# DETACH ADU FOR 739 SPOKANE AVE. ALBANY, CA 94706

# **PROJECT INFORMATION**

# LOCATION:

ZONING:

YEAR BUILT:

OWNER: PHONE: PARCEL #: LOT SIZE

OCCUPANCY TYPE:

CONSTRUCTION TYPE:

AARON PARSONS & SARAH SPIEGEL 67283522 3,500 SF R-1 R3 V-B 1926

739 SPOKANE AVE

ALBANY, CA 94706

2.

### FIRE SPRINKLERS: NO **APPLICABLE CODES**

- 2019 CALIFORNIA FIRE CODE
- 2019 CALIFORNIA BUILDING CODE
- 2019 CALIFORNIA RESIDENTIAL CODE
- 2019 CALIFORNIA MECHANICAL CODE 2019 CALIFORNIA PLUMBING CODE
- 2019 CALIFORNIA ELECTRICAL CODE
- 2019 CALIFORNIA ENERGY CODE
- 2019 CALIFORNIA HISTORICAL CODE 2019 CALIFORNIA EXISTING BUILDING CODE
- 2019 CALIFORNIA GREEN BUILDING CODE
- ALBANY CITY ORDINANCE

# **PROJECT SCOPE**

RENOVATION AND ADDITON FOR EXISING DETACH GARAGE TO CREATE ONE STUDIO ADU WITH TOTAL 477 SF PROPOSED ADU ADDRESS IS "739 A"

## **PROJECT DATA**

				_
	EXISTING	PROPOSED	REQUIREMENT	/. 0
SETBACK (ADU) FRONT (TO MAIN BLD) REAR LEFT SIDE RIGHT SIDE SIDE (N) ADDTION	14'-5" 6" 6" 22'-2" -	7'-4" 6" 6" 18'-1" 4'-9"	NO SETBACK REQ. FOR CONVETING (E) STRUCTURE 4'-0" FOR (N) ADDITION	0.
COVERAGE LOT SIZE BUILDING FOOTPRINT LOT COVERAGE	3,500 SF 1,091 SF 18.18 %	3,500 SF 1,435 SF 23.91 %	NA IF ADU < 800 SF	9.
MAX. HEIGHT	10'-11"	16'-0"	16'-0"	10

# **INDEX OF DRAWINGS**

A1	COVER SHEET & SITE PLANS	
A2	FLOOR PLANS	
A3	ELEVATIONS	
A4	SECTIONS & DETAILS	
S-0	STRUCTURAL GENERAL NOTES	
S-1	FOUANTION PLAN	
S-2	<b>ROOF FRAMING &amp; FLOOR FRAMING PLAN</b>	11
S-3	STRUCTURAL DETAILS	
S-4	STRUCTURAL DETAILS	12
S-5	STRUCTURAL DETAILS	
SU	SURVEY MAP	40
T1	TITLE 24 ANALYSIS	13



PROJECT SITE **SHEET NOTES:** ALL JOINTS AND PENETRATIONS TO BE CAULKED AND SEALED ALL EXTERIOR WALLS/CEILINGS/FLOORS (OR WALLS/FLOORS/CEILINGS ADJACENT TO UNCONDITIONED SPACE) THAT ARE OPENED UP FROM EITHER THE INTERIOR OR THE EXTERIOR SIDE, DURING CONSTRUCTION WITLL BE INSULATED WITH A MINIMUM OF R-13 FOR WALLS, R-19 FOR FLOORS AND R-30 FOR CEILINGS. WEATHERSTRIP ALL NEW WINDOWS AND DOORS, ALL GLASSES SHALL

VS

- BE DUAL PANE. ALL GLAZING IN HAZARDOUS LOCATION SHALL BE TEMPERED GLASS, CRC R308.4, ALL GLASSES TO CONFORM WITH CURRENT CALIFORNIA CODE.
- LOCKING DEVICES ON EXTERIOR DOORS AND WINDOWS TO CONFORM WITH LOCAL AGENCIES STANDARDS
- ALL EMERGENCY ESCAPE OR RESCUE WINDOWS FROM NEW SLEEPING ROOMS SHALL HAVE A MINIMUM NET CLEAR OPENABLE OF 5.7 SQUARE FEET, EXCEPT GRADE FLOOR OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5 SQUARE FEET. THE MINIMUM OPENABLE HEITHT SHALL BE 24" AND WIDTH OF 20". THE FINISHED SILL HEIGHT SHALL NOT BE MORE THAN 44" ABOVE THE FLOOR, CRC SECTION R310
- NEW DOORS AND WINDOWS SHALL BE CERTIFIED AND LABELED. THE TEMPORARY LABEL (NFRC) WHICH STATES THE LISTED U-VALUE FOR ALL FENESTRATION PRODUCTS SHALL NOT BE REMOVED PRIOR TO INSPECTION
- REPLACEMENT WINDOW SIZES AT BEDROOMS SHALL MEET 2019 CRC SECTION R310 AND SHALL BE DUAL PANE
- ALL HABITABLE ROOMS SHALL HAVE AN AGGREGATE GLAZING AREA OF NOT LESS THAN 8 PERCENT OF THE FLOOR AREA OF SUCH ROOMS. NATURAL VENTILATION SHALL BE THROUGH WINDOWS, DOORS, LOUVERS OR OTHER APPROVED OPENINGS TO THE OUTDOOR AIR. SUCH OPENINGS SHALL BE PROVIDED WITH READY ACCESS OR SHALL OTHERWISE BE READILY CONTROLLABLE BY THE BUILDING
- OCCUPANTS. THE MINIMUM OPENALBE AREA TO THE OUTDOORS SHALL BE 4 PERCENT OF THE FLOOR AREA BEING VENTILATED. LANDING OR FLOORS AT THE REQUIRED EGRESS DOOR SHALL NOT BE
- MORE THAN 11/2" LOWER THAN THE TOP OF THE THRESHOLD EXCEPTION: THE EXTERIOR LANDING OR FLOOR SHALL NOT BE MORE THAN 73/4" BELOW THE TOP OF THE THRESHOLD PROVIDED THE DOOR DOES NOT SWING OVER THE LANDING OR FLOOR. CRC R311.3.1
- GUARDS SHALL BE LOCATED ALONG OPEN SIDED WALKING SURFACES INCLUDING RAMPS, STAIRS, AND LANDINGS, THAT ARE LOCATED MORE THAN 30 INCHES MEASURED VERTICALLY TO THE FLOOR OR GRADE BELOW AT ANY POINT WITHIN 36 INCHES HORIZONTALLY TO THE EDGE OF THE OPEN SIDE
- REQUIRED GUARDS AT OPEN-SIDED WALKING SURFACES, INCLUDING STAIRS, PORCHES, BALCONIES OR LANDINGS, SHALL BE NOT LESS THAN 42 INCHES IN HEIGHT MEASURED VERTICALLY ABOVE THE ADJACENT WALKING SURFACE OR THE LINE CONNECTING THE LEADING EDGES OF THE TREADS.FIRESTOPS SHALL BE PROVIDED AROUND THE CHIMNEY IN OPENINGS AT THE CEILING AND FLOOR LEVELS WITH NON-COMBUSTABLE MATERIAL PER CODE (CRC 2019 SEC. R312)
- TUB/SHOW WALLS TO HAVE CERAMIC TILE O/ 1/2" CEMENTITIOUS BD (WONDERBOARD) O/ 15# FELT O/ FACE OF STUDS. SHOWER ENCLOSURE SHALL BE TEMPERED GLASS
- SHOWER AND TUB/SHOWER COMBINATIONS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVE OF THE PRESSURE BALANCE OR THE THEMODTATIC MIXING VALVE TYPE.
- ALL SHOWER COMPARTMENTS 1024 SQ. INCHES IN AREA SHALL BE CAPABLE OF ENCOMPASSING A THIRTY INCH CIRCLE.



(E) PHOTO - EAST



(E) PHOTO - NORTH







(E) PHOTO - SOUTH

### **TREE PROTECTION NOTES**

BEFORE ANY DEMOLITION OR STAR TO CONSTRUCTION, A PRE-CONSTRUCTION MEETING SHOULD TAKE PLACE BETWEEN THE CONSTRUCTION/DEMOLITION SUPERVISOR AND THE CITY ARBORIST

- KEEPING OUT ALL DETRIMENTAL CONSTRUCTION ACTIVITY
- CONSTRUCTION IS COMPLETE. CARE IS TO BE TAKEN NOT TO DAMAGE BARK, TRUNK, LIMBS, BRANCHES OR FOLIAGE WHILE INSTALLING FENCING
- NO BUILDING OR DEMO MATERIALS, VEHICLES, DUMPING OR STORAGE OF ANY KIND, OR EXCESSIVE FOOT TRAVEL IS ALLOWED WITHIN THE OPEN ROOT ZONE OF ANY PROTECTED TREE.
- TRENCHING, ROOT PRUNING OR TREE REMOVAL WILL NEED TO BE DISCUSSED WITH CITY ARBORIST BEFORE TAKING ANY ACTION OR COMMENCING ANY DEMOLITION.
- TO PROTECTED WITH 4-6" OF CLEAN WOOD CHIP MULCH, AND THE ROOTS ARE TO BE KEPT WATERED DURING THE DURATION OF THEIR EXPOSURE
- REQUIRED FOR ANY PRUNING DONE ON ANY STREET TREE. DAMAGE TO TREES: COMMUNITY DEVELOPMENT WILL ISSUE A STOP WORK ORDER UNTIL PROPER MEASURES ARE TAKEN
- TO REPAIR AND REMEDIATE ANY DAMAGE DONE TO ANY STREET TREE DUE TO CONSTRUCTION ANY DAMAGE IS TO BE REPORTED WITHIN 6 HOURS TO THE CITY ARBORIST AND/OR COMMUNITY DEVELOPMENT. 10.

#### STORM WATER DRAINAGE DURING CONSTRUCTION MANAGE PLAN:

- THE CONTRACTOR SHALL MANAGE STORM WATER DRAINAGE DURING CONSTRUCTION TO PREVENT FLOODING OF ADJACENT PROPERTY, PREVENT EROSION AND RETAIN SOIL RUNOFF ON THE SITE. STORM WATER IS CONVEYED TO A CLOSEST PUBLIC DRAINAGE SYSTEM, COLLECTION POINT, GUTTER OR SIMILAR DISPOSAL METHOD, WATER SHALL BE FILTERED BY USE OF A BARRIER SYSTEM, WATTLE OR OTHER METHOD
- COMPLIANCE WITH A LAWFULLY ENACTED STORM-WATER MANAGEMENT ORDINANCE
- DIRECT ROOF RUNOFF INTO VEGETATED LANDSCAPE AREA.
- DIRECT SURFACE WATER AWAY FROM THE HOUSE.
- STORMWATER DRAINAGE IS NOT ALLOWED TO FLOW INTO SANITARY SEWER.



### **GREEN BUILDING NOTES:**

- SUBMIT CONSTRUCTION WASTE MANAGEMENT PLAN PER CALGREEN SECTION 4.408.2. RECYCLE ALL CARDBOARD, CONCRETE, ASPHALT AND METALS. DIVERT A MNIMUM 65% OF THE CONSTRUCTION WASTE GENERATED AT THE SITE TO RECYCLE OR SALVAGE PER SECTION 4.408.1.
- COMPLIANCE WITH A LAWFULLY ENACTED STORM WATER MANAGEMENT ORDINANCE. ALL STORM WATER SHALL BE DIRECTED TO THE LANDSCAPE AREAS. KEEPS SURFACE WATER AWAY FROM BUILDINGS AND AID IN GROUNDWATER RECHARGE
- ALL NEW PLANTS HAVE TRUNK, BASE, OR STEM LOCATED AT LEAST 36 INCHES FROM FOUNDATION
- SHIELDING FIXTURES AND DIRECTING LIGHT DOWNWARD
- TIGHTLY SEAL THE AIR BARRIER BETWEEN GARAGE AND LIVING AREA. ALL NEW INDOOR PLUMBING FIXTURES AND FITTINGS SHALL MEET THE STANDARDS, REFERENCED IN TABLE 4.303.
  - SHOWERHEADS, 1.8 GPM @ 80 PSI
  - LAVATORY FAUCETS: 1.2 GPM @ 60 PS
  - KITCHEN FAUCETS: 1.8 GPM @ 60 PSI C.
  - GRAVITY TANK-TYPE WATER CLOSETS: 1.28 GPF D.

PER CALIFORNIA CIVIL CODE ARTICLE 1101.4 AND CALGREEN SECTION 301.1, FOR ALL BUILDING ALTERATIONS OR IMPROVEMENTS TO A SINGLE-FAMILY RESIDENTIAL PROPERTY, EXISTING PLUMBING FIXTURES IN THE ENTIRE HOUSE THAT DO NOT MEET COMPLIANT FLOW RATES WILL NEED TO BE UPGRADED.

- WATER CLOSETS WITH A FLOW RATE IN EXCESS OF 1.6 GPF WILL NEED TO BE REPLACED Α.
- WITH WATER CLOSETS WITH A MAXIMUM FLOW RATE OF 1.28 GPF SHOWER HEADS WITH A FLOW RATE GREATER THAN 2.5 GPM WILL NEED TO BE REPLACED
- WITH A MAXIMUM 1.8 GPM SHOWER HEAD. LAVATORY AND KITCHEN FAUCETS WITH A FLOW RATE GREATER THAN 2.2 GPM WILL NEED
- TO BE REPLACED WITH A FAUCET WITH MAXIMUM FLOW RATE OF 1.2 GPM (1.8 GPM FOR KITCHEN FAUCETS). OUTDOOR WATER USE
- IRRIGATION CONTROLLERS. AUTOMATIC IRRIGATION SYSTEM CONTROLLERS FOR LANDSCAPING PROVIDED BY THE BUILDER AND INSTALLED AT THE TIME OF FINAL INSPECTION SHALL COMPLY WITH THE FOLLOWING

A. AUTOMATIC IRRIGATION SYSTEMS CONTROLLERS INSTALLED AT THE TIME OF FINAL **INSPECTION SHALL BE WEATHER BASED (4.304.1).** 

PROTECT ANNULAR SPACES AROUND PIPES, ELECTRICAL CABLES, CONDUITS OR OTHER Β. OPENINGS AT EXTERIOR WALLS AGAINST THE PASSAGE OF RODENTS (4.406.10. C. COVER DUCT OPENINGS AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS DURING CONSTRUCTION (4.504.1).

SEAL COMBUSTION UNITS FOR NEW WATER HEATERS.

DUCT SYSTEMS ARE SIZED, DESIGNED, AND EQUIPMENT IS SELECTED PER SECTION 4.507.2 10. PROVIDE A COPY OF THE OPERATION AND MAINTENANCE MANUAL TO THE BUILDING OCCUPANT OR 11. OWNER ADDRESSING ITEMS 1 THROUGH 10 IN SECTION 4.410.1

- 12. ENERGY STAR BATHROOM FANS VENTED TO THE OUTSIDETO COMPLY WITH CALGREEN SECTION 4.506.1 FOR BATHROOM EXHAUST FANS. EACH BATHROOM SHALL BE MECHANICALLY VENTED WITH AN ENERGY STAR EXHAUST FAN, AND FAN MUST BE CONTROLLED BY A HUMIDY CONTROL (4.506.1). KITCHEN RANGE HOOD VENTED TO THE OUTSIDE.
- CARBON MONOXIDE ALARM(S) INSTALLED, TESTING AND CORRECTION. 14.

ATTIC, CRAWL SPACE AND WALL INSULATION UP TO OR EXCEEDING CURRENT CODE. 15.

- 16 DUCT INSULATION TO CODE.
- 17. PAINTS, STAINS AND OTHER COATINGS SHALL BE COMPLIANT WITH VOC LIMIT (4.504.2.2) ADHESIVES, SEALANTS AND CAULKS SHALL BE COMPLIANT WITH VOC AND OTHER TOXIC COMPOND 18.
- LIMITS (4.504.2.1). AEROSOL, PAINTS AND COATINGS SHALL BE COMPLIANT WITH PRODUCT WEIGHTED MIR LIMITS FOR 19. ROC AND OTHER TOXIC COMPOUNDS (4.504.2.3). VERIFICATION OF COMPLIANCE SHALL BE PROVIDED.
- CARPET AND CARPET SYSTEMS SHALL BE COMPLIANT WITH VOC LIMITS (4.504.3) 20. 21. MINIMUM 80% OF FLOOR AREA RECEIVING RESILIENT FLOORING SHALL COMPLY WITH SECTION4.504.4 PARTICLE BOARD, MEDIUM DENSITY FIBERBOARD (MDF) AND HARDWOOD PLYWOOD USED IN INTERIOR 22.
- FINISH SYSTEMS SHALL COMPLY WITH LOW FORMALDEHYDE EMISSION STANDARDS (4.504.5). INSTALL CAPILLARY BREAK AND VAPOR RETARDER AT SLAB ON GRADE FOUNDATIONS (4.505.2) 24. CHECK MOISTURE CONTANT OF BUILDING MATERIALS USED IN WALL AND FLOOR FRAMING BEFORE ENCLOSURE (4.505.3).
- 25. ENERGY EFFICIENCY LIGHTING.
- LOW-MERCURY FLUORESCENT LIGHTING 26.
- PROTECT ANNULAR SPACES AROUND PIPES, ELECTRIC CABLES, CONDUITS AT EXTERIOR WALLS 27. AGAINST THE PASSAGE OF RODENTS PER CALGREEN SECTION 4.406.1.
- COVER DUCT OPENINGS AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS DURING 28. **CONSTRUCTION PER CALGREEN SECTION 4.504.1**
- 29. INSTALL CAPILLARY BREAK AND VAPOR RETARDER AT SLAB ON GRADE FOUNDATIONS PER CALGREEN SECTION 4.505.2.

### **ELECTRICAL NOTES:**

- ALL 120-VOLT, SINGLE PHASE, 15- AND 20- AMP BRANCH CIRCUITS SUPPLYING OUTLETS IN FAMILY/LIVING/DINNING ROOMS, BEDROOMS, RECREATION ROOMS, SUNROOM, CLOSET, HALLWAYS, OR SIMILAR ROOMS/AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER, COMBINATION TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUITS
- ALL 120-VOLT, 15- AND 20- AMPERE RECEPTACLES SERVING DWELLING UNITS SHALL BE LISTED TAMPER-**RESISTANT RECEPTACLES.**
- ALL UTILITIES, INCLUDING ELECTRICAL, TELEPHONE, CABLE TELEVISIONS, AND ETC, SHALL BE UNDERGROUND.
- LIGHTS FIXTURES IN TUB OR SHOWER ENCLOSURES SHALL BE SUITABLE FOR DAMP LOCATIONS.
- BATHROOM LIGHTING SHALL NOT BE ON AN OUTLET CIRCUIT (CEC ART.210.11(C) & 210.52(B))
- ALL NEW LIGHTS PROPOSED SHALL BE HIGH EFFICIENCY LUMINARIES. ONE LIGHTS IN NEW BATHROOM SHALL BE CONTROLLED BY VACANCY SENSORS PROVIDE AT LEAST ONE 20 AMP CIRCUIT FOR BATHROOM OUTLETS, WITH NO OTHER OUTLETS ON THE
- CIRCUIT.

### **MECHANICAL NOTES**

- VENTILATION AIR FLOW AT BATHROOMS SHALL BE 50 CUBIC FEET PER MIN
- VENTILATION AIR FLOW AT KITCHENS SHALL BE 100 CUBIC FEET PER MIN. ALL ENVIRONMENTAL AIR DUCTS SHALL BE AT LEAST 3' FROM OPENINGS INTO THE BUILDINGS AND 3' PROPERTY LINES
- INSTALL HUMIDISTAT IN BATHROOM EXHAUST FANS FOR ALL BATHROOMS CONTAINING A BATHTUB OR SHOWER
- MECHANICAL DRAFT VENTS MUSTTERMINATE: AT LEAST 3' ABOVE ANY FORCED AIR INLET LOCATED WITHIN 10'. a
- AT LEAST 4' BELOW HORIZONTALLY OR 1' ABOVE ANY DOOR OR OPERABLE WINDOW OR AIR INLET. VENTS FOR DIRECT VENT APPLIANCES MUST ERMINATE:
  - AT LEAST 6" FROM AIR OPENINGS FOR INPUT RATING UP TO 10K BTU/HR.
- AT LEAST 9" FOR INPUT OVER 10K UP TO 50K BTU/HR.
- AT LEAST 12" FOR INPUT OVER 50K BTU/HR. C.

AIR DUCTS INSTALLED UNDER A FLOOR IN A CRAWL SPACE SHALL NOT PREVENT ACCESS TO ANY PART OF THE CRAWL SPACE AND PROVIDE A MINIMUM VERTICAL CLEARANCE OF 18" FROM GRADE LEVEL.

- SMOKE ALARM NOTE: A. SMOKE ALARM REQUIREMENTS APPLY TO BOTH NEW AND EXISTING AREAS,
- B. SMOKE ALARMS POWERED BY BUILDING WIRING CURRENT WITH BATTERY BACKUP.
- C. DETECTORS ARE REQUIRED ON EACH STORY

### **BATHROOM NOTES:**

- TILE") 4.
- LOCATIONS:
- 4B. 4C.
- GYPSUM.
- THERMOSTATIC MIXING VALVE CONTROLS.
- BUILDINGS.
- LINES OR OPENINGS INTO BUILDING.
- FEET ABOVE SUCH OPENINGS. 9
- ABOVE THE FLOOR.

WATER HEATING NOTES: EQUIPMENT SHALL MEET THE APPLICABLE REQUIREMENTS OF THE APPLIANCE EFFICIENCY REGULATIONS AS REQUIRED BY SECTION 110.1. SUBJECT TO THE FOLLOWING:

- 4.

