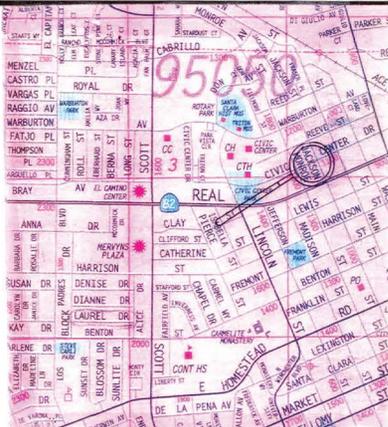
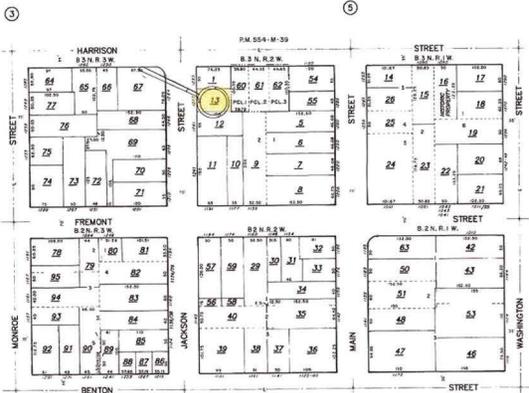


299 15



VICINITY MAP

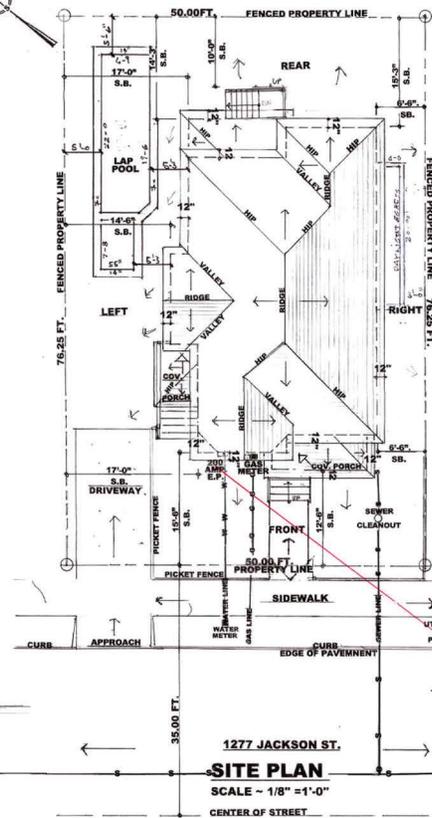
PROPERTY OVERVIEW 1277 JACKSON ST, SANTA CLARA, CA 95050-4823

Owner and Geographic Information	
Primary Owner: SPENCER MANSON AND FERRERA MOHELLE 1277 JACKSON ST, SANTA CLARA, CA 95050-4823 AIN: 269-15-013 Housing Tract Number: Legal Description: CITY OF SANTA CLARA City / Map 7 Top: SANTA CLARA	Secondary Owner: 1277 ANDREW ST, SANTA CLARA, CA 95050-4823 Lot Number: Page: 0/01

Property Details	
# of Bedrooms: 2 # of Bathrooms: 1.5 # of Total Rooms: 5 # of Parking: 0	Year Built: 1900 # of Garages: 0 # of Fireplaces: 0 # of Pools: 0
Square Feet: 1,207 Lot Size: 6,306 SF Number of Lots: 1 Use Code: Single Family Residential	

4/14/22 11:36 AM 1277 Jackson St - Google Maps

Google Maps 1284 Jackson St



1277 JACKSON ST.

SITE PLAN

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

CENTER OF STREET

NOTE: DOORS WITH DIRECT ACCESS TO THE POOL THROUGH THAT WALL SHALL BE EQUIPPED WITH AN ALARM. POOL GUARDSPM INDUSTRIES INC MODEL: DAPYPT 16, 2017 OR EQUIVALENT, TO BE INSTALLED. THE ALARM WILL PRODUCE AN AUDIBLE WARNING WHEN THE DOOR AND/OR SCREEN, IF PRESENT, ARE OPENED. THE DEACTIVATION SWITCH SHALL BE LOCATED AT LEAST 5' ABOVE THE DOOR THRESHOLD.

PARCEL DATA:

THE SPENCER RESIDENCE
1277 JACKSON ST., SANTA CLARA CA.

1. PARCEL NO.:	269-15-013
2. YR. BUILT:	1900
3. LOT SIZE:	3812.50 SF.
4. BUILDING:	1-STORY
5. SPRINKLER SYSTEM REQUIRED:	YES
6. ZONING:	RI SINGLE FAM. RES.
7. TYPE OF CONSTR.:	VB
8. GROUP OCCUPANCY:	R3
9. GARAGE:	NONE
10. LIVING SPACE:	
EXISTING 1-STORY HOUSE:	1207.00 SF.
PROPOSED BASEMENT FOR LIVING:	1207.00 SF.
TOTAL LIVING:	2414.00 SF.
TOTAL LOT COVER:	1207.00 SF.
11. COV. ALLOW'D: 3812.50 SF. X .40(%) = 1525.00 SF.	
12. F.A.R.: (1207.00 SF.)	
120700 SF. ÷ 3812.50.00 SF. = 0.3166 OR 32%	

SCOPE OF WORK: SPENCER RESIDENCE 5-31-2023

- A. SELECTED CONTRACTOR PROPOSES TO:**
1. DEMO EXISTING BASEMENT AREA WITH 6.5' CEILING FOR (N) BASEMENT FOUNDATION W/ NEW CEILING HT. OF 8 FT.-0" MIN.
 2. CONSTRUCT NEW BASEMENT AS EXISTING LIVING SPACE WITH LAUNDRY, BATHROOM, TWO BEDROOMS WITH CLOSETS KITCHEN, GAME ROOM, FAMILY ROOM, STAIRCASE TO FIRST FLOOR AND A DAYLIGHT, EGRESS AREA CONSISTING OF LADDERS FOR ESCAPE WITH GRATING COVER AND SUMP PUMP.
 3. INSTALL NEW FURNACE/AC IN BASEMENT AREA.
 4. CONSTRUCT STAIRCASE ON (E) MAIN FLOOR TO (N) BASEMENT WITH SUPPORTING STRUCTURE.
 5. PROVIDE ELECTRICAL AND PLUMBING AS NEEDED.
 6. INSTALL NEW TANKLESS WATER HEATER @ REAR OF HOUSE.
 7. CONTRACTOR SHALL MATCH EXTERIOR FINISH AND TRIM.
- A. EXISTING 1ST. STORY (1207.00 SF.).**
- B. PROPOSED BASEMENT TO EXT. FDN. WALLS (1207.00 SF.).**
- B. ALL WORK SHALL COMPLY WITH:**
- 2022 BUILDING ENERGY STANDARDS
 - 2022 CALIFORNIA ENERGY CODE, TITLE 24
 - 2022 CALIFORNIA FIRE CODE
 - 2022 CBC CALIFORNIA BUILDING CODE
 - 2022 CRC CALIFORNIA RESIDENTIAL CODE
 - 2022 CEC CALIFORNIA ELECTRICAL CODE
 - 2022 CPC CALIFORNIA PLUMBING CODE
 - 2022 CMC CALIFORNIA MECHANICAL CODE
 - 2022 IBC CALIFORNIA INTERNATIONAL CODE
 - 7-15 ASCE AMERICAN SOC. OF CIVIL ENGINEER'G
 - 318-15 ACI AMERICAN CONCRETE INSTITUTE
 - ALL LOCAL CODES AND REGULATIONS INCL. ALL SETBACKS
- C. CONTRACTOR SHALL BE RESPONSIBLE FOR:**
- ALL SUB-CONTRACTORS, THEIR WORKMANSHIP AND SCHEDULES. BECOME FAMILIAR WITH ALL SITE CONDITIONS BEFORE STARTING CONSTRUCTION. THIS PLANMAKER/ARCH. SHALL ASSUME NO LIABILITY FOR PREVIOUS WORK PERFORMED BY OTHERS WITH OR WITHOUT OFFICIAL BUILDING PERMITS FROM THE CITY OF SANTA CLARA PLANNING, BUILDING DEPARTMENTS, ETC....
 - ANY PLAN VARIATIONS OR DISCREPANCIES SHALL BE BROUGHT TO THIS PLAN MAKER FOR CORRECTION IN A TIMELY MANNER.

NOTE: TO HOMEOWNER/CONTRACTOR:
 PER CODE R313.2, CHAPTER 15.17...(AS A DEFERED ITEM).
 AN AUTOMATIC FIRE SPRINKLER SYSTEM SHALL BE PROVIDED THROUGHOUT ALL NEW BASEMENTS REGARDLESS OF SIZE AND THROUGHOUT EXISTING BASEMENTS THAT ARE EXPANDED MORE THAN 50%.

PLAN INDEX: SPENCER RESIDENCE 2023

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BEST MANAGEMENT PRACTICES.
(CITY OF SANTA CLARA)

REVISIONS	BY

PLAN COMMENTS TO:
 LOU@COSTANZO.COM
 GABRIEL@COSTANZO.COM
 REBECC@COSTANZO.COM
 TONY@COSTANZO.COM

A PROPOSED BASEMENT AS LIVING WITH STAIRS FOR:
THE SPENCER RESIDENCE
 1277 JACKSON ST., SANTA CLARA CA. 95050
 PLAN NO. 2023-015
 STRUCTURAL ENGINEER: TONY TRINDIG P.E., 408 899-0220

SITE PLAN

DRAWN:
 LOU COSTANZO
 CHECKED:
 S.C.
 DATE:
 12-28-21
 SCALE:
 1/8" = 1' - 0"
 JOB NO:
 S20210
 SHEET

A1

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
HISTORIC RESOURCES INVENTORY

SABS Ser. No. HAER NR SWL LGE 8
UTM: A C B D

IDENTIFICATION
1. Common name: _____
2. Historic name: _____
3. Street or rural address: 1277 Jackson St.
City: Santa Clara Zip: 95050 County: Santa Clara
4. Parcel number: 269-05-13
5. Present Owner: None/haus Address: 1277
City: _____ Zip: _____ Ownership is: Public _____ Private X
6. Present Use: Single family res. Original use: Single family res.

