VINCENT DO'S RESIDENCE

236 ALDEN RD, HAYWARD, CA 94541

STRUCTURAL GENERAL NOTES

A. GENERAL

1. ALL WORK SHALL CONFORM TO CURRENT 2022 CBC, CBC, CMC, CPC, 2022 NEC, 2022 CEC.LAWS & ORDINENCES
2. THE CONTRACTOR SHALL VERIFY & BE RESPONSIBLE FOR ALL DIMENTIONS & CONDITIONS AT THE JOB SITE AND SHALL NOTIFY THE ARCHITECT OF ANY DESCREPANCIES BETWEEN ACTUAL CONDITIONS & WHAT IS SHOWN ON THE DRAWINGS BEFORE PROCEDING WITH THE WORK.
3. ANY OMISSIONS OR CONFLICTS BETWEEN THE ARCHITECTURAL STRUCTURAL & MECHANICAL DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE CITY INSPECTOR.
4. SHOP DRAWINGS REQUIRED BY THE SPECIFICATIONS SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION, & ALLOW REASONABLE TIME FOR REVIEW AND APPROVAL BY THE STRUCTURAL ENGINEER.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFTEY OF THE BUILDING DURING THE CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING, BRACING & GUYS IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL SAFETY ORDANCES. ANY DEVIATIONS MUST BE APPROVED PRIOR TO ERECTION.
6. ALL CONDITIONS NOT CLEARLY SHOWN OR DETAILED SHALL BE OF THE SAME TYPE & CHARACTER AS THOSE SHOWN FOR SIMILAR CONDITIONS.

B. FOUNDATION

1. FOUNDATION EXCAVATIONS SHALL BE FREE OF LOOSE MATERIAL PRIOR TO THE PLACEMENT OF ANY REINFORCING STEEL OR CONCRETE.

C. CONCRETE

1. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS.
2. CONCRETE SHALL BE REGULAR WEIGHT HARD ROCK TYPE(150#CF) & AGREGATE SHALL CONFORM TO ASTM C33 U.O.N.
3. CEMENT SHALL CONFORM TO ASTM C150, TYPE 1 OR 2.
4. PLACEMENT OF CONCRETE SHALL BE IN CONFORMANCE WITH ACI 301.
5. CONCRETE SHALL BE MACHINE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C-94. SUBMIT MIX DESIGN TO THE ARCHITECT FOR APPROVAL PRIOR TO PLACING CONCRETE.
6. PROVIDE MINIMUM CLEAR COVER OF CONCRETE OVER REINFORCING AS FOLLOWS

D. REINFORCING STEEL

1. ALL REINFORCING STEEL SHALL CONFORM TO ASTM SPECIFICATION A615 GRADE 60 FOR #5 AND LARGER BARS AND GRADE 40 FOR #3 & #4.
2. ALL REINFORCING STEEL SHALL BE LAPPED AS NOTED BELOW, #4: 24" FOR BOTTOM BARS AND 28" FOR TOP BARS; #5: 30" FOR BOTTOM BARS AND 35" FOR TOP BARS; #6: 40" FOR BOTTOM BARS AND 46" FOR TOP BARS AT SPLICES UNLESS OTHERWISE NOTED ON PLANS. SPLICES SHALL BE LOCATED AS DETERMINED IN THE PLANS. STAGGER ALL LAPS SPLICES.
3. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A82 AND A185.
4. ANCHOR BOLTS, DOWELS AND OTHER EMBEDDED ITEMS SHALL BE SECURELY TIED IN PLACE BEFORE CONCRETE IS PLACED, USE CYT THREAD ANCHOR BOLTS ONLY.

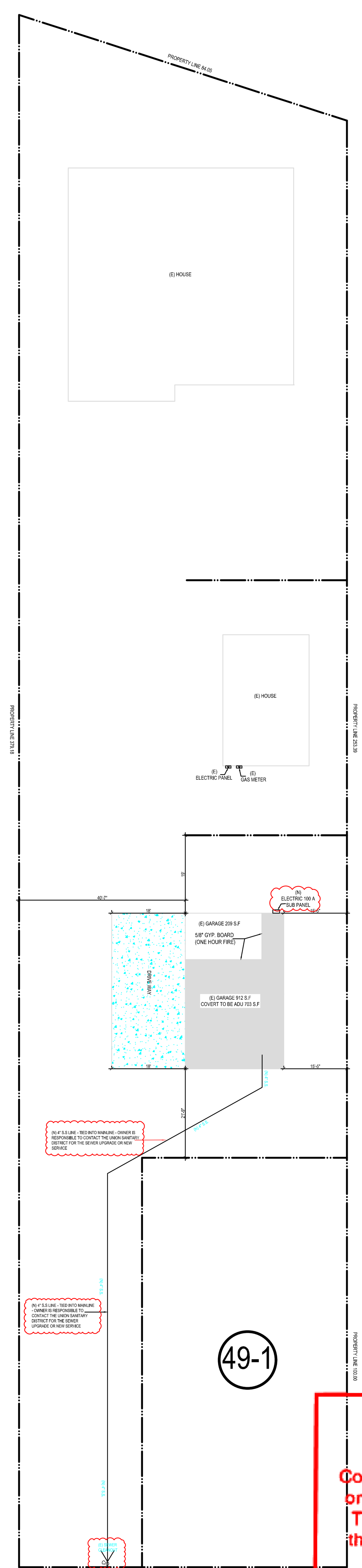
E. STRUCTURAL & MISC. STEEL

1. FABRICATION AND ERECTION TO BE IN ACCORDANCE WITH LATEST AISC SPECIFICATIONS. STRUCTURAL STEEL SHALL BE ASTM A36, EXCEPT TUBE COLUMNS WHICH ARE ASTM A500, GRADE B.
2. WELDING TO BE IN ACCORDANCE WITH AWS SPECIFICATIONS. WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS USING E77XX ELECTRODES.
3. ALL PLATES, ETC., TO BE BOLTED TO CONCRETE ELEMENTS, SHALL NOT BE FABRICATED UNTIL THE BOLTS HAVE BEEN LOCATED IN THE FIELD.
4. BOLTS SHALL BE ASTM A307 TYPE. THREADS MAY BE INCLUDED IN THE SHEAR PLANES
5. STEEL TO BE SHOP PRIMED FOR, EXCEPT WHERE EMBEDDED IN CONCRETE OR TO BE WELDED.
6. ALL WELDING SHALL BE CONTINUOUSLY INSPECTED BY AN INDEPENDENT INSPECTOR APPROVED BY THE BUILDING DEPARTMENT.

F. WOOD FRAME CONSTRUCTION

1. GENERAL WOOD FRAMING: WOOD FRAMING THROUGHOUT THE BUILDING SHALL BE CONSTRUCTED IN ACCORDANCE WITH CALIFORNIA BUILDING CODE (2019) AND THE STANDARD PRACTICES RECOMENDED BY AMERICAN INSTITUTE OF TIMBER CONSTRUCTION AND WCLA GRADING. FOR NAILING SEE SECTION J. BOLTS IN WOOD FRAMING SHALL BE STANDARD MACHINE BOLTS WITH STANDARD MALLEABLE IRON WASHERS.
3. WOOD PLATES: BEARING DIRECTLY UPON CONCRETE SHALL BE P.T.D.F.
4. UNLESS OTHERWISE NOTED ON DRAWINGS OR IN SPECIFICATIONS, FRAMING MEMBERS SHALL HAVE THE FOLLOWING GRADING:

ALAMEDA COUNTY PLANNING DEPARTMENT
Note: Notwithstanding required approvals by the County of Alameda, any development may also require the approval of applicable Home Owners' Association and/or be subject to covenants, conditions, and restrictions of record.
APPROVED AS TO ZONING
10/31/2023, 3:00:28 PM
BLD2023-02832
Damien Curry