### NOTES:

1. PROVIDE A NON-REMOVABLE BACKFLOW PREVENTION DEVICE OR VACUUM BREAKER DEVICE ON ALL EXTERIOR HOSE BIBBS. CPC §603.5.7 2. ALL PLUMBING EXISTING FIXTURES WITHIN THE BUILDING THAT ARE NON-COMPLIANT SHALL BE UPGRADED WITH WATER CONSERVING PLUMBING FIXTURES. NON-COMPLIANT PLUMBING FIXTURES ARE DEFINED BY SB 407 AS FOLLOWS:

- 4.303.1.1)
- PER FLUSH
- PER FLUSH
- GPM AT 80 PSI

### EXCEED 0.5 GPM AT 60 PSI

# UL DESIGN NO. U305

FIRE RATING: 1 Hour STC: 36 SOUND TEST: USG-151235

![](_page_1_Picture_94.jpeg)

ALL BATHROOM APPLIANCES, PLUMBING FIXTURES PER OWNER'S SELECTION PROVIDE ULTRA LOW FLUSH TOILET (1.28 GALLONS PER FLUSH) AT ALL BATHROOMS CEMENT, FIBER-CEMENT OR GLASS MAT GYPSUM BACKERS IN COMPLIANCE WITH ASTM C1178, C1288 OR C1325 AND INSTALLED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS SHALL BE USED AS A BASE FOR WALL TILE IN TUB AND SHOWER AREAS AND WALL AND CEILING PANELS IN SHOWER AREAS. (CBC SEC. 2509.2 "BASE FOR

WATER-RESISTANT GYPSUM BACKING BOARD SHALL NOT BE USED IN THE FOLLOWING

4A. OVER A VAPOR RETARDER IN SHOWER OR BATHTUB COMPARTMENTS WHERE THERE WILL BE DIRECT EXPOSURE TO WATER OR IN AREAS SUBJECT TO CONTINUOUS HIGH HUMIDITY

ON CEILINGS WHERE FRAME SPACING EXCEEDS 12 INCHES O.C. FOR 1/2" WATER-RESISTANT GYPSUM AND MORE THAN 16" O.C. FOR 5/8" WATER-RESISTANT

SHOWER AND TUB/SHOWER SHALL BE PROVIDED WITH PRESSURE-BALANCE OR

ROOMS CONTAINING BATHTUBS, SHOWERS, SPAS AND SIMILAR BATHING FIXTURES SHALL BE PROVIDED WITH MECHANICAL VENTILATION CAPABLE OF PROVIDING 50 CFM. EXHAUST DUCTS SHALL TERMINATE A MINIMUM OF 3' FROM PROPERTY LINES OR OPENINGS INTO

TOILET ROOMS SHALL BE PROVIDED WITH MECHANICAL VENTILATION CAPABLE OF PROVIDING 50 CFM. EXHAUST DUCTS SHALL TERMINATE A MINIMUM OF 3' FROM PROPERTY

PLUMBING VENTS WITHIN 10 FEET OF OPERABLE SKYLIGHTS SHALL EXTEND A MINIMUM OF 3

BATHTUB AND SHOWER FLOORS AND WALLS ABOVE BATHTUBS WITH INSTALLED SHOWER HEADS AND IN SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE. SUCH WALL SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6 FEET

10. PLUMB INTERIOR FLOOR DRAINS TO SANITARY SEWER

1. IF MORE THAN ONE STANDARD IS LISTED IN THE APPLIANCE EFFICIENCY REGULATIONS, THE EQUIPMENT SHALL MEET ALL THE STANDARDS LISTED; AND

IF MORE THAN ONE TEST METHOD IS LISTED IN THE APPLIANCE EFFICIENCY REGULATIONS, THE EQUIPMENT SHALL COMPLY WITH THE APPLICABLE STANDARD WHEN TESTED WITH EACH TEST METHOD; AND

WHERE EQUIPMENT CAN SERVE MORE THAN ONE FUNCTION, SUCH AS BOTH HEATING AND COOLING, OR BOTH SPACE HEATING AND WATER HEATING, IT SHALL COMPLY WITH ALL THE REQUIREMENTS APPLICABLE TO EACH FUNCTION; AND

WHERE A REQUIREMENT IS FOR EQUIPMENT RATED AT ITS "MAXIMUM RATED CAPACITY" OR "MINIMUM RATED CAPACITY," THE CAPACITY SHALL BE AS PROVIDED FOR AND ALLOWED BY THE CONTROLS, DURING STEADY-STATE OPERATION

WATER CLOSETS SHALL NOT EXCEED 1.28 GALLONS PER FLUSH (CGBSC SECTION

CGBSC SECTION 4.303.1.2 WALL MOUNTED URINALS SHALL NOT EXCEED 0.125 GALLONS

CGBSC SECTION 4.303.1.2 FLOOR MOUNTED URINALS SHALL NOT EXCEED 0.5 GALLONS

CGBSC SECTION 4.303.1.3.1 SINGLE SHOWERHEAD SHALL HAVE A MAXIMUM FLOW OF 1.8

CGBSC SECTION 4.303.1.3.2 MULTIPLE SHOWERHEADS SERVING ONE SHOWER SHALL HAVE COMBINED FLOW OF 1.8 GPM AT 80 PSI OR, THE SHOWER SHALL BE DESIGNED TO ALLOW ONLY ONE SHOWER OUTLET TO BE IN OPERATION AT A TIME

CGBSC SECTION 4.303.1.4.1 RESIDENTIAL LAVATORY FAUCETS SHALL HAVE A MAXIMUM FLOW RATE OF 1.2 GPM AT 60 PSI & MINIMUM OF 0.8 GPM AT 20 PSI CGBSC SECTION 4.303.1.4.2 LAVATORY FAUCETS IN COMMON AND PUBLIC USE AREAS

(OUTSIDE OF DWELLINGS OR SLEEPING UNITS) IN RESIDENTIAL BUILDINGS SHALL NOT

### **ASSEMBLY OPTIONS:**

**INTERIOR:** ONE LAYER 5/8" THICK GYPSUM BOARD (UL TYPE ULIX™) WOOD STUDS: 2X WOOD STUDS, 16" O.C. INSULATION: 3-1/2" GLASS FIBER BATT INSULATION IN CAVITY EXTERIOR: ONE LAYER 5/8" THICK GYPSUM BOARD (UL TYPE ULIX™) ONE LAYER 1/2" PLYWOOD SHEETING **FIBER-CEMENT PANEL** 

В

Α

![](_page_1_Picture_119.jpeg)

SAMPLE AC UNIT (OUTDOOR PART) BOSCHINVERTER CLIMATE

MINI SPLIT-TYPE AIR **CONDITIONER / HEAT PUMP** 18,000 BTU 1.5 TON DUCTLESS 230-VOLT

![](_page_1_Picture_122.jpeg)

MINI KITCHEN SET ALL-IN-ONE KITCHENETTE WITH 2-**BURNER 115V SMOOTH-TOP** COOKTOP, REFRIGERATOR-FREEZER, SINK, AND STORAGE CABINET SAMPLE: SUMMIT C39ELGLASS

![](_page_1_Figure_124.jpeg)

(E) W/
(E) W/
(N) W/
1-HR I

Name

![](_page_1_Figure_128.jpeg)

![](_page_1_Figure_129.jpeg)

![](_page_1_Figure_130.jpeg)

![](_page_1_Figure_131.jpeg)

MIN. 80 CFM, WITH A LABLE OR SIGN AT THE ( 4 CONTROLLER OF SWITCH TO INFORM THE VENTILATION FAN THAT SHOULD OPERATE

VENTILATOR IS A WHOLE HOUSE WHENEVER THE HOUSE IS OCCUPIED. **BUILT-IN CABINET** 

![](_page_1_Figure_134.jpeg)

OWNER

#### (N) WINDOW SCHEDULE

Tuno	Windc	w Size	Rough	opening	Hood			Glazing
Mark	Width	Height	Rough Width	Rough Height	Height	Туре	Material	Туре
01	2' - 6"	6' - 7"	2' - 7"	6' - 7 3/4"	6'-9"	Window-Fixed-Single	Aluminum	Clean, Double
02	2' - 6"	' -  "	2' - 7"	'-  3/4"		Window-Fixed-Single	Aluminum	Clean, Double
SK	2' - 0"	3' - 0"	2' - 0"	3' - 0"		Window-skylight-deck_mounted-fixed	Aluminum	Clean, Double
AS BUI	LT							
03	9' - 0"	2' - 11"	9' -  "	2' -    3/4"	6'-0"	Window-Casement-Multiple_Stationary_Operating_Units	Vinyl	Clean, Double
04	3' - 0"	2' - 11"	3' -  "	2' -     3/4"		Window-Awning-Single	Vinyl	Clean, Double
05	3' - 0"	' -    "	3' -  "	'-   3/4"	6'-8"	Window-Awning-Single	Vinyl	Frosted, Double
06	2' - 0"	2' - 11"	2' -  "	2' -    3/4"	6'-0"	Window-Casement-Single	Vinyl	Clean, Double
ADDITI	ON					•	-	

#### Total

			(N) DOOR SCHEDULE	
Type Mark	Width	Height	Door Type	Numbers
DI	3'-0"	6'-8"	Door-Exterior-Single-Entry	I
AS BUILT				
D2	2'-6"	6'-8"	Single-Flush	I
D3	3'-0"	6'-8"	Door-Exterior-Single-Entry 2	I
ADDITION				2
Total				3

#### WINDOW AND DOOR NOTES:

WINDOW AND DOOR HARDWARE TO BE SELECTED BY OWNER.

- EXTERIOR DOORS SHALL BE ONE OF THE FOLLOWING: EXTERIOR SURFACE OR CLADDING SHALL BE OF NONCOMBUSTIBLE OR IGNITION-RESISTANT MATERIAL;
- OR CONSTRUCTED OF SOLID CORE WOOD WITH STILES AND RAILS NOT LESS THAN 1 INCH THICK AND RAISED PANELS NOT LESS THAN 1-1/4" INCH THICK; OR HAVE A FIRE-RESISTANCE RATING OF NOTE LESS THAN 20 MINUTES WHEN TESTED IN ACCORDING TO C.
- NFPA 252. U-FACTORS FOR ALL NEW WINDOWS SHALL BE MAXIMUM 0.3.

EXTERIOR WINDOWS AND GLAZED OPENINGS WITHIN EXTERIOR DOORS SHALL BE 20-MINUTE RATED WHEN TESTED ACCORDING TO NFPA 257; OR MULTIPANE GLAZING WITH A MINIMUM OF ONE TEMPERED PANE; OR

CONFORM TO THE PERFORMANCE REQUIREMENTS OF STANDARD SFM 12-7A-2; OR GLASS BLOCK UNITS. (PER CRC SECTION R327.8.2.1)

ROUGH OPENING

#### SAFETY GALZING NOTE:

THE FOLLOWING LOCATIONS SHOULD BE SAFETY GALZING:

WINDOWS WITHIN 24-INCH ARC OF THE DOORS' EDGE, IN A CLOSED POSITION.

WINDOWS IN BATHROOMS TO BE TEMPERED GLAZED WHERE WINDOWS ARE 60 INCHES OR LESS ABOVE THE TUB OR SHOWER FLOOR.

GLAZING IN DOORS

![](_page_2_Figure_16.jpeg)

5 WINDOW DETAILS 3" = 1'-0"

![](_page_2_Figure_18.jpeg)

# (E) NORTH ELEVATION 1/4" = 1'-0"

![](_page_2_Figure_20.jpeg)

6 (N) NORTH ELEVATION 1/4" = 1'-0"

![](_page_2_Figure_22.jpeg)

![](_page_2_Figure_23.jpeg)

![](_page_2_Figure_24.jpeg)

\_\_\_\_\_

![](_page_2_Figure_27.jpeg)

![](_page_2_Figure_28.jpeg)

![](_page_2_Figure_29.jpeg)

(1) (N) WEST ELEVATION 1/4" = 1'-0"

![](_page_2_Figure_31.jpeg)

![](_page_2_Figure_33.jpeg)

**AARON PARSONS & SARAH SPIEGEL** 739 SPOKANE AVE. ALBANY, CA 94706 CALL: -EMAIL: APARSONS@BERKELEY.EDU

### CONSULTANTS

OWNER

### **DESIGN CONSULTANT**

YONG F. LIANG 801 FRANKLIN ST APT 304 OAKLAND CA 94607 CALL: 510-387-6668 EMAIL: YONGLIANGDESIGN@GMAIL.COM

#### **SURVEYOR** KEITH S. BUSH

BAY AREA LAND SURVEYING INC. 3065 RICHMOND PARKWAY, SUITE 101 RICHMOND, CA 94806 CALL: 510-223-5167

### STRUCTURAL ENGINEER

W.H. CONSULATION, INC 1590 OAKLAND RD. SUITE 112 SAN JOSE, CA 95131 INFO@WHENGINEERINGGROUP.COM WWW.WHENGINEERINGGROUP.NET

#### T-24 REPORT

TAILORED ENERGY AND TESTING SERVICES LTD KEVIN LAUGHTON 548 MARKET ST #30051 SAN FRANCISCO, CA 94120-7775 CALL:1-888-310-0808

2022/3/23 10:58:54

APPROV		
Date	Description	No.

### PROJECT

REVISIONS

DETACH ADU FOR 739 SPOKANE AVE, ALBANY, CA 94706

SHEET TITLE

ELEVATIONS

DRAWN BY YFL CHECKED BY

YFL SCALE AS NOTED

JOB NO. 210924A

SHEET NO.

**A**3

![](_page_3_Figure_0.jpeg)

**AARON PARSONS & SARAH SPIEGEL** 739 SPOKANE AVE. ALBANY, CA 94706 CALL: -EMAIL: APARSONS@BERKELEY.EDU

### CONSULTANTS

### **DESIGN CONSULTANT**

YONG F. LIANG 801 FRANKLIN ST APT 304 OAKLAND CA 94607 CALL: 510-387-6668 EMAIL: YONGLIANGDESIGN@GMAIL.COM

## **SURVEYOR**

KEITH S. BUSH BAY AREA LAND SURVEYING INC. 3065 RICHMOND PARKWAY, SUITE 101 RICHMOND, CA 94806 CALL: 510-223-5167

#### STRUCTURAL ENGINEER

W.H. CONSULATION, INC 1590 OAKLAND RD. SUITE 112 SAN JOSE, CA 95131 INFO@WHENGINEERINGGROUP.COM WWW.WHENGINEERINGGROUP.NET

#### T-24 REPORT

TAILORED ENERGY AND TESTING SERVICES LTD KEVIN LAUGHTON 548 MARKET ST #30051 SAN FRANCISCO, CA 94120-7775 CALL:1-888-310-0808

### 2022/3/23 10:58:58

	APPROV/	
No.	Description	Date

#### PROJECT

REVISIONS

DETACH ADU FOR 739 SPOKANE AVE, ALBANY, CA 94706

### SHEET TITLE

SECTIONS & DETAILS

### DRAWN BY YFL

CHECKED BY YFL

SCALE AS NOTED

JOB NO. 210924A

SHEET NO.

A4

OWNER

## GENERAL STRUCTURAL REQUIREMENTS

#### GENERAL

- 1. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR CONDITIONS OF ALL WORK AND MATERIALS INCLUDING THOSE FURNISHED BY SUB-CONTRACTORS STRUCTURAL ENGINEER OF RECORD SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES FROM STRUCTURAL PLANS
- 2 ALL MATERIALS AND WORKMANSHIP SHALL BE PERFORMED IN ACCORDANCE WITH 2019 CALIFORNIA BUILDING CODE

6. WHERE NO DETAILS SHOWN OR NOTED ON THE DRAWINGS, THE DETAILS SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.

- 3. ALL DIMENSIONS SHALL REFER TO ARCHITECTURAL DRAWINGS. IN NO CASE SHALL DIMENSIONS BE SCALED FROM STRUCTURAL DRAWINGS AND/OR DETAILS ANY DISCREPANCIES FOUND WITHIN THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER FOR CLARIFICATION PRIOR TO PROCEEDING, ANY WORK INSTALLED PRIOR TO IN CONFLICT WITH SUCH CLARIFICATION SHALL BE CORRECTED BY THE CONTRACTOR AT HIS EXPENSE AND AT NO ADDITIONAL COST TO THE OWNER.
- 4. ALL WORK SHALL COMPLY WITH ALL THE APPLICABLE FEDERAL LAWS, STATE STATUTES LOCAL ORDINANCES AND THE REGULATIONS OF AGENCIES HAVING JURISDICTION OVER THE PROJECT. THE CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR COMPLYING WITH THE CONSTRUCTION SAFETY ORDERS AND THE GENERAL INDUSTRIAL SAFETY ORDERS OF THE STATE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION AND SUCH OTHER AGENCIES GOVERNING THE CONTRACTOR'S ACTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND HOLD HARMLESS THE STRUCTURAL ENGINEER. ARCHITECT AND OWNER FOR ANY DAMAGES AND/OR PENALTIES RESULTING FROM HIS FAILURE TO COMPLY WITH SAID LAWS. STATUTES. ORDINANCES AND REGULATIONS.
- 5. THE DESIGN, ADEQUACY, AND OVERALL SAFETY OF ANY ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND HAS NOT BEEN TAKEN INTO CONSIDERATION BY THE ARCHITECT OR STRUCTURAL ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE PRIOR TO THE APPLICATION OF ALL SHEATHING AND FINISH MATERIALS. OBSERVATION VISITS TO THE SITE BY THE ARCHITECT OR STRUCTURAL ENGINEER DO NOT CONSTITUTE INSPECTION OF ANY OF THE ABOVE ITEMS.
- 7. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING, SCAFFOLDING, ETC. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
- 8. OPENINGS, POCKETS, ETC., LARGER THAN 6" SHALL NOT BE PLACED IN CONCRETE SLABS, DECKS, WALLS, UNLESS SPECIALLY DETAILED ON THE STRUCTURAL DRAWINGS. NOTIFY THE STRUCTURAL ENGINEER WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, ETC., LARGER THAN 6" NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT WHICH ARE LOCATED IN STRUCTURAL MEMBERS. FOR ANY FURTHER RESTRICTIONS ON OPENINGS IN STRUCTURAL ELEMENTS. SEE APPLICABLE SECTIONS BELOW
- 9. CONTRACTOR TO PREPARE SHOP DRAWINGS FOR ALL CONCRETE REINFORCEMENT, STRUCTURAL STEEL, SPECIAL FLOOR & ROOF JOISTS, WOOD TRUSSES, ETC., SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER OF RECORDS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
- 10. CONSTRUCTION MATERIAL SHALL BE SPREAD OUT IF PLACED ON FRAMED ROOF OR FLOOR. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT. PROVIDE ADEQUATE SHORING AND/OR BRACING WHERE STRUCTURE HAS NOT ATTAINED DESIGN STRENGTH.
- 11. W.H. CONSULTANT IS IN NO WAY RESPONSIBLE FOR ANY AND ALL JOBSITE SAFETY, CONTRACTOR'S WORK OR THE METHODS AND PERFORMANCE

12. NO STRUCTURAL MEMBER SHALL BE CUT OR NOTCHED OR OTHERWISE REDUCED IN STRENGTH UNLESS APPROVED BY THE STRUCTURAL ENGINEER OF RECORD

#### **EXISTING CONDITIONS**

OF SAID WORK.

1. ALL DIMENSIONS AND EXISTING CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORK. NOTED DIMENSIONS SHALL SUPERSEDE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL NOT ASSUME THAT ANY EXISTING CONSTRUCTION IS PLUMB, LEVEL, OR SQUARE, BUT SHALL VERIFY ACTUAL FIELD CONDITIONS AND MUST REPORT ANY DISCREPANCIES PRIOR TO COMMENCEMENT OF WORK.

- 2. THE CONTRACTOR SHALL INSPECT ALL EXISTING CONDITIONS THAT AFFECT THE WORK SHOWN AND SHALL NOTIFY THE OWNER AND THE STRUCTURAL ENGINEER OF RECORD OF ANY EXISTING CONDITIONS THAT CONFLICT WITH THE NEW WORK SHOWN. DURING CLEARING AND EARTHWORK OPERATIONS FOR FILLED EXCAVATIONS OR BURIED STRUCTURES, SUCH AS CESSPOOLS, CISTERNS, FOUNDATIONS, ETC. IF ANY SUCH STRUCTURES ARE FOUND. STRUCTURAL ENGINEER SHALL BE NOTIFIED IMMEDIATELY
- 3. IF THE CONTRACTOR OBSERVES ANY EXISTING CONDITION THAT HE CONSIDERS INADEQUATE IN ANY WAY, DUE TO DETERIORATION, APPARENT STRUCTURAL INADEQUACY, POOR EXISTING CONSTRUCTION, OR ANY OTHER REASON, HE SHALL PROMPTLY BRING SUCH CONDITION TO THE ATTENTION OF THE OWNER AND THE STRUCTURAL ENGINEER AND SHALL NOT CONCEAL SUCH CONDITION UNTIL HE HAS RECEIVED GUIDANCE FROM THE OWNER

#### STRUCTURAL DESIGN CRITERIA (2019 CBC)

2. CALIFORNIA BUILDING CODE (CBC), 2019 EDITION.

- BUILDING CODE:
- 1. THE INTERNATIONAL BUILDING CODE (IBC), 2018 EDITION AND THE MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES (ASCE 7-16), AMERICAN CONCRETE INSTITUTE ACI 318-19, SEISMIC DESIGN MANUAL AISC 341,
- STEEL CONSTRUCTION MANUAL AISC THIRTEENTH EDITION, BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530-2016/ ASCE 5-2016), AND NATIONAL DESIGN SPECIFICATION NDS 2018 EDITION.

#### DESIGN LOAD

LONGIT

ROOF LOAD: DL=15 PSF LL=20 PSF FLOOR LOAD: DL=15 PSF LL=40 PSF
WIND LOAD DESIGN DATE:
BASIC WIND SPEED IMPORTANCE FACTOR I OCCUPANCY CATEGORY WIND EXPOSURE
SEISMIC LOAD DESIGN DATE:
IMPORTANCE FACTOR I SITE CLASS SEISMIC DESIGN FACTOR (SDC) S <sub>S</sub>
S <sub>1</sub>
S <sub>DS</sub>
• D1

![](_page_4_Picture_23.jpeg)

LIGHT-FRAME (WOOD) WALL w/PLYWOOD SHEAR MATERIAL USE EQUIVALENT LATERAL FORCE METHOD

1. ALLOWABLE BEARING PRESSURE - 1,500 PSF (PER CBC 2019 TABLE 1806.2) IF ADVERSE SOIL CONDITIONS ARE ENCOUNTERED. A SOIL INVESTIGATION REPORT MAY BE REQUIRED

2. FOUNDATION DESIGN SHALL BE 24" MINMUM DEPTH OF FOOTING BELOW THE LOWEST ADJACENT FINAL GRADE, 12" MINIMUM WIDTH FOR 1-STORY, 16" MINIMUM WIDTH FOR 2-STROY, BEAR ON FIRM NATIVE OR PROPERLY COMPACTED SOILS.