DESCRIPTION
7a. Architectural style: Queen Anne Cottage
7b. Briefly describe the present appearance of the site or structure and describe any major alterations from its original condition: 1277 Jackson Street is a single story wooden residence built on a rectangular plan and designed in a Queen Anne Cottage style. The structure exhibits a steeply hipped central roof with 2 offset pedimental-shaped gables and 3 low hipped porch roofs projecting from it. The various roof planes are sheathed in patterned asphalt shingles. The body of the house is sheathed in wide ship lap with over-sized wooden endboards. Flansable shingles ornament the 2 gables. The facade is distinguished by a slightly cut-out, angled bay and two porches: a rectangular entry porch that is supported by 4 turned posts and a small side-entry porch supported by 3 turned posts. Both porches contain 6 straight step wooden stairs and are highly ornamented by subnatura and cut-out wooden screens under the boxed cornice and plain frieze of the porch roofs. Fenestration is generally single and paired, rectangular double-hung windows. A small palladian window highlights the front facing gable. Spindles, pendants and carved, oversized, wooden brackets ornament one side of the angled bay. Landscape is minimal. The rear attached garage is an addition.



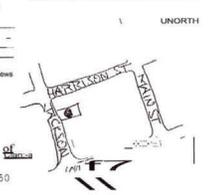
Construction date: Estimated 1890 Factual _____
Architect: unk.
D. Builder: unk.

1. Approx. property size (in feet):
Frontage 30 Depth _____
or approx. acreage _____
2. Dates of enclosed photographs:
April 11, 1979

13. Condition: Excellent _____ Good ✓ Fair _____ Deteriorated _____ No longer in existence _____
14. Alterations: Attached rear garage _____
15. Surroundings: (Check more than one if necessary) Open land _____ Scattered buildings _____ Densely built-up X
Residential _____ Industrial _____ Commercial _____ Other _____
16. Threats to site: None known _____ Private development _____ Zoning _____ Vandalism _____
Public Works project _____ Other _____
17. Is the structure: On its original site? X Moved? _____ Unknown? _____
18. Related features: One of 3 identical houses in a row.

SIGNIFICANCE
19. Briefly state historical and/or architectural importance (include dates, events, and persons associated with the site):
The site is significant primarily due to its architecture and the fact that it is one of 3 identically planned houses (with #1225 and #1261 Jackson) which despite minor alterations in detail over the years, perfectly reflect the early speculative housing techniques for residential development in Santa Clara. The set of 3 identical Victorian houses in a row provides a unique addition to the City's urban heritage. The 1915 Sanborn Insurance map shows all three identical Queen Anne Cottages built on their present locations except that their lot sizes are much larger. The 1915 City Directory lists Augustine F. Cronin as the owner/occupant of the residence.

Localities search map (draw and label site and surrounding streets, roads, and prominent landmarks)



20. Main theme of the historic resource (if more than one is checked, number in order of importance):
Architecture X Arts & Letters _____
Economic/Industrial _____ Exploration/Settlement X
Government _____ Military _____
Religion _____ Social/Education _____
21. Sources (List books, show refs., see refs., historical interviews and/or records): Sanborn Insurance Map 1891, 1915, Fols City Directory 1915.
22. Date form prepared: Jan 4, 1980
By (name): Michelle Garcia/John Garcia
Address: 1277 Jackson St. Santa Clara, CA
City: Santa Clara Zip: 95050
Phone: 1081384-311



Photograph 3 1277 Jackson Street.

View: Front facade showing the very similar Queen Anne Cottage architectural design found in the three houses including the 6 steps to the first level, approximately 4 feet above grade level.



Photograph 4 1277 Jackson Street

View: front and right facade showing the first level floor is approximately 4 feet above grade Proposed windows would be on this side of the building, which is not visible from the street.



Photograph 5 1285 Jackson Street.

View Front facade showing the steep steps to the first level of the house, approximately 4 feet above grade. This house shows the most remodeling and loss of architectural details yet retains a visual connection to the other two homes.

Three Queen Anne Cottages in a Row. The row of three Victorian era house listed in the Santa Clara Historical Resources Inventory, are the same style, and form and mass. All are single story and have partial basements with the main floor elevated above the grade approximately 4 feet. Each has 6 stairs leading to the porch and horizontal board siding on all walls of the buildings. Each house also has windows in the basement walls below the first level.
The proposed excavation of the basement at 1277 Jackson Street will allow the occupancy use of the basement and maintain the same approximately 4-foot elevation to the porch and first level floor. The overall height of the house remains the same. The proposed plan does not change the appearance of the row of three Queen Anne Cottages, nor does it detract from the historic development pattern shown by the three c.1890 houses. The proposed excavation of the basement at 1277 Jackson Street will not be an adverse change to the architectural character of the house or the neighboring houses. The significance stated in the 1979 Historic Resources Inventory will be maintained and is not diminished by the proposed plan to provide additional height in the basement of 1277 Jackson Street.



Figure 1 Section of the 1915 Santa Clara Sanborn Mappage 213, showing the 3 Queen Anne cottages.

Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

The proposed plan to add living space in a basement will not change the sense of the c. 1890 historical development. The house was developed with a basement. No conjectural features will be added.

Changes to a property that have acquired historic significance in their own right will be retained and preserved. All architectural features will be retained. Although none of the alterations have acquired historic importance, none will be removed.

Deteriorated historic features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved. The foundation has failed and must be replaced. The foundation is considered a distinctive feature or one that represents specific construction techniques or craftsmanship.

Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

During the proposed construction, any deteriorated material, horizontal board siding or window frames will be repaired or replaced in kind.

Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

Although a specification for painting or repair have not been prepared, there is no reason that harsh chemical treatments would be considered.

Archaeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

Because the site has been disturbed by the construction of the existing house and basement it is unlikely that archeological resources of importance would be found. However, an archeological survey was not conducted as part of this evaluation process.

New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, scale, and proportion, and massing to protect the integrity of the property and its environment.

The proposed plans do not destroy important historical materials of features that characterize the Queen Anne Cottage architecture.

New additions and adjacent or related new construction will be undertaken in a such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Replacing the foundation will provide for the preservation of the building. It is not considered an addition and would not be removed in the future.

The proposed plan to add a functional basement to the historic house is in conformance with the Secretary of the Interior's Standards.



September 25, 2022

Santa Clara Planning Department
Santa Clara City Hall
1500 Warburton Street
Santa Clara CA 95150

Rebecca Bamburg, Owner
1915 Historic Resources Inventory
San Jose, CA 95128
Phone: 408-254-1171
Email: rebecca@urbans.com

Subject: 1277 Jackson Street Proposed Basement Excavation

Purpose of this memo: The house at 1277 Jackson Street is one of a trio of very similar Queen Anne Cottage style houses constructed prior to 1891! Together they represent a late nineteenth century development pattern. The properties at 1285 and 1261 Jackson Street are on each side of 1277 Jackson St and each are individually listed in the Santa Clara Historic Resource Inventory. The owners of the property at 1277 Jackson Street have submitted a plan to replace the failing foundation. As part of the plan the partial basement will be excavated to an 8-ft. height basement, creating a space to be occupied. This will require compliance with life safety codes, including windows for egress, light and air. The City of Santa Clara has required that the plan be evaluated by qualified consultants to determine if the changes diminish the character-defining architectural features of the house or of the trio of buildings.

The Study/Evaluation: Urban Programmers was asked to review the proposed plans and to compare the changes with the Secretary of the Interior's Standards for Rehabilitation. The criteria used by the City of Santa Clara.

Methodology: Urban Programmers conducted a site visit and took photographs of the three properties. The proposed plans were reviewed to determine if the changes were consistent with the "Standards", and how the changes might affect the group when all three buildings were considered. Marvin Bamburg, AIA, Historic Architect (NAC) and Bonnie Bamburg participated in this evaluation.

Existing property: The site visit conducted by Urban Programmers on September 2, 2022, confirmed that although there have been alterations, the 3 Queen Anne Cottage style houses retained sufficient integrity to be recognized as a pattern of speculative development c. 1890. The front and primary facade of 1277 Jackson St. appears very much the same as it did in the 1979 HRI photograph. The house at 1277 Jackson Street, and the other two, have identical designs that include the first floor raised 4 feet above grade, over the foundation and cripple wall. Each house has 6 steep steps leading to the front and side porches. Only the house at 1277 Jackson St. was available to be reviewed on all facades, however, it appears that all were very similar with horizontal board siding covering the walls including the basement where side windows appear to be original to the design.



Photograph 1 1277 Jackson St.
View: Front facade. Note the raised first level floor. Few alterations to the architectural details of the front facade.



Photograph 2 1277 Jackson St.
View: Front facade and right side wall. Note the raised level of the porch and first floor.

Proposed plans: The house will be lifted from the existing foundation and stabilized while the 6 foot 6 inches high basement is excavated approximately 2 feet and the new foundation is installed. The house will be lowered onto the new foundation and structurally connected. The basement room height floor to ceiling will be 8 feet. The final first floor elevation will remain the same as the original elevation. The stair accessing the new basement will be inside the house. The front porch and front facade features will be repaired where needed and

The proposed plans to create a usable basement were prepared by Lou Constant and dated 12-28-2021 and are attached to this evaluation.

Proposed: No changes are proposed for the front facade. The exterior changes are to add windows beneath the first-floor level to provide light and air and egress for the basement. The changes on the right side of the house will be two new windows will be added and set within concrete a window well to provide emergency egress. On the left side small sliding style windows are set within the wall above grade in the same area that windows already exist. No changes or alterations are proposed for the exterior facades above the basement level.

The following is a comparison of the proposed basement level plans and the Secretary of the Interior's Standards, for rehabilitating historically important buildings.

Secretary of the Interior's Standards for Rehabilitation and Rehabilitating Historic Buildings

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
The house at 1277 Jackson Street will retain the historic residential use.

2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
The character of the house will be retained with no changes to the architectural features of the Queen Anne Cottage. There is very little removal of existing material, all distinctive features and spaces that characterize the house will be retained. Providing a usable basement does not require the removal of distinctive materials.

REVISIONS	BY

FOR: THE SPENCER RESIDENCE
1277 JACKSON ST., SANTA CLARA, CA.
FROM: BONNIE BAMBURG,
10710 RIDGEVIEW AV., SAN JOSE CA. 95127
Bamburg@urbans.com 408-254-1171

A PROPOSED BASEMENT AS LIVING WITH STAIRS FOR:
THE SPENCER RESIDENCE
1277 JACKSON ST., SANTA CLARA CA. 95050
FOR CONTACT: REBECCA BAMBURG 408-264-0220
STRUCTURAL ENGINEER: TONY TRUONG PE 408-893-9228

PRESERVATION COMPLIANCE INFORMATION

DRAWN BY: BONNIE BAMBURG
CHECKED BY: _____
DATE: 9-25-22
SCALE: NONE
JOB NO.: B. BAMBURG
SHEET

PC

H. EXHAUST FANS (EXCLUDES KITCHEN EXHAUST HOOD) SWITCHED SEPARATE FROM LIGHTS (OR UTILIZE A DEVICE WHERE LIGHTING CAN BE TURNED OFF WHILE THE FAN IS RUNNING).

