONSTRUCTION WASTE REDUCTION REQUIREMENT IN SECTION 4.408.1*

4.408.4.1 WASTE STREAM REDUCTION ALTERNATIVE. *PROJECTS THAT GENERATE A TOTAL COMBINED WEIGHT OF CONSTRUCTION AND DEMOLITION WASTE DISPOSED OF IN LANDFILLS, WHICH DO NOT EXCEED 2 POUNDS PER SQUARE FOOT OF THE BUILDING AREA, SHALL MEET THE MINIMUM 65-PERCENT CONSTRUCTION WASTE REDUCTION REQUIREMENT IN SECTION 4.408.1.*

4.408.5 DOCUMENTATION. *DOCUMENTATION SHALL BE PROVIDED TO THE ENFORCING AGENCY WHICH DEMONSTRATES COMPLIANCE WITH SECTION 4.408.2, ITEMS 1 THROUGH 5, SECTION 4.408.3 OR SECTION 4.408.4.*
NOTES:

1. SAMPLE FORMS SOUND IN "A GUIDE TO THE CALIFORNIA GREEN BUILDING STANDARDS CODE *(RESIDENTIAL)"*
LOCATED AT WWW,HCD,CA.GOV/CALGREEN.HTML MAY BE USED TO ASSIST IN DOCUMENTING COMPLIANCE WITH THIS SECTION.
2. *MIXED CONSTRUCTION AND DEMOLITION DEBRIS (C&D) PROCESSOR-S CAN BE LOCATED AT THE CALIFORNIA DEPARTMENT*
OF RESOURCES RECYCLING AND RECOVERY (CALRECYCLE).

SECTION 4.41 0
BUILDING MAINTENANCE AND OPERATION
4.410.1 OPERATION AND MAINTENANCE MANUAL. *AT THE TIME OF FINAL INSPECTION, A MANUAL, COMPACT DISC, WEB-BASED REFERENCE OR OTHER MEDIA ACCEPTABLE TO THE ENFORCING AGENCY WHICH INCLUDES ALL OF THE FOLLOWING SHALL BE PLACED IN THE BUILDING:*

1. DIRECTIONS TO THE OWNER OR OCCUPANT THAT THE MANUAL SHALL REMAIN WITH THE BUILDING *THROUGHOUT THE LIFE*
CYCLE OF THE STRUCTURE.
2. OPERATION AND MAINTENANCE INSTRUCTIONS FOR THE FOLLOWING:

a. EQUIPMENT AND APPLIANCES, INCLUDING WATER-SAVING DEVICES AND SYSTEMS, HVAC SYSTEMS, *PHOTOVOLTAIC*
SYSTEMS, ELECTRIC VEHICLE CHARGERS, WATER-HEATING SYSTEMS AND OTHER MAJOR APPLIANCES AND *EQUIPMENT.*
b. ROOF AND YARD DRAINAGE, *INCLUDING GUTTERS AND DOWNSPOUTS.*
c. *SPACE CONDITIONING SYSTEMS, INCLUDING CONDENSERS AND AIR FILTERS.*
d. LANDSCAPE IRRIGATION SYSTEMS,
e. WATER REUSE SYSTEMS.

3. INFORMATION FROM LOCAL UTILITY, WATER AND WASTE RECOVERY PROVIDERS ON METHODS TO *FURTHER REDUCE RESOURCE*
CONSUMPTION, INCLUDING RECYCLE PROGRAMS AND LOCATIONS.
4. PUBLIC TRANSPORTATION AND/OR CARPOOL OPTIONS AVAILABLE IN THE AREA.
5. EDUCATIONAL MATERIAL ON THE POSITIVE IMPACTS OF AN INTERIOR RELATIVE HUMIDITY BETWEEN 30-60 *PERCENT AND*
WHAT METHODS AN OCCUPANT MAY USE TO MAINTAIN THE RELATIVE HUMIDITY LEVEL IN THAT RANGE.
6. INFORMATION ABOUT WATER-CONSERVING LANDSCAPE AND IRRIGATION DESIGN AND CONTROLLERS *WHICH CONSERVE*
WATER.
7. INSTRUCTIONS FOR MAINTAINING GUTTERS AND DOWNSPOUT AND THE IMPORTANCE OF DIVERTING *WATER AT LEAST 5 FEET*
AWAY FROM THE FOUNDATION.
8. INFORMATION ON REQUIRED ROUTINE MAINTENANCE MEASURES, *INCLUDING, BUT NOT LIMITED TO,* CAULKING, *PAINTING,*
GRADING AROUND THE BUILDING, ETC.
9. INFORMATION ABOUT STATE SOLAR ENERGY AND INCENTIVE PROGRAMS AVAILABLE.
10. A COPY OF ALL SPECIAL INSPECTION VERIFICATIONS REQUIRED BY THE ENFORCING AGENCY OR THIS *CODE.*

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.*
EXCEPTION: *RURAL JURISDICTIONS THAT MEET AND APPLY FOR THE EXEMPTION IN PUBLIC RESOURCES CODE SECTION 42649,82*
(a)(2)(A) ET SEQ. ARE NOT REQUIRED TO COMPLY WITH THE ORGANIC WASTE, AND METALS, OR MEET A LAWFULLY ENACTED RECYCLING ORDINANCE, IF MORE RESTRICTIVE.
EXCEPTION: RURAL JURISDICTIONS THAT MEET AND APPLY FOR THE EXEMPTION IN PUBLIC RESOURCES CODE SECTION 42649,82 (A)(2)(A) ET SEQ. ARE NOT REQUIRED TO COMPLY WITH ORGANIC WASTE PORTION OF THIS SECTION.