### CONCRETE

- 1. ALL CONCRETE MATERIALS, CONSTRUCTION AND WORKMANSHIP SHALL CONFORM TO THE ADOPTED EDITION OF THE ACI CODE AND SPECIFICATION (ACI-318) AND APPLICABLE CALIFORNIA BUILDING CODE (2019 CBC) AND LOCAL BUILDING CODE.
- 2. CONCRETE SHALL HAVE A MIN. 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS AS FOLLOWS UNLESS OTHERWISE NOTED ON THE DRAWINGS 3. PORTLAND CEMENT SHALL CONFORM TO ASTM C-150, TYPE V.
- 4. AGGREGATE FOR HARD PACK CONCRETE SHALL BE 1.0" MAX FOR FOOTINGS AND 3/4" MAX FOR ALL OTHER WORK. (ASTM C-33)
- 5. AGGREGATE FOR LIGHTWEIGHT CONCRETE SHALL CONFIRM TO ASTM C-330.
- 6. CONCRETE MIXING OPERATION, ETC., SHALL CONFORM TO C-94. WATER-CEMENT RATIO IS LESS THAN 0.45
- 7. WATER SHALL BE CLEAN, FREE FROM DELETERIOUS AMOUNTS OF ACIDS, ALKALIS OR ORGANIC MATERIALS, OILS, SALTS AS PER ACI-318.
- 8. THE MAXIMUM SLUMP SHALL NOT EXCEED 3" ±1" FOR FOOTINGS, SLABS ON GRADE AND MASS CONCRETE, AND 4" ±1" FOR OTHER CONCRETE.
- 9. UNLESS SHOWN OR NOTED OTHERWISE, CONCRETE COVERAGE FOR REINFORCING BAR TO FACE OF BAR SHALL BE AS FOLLOWS: A. CONCRETE IN CONTACT WITH EARTH, UNFORMED
- B. CONCRETE IN CONTACT WITH EARTH. FORMED C. WALLS D. BEAMS, GIRDERS & COLUMNS (TO TIES OR STIRRUPS)
- 10. CONDUIT PLACED IN A CONCRETE SLAB SHALL NOT EXCEED ½ OF THE THICKNESS OF THE SLAB AND SHALL BE PLACED BETWEEN THE TOP AND BOTTOM REINFORCING STEEL. MINIMUM CLEAR DISTANCE BETWEEN CONDUITS SHALL BE 6".
- 11. ALL REINFORCING BARS, ANCHOR BOLTS AND OTHER CONCRETE INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE. 12. PROVIDE SLEEVES FOR PLUMBING AND ELECTRICAL OPENINGS IN CONCRETE BEFORE PLACING. DO NOT CUT ANY REINFORCING WHICH MAY CONFLICT. CORING IN CONCRETE IS NOT PERMITTED EXCEPT AS SHOWN. NOTIFY THE ENGINEER ON RECORD IN ADVANCE OF CONDITIONS NOT SHOWN ON THE DRAWINGS
- 13. ALL CONCRETE MIXES SHALL CONFORM TO THE PROPORTIONS ESTABLISHED BY CODE FOR THE VARIOUS CONCRETE STRENGTHS REQUIRED FOR THE WORK, CONTRACTOR SHALL ENGAGE A CERTIFIED INDEPENDENT TESTING LABORATORY TO PREPARE SIX (6) DESIGNS FOR THE WORK. COPIES OF SUCH MIX DESIGN, AS WELL AS 7-DAY AND 28-DAY CYLINDER TEST RESULTS SHALL BE SENT TO THE STRUCTURAL ENGINEER OF RECORD AND THE LOCAL BUILDING OFFICIAL TO OBTAIN APPROVAL PRIOR TO ITS USE IN THE WORK.
- 14. REMOVE ALL DEBRIS, WATER, MUD AND LOOSE EARTH FROM EXCAVATED AREA BEFORE POURING CONCRETE.
- 15. POWDER ACTUATED FASTENERS SUCH AS SHOTPINS. SHALL BE ICC ESR APPROVED.
- 16. PROVIDE SUFEVES FOR PLUMBING AND FLECTRICAL OPENINGS IN CONCRETE BEFORE PLACING, DO NOT CUT ANY REINFORCING WHICH MAY CONFLICT. CORING IN CONCRETE IS NOT PERMITTED EXCEPT AS SHOWN. NOTIFY THE ENGINEER ON RECORD IN ADVANCE OF CONDITIONS NOT SHOWN ON THE DRAWINGS.
- 17. ALL SAW CUTS IN SLAB ON GRADE SHALL BE MADE NOT LATER THAN 24 HOURS AFTER PLACING CONCRETE.
- 18. PIPES, DUCTS, CONDUITS, ETC. SHALL NOT BE PLACED IN SLABS UNLESS APPROVED BY THE ENGINEER OF RECORD.

## CONCRETE BLOCK MASONRY

- HORIZONTAL REINFORCING.
- ATTAINING A MINIMUM COMPRESSIVE STRENGTH 2.000 PSI AT 28 DAYS.
- 2 000 PSI AT 28 DAYS
- CELLS THAT ARE TO BE FILLED ARE TO BE BEDDED IN MORTAR.
- 6. REINFORCING SHALL HAVE A MINIMUM LAP OF 40 BARS DIAMETER OR 24" WHICH EVER IS LARGER.
- 7. BRICK SHALL CONFORM TO STANDARD SPECIFICATION FOR BUILDING BRICK ASTM C62, BRICK GROUTING PER T21-2413.
- 8. BED JOINTS TO BE FULLY BEDDING MORTAR. HEAD JOINTS TO BE SOLIDLY FILLED AT LEAST 11/2" FROM EACH FACE
- 9. GROUT THICKNESS BETWEEN BLOCK UNIT REINFORCING STEEL SHALL NOT BE LESS THAN %". SPACE BETWEEN ADJACENT BARS SHALL NOT BE LESS THAN 1" OR THE BAR DIAMETER, WHICH IS GREATER.

# AT FLOORS OR ROOF FRAMING LEVELS.

- OR GROUT
- MARKED SO ITS IDENTIFICATION CAN BE MADE WHEN THE FINAL IN PLACE INSPECTION IS MADE.
- 3. THE TIE WIRE USED SHALL BE BLACK ANNEALED WIRE, 16 GA. OR HEAVIER.
- 4. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
- DELETERIOUS MATERIALS. STEEL FABRICATOR SHALL BE LOCAL CITY LICENSED.
- 7. BARS SHALL BE SECURELY TIED TO PREVENT DISPLACEMENT DURING THE CONCRETE OPERATION AND ALL DOWELS SHALL BE WIRED IN PLACE
- BEFORE DEPOSITING CONCRETE.
- BE 36 BAR DIAMETER OR 2'-0" MINIMUM UNLESS OTHERWISE SHOWN.

- OF STEEL CONSTRUCTION, ASD (LATEST EDITION)
- B. PIPES: ASTM A53, TYPE "S", GRADE "B". C. TUBES:ASTM A501, GRADE "B" (FY = 46000 PSI.)
- G. ANCHOR BOLTS: A36: UNLESS NOTED OTHERWISE. A153 FOR HOT-DIP GALVA
- COMPLIANCE TO THE BUILDING INSPECTOR PRIOR TO ERECTION PER CBC SECTION 1704.2.2. 5. ALL STRUCTURAL STEEL AND MISCELLANEOUS METAL EXPOSED TO WEATHER SHALL BE PRIMED AND PAINTED BY GALVANIZED PAINT AFTER ERECTION.
- 6. CITY LICENSED FABRICATOR REQUIRED FOR ALL STRUCTURAL STEEL MEMBERS.
- BY THE ENGINEER. 8. WELD LENGTHS CALLED FOR ON PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED. WELD SIZE SHALL BE AISC MINIMUM UNLESS A LARGER SIZE
- 9. ALL WELD SIZES NOT SHOWN IN DETAILS HEREIN SHALL BE THE MINIMUM REQUIRED SIZE BASED ON THICKNESS OF THICKER PART AS PER AISC
- THIRTEENTH EDITION, TABLES J2.3 & J2.4. EXCEPTION: AT MEMBER SPLICES WELDS OR BOLTS SHALL DEVELOP FULL STRENGTH OF THE MEMBER OR COMPONENTS BEING CONNECTED
- 10. STRUCTURAL WELDING SHALL CONFORM TO AWS D1.1 AND THE AISC SPECIFICATION SPECIFICATION. ELECTRODES TO BE E70XX SERIES UNLESS NOTED OTHERWISE
- 11. SHOP WELDS MUST BE PERFORMED IN A CITY LICENCED FABRICATOR'S SHOP.
- 14. PROVIDE LEAD HOLE 40%-70% OF THREADED SHANK DIA. AND FULL DIA. FOR SMOOTH SHANK PORTION.
- NOTED ON PLANS OR DETAILS.
- ENGINEER AND CITY LICENSED DEPUTY INSPECTOR.
- A. 1. THE INTERNATIONAL BUILDING CODE (IBC), 2018 EDITION AND THE MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHERS STRUCTURES (ASCE 7-16) 2. CALIFORNIA BUILDING CODE (CBC), 2019 EDITION B. NATIONAL DESIGN SPECIFICATION (NDS) 2018 EDITION C. WWPA OR WCLIB STANDARD GRADING RULES FOR WESTERN LUMBER
- D PS-1 PLYWOOD STANDARDS E. ANSI A-208 -- PARTICLEBOARD SPECIFICATIONS
- HOLES OR NOTCHES NOT DETAILED.
- A. 2X STUDS, 2X TOP PLATE, 2X SILL PLATE: DF#2 B. 2X JOIST & RAFTER: DF# C. BEAM, HEADER & STRINGER: DF#1 OR BETTER D. POST & TIMBER:
- 4 PARALLAM LUMBER A. PARALLAM PARALLEL STRAND LUMBER (PSL) MANUFACTURED BY "WEYERHAUSER" COMPANY WITH E= 2,000,000 PSI & Fb= 2900 PSI IN ACCORDANCE WITH ESR-1387/ LARR 25202 AND CONFORM BY NDS 2018. B. THE PARALLAM BEAMS ARE TO BE FABRICATED IN THE SHOP OF A CALIFORNIA LICENSED FABRICATOR. SHALL BE FULLY WRAPPED IN WEATHER RESISTANT BARRIER.
- INSPECTOR. THE MANUFACTURER'S LOGO IS TO BE IMPRINTED ON THE SIDE OF THE BEAMS.
- 5. MICROLLAM LUMBER: & Fb= 2600 PSI IN ACCORDANCE WITH ESR-1387/ LARR 25202 AND CONFORM BY NDS 2018.
- B. THE MICOLLAM BEAMS ARE TO BE FABRICATED IN THE SHOP OF A CALIFORNIA LICENSED FABRICATOR.
- SHALL BE FULLY WRAPPED IN WEATHER RESISTANT BARRIER. INSPECTOR. THE MANUFACTURER'S LOGO IS TO BE IMPRINTED ON THE SIDE OF THE BEAMS.

- STRUCTURAL STEEL BUILDINGS". (LATEST EDITION). A. STRUCTURAL W SHAPES: ASTM A992, GRADE 50
  - D. ANGLES:ASTM A36 E. BOLTS: ASTM A307, GRADE A, EXCEPT AS NOTED. F. HIGH STRENGTH BOLTS: ASTM A325 SLIP CRITICAL UNLESS NOTED.

1. PROVIDE CONCRETE BLOCK OF NORMAL WEIGHT CLASSIFICATION COMPLYING WITH ASTM C90, GRADE N-1, WITH MINIMUM AVERAGE STRENGTH OF 2.000 PSI, UNLESS HIGH STRENGTH BLOCKS ARE SPECIFIED, ALL UNITS SHALL BE OPEN END, AND BOND BEAM UNITS SHALL BE USED AT

2. PROVIDE MORTAR COMPLYING WITH ASTM C270, TYPE S, 1 PART PORTLAND CEMENT, 3½ PARTS AND ¼ TO ½ PARTS LIME PUTTY OR HYDRATED,

3 PROVIDE GROUT COMPLYING WITH ASTM C476 TYPE S 1 PART PORTLAND CEMENT 3 SAND (FINE GROUT) AND MAY CONTAIN ADDITIONAL 2 PARTS PRE GRAVEL IF SPACES ARE 4 INCHES OR MORE IN EVERY DIRECTION (COARSE GROUT). ATTAINING A MINIMUM COMPRESSIVE STRENGTH

4 PROVIDE GALVANIZED WIRE TYPE HORIZONTAL JOINT REINFORCING AT 16" O.C. (MAX) AND AS INDICATED ON ARCHITECTURAL DRAWINGS. PROVIDE HOT DIP GALVANIZED HJR ON ALL EXTERIOR WALLS. IN ADDITION TO SCHEDULED OR DETAILED LINTEL AND SILL REINFORCING. PROVIDE TWO LAYERS OF HJR AT 8 INCHES ON CENTER ABOVE AND BELOW ALL LINTELS AND SILLS WHICH SPAN MORE THAN 12 INCHES. EXTEND ADDED HJR 24 INCHES BEYOND THE OPENING JAMBS EXCEPT AT WALL CONTROL JOINTS.

5. PLAIN END TWO CELLED UNITS SHALL BE USED FOR BLOCKS THAT ARE TO HAVE CELLS REINFORCED AND FILLED. WEB SHELLS ADJACENT TO

10. IF WORK IS STOPPED FOR ONE HOUR OR LONGER, PROVIDE HORIZONTAL CONSTRUCTION JOINTS BY STOPPING GROUT 1/2" BELOW TOP OF

11. ALL MASONRY WALLS SHOWN ON THE STRUCTURAL DRAWINGS HAVE BEEN DESIGNED TO RESIST THE REQUIRED CODE VERTICAL AND LATERAL FORCES IN THE FINAL CONSTRUCTED CONFIGURATION ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADEQUATELY BRACE THE WALLS FOR VERTICAL AND LATERAL LOADS THAT COULD POSSIBLY BE APPLIED PRIOR TO COMPLETION OF LATERAL SUPPORT BY CONNECTIONS

## REINFORCING STEEL

1. ALL REINFORCING BARS SHALL BE ACCURATELY AND SECURELY PLACED BEFORE POURING CONCRETE OR APPLYING MORTAR

2. ALL REINFORCING BARS SHALL BE ASTM A-615 GRADE 60 DEFORMED BILLET STEEL BARS. GRADE 60 BARS SHALL BE

5. ALL STEEL TO BE COATED SHALL BE CLEANED TO BASE METAL AND BE FREE OF ALL OILS, RUST, SCALE OR ANY OTHER

6. ALL HOOKS SHALL CONFORM TO THE BEND DIMENSION PER ACI "STANDARD HOOK" UNLESS OTHERWISE SHOWN ON THE DRAWINGS..

8. DOWELS BETWEEN FOOTINGS AND WALLS OR COLUMNS SHALL HAVE SAME SIZE AS THE VERTICAL REINFORCEMENT, EMBEDMENT OF DOWELS SHALL

9. WELDING SHALL BE ELECTRIC ARC PROCESS (E70XX) PERFORMED BY QUALIFIED WELDERS AND CERTIFIED BY THE LOCAL CITY OF BUILDING & SAFETY DEPARTMENT. ALL FIELD WELDING SHALL BE PROVIDED WITH CONT. INSPECTION BY A CERTIFIED DEPUTY INSPECTOR.

10. MINIMUM LAP OF MESH SHALL BE NOT LESS THAN THE SPACING OF THE CROSS WIRE PLUS TWO INCHES OR 60 DIA. OR 8" WHICHEVER IS GREATER. 11. WELDED WIRE MESH SHALL CONFIRM TO ASTM A185 GRADE 65 FOR PLAIN WIRE AND ASTM A497 GRADE 75 FOR DEFORMED BAR.

## STRUCTURAL STEEL

1. FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), "MANUAL

2. ALL STEEL DETAILS AND CONNECTIONS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE AISC "SPECIFICATION FOR

3. STEEL MATERIALS SHALL CONFORM TO THE FOLLOWING UNLESS OTHERWISE NOTED ON THE DRAWINGS:

H. GALVANIZING: ASTM A123 FOR ROLLED, PRESSED, AND FORGED STEEL SHAPES, PLATES, BARS, AND STRIP GREATER THAN %" THICK, ASTM I. SHOP PAINT: SSPC-PAINT 13, SHOP PRIME ALL STRUCTURAL STEEL EXCEPT PORTIONS TO BE EMBEDDED IN CONCRETE OR MORTAR.

4. ALL STEEL MEMBERS SHALL BE MADE IN A N APPROVED FABRICATOR'S SHOP: THE APPROVED FABRICATOR SHALL SUBMIT THE CERTIFICATE OF

7. BOLT HOLES IN STEEL SHALL BE 1/16 INCH LARGER IN DIAMETER THAN NORMAL SIZE OF BOLT USED. UNLESS NOTED OTHERWISE. OVERSIZED OR SLOTTED HOLES SHALL NOT BE USED FOR ANY CONNECTIONS UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS OR APPROVED IN WRITING

12. FIELD WELDERS SHALL BE CERTIFIED BY THE CITY DEPARTMENT OF BUILDING AND SAFETY.

13. WELDING TESTS AND INSPECTIONS: PER BUILDING DEPARTMENT REQUIREMENTS AND SPECIFICATIONS.

15. STEEL COLUMNS, BASE PLATES AND ALL STEEL BELOW GRADE SHALL HAVE A MINIMUM 3" CONCRETE COVER PROTECTION. UNLESS SPECIAL

16. SUBMIT FOR REVIEW SHOP DRAWINGS OF STEEL DETAILS PRIOR TO FABRICATING STRUCTURAL STEEL. CUTS, HOLES, COPING, ETC. REQUIRED FOR WORK OF OTHER TRADES SHALL BE SHOWN ON THE SHOP DRAWINGS AND MADE IN THE SHOP. CUTS OR BURNING OF HOLES IN STRUCTURAL STEEL MEMBERS IN THE FIELD WILL NOT BE PERMITTED, UNLESS SPECIFICALLY APPROVED IN EACH CASE BY THE STRUCTURAL

## WOOD

1. THE FOLLOWING CODES AND SPECIFICATIONS SHALL GOVERN THE CONSTRUCTION OF STRUCTURAL WOOD SYSTEMS;

2. NO STRUCTURAL MEMBER SHALL BE CUT OR NOTCHED FOR PIPES, ETC. UNLESS SPECIFICALLY NOTED. OBTAIN ENGINEER'S APPROVAL FOR ANY

3. ALL LUMBER SHALL BE GRADE MARKED DOUGLAS FIR-LARCH AND SHALL HAVE THE FOLLOWING GRADES, UNLESS NOTED OTHERWISE:

DF#1 OR BETTER

C. PARALLAM SHALL NOT BE EXPOSED TO THE WEATHER.WHEN USED ON THE EXTERIOR OF A STRUCTURE THESE PRODUCTS D. PARALLAM BEAMS ARE TO BE LOAD TESTED BY THE MANUFACTURER AND THE TEST RESULTS SUBMITTED TO THE BUILDING

A. MICROLLAM LAMINATED VENEER LUMBER (LVL) SHALL BE MANUFACTURED BY "WEYERHAUSER" COMPANY WITH E=1,900,000 PSI C. PARALLAM SHALL NOT BE EXPOSED TO THE WEATHER. WHEN USED ON THE EXTERIOR OF A STRUCTURE THESE PRODUCTS D. PARALLAM BEAMS ARE TO BE LOAD TESTED BY THE MANUFACTURER AND THE TEST RESULTS SUBMITTED TO THE BUILDING

- 6. GLUE-LAMINATED WOOD: A. GLUE LAMINATED WOOD BEAMS (GLU) SHALL BE COMBINATION 24F-V8 WITH Fb= 2400 PSI. UNLESS OTHERWISE NOTED, UTILIZING A WET-USE ADHESIVE CONFORMING TO A.S.T.M. D-2559. MEMBERS SHALL BE ARCHITECTURAL GRADE APPEARANCE UNLESS OTHERWISE NOTED ON THE STRUCTURAL OR ARCHITECTURAL DRAWINGS.
- B. ALL UNITS SHALL COMPLY WITH A.I.T.C. 190.1 AND BEAR EITHER THE A.I.T.C.OR THE APA/EWS "QUALITY INSPECTED" MARK. BY A CALIFORNIA LICENSED FABRICATOR. C. AN AITC CERTIFICATE OF INSPECTION FOR ALL GLUED LAMINATED TIMBER SHALL BE SUBMITTED TO THE BUILDING AND SAFETY DIVISION INSPECTOR PRIOR TO ERECTION
- 7. PRESSURE TREATED LUMBER A. LUMBER AND PLYWOOD WITH WATER-BORNE PRESERVATIVES TO COMPLY WITH AWC NDS 2018 AND CBC 2019, 2303.1.8
- B. WOO FOR ABOVE GROUND USES USE AWPA LP-2 C. PRESSURE TREAT CANTS, NAILERS, BLOCKING, STRIPPING AND SIMILAR ITEMS IN CONJUNCTION WITH ROOFING, FLASHING,
- VAPOR BARRIERS, AN WATER-PROOFING OR USE REDWOOD. D. PRESSURE TREAT SILLS, SLEEPERS, NAILERS, BLOCKING, FURRING AND SIMILAR ITEMS IN DIRECT CONTACT WITH CONCRETE OR MASONRY OR LISE REDWOOD

8. PLYWOOD SHALL BE DOUGLAS FIR AND SHALL COMPLY WITH U.S. PRODUCT STANDARD PS 1-19. GRADES AND SIZES SHALL BE AS SPECIFIED ON PLANS. PLYWOOD SHEATHING SHALL BE FULL SIZE SHEET WHERE POSSIBLE WITH 48" X 32" MINIMUM SHEET SIZE AND LAID CONTINUOUSLY OVER TWO OR MORE SPANS WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. A. ROOF SHEATHING SHALL BE GRADE MARKED "D.F.P.A." WITH 1/2" THK "CDX" PLYWOOD 4 OR 5 PLY. PANEL INDEX 24/0 OR