I. UNDER-CABINET SEPARATE SWITCHES FOR ALL LIGHTS (INCLUDING KITCHEN LIGHTING) FROM OTHER LIGHTING SYSTEMS. CEC 150B(4)(2).

J. ALL OUTDOOR LIGHTING, HIGH EFFICACY, WITH MANUAL OFF SWITCH AND ONE OF THE FOLLOWING: CEC 150B(4)

1. PHOTO CONTROL AND MOTION SENSOR.

2. PHOTO CONTROL AND AUTOMATIC TIME SWITCH CONTROL.

3. ASTRONOMICAL TIME SWITCH CONTROL.

4. ENERGY MANAGEMENT CONTROL SYSTEMS, HIGH EFFICACY LUMINAIRES OR COMPLY WITH EXCEPTIONS: ALL KITCHEN TO BE LED HIGH EFFICACY (CEILING UNDER CABINET, KITCHEN LIGHTS) ARE HIGH EFFICACY LUMINAIRES OR COMPLY WITH THE EXCEPTIONS AS FOLLOWS: ALL KITCHEN LIGHTING SHALL BE LED HIGH EFFICACY (CEILING & UNDER CABINETS)

1. AT LEAST 50% OF THE INSTALLED WATTAGE MUST BE HIGH EFFICACY.

2. HIGH EFFICACY LIGHTING MUST BE SWITCHED SEPARATELY FROM LOW EFFICACY LIGHTING.

3. LIGHTING IN AREAS ADJACENT TO THE KITCHEN, INCLUDING BUT NOT LIMITED TO DINING AND NOOK AREAS ARE CONSIDERED KITCHEN LIGHTING IF THEY ARE NOT SEPARATELY SWITCHED FROM KITCHEN LIGHTING.

4. BATHROOM LIGHTING:

ALL LIGHTING SHALL BE HIGH EFFICACY WITH AT LEAST ONE BATHROOM LIGHT TO BE CONTROLLED BY A VACANCY SENSOR. OTHER ROOMS: BEDROOMS, HALLWAYS, DINING, ETC., SHALL HAVE HIGH EFFICACY LUMINAIRES OR COMPLY WITH EXCEPTIONS: PROVIDE DIMMER SWITCH, PROVIDE A (MANUEL-ON OCCUPANCY SENSOR THAT COMPLIES WITH CEC SEC. 110.9 (b) AND SHALL NOT HAVE A CONTROL THAT ALLOWS THE LUMINAIRES TO BE TURNED ON AUTOMATICALLY OR THAT HAS AN OVERRIDE ALLOWING THE LUMINAIRES TO BE ALWAYS ON), CLOSETS HAVING LESS THAN 70 SF. ARE EXEMPT FROM LIGHTING REQUIREMENTS.

OUTDOOR LIGHTING: ALL LIGHTS PERMANENTLY MOUNTED TO EXTERIOR SHALL BE HIGH EFFICACY OR COMPLY WITH A CONTROL WITH MOTION SENSOR WITH INTEGRAL PHOTO CONTROL. LIGHTING NOT ATTACHED TO BUILDINGS, & LANDSCAPE LIGHTING, ARE EXEMPT.

2022 ENERGY / TITLE 24

1. INSULATION IN ROOF/CEILING CONSTRUCTION MUST BE AT LEAST R22 (MAX. "U" VALUE OF 0.043) (150B(6)).

2. NEW DUCT TOIL LEAKAGE SHALL BE 5% OR LESS (150B(10)(1)).

3. INSTALLED AIR-CONDITIONER AND ANY HERST PUMP SYSTEMS SHALL BE EQUIPPED WITH LIQUID LINE FILTER DRIERS AS SPECIFIED BY MANUFACTURER'S INSTRUCTIONS. (150B(10)(3)).

4. STORAGE HOT WATER HEATERS NO LONGER NEED TO BE EXTERNALLY WRAPPED (150B(1)).

5. ALL LUMINAIRES SHALL BE HIGH EFFICACY (150B(4)).

6. ALL INSTALLED LUMINAIRES MUST BE HIGH-EFFICACY LIGHT SOURCES AND ELIMINATES PREVIOUS KITCHEN WATTAGE CALCULATIONS.

7. HIGH EFFICACY SCREW-BASED LUMINAIRES WITH LIGHT SOURCE OR LAMPS ARE ALLOWED THAT MEET IAS/COMPLIANT LIGHTING THAT MEET ELEVATED TEMPERATURE REQUIREMENTS (150B(4)) BUT CANNOT BE USED AS RECESSED DOWNLIGHT "G" IN CEILINGS.

8. ISOLATION VALVE IS REQUIRED FOR INSTANTANEOUS WATER HEATER (T.W.H.) THAT HAVE A MINIMUM INPUT OF 6.8 KW/HEATER (110.3(c) 7), WITH EXTERIOR W.F. GFCI 120V. OUTLET WITH IN 3FT.

WHOLE HOUSE FAN (WHF): WHEN REQUIRED MUST COMPLY WITH TOTAL AIR FLOW OF AT LEAST 15 CFM/F². 2 AND HAVE 1 SQUARE FT. OF ATTIC VENT FREE AREA FOR EACH 570 CFM (150.10)(2).

HVAC AND WATER HEATING

LIQUID LINE FILTER DRIERS ARE REQUIRED FOR NEW HVAC SYSTEMS OR REPLACED CONDENSERS WHEN PROVIDED BY MFG. OF THE SYSTEM.

DUCTS AND AIR DISTRIBUTION SYSTEMS

RE OR INSULATION, IN UNCONDITIONED SPACE REQUIRED, DEPENDING ON ZONE. REFER TO TITLE ENERGY REPORT

TOILET: CONTRACTOR SHALL SUPPLY TEMPORARY SANITARY FIELD TOILET FOR USE BY ALL CONSTRUCTION PERSONNEL, AND MUST PROVIDE FOR REGULAR CLEANING AND MAINTENANCE OF TOILET AT ALL TIMES DURING THE LENGTH OF CONSTRUCTION.

JOB SITE CLEANING:

CONTRACTOR SHALL AT ALL TIMES, THROUGHOUT THE BUILDING PROCESS, MAINTAIN THE JOB SITE AREA, KEEPING IT CLEAR OF TRASH, DEBRIS, HAZARDOUS DEBRIS, AND SHALL PROTECT ALL ADJACENT PROPERTY OF DAMAGE, SOILING, PAINT OVER SPRAY, ETC. AREA SHALL BE LEFT BROOM CLEAN EVERYDAY UPON INSPECTION.

CONTRACTOR:

1. SHALL PERFORM ALL LABOR AND INSTALL ALL MATERIALS IN A TIMELY MANNER FROM BEGINNING TO COMPLETING PROJECT.

2. BE RESPONSIBLE FOR ALL SUB CONTRACTORS, THEIR SCHEDULES AND WORKMANSHIP.

3. SHALL BE COME FAMILIAR WITH ALL APPROVED CONSTRUCTION PLANS, & SITE CONDITIONS BEFORE STARTING CONSTRUCTION.

11. WATER CLOSETS , TO BE FLOW FLUSH 1.28 GAL / FLUSH MAX.

12. URINALS: ≤ 0.5 GAL. / FLUSH MAX.

13. MULTIPLE SHOWER HEADS: 1.2 GPM, COMBINED OR W/OTHER OUTLETS, CONTROLLED BY ONE VALVE (TOGETHER) CGBCS 4.303.1.3.2

14. LAV. FAUCETS REQUIRE MAX. 4.2 GPM AT 60 PSI, MIN. 0.8 20 PSI PER SEC. 402.1.2 CFC AND TABLE 4.303.2 OF 2022 CGBC.

15. KITCHEN FAUCETS, NOT TO EXCEED 1.8 GAL. / MIN. MEASURED AT 80 PSI. PER CGBCS 4.303.1.3.1 CFC & TABLE 4.303.2 OF CGBC.

16. SHOWERS ARE NOT TO EXCEED 1.8 GPM MEASURED AT 80 PSI. PER CGBCS 4.303.1.3.1

17. ISLAND VENT: ISLAND SINK TO COMPLY W/SEC. 909 CFC MANDATORY MEASURE TITLE 24

1. INSULATION REQUIRED: (U-0.02) SEE TITLE 24 ENERGY REPORT

CEILING: R38, WALLS: R15, VAULT'D CEILING: R38, FLOORS: R19, 2. 3" THICK BLOWN IN AIR-TRIT FOM IN ALL RAFTER BAYS AT RAFTERS FRAMED INTO EACH OTHER. UNHEATED SPACE R/9. SLAB INSULATION FOR LIVING (REQ'D) WHERE APPLIES.

3. DOORS AND WINDOWS: TO BE WEATHERSTRIPPED, CERTIFIED, LABELED, DESIGNED TO PREVENT AIR LEAKAGE. ALL NEW WINDOWS, FRENCH DOORS AND SLIDING GLASS DOORS MUST BE LABELED WITH CERTIFIED VALUE AND HAVE INFILTRATION CERTIFICATION. "U" VALUE 0.25 SHGC 0.28 OR 0.29 (SEE TITLE 24)

4. DUCTS CONSTRUCTED, INSTALLED AND SEALED TO COMPLY WITH CMC 2016 INSULATE DUCTS TO R4.2 - ASBESTOS FREE.

5. ALL JOINTS AND PENETRATION SHALL BE CALKED AND SEALED, W/EXPANDING URETHANE-RECOMMENDED.

6. EXHAUST FANS AND FAN SYSTEMS TO HAVE BACKDRIFT OR AUTOMATIC DAMPERS.

7. MASONRY AND FACTORY BUILT FIREPLACES TO HAVE TITE CLOSEABLE FITTED METAL OR GLASS DOORS WITH OUTSIDE AIR. CONTINUOUS BURNING PILOT LIGHTS PROHIBITED.