49-1

SITE PLAN

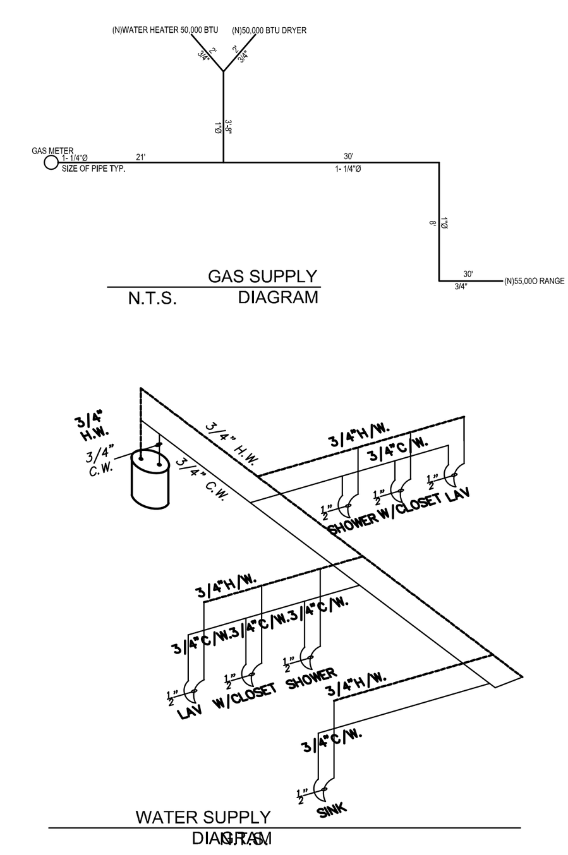
NOT TO SCALE

Alameda County Building Division Notes:
Review and approved of any proposals, plans or other submissions associated therewith, shall in no way be deemed to satisfy or comply with any applicable Conditions, Covenants and Restrictions (CC&Rs).

Applicants are responsible for contacting their Homeowner Associations (if any) to ensure compliance with CC&Rs

10/31/2023, 1:54:49 PM
BLD2023-02832
Kevin Zhang

AD2



REVIEWED
ALAMEDA COUNTY PUBLIC WORKS AGENCY
BUILDING INSPECTION DEPARTMENT
Construction shall not be changed from what is shown, on this plan unless authorized by the Building Official. This plan shall be kept at the building site for use by the Building Inspector. Do not mark or alter this plan. Affixing of this stamp on these plans shall not be interpreted as permission to violate or omit any provisions of the adopted codes of any other law, rule, or regulation that is applicable to this construction project.

10/31/2023, 1:54:42 PM
BLD2023-02832
Kevin Zhang

PROJECT DATA

OWNER:	VINCENT DO		
EXISTING USE:	SINGLE FAMILY RESIDENCE		
LOCATION:	236 ALDEN RD, HAYWARD, CA 94541		
APN:	413-0047-049-02		
ZONING:	R3		
LOT GROSS SIZE:	0.5 ACRES = 22,216 S.F		
OCCUPANCY GROUP:	R-3		
TYPE OF CONSTRUCTION:	V-B		
FIRE SPRINKLER:	NONE		
YEAR BUILT:	1980		
ALLOWABLE FLOOR AREA:	0.51 ACRES = 22,216 S.F		
LOT AVERAGE SLOPE:	(FLAT)		
FLOOR AREA:	EXISTING	PROPOSAL	TOTAL
DWELLING:	2,700 S.F		2,700 S.F
GARAGE:	912 S.F		912 S.F
TOTAL FOOTPRINT:			2,700 S.F
FAR:			1,1%

SCOPE OF WORK

CONVERSION OF EXISTING GARAGE INTO ADU:

TOTAL EXISTING GARAGE AREA: 912 S.F

AREA TO BE CONVERTED TO ADU: 703 S.F

ADU SPECIFICATIONS:

. BEDROOMS: 2

. BATHROOMS: 2

. LIVING ROOM: 1

. KITCHEN: 1

STRUCTURAL GENERAL NOTES

G. NAIL SCHEDULE

1. WOOD MEMBERS SHALL BE CONNECTED WITH NAILING INDICATED IN TABLE 2304.9.1 OF 2022 CBC UNLESS GREATER SIZES AND NUMBER OF NAILS ARE SHOWN OR NOTED ON DRAWINGS; NAILS EXPOSED TO WEATHER SHALL BE GALVANIZED; NAILS SHALL BE COMMON WIRE NAILS; HOLES FOR NAILS SHALL BE PROVIDED WHERE THE WOOD TENDS TO SPLIT; SPLIT WOOD MEMBERS SHOULD BE REPLACED AND REMOVED FROM THE JOB PROMPTLY. SHORT PLYWOOD NAILS FOR EQUIVALENT SHEAR VALUE MAY BE USED. SEE PLANS FOR NAIL SPACING. NAIL ROOF SHEATHING 8d @ 6" O.C. AT SUPPORTED EDGES. 8d @ 10 INCHES O.C. AT INTERMEDIATE SUPPOERTS. FLOOR SHEATHING 8d @ 6" O.C. AT BOUNDARIES AND PANEL EDGES AND 8d @ 10" O.C. AT INTERMEDIATE SUPPORTS. PLYWOOD WALL SHEATHING SHALL BE NAILED PER SHEAR WALL SCHEDULE AT SHEAR WALLLS, AND AT A MINIMUM OF 8d @ 6" O.C. ALL OTHER EDGES.
2. AT PRESSURE TREATED LUMBER USE HOT-DIPPED GALVANIZED, STAINLESS STEEL, SILICON BRONZE, OR COPPER.

G. FIRE SPRINKES

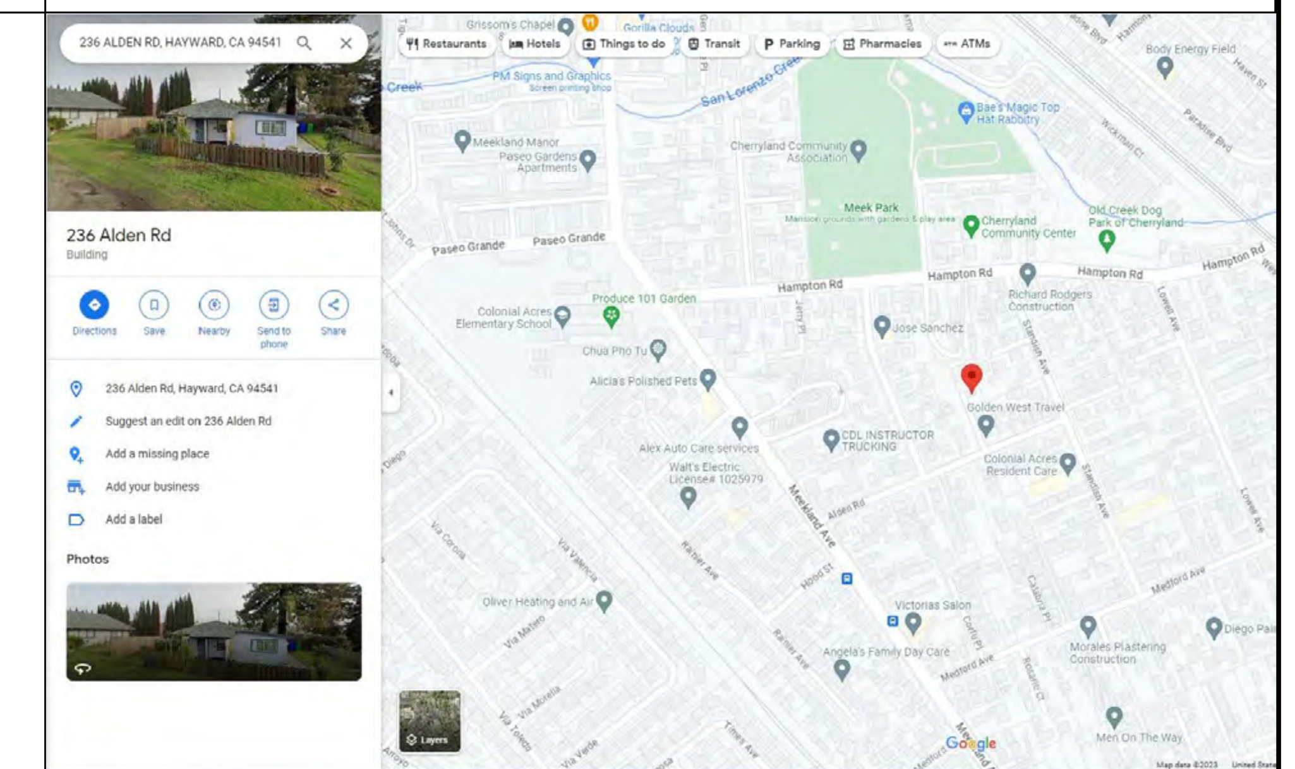
ALL CONSTRUCTION SITES MUST COMPLY WITH APPLICABLE PROVISION OFF THE CFC CHAPTER 14 AND OUR STANDARD DETAIL AND SPECIFICATION SI-7