- BETTER. NAILED WITH 10d SCREW SHANK COMMON NAILS AT 6" O.C. AT EDGES AND BOUNDARIES, AT 12" O.C. IN FIELD. U.N.O. B. FLOOR OR TERRACE SHEATHING SHALL BE GRADE MARKED "D.F.P.A." WITH 3/4" THK "CDX" PLYWOOD 4 OR 5 PLY. PANEL INDEX 36/16 OR BETTER. EDGES SHALL HAVE APPROVED TONGUE-AND-GROOVE JOINTS. NAILED WITH 10d SCREW SHANK COMMON
- NAILS AT 6" O.C. AT EDGES AND BOUNDARIES. AT 12" O.C. IN FIELD, U.N.O. C. WOOD STRUCTURAL PANELS, WHEN USED STRUCTURALLY, SHALL CONFORM TO THE REQUIREMENTS FOR THEIR TYPE IN
- DOC PSI-19 AND/ OR PS2-20 D. ALL PLYWOOD & NAILS FOR STRUCTURAL SHEAR WALL SHALL BE PER PLAN, NAILING SCHEDULE & SHEAR WALL SCHEDULE F. ROOF AND FLOOR SHEATHING, AND SHEAR WALL PANELS, NAILING AND INSTALLATION INSPECTED AND APPROVED BY THE
- 9 WALL FRAMING A. STUDS SHALL BE PLACED WITH THEIR WIDE DIMENSION PERPENDICULAR TO THE WALL B. USING ONE PIECE OF 4X POST OR NOT LESS THAN THREE STUDS SHALL BE INSTALLED AT EACH CORNER OF EXTERIOR WALL C. EXTERIOR WALLS: 7/8" THK. CEMENT PLASTER ON FURRED OR SELF-FURRING EXPANDED METAL OR FABRIC LATH WITH #11
- GA., 1%" LONG, 7/16" DIA, HEAD GALV, AT 6" O.C. D. INTERIOR WALLS: 5/8" TYPE "X" GYPSUM WALLBOARD FASTENED TYPE W BUGLE HEAD DRYWALL SCREWS @ 12" O.C.
- CEILINGS, 16" O.C. WALLS, 5/8" MIN. PENETRATION INTO FRAMING. BLOCKING REQ'D, TYP. U.N.O.( 2 PLY GYPBD. REQUIRED PER ARCH'L. E. END JOINTS IN DOUBLE TOP PLATES SHALL BE OFFSET AT LEAST 48 INCHES. TOP PLATES SHALL BE SPLICES WITH (12)-16d,
- UNLESS NOTED OTHERWISE. F. PROVIDE FIRE BLOCKING AT MID-HEIGHT OF STUD WALLS EXCEEDING 8'-0" IN COMPLIANCE WITH LOCAL CODE. FIRE BLOCKING
- SHALL BE 2X MATERIAL OF SAME WIDTH AS THE STUDS. G. PROVIDE FULL-HEIGHT STUDS (BALLOON FRAME) ON EXTERIOR WALLS WITH SLOPED ROOF AND STAIRS. ADD 4X SOLID BLK'G
- @48" O.C. AT VERTICAL DIRECTION BETWEEN STUDS H. NOTCHING OF EXTERIOR AND BEARING/NONBEARING STUD WALLS SHALL NOT EXCEED 25%/40% RESPECTIVELY. BOARD HOLES IN BEARING/NONBEARING STUD WALLS SHALL NOT EXCEED 40%/60% RESPECTIVELY. OTHERWISE NEED NOTICE TO ENGINEER. I. AT ALL WALLS PROVIDE A SINGLE BOTTOM PLATE. WHERE PLATES ARE CUT OR BORED PROVIDE %"X1½" METAL STRAP EACH
- SIDE WITH (4)-16d NAILS. 10. PRE-DRILL FOR NAILING AS REQUIRED WHEN NAIL SPACING RESULTS IN WOOD SPLITTING. PRE-DRILL HOLES SHALL BE SMALLER THAN THE DIAMETER OF THE NAILS
- 11. BOLT HOLES SHALL BE  $\frac{1}{32}$ " TO  $\frac{1}{16}$ " MAXIMUM LARGER THAN THE BOLT SIZE. RETIGHTENS ALL NUTS PRIOR TO CLOSING IN. 12. REFERENCE 2019 CBC SECTIONS 2308.5.9, 2308.5.10, 2308.5.7 2308.4.2.4 AND 2308.7.4 FOR RULES REGARDING THE CUTTING,
- NOTCHING AND BORING OF JOISTS STUDS AND BEAMS 13 ALL NAILS SHALL BE UTILIZE COMMON NAILS OR GALVANIZED BOX IN COMPLIANCE WITH FEDERAL SPECIFICATIONS FE-N-105B
- SINKERS SHALL NOT BE ALLOWED UNLESS SPECIFIED OR APPROVED BY THE ENGINEER. ALL NAILS EXPOSED TO WEATHER, HEAT AND/OR MOISTURE SHALL BE GALVANIZED.
- 14 ALL WOOD IN CONTACT WITH THE GROUND, CONCRETE OR MASONRY THAT ARE LESS THAN 8" ABOVE GRADE SHALL BE PRESSURE TREATED OR HEART REDWOOD/CEDAR WITH APPROVED RESISTANCE TO DECAY AND ATTACK FROM INSECTS.
- 15. PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS AND SOLID BLOCKING UNDER ALL PERPENDICULAR PARTITIONS. 16. FOR PORTIONS OF BUILDING FRAMED PER CONVENTIONAL FRAMING PROVISIONS IN THE CBC 2019, 2308.2.7, PROVIDE 1X6 LET-IN DIAGONAL BRACES AT EACH 25 LINEAR FEET OF WALL, EACH CORNER AND ALL MAIN CROSS STUD PARTITIONS. LET-IN TO CROSS 4 STUD SPACES AT 45 DEGREES WHERE POSSIBLE. EACH BRACE SHALL COVER NOT LESS FOUR (4) STUD SPACES AND BE NAILED TO TOP AND BOTTOM PLATES WITH 3-8d NAILS.
- 17. ALL SILL BOLTS SHALL BE PLACED STARTING 9" FROM THE ENDS OF A BOARD OR FROM A NOTCH AND SPACED AT INTERVALS AS NOTED ON THE PLANS

18. STANDARD SQUARE PLATE WASHERS SHALL BE USED UNDER BOLT HEADS AND NUTS WITH ALL ANCHOR BOLTS AGAINST WOOD. 19. THE SILL PLATE ANCHOR BOLTS AND HOLD-DOWN CONNECTOR BOLTS AT ALL PLYWOOD SHEAR WALL SHALL HAVE THE PLATE WASHERS AS LISTED BELOW:

	LD DELOTI,	
BOLT SIZE	PLATE SIZE (ASTM A36)	MIN. EDGE DISTANCE (INCH)
5/8"Ø	0.229"X3"X3"	1 7/8
3/4"Ø	0.229"X3"X3"	2 1/2
7/8"Ø	5/16"X3"X3"	2 5/8
1 1/4"Ø	3/8"X3.5"X3.5"	3 3/4

BUILDING DEPARTMENT PRIOR TO COVERING

20. ALL FRAMING CONNECTORS, ANCHORS, CLIPS, STRAPS, HANGERS, ETC, SHALL BE AS MANUFACTURED BY THE "SIMPSON COMPANY" OR APPROVED EQUAL

NAILING SCHEDULE (TABLE 2304.10.1, CBC 2019)

CONNECTION	NAILING <sup>1</sup>
1. JOIST TO SILL OR GIRDER, TOENAIL	3-8d
2. BRIDGING TO JST., TOENAIL EA. END	2-8d
3. 1"X6" (25 MM X 152 MM ) SUBFLOOR OR LESS TO EA. JST., FACE NAIL	2-8d
4. WIDER THAN 1"X6" (25 MM X 152 MM) SUBFLOOR TO EA. JST., FACE NAIL	3-8d
5. 2" (51MM) SUBFLOOR TO JST. OR GIRDER, BLIND & FACE NAIL	2-16d
6. SOLE PLATE TO JST. OR BLK'G, TYPICAL FACE NAIL	16d @ 16" (406 MM) O.C.
6. SOLE PLATE TO JST. OR BLK'G, AT BRACED WALL PANELS	3-16d PER 16' (406 MM)
7. TOP PLATE TO STUD. END NAIL	2-16d
8. STUD TO SOLE PLATE	4-8d TOENAIL OR 2-16d END NAIL
9. DOUBLE STUDS, FACE NAIL	16d @ 24" (610 MM) O.C.
10. DOUBLE TOP PLATES, TYPICAL FACE NAIL	16d @ 16' (406 MM) O.C.
DOUBLE TOP PLATE, LAP SPLICE	8-16d
11. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOENAIL	3-8d
12. RIM JOIST TO TOP PLATE, TOENAIL	8d AT 6" (152MM) O.C.
13. CEILING PLATES, LAPS AND INTERSECTIONS, FACE NAIL	2-16d
14. CONTINUOUS HEADER TWO PIECES	16d AT 16" (406 MM ) O.C. ALONG EACH EDGE
15. CEILING JOISTS TO PLATE TOENAIL	3-8d
16. CONTINUOUS HEADER TO STUD, TOENAIL	4-8d
17. CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	3-16d
18. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	3-16d
19. RAFTER TO PLATE, TOENAIL	3-8d
20. 1" (25MM) BRACE TO EACH STUD AND PLATE, FACE NAIL	2-8d
21. 1" X 8" (25 MM X 203 MM) SHEATHING OR LESS TO EACH BEARING FACE NAIL	- 2-8d
22. WIDER THAN 1" X 8" (25 MM X 203 MM) SHEATHING TO EACH BEARING, FACE	NAIL 3-8d
23. BUILT-UP CORNER STUDS	16d AT 24" (610 MM) O.C.
23. BUILT-UP CORNER STUDS 24. BUILT-UP GIRDER AND BEAMS	16d AT 24" (610 MM) O.C. 20d AT 32" (813 MM) O.C. AT TOP AND BOTTOM AND
23. BUILT-UP CORNER STUDS 24. BUILT-UP GIRDER AND BEAMS	16d AT 24" (610 MM) O.C. 20d AT 32" (813 MM) O.C. AT TOP AND BOTTOM AND STAGGERED (2)-20d AT ENDS AND AT EACH SPLICE
23. BUILT-UP CORNER STUDS         24. BUILT-UP GIRDER AND BEAMS         25. 2" (51 MM) PLANKS	16d AT 24" (610 MM) O.C. 20d AT 32" (813 MM) O.C. AT TOP AND BOTTOM AND STAGGERED (2)-20d AT ENDS AND AT EACH SPLICE 2-16d AT EACH BEARING
23. BUILT-UP CORNER STUDS 24. BUILT-UP GIRDER AND BEAMS 25. 2" (51 MM) PLANKS 26. WOOD STRUCTURAL PANELS AND PARTICLE BOARD:	16d AT 24" (610 MM) O.C. 20d AT 32" (813 MM) O.C. AT TOP AND BOTTOM AND STAGGERED (2)-20d AT ENDS AND AT EACH SPLICE 2-16d AT EACH BEARING
23. BUILT-UP CORNER STUDS 24. BUILT-UP GIRDER AND BEAMS 25. 2" (51 MM) PLANKS 26. WOOD STRUCTURAL PANELS AND PARTICLE BOARD: SUBFLOOR AND WALL SHEATHING (TO FRAMING):	16d AT 24" (610 MM) O.C. 20d AT 32" (813 MM) O.C. AT TOP AND BOTTOM AND STAGGERED (2)-20d AT ENDS AND AT EACH SPLICE 2-16d AT EACH BEARING
23. BUILT-UP CORNER STUDS 24. BUILT-UP GIRDER AND BEAMS 25. 2" (51 MM) PLANKS 26. WOOD STRUCTURAL PANELS AND PARTICLE BOARD: SUBFLOOR AND WALL SHEATHING (TO FRAMING): 1/2" (12.7 MM) AND LESS	16d AT 24" (610 MM) O.C. 20d AT 32" (813 MM) O.C. AT TOP AND BOTTOM AND STAGGERED (2)-20d AT ENDS AND AT EACH SPLICE 2-16d AT EACH BEARING 6d <sup>3</sup>
23. BUILT-UP CORNER STUDS 24. BUILT-UP GIRDER AND BEAMS 25. 2" (51 MM) PLANKS 26. WOOD STRUCTURAL PANELS AND PARTICLE BOARD: SUBFLOOR AND WALL SHEATHING (TO FRAMING): 1/2" (12.7 MM) AND LESS 19"/32" 3/4" (15 MM-19 MM)	16d AT 24" (610 MM) O.C. 20d AT 32" (813 MM) O.C. AT TOP AND BOTTOM AND STAGGERED (2)-20d AT ENDS AND AT EACH SPLICE 2-16d AT EACH BEARING 6d <sup>3</sup> 8d <sup>4</sup> or 6d <sup>5</sup>
23. BUILT-UP CORNER STUDS 24. BUILT-UP GIRDER AND BEAMS 25. 2" (51 MM) PLANKS 26. WOOD STRUCTURAL PANELS AND PARTICLE BOARD: SUBFLOOR AND WALL SHEATHING (TO FRAMING): 1/2" (12.7 MM) AND LESS 19"/32" 3/4" (15 MM-19 MM) 7/8"-1" (22 MM-25MM)	16d AT 24" (610 MM) O.C. 20d AT 32" (813 MM) O.C. AT TOP AND BOTTOM AND STAGGERED (2)-20d AT ENDS AND AT EACH SPLICE 2-16d AT EACH BEARING 6d <sup>3</sup> 8d <sup>4</sup> or 6d <sup>5</sup> 8d <sup>3</sup>
23. BUILT-UP CORNER STUDS 24. BUILT-UP GIRDER AND BEAMS 25. 2" (51 MM) PLANKS 26. WOOD STRUCTURAL PANELS AND PARTICLE BOARD: SUBFLOOR AND WALL SHEATHING (TO FRAMING): 1/2" (12.7 MM) AND LESS 19"/32" 3/4" (15 MM-19 MM) 7/8"-1" (22 MM-25MM) 1 1/8"-1 1/4" (29 MM-32 MM)	$\begin{array}{c} 16d \text{ AT } 24" \ (610 \text{ MM}) \text{ O.C.} \\ 20d \text{ AT } 32" \ (813 \text{ MM}) \text{ O.C. AT TOP AND BOTTOM AND} \\ \text{STAGGERED (2)-20d AT ENDS AND AT EACH SPLICE} \\ \hline 2-16d \text{ AT EACH BEARING} \\ & 6d^3 \\ & 8d^4 \text{ or } 6d^5 \\ & 8d^3 \\ & 10d^4 \text{ or } 8d^5 \end{array}$
23. BUILT-UP CORNER STUDS 24. BUILT-UP GIRDER AND BEAMS 25. 2" (51 MM) PLANKS 26. WOOD STRUCTURAL PANELS AND PARTICLE BOARD: SUBFLOOR AND WALL SHEATHING (TO FRAMING): 1/2" (12.7 MM) AND LESS 19"/32" 3/4" (15 MM-19 MM) 7/8"-1" (22 MM-25MM) 1 1/8"-1 1/4" (29 MM-32 MM) COMBINATION SUBFLOOR-UNDERLAYMENT(TO FRAMING):	$\begin{array}{c} 16d \text{ AT } 24" \ (610 \text{ MM}) \text{ O.C.} \\ 20d \text{ AT } 32" \ (813 \text{ MM}) \text{ O.C. AT TOP AND BOTTOM AND} \\ \text{STAGGERED (2)-20d AT ENDS AND AT EACH SPLICE} \\ \hline 2-16d \text{ AT EACH BEARING} \\ & 6d^3 \\ 8d^4 \text{ or } 6d^5 \\ & 8d^3 \\ 10d^4 \text{ or } 8d^5 \end{array}$
23. BUILT-UP CORNER STUDS 24. BUILT-UP GIRDER AND BEAMS 25. 2" (51 MM) PLANKS 26. WOOD STRUCTURAL PANELS AND PARTICLE BOARD: SUBFLOOR AND WALL SHEATHING (TO FRAMING): 1/2" (12.7 MM) AND LESS 19"/32" 3/4" (15 MM-19 MM) 7/8"-1" (22 MM-25MM) 1 1/8"-1 1/4" (29 MM-32 MM) COMBINATION SUBFLOOR-UNDERLAYMENT(TO FRAMING): 3/4" (19 MM) AND LESS	$\begin{array}{c} 16d \text{ AT } 24" (610 \text{ MM}) \text{ O.C.} \\ 20d \text{ AT } 32" (813 \text{ MM}) \text{ O.C. AT TOP AND BOTTOM AND} \\ \text{STAGGERED (2)-20d AT ENDS AND AT EACH SPLICE} \\ \hline 2-16d \text{ AT EACH BEARING} \\ & 6d^3 \\ & 8d^4 \text{ or } 6d^5 \\ & 8d^3 \\ & 10d^4 \text{ or } 8d^5 \\ & 6d_2^5 \end{array}$
23. BUILT-UP CORNER STUDS 24. BUILT-UP GIRDER AND BEAMS 25. 2" (51 MM) PLANKS 26. WOOD STRUCTURAL PANELS AND PARTICLE BOARD: SUBFLOOR AND WALL SHEATHING (TO FRAMING): 1/2" (12.7 MM) AND LESS 19"/32" 3/4" (15 MM-19 MM) 7/8"-1" (22 MM-25MM) 1 1/8"-1 1/4" (29 MM-32 MM) COMBINATION SUBFLOOR-UNDERLAYMENT(TO FRAMING): 3/4" (19 MM) AND LESS 7/8" -1" (22 MM-25 MM)	$\begin{array}{c} 16d \text{ AT } 24" \ (610 \text{ MM}) \text{ O.C.} \\ 20d \text{ AT } 32" \ (813 \text{ MM}) \text{ O.C. AT TOP AND BOTTOM AND} \\ \text{STAGGERED (2)-20d AT ENDS AND AT EACH SPLICE} \\ \hline 2-16d \text{ AT EACH BEARING} \\ \hline 6d^3 \\ 8d^4 \text{ or } 6d^5 \\ 8d^3 \\ 10d^4 \text{ or } 8d^5 \\ \hline 6d^5 \\ 8d^5 \end{array}$
23. BUILT-UP CORNER STUDS 24. BUILT-UP GIRDER AND BEAMS 25. 2" (51 MM) PLANKS 26. WOOD STRUCTURAL PANELS AND PARTICLE BOARD: SUBFLOOR AND WALL SHEATHING (TO FRAMING): 1/2" (12.7 MM) AND LESS 19"/32" 3/4" (15 MM-19 MM) 7/8"-1" (22 MM-25MM) 1 1/8"-1 1/4" (29 MM-32 MM) COMBINATION SUBFLOOR-UNDERLAYMENT(TO FRAMING): 3/4" (19 MM) AND LESS 7/8" -1" (22 MM-25 MM) 1 1/8"- 1 1/4" (29 MM-32 MM)	$\begin{array}{c} 16d \text{ AT } 24" \ (610 \text{ MM}) \text{ O.C.} \\ 20d \text{ AT } 32" \ (813 \text{ MM}) \text{ O.C. AT TOP AND BOTTOM AND} \\ \text{STAGGERED (2)-20d AT ENDS AND AT EACH SPLICE} \\ \hline 2-16d \text{ AT EACH BEARING} \\ 6d^3 \\ 8d^4 \text{ or } 6d^5 \\ 8d^3 \\ 10d^4 \text{ or } 8d^5 \\ 6d^5 \\ 8d^5 \\ 10d^4 \text{ or } 8d^5 \end{array}$
23. BUILT-UP CORNER STUDS 24. BUILT-UP GIRDER AND BEAMS 25. 2" (51 MM) PLANKS 26. WOOD STRUCTURAL PANELS AND PARTICLE BOARD: SUBFLOOR AND WALL SHEATHING (TO FRAMING): 1/2" (12.7 MM) AND LESS 19"/32" 3/4" (15 MM-19 MM) 7/8"-1" (22 MM-25MM) 1 1/8"-1 1/4" (29 MM-32 MM) COMBINATION SUBFLOOR-UNDERLAYMENT(TO FRAMING): 3/4" (19 MM) AND LESS 7/8" -1" (22 MM-25 MM) 1 1/8"-1 1/4" (29 MM-32 MM) 27. PANEL SIDING (TO FRAMING)	$\begin{array}{c} 16d \text{ AT } 24" (610 \text{ MM}) \text{ O.C.} \\ 20d \text{ AT } 32" (813 \text{ MM}) \text{ O.C. AT TOP AND BOTTOM AND} \\ \text{STAGGERED (2)-20d AT ENDS AND AT EACH SPLICE} \\ \hline 2-16d \text{ AT EACH BEARING} \\ 6d^3 \\ 8d^4 \text{ or } 6d^5 \\ 8d^3 \\ 10d^4 \text{ or } 8d^5 \\ 6d^5 \\ 8d^5 \\ 10d^4 \text{ or } 8d^5 \\ \hline 10d^4 \text{ or } 8d^$
23. BUILT-UP CORNER STUDS 24. BUILT-UP GIRDER AND BEAMS 25. 2" (51 MM) PLANKS 26. WOOD STRUCTURAL PANELS AND PARTICLE BOARD: SUBFLOOR AND WALL SHEATHING (TO FRAMING): 1/2" (12.7 MM) AND LESS 19"/32" 3/4" (15 MM-19 MM) 7/8"-1" (22 MM-25MM) 1 1/8"-1 1/4" (29 MM-32 MM) COMBINATION SUBFLOOR-UNDERLAYMENT(TO FRAMING): 3/4" (19 MM) AND LESS 7/8" -1" (22 MM-25 MM) 1 1/8"- 1 1/4" (29 MM-32 MM) 27. PANEL SIDING (TO FRAMING) 1/2" (12.7 MM) OR LESS	$\begin{array}{c} 16d \text{ AT } 24" (610 \text{ MM}) \text{ O.C.} \\ 20d \text{ AT } 32" (813 \text{ MM}) \text{ O.C. AT TOP AND BOTTOM AND} \\ \text{STAGGERED (2)-20d AT ENDS AND AT EACH SPLICE} \\ \hline 2-16d \text{ AT EACH BEARING} \\ 6d^3 \\ 8d^4 \text{ or } 6d^5 \\ 8d^3 \\ 10d^4 \text{ or } 8d^5 \\ 6d^5 \\ 8d^5 \\ 10d^4 \text{ or } 8d^5 \\ 6d^6 \\ 8d^5 \\ 6d^6 \\ 8d^6 \\ 8d^$
23. BUILT-UP CORNER STUDS 24. BUILT-UP GIRDER AND BEAMS 25. 2" (51 MM) PLANKS 26. WOOD STRUCTURAL PANELS AND PARTICLE BOARD: SUBFLOOR AND WALL SHEATHING (TO FRAMING): 1/2" (12.7 MM) AND LESS 19"/32" 3/4" (15 MM-19 MM) 7/8"-1" (22 MM-25MM) 1 1/8"-1 1/4" (29 MM-32 MM) COMBINATION SUBFLOOR-UNDERLAYMENT(TO FRAMING): 3/4" (19 MM) AND LESS 7/8" -1" (22 MM-25 MM) 1 1/8"- 1 1/4" (29 MM-32 MM) 27. PANEL SIDING (TO FRAMING) 1/2" (12.7 MM) OR LESS 5/8" (16 MM)	$\begin{array}{c} 16d \text{ AT } 24" \ (610 \text{ MM}) \text{ O.C.} \\ 20d \text{ AT } 32" \ (813 \text{ MM}) \text{ O.C. AT TOP AND BOTTOM AND} \\ \text{STAGGERED (2)-20d AT ENDS AND AT EACH SPLICE} \\ \hline 2-16d \text{ AT EACH BEARING} \\ \hline 6d^3 \\ 8d^4 \text{ or } 6d^5 \\ 8d^3 \\ 10d^4 \text{ or } 8d^5 \\ \hline 6d^5 \\ 8d^5 \\ 10d^4 \text{ or } 8d^5 \\ \hline 6d^6 \\ 8d^6 \\ \hline 0 \\ 6d^6 \\ 8d^6 \\ \hline 0 \\ \hline 0 \\ 6d \\ $
23. BUILT-UP CORNER STUDS 24. BUILT-UP GIRDER AND BEAMS 25. 2" (51 MM) PLANKS 26. WOOD STRUCTURAL PANELS AND PARTICLE BOARD: SUBFLOOR AND WALL SHEATHING (TO FRAMING): 1/2" (12.7 MM) AND LESS 19"/32" 3/4" (15 MM-19 MM) 7/8"-1" (22 MM-25MM) 1 1/8"-1 1/4" (29 MM-32 MM) COMBINATION SUBFLOOR-UNDERLAYMENT(TO FRAMING): 3/4" (19 MM) AND LESS 7/8" -1" (22 MM-25 MM) 1 1/8"- 1 1/4" (29 MM-32 MM) 27. PANEL SIDING (TO FRAMING) 1/2" (12.7 MM) OR LESS 5/8" (16 MM) 28. FIBERBOARD SHEATHING:	$\begin{array}{c} 16d \text{ AT } 24" \ (610 \text{ MM}) \text{ O.C.} \\ 20d \text{ AT } 32" \ (813 \text{ MM}) \text{ O.C. AT TOP AND BOTTOM AND} \\ \text{STAGGERED (2)-20d AT ENDS AND AT EACH SPLICE} \\ \hline 2-16d \text{ AT EACH BEARING} \\ \hline 6d^3 \\ 8d^4 \text{ or } 6d^5 \\ 8d^3 \\ 10d^4 \text{ or } 8d^5 \\ \hline 6d^5 \\ 8d^5 \\ 10d^4 \text{ or } 8d^5 \\ \hline 6d^6 \\ 8d^6 \\ \hline NO.11 \ ga.^8 \\ ed^4 \end{array}$
23. BUILT-UP CORNER STUDS 24. BUILT-UP GIRDER AND BEAMS 25. 2" (51 MM) PLANKS 26. WOOD STRUCTURAL PANELS AND PARTICLE BOARD: SUBFLOOR AND WALL SHEATHING (TO FRAMING): 1/2" (12.7 MM) AND LESS 19"/32" 3/4" (15 MM-19 MM) 7/8"-1" (22 MM-25MM) 1 1/8"-1 1/4" (29 MM-32 MM) COMBINATION SUBFLOOR-UNDERLAYMENT(TO FRAMING): 3/4" (19 MM) AND LESS 7/8" -1" (22 MM-25 MM) 1 1/8"- 1 1/4" (29 MM-32 MM) 27. PANEL SIDING (TO FRAMING) 1/2" (12.7 MM) OR LESS 5/8" (16 MM) 28. FIBERBOARD SHEATHING: 1/2" (12.7 MM)	$\begin{array}{c} 16d \text{ AT } 24" (610 \text{ MM}) \text{ O.C.} \\ 20d \text{ AT } 32" (813 \text{ MM}) \text{ O.C. AT TOP AND BOTTOM AND} \\ \text{STAGGERED (2)-20d AT ENDS AND AT EACH SPLICE} \\ \hline 2-16d \text{ AT EACH BEARING} \\ \hline 6d^3 \\ 8d^4 \text{ or } 6d^5 \\ 8d^3 \\ 10d^4 \text{ or } 8d^5 \\ \hline 6d^5 \\ 8d^5 \\ 10d^4 \text{ or } 8d^5 \\ \hline 10d^4 \text{ or } 8d^5 \\ \hline 6d^6 \\ 8d^6 \\ \hline \text{NO.11 ga.}^8 \\ 6d^4 \\ \text{NO.16 ga.}^9 \end{array}$
23. BUILT-UP CORNER STUDS 24. BUILT-UP GIRDER AND BEAMS 25. 2" (51 MM) PLANKS 26. WOOD STRUCTURAL PANELS AND PARTICLE BOARD: SUBFLOOR AND WALL SHEATHING (TO FRAMING): 1/2" (12.7 MM) AND LESS 19"/32" 3/4" (15 MM-19 MM) 7/8"-1" (22 MM-25MM) 1 1/8"-1 1/4" (29 MM-32 MM) COMBINATION SUBFLOOR-UNDERLAYMENT(TO FRAMING): 3/4" (19 MM) AND LESS 7/8" -1" (22 MM-25 MM) 1 1/8"- 1 1/4" (29 MM-32 MM) 27. PANEL SIDING (TO FRAMING) 1/2" (12.7 MM) OR LESS 5/8" (16 MM) 28. FIBERBOARD SHEATHING: 1/2" (12.7 MM)	$\begin{array}{c} 16d \text{ AT } 24" (610 \text{ MM}) \text{ O.C.} \\ 20d \text{ AT } 32" (813 \text{ MM}) \text{ O.C. AT TOP AND BOTTOM AND} \\ \text{STAGGERED (2)-20d AT ENDS AND AT EACH SPLICE} \\ \hline 2-16d \text{ AT EACH BEARING} \\ \hline 6d^3 \\ 8d^4 \text{ or } 6d^5 \\ 8d^3 \\ 10d^4 \text{ or } 8d^5 \\ \hline 6d^5 \\ 8d^5 \\ 10d^4 \text{ or } 8d^5 \\ \hline 10d^4 \text{ or } 8d^5 \\ \hline 6d^6 \\ 8d^6 \\ \hline NO.11 \text{ ga.}^8 \\ \hline 6d^4 \\ NO.16 \text{ ga.}^9 \\ NO.11 \text{ ga.}^8 \end{array}$
23. BUILT-UP CORNER STUDS 24. BUILT-UP GIRDER AND BEAMS 25. 2" (51 MM) PLANKS 26. WOOD STRUCTURAL PANELS AND PARTICLE BOARD: SUBFLOOR AND WALL SHEATHING (TO FRAMING): 1/2" (12.7 MM) AND LESS 19"/32" 3/4" (15 MM-19 MM) 7/8"-1" (22 MM-25MM) 1 1/8"-1 1/4" (29 MM-32 MM) COMBINATION SUBFLOOR-UNDERLAYMENT(TO FRAMING): 3/4" (19 MM) AND LESS 7/8" -1" (22 MM-25 MM) 1 1/8"- 1 1/4" (29 MM-32 MM) 27. PANEL SIDING (TO FRAMING) 1/2" (12.7 MM) OR LESS 5/8" (16 MM) 28. FIBERBOARD SHEATHING: 1/2" (12.7 MM) 25/32" (20 MM)	$\begin{array}{c} 16d \text{ AT } 24" (610 \text{ MM}) \text{ O.C.} \\ 20d \text{ AT } 32" (813 \text{ MM}) \text{ O.C. AT TOP AND BOTTOM AND} \\ \text{STAGGERED (2)-20d AT ENDS AND AT EACH SPLICE} \\ \hline 2-16d \text{ AT EACH BEARING} \\ \hline 2-16d \text{ AT EACH BEARING} \\ \hline 6d^3 \\ 8d^4 \text{ or } 6d^5 \\ 8d^5 \\ 10d^4 \text{ or } 8d^5 \\ \hline 6d^5 \\ 8d^5 \\ 10d^4 \text{ or } 8d^5 \\ \hline 10d^4 \text{ or } 8d^5 \\ \hline 6d^6 \\ 8d^6 \\ \hline NO.11 \text{ ga.}^8 \\ 6d^4 \\ NO.16 \text{ ga.}^9 \\ NO.11 \text{ ga.}^8 \\ 8d^4 \\ NO.16 \text{ ga.}^9 \\ \hline NO.16 \text{ ga.}^9 \\ \hline 0.16 $
23. BUILT-UP CORNER STUDS 24. BUILT-UP GIRDER AND BEAMS 25. 2" (51 MM) PLANKS 26. WOOD STRUCTURAL PANELS AND PARTICLE BOARD: SUBFLOOR AND WALL SHEATHING (TO FRAMING): 1/2" (12.7 MM) AND LESS 19"/32" 3/4" (15 MM-19 MM) 7/8"-1" (22 MM-25MM) 1 1/8"-1 1/4" (29 MM-32 MM) COMBINATION SUBFLOOR-UNDERLAYMENT(TO FRAMING): 3/4" (19 MM) AND LESS 7/8" -1" (22 MM-25 MM) 1 1/8"- 1 1/4" (29 MM-32 MM) 27. PANEL SIDING (TO FRAMING) 1/2" (12.7 MM) OR LESS 5/8" (16 MM) 28. FIBERBOARD SHEATHING: 1/2" (12.7 MM) 25/32" (20 MM)	$\begin{array}{c} 16d \text{ AT } 24" (610 \text{ MM}) \text{ O.C.} \\ 20d \text{ AT } 32" (813 \text{ MM}) \text{ O.C. AT TOP AND BOTTOM AND} \\ \text{STAGGERED (2)-20d AT ENDS AND AT EACH SPLICE} \\ \hline 2-16d \text{ AT EACH BEARING} \\ \hline 2-16d \text{ AT EACH BEARING} \\ \hline 6d^3 \\ 8d^4 \text{ or } 6d^5 \\ 8d^5 \\ 10d^4 \text{ or } 8d^5 \\ \hline 6d^5 \\ 8d^5 \\ 10d^4 \text{ or } 8d^5 \\ \hline 10d^4 \text{ or } 8d^5 \\ \hline 6d^6 \\ 8d^6 \\ \hline 8d^6 \\ \hline NO.11 \text{ ga.}^8 \\ 6d^4 \\ \text{ NO.16 ga.}^9 \\ \text{ NO.16 ga.}^9 \\ \hline 0.16 \text{ ga.}^9 \\ \hline 0.16 \text{ ga.}^9 \\ \hline \end{array}$
23. BUILT-UP CORNER STUDS 24. BUILT-UP GIRDER AND BEAMS 25. 2" (51 MM) PLANKS 26. WOOD STRUCTURAL PANELS AND PARTICLE BOARD: SUBFLOOR AND WALL SHEATHING (TO FRAMING): 1/2" (12.7 MM) AND LESS 19"/32" 3/4" (15 MM-19 MM) 7/8"-1" (22 MM-25MM) 1 1/8"-1 1/4" (29 MM-32 MM) COMBINATION SUBFLOOR-UNDERLAYMENT(TO FRAMING): 3/4" (19 MM) AND LESS 7/8" -1" (22 MM-25 MM) 1 1/8"- 1 1/4" (29 MM-32 MM) 27. PANEL SIDING (TO FRAMING) 1/2" (12.7 MM) OR LESS 5/8" (16 MM) 28. FIBERBOARD SHEATHING: 1/2" (12.7 MM) 25/32" (20 MM) 29. INTERIOR PANELING	$\begin{array}{c} 16d \text{ AT } 24" (610 \text{ MM}) \text{ O.C.} \\ 20d \text{ AT } 32" (813 \text{ MM}) \text{ O.C. AT TOP AND BOTTOM AND} \\ \text{STAGGERED (2)-20d AT ENDS AND AT EACH SPLICE} \\ \hline 2-16d \text{ AT EACH BEARING} \\ \hline 2-16d \text{ AT EACH BEARING} \\ \hline 6d^3 \\ 8d^4 \text{ or } 6d^5 \\ 8d^5 \\ 10d^4 \text{ or } 8d^5 \\ \hline 6d^5 \\ 8d^5 \\ 10d^4 \text{ or } 8d^5 \\ \hline 6d^6 \\ 8d^6 \\ \hline 8d^6 \\ \hline NO.11 \text{ ga.}^8 \\ 6d^4 \\ NO.16 \text{ ga.}^9 \\ \hline \end{array}$