8. INSULATE ALL HOT WATER PIPE. RA. INSULATE 5 FT. COLD WATER PIPE. INSULATE WATER HEATER. ALL WATER HEATER W/ RECIRCULATING PIPES W/R-4. SEE TITLE 24 ENERGY REPORT

9. ALL GLAZING SHALL BE DOUBLE, SEE CP-18 FOR "U" VALUES. WINDOWS ARE SHOWN ON PLAN. FRENCH AND SLIDING DOORS WITH GLASS ARE SHOWN ON PLAN.

10. HOT WATER HEATER, IF USED, INTERIOR INSULATION - EXTERIOR BLANKET TO EQUAL R-16, CERT. BY CFC. AMER. GIP 433 T, 40-75 GALL. PROVIDE WATER HEATER PRESSURE AND TEMPERATURE RELIEF VALVE WITH TERMINATION TO OUTSIDE OF STRUCTURE.

11. SHOWER HEADS AND FAUCETS SHALL BE CERTIFIED BY CEC. AND TO BE DECIDED UPON.

12. GENERAL LIGHTING FOR KITCHEN AND ROOMS WITH WATER CLOSETS TO BE HIGH EFFICACY. 2022 CA ENERGY CODE 150.0(k)

13. RECESSED FIXTURES MUST BE LISTED AS IC (INSULATION COVERED) AND COVERED WITH INSULATION IN ATTIC.

14. ALL INSULATION SHALL BE CEC CERTIFIED & INSTALLED TO MEET FLAME SPREAD & SMOKE DENSITY REQUIREMENTS OF 2.5H1.

15. PROVIDE SAFETY GLAZZ IN AND WITHIN 24" HORIZONTAL OF DOORS/WINDOWS PER 2022 CEC.

16. SHOWER DOORS TO BE MIN. 24" WIDE, (22" MIN. AND TEMPERED), SWING TO THE RIGHT OR SLIDE, AND BE SAFETY GLAZING MATERIAL.

17. PROVIDE HARD NON-ABSORBENT FINISH AT SHOWERS AT LEAST 72" ABOVE DRAIN INLET (IE. MARBLE OR TILE) CFC R307 & CFC 411.6)

ROOFING AND FLASHING: CEC 2022

1. SEE DETAIL ALL ROOFING AND FLASHING: #302 ASPHALT SHINGLES 28 GA. GFC, CORROSION RESISTANT FLASHING AND SHALL NOT EXTEND MORE THAN 8" FROM CENTER LINE EACH WAY. END LAP OF NOT LESS THAN 4", CONSIST OF WOVEN SHINGLES/MFG. INSTRUCTIONS.

USE MIN 3/8" UNDER LAYMENT OVER ONE LAYER 15# FELT THE FULL LENGTH OF THE VALLEY

2. METAL FLASHING: METAL SHINGLES: USE NO 28 GA. CORROSION RESISTANT METAL FLASHING, 8" FR. CENTER LINE EA. WY. WITH 3/8" UNDER LAYMENT WITH 15# UNDER, END LAP 4", PER MFG. INSTRUCTIONS. WITH A SPLASH DIVERTER RIB NOT LESS THAN 9" HIGH AT THE FLOW LINE FORMED AS PART OF FLASHING.

3. 150B.3 ASBESTOS-CEMENT SHINGLES, SLATE SHINGLES, AND CLAY AND CONCRETE TILE: USE NO. 28 GA. CORR. RES. METAL FLASHING, EXTENDING 11" EA. WAY FR. CENTER LINE WITH DIVERTER RIB NOT LESS THAN 1" HIGH AT THE FLOW LINE FORMED, END LAP 4". RUN 15# FELT AS UNDERLAYMENT INT'L. ETC.,...

4. FLASH OTHER FLASHING: AT JUNCTION AND VERTICAL SURFACES, FLASHING AND COUNTER FLASHING BY ROOF'G MFG. INSTRUCTIONS AND WHEN METAL SHALL BE NOT LESS THAN 26GA. GALV. CORROSION-RESISTANT METAL.

SKYLIGHTS:

1. VS VELUX NR 216 OPERABLE

VENTILATION:(SEE CALCULATIONS ON ELEVATION PAGE)

2. UNDER FLOOR VENTING: PROVIDE ONE 1/2" OF SCREEN'D CROSS VENTILATION PER 150 SF. OF CRAWL SPACE. (NONE FOR CONC. SLAB)

LIGHTING REQUIREMENTS -

ALL LIGHTING SHALL BE HIGH EFFICACY

2022 CA ENERGY CODE 150(k)

WHICH INCLUDE THE FOLLOWING:

A. ALL LIGHTING AS HIGH EFFICACY IE. PIN BASE CFL, PULSE-START MH, HPS, GU-24 SOCKETS OTHER THAN LEDS. LED LUMINAIRES WITH INTERNAL SOURCE, ETC) CEC TABLE 150.0-A.

B. ALL RECESSED DOWNLIGHTS AND DOWNLIGHT FIXTURES MUST CONTAIN SCREW-BASED JAS (JOINT APPENDIX 8) COMPLIANT LAMPS. JAS COMPLIANT LIGHT SOURCES MUST BE MARKED AS "JAS-2016" OR "JAS-2016-F" OR "JAS-2016-F" LUMINAIRES ARE APPROPRIATE FOR USE IN CLOSED LUMINAIRES). CEC 150B(4)(K).

C. ALL JAS COMPLIANT LIGHT SOURCES IN THE FOLLOWING LOCATIONS ARE CONTROLLED BY VACANCY SENSORS OR DIMMERS (EXCEPTION: CLOSETS LESS THAN 70 SF. AND HALLWAYS) CEC CODE 150B(4)(2)(K):

1. CEILING RECESSED DOWN LIGHT LUMINAIRES

2. LED LUMINAIRES WITH INTEGRAL SOURCES

3. PIN-BASED LED LAMPS (E. MR16 OR H11, ETC.)

4. GU-24 BASED LED LIGHT SOURCES.

D. ALL BATHROOM LIGHTING TO BE HIGH EFFICACY WITH AT LEAST ONE PRIMARY TO BE CONTROLLED BY A VACANCY SENSOR.

E. IN GARAGE, AT LEAST ONE FIXTURE CONTROLLED BY A VACANCY SENSOR. CEC 150B(4)(2)

F. AT LEAST ONE FIXTURE IN EA. LAUNDRY ROOM CONTROLLED BY A VACANCY SENSOR. CEC 150B(4)(2)

G. AT LEAST ONE FIXTURE IN UTILITY ROOM CONTROLLED BY A VACANCY SENSOR CEC 150B(4)(2)

MORE BUILDING CODES:

1. COMMON WALLS BETWEEN LIVING SPACE AND GARAGE SHALL BE 1 HOUR AND HAVE 5/8 GWB TYPE (X) FROM SOLE PLATE THROUGH TO PLYWOOD ROOF SHEATHING. ALSO, ON CEILINGS, SUPPORTING POSTS AND BEAMS, USE 1/8" FIRE-RATED, 1/8" S.C. DOOR BETWEEN HOUSE AND GARAGE WITH 5/8" GWB.

2. STAIRCASES: PROVIDE 5/8" X 3/4" GWB AT WALLS AND CEILING UNDER STAIRCASE.

3. HANDRAILS: SEE 2019 CRC. SHALL EXTEND FULL LENGTH OF STAIRS AND 6" PAST ENDS AT TOP AND BOTTOM. 30" HIGH.

4. BEDROOM EGRESS: 44" SILL HEIGHT MAX., 5.7 S.F. CLEAR OPEN'G, 20" WIDE, AND 24" HIGH.

5. FIREPLACE CHIMNEY: MIN. HT. SHALL BE 2" ABOVE 10' DISTANCE TO ANY PORTION OF EXHAUSTING DEVICE.

6. LANDING: PROVIDE 36" DEEP, FULL WIDTH OF EXTERIOR DOORS.

MECHANICAL:

A. FIREPLACES & STOVES & FURNACES: UL APPROVED. PROVIDE A CHIMNEY SPARK ARRESTOR, W/3/8" X 3/8" WIRE MESH MAX. 1/2" DEEP AND WIDTH OF FIREPLACE HEARTH 10" MIN. EA. SIDE. WHERE F.P. OPENING IS LARGER THAN 6" HEARTH.

EXTENDS 20" MIN. IN FRONT OF F.P. & 12" EA. SIDE OF OPEN'G. WITH NON-COMBUSTIBLE MATERIAL TO BE 3/8" THICK.

B. FURNACE AND WATER HEATER PLATFORMS IN GARAGE SHALL BE 18" HIGH AND TO SEC. 904.10 2019 CMC.

C. GAS FURNACE LOCATED IN ATTIC: SHALL HAVE MODEL LISTED FOR ATTIC INSTALLATION, WITH MIN. 22" X 30" ATTIC ACCESS. ONE ELECTRICAL CONTROL LED FROM ATTIC TO GARAGE. PROVIDE A SWITCH LOCATED AT THE ATTIC ACCESS AND A 3/8" WIDE 2" PLYWOOD WORKING PLATFORM.

D. VENTILATION IN LAUNDRY: 2022 CMC 504.4, 504.4.1, 504.2.1

1. EXHAUST SHALL HAVE SMOOTH METAL EXHAUST VENT EQUIPPED WITH A BACKDRIFT DAMPER WITH NO SCREEN. DUCT WIDTH SHALL BE LIMITED TO 14 FT. WITH 2 - 90 DEGREE ELBOWS FROM TO POINT OF TERMINATION.

2. EXHAUST SHALL BE 2 FT. FOR EACH ADDITIONAL FLOOR USED IN EXCESS OF TWO. 2022 CMC SEC. 504.2.2

F. TERMINATION OF ALL ENVIRONMENTAL AIR DUCTS SHALL BE A MINIMUM OF 3R. AWAY FROM ANY OPENINGS INTO BUILDING STRUCTURE (DRYERS, BATH AND UTILITY FANS MUST BE 3 FT. AWAY FROM DOORS, WINDOWS, OPENING SKYLIGHTS OR NATIC VENTS. 2022 CMC SEC. 504.4)

G. KITCHEN HOOD HAS PER CODE A MIN. 100 CFM EXHAUST RATE, BACKDRIFT DAMPER, IF HOOD IS PART OF INTERMITTENT WHOLE HOUSE FAN VENTILATION SYSTEM PER ASHRAE 62.2, MAX. SOUND RATING OF 3-SONES IS ALLOWED AT 60 CFM PER 62.2 AND PER 2016 ENERGY CODE. BATHROOM FANS HAVE A MIN. 50 CFM EXHAUST RATE AND FAN TO BE MIN. BACKDRIFT DAMPER, IF FAN IS PART OF WHOLE HOUSE VENTILATION SYSTEM PER ASHRAE 62.2, MAX. SOUND RATING 3-SONES IS ALLOWED AT 100 CFM PER ASHRAE 62.2 & 2022 ENERGY CODE. PROVIDE ENERGY COMPLIANT APPLIANCES AND MIN. 15" ELSEWHERE. SEE PLAN.