FIREPLACES
4.503.1 GENERAL. *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.*

SECTION 4.504
POLLUTANT CONTROL
4.504.1 COVERING OF DUCT OPENINGS AND PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION. *AT THE TIME OF ROUGH INSTALLATION, DURING STORAGE ON THE CONSTRUCTION SITE AND UNTIL FINAL STARTUP OF THE HEATING, COOLING AND VENTILATING EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEETMETAL OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY TO REDUCE THE AMOUNT OF WATER, DUST AND DEBRIS, WHICH MAY ENTER THE SYSTEM.*

4.504.2 FINISH MATERIAL POLLUTANT CONTROL. *FINISH MATERIALS SHALL COMPLY WITH THIS SECTION.*

4.504.2.1 ADHESIVES, SEALANTS AND CAULKS. *ADHESIVES, SEALANTS AND CAULKS USED ON THE PROJECT SHALL MEET THE*
REQUIREMENTS OF THE FOLLOWING STANDARDS UNLESS MORE STRINGENT LOCAL OR REGIONAL AIR POLLUTION OR AIR QUALITY MANAGEMENT DISTRICT RULES APPLY:

1. ADHESIVES, ADHESIVE BONDING PRIMERS, ADHESIVE PRIMERS, SEALANTS, SEALANT PRIMERS, AND *CAULKS SHALL COMPLY*
WITH LOCAL OR REGIONAL AIR POLLUTION CONTROL OR AIR QUALITY MANAGEMENT DISTRICT RULES WHERE APPLICABLE OR
SCAQMD RULE 1 168 VOC LIMITS, AS SHOWN IN TABLE 4.504,1 OR 4.504.2, AS APPLICABLE. SUCH PRODUCTS ALSO SHALL COMPLY WITH THE RULE 1168 PROHIBITION ON THE USE OF CERTAIN TOXIC COMPOUNDS (CHLOROFORM, ETHYLENE
DICHLORIDE, METHYLENE CHLORIDE, PERCHLOROETHYLENE AND TRICHLOROETHYLENE), EXCEPT FOR AEROSOL PRODUCTS, AS
SPECIFIED IN SUBSECTION 2 BELOW.
2. AEROSOL *ADHESIVES, AND SMALLER UNIT SIZES OF ADHESIVES, AND SEALANT OR CAULKING COMPOUNDS (IN UNITS*
OF PRODUCT, LESS PACKAGING, WHICH DO NOT WEIGH MORE THAN 1 POUND AND DO NOT CONSIST OF MORE THAN 16 FLUID OUNCES) SHALL COMPLY WITH STATEWIDE VOC STANDARDS AND OTHER REQUIREMENTS, INCLUDING PROHIBITIONS
ON USE OF CERTAIN TOXIC COMPOUNDS, OF CALIFORNIA CODE OF REGULATIONS, TITLE 17, *COMMENCING WITH SECTION 94507.*

4.504.2.2 PAINTS AND COATINGS. *ARCHITECTURAL PAINTS AND COATINGS SHALL COMPLY WITH VOC LIMITS IN TABLE 1 OF THE*
ARB ARCHITECTURAL SUGGESTED CONTROL MEASURE, AS SHOWN IN TABLE 4,504,3, UNLESS MORE STRINGENT LOCAL LIMITS APPLY.
THE VOC CONTENT LIMIT FOR COATINGS THAT DO NOT MEET THE DEFINITIONS FOR THE SPECIALTY COATINGS CATEGORIES LISTED IN
TABLE 4,504,3 SHALL BE DETERMINED BY CLASSIFYING THE COATING AS A FLAT, NONFLAT OR NONFLAT-HIGH GLOSS COATING, BASED ON ITS GLOSS, AS DEFINED IN SUBSECTIONS 4.21, 4,36, AND 4.37 OF THE 2007 CALIFORNIA AIR RESOURCES BOARD, SUGGESTED CONTROL MEASURE, AND THE CORRESPONDING FLAT, NONFLAT OR NONFLAT- HIGH GLOSS VOC LIMIT IN TABLE 4.504.3 SHALL APPLY.

4.504.2.3 AEROSOL PAINTS AND COATINGS. *AEROSOL PAINTS AND COATINGS SHALL MEET THE PRODUCT-WEIGHTED MIR LIMITS FOR ROC IN SECTON 94522(A)(2) AND OTHER REQUIREMENTS, INCLUDING PROHIBITIONS ON USE OF CERTAIN TOXIC COMPOUNDS*
AND OZONE DEPLETING SUBSTANCES, IN SECTIONS 94522(E)(L) AND (F)(L) OF CALIFORNIA CODE OF REGULATIONS, TITLE 17,
COMMENCING WITH SECTION 94520; AND IN AREAS UNDER THE JURISDICTION OF THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT ADDITIONALLY COMPLY WITH THE PERCENT VOC BY WEIGHT OF PRODUCT LIMITS OF REGULATION 8, RULE 49.

4.504.2.4 VERIFICATION. *VERIFICATION OF COMPLIANCE WITH THIS SECTION SHALL HE PROVIDED AT THE REQUEST OF THE ENFORCING AGENCY. DOCUMENTATION MAY INCLUDE, BUT IS NOT LIMITED TO, THE FOLLOWING:*

1. MANUFACTURER'S PRODUCT SPECIFICATION.
2. FIELD VERIFICATION OF ON-SITE PRODUCT CONTAINERS.

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 BUIL

ENERGY CONSERVATION NOTES:

THE INSULATION SHALL CONFORM TO FLAME-SPREAD INDEX AND SMOKE DEVELOPMENT INDEX REQUIREMENTS OF CRC R302.10

ALL WEATHER STRIPPING, CAULKING, AND SEALING OF EXTERIOR DOORS, WINDOWS, AND OTHER ENVELOPE OPENINGS, AS REQUIRED BY THE STANDARDS, SHALL BE SUBJECT TO FIELD INSPECTION. JOINTS AND PENETRATIONS IN THE EXTERIOR OF THE BUILDING ENVELOPE SHALL BE CAULKED AND SEALED TO LIMIT AIR INFILTRATION.

ALL EXHAUST FANS SHALL HAVE BACK-DRAFT OR AUTOMATIC DAMPERS TO PREVENT AIR LEAKAGE.

ALL MANUFACTURED DOORS AND WINDOWS SHALL BE CERTIFIED AND LABELED, THEY ALSO SHALL BE DUAL PANE UNLESS NOTED. (SEE ENERGY DOCUMENTATION FOR WINDOW U-VALUES, AND/OR FRAME MATERIALS).

REFRIGERATORS, FREEZERS, ROOM OR CENTRAL AIR CONDITIONERS, GAS SPACE HEATERS, WATER HEATERS, SHOWER HEADS, FAUCETS, AND FLUORESCENT LAMP BALLAST SHALL BE C.E.C. CERTIFIED AND INSTALLED ACCORDING TO MANUFACTURERS SPECS.