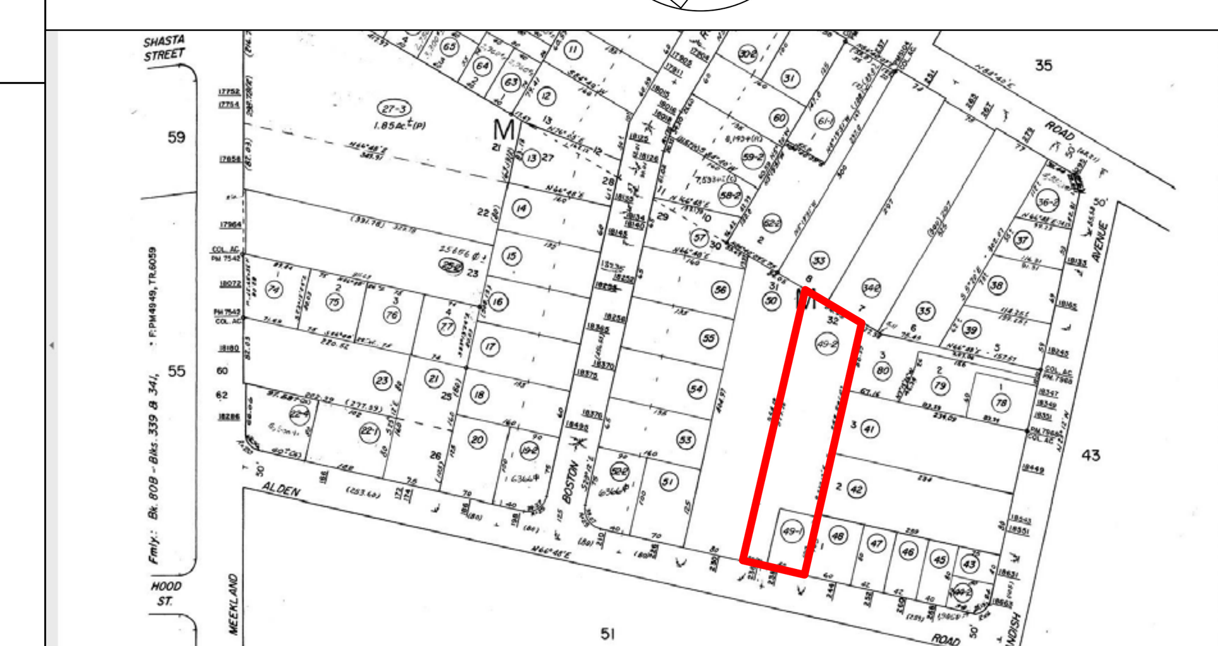
APPLICABLE CODES

CODE COMPLIANCE

ALL CONSTRUCTION SHALL CONFORM TO ALL GOVERNING LAWS, CODES AND ORDINANCES INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
-2022 CALIFORNIA BUILDING CODES: CBC, CMC, CPC, CFC & CEC, CRC.
-2022 CA ENERGY CODE
-ALAMEDA COUNTY MUNICIPAL CODE
-ALL LOCAL ORDINANCES

VICINITY MAP





SHEET IN DEX

ARCHITECTURE

NOTES

a) Please note that a Building Permit cannot be issued until all clearances by all reviewing departments (listed above) have been approved on the project. Check the status of your permit by visiting www.sjpermits.org and contact the individual departments directly with any questions.
b) Revised plans, when required, must be clouded with delta number with a revision mark at each location where revision has occurred and be noted that additional comments may be triggered once revised plan are reviewed.
c)When comments cite a section of code and require a revision, correction or amendment to plans, required information shall be specifically & directly provided on plans. Generic references to code section(s) is not acceptable.

TOMMY DRAFTING
9743 WHITE PINE WAY, ELK GROVE, CA 95624
Email: helennguyen3689@gmail.com
Tel: (916) 526-5881 & (408) 876-8402

PROJECT DATA - SITE PLAN

VINCENT DO'S RESIDENCE

REVISION	BY

Date:	JULY 2023
Scale:	AS SHOWN
Drawn:	LUYEN HONG NGUYEN
Signed:	Thuy

SHEET NO:

A-1

FLOOR PLAN NOTES:

1. ALL CONCRETE TO BE POURED ON UNDISTURBED SOIL.

2. ALL LUMBER IN CONTACT WITH CONCRETE SHALL BE FOUNDATION GRADE RWD OR PRESSURE TREATED.

3. ALL LUMBER USED IN CONSTRUCTION LOCATED NEARER THAN 8" TO EARTH SHALL BE F.G. RWD OR P.T.

4. PROVIDE SOLID BLOCKING FOR ALL PONY WALLS LESS THAN 14" HIGH

5. PROVIDE FIRESTOPS @ CONCEALED DRAFT OPENING, CEILING LINES, FLOOR LINES, FURRED AREAS, SUSPENDED CEILINGS, STAIR STRINGERS, SHOWERS, CHIMNEY ENCLOSURES, & MID HEIGHT OF WALLS OVER 10' IN HEIGHT.

6. VERIFY MIN. 22"x30" FLOOR ACCESS. ATTIC ACCESS WITH 30" CLEARING ABOVE OPENING.

7. DOORS, WINDOWS, & SHOWER DOORS WITHIN HAZARDOUS AREAS TO BE TEMPERED.

8. ALL POSTS, BEAMS & WALLS SUPPORTING THE FLOOR/ CEILING SHALL HAVE ONE-HOUR FIRE PROTECTION.

9. ALL NEW WINDOWS AND GLASS SLIDING DOOR SHALL BE LOW-E DUAL GLAZED U.N.O.

10. MATERIAL GRADE STAMPS WILL BE CHECKED ON FRAME INSPECTION.

11. ALL CONSTRUCTION SHALL COMPLY WITH THE 2019 EDITION OF THE CBC, CMC, CPC, CEC, CRC AND CFC AND THE 2019 CALIFORNIA ENERGY CODE.

12. CHANGES FROM THE APPROVED PLANS DURING CONSTRUCTION OTHER THAN 1.) CABINET CHANGES WHEN NOT BEING SUPPORTED ENTIRELY BY THE ROOF STRUCTURE, APPROVED PLAN, 2.) INTERIOR NON-STRUCTURAL WALL FINISHES; SHALL CAUSE PLAN APPROVAL AND CONSTRUCTION TO BE SUSPENDED. A NEW PLAN CHECK (FOR A NEW PLAN) SHOWING CHANGES WILL BE SUBMITTED FOR REVIEW AND APPROVAL THROUGH THE NORMAL PLAN CHECK PROCESS.

13. FIREBLOCKING WITH NON-COMBUSTIBLE MATERIAL SHALL BE PROVIDED IN OPENINGS AROUND VENTS, PIPES, DUCTS, FIREPLACES, AND SIMILAR OPENINGS PER CBC 708.2.1 (4).

14. PROVIDE SMOKE DETECTORS (HARDWIRED 110v W/BATT BACK-UP) IN EVERY BEDROOMS, THE HALL WAY TO THE BEDROOM, PROVIDE CARBON MONOXIDE SMOKE ALARM DETECTOR IN ALL SLEEPING ROOM.