1. AN ARCH-FAULT CIRCUIT INTERRUPTER (AFCI) PROTECTOR: OUTLETS/DEVICES SHALL BE INSTALLED IN KITCHENS, FAMILY, DINING, LIVING ROOMS, PARLOR, LIBRARIES, DENS, BEDROOMS, STUDIES, CHILDREN'S ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS PER CEC 2022 110.12 (B)

2. ALL RECEPTALS TO BE TAMPER PROOF SHALL BE INSTALLED AS SPECIFIED IN 2022 CEC ARTICAL 406.12 (A) THROUGH (C)

3. PROVIDE SEPARATE E.L.C. CIRCUITS FOR LAUNDRY: 20 AMP. CIRCUIT, BATHROOM: PROVIDE 20 AMP. CIRCUIT.

KITCHEN: PROVIDE (2) 20 AMP. SMALL APPLIANCE CIRCUITS.

4. LIGHTING IN A TUBSHOWER LOCATION SHALL BE WATERPROOF PER ARTICLE 410.10 (A & B) CEC 2022

5. ALL LIGHTING IN BATHROOMS MUST BE HIGH EFFICACY.

6. JETTED, SPAS & HOT TUBS REQUIRE A GFCI OUTLET.

2022 CEC SEC. 680.71 ON SEPARATE CIRCUIT AND A READILY ACCESSIBLE HATCH SHALL BE PROVIDED TO ACCESS OUTLET.

SEC. 680.73, SHALL COMPLY WITH A GFCI PROTECTOR REQUIRED FOR E.L.C. RECEPTACLES IN BATHROOM LIGHTING FIXTURES AND NEW OUTLETS OVER OR WITHIN 5' OF A SPA, HOT TUB SHALL BE A MIN. 7'-6" ABOVE MAX. WATER LEVEL AND PROTECTED BY GFCI. INSTALL WALL SWITCHES MIN. 5 FT. FROM INSIDE OF SPAS AND HOT TUBS.

7. SMOKE DETECTOR/CARBON MONOXIDE AG/DC ALARMS

IN EACH BEDROOM SEE 2022 CRC, WITH SMOKE DETECTOR IN EACH BEDROOM SEE 2022 CRC, WITH PRIMARY POWER SOURCE BACKUP, INTERCONNECTED PER SEC. R315 2022 CRC.

FOR ALARM MAINTENANCE AND REPLACEMENT REFER TO SECTION R314.3.2 2022 CRC.

8. MICROVAPE, GARBAGE DISPOSAL, DISH WASHER, TRASH COMPACTOR AND REFRIGERATOR SUB-ZERO TO BE ON A SEPARATE CIRCUIT.

9. FIRST SWITCH AT ALL ENTRANCES TO KITCHEN SHALL BE FOR UNDER CABINET HIGH EFFICACY LIGHT FIXTURES.

10. EXT. ELECTRICAL TO BE SUITABLE FOR DAMP LOCATIONS.

11. CLOSET LIGHTS SHALL COMPLY WITH ARTICLE 410.16 CEC. OR 12 LIGHTING IN KITCHEN TO BE HIGH EFFICACY. 2022 CEC 150.0

PLUMBING NOTES 2022 CFC

1. CLEANOUT TO SERVICE LINE WHEN SINK IS REQUIRED, WITHIN 2 FT. OF BUILDING FOUNDATION ON EXTERIOR OF BUILDING.

SHOW ALL CLEANOUTS LOCATED MORE THAN 20FT. FROM CRAWL HOLE.

PROVIDE A 4 INCH SEWER LINE TO SERVICE 4 WATER CLOSETS

3. MAIN FOR WATER: SIZE BASED ON TOTAL FIXTURES USED.

4. KITCHEN ISLAND SINK: VENTING TO COMPLY WITH SEC. 909 2019 CFC

5. SANITATION REQUIRES CHECK VALVE PROTECTION

THE DWELLING WASTE LINES SHALL COMPLY WITH SECTION 710.1 CEC 2022

WASTE LINE ON 2ND FLOOR ARE PROHIBITED FROM RUNNING THROUGH CEILING.

6. WATER CLOSET COMPARTMENT MUST BE A MIN. 30" CLEAR WIDE, WITH 24" CLEAR TO THE FRONT.

7. SHOW VENTS TO BE 1/2" ABOVE ARBITRARY SURFACE 72" ABOVE THE DRAIN. 620 CEC 2022

8. WATER TANK HEATER SHALL BE SEISMIC ANCHORED PER 2022 CFC WITH PRESSURE TEMP & RELIEF VALVE TERMINATING TO EXTERIOR.

9. INSTALL NON-REMOVABLE BACK FLOW PREVENTERS ALL NEW HOSE BIBS PER 2022 CFC.

10. PLUMBING VENTS TO BE MIN. 10FT. FROM OPERABLE SKYLIGHTS.

GENERAL NOTES: CRC 2022

THESE NOTES ARE GENERAL IN NATURE.

THEY ARE INTENDED TO SET MINIMUM STANDARDS FOR CONSTRUCTION, WHERE CONFLICTS BETWEEN NOTES, DRAWINGS AND CODES ARISE, THE MORE STRINGENT WILL GOVERN. WRITTEN DIMENSIONS GOVERN OVER SCALED. REPORT DISCREPANCIES TO PLANNING ARCHITECT OF ANY HIDDEN EXISTING CONDITIONS BEFORE WORK IS STARTED AND FINAL CONTRACT IS CONCLUDED.

ALL WORK SHALL BE OF HIGHEST QUALITY AND IN ACCORDANCE WITH 2022 CALIFORNIA RESIDENTIAL BUILDING CODES, & 2022 CEC, CFC, CMC, CPC, ENERGY CODE / TITLE 24 & CALIFORNIA MANDATORY MEASURES, 2022 FIRE CODES, AND LOCAL CODES & REGULATIONS, INCLUDING ALL SETBACK REQUIREMENTS, NOTIFY THE CIVIL ENGINEER, LICENSED LAND SURVEYOR SHALL LOCATE PROPERTY LINES AND EASEMENTS AND CERTIFY SETBACKS, ETC.

CONV. CONSTR. PROVISIONS AS STATED, 2022 CRC, HAVE BEEN APPLIED TO THE DESIGN AND STRUCTURAL CALCULATIONS. NOTIFY DESIGNER/ARCHITECT/STRUCTURAL ENGINEER FOR FINAL INSPECTION UPON COMPLETION OF PROJECT.

CONCRETE: 2022 CFC, CRC R402.2

REFER TO SUB FOR STRUCTURAL NOTES AND DETAILS

1. MINIMUM COMPRESSIVE STRENGTH SHALL BE 2500 PSI PER CFC 404. 1.23 PSI @ 28 DAYS. MINIMUM CEMENT CONTENT IS 5.5 SAKS PER YARD. AND SLABS ON GRADE TO BE 5 SAKS PER YARD. MAX. SLEMP 4".

2. PROVIDE KEYS TO CONTROL JOINTS IN ALL INTERIOR SLABS ON GRADE @ 20' O.C. EA. WAY MAX. PROVIDE 3/8" TOOLED JOINTS @ 5' O.C. 3/8" PHENOLIC EXPANSION JOINTS @ 30' O.C. IN ALL EXTERIOR WALLS AND SLABS. PLANE AND CURE PER ACI 308.

3. SITE:

1. PROVIDE 3000 LB/FT² SEPARATION PER 2022 CFC. SOIL MUST BE 8", MIN. BELOW WOOD FRAMING. WHEN USING GALV. ZN ED FLASHING, PROVIDE AN AIR SPACE BETWEEN WOOD AND FLASHING TO ALLOW FOR AIR MOVEMENT. PROVIDE GALVANIZED TERMIITE FLASHING AT ALL EXTERIOR ENTRANCE AREAS.

2. PROVIDE POSITIVE DRAINAGE CRC R401.3, 5% AWAY FROM PERIMETER FOUNDATION WALLS AT 10 FT.

FOUNDATION:

1. ALL FOOTINGS TO BE LEVELLED & TO BEAR ON COMPACTED SURGRADE. MIN. 18" BELOW NATURAL GRADE OR LOWEST ADJACENT GRADE (WHICH IS LOWEST). CLEAN ALL FOOTINGS BY HAND. (U.O.G.)

2. USE NATIVE FILL ONLY.

3. WEEP SCREED REQUIRED AT TOP OF FOUNDATION ON ALL STEUCO WALLS AT CONVENTIONAL AND SLAB CONSTRUCTION.

REINFORCING STEEL:

1. ALL REINFORCING STEEL TO BE A-615 GRADE 60 KALI 404. 12.3.7.1.

ALL SLABS: #4 REBAR AT 18" O.C. EA. WAY. PLACE ALL REINFORCING AT CEC CODES. LAP ALL CONTINUOUS BARS 40 IN. MINIMUM. DOUBLE UP BARS IN WALLS AROUND OPENINGS. PROVIDE CORNER BARS 2" X 2" TO MATCH HORIZONTAL AT ALL CORNERS. SEE 50 (STRUCTURAL NOTES)

2. PROVIDE 3" CLEARANCE FOR SURFACES POURED AGAINST EARTH AND MIN. 15" ELSEWHERE. SEE PLAN.

CARPENTRY:

1. MUDSILLS SHALL BE 3X PRESSURE TREATED DOUGLAS FIR STANDARD, UNLESS OTHERWISE NOTED. (U.N.O. I.S.S.D.)

2. FLOOR AND ROOF PLYWOOD SHALL BE DFC GRADE, MARKED, CD OR BETTER, EXTERIOR GUE, STAND, BD, GRADE, SEE PLAN.

3. ALL 2X4 (OR 2" O.C. FRAMING SLAB) BE DF #2 APPROVED. SEE STRUCTURAL DESIGN FOR ALL FRAMING.

4. MINIMUM FRAMING NAILING TO CONFORM WITH CBC 2022 TABLE 2304.10.1 FASTENING SCHEDULE. BLOCK JOISTS AT ALL SUPPORTS. DBL. JOIST W/2 16d @ 12" O.C. USE STRONGBACKS TO MATCH THE SIZE OF THE CEILING JOIST. PROVIDE BLOCKING AT 8FT. O.C. FOR 2X12 RAFTERS AND 2X14 FLR. JOIST.