3/8" (9.5 MM)

## SHEAR WALL SCHEDULE (ANSI/AWC SDPWS 2018)

TYPE	MATERIAL DESCRIPTION	BOTH SIDES	BOTTOM SILL PLATE TO BLOCKING CONNECTION	BLOCKING TO PLATE CONNECTION	MUD SILL TO FOUNDATION	SHEAR VALUE
$\triangle$	15/32" APA STRUCTURE -1 W/10d COMMON NAIL @6:6:12	N	3/8" Ø LAG-SCREW @ 12" O.C. x 5" MIN. EMBED.	A35/LTP4 @16" O.C.	5/8" Ø A.B. x 14" @ 36" O.C.	340 plf
ß	15/32" APA STRUCTURE -1 W/10d COMMON NAIL @4:4:12	N	3/8" Ø LAG-SCREW @ 8" O.C. x 5" MIN. EMBED.	A35/LTP4 @10" O.C.	5/8" Ø A.B. x 14" @ 24" O.C.	510 plf
$\bigtriangleup$	15/32" APA STRUCTURE -1 W/10d COMMON NAIL @3:3:12	N	3/8" Ø LAG-SCREW @ 6" O.C. x 5" MIN. EMBED.	A35/LTP4 @8" O.C.	5/8" Ø A.B. x 14" @ 16" O.C.	665 plf
$\triangle$	15/32" APA STRUCTURE -1 W/10d COMMON NAIL @2:2:12	N	3/8" Ø LAG-SCREW @ 4.5" O.C. x 5" MIN. EMBED.	A35/LTP4 @6" O.C.	5/8" Ø A.B. x 14" @ 12" O.C.	870 plf
A	15/32" APA STRUCTURE -1 W/10d COMMON NAIL @4:4:12	Y	3/8" Ø LAG-SCREW @ 4" O.C. x 5" MIN. EMBED.	A35 @10" O.C. &LTP4 @10" O.C.	5/8" Ø A.B. x 14" @ 10" O.C.	1020 plf
A	15/32" APA STRUCTURE - W/10d COMMON NAIL @3:3:12	Y	1/2" Ø LAG-SCREW @ 5" O.C. x 5" MIN. EMBED.	A35 @8" O.C. &LTP4 @8" O.C.	5/8" Ø A.B. x 14" @ 8" O.C.	1330 plf
A	15/32" APA STRUCTURE -1 W/10d COMMON NAIL @2:2:12	Y	1/2" Ø LAG-SCREW @ 4" O.C. x 6" MIN. EMBED.	A35 @6" O.C. &LTP4 @6" O.C.	5/8" Ø A.B. x 14" @ 6" O.C.	1740 plf

	OWNER/SUBDIVIDER: OWNER NAME STREET ADDRESS CITY, STATE
<ol> <li>WHERE PANEL NAILING IS SPACED @ 2" O.C. OR THE SHEAR VALUE EXCEEDS (b) \$10 PLF, USE:         <ul> <li>A. 3X OR (2): 2X STUDS @ ADJOINING PANELS WISTAGGERED NAILS, PROVIDE (2): 2X BLK'G BETWEEN PANELS IF NEEDED.</li> <li>B.X SULS PLATE @ FOUNDATION LEVEL.</li> <li>C. NAIL DOUBLE TOP PLATES TOGETHER WITGH NAILS @4" O.C.</li> <li>D. PLYWOOD PANEL EDGE NAILING SHALL BE STAGGERED IN TWO LINES ALONG PANEL EDGES WHEN NAIL SPACING IS 2"O.C., OR WHEN 104 COMMON NAILS SPACED 3" O.C. PENETRATE FRAMING MORE THAN 1-1/2".</li> <li>E. PROVIDE 1/2" EDGE DISTANCE FOR THE PLYWOOD BOUNDARY NAILING.</li> <li>F. PLATE WASHERS 3"X0:229" ARE TO BE USED WITH ALL OF ANCHOR BOLTS.</li> </ul> </li> <li>WHERE PLYWOOD SHEAR PANELS OCCUR ON BOTH SIDES OF WALL;         <ul> <li>A. USE 3X STUDS @ ALL BOUNDARIES (TOP PLATES &amp; ADJOINING PANELS)</li> <li>B. OFFSET ADJOINING PANELS ON OPPOSING SIDES WPLYWOOD DANAEL EDGE NAILING SHALL BE STAGGERED.</li> </ul> </li> <li>MAXIMUM STUDS SPACING IS 16" O.C.</li> <li>NAIL SPACING ALONG INTERMEDIATE SUPPORTS 12" O.C. NAILS SHALL BE COMMON OR GALVANIZED BOX (HOT-DIPPED OF TUMBLED). NAIL GUNS USING "CLIPPED HEAD" OR "SINKER NAILS" ARE NOT ACCEPTABLE.</li> <li>WHERE SILL NAILING IS 2" OR LESS, OR LAG SCREW IS USED PROVIDE 3X BLK'G, RIM JOIST, OR BEAM INSURE THAT THE WOOD BEAM BELOW AND DOES NOT TEND TO SPLIT. PRE-DRILL FOR NAILS IF SPLITTING IS OBSERVED, USING A DRILL SIZE 3/4 OF THE DIAMETER OF THE SILL NAILING.</li> <li>MINIMUM 3X NOMINAL FRAMING AT ADJOINING PANEL EDGES AND STAGGERED EDGE NAILING WHERE 100 NAILS WIHT MORE THAN 1 1/2 INCHES PENETRATION INTO FRAMING ARE SPACED 3 INCHES ON CENTER OR CLOSER.</li> <li>NO ADJOINING PANEL JOINTS SHALL NOT BE USED AT 2X SILL PLATE AT RAISED FLOOR OR 2nd. STORY OTHERWISE, USE 3X SILL PLATE.</li> <li>ALL PLYWOOD DEGES TO BE BLOCKED-USE 3X BLOCKING AT 2" O.C. NAILING. PLYWOOD INSTALLED EITHER HORIZONTALLY O</li></ol>	739 SPOKANE AVE, PROJECT ADDRESS 739 SPOKANE AVE, ALBANY, CA 94706
<ol> <li>DUDGLAS FIR OR SUDTHERN FIRE PRAMING (S.G. 0.49 MINIMUM), ALL PANEL EDGES PASTENED TO PRAMING.</li> <li>NAILS SHALL BE PLACED AT LEAST 3/8" FROM PANEL EDGES AND AT LEAST 1/4" FROM THE EDGE OF THE CONNECTING MEMBER FOR SHEARS OF 300PLF OR GREATER.</li> <li>ALL BOLT HOLES TO BE DRILLED 1/32" MIN TO 1/16" MAX. OVERSIZED, ENGINEER TO VERIFY.</li> <li>AUL DOUGLAS-FIR (GROUP II LUMBER) PRESSURE TREATED SILL PLATES SHALL BE USED. ENGINEER TO BE NOTIFIED FOR REDESIGN IF OTHER SPECIES SILLS ARE DELIVERED TO THE SITE (OR ARE PART OF THE EXISTING BLDG)</li> <li>MIN. TWO BOLTS PER PIECE OF SILL PLATE &amp; ONE LOCATED WITHIN 12" OF EACH SILL PLATE PLACEMENT OF LAG BOLTS -MINIMUM EDGE DISTANCE = 1.5D, MIN END DISTANCE = 5D, MIN. SPACING = 4D. EDGE DISTANCES, END DISTANCES AND SPACING SHALL BE SUFFICIENT TO PREVENT SPLITTING OF WOOD. IF SPLITTING OCCURS, NOTIFY THE STRUCTURAL ENGINEER FOR AN ALTERNATE PRODUCT/HARDWARE OR POSSIBLE SOLUTION.</li> <li>THE ANCHOR BOLTS FOR SHEAR WALLS SHALL INCLUDE STEEL PLATE WASHER, A MIN. 0.229x3x3 IN SIZE.</li> <li>FASTENERS FOR PRESERVATIVE-TREATED WOOD SHALL BE HOT-DIPPED GALVANIZED OR TUMBLED IN ACCORDANCE WITH ASTM A153.</li> <li><b>SPECIAL INSPECTION NOTES:</b></li> <li>ALL INSPECTION AND TESTS SHALL BE PERFORMED BY A QUALIFIED TESTING AGENCY RETAINED BY THE OWNER. THE SPECIAL DEPUTY INSPECTOR SHALL BE QUALIFIED AND APPROVED BY THE BUILDING DEPARTMENT, AND ACCEPTABLE TO THE ENGINEER.</li> <li>THE FOLLOWING CONTROLLED INSPECTIONS ARE REQUIRED TO BE PERFORMED IN ACCORDANCE THE BUILDING CODE OF THE STATE OF CALIFORNIA: A STEEL: CBC 1705A.2</li> <li>CHME FOLLOWING CONTROLLED INSPECTIONS ARE REQUIRED TO BE PERFORMED IN ACCORDANCE THE BUILDING CODE OF THE STATE OF CALIFORNIA: A STEEL: CBC 1705A.2</li> <li>CONCRETE: CBC 1705A.3</li> </ol>	W.H. CONSULTANT, INC. W.H. CONSULTANT, INC. H-CA:1590 OAKLAND RD., SUITE 112, SAN JOSE, CA 95131 UTH-CA: 25 MAUCHLY, SUITE 323, IRVINE, CA 92618 INFO@WHENGINEERINGGROUP.COM WWW.WHENGINEERINGGROUP.NET XX/XXXXX CB0 YANG C88467 EXP. 3/31/2022 E. C88467 EXP. 3/31/2022
<ul> <li>C. REINFORCED MASONRY WALL: CBC 1705A.4</li> <li>D. SOIL: CBC 1705A.6</li> <li>E. PILE FOUNDATION: CBC 1705A.9</li> <li>3. CONTRACTORS RESPONSIBLE FOR THE CONSTRUCTION OF A WIND OR SEISMIC FORCE RESISTING SYSTEM/COMPONENT LISTED IN THE "STATEMENT OF SPECIAL INSPECTION" SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON SUCH SYSTEM OR COMPONENT PER CBC 1704.1.</li> <li>4. SPECIAL INSPECTION BY A REGISTERED DEPUTY INSPECTION IS REQUIRED FOR FIELD WELDING, CONCRETE STRENGTH fc &gt; 2500PSI, HIGH STRENGTH BOLTING, SPRAYED-ON FIREPROOFING, ENGINEERED MASONRY, HIGH-LIFT GROUTING, PRE-STRESSED CONCRETE, HIGH LOAD DIAPHRAGMS AND SPECIAL MOMENT RESISTING CONCRETE FRAMES AND ALL EPOXY WORK. (CBC 1704 &amp; CHAPTERS 19, 21 AND 22).</li> <li>5. FIELD WELDING TO BE DONE BY WELDERS CERTIFIED BY AN APPROVED AGENCY FOR (STRUCTURAL STEEL) (REINFORCING STEEL) (LIGHT GAUGE STEEL). CONTINUOUS SPECIAL INSPECTION BY A REGISTERED DEPUTY INSPECTOR IS REQUIRED.</li> <li>6. FIELD SITE VISITS BY THE ENGINEER MAY BE REQUIRED BY THE BUILDING OFFICIAL. THESE OBSERVATIONS DO NOT CONSTITUTE AN STRUCTURAL OBSERVATIONS.</li> <li>7. ALL WELDING WITH THE EXCEPTION OF SHOP WELDING DONE IN AN APPROVED FABRICATORS SHOP. CBC 1705.2.2.1</li> <li>8. COPIES OF ALL TEST RESULTS SHALL BE FURNISHED TO THE ENGINEER, ARCHITECT, BUILDING DEPARTMENT, AND BE AVAILABLE AT THE JOB SITE.</li> </ul>	HAND BOLL HAND
<ol> <li>PRE-CONSTRUCTION MEETING MAY BE REQUIRED PER CITY REQUIREMENT: UPON EXCAVATION AND EXPOSURE OF EXISTING STRUCTURAL ELEMENTS AND CONNECTIONS AND PRIOR TO INSTALLATION OF ANY STRUCTURAL ELEMENTS OR MEMBERS, THE OWNER OF OWNERS' REPRESENTATIVE SHALL ARRANGE A PRE-CONSTRUCTION MEETING TO BE ATTENDED BY THE ENGINEER OR ARCHITECT RESPONSIBLE OF THE STRUCTURAL DESIGN, CONTRACTOR &amp; THE BUILDING INSPECTORS. THE PURPOSE OF THE MEETING SHALL BE TO IDENTIFY THE MAJOR STRUCTURAL ELEMENTS, CONNECTIONS AND EXISTING CONDITIONS THAT AFFECT THE VERTICAL AND LATERAL LOAD SYSTEMS OF THE STRUCTURE AND TO REVIEW SCHEDULING OF THE REQUIRED OBSERVATIONS.</li> <li>CONTRACTORS RESPONSIBLE FOR ALL REQUIRED STRUCTURAL ITEMS, INCLUDED BUT NOT LIMITED, POSTS, BEAMS, ANCHORS, PLYWOOD SHEATHING, CONNECTIONS, ETC.,. CONTRACTORS RESPONSIBLE TO CALL CITY INSPECTOR AND ENGINEER OF RECORD FOR ALL THE STRUCTURAL ITEMS CHECK.</li> <li>OBSERVATION VISITS TO THE SITE BY STRUCTURAL ENGINEER ONLY CONSTITUTE INSPECTION OF ALL THE NEW MEMBERS AND CONNECTIONS ON PLANS.</li> </ol>	DESIGNER Y.Z. DESIGNER Y.Z. DRAFTED BY: Y.Z. DRAFTED BY: Y.Z. APPROVED BY CHECKED BY: H.Y.
	TITI E.
	STRUCTURAL GENERAL NOTES
	22027 <u>Sheet no.:</u> <b>S-O</b>

![](_page_5_Figure_0.jpeg)

CONTRACTOR NOTE:

• CONTRACTOR TO VERIFY ALL PLACES MARKED WITH "V.I.F." AND EXISTING FRAMING/CONDITIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES IMMEDIATELY PRIOR TO COMMENCING ANY WORK. • IF SITE CONDITION OTHER THAN PLAN, CONTRACTOR NEED

REPLACE THE EXISTING MEMBER WITH SIZE MARKED ON PLAN OR NOTIFY THE ENGINEER

• FOR DIMENSIONS NOT SHOWN SEE ARCHITECTURAL DRAWINGS. (VERIFY ALL DIMENSION WITH ARCHITECTURAL PLANS)

## **ADDITIONAL NOTES**

1. ALL THE EXISTING STRUCTURAL ITEMS INCLUDE BUT NOT LIMITED TO ROOF MEMBERS, WALL MEMBERS, HOLDOWN, AND CONNECTIONS, ETC. WHICH DID NOT SHOW /MENTIONED ON PLAN SHOULD BE REMAINED. IT IS THE SOLE RESPONSIBILITY OF CONTRACTOR AND HAS NOT BEEN TAKEN INTO CONSIDERATION BY STRUCTURAL ENGINEER.