15. IN EACH NEW BEDROOM, THERE IS AT LEAST ONE WINDOW, FOR EMERGENCY ESCAPE OR RESCUE: REQUIRE OPENING OF MINIMUM NET CLEAR AREA, 5.7 SQ. FT., HEIGHT 24", WIDTH 20", AND MAXIMUM FINISHED OPENING HEIGHT 44"ABOVE FINNISH FLOOR

16. NEW 3'X3' MIN. CONCRETE LANDING AT ALL NEW EXTERIOR DOOR. LANDING SHALL NOT BE LOWER THAN 7-1/2" FROM FLOOR LEVEL.

17. BATHROOM SLIDING DOOR MUST BE TEMPERED GLASS.

18. ALL NEW BEDROOM MUST BE AFCI CIRCUIT.

19. PRESSURE OR THERMOSTATIC MIXING VALVE AT THE SHOWERS AND TUBS, WHICH LIMIT WATER TEMPERATURE TO 120 DEGREES F

20. THE SHOWERS MUST HAVE INSIDE DEMENSION OF AT LEAST 30 INCHES, THE TOTAL FLOOR AREA OF A SHOWER MUST BE AT LIST 1,024 SQUARE INCHES, OPENING TO SHOWER MUST BE MIN. 24 INCHES WIDE, THE DOOR MUST BE TEMPERED GLASS.(SEE DETAILS)

ELECTRICAL NOTES:

MOTION SENSOR WITH INTEGRAL PHOTOCONTROL

2. ALL HARDWIRED LIGHTING IN BATHROOMS, GARAGES, LAUNDRY AND UTILITY ROOMS MUST BE HIGH EFFICACY OR CONTROLLED BY A MANUAL-ON MOTION SENSOR

3. ALL HARDWIRED LIGHTING IN OTHER ROOMS (HALLWAYS, DINING ROOMS, FAMILY ROOMS AND BEDROOMS) SHALL BE HIGH EFFICACY OR CONTROLLED BY A MANUAL-ON OCCUPANT SENSOR OR A DIMMER MUST CONTROL IT

4. ALL SWITCHES ON A MULTIPLE SWITCHED CIRCUIT SHALL BE CONTROLLED BY THE DIMMER SWITCH ON THAT CIRCUIT

5. ALL RECESSED FIXTURES SHALL BE LABELED AS BEING CERTIFIED TO HAVE A LEAKAGE RATING OF LESS THAN 2.0 AT 75 PASCAL

6. ALL HIGH EFFICACY FIXTURES AND NON-HIGH EFFICACY FIXTURES SHALL BE SWITCHED SEPARATELY

7. SMOKE DETECTOR SYSTEM SHALL BE HARD-WIRED, INTERCONNECTED TO SOUND SIMULTANIOUSLY AND EQUIPED WITH BATTERY BACK UP.

8. MIN. 50% OF WATTAGE OF LIGHTS IN KITCHEN SHALL BE HIGH EFFICACY AND THOSE THAT ARE NOT SHALL BE SWITCHED SEPARATELY

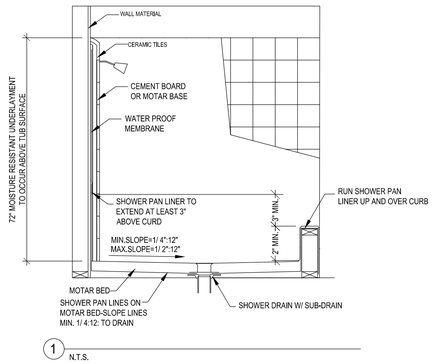
9. LIGHTS MOUNTED TO EXTERIOR OF BUILDING SHALL BE HIGH EFFICACY OR ON A PHOTO CONTROL/MOTION SENSOR COMBINATION

LAMP POWER RATING:	MINIMUM LAMP EFFICACY:
15 watts or less	40 lumens per watt
over 15 watts to 40 watts	50 lumens per watt
over 40 watts	60 lumens per watt

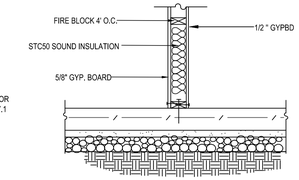
SHOWER AND TUB/SHOWER WALLS TO SPECIFY A SMOOTH, HARD, NONABSORBENT SURFACE(I.E. CERAMIC TILES) OVER MOISTURE RESISTANT UNDERLAYMENT(I.E. CEMENT, FIBER-CEMENT OR GLASS MAT GTMSUM BACKERS) TO A HEIGHT OF 72" ABOVE THE DRAIN.

- MIN. SHOWER INTERIOR CLEAR DIMENSION IS 1,024 S.F. IN WITH NO DIMENSION LESS THAN 30" TO FINISH
- BATHROOM DOOR MUST BE TEMPERED CLASS

NOTE:
WATER-RESISTANT GYPSUM BACKING BOARD SHALL NOT BE USED WHERE THERE WILL BE DIRECT EXPOSURE TO WATER, OR IN AREAS SUBJECT TO CONTINUOUS HIGH HUMINITY . R702.3.7.1



1 N.T.S.

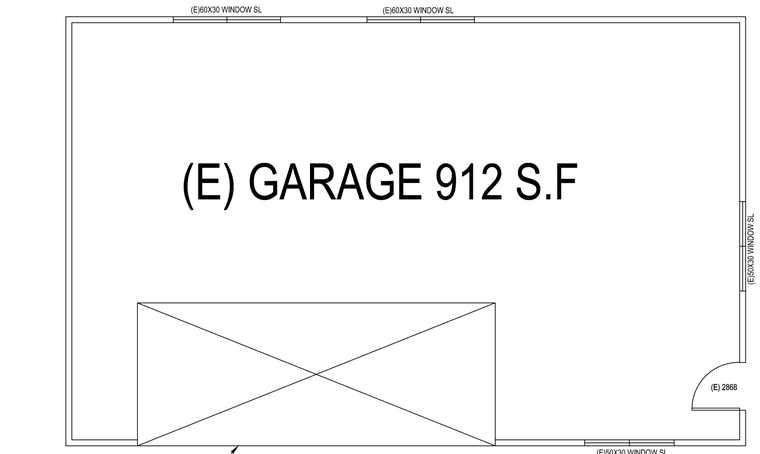


2 N.T.S.

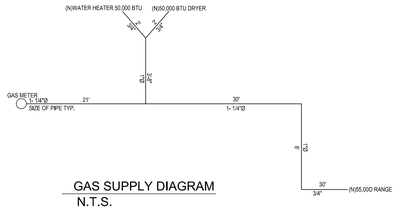
LEGEND

- NEW WALL
- EXISTING WALL TO REMAIN.
- EXISTING WALL TO BE REMOVE
- EXISTING OPENING TO BE ENCLOSED

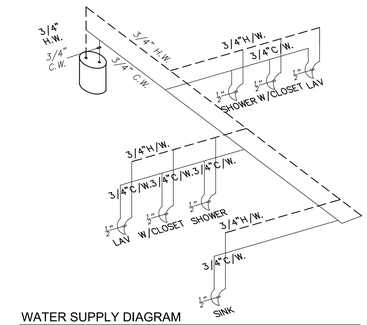
NOTE: ALL 120-VOLT, SINGLE PHASE, 15 AND 20 AMPERE BRANCH CIRCUITS SUPPLYING OUTLETS INSTALLED IN DWELLING UNIT KITCHENS, FAMILY ROOMS, DINING ROOMS' LIVING ROOMS' PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY AREAS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER, COMBINATION-TYPE, INSTALL TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT.



(E) FLOOR PLAN
SCALE: 1 / 4" = 1'-0"



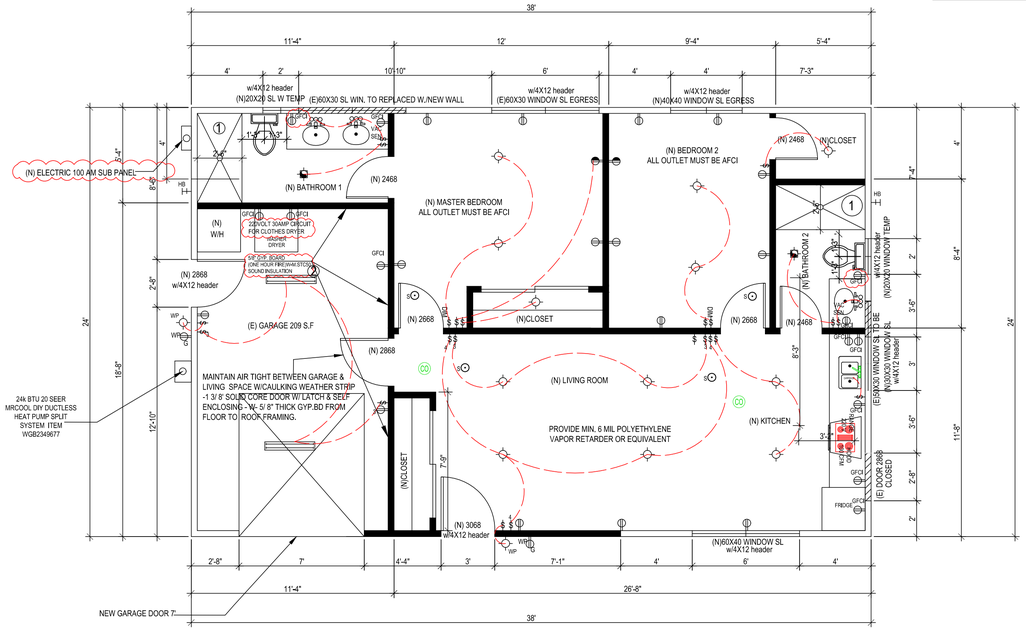
GAS SUPPLY DIAGRAM
N.T.S.