5. PLYWOOD (T) & (G) FLOOR SHEATHING SHALL BE 3/4" AND SECURED WITH "GRABBER" #8 POINTED SCREWS 2 1/2" LG. AT 6" O.C. (EDGES) AND 10" O.C. (FIELD). SEE STRUCTURAL DESIGN. 12" ROOF PLYWOOD SHEATHING SHALL BE LAID WITH GRAIN OF THE OUTER PILES PERPENDICULAR TO THE FRAMING MEMBERS AND END JOIST SHALL BE STAGGERED. TYPICAL NAILING WILL BE 8D NAILS AT 6" O.C. (EDGES) & 12" O.C. (FIELD). PLYWOOD WALL SHEATHING SHALL BE NAILED WITH #4 @ 6" O.C. (EDGES) & 12" O.C. (FIELD), UNLESS NOTED OTHERWISE BY STRUCTURAL ENG. THE FIELD G/LED FLOOR SYSTEM SHALL BE INSTALLED ACCORDING TO THE RECOMMENDATIONS OF THE AMERICAN PLYWOOD SYSTEM.

6. STRUCTURAL BEAMS PER STRUCTURAL DESIGN ENGINEER. SEE STRUCTURAL DESIGN.

7. EXTERIOR WOOD SIDING INSTALLED OVER 15# FELT OR APPROVED BUILDING PAPER: 1/4" KRAFT PAPER OR 1/8" 5# ASPHALT SATURATED RAG FELT. STUCCO SHALL HAVE 3 COATS OVER WIRE MESH AND 2 LAYERS "D" WATERPROOF PAPER.

8. USE DOUBLE TRIMMERS & SILL FOR OPENINGS 8" OR GREATER. DOUBLE TOP PLATES LAP MINIMUM 48" (REQUIRE A MIN. OF 8-16d NAILS ON EACH SIDE OF THE SPLICE PER CFC R602.16A). SEE STRUCTURAL DESIGN FOR ALL HEADER SIZES. INSTALL 2 BAR OR GI FLASHING OVER ALL TRIM, DOORS, AND BELLYDANS. INSTALL W/ PAPER OVER FLASHING.

9. SEMI-C STRAP TOP PLATES AROUND WALL CORNERS, OR WHERE LAPPING 8" IS NOT POSSIBLE. PROVIDE MIN. 8-16d NAILS ON EA. SIDE OF SPLICE.

10. SOLID BLOCK AT THE ENDS OF ALL JOISTS AND RAFTERS OVER ALL BEARING WALLS, STRUTS TO PURLINS, HIPS AND RIDGES 48" MIN.

11. INSTALL FIRE STOPS PER CFC R302.4.2 AT FLOOR, CEILING, FURRED SPACES AND AT 10' INTERVALS UP WALLS UNO.

12. PROTECT WATER AREAS SUBJECT TO WATER SPL

City of Santa Clara
2022 CALIFORNIA GREEN BUILDING STANDARD CODE (CGC)
RESIDENTIAL CHECKLIST

New residential buildings shall be designed to include the green building mandatory measures specified in this checklist. This checklist shall also be applied to additions or alterations of existing residential buildings where the addition or alteration increases the building's conditioned area, volume, or area. The requirements shall apply only to the specific area of the addition or alteration.

BUILDING PERMIT NO.: **BLD2**
 ADDRESS: **1277 JACKSON ST., SANTA CLARA CA, 95050**

Building Division: 408-616-2440
 Email: Building@sanclara.gov
 Permit Center: 408-616-2420
 Email: PermitCenter@sanclara.gov
 Automated Inspection Scheduling System: 408-615-2400

MANDATORY MEASURES SPECIFIED (Please check boxes below)

Recycling by occupants. Where 5 or more multifamily dwelling units are constructed on a building site, provide readily accessible areas that serve all buildings on the site and are identified for depositing, storage and collection of nonhazardous materials for recycling per CGC 4.410.2.	<input type="checkbox"/>
ENVIRONMENTAL QUALITY (CGC 4.503)	
Gas fireplace. Any installed gas fireplace shall be a direct-vent sealed-combustion type per CGC 4.503.1.	<input type="checkbox"/>
Woodstoves. Any installed woodstove or pellet stove shall comply with U.S. EPA New Source Performance standards (NSPS) emission limits as applicable and shall have a permanent label indicating they are certified to meet the emission limits per CGC 4.503.1. Woodstoves and pellet stoves shall also comply with Santa Clara City Code Chapter 15.85.	<input type="checkbox"/>
POLLUTANT CONTROL (CGC 4.504)	
Covering of dust openings and protection of mechanical equipment during construction. At the time of rough installation, during storage on the construction site and until final startup of the heating, cooling and ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, treatment, or other methods acceptable to the City to reduce the amount of water, dust or debris, which may enter the system per CGC 4.504.1.	<input type="checkbox"/>
Adhesives, sealants and caulks shall meet the VOC or other toxic compound limits per CGC 4.504.2.1.	<input type="checkbox"/>
Paints, stains and other coatings shall comply with VOC limits per CGC 4.504.2.2.	<input type="checkbox"/>
Aerosol paints and coatings shall meet the product-weighted MIR limits for RDC and other requirements per CGC 4.504.2.3.	<input type="checkbox"/>
Verification. Documentation shall be provided, at the request of the Building Division, to verify that compliant VOC-limit finish materials have been used per CGC 4.504.2.4.	<input type="checkbox"/>
Carpet systems. All carpet installed in the building interior shall meet the testing and product requirements of CGC 4.504.3.	<input type="checkbox"/>
Resilient flooring systems. Where resilient flooring is installed, at least 80% of the floor area receiving resilient flooring shall comply with the requirements of CGC 4.504.4.	<input type="checkbox"/>
Composite wood products. Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the building shall comply with low formaldehyde emissions standards and requirements per CGC 4.504.5.	<input type="checkbox"/>
INTERIOR MOISTURE CONTROL (CGC 4.505)	
Concrete slab foundations. Vapor retarder and capillary break shall be installed if a slab-on-grade foundation system is used. The use of 4" thick bases of 50' or larger coarse aggregate under a 10mil vapor retarder with joints lapped not less than 6" shall be provided per CGC 4.505.2, CRC R506.2.2, CRC R506.2.3 and CBC Section 1905.	<input type="checkbox"/>
Moisture content of building material. Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed when the framing members exceed 19% moisture content. Moisture content shall be checked prior to finish material being applied per CGC 4.505.3.	<input type="checkbox"/>
INDOOR AIR QUALITY AND EXHAUST (CGC 4.506)	
Bathroom exhaust fans. Each bathroom shall be mechanically ventilated using ENERGY STAR compliant fans ducted to the exterior and equipped with humidity controls system per CGC 4.506.1.	<input type="checkbox"/>
ENVIRONMENTAL COMFORT (CGC 4.507)	
Heating and air-conditioning system shall be sized, designed and have their equipment selected using the following methods per CGC 4.507.2: 1. Heat Load/Heat Gain values in accordance with ANSI/ACCA 2 Manual J-2016, ASHRAE handbook or equivalent. 2. Duct systems are sized according to ANSI/ACCA 1 Manual S-2016, ASHRAE handbook or equivalent. 3. Select heating and cooling equipment in accordance with ANSI/ACCA 3 Manual S-2014 or equivalent.	<input type="checkbox"/>
INSTALLER AND SPECIAL INSPECTOR QUALIFICATION (CGC 702)	
Installer training. HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a recognized training or certification program per CGC 702.1.	<input type="checkbox"/>
Special inspection. Special inspectors employed by the City must be qualified and able to demonstrate competence in the disciplines they are inspecting per CGC 702.2.	<input type="checkbox"/>
VERIFICATION (CGC 703)	
Documentation. Upon request, verification of compliance with this code may include construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the building department which will show substantial conformance per CGC 703.1.	<input type="checkbox"/>

Responsible Designer's Declaration Statement I hereby certify that this project has been designed to meet the requirements of the 2022 California Green Building Standards Code.	Contractor Declaration Statement I hereby certify, as the builder or installer under the permit listed herein, that this project will be constructed to meet the requirements of the California Green Building Standards Code.
Name: LOU COSTANZO	Name:
Signature: <i>LOU COSTANZO</i>	Signature:
Date: 5-22-23	Date:
Company: LOU COSTANZO DESIGN & ASSOC.	License:
Address: 1501 SAN GABRIEL WAY,	Address:
City: SAN JOSE CA, 95125	City: State: Zip:

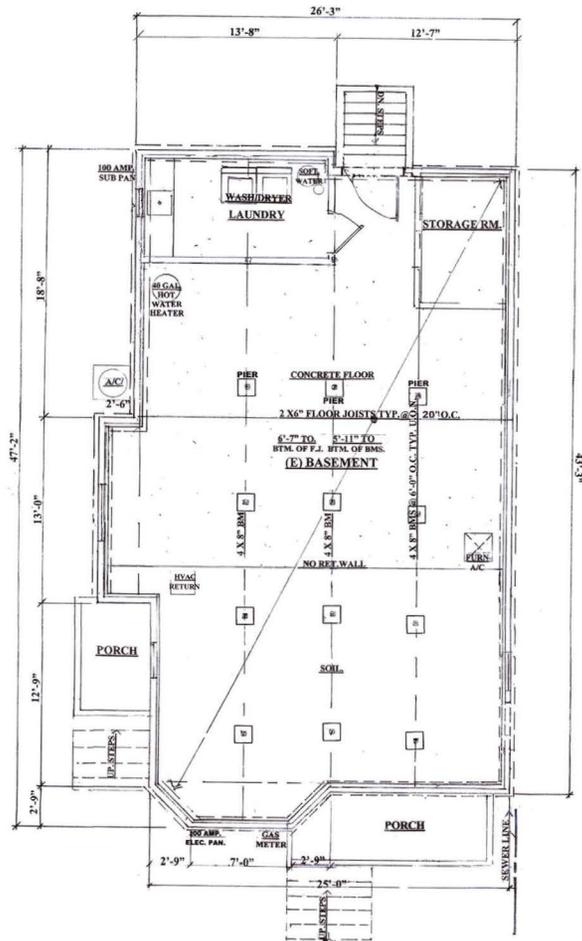
Feature or Measure	Yes
SITE DEVELOPMENT (CGC 4.106)	
Storm water drainage and retention during construction. A plan shall be developed and shall be implemented to manage storm water drainage during construction per CGC 4.106.3.	<input type="checkbox"/>
Grading and paving. Construction plans shall indicate how site grading or the drainage system will manage all surface water flows to keep water from entering buildings per CGC 4.106.3.	<input type="checkbox"/>
Electric vehicle (EV) charging for new one- and two-family dwellings and town-houses with attached private garages and/or parking spaces not assigned to a dwelling unit, and ADU/JADU without additional parking but with electrical panel upgrades or new panels. Provide capability for electric vehicle charging with minimum required Level 1 EV Ready, Level 2 EV Ready, Low Power Level 2 EV Ready as specified in CGC 4.106.4.1 as amended by City of Santa Clara Reach Code Ordinance No.2059 (CGC 2023 Reach Code) section 15.38.040.	<input type="checkbox"/>
Identification. The roadway termination location shall be permanently and visibly marked as "Level 2 EV-READY" per CGC 4.106.4.1.1 as amended by CGC 2023 Reach Code section 15.38.040.	<input type="checkbox"/>
Electric vehicle (EV) charging for new multifamily dwellings, affordable housing, hotels, motels, and new residential parking facilities. Provide electric vehicle infrastructure and capability for electric vehicle charging with minimum required Level 2 EV Charger, Level 1 EV Ready, Level 2 EV Ready, Low Power Level 2 EV Ready as specified in CGC 2023 Reach Code section 15.38.040 and 2022 California Green Code section 4.106.4.2, whichever is more stringent.	<input type="checkbox"/>
110v Electrical Outlet at Bicycle Parking. All multifamily residential developments shall include secured bicycle parking with 110v electrical outlets per CGC 2023 Reach Code section 15.38.040.	<input type="checkbox"/>
Location. EV charging shall be located adjacent to an accessible parking space, and/or on an accessible route, per CGC 4.106.4.2.2.1.	<input type="checkbox"/>
Dimension. Each EV ready space or EVCS shall be minimum 18 ft long and 9 ft wide. One in every 25 charging spaces, but not less than one, shall have an 8 ft wide access aisle. A 5 ft wide minimum aisle shall be permitted provided the minimum width of the EV space is 17 feet. Surface slope for this EV space and the aisle shall not exceed 2.0% slope in any direction, per CGC 4.106.4.2.2.1.2.	<input type="checkbox"/>
Accessibility. EV Ready and EVCS spaces shall comply with the accessibility provision for EV Charging stations in California Building Code Chapter 11A (section 1109A) and Chapter 11D, per CGC 4.106.4.2.2.1.3.	<input type="checkbox"/>
EV Ready Space Signage. EV ready spaces shall be identified by signage or pavement markings, in compliance with California Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s), per CGC 4.106.4.2.2.1.4.	<input type="checkbox"/>
Automatic load management system (ALMS) may be installed to increase the number of EV chargers for the amperage or voltage beyond the minimum requirements in this code. The option does not allow for installing less electrical panel capacity than would be required without ALMS, per CGC 4.106.4.2.2.2.	<input type="checkbox"/>
Electric vehicle (EV) charging for additions or alterations of parking facilities serving existing multifamily buildings. When new parking facilities are added, or electrical systems or lighting of existing parking facilities are added or altered and the work requires a building permit, minimum 10% of total added/alterated parking spaces shall be electric vehicle charging spaces capable of supporting future Level 2 electric vehicle supply equipment (EVSE) per CGC 4.106.4.3.	<input type="checkbox"/>
ENERGY EFFICIENCY (CGC 4.201)	
California Energy Code. The building's construction shall meet or exceed the requirements of the 2022 California Building Energy Efficiency Standards per CGC 4.201.1.	<input type="checkbox"/>
WATER EFFICIENCY AND CONSERVATION	
INDOOR WATER USE (CGC 4.303)	
Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets, showerheads, pre-rinse spray valves) shall comply with the prescriptive requirements of Section 4.303.1.1 through 4.303.1.4.5.	<input type="checkbox"/>
Water closets: The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (CGC 4.303.1.1).	<input type="checkbox"/>
Urinals: The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush, and all other urinals shall not exceed 0.5 gallons per flush (CGC 4.303.1.2).	<input type="checkbox"/>
Showerheads. The flow rate for single showerhead and multiple showerheads serving one shower shall not exceed 1.8 gallons per minute at 80 psi and shall be certified to the performance criteria of the U.S. EPA WaterSense Specification (CGC 4.303.1.3).	<input type="checkbox"/>
Residential lavatory faucets. The flow rate shall not be more than 1.2 gallons per minute at 60 psi, and not less than 0.8 gallons per minute at 20 psi (CGC 4.303.1.4.1).	<input type="checkbox"/>
Lavatory faucets in common and public use areas. The flow rate shall not exceed 0.5 gallons per minute at 60 psi (CGC 4.303.1.4.2).	<input type="checkbox"/>
Kitchen Faucets. The flow rate shall not deliver more than 0.2 gallons per cycle (CGC 4.303.1.4.3).	<input type="checkbox"/>
Pre-rinse Spray Valves. When installed, shall meet the requirements of Title 20 of the California Code of Regulations, and shall be equipped with an integral automatic shutoff (CGC 4.303.1.4.5).	<input type="checkbox"/>
Submitters for multifamily buildings and dwelling units in mixed-use residential/commercial buildings. Submitters shall be installed to measure water usage of individual rental dwelling units in accordance with the California Plumbing Code per CBC 4.303.2.	<input type="checkbox"/>
Standards for plumbing fixtures and fittings. Plumbing fixtures and fittings shall meet the applicable standards referenced in Table 1701.1 of the California Plumbing Code per CGC 4.303.3.	<input type="checkbox"/>
OUTDOOR WATER USE (CGC 4.304)	
Outdoor potable water use in landscape areas. Residential developments shall comply with the City's Water Service and Use Rules and Regulations, Item No. 24, as adopted by Santa Clara City Code Section 15.15.180, or the California Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent, per CGC 4.304.1.	<input type="checkbox"/>
ENHANCED DURABILITY AND REDUCED MAINTENANCE (CGC 4.406)	
Resident proofing. Annual spaces around pipes, electric cables, conduits or other openings in nonloadbearing planks at exterior walls shall be rodent proofed by closing such openings with cement mortar, concrete masonry, or similar method acceptable to the City per CGC 4.406.1.	<input type="checkbox"/>
CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING (CGC 4.408)	
Construction waste management. Recycle and/or salvage for reuse a minimum of 85% of nonhazardous construction and demolition waste in accordance with Section 4.408.2, 4.408.3, or 4.408.4, or meet a more stringent local construction and demolition waste management ordinance (CGC 4.408.1).	<input type="checkbox"/>
BUILDING MAINTENANCE AND OPERATION (CGC 4.410)	
An operation and maintenance manual shall be provided to the building occupant or owner per CGC 4.410.1.	<input type="checkbox"/>

REVISIONS	BY

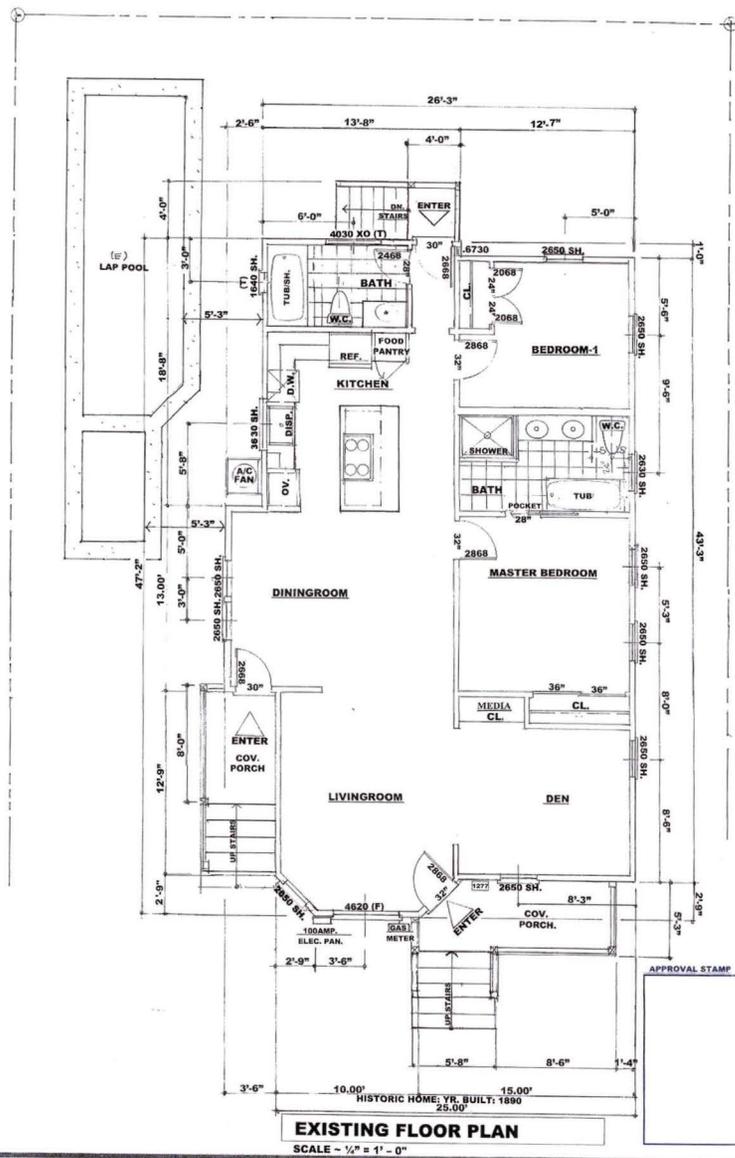
PLANS COMPLETED BY:
 LOU COSTANZO
 CHARTERED PROFESSIONAL ENGINEER
 LICENSE NO. 50876
 1277 JACKSON ST., SANTA CLARA CA, 95050
 PLANS: LOU COSTANZO 1501 SAN GABRIEL WAY, SAN JOSE, CA 95125 408-264-0220
 STRUCTURAL ENGINEER, TONY TRUONG PE, 408-893-9228

CITY OF SANTA CLARA
CALGREEN MANDATORY
MEASURES/CHECKLIST
 2022-23

DRAWN:
LOU COSTANZO
 CHECKED:
S-C
 DATE:
5-22-23
 SCALE:
NOTED
 JOB NO:
S-202210
 SHEET
CMM



EXIST'G BASEMENT FLOOR PLAN
SCALE - 1/4" = 1'-0"