2. THIS PROJECT ONLY INCLUDED NEW ADDITIONAL 2-STORY ADU DESIGN.

3. THE DESIGN, ADEQUACY, AND OVERALL SAFETY OF ANY ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND HAS NOT BEEN TAKEN INTO CONSIDERATION BY THE STRUCTURAL ENGINEER.

4. OBSERVATION VISITS TO THE SITE BY STRUCTURAL ENGINEER ONLY CONSTITUTE INSPECTION OF ALL THE NEW MEMBERS AND CONNECTIONS ON PLANS.

 $\boxtimes$ — —<u>,</u>— — <u>∕</u>#∖ L=

## **STRUCTURAL NOTES**

(E) 12" WIDE X 24" DEEP CONCRETE

FOOTING (CONTRACTOR TO VERIFY!)

(N)1-STORY 16" WIDE X 24" MIN. DEEP CONCRETE FOOTING w/(2) - #4 T.&B.

# **ADDITIONAL NOTES**

- 5/8" dia. A.B. (R.H., EPOXY BOLTS) @ 48" O.C. TYP. U.O.N. FOR SH. W. A.B.'S SEE G.N. SHEET, SH. WALL SCHEDULE
- NAILS IN PRESSURE TREATED WOOD SILL PLATES SHALL BE HOT DIPPED GALVANIZED, STAINLESS STEEL, SILICON BRONZE OR COPPER.
- ALL HOLD-DOWN CONNECTIONS SHALL BE TIGHTENED JUST PRIOR TO ENCLOSURE.
- EXCAVATIONS SHALL BE MADE IN COMPLIANCE W/CAL/OSHA REGULATIONS. - CONTINUOUS INSPECTION BY A LICENSED DEPUTY INSPECTOR IS
- REQUIRED FOR ALL EPOXY WORKS AND FOR CONCRETE WITH f'c>2500 PSI.

4" THK. CONCRETE SLAB ON GRADE W/ #4 BARS @ 16" O.C. E.W.CENTERED

PER CITY REQUEST, A 4—INCH THICK BASE OF ½ INCH OR LARGER CLEAN AGGREGATE SHALL BE PROVIDED FOR THE PROPOSED SLAB ON GRADE CONSTRUCTION.

A MOISTURE BARRIER SHALL BE PROVIDED IN DIRECT CONTACT WITH CONCRETE FOR THE PROPOSED SLAB ON GRADE CONSTRUCTION. A VISQUEEN-TYPE MEMBRANE AT LEAST 15 MIL THICK SHOULD BE PLACED BETWEEN THE PREPARED SUBGRADE AND THE SLAB TO PROVIDE AN EFFECTIVE VAPOR RETARDER, AND TO MINIMIZE POTENTIAL MOISTURE CONDENSATION UNDER FLOOR COVERINGS. THE VAPOR RETARDER MEMBRANE SHALL BE LAPPED A MINIMUM OF 12-INCHES TO PROVIDE A CONTINUOUS VAPOR PROOF RETARDER UNDER THE ENTIRE SLAB. CARE SHALL BE EXERCISED TO AVOID DAMAGE OF MOISTURE BARRIER DURING CONSTRUCTION.

![](_page_5_Picture_24.jpeg)

 $\langle P1 \rangle$  2'-0" SQ.X12" DEEP FTG. W/(3)-#4 E.W.

## **SYMBOLS & LEGENDS**

DETAIL NUMBER 4X4 COLUMN PER PLAN U.N.O.  $\overline{}$ DETAIL SHEET NUMBER (N) PAD FTG. SIZE PER TABLE CONC. FT'G EDGE \_\_\_\_\_ SHEAR PANEL NUMBER, MIN. LENGTH NOTED, REFER TO "SHEAR WALL SCHEDULE" ON s-0 for More INFO (LENGTH IS FROM CENTER OF 

POST TO CENTER OF POST)

(E) 2X WOOD STUD WALL (N) 2X4 (MIN.) @16" O.C.

WOOD STUD WALL PER ARCH

OWNER/SUBDIVIDER: OWNER NAME STREET ADDRESS CITY, STATE PROJECT ADDRESS 739 SPOKANE AVE, ALBANY, CA 94706 **739 SPOKANE AVE** W.H. CONSULTANT, INC. TH-CA:1590 OAKLAND RD., SUITE 112, SAN JOSE, CA 9513 SOUTH-CA: 25 MAUCHLY, SUITE 323, IRVINE, CA 92618 INFO@WHENGINEERINGGROUP.COM WWW.WHENGINEERINGGROUP.NET XX/X б In No.C88467 Exp.03-31-Υ.Ζ. Υ.Ζ. Υ.Ζ. ₩ B B ED SIGNER ED Щ TITLE: FOUNDATION PLAN PROJECT NO .: 22027 SHEET NO .:  $\mathbf{c}$ 3-

![](_page_6_Figure_0.jpeg)

![](_page_6_Figure_1.jpeg)

![](_page_6_Figure_2.jpeg)

# TYPICAL ROOF SHT'G

5/8" T&G APA RATED PLYWOOD A PANEL INDEX OF 24/0. (ORIENTED STRAND BOARD). B.N.: 10d COMMON NAIL AT 6" O.C. E.N.: 10d COMMON NAIL AT 6" O.C. F.N.: 10d COMMON NAIL AT 12" O.C. (USE COMMON NAILS)

FOR TYPICAL DIAPHRAGM DET. SEE 7 FOR MORE INFORMATION.

WOOD STRUCTURAL PANELS, WHEN USED STRUCTURALLY, SHALL CONFORM TO THE REQUIREMENTS FOR THEIR TYPE IN DOC PSI-95 AND/ OR PS2-92.

CONTRACTOR NOTE: • CONTRACTOR TO VERIFY AND EXISTING FRAMING/CONE OF ANY DISCREPANCIES IMME ANY WORK. • IF SITE CONDITION OTHEL REPLACE THE EXISTING MEME OR NOTIFY THE ENGINEER • FOR DIMENSIONS NOT SH DRAWINGS. (VERIFY ALL DIME 1. ALL THE EXISTING STRUCT LIMITED TO ROOF MEMBERS, CONNECTIONS, ETC. WHICH D PLAN SHOULD BE REMAINED. OF CONTRACTOR AND HAS NO CONSIDERATION BY STRUCTUR 2. THIS PROJECT ONLY INCLU ADU DESIGN. 3. THE DESIGN, ADEQUACY, A ERECTION BRACING, SHORING, THE SOLE RESPONSIBILITY OF BEEN TAKEN INTO CONSIDERA ENGINEER. 4. OBSERVATION VISITS TO THONLY CONSTITUTE INSPECTION	CONTRACTOR NOTE: • CONTRACTOR TO VERIFY AND EXISTING FRAMING/CONI OF ANY DISCREPANCIES IMME ANY WORK. • IF SITE CONDITION OTHE REPLACE THE EXISTING MEME OR NOTIFY THE ENGINEER • FOR DIMENSIONS NOT SE DRAWINGS. (VERIFY ALL DIME 1. ALL THE EXISTING STRUCT LIMITED TO ROOF MEMBERS, CONNECTIONS, ETC. WHICH D PLAN SHOULD BE REMAINED. OF CONTRACTOR AND HAS NO CONSIDERATION BY STRUCTUR 2. THIS PROJECT ONLY INCLU ADU DESIGN. 3. THE DESIGN, ADEQUACY, A ERECTION BRACING, SHORING, THE SOLE RESPONSIBILITY OF BEEN TAKEN INTO CONSIDERA ENGINEER. 4. OBSERVATION VISITS TO TH ONLY CONSTITUTE INSPECTION	CONTRACTOR NOTE: • CONTRACTOR TO VERIFY AND EXISTING FRAMING/COND OF ANY DISCREPANCIES IMME ANY WORK. • IF SITE CONDITION OTHE REPLACE THE EXISTING MEME OR NOTIFY THE ENGINEER • FOR DIMENSIONS NOT SH DRAWINGS. (VERIFY ALL DIME 1. ALL THE EXISTING STRUCT LIMITED TO ROOF MEMBERS, CONNECTIONS, ETC. WHICH D PLAN SHOULD BE REMAINED. OF CONTRACTOR AND HAS NO CONSIDERATION BY STRUCTUR 2. THIS PROJECT ONLY INCLU ADU DESIGN. 3. THE DESIGN, ADEQUACY, A ERECTION BRACING, SHORING, THE SOLE RESPONSIBILITY OF BEEN TAKEN INTO CONSIDERATION ENGINEER. 4. OBSERVATION VISITS TO THONLY CONSTITUTE INSPECTION CONNECTIONS ON PLANS.	CONTRACTOR NOTE: • CONTRACTOR TO VERIFY AND EXISTING FRAMING/CONI OF ANY DISCREPANCIES IMME ANY WORK. • IF SITE CONDITION OTHEI REPLACE THE EXISTING MEME OR NOTIFY THE ENGINEER • FOR DIMENSIONS NOT SH DRAWINGS. (VERIFY ALL DIME 1. ALL THE EXISTING STRUCTUR LIMITED TO ROOF MEMBERS, CONNECTIONS, ETC. WHICH DI PLAN SHOULD BE REMAINED. OF CONTRACTOR AND HAS NO CONSIDERATION BY STRUCTUR 2. THIS PROJECT ONLY INCLU ADU DESIGN. 3. THE DESIGN, ADEQUACY, A ERECTION BRACING, SHORING, THE SOLE RESPONSIBILITY OF BEEN TAKEN INTO CONSIDERA ENGINEER. 4. OBSERVATION VISITS TO THONLY CONSTITUTE INSPECTION CONNECTIONS ON PLANS.
<ul> <li>CONTRACTOR TO VERIFY AND EXISTING FRAMING/CONE OF ANY DISCREPANCIES IMME ANY WORK.</li> <li>IF SITE CONDITION OTHEL REPLACE THE EXISTING MEME OR NOTIFY THE ENGINEER</li> <li>FOR DIMENSIONS NOT SE DRAWINGS. (VERIFY ALL DIME</li> </ul> 1. ALL THE EXISTING STRUCTION LIMITED TO ROOF MEMBERS, CONNECTIONS, ETC. WHICH DIPLAN SHOULD BE REMAINED. OF CONTRACTOR AND HAS NOT CONSIDERATION BY STRUCTURE 2. THIS PROJECT ONLY INCLUAND ADU DESIGN. 3. THE DESIGN, ADEQUACY, A ERECTION BRACING, SHORING, THE SOLE RESPONSIBILITY OF BEEN TAKEN INTO CONSIDERA ENGINEER. 4. OBSERVATION VISITS TO THONLY CONSTITUTE INSPECTION	<ul> <li>CONTRACTOR TO VERIFY AND EXISTING FRAMING/CONTO OF ANY DISCREPANCIES IMME ANY WORK.</li> <li>IF SITE CONDITION OTHE REPLACE THE EXISTING MEME OR NOTIFY THE ENGINEER</li> <li>FOR DIMENSIONS NOT SE DRAWINGS. (VERIFY ALL DIME</li> </ul> 1. ALL THE EXISTING STRUCT LIMITED TO ROOF MEMBERS, CONNECTIONS, ETC. WHICH D PLAN SHOULD BE REMAINED. OF CONTRACTOR AND HAS NO CONSIDERATION BY STRUCTUFE 2. THIS PROJECT ONLY INCLUAND ADU DESIGN. 3. THE DESIGN, ADEQUACY, A ERECTION BRACING, SHORING, THE SOLE RESPONSIBILITY OF BEEN TAKEN INTO CONSIDERA ENGINEER. 4. OBSERVATION VISITS TO THONLY CONSTITUTE INSPECTION CONNECTIONS ON PLANS.	<ul> <li>CONTRACTOR TO VERIFY AND EXISTING FRAMING/CONI OF ANY DISCREPANCIES IMME ANY WORK.</li> <li>IF SITE CONDITION OTHE REPLACE THE EXISTING MEME OR NOTIFY THE ENGINEER</li> <li>FOR DIMENSIONS NOT SH DRAWINGS. (VERIFY ALL DIME</li> </ul> 1. ALL THE EXISTING STRUCT LIMITED TO ROOF MEMBERS, CONNECTIONS, ETC. WHICH D PLAN SHOULD BE REMAINED. OF CONTRACTOR AND HAS NO CONSIDERATION BY STRUCTUR 2. THIS PROJECT ONLY INCLU ADU DESIGN. 3. THE DESIGN, ADEQUACY, A ERECTION BRACING, SHORING, THE SOLE RESPONSIBILITY OF BEEN TAKEN INTO CONSIDERA ENGINEER. 4. OBSERVATION VISITS TO TH ONLY CONSTITUTE INSPECTION CONNECTIONS ON PLANS. TYDICAL ELOGO	<ul> <li>CONTRACTOR TO VERIFY AND EXISTING FRAMING/COND OF ANY DISCREPANCIES IMME ANY WORK.</li> <li>IF SITE CONDITION OTHEL REPLACE THE EXISTING MEME OR NOTIFY THE ENGINEER</li> <li>FOR DIMENSIONS NOT SH DRAWINGS. (VERIFY ALL DIME</li> </ul> 1. ALL THE EXISTING STRUCTION LIMITED TO ROOF MEMBERS, CONNECTIONS, ETC. WHICH DIPLAN SHOULD BE REMAINED. OF CONTRACTOR AND HAS NOT CONSIDERATION BY STRUCTUR 2. THIS PROJECT ONLY INCLUANDU DESIGN. 3. THE DESIGN, ADEQUACY, A ERECTION BRACING, SHORING, THE SOLE RESPONSIBILITY OF BEEN TAKEN INTO CONSIDERATION ENGINEER. 4. OBSERVATION VISITS TO THONLY CONSTITUTE INSPECTION CONNECTIONS ON PLANS. TYPICAL FLOOD
<b>ADDITION</b> 1. ALL THE EXISTING STRUCTULIMITED TO ROOF MEMBERS, CONNECTIONS, ETC. WHICH DI PLAN SHOULD BE REMAINED. OF CONTRACTOR AND HAS NO CONSIDERATION BY STRUCTUR 2. THIS PROJECT ONLY INCLU ADU DESIGN. 3. THE DESIGN, ADEQUACY, A ERECTION BRACING, SHORING, THE SOLE RESPONSIBILITY OF BEEN TAKEN INTO CONSIDERA ENGINEER. 4. OBSERVATION VISITS TO TH ONLY CONSTITUTE INSPECTION	ADDITION 1. ALL THE EXISTING STRUCT LIMITED TO ROOF MEMBERS, CONNECTIONS, ETC. WHICH D PLAN SHOULD BE REMAINED. OF CONTRACTOR AND HAS NO CONSIDERATION BY STRUCTUR 2. THIS PROJECT ONLY INCLU ADU DESIGN. 3. THE DESIGN, ADEQUACY, A ERECTION BRACING, SHORING, THE SOLE RESPONSIBILITY OF BEEN TAKEN INTO CONSIDERA ENGINEER. 4. OBSERVATION VISITS TO TH ONLY CONSTITUTE INSPECTION CONNECTIONS ON PLANS.	<b>ADDITION</b> 1. ALL THE EXISTING STRUCT LIMITED TO ROOF MEMBERS, CONNECTIONS, ETC. WHICH D PLAN SHOULD BE REMAINED. OF CONTRACTOR AND HAS NO CONSIDERATION BY STRUCTUR 2. THIS PROJECT ONLY INCLU ADU DESIGN. 3. THE DESIGN, ADEQUACY, A ERECTION BRACING, SHORING, THE SOLE RESPONSIBILITY OF BEEN TAKEN INTO CONSIDERA ENGINEER. 4. OBSERVATION VISITS TO TH ONLY CONSTITUTE INSPECTION CONNECTIONS ON PLANS.	ADDITION 1. ALL THE EXISTING STRUCTU LIMITED TO ROOF MEMBERS, CONNECTIONS, ETC. WHICH DI PLAN SHOULD BE REMAINED. OF CONTRACTOR AND HAS NO CONSIDERATION BY STRUCTUR 2. THIS PROJECT ONLY INCLU ADU DESIGN. 3. THE DESIGN, ADEQUACY, A ERECTION BRACING, SHORING, THE SOLE RESPONSIBILITY OF BEEN TAKEN INTO CONSIDERA ENGINEER. 4. OBSERVATION VISITS TO TH ONLY CONSTITUTE INSPECTION CONNECTIONS ON PLANS. TYPICAL FLOO
<ul> <li><b>ADDITION</b></li> <li>1. ALL THE EXISTING STRUCTILIMITED TO ROOF MEMBERS, CONNECTIONS, ETC. WHICH DIPLAN SHOULD BE REMAINED. OF CONTRACTOR AND HAS NO CONSIDERATION BY STRUCTURE</li> <li>2. THIS PROJECT ONLY INCLUADU DESIGN.</li> <li>3. THE DESIGN, ADEQUACY, A ERECTION BRACING, SHORING, THE SOLE RESPONSIBILITY OF BEEN TAKEN INTO CONSIDERATION VISITS TO THONLY CONSTITUTE INSPECTION</li> </ul>	<ul> <li>ADDITION</li> <li>ALL THE EXISTING STRUCT LIMITED TO ROOF MEMBERS, CONNECTIONS, ETC. WHICH D PLAN SHOULD BE REMAINED. OF CONTRACTOR AND HAS NO CONSIDERATION BY STRUCTUR</li> <li>THIS PROJECT ONLY INCLU ADU DESIGN.</li> <li>THE DESIGN, ADEQUACY, A ERECTION BRACING, SHORING, THE SOLE RESPONSIBILITY OF BEEN TAKEN INTO CONSIDERA ENGINEER.</li> <li>OBSERVATION VISITS TO TH ONLY CONSTITUTE INSPECTION CONNECTIONS ON PLANS.</li> </ul>	<b>ADDITION</b> 1. ALL THE EXISTING STRUCT LIMITED TO ROOF MEMBERS, CONNECTIONS, ETC. WHICH D PLAN SHOULD BE REMAINED. OF CONTRACTOR AND HAS NO CONSIDERATION BY STRUCTUR 2. THIS PROJECT ONLY INCLU ADU DESIGN. 3. THE DESIGN, ADEQUACY, A ERECTION BRACING, SHORING, THE SOLE RESPONSIBILITY OF BEEN TAKEN INTO CONSIDERA ENGINEER. 4. OBSERVATION VISITS TO TH ONLY CONSTITUTE INSPECTION CONNECTIONS ON PLANS. <b>TYDICAL ELOC</b>	ADDITION
<ol> <li>ALL THE EXISTING STRUCTULIMITED TO ROOF MEMBERS, CONNECTIONS, ETC. WHICH DIPLAN SHOULD BE REMAINED. OF CONTRACTOR AND HAS NO CONSIDERATION BY STRUCTUR</li> <li>THIS PROJECT ONLY INCLUADU DESIGN.</li> <li>THE DESIGN, ADEQUACY, A ERECTION BRACING, SHORING, THE SOLE RESPONSIBILITY OF BEEN TAKEN INTO CONSIDERA ENGINEER.</li> <li>OBSERVATION VISITS TO THONLY CONSTITUTE INSPECTION</li> </ol>	<ol> <li>ALL THE EXISTING STRUCT LIMITED TO ROOF MEMBERS, CONNECTIONS, ETC. WHICH D PLAN SHOULD BE REMAINED. OF CONTRACTOR AND HAS NO CONSIDERATION BY STRUCTUR</li> <li>THIS PROJECT ONLY INCLU ADU DESIGN.</li> <li>THE DESIGN, ADEQUACY, A ERECTION BRACING, SHORING, THE SOLE RESPONSIBILITY OF BEEN TAKEN INTO CONSIDERA ENGINEER.</li> <li>OBSERVATION VISITS TO TH ONLY CONSTITUTE INSPECTION CONNECTIONS ON PLANS.</li> </ol>	1. ALL THE EXISTING STRUCT LIMITED TO ROOF MEMBERS, CONNECTIONS, ETC. WHICH D PLAN SHOULD BE REMAINED. OF CONTRACTOR AND HAS NO CONSIDERATION BY STRUCTUR 2. THIS PROJECT ONLY INCLUADU DESIGN. 3. THE DESIGN, ADEQUACY, A ERECTION BRACING, SHORING, THE SOLE RESPONSIBILITY OF BEEN TAKEN INTO CONSIDERA ENGINEER. 4. OBSERVATION VISITS TO TH ONLY CONSTITUTE INSPECTION CONNECTIONS ON PLANS.	<ol> <li>ALL THE EXISTING STRUCTILIMITED TO ROOF MEMBERS, CONNECTIONS, ETC. WHICH DIPLAN SHOULD BE REMAINED. OF CONTRACTOR AND HAS NO CONSIDERATION BY STRUCTUR</li> <li>THIS PROJECT ONLY INCLUADU DESIGN.</li> <li>THE DESIGN, ADEQUACY, A ERECTION BRACING, SHORING, THE SOLE RESPONSIBILITY OF BEEN TAKEN INTO CONSIDERA ENGINEER.</li> <li>OBSERVATION VISITS TO THONLY CONSTITUTE INSPECTION CONNECTIONS ON PLANS.</li> </ol>
CONNECTIONS ON PLANS.		TVDICAL ELOO	TYPICAL FLOO

(USE COMMON NAILS) FOR TYPICAL DIAPHRAGM DET. SEE 7 FOR MORE INFORMATION. ∖SD2/ WOOD STRUCTURAL PANELS, WHEN USED STRUCTURALLY, SHALL CONFORM TO

FRAMING SCHEDULE (N) 2X6 DF#2 R.R. @ 16" O.C. (E) 2X R.R. REMAIN (CONTRACTOR VERIFY SIZE SPAN & DIRECTION!!!) (E) 2X C.J. REMAIN (CONTRACTOR VERIFY SIZE SPAN & DIRECTION!!!)  $\sqrt{3}$ (N) 2X10 DF#2 F.J. @ 16" O.C.