THE BUILDER SHALL PROVIDE THE ORIGINAL OCCUPANT WITH A LIST OF HEATING, COOLING, WATER HEATING, LIGHTING SYSTEMS AND CONSERVATION OF SOLAR DEVICES INSTALLED AND INSTRUCTIONS ON HOW TO USE THEM EFFICIENTLY.

THERMOSTATICALLY CONTROLLED HEATING SYSTEMS SHALL HAVE AN AUTOMATIC NIGHT SET-BACK THERMOSTAT.

GAS COOKING APPLIANCES SHALL HAVE AN INTERMITTENT IGNITION DEVICE.

FOR THE IGNITION OF GAS APPLIANCES, A CONTINUOUSLY BURNING PILOT IS NOT PERMITTED ON:
- A) FAN TYPE CENTRAL # WALL FURNACES;
- B) RESIDENTIAL TYPE CLOTHES DRYERS AND COOKING APPLIANCES;
- C) POOL HEATERS.

LIGHT FIXTURES SHALL HAVE AN EFFICIENCY OF NOT LESS THAN 40 LUMENS PER HATT.

MASONRY AND FACTORY-BUILT FIREPLACES SHALL HAVE;
- A) TIGHT FITTING CLOSEABLE METAL OR GLASS DOORS COVERING THE ENTIRE OPENING OF THE FIREBOX;
- B) A COMBUSTION AIR INTAKE TO DRAW AIR FROM THE OUTSIDE OF THE BUILDING DIRECTLY INTO THE FIREBOX WITH AT LEAST 6 SQ. IN. AREA;
- C) EQUIPPED WITH A READILY ACCESSIBLE, OPERABLE, AND TIGHT FITTING DAMPER;
- D) NO PART OF INTAKE SHALL BE GREATER THAN 12" ABOVE BOTTOM OF FIRE BOX.
- E) OUTSIDE AIR INTAKE TO BE CONSTRUCTED OF NON-COMBUSTIBLE AND NON-CORROSIVE MATERIALS.
- F) TIGHT FITTING FLUE DAMPER WITH A READILY ACCESSIBLE CONTROL

CONTINUOUS BURNING GAS PILOT OF LPG LOG LIGHTER IS PROHIBITED.

PLUMBING NOTES:

PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR SIZING AND ROUTING OF ALL WASTE, VENT, WATER, GAS AND A/C CONDENSATE LINES. CONTRACTOR SHALL COORDINATE WITH OWNER FOR SERVICES.

ALL PLUMBING MATERIALS AND WORKMANSHIP SHALL BE IN STRICT ACCORDANCE WITH THE CALIFORNIA BUILDING CODE, CALIFORNIA PLUMBING CODE, AND AMERICAN GAS ASSOCIATION AS AMENDED BY LOCAL GOVERNING AGENCIES.

ALL FIXTURES ARE TO BE FINISHED BY THE PLUMBING CONTRACTOR UNLESS OTHERWISE NOTED ON PLANS. ALL FIXTURES TO BE INSTALLED COMPLETE WITH RESPECTS TO TRIM SEALS, ETC. AS REQUIRED TO MAKE JOB READY FOR SERVICE AND USE.

PLUMBING CONTRACTOR TO TAKE OUT AND PAY FOR ALL PERMITS AND INSPECTION FEES AS REQUIRED FOR HIS WORK.

ALL WATER LINES TO BE STANDARD WEIGHT SCHEDULE 40 GALVANIZED OR COPPER PIPING. PROVIDE APPROVED WRAPPING TO WATER PIPING UNDER CONCRETE FLOORS.

ALL BATHTUBS SHALL HAVE AN APPROVED PLASTIC OR BRASS FERRULE SOLID TRAP AND OVERFLOW FITTING OR PROVIDE 12" X 12" MINIMUM ACCESS PANEL.

ALL TUB-SHOWER OPENINGS SHALL BE RODENT-PROOF WITH 1" CEMENT COVERING IN AN APPROVED MANNER.

CUTTING, NOTCHING, OR BORING OF PLATES OR STUDS SHALL CONFORM TO THE CURRENT CALIFORNIA BUILDING CODE EDITION, AND ANY OTHER APPLICABLE STANDARDS.

ALL FIXTURES TO BE WHITE UNLESS OTHERWISE NOTED IN PLANS. PLUMBING CONTRACTOR SHALL SUBMIT FIXTURE SPECIFICATIONS FOR OWNERS APPROVAL.

PROVIDE SHUTOFF VALVE FOR COLD WATER SUPPLY TO BUILDING.

PROVIDE TWO-WAY CLEANOUT(S) AT THE CONNECTION OF THE HOUSE DRAIN AND THE BUILDING SEWER. ALL HORIZONTAL DRAIN LINES OVER 5' IN LENGTH SHALL BE PROVIDED WITH A CLEAN-OUT.

THE OWNER SHALL COORDINATE ALL SERVICE CONNECTIONS FOR THE WORK WITH THE APPROPRIATE AGENCIES.

CONTRACTOR TO DETERMINE WATER, SEWER AND SUPPLY LINE SIZES IN CONFORMANCE WITH THE CALIFORNIA PLUMBING CODE AND COORDINATE WITH PLUMBER AS TO ANY VARIATION AND/OR CONFLICT FROM DRAWINGS.

ALL ROOF PENETRATIONS WITH PIPES TO BE INSTALLED WITH "DEK-TITE" PIPE FLASHING INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS. EACH VENT PIPE OR STACK SHALL EXTEND THROUGH ITS FLASHING AND SHALL TERMINATE VERTICALLY NOT LESS THAN SIX (6) INCHES ABOVE THE ROOF NOR LESS THAN ONE (1) FOOT FROM ANY VERTICAL SURFACE.

VENT PIPES OR STACKS SHALL TERMINATE NOT LESS THAN 10 FEET FROM OR AT LEAST THREE (3) FEET ABOVE ANY WINDOW, DOOR OPENINGS, AIR INTAKE OR VENT SHAFT, NOR LESS THAN THREE (3) FEET IN EVERY DIRECTION FROM ANY LOT LINE, ALLEY OR STREET.