WATER SUPPLY DIAGRAM
N.T.S.

NOTES

(E)	EXISTING
(N)	NEW
	DUPLEX RECEPTACLE, MTD @ 12" U.O.N.
WP	WEATHERPROOF DUPLEX RECEPTACLE OUTLET W/GFGI
GFI	DUPLEX RECEPTACLE OUTLET W/GFGI
	220V DUPLEX RECEPTACLE OUTLET
	CEILING RECEPTACLE OUTLET
	FLOUR DUPLEX RECEPTACLE OUTLET
	DUPLEX RECEPTACLE, MTD@+12" U.O.N., SPLIT WIRE WITH HALF SW/CONTROLLED
$	SWITCH
$3	3-WAY SWITCH, MTD @ + 48 U.O.N.
$4	4-WAY SWITCH
$D	DIMMER SWITCH
	INCANDESCENT LIGHT FIXTURE (CEILING)
	INCANDESCENT LIGHT FIXTURE (WALL)
WP	WEATHERPROOF LIGHT FIXTURE
	RECESSED LIGHT FIXTURE
	FAN/LIGHT SIDE BY SIDE COMBINATION (RESCENT)
	EXHAUST FAN
	CARBON MONOXIDE SMOKE DETECTOR W/BATTERY BACK UP
C	CHIMES
	PUSH BUTON
	TELEVISION OUTLET
	PHONE JACK
	TV CABLE JACK
B	DOOR BELL
	ELECTRICAL DISCONNECT
HB	HORSE BID WITH BACKFLOW PREVENTATION DEVICE
G	GAS RISER
	FLOURESCENTLIGHT FIXUTE (SURFACE) SEE PLAN
	CEILING SUPPLY AIR REGISTER
CO	CARBON MONOXIDE ALARMS HOT WIRED - INTERCONNECTED - BAT. BACK UP



(N)PROPOSAL FLOOR PLAN AND ELECTRIC PLAN
SCALE: 1 / 4" = 1'-0"

TOMMY DRAFTING
9743 WHITE PINE WAY, ELK GROVE, CA 95624
Email: helenguyen3689@gmail.com
Tell: (916) 526-5881 & (408) 876-9402

Date: JULY 2023
Scale: AS SHOWN
Drawn: LUYEN HONG NGUYEN
Signed: Thuy

PROPOSAL FLOOR AND ELECTRIC PLAN
236 ALDEN RD, HAYWARD, CA 94541

REVISION	BY

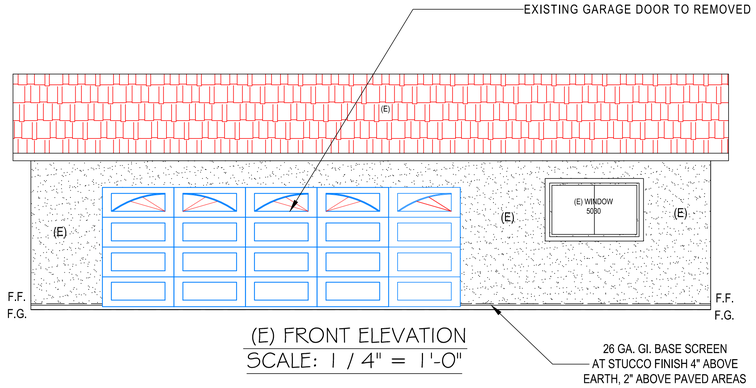
REVIEWED
ALAMEDA COUNTY PUBLIC WORKS AGENCY
BUILDING INSPECTION DEPARTMENT
Construction shall not be changed from what is shown, on this plan unless authorized by the Building Official. This plan shall be kept at the building site for use by the Building Inspector. Do not mark or alter this plan. Affixing of this stamp on these plans shall not be interpreted as permission to violate or omit any provisions of the adopted codes of any other law, rule, or regulation that is applicable to this construction project.

10/31/2023, 1:54:42 PM
BLD2023-02832
Kevin Zhang

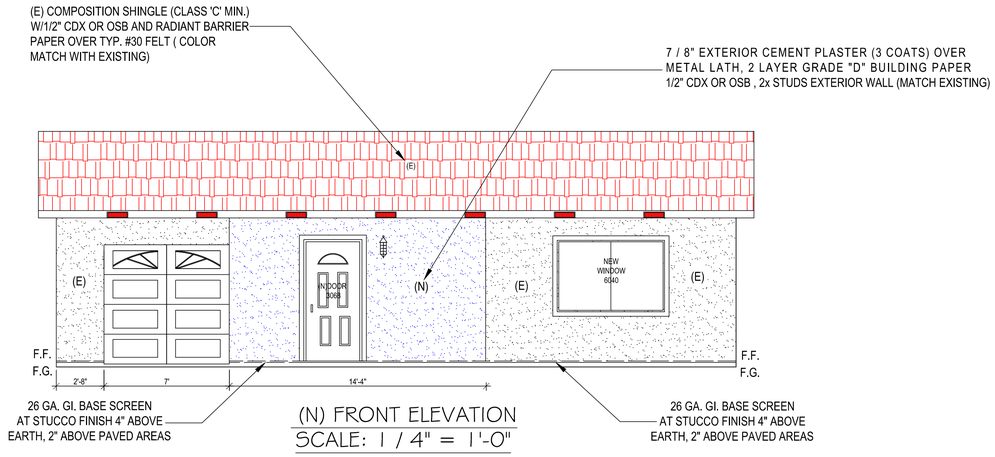
SHEET NO:
A-2

ROOF VENTILATION:

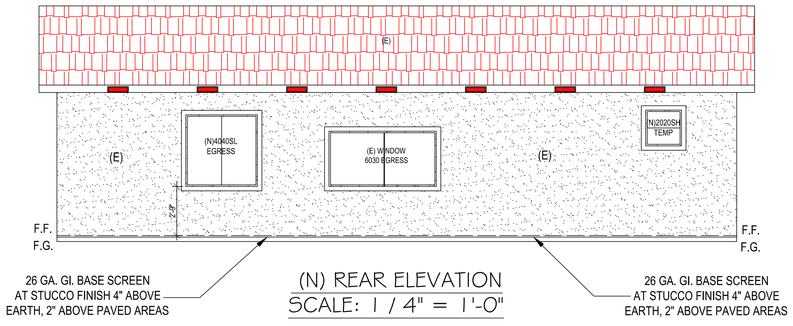
REQUIRED: 682 S.I.
710 SF/150 = 4.73 SF x144= 682 S.I.
PROPOSED: 836 S.I.
14 EAVE VENTS: 14x 14x5 = 14x 44 = 616 S.I.
2 GABLE VENT 2x 14x18 = 2x110 = 220 S.I
TOTAL = 836 S.I.