	SYMBOLS &	& LEGENDS	
	4x4 coluMn per plan u.n.o.	•	DETAIL NUMBER DETAIL SHEET NUMBER
AWPA W/HDU	ALIGN WITH POST ABOVE WITH HDU PER PLAN		BEAM OR HEADER
	SPAN AND DIRECTION OF JOIST FRAMING MEMBER PER PLAN	<b>↓↓</b>	CEILING JOIST
<hr/>	ROOF RAFTER		(N) 2X4 (MIN.) @16" O.C. WOOD STUD WALL PER ARCH
— <u> </u>	SHEAR PANEL NUMBER, MIN. LENGTH NOTED, REFER TO		(E) 2X WOOD STUD WALL
L=	SHEAR WALL SCHEDULE ON S–O FOR MORE INFO (LENGTH IS FROM CENTER OF POST TO CENTER OF POST)		WOOD WALL ABOVE

ALL PLACES MARKED WITH "V.I.F." DITIONS AND NOTIFY THE ENGINEER EDIATELY PRIOR TO COMMENCING R THAN PLAN, CONTRACTOR NEED BER WITH SIZE MARKED ON PLAN

OWN SEE ARCHITECTURAL NSION WITH ARCHITECTURAL PLANS)

# AL NOTES

URAL ITEMS INCLUDE BUT NOT WALL MEMBERS, HOLDOWN, AND ID NOT SHOW /MENTIONED ON IT IS THE SOLE RESPONSIBILITY OT BEEN TAKEN INTO RAL ENGINEER.

IDED NEW ADDITIONAL 2-STORY

AND OVERALL SAFETY OF ANY , TEMPORARY SUPPORTS, ETC. IS F THE CONTRACTOR AND HAS NOT ATION BY THE STRUCTURAL

IE SITE BY STRUCTURAL ENGINEER

# R SHT'G

"0.C. "0.C. 2"0.C.

THE REQUIREMENTS FOR THEIR TYPE IN DOC PSI-95 AND/ OR PS2-92.

	Y, STAT	E		
730 SDOKANE AVE		PROJECT ADDRESS		
PLANS PREPARED BY:	W.H. CONSULTANT, INC.	O C C C C C C C C C C C C C C C C C C C	WWW.WHENGINEERINGGROUP.NET	HONGBO YANG R.C.E. C88467 EXP. 3/31/2022 DATE
E	N N	1	T I	RE
*	No Exp.	.C8846 03-31- C/VIL F CALI	57 -21	*
	No Exp. SATE Z'A	.C8846 03-31- C/VIL F CALI	57 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2	н.
	No Exp. V.Z.	.C8846 03-31- C/VIL F CAL	DRAFTED BY: Y.Z.	VISIONS APPROVED BY CHECKED BY: H.Y.
	No Exp. C. A.Z.	.C8846 03-31- C/VIL F CAL	DRAFTED BY: Y.Z.	E REVISIONS APPROVED BY CHECKED BY: H.Y.
	No Exp. OC	C8846	DRAFTED BY: Y.Z.	NO. DATE REVISIONS APPROVED BY CHECKED BY: H.Y.

![](_page_7_Figure_0.jpeg)

![](_page_8_Figure_0.jpeg)

			r
SCALE	40	SCALE	
N.T.S.	10	N.T.S.	
			1
SCALE	11	SCALE	
N.T.S.		N.T.S.	
SUALE	12	SCALE	
N.T.S.	• 🗲	N.T.S.	

![](_page_9_Figure_1.jpeg)

![](_page_10_Figure_0.jpeg)

CERTIFICATE Project Nam Calculation	E OF COMPI ne: ADU Description	CF1R-PRF-01         J       Calculation Date/Time: 2022-03-18T03:09:10-07:00       (Page 6 of 9)         ption: Title 24 Analysis       Input File Name: 14782 739 Spokane add alt adu EAN.ribd19x													F1R-PRF-01E (Page 6 of 9)		
WATER HEAT	ERS		-					1			-9-				_		1
01	02	03	04	05	06	07	08	09	9	10	0	11		12		13	14
Name	Heating Element Type	Tank Type	# of Units	Tank Vol. (gal)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulatior R-value (Int/Ext)	Stan Loss Recove	dby or ery Eff	1st Hr. Rating o Flow Ra	or Brand	leat Pump or Model	Tank or / Co	Location Ambient Nondition	n	Status	Verified Existing Condition
DHW Heater 1	Electric Resistance	Small Storage	1	6	0.92-EF	<= 12 kW	0	98	365	n/a		n/a	0	utside	I	Existing	No
WATER HEAT	ING - HERS V	ERIFICATION						Ø	ол. -								
01		02		i	03	04		2	05		06			07			08
Nam	ne	Pipe Insulation		Paralle	el Piping	Compact Dis	stribution	Compact T	Distribu ype	ition R	ecirculation	Control	Cen Dist	tral DHW tribution	1	Shower Heat	Drain Water Recovery
DHW Sys	1 - 1/1	Not Required		Not R	equired	Not Req	uired	N	one		Not Requi	red	Not	Required	Ĭ	Not	Required
SPACE COND		STEMS				4	<u></u>										
SINCE COND	01		02		03			05		06	07	08	Т	00		10	11
	01		02		03					00	Paguirad		- 14	rified	Ha	ating	Cooling
N	lame	Syst	em Typ	e	Heating U Name	Jnit Cooling Nan	; Unit ne Fa	n Name	Distr N	ibution ame	Thermosta Type	t Status	E) Co	cisting ndition	Equi Co	pment punt	Equipment Count
	HP1	Heat pump	heating	g cooling	Heat Pu System	mp Heat P 1 Syste	ump m 1	n/a	n/a		Setback		No			1	1
01		02		02		05		or			00	00		10	2		
		02		03		05		06	07		08	09		10	5		11
HVAC - HEAT	PUMPS	1				Heati	ng			Cooling	- I						
Nam	ne	System Type	Numbe	er of Uni	ts HSPF/C	OP Cap	17 Ca	ap 17	SEE	RE	₅ EER/CEER	Zonally Controlle	d	Compre Typ	essor e	HERS	/erification
Heat Pump	System 1	Package Terminal Heat Pump	3	1	4	2500	00	n/a	n/a		12.5	Not Zon:	al	Sing Spee	le ed	Heat P 1-he	ump System rs-htpump
Registration	Number:						Registrati	on Date/T	ïme:			н	ERS Pr	ovider:			

CA Building Energy Efficiency Standards - 2019 Residential Compliance

CA Building Energy Efficiency Standards - 2019 Residential Compliance

**Registration Number:** 

Report Version: 2019.2.000

Schema Version: rev 20200901

Report Generated: 2022-03-18 03:09:35

CERTIFICATE OF CO Project Name: ADU Calculation Descrip	IFICATE OF COMPLIANCE       CF1R-PRF-02         ect Name: ADU       Calculation Date/Time: 2022-03-18T03:09:10-07:00       (Page 7 of         ulation Description: Title 24 Analysis       Input File Name: 14782 739 Spokane add alt adu EAN.ribd19x											
IVAC HEAT PUMPS -	HERS VERIFICATION					2						
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-htpump	Not Required	0	Required	Not Required	No	No	Yes	No				
HERS RATER VERIFIC	ATION OF EXISTING C	ONDITIONS		4	5							
PROJECT NOTES				Ø								

compliance 0 Anis continuate Registration Date/Time:

Report Version: 2019.2.000 Schema Version: rev 20200901 HERS Provider: Report Generated: 2022-03-18 03:09:35

CERTIFICATE OF COMPLIANCE	CF1R-PRF-01E
Project Name: ADU	Calculation Date/Time: 2022-03-18T03:09:10-07:00 (Page 9 of 9)
Calculation Description: Title 24 Analysis	Input File Name: 14782 739 Spokane add alt adu EAN.ribd19x
DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	.6
1. I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name:	Documentation Author Signature:
Tailored Energy and Testing Services Ltd	
Company:	Signature Date:
Kevin Laughton	3/10/2022
Address:	CEA/ HERS Certification Identification (If applicable):
548 Market St #30051	0111070
City/State/Zip:	Phone:
San Francisco, CA 94120-7775	Ø1 888 310 0808
RESPONSIBLE PERSON'S DECLARATION STATEMENT	0
I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the     I certify that the energy features and performance specifications identified on this Certificate of Co The building design features or system design features identified on this Certificate of Compliance calculations, plans and specifications submitted to the enforcement agency for approval with this I Responsible Designer Name: Kristy Xie	building design identified on this Certificate of Compliance. Impliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. are consistent with the information provided on other applicable compliance documents, worksheets, building permit application. Responsible Designer Signature:
Company: EANOVATION INC.	Date Signed:
Address:	License:
City/State/Zip: , CA	Phone: 415-860-6490
ANTS CONTRACT	

Report Version: 2019.2.000 Schema Version: rev 20200901

Registration Date/Time:

HERS Provider:

Report Generated: 2022-03-18 03:09:35

CERTIFICATE	OF	COMP	LIANCE

#### Project Name: ADU

FENESTRATION / GLAZING

01

Name

door

Window 2

OPAQUE DOORS

SLAB FLOORS

01

Name

Slab-on-Grade

Slab-on-Grade 2

Registration Number:

Project Name: ADU

CERTIFICATE OF COMPLIANCE

01

Name

Doo sc

Door sc

Calculation Description: Title 24 Analysis

02

Туре

02

Zone

ex

new

CA Building Energy Efficiency Standards - 2019 Residential Compliance

03

Surface

Window n Wall Front O

02

Side of Building

n Wall

W

03

Area (ft<sup>2</sup>)

187

137

9

Window N Wall Front 0

Window 3 Window n Wall Front 0

Window 4 Window N Front 0

Window 5 Window W 2 Right 270

Skylight Skylight Roof Front O

Window n Wall

Orientation Azimuth (ft)

03

05

Edge Insul.

R-value and

none

none

Depth

Area (ft<sup>2</sup>)

20

20

CTA. 04

Perimeter (ft)

0.1

36

Front 0

Calculation Date/Time: 2022-03-18T03:09:10-07:00

14

Input File Name: 14782 739 Spokane add alt adu EAN.ribd19x

Height<br/>(ft)Mult.Area<br/>(ft²)U-factorSHGCSHGC<br/>SourceSHGC<br/>SourceExterior<br/>ShadingStatus12.60.28NFRC0.4NFRCBug ScreenNew1330.28NFRC0.4NFRCBug ScreenNew

1 2.6 0.28 NFRC 0.4 NFRC Bug Screen New

1 6 0.28 NFRC 0.4 NFRC Bug Screen New

1 2.3 0.28 NFRC 0.4 NFRC Bug Screen New

9 0.28 NFRC 0.4 NFRC Bug Screen New

1 6 0.28 NFRC 0.21 NFRC None New n/a

05

Status

New

New

08

Heated

No

No

.9

CF1R-PRF-01E (Page 4 of 9)

16

Verified

Existing

Condition n/a

n/a

n/a

n/a

n/a

06

Verified Existing Condition

n/a

n/a

10

Verified Existing

Condition

No

n/a

CF1R-PRF-01E

(Page 4 of 9)

n/a

15

GENER	RAL INFOR	MATION					
01		Project Name					
02		Run Title					
03		Project Location					
04		City					
06		Zip code					
08		Climate Zone					
10		Building Type					
12		Project Scope					
14		Addition Cond. Floor Area (ft <sup>2</sup> )					
16	Existing Cond. Floor Area (ft <sup>2</sup> )						
18		Total Cond. Floor Area (ft <sup>2</sup> )					
20		ADU Bedroom Count					
22		Is Natural Gas Available?					
COMP	LIANCE RE	SULTS					
	01	Building Complies with Computer					
	02	This building incorporates features					
	03	Building does not incorporate Spe					

![](_page_11_Figure_21.jpeg)

Floject Name. AD	5
Calculation Descri	ption: Title 24 Analy

CERTIFICATE C Project Name Calculation Do	DF COMPLIA : ADU escription: T	NCE itle 24 Analysi	5			Calc	ulation Date/Ti ut File Name: 14	<b>ne:</b> 2022-03-1 782 739 Spoka	.8T03:09: ane add a	:10-07:00 Ilt adu EAN.ri	bd19x	CF1R-PRF-01E (Page 1 of 9)	AARON PARSO 739 SPOKANE ALBANY, CA 94 CALL: - EMAU - ADADSO	OWNER ONS & SARAH SPIEGEL AVE. 706
01	RIVIATION	Project	t Name ADU	J				6					EMAIL: APARSU	JNS@BERKELEY.EDU
02		Ru	In Title Title	24 Analysis	-			0						
04		Pioject L	City ALB	ANY	-•	05	i č	Stan	dards Vers	sion 2019				CONSULTANTS
06		Z	ip code 9470	06		07	Eror	Soft	tware Vers	sion EnergyPi	ro 8.3		YONG F. LIANG	<u>JLTANT</u>
10		Buildir	ie zone 3 ig Type Sing	le family		11		Number of C	Dwelling U	Inits 1			801 FRANKLIN	, ST APT 304
12		Projec	t Scope Add	itionAlteratior	ı	13	<u> </u>	Number	r of Bedroo	oms 3			OAKLAND CA 9	4607
14	Addition	n Cond. Floor Ar	ea (ft <sup>2</sup> ) 137			15	F	Num enestration Ave	ber of Sto	ories 1			EMAIL: YONGLI	ANGDESIGN@GMAIL.COM
18	Tota	l Cond. Floor Ar	ea (ft <sup>2</sup> ) <sup>324</sup>			19	1	Glazing P	ercentage	(%) 18.98%			CUDVEVOD	
20	3	ADU Bedroom	<b>Count</b> n/a			21		ADU Condition	ed Floor A	A <b>rea</b> n/a			KEITH S. BUSH	
22	ls	Natural Gas Ava	ilable? Yes			6							BAY AREA LAN	D SURVEYING INC.
COMPLIANCE R	ESULTS				<u> </u>									D PARKWAY, SUITE 101
01	This building	ng incorporates	features tha	ormance t require field	testing and/	or verification by a	certified HERS ra	ter under the su	upervision	of a CEC-app	roved HERS prov	/ider.	CALL: 510-223-	5167
03	Building d	oes not incorpo	ate Special F	eatures	Ø				-		84 <b>-</b> 8		CTDUCTUDAL	
				Ő		ENERGY USE SUM	MMARY						W.H. CONSULA	TION, INC
	Energy Use	'kTDV/ft <sup>2</sup> -vr)		Sta	andard Desig	n	Proposed Desi	gn	Com	pliance Margi	n Perce	ent Improvement	1590 OAKLAND	RD. SUITE 112
	Space	Heating			9.05		13		the follow for the set	-3.95	The Same and Add	-43.6	SAN JOSE, CA	95131 INFERINGGROUP COM
	Space	Cooling	0		19.37		12.39			6.98		36	WWW.WHENGI	NEERINGGROUP.NET
	IAQ Vei Water	Heating			0 216.94		0 216.94			0		0		
Se	lf Utilization/	Flexibility Credit	3		n/a		0			0		n/a	TAIL ORED ENE	RGY AND TESTING SERVICES
	Compliance	Energy Total			245.36		242.33			3.03		1.2	LTD	
Registration N	umber: ergy Efficienc	y Standards - 20	19 Residenti	al Compliance		Registration I Report Versic Schema Versi	Date/Time: on: 2019.2.000 ion: rev 20200901			HERS Provid Report Gen	der: erated: 2022-03	-18 03:09:35	KEVIN LAUGHT 548 MARKET S SAN FRANCISC CALL:1-888-310	ON T #30051 CO, CA 94120-7775 D-0808
CERTIFICATE C Project Name	DF COMPLIA : ADU	NCE	_			Calc	ulation Date/Til	<b>me:</b> 2022-03-1	.8T03:09:	:10-07:00	bd 10v	CF1R-PRF-01E (Page 2 of 9)		
		c.	-								buisk			
The following a	re features th	s at must be insta	lled as condi	tion for meeti	ng the model	ed energy perform	ance for this com	outer analysis.						
NO SPEC	IAL FEATURES	REQUIRED				(2 <u>2.276</u>		0						REVISIONS
HERS FEATURE	SUMMARY						N.						2022/3/23 10	:59:04
The following is detail is provide	s a summary o ed in the build	of the features th Ing tables below	nat must be f . Registered	ield-verified b CF2Rs and CF3	y a certified H BRs are requir	ERS Rater as a con ed to be completed	dition for meeting d in the HERS Regi	; the modeled e stry	nergy perf	formance for t	his computer an	alysis. Additional		
Building-level V	erifications:		1.000			2	.9	5						
Cooling System	- Verifications	:					0							APPROVALS
Verified I Heating System	EER Verifications	:	992 • • • 975				5						No.	Description Date
Verified	ion System Ve	rifications:	icity			.0								
Domestic Hot V	 Vater System	Verifications:												
• None -														
BUILDING - FEA	TURES INFO		02		03			05		06		07		
Proioc	1 Namo	Conditions		Num	ber of Dwelli	ng Number of J	Redrooms Nu	umber of Zones	Nu	umber of Vent	ilation N	umber of Water		
		Conditione	224		Units	2		2	_	Cooling Syste	ems H	leating Systems		
~	50		524		<u> </u>			Z		0				
ZONE INFORM	ATION	02	<u> </u>	<u></u>		04		05	1	06		07		
Zone Na	ame	Zone Ty	pe	HVAC Syste	m Name	Zone Floor Area	a (ft <sup>2</sup> ) Avg.	Ceiling Height	Wate	er Heating Sys	stem 1 Water	Heating System 2		
ex		Conditior	ned	C HP:	1	187	1100 (190)	9		DHW Sys 1		N/A		
new		Conditior	ned	HP:	1	137		9		DHW Sys 1		N/A		
			. 6				I		7.ees					
		~												
Registration N	umber:					Registration I	Date/Time:			HERS Provid	ler:			
CA Building En	ergy Efficienc	y Standards - 20	19 Residenti	al Compliance		Report Versio	on: 2019.2.000			Report Gen	erated: 2022-03	-18 03:09:35		
						Schema Versi	on: rev 20200901							
CERTIFICATE C	OF COMPLIA	NCE							6			CF1R-PRF-01E		PROJECT
Project Name	: ADU	i+la 0.4 A	_			Calc	ulation Date/Ti	<b>me:</b> 2022-03-1	8T03:09:	:10-07:00	bd10.	(Page 3 of 9)		
Calculation De	escription: 1	nie 24 Analysi	2			Inpi	at rife (Name: 14	702 739 Spoka	ane add a	nt auu EAN.ri	PG TAX	,		UFOR IF AVE ALBANIZ CA 04706
OPAQUE SURF	ACES		03	M	05	06	07	80		09	10	11		е / w е, леолит, од 34700
Name	705		struction	Azimuth	Orientatio	Gross Area (4)	2) Window and	Tilt (doe	) )//~	Il Excentions	Statue	Verified Existing		
e Wall			15 Wall	00	_ f+	120	' Door Area (ft2			none	Altered	Condition		
e wall s Wall	ex ex	R-	15 Wall	180	Back	120		90		none	Altered	No		
n Wall	ex	R-	15 Wall	0	Front	124	64.2	90		none	Altered	No		
W	ex	R-	15 Wall	270 0	Right Front	120	20	90		none Extension	Altered	No n/a		
W 2	new	R-	15 Wall	270	Right	120	9	90		none	New	n/a		SHEET TITLE
e Wall 2	new	R-	15 Wall	90	Left	50	0	90	I	Extension	New	n/a		
s Wall 2	new e new>>	ex R-	15 Wall Wall 0	180 n/a	Back n/a	40	0	90 n/a		Extension	New	n/a n/a	TITLE 24 AN	ALYSIS
Interior Surface	e new>	•ex	Wall 0	n/a	n/a	75	0	n/2			New	n/a		
2 Interior Surface	e		Alelle			d						and Res		
3	new>>	rex 1	vvali U	n/a	n/a	75	0	n/a			New	n/a		
interior Surface 4	e new>>	•ex	Wall O	n/a	n/a	75	0	n/a			New	n/a		
OPAQUE SURF	ACES - CATHE	DRAL CEILINGS		<u>b.</u>	0									
01	02	03	04	05	06	07 08	09	10	11	12	13	14		
Name	Zone	Construction	Azimuth	Orientation	Area S	kylight Roof Ri	se (x Roof 2) Reflecter	Roof	Cool	Status	Verified Existing	Existing	DRAWN BY	SHEET NO.
Roof	ev	roof no attic	0	Front	187 A				No	Alterad		Construction	YFL	
Roof 2	ex new	roof no attic	0	Front	137	0 7	0.1	0.85	No	New	n/a		CHECKED BY	1
		na zarodobila	G		I	55 - 55 - 55 - 55 - 55 - 55 - 55 - 55	an calcula						YFL / KX	
			2										SCALE	† <b>11</b>
		- A											AS NOTED	
Registration N	umber:					Registration I	Date/Time:			HERS Provid	der:			-
													I JOR NO.	