DRAINAGE PIPE MATERIALS SHALL BE CAST IRON, GALVANIZED STEEL, PVC OR ABS SCHEDULE 40 DW PLASTIC PIPE, EXCEPT THAT NO GALVANIZED STEEL PIPE SHALL BE USED UNDERGROUND AND SHALL BE KEPT AT LEAST 6" ABOVE GROUND.

CHANGES IN DIRECTION OR SIZE OF DRAINAGE PIPING SHALL BE MADE BY THE APPROPRIATE USE OF APPROVED FITTINGS, AND SHALL BE OF THE ANGLES PRESENTED BY ONE-SIXTEENTH BEND, ONE-EIGHT BEND, ONE-SIXTH-BEND, OR APPROVED SHORT SWEEP.

AN ACCESSIBLE SHUTOFF VALVE SHALL BE INSTALLED IN THE FUEL SUPPLY PIPING OUTSIDE OF EACH APPLIANCE. SHUTOFF VALVES SHALL BE WITHIN 3' OF THE APPLIANCE.

WATER METER MUST BE INSTALLED PRIOR TO FINAL INSPECTION. WATER METER CAN SHALL NOT BE LOCATED IN DRIVE OR APPROACH.

PROVIDE LOW FLOW WATER CLOSETS WITH MAXIMUM OF 1.28 GALLONS PER FLUSH.

SOLDERS AND FLUXES WITH A LEAD CONTENT WHICH EXCEEDS TWO-TENTH OF ONE PERCENT (.002) ARE PROHIBITED IN PIPING SYSTEMS USED TO CONVEY POTABLE WATER.

LISTED METAL APPLIANCE CONNECTORS FOR RANGES AND CLOTHES DRYERS SHALL HAVE AN OVERALL LENGTH NOT TO EXCEED SIX (6) FEET.

CONDENSATE DRAINS FROM AIR CONDITIONING UNITS SHALL BE APPROVED GALVANIZED OR COPPER MATERIAL. APPROVED PVC MATERIAL SHALL BE USED ONLY ON RESIDENTIAL CONSTRUCTION NOT OVER TWO STORIES IN HEIGHT.

UNDERGROUND FERROUS GAS PIPING SHALL BE ELECTRICALLY ISOLATED FROM THE REST OF THE GAS SYSTEM AND/OR LISTED ISOLATED FITTINGS AND INSULATED A MINIMUM OF SIX INCHES ABOVE GRADE.

ALL SHOWER HEADS SHALL BE CERTIFIED AND EQUIPPED WITH FLOW RESTRICTORS.

ALL TUB AND SHOWER VALVES ARE TO BE SINGLE CONTROL PRESSURE BALANCING OR THERMOSTATIC ANTI - SCALD TYPE.

PROVIDE A NON-REMOVABLE TYPE BACK FLOW PREVENTION DEVICE ON ALL HOSE BIBS.

WATER HEATING NOTES:

WATER HEATING EQUIPMENT, SHOWER HEADS, AND FAUCETS SHALL BE CERTIFIED BY THE CALIFORNIA ENERGY COMMISSION.

NO WATER HEATER SHALL BE INSTALLED IN ANY ROOM USED OR DESIGNED TO BE USED FOR SLEEPING PURPOSES, BATHROOMS, CLOTHES CLOSETS, OR IN ANY CONFINED SPACES WITH ACCESS TO SUCH ROOMS.

APPLIANCES SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS WITH PROPER CLEARANCES TO COMBUSTIBLE MATERIALS.

FOR WATER HEATERS LOCATED IN CLOSETS OR CONFINED SPACES, PROVIDE MIN. 2 SQ. INCHES OF COMBUSTION AIR VENTILATION FOR EACH 1000 BTUH OF WATER HEATER INPUT. 50% OF REQUIRED VENTILATION SHALL BE LOCATED WITHIN 12" OF THE CEILING AND 50% SHALL BE LOCATED WITHIN 12" OF THE FLOOR. FURR CEILING TO +7'-0" AND PROVIDE 5/8" TYPE 'X' GYPSUM WALL BOARD AT CEILING AND ALL WALLS.

APPLIANCES INSTALLED IN GARAGES SHALL BE LOCATED SUCH THAT IT IS PROPERLY GUARDED AGAINST INJURY, AND ELEVATED SO THAT ANY GLOW OR SPARK EMITTED SHALL BE AT LEAST 18" ABOVE THE FLOOR OF THE GARAGE.

PROVIDE ADEQUATE EARTHQUAKE BRACING FOR WATER HEATER, WHEN NOT LOCATED IN A CLOSET USED EXCLUSIVELY FOR THE WATER HEATER, USE A 2" WIDE X 26 GA. SHEET METAL STRAP AT TOP AND BOTTOM 1/3 OF TANK, SECURE WITH (2) 16D AT EACH END TO FRAMING.

THE WATER HEATER SHALL BE PROVIDED WITH A TEMPERATURE AND PRESSURE RELIEF VALVE HAVING A FULL SIZED DRAIN OF GALVANIZED STEEL OR HARD DRAWN COPPER TO THE OUTSIDE OF THE BUILDING WITH THE END OF THE PIPE NOT MORE THAN 24" NOR LESS THAN 6" ABOVE GRADE, POINTING DOWNWARD WITH THE TERMINAL END BEING UNTHREADED.

PIPING IN UNCONDITIONED SPACE LEADING TO AND FROM WATER HEATER SHALL BE INSULATED WITH AN INSTALLED THERMAL RESISTANCE OF R-3 OR GREATER FOR THE FIRST FIVE FEET OF PIPE CLOSEST TO THE WATER HEATER, OR WHATEVER SHORTER LENGTH IS LOCATED IN UNCONDITIONED SPACE.

FULL SIZED, DOUBLE WALLED METAL VENT PIPING FROM WATER HEATERS SHALL BE ROUTED THROUGH THE ROOF AND PROVIDED WITH A WEATHERPROOF CAP. INSTALLATION AND REQUIRED CLEARANCES SHALL BE IN ACCORDANCE WITH APPLICABLE CODES.

STORAGE TYPE WATER HEATERS AND STORAGE AND BACKUP TANKS FOR SOLAR WATER HEATING SYSTEM SHALL BE EXTERNALLY WRAPPED WITH INSULATION HAVING AN INSTALLED THERMAL RESISTANCE OF R-4 OR GREATER.