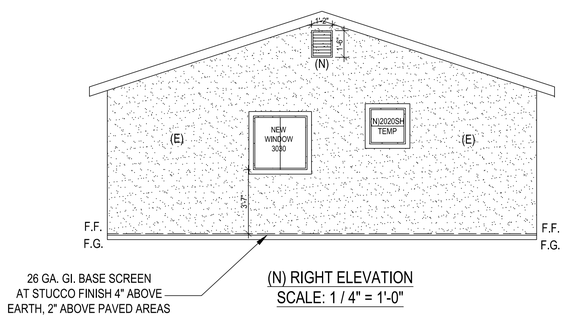
(E) FRONT ELEVATION
SCALE: 1 / 4" = 1'-0"



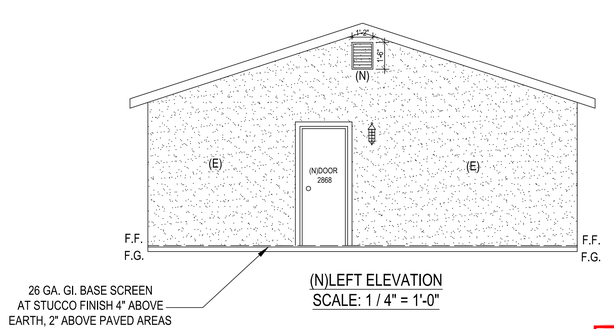
(N) FRONT ELEVATION
SCALE: 1 / 4" = 1'-0"



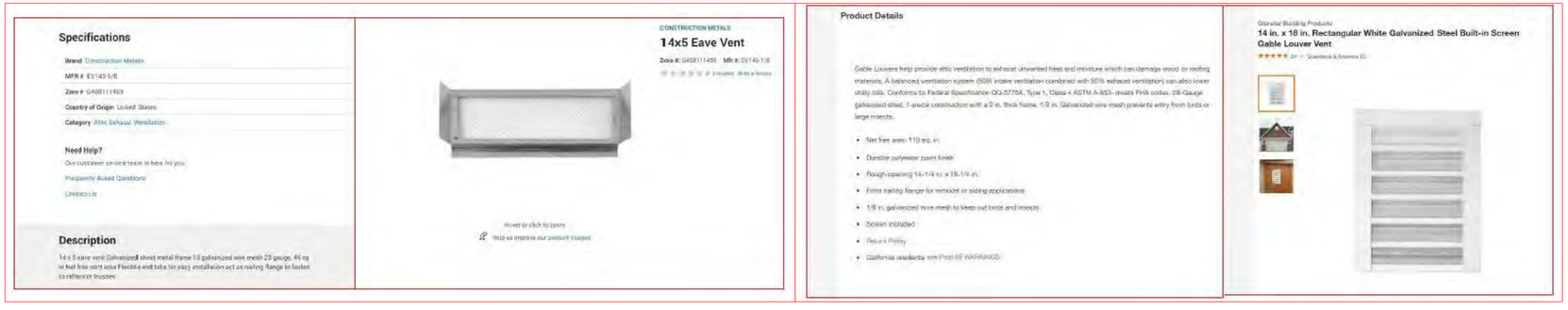
(N) REAR ELEVATION
SCALE: 1 / 4" = 1'-0"



(N) RIGHT ELEVATION
SCALE: 1 / 4" = 1'-0"



(N)LEFT ELEVATION
SCALE: 1 / 4" = 1'-0"



TOMMY DRAFTING
9743 WHITE PINE WAY, ELK GROVE, CA 95624
Email: helennguyen3689@gmail.com
Tell: (916) 526-5881 & (408) 876-8402

Date: JULY 2023
Scale: AS SHOWN
Drawn: LUYEN HONG NGUYEN
Signed: Thuy

PROPOSAL ELEVATION
236 ALDEN RD, HAYWARD, CA 94541

REVISION	BY

REVIEWED
ALAMEDA COUNTY PUBLIC WORKS AGENCY
BUILDING INSPECTION DEPARTMENT
Construction shall not be changed from what is shown, on this plan unless authorized by the Building Official. This plan shall be kept at the building site for use by the Building Inspector. Do not mark or alter this plan. Affixing of this stamp on these plans shall not be interpreted as permission to violate or omit any provisions of the adopted codes of any other law, rule, or regulation that is applicable to this construction project.

10/31/2023, 1:54:42 PM
BLD2023-02832
Kevin Zhang

SHEET NO:
A-3

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01E

Project Name: Detached Garage Conversion To An ADU
Calculation Date/Time: 2023-10-24T14:56:38-07:00 **(Page 1 of 10)**
Calculation Description: Title 24 Analysis
Input File Name: 236 ALDEN RD, HAYWARD, CA 94541 NEW ADU 703 S.F 10-24-2023.ribd22x

GENERAL INFORMATION

01	Project Name	Detached Garage Conversion To An ADU			
02	Run Title	Title 24 Analysis			
03	Project Location	2364 Alden Rd, Hayward, CA 94541			
04	City	Hayward	05	Standards Version	2022
06	Zip code	94541	07	Software Version	EnergyPro 9.1
08	Climate Zone	3	09	Front Orientation (deg/ Cardinal)	180
10	Building Type	Single family	11	Number of Dwelling Units	1
12	Project Scope	Addition and/or Alteration	13	Number of Bedrooms	2
14	Addition Cond. Floor Area (ft^2)	0	15	Number of Stories	1
16	Existing Cond. Floor Area (ft^2)	703	17	Fenestration Average U-factor	0.41
18	Total Cond. Floor Area (ft^2)	703	19	Glazing Percentage (%)	9.39%
20	ADU Bedroom Count	2			

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: 223-P0166049288-000-000-00000000-0000 Registration Date/Time: 2023-10-24 15:00:17 HERS Provider: CalCERTS Inc.
CA Building Energy Efficiency Standards - 2022 Residential Compliance Report Version: 2022.0.000 Schema Version: rev 20220901 Report Generated: 2023-10-24 14:56:50

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01E

Project Name: Detached Garage Conversion To An ADU
Calculation Date/Time: 2023-10-24T14:56:38-07:00 **(Page 2 of 10)**
Calculation Description: Title 24 Analysis
Input File Name: 236 ALDEN RD, HAYWARD, CA 94541 NEW ADU 703 S.F 10-24-2023.ribd22x

ENERGY USE SUMMARY

Energy Use	Standard Design Source Energy (EDR1) (kBtu/ft^2 -yr)	Standard Design TDV Energy (EDR2) (kTDV/ft^2 -yr)	Proposed Design Source Energy (EDR1) (kBtu/ft^2 -yr)	Proposed Design TDV Energy (EDR2) (kTDV/ft^2 -yr)	Compliance Margin (EDR1)	Compliance Margin (EDR2)
Space Heating	0	72.49	0	74.25	0	-1.76
Space Cooling	0	24.52	0	23.85	0	0.67
IAQ Ventilation	0	5.16	0	5.16	0	0
Water Heating	0	190.62	0	188.93	0	1.69
Self Utilization/Flexibility Credit						
Efficiency Compliance Total	0	292.79	0	292.19	0	0.6
Photovoltaics	0	0	0	0		
Battery				0		
Flexibility						
Indoor Lighting	0	10.22	0	10.22		
Appl. & Cooking	0	40.76	0	40.72		
Plug Loads	0	68.34	0	68.34		
Outdoor Lighting	0	2.01	0	2.01		
TOTAL COMPLIANCE	0	414.12	0	413.48		

Registration Number: 223-P0166049288-000-000-00000000-0000 Registration Date/Time: 2023-10-24 15:00:17 HERS Provider: CalCERTS Inc.
CA Building Energy Efficiency Standards - 2022 Residential Compliance Report Version: 2022.0.000 Schema Version: rev 20220901 Report Generated: 2023-10-24 14:56:50

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01E

Project Name: Detached Garage Conversion To An ADU
Calculation Date/Time: 2023-10-24T14:56:38-07:00 **(Page 3 of 10)**
Calculation Description: Title 24 Analysis
Input File Name: 236 ALDEN RD, HAWARD, CA 94541 NEW ADU 703 S.F 10-24-2023.ribd22x

ENERGY USE INTENSITY

	Standard Design (kBtu/ft^2 - yr)	Proposed Design (kBtu/ft^2 - yr)	Compliance Margin (kBtu/ft^2 - yr)	Margin Percentage
Gross EUI[1]	90.07	89.97	0.1	0.11
Net EUI[2]	90.07	89.97	0.1	0.11

Notes
1. Gross EUI is Energy Use Total (not including PV) / Total Building Area.
2. Net EUI is Energy Use Total (including PV) / Total Building Area.

REQUIRED SPECIAL FEATURES

The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.