CERTIFICATE Project Nam Calculation	E OF COMPL ne: ADU Description	IANCE : Title 24 Analy:	sis			Calcul Input	ation Date/Tim File Name: 147	<b>ie:</b> 2022-03-1 82 739 Spoka	8T03:09: ne add a	:10-07:00 alt adu EAN.ri	bd 19x	CF1R-PRF-01E (Page 1 of 9)	AARON PARSO 739 SPOKANE A ALBANY, CA 94 CALL: -	OWNER ONS & SARAH SPIEGEL AVE. 706
GENERAL INF	FORMATION	Proje	ect Name ADU	1				.5					EMAIL: APARSO	DNS@BERKELEY.EDU
02		Project	Run Title Title	24 Analysis			4	0						
04		riojeci	City ALB	ANY		05		Stand	dards Ver	rsion 2019	-Passedari			CONSULIANTS
06 08		Clim	Zip code 9470 ate Zone 3	06		07 09	Front	Soft Orientation (d	ware Ver eg/ Cardi	rsion EnergyPr inal) 0	o 8.3		YONG F. LIANG	<u>JLTANT</u>
10		Build	ling Type Sing	le family itionAlteration		11		Number of D	welling U	Jnits 1			801 FRANKLIN S OAKLAND CA 9	ST APT 304 4607
14	Additi	ion Cond. Floor /	Area (ft <sup>2</sup> ) <sup>137</sup>	nonAlteration		15		Num	ber of Sto	ories 1			CALL: 510-387-6	6668
16	Exist	ing Cond. Floor /	Area (ft <sup>2</sup> ) 187			17	Fe	nestration Ave Glazing Pe	rage U-fa	actor 0.28			EIMAIL: YONGLI	ANGDESIGN@GMAIL.COM
20		ADU Bedroo	om Count n/a			21	ļ	ADU Condition	ed Floor /	Area n/a			SURVEYOR KEITH S. BUSH	
22		ls Natural Gas A	vailable? Yes		_								BAY AREA LAN	D SURVEYING INC.
COMPLIANCE	E RESULTS Building	Complies with C	Computer Perfe	ormance									RICHMOND, CA	D PARKWAY, SUITE TUT 94806
02	This buil	ding incorporate	es features tha	t require field	testing and/o	r verification by a ce	rtified HERS rate	er under the su	pervision	n of a CEC-app	roved HERS pro	vider.	CALL: 510-223-5	5167
03	Building	does not incorp	orate Special F	-eatures	<u>e</u>								STRUCTURAL I	ENGINEER
				<u> </u>		ENERGY USE SUMM	ARY		1720				W.H. CONSULA 1590 OAKLAND	TION, INC RD. SUITE 112
	Energy Us	e (kTDV/ft <sup>2</sup> -yr) e Heating		Sta	9.05		Proposed Desig	n	Com	-3.95	n Perc	-43.6	SAN JOSE, CA	95131
	Spac	e Cooling	e e		19.37		12.39			6.98		36	WWW.WHENG	NEERINGGROUP.NET
	IAQ V Wate	entilation Print Heating	.6		0 216.94		0 216.94			0		0	T-24 REPORT	
;	Self Utilizatio Complian	n/Flexibility Crec ce Energy Total	lit		n/a 2 <b>45.36</b>		0 242.33			0 3.03		n/a 1.2	TAILORED ENE	RGY AND TESTING SERVICES
					N - 91000, 22200						• second	697 0280a 6	LTD KEVIN LAUGHT	ON
CA Building E	Energy Efficie	ncy Standards - 2	2019 Residentia	al Compliance		Report Version Schema Version	2019.2.000 : rev 20200901			Report Gen	erated: 2022-03	3-18 03:09:35	548 MARKET S SAN FRANCISC CALL:1-888-310	Г #30051 СО, СА 94120-7775 I-0808
CERTIFICATE Proiect Nam	E OF COMPL ne: ADU	IANCE				Calcul	ation Date/Tim	<b>le:</b> 2022-03-1	8103:09:	:10-07:00		CF1R-PRF-01E (Page 2 of 9)		
Calculation	Description	: Title 24 Analy	sis			Input	File Name: 147	82 739 Spoka	ne add a	alt adu EAN.ri	bd19x	a uz - 198		
REQUIRED SP	PECIAL FEATU	RES	+allad aa aandi	tion for mostin	a tha madala	d an arm, narfarman	a far this some	5						
NO SPE	ECIAL FEATUR	that must be ins RES REQUIRED	talled as condi	tion for meetir	ig the modele	d energy performant	ce for this compt							REVISIONS
HERS FEATUR	RE SUMMARY												2022/3/23 10:	59:04
The following detail is provi	g is a summar ided in the bu	y of the features iildng tables belo	that must be f ow. Registered (	ield-verified by CF2Rs and CF3	/ a certified HI Rs are require	ERS Rater as a condit d to be completed ir	ion for meeting t the HERS Regist	the modeled er ry	nergy peri	formance for t	his computer ar	alysis. Additional		
Building-level None	l Verifications e	:					ľs.							ΔΡΡΡΟΥΔΙ S
Cooling Syste     Verifier	em Verification d EER	ns:				c.	U						No.	Description Date
Verifie     HVAC Distribut	d heat pump ution System	ns: rated heating ca Verifications:	pacity			and a								
• None Domestic Hot	e t Water Syste	m Verifications:				Nº.								
• None	e					N. N								
BUILDING - F	EATURES INF	ORMATION	02		03	04		05		06		07		
Proje	ect Name	Conditio	ned Floor Area	(ft <sup>2</sup> ) Numb	per of Dwellin Units	g Number of Bed	irooms Nur	nber of Zones	N	umber of Vent Cooling Syste	ilation M	lumber of Water Heating Systems		
	ADU		324			3		2		0		1		
ZONE INFORM	MATION			0										
0 Zone	)1 Name	02 Zone T	Type	03 HVAC Syster	m Name	04 Zone Floor Area (1	t <sup>2</sup> ) Avg. (	05 Ceiling Height	Wat	06 ter Heating Sys	tem 1 Wate	07 r Heating System 2		
e	ex	Conditi	oned	HP1	a	187		9	1	DHW Sys 1		N/A		
ne	ew	Conditi	oned	HP1		137		9		DHW Sys 1		N/A		
			2											
		Å	<u> </u>											
Registration	Number:		24			Registration Dat	e/Time:			HERS Provid	ler:			
CA Building E	Energy Efficie	ncy Standards - 2	2019 Residentia	al Compliance		Report Version:	2019.2.000			Report Gen	erated: 2022-03	8-18 03:09:35		
						Schema version	. 160 20200901							
CERTIFICATE Proiect Nam	E OF COMPL	IANCE				Calcul	ation Date/Tim	<b>le:</b> 2022-03-1	8T03:09:	:10-07:00		CF1R-PRF-01E (Page 3 of 9)		PRUJECI
Calculation	Description	: Title 24 Analy	sis			Input	File Name: 147	82 739 Spoka	ne add a	alt adu EAN.ri	bd19x		DETACH ADU	J FOR
OPAQUE SUR	RFACES	12 I	02	07	05	0.5	807 1	.9	1	00	40	44	739 SPOKAN	E AVE, ALBANY, CA 94706
01 Name	70	ne Cr	onstruction	04 Azimuth	U5 Orientation	Ub Gross Area (ft <sup>2</sup> )	Window and	Tilt (dee)	Wa	eu all Exceptions	Status	Verified Existing		
e Wall		ex i	R-15 Wall	90	Left	120	0 0000 Area (ft2)	90		none	Altered	No		
s Wall	e	ex l	R-15 Wall	180	Back	140	0	90		none	Altered	No		
W	e	ex	R-15 Wall	270	Right	124	20	90		none	Altered	No		
N W 2	ne	ew l	R-15 Wall R-15 Wall	0 270	Front Right	120 120	2.3	90 90		Extension none	New New	n/a n/a		SHEET TITLF
e Wall 2	ne	ew	R-15 Wall	90	Left	50	0	90		Extension	New	n/a		
s Wall 2 Interior Surfa	ace new	=w	Wall 0	180 n/a	n/a	75	0	90n/a			New	n/an/a	TITLE 24 ANA	ALYSIS
Interior Surfa 2	ace new	>>ex	Wall 0	n/a	n/a	75	0	n/a			New	n/a		
Interior Surfa 3	ace new	>>ex	Wall O	n/a	n/a	75	0	n/a			New	n/a		
Interior Surfa 4	ace new	>>ex	Wall 0	n/a	n/a	75	0	n/a			New	n/a		
	RFACES - CATL		5	-	0	1			-			<u> </u>		
01	02	03	04	05	06	07 08	09	10	11	12	13	14		
Name	Zone	Construction	Azimuth	Orientation	Area Sk (ft <sup>2</sup> ) An	aylight Roof Rise ea (ft <sup>2</sup> ) in 12)	(x Roof Reflectance	Roof Emittance	Cool Roof	Status	Verified Existing Condition	Existing Construction	DRAWN BY	SHEET NO.
Roof	ex	roof no attic	0	Front	187	6 7	0.1	0.85	No	Altered	No		YFL	-
Roof 2	new	roof no attic	• <b>•</b>	Front 7	137	0 7	0.1	0.85	No	New	n/a		CHECKED BY YFI / KX	
			2											<b>T1</b>
		Å											AS NOTED	
Registration	Number:					Registration Dat	e/Time:			HERS Provid	ler:			-

Calculation Desc	r <b>iption:</b> Title 24	Analysis
OPAQUE SURFACES	S	
01	02	03
Name	Zone	Construction
e Wall	ex	R-15 Wall
s Wall	ex	R-15 Wall
n Wall	ex	R-15 Wall
W	ex	R-15 Wall
N	new	R-15 Wall
W 2	new	R-15 Wall
e Wall 2	new	R-15 Wall
s Wall 2	new	R-15 Wall
Interior Surface	new>>ex	Wall 0
Interior Surface 2	new>>ex	Wall O
Interior Surface	Demosey	Wall O

CERTIFICATE Project Nam Calculation E	OF COMPLI e: ADU Description:	I <b>ANCE</b> Title 24	Analysis			Calcula Input I	ation Date/Tim File Name: 147	<b>1e:</b> 2022-03-18 182 739 Spoka	8T03:09:	:10-07:00 alt adu EAN.ri	bd 19x	CF1R-PRF-01E (Page 1 of 9)	AARON PARSO 739 SPOKANE A ALBANY, CA 94 CALL: -	OWNER ONS & SARAH SPIEGEL AVE. 706
GENERAL INFO	ORMATION		Project Name ADU	J				.5					EMAIL: APARSO	ONS@BERKELEY.EDU
02 03		I	Run Title Title	e 24 Analysis SPOKANE AVE.				<u>o</u>						
04			City ALB	ANY		05		Stand	lards Ver	rsion 2019				CONSULTANTS
06 08			Zip code 947 Climate Zone 3	06		07 09	Front	Soft Orientation (de	ware Ver eg/ Cardi	inal) 0	0 8.3		YONG F. LIANG	
10 12			Building Type Sing Project Scope Add	gle family litionAlteration		11		Number of D <sup>.</sup> Number	welling L of Bedro	Jnits 1 ooms 3			801 FRANKLIN OAKLAND CA 9	ST APT 304 4607
14	Additi	on Cond.	Floor Area (ft <sup>2</sup> ) <sup>137</sup>			15		Num	ber of Sto	ories 1			CALL: 510-387-6	6668 ANGDESIGN@GMAIL COM
16 18	Existi	ng Cond. tal Cond.	Floor Area (ft <sup>2</sup> ) <sup>187</sup> Floor Area (ft <sup>2</sup> ) <sup>324</sup>			17	Fe	nestration Ave Glazing Pe	rage U-fa	e (%) 18.98%				ANGDESIGN@GMAIL.COM
20	10	ADU	Bedroom Count n/a	6		21	,	ADU Conditione	ed Floor /	Area n/a			KEITH S. BUSH	
22		ls Natura	Gas Available? Yes		_	5							BAY AREA LAN	D SURVEYING INC.
COMPLIANCE 01	RESULTS Building	Complies	with Computer Perf	ormance	<u> </u>								RICHMOND, CA	94806
02	This build	ding inco	rporates features tha	at require field Features	testing and/o	r verification by a ce	rtified HERS rate	er under the su	pervisior	n of a CEC-app	roved HERS pro	ovider.	CALL: 510-223-5	5167
	Dunumg	uoes not	incorporate special	- A			70-201						STRUCTURAL I	ENGINEER
	Enormalia		+2)		ndard Design	ENERGY USE SUMM	Proposed Desig	in l	Com	unliance Margi	n Por	cent Improvement	1590 OAKLAND	RD. SUITE 112
	Space	e Heating	ι-yı)		9.05		13		com	-3.95		-43.6	SAN JOSE, CA	95131 INFERINGGROUP COM
	Space IAO V	e Cooling entilatior	G		19.37 0		12.39 0			6.98 0		36	WWW.WHENGI	NEERINGGROUP.NET
	Wate	r Heating	.9		216.94		216.94			0		0	T-24 REPORT	
S	Self Utilization Complianc	n/Flexibili :e Energy	ty Credit Total		n/a 245.36		0 242.33			0 3.03		n/a 1.2	TAILORED ENE	RGY AND TESTING SERVICES
Registration	Number					Registration Dat	e/Time:			HERS Provid	ler:		KEVIN LAUGHT	ON
CA Building E	Energy Efficier	ncy Stand	ards - 2019 Residenti	ial Compliance		Report Version: Schema Version	2019.2.000 : rev 20200901			Report Gen	erated: 2022-0	3-18 03:09:35	548 MARKET ST SAN FRANCISC CALL:1-888-310	Г #30051 :О, СА 94120-7775 -0808
CERTIFICATE Project Nam		IANCE				Calcul	ation Date/Tim	<b>10:</b> 2022-03-15	2003-009	·10-07·00		CF1R-PRF-01E		
Calculation [	Description:	Title 24	Analysis			Input I	ile Name: 147	82 739 Spoka	ne add a	alt adu EAN.ri	bd19x	, <u> </u>		
REQUIRED SPI	ECIAL FEATUR	RES	1	2			·	.5						
NO SPE	are features	ES REQUI	E be installed as cond	ition for meetin	ig the modele	d energy performan	ce for this comp	uter analysis.						REVISIONS
HERS FEATURE	E SUMMARY												2022/3/23 10:	59:04
The following detail is provid	is a summary ded in the bu	/ of the fe ildng tabl	atures that must be t es below. Registered	field-verified by CF2Rs and CF3	/ a certified HI Rs are require	RS Rater as a condit d to be completed ir	ion for meeting the HERS Regist	the modeled en try	nergy per	formance for t	his computer a	nalysis. Additional		
Building-level • None	Verifications: e						2							
Cooling Syster     Verified	m Verification d EER	is:				-	D						No	Description Date
Heating System     Verified     HVAC Distribut	m Verificatior d heat pump i ution System )	ns: rated hea Verificatio	ting capacity			and a								
None Domestic Hot	e Water Syster	n Verifica	tions:			S								
• None	:					~~~								
BUILDING - FE	EATURES INFO	ORMATIC	N 02		03	04	1	05		06		07		
Proje	ect Name		onditioned Floor Area	a (ft <sup>2</sup> ) Numb	per of Dwelling	<sup>3</sup> Number of Bec	Irooms Nu	mber of Zones	N	umber of Vent	ilation	Number of Water		
	ADU		324			3		2		0	-1113	1		
ZONE INFORM	ATION			0										
01 Zone M	1 Name		02 Zone Type	03 HVAC System	m Name	04 Zono Eleor Area (f	+ <sup>2</sup> ) Δνσ (	05 Ceiling Height	Wat	06 ter Heating Svs	tem 1 Wat	07 er Heating System 2		
e	x		Conditioned	HP1	in Name	187		9		DHW Sys 1		N/A		
ne	w		Conditioned	HP1	S.	137		9		DHW Sys 1		N/A		
		<u>.</u>	S.											
Registration I	Number:					Registration Dat	e/Time:			HERS Provid	ler:			
CA Building E	Energy Efficier	ncy Stand	ards - 2019 Residenti	ial Compliance		Report Version: Schema Version	2019.2.000 : rev 20200901			Report Gen	erated: 2022-0	3-18 03:09:35		
CERTIFICATE	OF COMPL	IANCE							8			CF1R-PRF-01E		PROJECT
Project Nam	e: ADU					Calcula	ation Date/Tim	<b>1e:</b> 2022-03-18	8703:09:	:10-07:00		(Page 3 of 9)		
Calculation [	Description:	Title 24	Analysis			Input	ile Name: 147-	'82 739 Spoka	ne add a	alt adu EAN.ri	bd19x		DETACH ADU	J FOR E AVE ALBANY CA 94706
01	PACES	2	03	04	05	06	07	08		09	10	11		,,,,,
Name	Zo	ne	Construction	Azimuth	Orientation	Gross Area (ft <sup>2</sup> )	Window and Door Area (ft2)	Tilt (deg)	Wa	all Exceptions	Status	Verified Existing Condition		
e Wall	e	x	R-15 Wall	90	Left	120	0	90		none	Altered	No		
s wall n Wall	e	×	R-15 Wall	0	Баск Front	124	64.2	90		none	Altered	No		
W	e	x	R-15 Wall	270 0	Right Front	120 120	20	90 90		none Extension	Altered New	No n/a		
W 2	ne	W	R-15 Wall	270	Right	120	9	90		none	New	n/a		SHEET TITLE
e Wall 2 s Wall 2	ne ne	w w	R-15 Wall R-15 Wall	90 180	Left Back	50	0	90 90		Extension Extension	New New	n/a n/a		
Interior Surfa	ice new:	>>ex	Wall 0	n/a	n/a	75	0	n/a			New	n/a	IIILE 24 ANA	AL 1 515
2	new:	>>ex	Wall 0	n/a	n/a	75	0	n/a			New	n/a		
interior Surfa 3	new:	>>ex	Wall O	n/a	n/a	75	0	n/a			New	n/a		
Interior Surfa 4	nce new:	>>ex	Wall 0	n/a	n/a	75	0	n/a			New	n/a		
OPAQUE SURI	FACES - CATH	EDRAL C		1	Ø		2006	2204.0	.022752	2001	125.04	50.75		
01	02		04	05	06 Area دہ	07 08	09	10 Roof	11 Cool	12	13 Verified	14 Fxisting		
Name	Zone	Const	ruction Azimuth	Orientation	(ft <sup>2</sup> ) Are	ea (ft <sup>2</sup> ) in 12)	Reflectance	Emittance	Roof	Status	Existing Condition	Construction	YFL	SHEEI NO.
Roof Roof 2	ex new	roof r roof r	o attic 0 o attic 0	Front Front	187 137	6 7 0 7	0.1	0.85 0.85	No No	Altered New	No n/a		CHECKED BY	
					<b>I</b>		and an all houses		ar en 202	<ul> <li>A constraint of b</li> </ul>	•	I	YFL / KX	<b>T</b>
													SCALE	
							-						AS NOTED	
Registration I	Number:					Registration Dat	e/Time:			HERS Provid	ler:		JOB NO	1

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Registration Date/Time:
Report Version: 2019.2.000
Cabana Mariani neu 2020001

04 05 06 07 08 09 10 11 12 13

Schema Version: rev 20200901

ersion: 2019.2.000	
Version: rev 20200001	

04

U-factor

0.2

0.2

07

**Carpeted Fraction** 

80%

80%

Calculation Date/Time: 2022-03-18T03:09:10-07:00

06

Edge Insul.

R-value and

Depth

0

0

## HERS Provider:

Report Generated: 2022-03-18 03:09:35

09

Status

Existing

New

Calculation Description: Title 24 Analysis									Input File Name: 14782 739 Spokane add alt adu EAN.ribd19x									
FENESTRATION / G	LAZING									.9								
01	04	05	06	07	08	09	10	11	12	13	14	1	5	16				
Name	Туре	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft <sup>2</sup> )	U-facto	or U-factor Source	SHGC	SHGC Source	Exterior Shading	Stat	tus	Verified Existing Condition		
Window	Window Window		Front	0			1	2.6	0.28	.28 NFRC		NFRC	Bug Screer	n Ne	w	n/a		
door	ITION / GLAZING II 02 III 02 III 02 IIII 02 IIIII 02 IIIIIIIIII		Front	0			1	33	0.28	NFRC	0.4	NFRC	Bug Screer	n Ne	w	n/a		
Window 2	Window	n Wall Front		0	)		1	2.6	0.28	NFRC	0.4	NFRC	Bug Screer	n Ne	w	n/a		
Window 3	Window	n Wall	Front	0			1 6		0.28	NFRC	0.4	NFRC	Bug Screer	n Ne	w	n/a		
Window 4	Window	N	Front	0			1	2.3	0.28	NFRC	0.4	0.4 NFRC		n Ne	w	n/a		
Window 5	Window	W 2	Right	270			1	9	0.28	NFRC	0.4	NFRC	Bug Screer	n Ne	w	n/a		
Skylight	Skylight	Roof	Front	0			1	6	0.28	NFRC	0.21	NFRC	None	Ne	w	n/a		
							ř.											
OPAQUE DOORS						0	_											
01		02	1	03			04				05				06			
Name		Side of B	uilding	Area (ft <sup>2</sup> )			U-factor				Status			erified Ex	kisting	g Condition		
Doo sc		n W	all	20			0.2			New			n/a					
Door sc		W	5		20		0.2						n/a					
					0													
SLAB FLOORS				0														
01	02	03		04		05		06		07		08			10			
Name	Zone	Area	(ft <sup>2</sup> ) Pe	Perimeter (ft) Edge Dr		e Insul. lue and epth	Edge Insul. R-value and Depth		l. Id Ca	Carpeted Fraction		n Heated		IS	Verified Existing Condition			
Slab-on-Grade	ex	18		0.1	n	ione		0		80%		No		ng	No			
Slab-on-Grade 2	new	13		36	ione		0		80%		No		/		n/a			

Linis

**Registration Number:** 

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Report Version: 2019.2.000

Schema Version: rev 20200901

Registration Date/Time:

HERS Provider:

Report Generated: 2022-03-18 03:09:35

CERTIFICATE OF C	OMPLIANCE									6		с	F1R-PRF-01E				
Project Name: AD	Project Name: ADU								Calculation Date/Time: 2022-03-18T03:09:10-07:00 (Page 5 of 9								
Calculation Descr	iption: Title 24	4 Analysis					Input F	ile Name: 147	782 739 Spokane	add alt	adu EAN.ribd19>	C					
OPAQUE SURFACE	CONSTRUCTION	NS							.9								
01		04			05	06	07		08								
Construction Name Surface Type		Irface Type	Cons	truction Type	Framing			Total Cavity R-value	Total Cavity R-value R-value R-value		tor ,	Assembly Layers					
R-15 Wall Exterior Walls		terior Walls	Wood	l Framed Wall	2x4 @ 16 in. O. C.		C.	R-15	None / None	0.09	95 Inside Exterio	Inside Finish: Gypsum Board Cavity / Frame: R-15 / 2x4 Exterior Finish: 3 Coat Stucco					
roof no attic Cat		edral Ceilings	Wo	od Framed Ceiling	2x10 @ 16 in. O. C		c. <b>C</b>	R-30	R-9 / None	0.02	Roofing: L I Sidin 27 Cavity Sheathing Inside	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-30 / 2x10 Sheathing / Insulation: R-9 Sheathing Inside Finish: Gypsum Board					
Wall 0 Interior Wa		terior Walls	Wood	l Framed Wall	2x4 @	16 in. O. C	2. R-O		None / None	0.27	Inside Finish: Gypsum Board 77 Cavity / Frame: no insul. / 2x4 Other Side Finish: Gypsum Boar		ו Board ul. / 2x4 um Board				
					-6												
BUILDING ENVELOP	PE - HERS VERIF	ICATION							02			04					
Quality Incul	UI	an (OII)			From Inculation			Building Envol			04 CEM50						
Quality Insula			пів		Foam Insulation Building I			bulluling cliver	Ope All Leakage								
No	ot Required			Not Req	uired		Not R	equired			n/a						
WATER HEATING SY	(STEMS																
01 02 03 04						05		06	07		08	09	10				
Name	System Type	e Distribut	ion Type	Water Heate	Water Heater Name (#)		leating tem	Compact Distribution	t HERS Verific	ation	Status	Verified Existing Condition	Existing Water Heating System				
DHW Sys 1	Domestic Ho Water (DHW	ot Stan /) Distrik Syst	ard ution DHW Heater 1 (1) em		n,	/a	None	n/a		Existing	No						

**Registration Number:** 

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Registration Date/Time:

Report Version: 2019.2.000 Schema Version: rev 20200901 HERS Provider:

Report Generated: 2022-03-18 03:09:35

Report Version: 2019.2.000 Schema Version: rev 20200901

Report Generated: 2022-03-18 03:09:35

210924A