ELECTRICAL NOTES:

ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE NATIONAL ELECTRICAL CODE (N.E.C.), ELECTRICAL SAFETY ORDERS, AND ALL APPLICABLE CODES.

ELECTRICAL CONTRACTOR SHALL CHECK POWER AND PHONE SERVICES AT SITE PRIOR TO BIDDING SERVICES TO CONFORM TO UTILITY REQUIREMENTS. ELECTRICAL CONTRACTOR SHALL ARRANGE FOR SERVICE INSTALLATION, RELOCATION AND/OR REMOVAL PER UTILITY COMPANY REQUIREMENTS. CONTRACTOR SHALL DEFRAY COSTS FOR ABOVE UTILITY OVERHEAD OR UNDERGROUND SERVICE).

ELECTRICAL CONTRACTOR SHALL VERIFY ALL LIGHTING AND CONVENIENCE OUTLETS AND ELECTRICAL PANEL LOCATION WITH OWNER PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR PANEL SIZING, WIRE SIZING AND CIRCUIT BREAKER SIZING.

PROVIDE AN ILLUMINATED ADDRESS SIGN, LOCATED SO THAT IT CAN BE CLEARLY SEEN FROM THE STREET. PROVIDE 110 VOLT DIRECT WIRE.

ELECTRICAL SERVICE TO BE 100 AMPS (UNLESS NOTED OTHERWISE IN THE DRAWINGS).

PRIOR TO COMMENCING CONSTRUCTION, ELECTRICAL CONTRACTOR SHALL ARRANGE A CONFERENCE WITH THE MECHANICAL AND PLUMBING CONTRACTORS AND SHALL VERIFY ELECTRICAL CHARACTERISTICS, SIZES, LOCATION REQUIREMENTS, CONTROLS TYPES AND DIAGRAMS OF ALL EQUIPMENT FURNISHED BY THESE CONTRACTORS.

ELECTRICAL SERVICE AND/OR SUB-PANELS SHALL NOT BE LOCATED IN CLOTHES CLOSETS.

LIGHTING FIXTURES IN CLOTHES CLOSETS SHALL BE 18" MIN. FROM COMBUSTIBLE MATERIALS AND SHALL COMPLY WITH CEC 410-16.

PROVIDE APPROVED SMOKE DETECTOR (FIRE X-CEO #3423 OR EQUAL) BETWEEN KITCHEN AND FIRST BEDROOM, AT ALL CHANGES OF CEILING ELEVATIONS, AND IN ALL BEDROOMS AND SLEEPING AREAS. USE 110VOLT DIRECT WIRE WITH BATTERY BACK-UP, LOCATED AT CEILING AND MINIMUM 24" FROM AIR OUTLET OR RETURN. (ALL DETECTORS SHALL BE ELECTRONICALLY INTERCONNECTED AND SHALL EMIT A SIGNAL WHEN THE BATTERIES ARE LOW).

PROVIDE AN APPROVED HEAT DETECTOR IN ATTIC ABOVE ANY MECHANICAL EQUIPMENT WITH AN ALARM LOCATED IN THE LIVING AREA.

PROVIDE AT LEAST ONE SWITCHED LIGHT IN ATTIC AND AN ELECTRICAL OUTLET WITHIN 25' OF ATTIC MOUNTED EQUIPMENT. VERIFY LOCATION WITH MECHANICAL CONTRACTOR.

RECEPTACLES SHALL BE INSTALLED SUCH THAT NO POINT MEASURED HORIZONTALLY ALONG THE FLOOR LINE IN ANY WALL SPACE IS MORE THAN 6 FEET FROM A RECEPTACLE OUTLET PER CEC 210.52 (A)
A WALL SPACE SHALL INCLUDE:
- (1) ANY SPACE 2 FEET OR MORE IN WIDTH (INCLUDING SPACE MEASURED AROUND CORNERS) AND UNBROKEN ALONG THE FLOOR LINE BY DOORWAYS, FIREPLACES, AND SIMILAR OPENINGS.
- (2)THE SPACE OCCUPIED BY FIXED PANELS IN EXTERIOR WALLS, EXCLUDING SLIDING PANELS
- (3) THE SPACE AFFORDED BY FIXED ROOM DIVIDERS SUCH AS FREESTANDING BAR-TYPE COUNTERS OR RAILINGS

ALL ELECTRICAL OUTLETS IN BATHS, GARAGES, AND EXTERIOR LOCATIONS, AND WITHIN 6' OF SINKS OR OTHER WATER SOURCES SHALL BE ON GROUND-FAULT INTERRUPTING CIRCUITS.

ANY APPLIANCES OR ELECTRICAL OUTLETS LOCATED IN GARAGE THAT GENERATE A SPARK OR GLOW SHALL BE ELEVATED AT LEAST 18" ABOVE THE FLOOR.

PROVIDE AN ELECTRODE (UFER GROUND) ENCASED BY AT LEAST 3" OF CONCRETE FOOTING OR FOUNDATION THAT IS IN DIRECT CONTACT WITH THE EARTH, CONSISTING OF AT LEAST 20' OF ONE OR MORE STEEL REINFORCING BARS NOT LESS THAN 1/2 INCH DIAMETER OR AT LEAST 20' BARE SOLID COPPER CONDUCTOR NOT SMALLER THAN #4 A.W.G.

PROVIDE DISCONNECT SWITCH AT ROOF-MOUNTED A/C UNIT(S). PROVIDE 110-VOLT WATER- PROOF OUTLET WITHIN 25' OF H.V.A.C. UNIT SHALL BE ON THE SAME LEVEL THE EQUIPMENT IT SERVES.

SWITCHES MAY BE RELOCATED AS DESIRED BY THE OWNER ON THE JOBSITE.

LIGHT FIXTURES TO BE SELECTED BY THE OWNER (SEE CONTRACT FOR ALLOWANCE). ALL T.V. AND TELEPHONE OUTLETS SHOWN ON THESE PLANS TO BE FIELD VERIFIED WITH THE OWNER. ALL LOCATIONS AS REQUIRED BY OWNER, SHALL BE FIELD MARKED ON THE FRAMING PRIOR TO ANY INSTALLATION. T.V. ANTENNAE SHALL BE TIED TOGETHER IN ATTIC SPACE AND WIRE RUN THROUGH PLASTIC CONDUIT WITH ROOF JACK. (CHECK WITH OWNER WITH REGARDS TO CABLE T.V.).