- Ducts with high level of insulation
- New ductwork added is less than 25 ft. in length
- Non-standard duct location (any location other than attic)
- Solar water heating credit, single family building

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

- Indoor air quality ventilation
- Duct Sealing required if a duct system component, plenum, or air handling unit is altered

BUILDING - FEATURES INFORMATION

01 Project Name	02 Conditioned Floor Area (ft^2)	03 Number of Dwelling Units	04 Number of Bedrooms	05 Number of Zones	06 Number of Ventilation Cooling Systems	07 Number of Water Heating Systems
Detached Garage Conversion To An ADU	703	1	2	1	0	1

Registration Number: 223-P0166049288-000-000-00000000-0000 Registration Date/Time: 2023-10-24 15:00:17 HERS Provider: CalCERTS Inc.
CA Building Energy Efficiency Standards - 2022 Residential Compliance Report Version: 2022.0.000 Schema Version: rev 20220901 Report Generated: 2023-10-24 14:56:50

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01E

Project Name: Detached Garage Conversion To An ADU
Calculation Date/Time: 2023-10-24T14:56:38-07:00 **(Page 4 of 10)**
Calculation Description: Title 24 Analysis
Input File Name: 236 ALDEN RD, HAWARD, CA 94541 NEW ADU 703 S.F 10-24-2023.ribd22x

ZONE INFORMATION

01 Zone Name	02 Zone Type	03 HVAC System Name	04 Zone Floor Area (ft^2)	05 Avg. Ceiling Height	06 Water Heating System 1	07 Status
NEW ADU	Conditioned	Altered FAU & A/C1	703	9	DHW Sys 1	Existing Unchanged

OPAQUE SURFACES

01 Name	02 Zone	03 Construction	04 Azimuth	05 Orientation	06 Gross Area (ft^2)	07 Window and Door Area (ft2)	08 Tilt (deg)	09 Wall Exceptions	10 Status	11 Verified Existing Condition
Front: To Remain	NEW ADU	R-13 Wall	180	Front	304	85	90	none	Existing	No
Left: To Remain	NEW ADU	Wall 13	270	Left	192	0	90	none	Existing	No
Rear: To Remain	NEW ADU	R-13 Wall	0	Back	304	36	90	none	Existing	No
Right: To Remain	NEW ADU	Wall 13	90	Right	192	15	90	none	Existing	No
Existing Roof	NEW ADU	R-0 Roof Attic	n/a	n/a	703	n/a	n/a		Existing	No

ATTIC

01 Name	02 Construction	03 Type	04 Roof Rise (x in 12)	05 Roof Reflectance	06 Roof Emittance	07 Radiant Barrier	08 Cool Roof	09 Status	10 Verified Existing Condition
Attic NEW ADU	Attic Roof/NEW ADU	Ventilated	4	0.1	0.85	No	No	Existing	No

FENESTRATION / GLAZING

01 Name	02 Type	03 Surface	04 Orientation	05 Azimuth	06 Width (ft)	07 Height (ft)	08 Mult.	09 Area (ft^2)	10 U-factor	11 U-factor Source	12 SHGC	13 SHGC Source	14 Exterior Shading	15 Status	16 Verified Existing Condition
New Window	Window	Front: To Remain	Front	180			1	15	0.71	Table 110.6-A	0.73	Table 110.6-B	Bug Screen	New	NA

Registration Number: 223-P0166049288-000-000-00000000-0000 Registration Date/Time: 2023-10-24 15:00:17 HERS Provider: CalCERTS Inc.
CA Building Energy Efficiency Standards - 2022 Residential Compliance Report Version: 2022.0.000 Schema Version: rev 20220901 Report Generated: 2023-10-24 14:56:50

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01E

Project Name: Detached Garage Conversion To An ADU
Calculation Date/Time: 2023-10-24T14:56:38-07:00 **(Page 5 of 10)**
Calculation Description: Title 24 Analysis
Input File Name: 236 ALDEN RD, HAWARD, CA 94541 NEW ADU 703 S.F 10-24-2023.ribd22x

FENESTRATION / GLAZING

01 Name	02 Type	03 Surface	04 Orientation	05 Azimuth	06 Width (ft)	07 Height (ft)	08 Mult.	09 Area (ft^2)	10 U-factor	11 U-factor Source	12 SHGC	13 SHGC Source	14 Exterior Shading	15 Status	16 Verified Existing Condition
New Window 2	Window	Rear: To Remain	Back	0			1	36	0.32	NFRC	0.25	NFRC	Bug Screen	New	NA
Window	Window	Right: To Remain	Right	90			1	15	0.32	NFRC	0.25	NFRC	Bug Screen	New	NA

OPAQUE DOORS

01 Name	02 Side of Building	03 Area (ft^2)	04 U-factor	05 Status	06 Verified Existing Condition
New Garage Door	Front: To Remain	49	0.5	Existing	No
New Door	Front: To Remain	21	0.5	New	n/a

SLAB FLOORS

01 Name	02 Zone	03 Area (ft^2)	04 Perimeter (ft)	05 Edge Insul. R-value and Depth	06 Edge Insul. R-value and Depth	07 Carpeted Fraction	08 Heated	09 Status	10 Verified Existing Condition
Slab-on-Grade	NEW ADU	703	0.1	none	0	80%	No	Existing	No

OPAQUE SURFACE CONSTRUCTIONS

01 Construction Name	02 Surface Type	03 Construction Type	04 Framing	05 Total Cavity R-value	06 Interior / Exterior Continuous R-value	07 U-factor	08 Assembly Layers
R-13 Wall	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-13	None / None	0.101	Inside Finish: Gypsum Board Cavity / Frame: R-13 / 2x4 Exterior Finish: 3 Coat Stucco

Registration Number: 223-P0166049288-000-000-00000000-0000 Registration Date/Time: 2023-10-24 15:00:17 HERS Provider: CalCERTS Inc.
CA Building Energy Efficiency Standards - 2022 Residential Compliance Report Version: 2022.0.000 Schema Version: rev 20220901 Report Generated: 2023-10-24 14:56:50

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01E

Project Name: Detached Garage Conversion To An ADU
Calculation Date/Time: 2023-10-24T14:56:38-07:00 **(Page 6 of 10)**
Calculation Description: Title 24 Analysis
Input File Name: 236 ALDEN RD, HAWARD, CA 94541 NEW ADU 703 S.F 10-24-2023.ribd22x

OPAQUE SURFACE CONSTRUCTIONS

01 Construction Name	02 Surface Type	03 Construction Type	04 Framing	05 Total Cavity R-value	06 Interior / Exterior Continuous R-value	07 U-factor	08 Assembly Layers
Wall 13	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-13	None / None	0.101	Inside Finish: Gypsum Board Cavity / Frame: R-13 / 2x4 Exterior Finish: 3 Coat Stucco
Attic Roof/NEW ADU	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-0	None / 0	0.644	Roofing: Light Roof (Asphalt Shingle) Roof Deck; Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4
R-0 Roof Attic	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-0	None / None	0.481	Cavity / Frame: no insul. / 2x4 Inside Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION

01 Quality Insulation Installation (QII)	02 High R-value Spray Foam Insulation	03 Building Envelope Air Leakage	04 CFM50	05 CFM50
Not Required	Not Required	N/A	n/a	n/a

WATER HEATING SYSTEMS

01 Name	02 System Type	03 Distribution Type	04 Water Heater Name	05 Number of Units	06 Solar Heating System	07 Compact Distribution	08 HERS Verification	09 Water Heater Name (#)	10 Status	11 Verified Existing Condition	12 Existing Water Heating System
DHW Sys 1	Domestic Hot Water (DHW)	Standard	DHW Heater 1DHW Heater 1-2	11	Solar-DHW	None	n/a	DHW Heater 1 (1)DHW Heater 1-2 (1)	Existing	No	

Registration Number: 223-P0166049288-000-000-00000000-0000 Registration Date/Time: 2023-10-24 15:00:17 HERS Provider: CalCERTS Inc.
CA Building Energy Efficiency Standards - 2022 Residential Compliance Report Version: 2022.0.000 Schema Version: rev 20220901 Report Generated: 2023-10-24 14:56:50

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01E

Project Name: Detached Garage Conversion To An ADU
Calculation Date/Time: 2023-10-24T14:56:38-07:00 **(Page 7 of 10)**
Calculation Description: Title 24 Analysis
Input File Name: 236 ALDEN RD, HAWARD, CA 94541 NEW ADU 703 S.F 10-24-2023.ribd22x