APPLIANCES SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

ALL SWITCHES SHALL BE A MAXIMUM OF +48" AND A MINIMUM OF +36" FROM FLOOR TO THE CENTER OF OUTLET.

ALL RECEPTACLES SHALL BE A MINIMUM OF +12" FROM FLOOR TO CENTER OF OUTLET.

PROVIDE MINIMUM 36" WORK CLEARANCE IN FRONT OF PANELS AND/OR SERVICE EQUIPMENT, WITH 30" MIN. HIGH WORK SPACE. PROVIDE 15" FROM SIDE OF OBSTRUCTION.

INCANDESCENT LIGHTING FIXTURES THAT ARE RECESSED INTO INSULATED CEILINGS SHALL BE APPROVED FOR ZERO-CLEARANCE INSULATION COVER (I.C.) BY U.L. OR OTHER TESTING LABORATORY RECOGNIZED BY I.C.B.O.

MECHANICAL NOTES:

ALL MECHANICAL EQUIPMENT AND RELATED WORK SHALL CONFORM TO THE CURRENT EDITION OF THE CALIFORNIA MECHANICAL CODE AS AMENDED BY THE LOCAL GOVERNING AGENCIES.

ALL WORK SHALL BE DONE IN A NEAT AND PROPER MANNER AS PRACTICED BY THOSE SKILLED IN THE PARTICULAR TRADE. ALL PIPES, FIXTURES, EQUIPMENT, GRILLES, REGISTERS AND OTHER COMPONENTS SHALL BE INSTALLED LEVEL, SQUARE AND IN A NEAT AND PLEASING APPEARANCE.

ALL EQUIPMENT SHALL BE INSTALLED WITH STRICT CONFORMANCE TO THE MANUFACTURERS RECOMMENDATIONS.

MECHANICAL CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES.

CONTRACTOR SHALL TEST EQUIPMENT ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS TO INSURE SYSTEM IS FREE OF ANY DEFECTS, OBJECTIONABLE NOISES, AND VIBRATION OR ANY OTHER QUESTIONABLE DEFICIENCIES.

CONTRACTOR SHALL PROVIDE OWNER WITH ANY NECESSARY OPERATION AND MAINTENANCE INSTRUCTIONS, WARRANTIES, OR OTHER DOCUMENTATION SUPPLIED WITH THE EQUIPMENT.

MECHANICAL CONTRACTOR SHALL VERIFY ALL SYSTEM VOLTAGES PRIOR TO BIDDING AND/OR ORDERING EQUIPMENT.

THE ARRANGEMENT OF EQUIPMENT, PIPING, DUCT WORK, AND OTHER MATERIALS INDICATED ON THE DRAWINGS ARE DIAGRAMMATIC. FOLLOW DRAWINGS AS CLOSELY AS POSSIBLE AND ACHIEVE A NEAT ARRANGEMENT, WHILE STILL OVERCOMING OBSTRUCTIONS.

ANY CHANGE OF HVAC OR WATER HEATING UNITS FROM THAT LISTED IN THE DRAWINGS (MODEL, CAPACITIES, OR EFFICIENCIES) ARE REQUIRED TO BE DONE BY PLAN ADDENDUM. ADDENDUMS MAY REQUIRE REVISED ENERGY CALCULATIONS AND SHALL BE SPECIFIC AS TO THE CHANGES, AND SHALL BE ACCOMPANIED BY A COPY OF THE EQUIPMENT PAGE FROM THE CEC DIRECTORY OF CERTIFIED EQUIPMENT.

LOCATION OF HVAC UNITS AND THE THERMOSTAT AS SHOWN IN THE DRAWINGS SHALL BE VERIFIED WITH THE MECHANICAL CONTRACTOR.

INDOOR DESIGN TEMPERATURES AND AIR SUPPLY REQUIREMENTS SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITIONS OF THE CALIFORNIA BUILDING CODE AND THE CALIFORNIA MECHANICAL CODE.

ALL EXHAUST SYSTEMS SHALL BE VENTED TO THE OUTSIDE AIR.

ALL REST ROOMS AND LAUNDRY ROOMS SHALL BE PROVIDED WITH MECHANICAL VENTILATION SYSTEMS PROVIDING A MINIMUM OF 5 AIR CHANGES PER HOUR. ALL OTHER ROOMS SHALL BE PROVIDED WITH A MINIMUM OF 2 AIR CHANGES PER HOUR.

ALL EXHAUST FANS SHALL BE PROVIDED WITH BACK-DRAFT OR AUTOMATIC DAMPERS TO PREVENT AIR LEAKAGE. ALL EXHAUST FANS SHALL PROVIDE 5 AIR CHANGES PER HOUR.

COMBUSTION AIR FOR GAS BURNING EQUIPMENT (FURNACES AND/OR WATER HEATERS) SHALL BE FROM THE EXTERIOR OF THE BUILDING.

ALL HEATING AND COOLING EQUIPMENT SHALL BEAR A PERMANENT IDENTIFICATION AS TO THE AREA OF SPACE SERVICED BY THE EQUIPMENT.

WHEN HVAC EQUIPMENT AND/OR EVAPORATIVE COOLERS ARE LOCATED ON THE ROOF, AND THE PITCH OF THE ROOF EXCEEDS 4 IN 12, IT SHALL BE PROVIDED WITH A PLATFORM, RAILING AND CATWALK THAT COMPLIES WITH THE CALIFORNIA MECHANICAL CODE.

ALL ROOF MOUNTED EQUIPMENT WITH ROTATING COMPONENTS SHALL BE MOUNTED ON RUBBER VIBRATION ISOLATORS UNLESS NOTED OTHERWISE IN DRAWINGS.

IF HVAC EQUIPMENT IS LOCATED ON A TILE ROOF, PROVIDE AN ACCESS TO HVAC UNITS SO THAT TRAVERSAL OF THE ROOF TILES ARE NOT REQUIRED. (COMPOSITION SHINGLES UNDER UNIT AND EXTENDING TO EAVE MAY BE USED.)