WATER HEATERS

01 Name	02 Heating Element Type	03 Tank Type	04 # of Units	05 Tank Vol. (gal)	06 Heating Efficiency Type	07 Efficiency	08 Rated Input Type	09 Input Rating or Pilot	10 Tank Insulation R-value (ins/Ext)	11 Standby Loss or Recovery Eff	12 1st Hr. Rating or Flow Rate	13 Tank Location	14 Status	15 Verified Existing Condition
DHW Heater 1	Gas	Small Storage	1	50	EF	0.6	Btu/Hr	75000	0	78			Existing	No
DHW Heater 1-2	Gas	Small Storage	1	40	EF	0.62	Btu/Hr	75000	0	76			Existing	No

SOLAR WATER HEATING SYSTEMS

01 Name	02 Collector Manufacturer	03 Collector Brand	04 Collector Model	05 Number of Collectors	06 Azimuth from North	07 Tilt from Horizontal	08 Tank Volume (gal)	09 SRCC/IAPMO Number	10 Solar Savings Fraction
Solar-DHW	(OG-300 rated system)	n/a	SMUD NEIGHBORHOOD SPLARSHIRES-WILDFLOWER	n/a	n/a	n/a	n/a	n/a	0.02

WATER HEATING - HERS VERIFICATION

01 Name	02 Pipe Insulation	03 Parallel Piping	04 Compact Distribution	05 Compact Distribution Type	06 Recirculation Control	07 Shower Drain Water Heat Recovery
DHW Sys 1 - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required
DHW Sys 1 - 2/1	Not Required	Not Required	Not Required	None	Not Required	Not Required

Registration Number: 223-P0166049288-000-000-00000000-0000 Registration Date/Time: 2023-10-24 15:00:17 HERS Provider: CalCERTS Inc.
CA Building Energy Efficiency Standards - 2022 Residential Compliance Report Version: 2022.0.000 Schema Version: rev 20220901 Report Generated: 2023-10-24 14:56:50

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01E

Project Name: Detached Garage Conversion To An ADU
Calculation Date/Time: 2023-10-24T14:56:38-07:00 **(Page 8 of 10)**
Calculation Description: Title 24 Analysis
Input File Name: 236 ALDEN RD, HAWARD, CA 94541 NEW ADU 703 S.F 10-24-2023.ribd22x

SPACE CONDITIONING SYSTEMS

01 Name	02 System Type	03 Heating Unit Name	04 Heating Equipment Count	05 Cooling Unit Name	06 Cooling Equipment Count	07 Fan Name	08 Distribution Name	09 Required Thermostat Type	10 Status	11 Verified Existing Condition	12 Existing HVAC System
Altered FAU & A/C1	Heating and cooling system other	Heating Component 1	1	Cooling Component 1	1	HVAC Fan 1	Air Distribution System 1	Setback	New	No	

HVAC - HEATING UNIT TYPES

01 Name	02 System Type	03 Number of Units	04 Heating Efficiency
Heating Component 1	Central gas furnace	1	AFUE-80

HVAC - COOLING UNIT TYPES

01 Name	02 System Type	03 Number of Units	04 Efficiency Metric	05 Efficiency EER/EER2/CEER	06 Efficiency SEER/SEER2	07 Zonally Controlled	08 Multi-speed Compressor	09 HERS Verification
Cooling Component 1	Central split AC	1	EER/SEER	12.2	14	Not Zonal	Single Speed	Cooling Component 1-hers-cool

HVAC COOLING - HERS VERIFICATION

01 Name	02 Verified Airflow	03 Airflow Target	04 Verified EER/EER2	05 Verified SEERSEER2	06 Verified Refrigerant Charge
Cooling Component 1-hers-cool	Not Required	0	Not Required	Not Required	Not Required

Registration Number: 223-P0166049288-000-000-00000000-0000 Registration Date/Time: 2023-10-24 15:00:17 HERS Provider: CalCERTS Inc.
CA Building Energy Efficiency Standards - 2022 Residential Compliance Report Version: 2022.0.000 Schema Version: rev 20220901 Report Generated: 2023-10-24 14:56:50

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01E

Project Name: Detached Garage Conversion To An ADU
Calculation Date/Time: 2023-10-24T14:56:38-07:00 **(Page 9 of 10)**
Calculation Description: Title 24 Analysis
Input File Name: 236 ALDEN RD, HAYWARD, CA 94541 NEW ADU 703 S.F 10-24-2023.ribd22x

HVAC - DISTRIBUTION SYSTEMS

01 Name	02 Type	03 Design Type	04 Duct Ins. R-value Supply	05 Duct Ins. R-value Return	06 Duct Location Supply	07 Duct Location Return	08 Surface Area Supply	09 Surface Area Return	10 Bypass Duct	11 Duct Leakage	12 HERS Verification	13 Status	14 Verified Existing Condition	15 Existing Distribution system	16 New Ducts 25 ft
Air Distribution System 1	Conditioned space-entirely	Non-Verified	R-8	R-8	Conditioned Zone	Conditioned Zone	n/a	n/a	No Bypass Duct	Existing (not specified)	Air Distribution System 1-hers-dist	Existing + New	No		No

HVAC - FAN SYSTEMS

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

HVAC FAN SYSTEMS - HERS VERIFICATION

01 Name	02 Verified Fan Watt Draw	03 Required Fan Efficacy (Watts/CFM)
HVAC Fan 1-hers-fan	Not Required	0

INDOOR AIR QUALITY (IAQ) FANS

01 Dwelling Unit	02 Airflow (CFM)	03 Fan Efficacy (W/CFM)	04 IAQ Fan Type	05 Includes Heat/Energy Recovery?	06 IAQ Recovery Effectiveness - SRE	07 Includes Fault Indicator Display?	08 HERS Verification	09 Status
SFam ADU IAQVentXpt	44	0.35	Exhaust	No	n/a	No	Yes	

Registration Number: 223-P0166049288-000-000-00000000-0000 Registration Date/Time: 2023-10-24 15:00:17 HERS Provider: CalCERTS Inc.
CA Building Energy Efficiency Standards - 2022 Residential Compliance Report Version: 2022.0.000 Schema Version: rev 20220901 Report Generated: 2023-10-24 14:56:50

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01E

Project Name: Detached Garage Conversion To An ADU
Calculation Date/Time: 2023-10-24T14:56:38-07:00 **(Page 10 of 10)**
Calculation Description: Title 24 Analysis
Input File Name: 236 ALDEN RD, HAYWARD, CA 94541 NEW ADU 703 S.F 10-24-2023.ribd22x

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I, I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: William Tran	Documentation Author Signature: William Tran
Company: Tommy Drafting	Signature Date: 2023-10-24 14:58:41
Address: 45 S. Park Victoria Drive	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Milpitas, CA 95035	Phone: 408-876-8402

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: William Tran	Responsible Designer Signature: William Tran
Company: Tommy Drafting	Date Signed: 2023-10-24 15:00:17
Address: 45 S. Park Victoria Drive	License: 30090
City/State/Zip: Milpitas, CA 95035	Phone: 408-876-8402

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: 223-P0166049288-000-000-00000000-0000 Registration Date/Time: 2023-10-24 15:00:17 HERS Provider: CalCERTS Inc.
CA Building Energy Efficiency Standards - 2022 Residential Compliance Report Version: 2022.0.000 Schema Version: rev 20220901 Report Generated: 2023-10-24 14:56:50

REVIEWED
ALAMEDA COUNTY PUBLIC WORKS AGENCY
BUILDING INSPECTION DEPARTMENT
Construction shall not be changed from what is shown, on this plan unless authorized by the Building Official. This plan shall be kept at the building site for use by the Building Inspector. Do not mark or alter this plan. Affixing of this stamp on these plans shall not be interpreted as permission to violate or omit any provisions of the adopted codes of any other law, rule, or regulation that is applicable to this construction project.

10/31/2023, 1:54:42 PM
BLD2023-02832
Kevin Zhang

TOMMY DRAFTING
9743 WHITE PINE WAY, ELK GROVE, CA 95624
Email: helennguyen3689@gmail.com
Tell: (916) 526-5881 & (408) 876-8402

Date: JULY 2023
Scale: AS SHOWN
Drawn: LUYEN HONG NGUYEN
Signed:

T-24 ENERGY REPORT
236 ALDEN RD, HAYWARD, CA 94541

REVISION	BY

SHEET NO:

T-24