PROVIDE DOUBLE CEILING JOISTS OR RAFTERS UNDER ALL ATTIC AND/OR ROOF MOUNTED EQUIPMENT. IF TRUSSES ARE USED, TRUSS MANUFACTURER SHALL PROVIDE CALCULATION FOR ADDITIONAL LOADS APPLIED DUE TO ATTIC AND/OR ROOF MOUNTED EQUIPMENT.

FOR WARM AIR FURNACES LOCATED IN ATTIC SPACES, PROVIDE THE FOLLOWING:
- A) 30" X 30" (MINIMUM) ATTIC ACCESS WITHIN 20' OF EQUIPMENT
- B) A MINIMUM 24" WIDE SOLID FLOORING PASSAGE FROM THE ACCESS TO A 30" WIDE WORKING PLATFORM ON THE CONTROL SIDE OF THE FURNACE
- C) A PERMANENT ELECTRICAL OUTLET AND A LIGHT CONTROLLED BY A SWITCH LOCATED AT THE ACCESS
- D) AN APPROVED HEAT DETECTOR LOCATED IN THE ATTIC WITH AN ALARM LOCATED IN THE LIVING AREA OF THE RESIDENCE
- E)THE COMBUSTION AIR OPENING SHALL BE PROVIDED WITH A MIN. 26 GA. STEEL SLEEVE EXTENDING 6" (MIN.) ABOVE THE TOP OF THE INSULATION

THERMOSTATICALLY CONTROLLED HEATING SYSTEMS SHALL HAVE AN AUTOMATIC NIGHT SETBACK THERMOSTAT. THERMOSTATS SHALL BE ADJUSTABLE TO PROVIDE A TEMP. RANGE OF UP TO 10 DEGREES BETWEEN FULL HEATING AND FULL COOLING

ALL DUCTS SHALL BE CONSTRUCTED, INSTALLED AND INSULATED IN ACCORDANCE WITH THE CALIFORNIA MECHANICAL CODE. ALL DUCTS CONVEYING AIR FROM OUTSIDE THE BUILDING OR FROM EVAPORATIVE COOLERS SHALL BE MADE OF GALVANIZED STEEL OR NON-CORROSIVE METAL. ALL DUCTS SHALL BE EXTERNALLY WRAPPED OR HAVE AN INSTALLED THERMAL RESISTANCE AS SHOWN ON THE DRAWINGS OR THE ATTACHED ENERGY CALCULATION.

DOMESTIC CLOTHES DRYER EXHAUST DUCTS SHALL NOT EXCEED A COMBINED HORIZONTAL AND VERTICAL LENGTH OF 14'-0" INCLUDING (2) 90 DEGREE ELBOWS.

ALL ATTIC INSTALLED APPLIANCES SHALL HAVE A SHEET METAL SECONDARY PAN AND 1 1/2" DIAMETER DRAIN TO AN APPROVED LOCATION AT THE EXTERIOR

AFTER INSTALLING HVAC EQUIPMENT AND WATER HEATING SYSTEMS, THE INSTALLER SHALL POST, IN A CONSPICUOUS LOCATION AT THE BUILDING SITE, AN "INSTALLATION CERTIFICATE" (CF6R FORM), SIGNED BY THE INSTALLER, LISTING THE EQUIPMENT INSTALLED, (MANUF., MODEL AND EFFICIENCIES) AND THAT IT MEETS OR EXCEEDS THE REQUIREMENTS OF THE ENERGY CONSERVATION DOCUMENTATION.

ALL AIR MOVING EQUIPMENT USED TO MEET EITHER THE WHOLE BUILDING OR LOCAL EXHAUST VENTILATION REQUIREMENTS SHALL BE RATED IN TERMS OF AIRFLOW AND SOUND.
- A) ALL CONTINUOUSLY OPERATED FANS SHALL BE RATED AT A MAXIMUM OF 1.0 SONE.
- B) INTERMITTENTLY OPERATED WHOLE-BUILDING VENTILATION FANS SHALL BE RATED AT A MAXIMUM OF 1.0 SONE.
- C) INTERMITTENTLY OPERATED LOCAL EXHAUST FANS SHALL BE RATED AT A MAXIMUM OF 3 SONE.
- D) REMOTELY LOCATED AIR MOVING EQUIPMENT NEED NOT MEET SOUND REQUIREMENTS IF THERE IS AT LEAST 4 FEET OF DUCTWORK BETWEEN THE FAN AND THE INTAKE GRILLE

FRAMING NOTES

ALL WOOD FRAMING SHALL COMPLY WITH THE WORKING DRAWINGS AND THE REQUIREMENTS OF THE LATEST EDITION OF THE CALIFORNIA RESIDENTIAL CODE. IF THE WORKING DRAWINGS ARE INCORRECT OR AN ERROR IS FOUND, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY SUCH INFORMATION WITH THE DESIGNER PRIOR TO CONTINUING WITH ANY WORK AFFECTED.

FRAMING CLIPS, POST CAPS, TWIST STRAPS, AND HANGERS AS REQUIRED FOR PROPER EXECUTION OF THIS JOB SHALL BE SIMPSON OR EQUAL. (OR AS NOTED IN DRAWINGS).

ALL NAILS USED FOR CONSTRUCTION SHALL BE APPROVED FOR THE APPLICATION FOR WHICH THE NAILS ARE BEING USED.

FINGER JOINTED STUDS SHALL NOT BE USED IN ANY STRUCTURAL WALLS (BEARING OR SHEAR WALLS) WITHOUT THE APPROVAL OF THE ARCHITECT OR ENGINEER OF RECORD, OR SUBSTANTIATE EQUIVALENCY.

ALL STUDS SHALL BE MINIMUM 2X4 IN SIZE AND SPACED NOT MORE THAN 16" O.C. UNLESS NOTED CLEARLY IN THE DRAWINGS.

ALL STUDS SHALL HAVE FULL BEARING ON A SILL PLATE NOT LESS THAN 2X IN THICKNESS AND HAVING A WIDTH NOT LESS THAN THAT OF THE WALL STUDS. ALL SILL PLATES IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED AND/OR REDWOOD OR PRESSURE TREATED DOUGLAS FIR.

ALL BEARING WALLS AND EXTERIOR WALL STUDS SHALL BE CAPPED WITH DOUBLE TOP PLATES INSTALLED. PROVIDE OVERLAPPING AT CORNERS AND AT INTERSECTIONS WITH OTHER PARTITIONS. END JOINTS AND SPLICES SHALL BE OFFSET MINIMUM 48".

EXTERIOR STUD WALLS WITHOUT CEILINGS OR OTHER APPROVED LATERAL BRACING AT THE 8 FOOT PLATE HEIGHT SHALL BE CONTINUOUS STUDS AND/OR COLUMNS.

FIRE BLOCKING IS REQUIRED AT 10'-0" INTERVALS AT CONTINUOUS WALLS OVER 10'-0" HIGH.

PIPES EXCEEDING 1/3RD OF THE PLATE WIDTH SHALL NOT BE PLACED IN PARTITIONS USED AS BEARING OR LATERAL FORCE RESISTING WALLS, UNLESS FURRED ENTIRELY CLEAR OF STUDS, WHERE ALLOWED, PIPES SHALL BE PLACED IN THE CENTER OF THE PLATES, USING A NEAT HOLE. NO NOTCHING OF THE PLATES ARE ALLOWED.

ALL BEAMS AND/OR GIRDER TRUSSES SHALL HAVE SOLID SUPPORT TO THE FOUNDATION. PROVIDE MULTIPLE 2X STUDS UNDER 4X POSTS AT BEAM ENDS.

ALL SHEAR WALLS SHALL EXTEND TO THE ROOF SHEATHING UNLESS CLEARLY SPECIFIED OTHERWISE IN THESE DRAWINGS. ALL WOOD SHEAR WALLS AND DIAPHRAGMS SHALL CONFORM THE FOLLOWING:

a)SHEETS USED IN THE CONSTRUCTION OF DIAPHRAGMS AND SHEAR WALLS SHALL BE LESS THEN 4' X 8' IN SIZE
b)MINIMUM SIZE SHEET AT BOUNDARIES AND CHANGES IN FRAMING SHALL BE 24" UNLESS ALL EDGES ARE BLOCKED AND NAILED.
c)PROVIDE FRAMING MEMBERS OR BLOCKING AT ALL PANEL EDGES IN SHEAR WALLS

NAILING OF PLYWOOD SHEAR WALLS OR PLYWOOD DIAPHRAGMS SHALL BE DONE WITH COMMON WIRE NAILS, SHOULD THE CONTRACTOR DESIRE TO USE ANY OTHER FASTENER TYPES, HE SHALL OBTAIN WRITTEN APPROVAL FROM THE PROJECT ENGINEER AND/OR THE DESIGNER PRIOR TO THE USE OF SUCH FASTENERS IN THE FIELD.

PROVIDE FIRE BLOCKING AT FLOORS, CEILING COVES AND SOFFITS AND AT 10'-0" INTERVALS AND AT STUD WALLS ADJACENT TO THE STAIR STRINSERS.

CONTRACTOR TO CONFIRM IF ALL AREAS ARE PROVIDED WITH POSITIVE DRAINAGE PRIOR TO SHEATHING OF THE ROOF.

ALL ELEVATIONS ARE GIVEN FROM TOP OF FLOOR SLAB.

VERIFY SIZES AND LOCATIONS OF ALL ROOF OPENINGS, PLATFORMS, ETC. WITH THE RESPECTIVE CONTRACTORS.

PROVIDE SOLID BLOCKING AT ALL ENDS OF JOISTS AND RAFTERS AND AT ALL SUPPORTS PER THE CALIFORNIA BUILDING CODE.

WHERE RAFTERS ARE NOT PARALLEL WITH CEILING JOISTS, THE RAFTERS SHALL BE TIED TOGETHER WITH MINIMUM 1X4 RAFTER TIES AT 48" O.C.

PROVIDE DOUBLE ROOF RAFTERS AT ANY ROOF MOUNTED MECHANICAL EQUIPMENT.

ALL ROOF COVERINGS SHALL CONFORM TO THE REQUIREMENTS OF THE CBC.

ALL ROOF MOUNTED EQUIPMENT (I.E. HOODS, VENTILATORS, ETC.) SHALL RECEIVE A MINIMUM OF 2 COATS OF PAINT. COLOR TO BE SELECTED BY OWNER.

ALL PLYWOOD ROOF SHEATHING SHALL BE LAID PERPENDICULAR TO THE RAFTERS WITH STAGGERED END JOINT PATTERNS.

HOOD GIRDERS, BEAMS, JOISTS OR RAFTERS SHALL BE LIMITED TO CUTS AND BORED HOLES NOT DEEPER THAN 1/6TH OF THE BEAM DEPTH FROM THE TOP, LOCATED NO FARTHER FROM THE BEAM END THAN THREE TIMES THE BEAM DEPTH.

HOOD SCREWS AND LAG BOLTS SHALL BE TURNED, NOT DRIVEN, INTO PLACE. FOR SCREW THREADS INTO WOOD, BORE A PILOT HOLE THE SAME DIAMETER AND DEPTH AS THE SHANK OF THE SCREW.

BOLT HOLES IN HOOD SHALL BE BORED 1/16 INCH LARGER THAN THE NET SIZE OF THE BOLT. PROVIDE STANDARD STEEL WASHERS UNDER BOLT HEAD AND NUTS WHEN BEARING AGAINST HOOD. ALL NUTS SHALL BE RE-TIGHTENED AT THE COMPLETION OF THE JOB OR JUST PRIOR TO CLOSING IN WITH FINISH CONSTRUCTION.

ALL BOLTS IN HOOD SHALL BE SPACED MIN. 4 BOLT DIAMETERS EDGE DISTANCE, AND MIN. 7 BOLT DIAMETERS END DISTANCE. (UNLESS NOTED OTHERWISE IN DRAWINGS)

MAXIMUM SIZE OF OPENINGS IN HORIZONTAL DIAPHRAGMS SHALL NOT EXCEED 24" WITHOUT SOLID BLOCKING AT OPENING.

THE ENTIRE PERIMETER OF AND HORIZONTAL DIAPHRAGM (ROOFS AND FLOORS) SHALL HAVE SOLID BLOCKING

TRUSS NOTES

ALL TRUSSES SHALL BE DESIGNED FOR THE LO