EXISTING FLOOR PLAN
SCALE - 1/8" = 1'-0"

REVISIONS	BY

PLAN COMMENTS TO:
 LOUCOSTANZO.COM
 408-472-8923 CELL
 408-472-8923 FAX
 Lou Costanzo

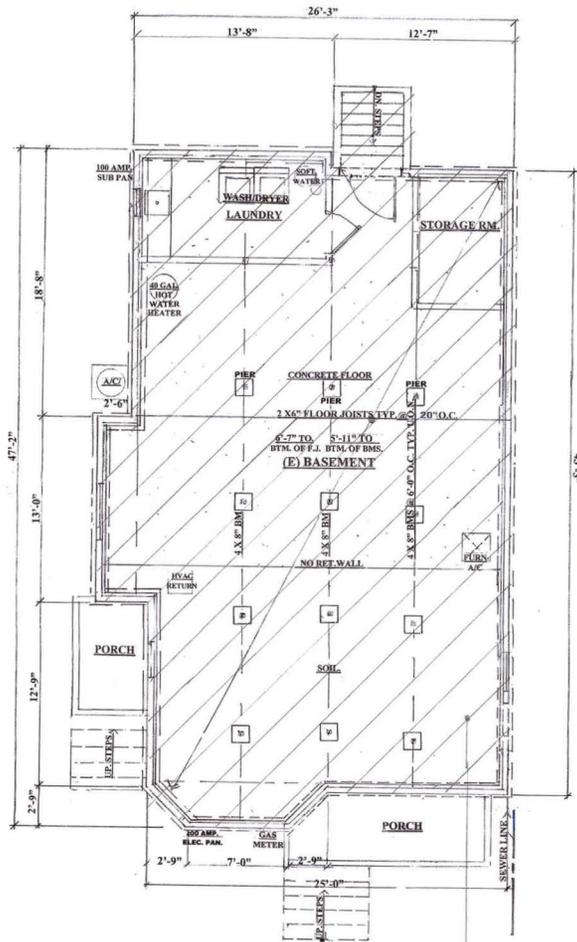
A PROPOSED BASEMENT AS LIVING WITH STAIRS FOR:
THE SPENCER RESIDENCE
 1277 JACKSON ST., SANTA CLARA CA. 95050
 PLAN: LOU COSTANZO 1501 SAN GABRIEL WAY, S.J. 95125 408-264-0220
 STRUCTURAL ENGINEER: TONY TRUONG PE. 408 898-0220

EXISTING FLOOR PLAN

DRAWN
 LOU COSTANZO
 CHECKED
 S.C.
 DATE
 12 - 28 - 21
 SCALE
 1/4" = 1'-0"
 JOB NO.
 S20210
 SHEET

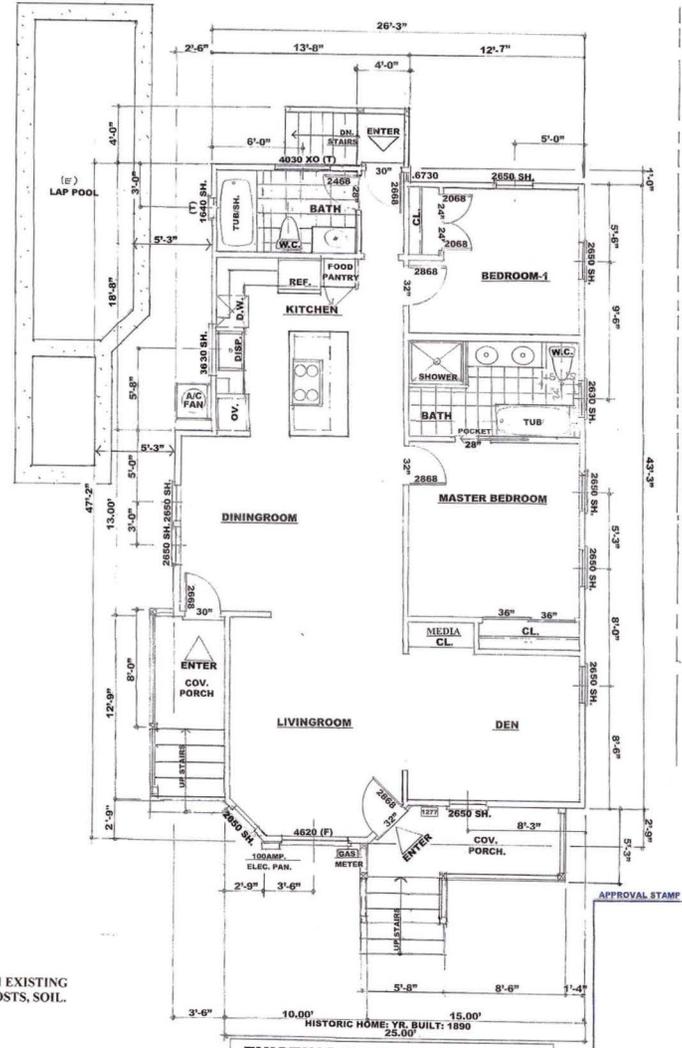
A2

APPROVAL STAMP



DEMOLITION NOTE
 1. DEMO PERIMETER FOUNDATION WITH EXISTING BASEMENT CONCRETE SLAB, PIERS, POSTS, SOIL.

DEMOLITION PLAN
EXIST'G BASEMENT FLOOR PLAN
 SCALE - 1/4" = 1'-0"



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

REVISIONS	BY

PLAN COMMENTS TO:
 LOUCOSTANZO.COM
 GARY LEE
 SHEET 02 OF 04

**A PROPOSED BASEMENT AS LIVING WITH STAIRS FOR:
 THE SPENCER RESIDENCE**
 1277 JACKSON ST., SANTA CLARA CA. 95050
 PLAN: LOU COSTANZO 1501 BAYVIEW DR. #104 SANTA CLARA CA. 95050-408-264-0220
 STRUCTURAL ENGINEER: TONY TRUONG P.E. #03 889-0220

DEMOLITION PLAN

DRAWN
LOU COSTANZO
 CHECKED
 S.C.
 DATE
 12 - 28 - 21
 SCALE
 1/4" = 1'-0"
 JOB NO.
 S20210
 SHEET

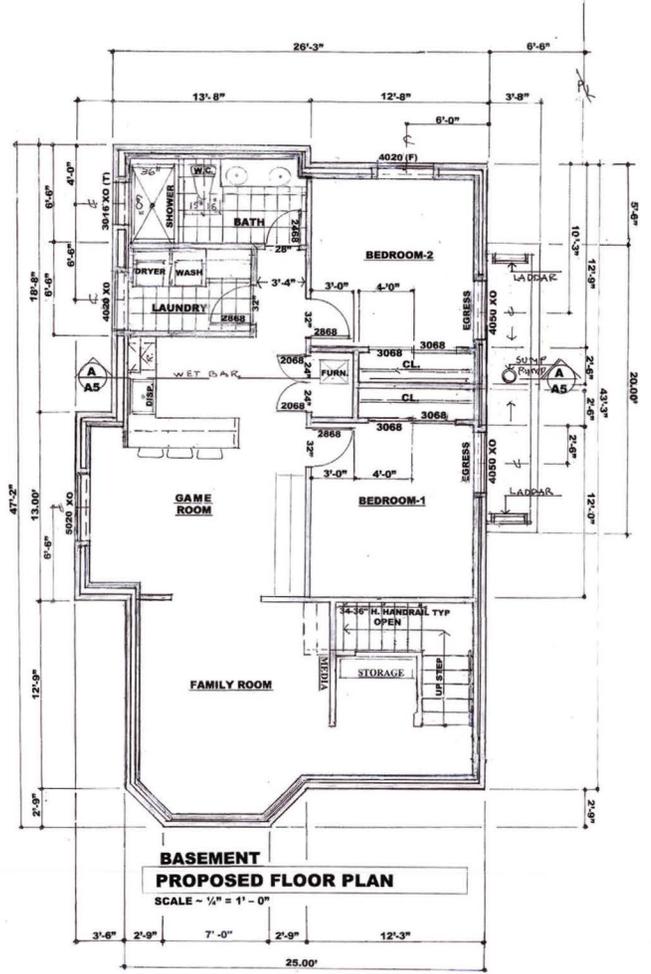
A2.1

OTHER GENERAL NOTES: 2022

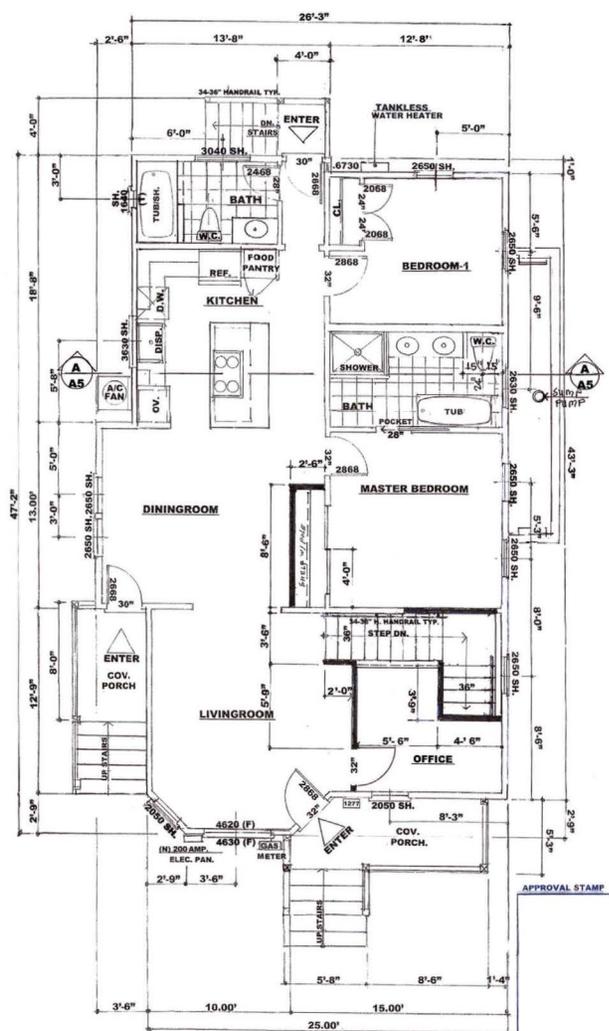
- SMOKE ALARMS: **CRC 314** INSTALL IN EACH SLEEPING ROOM OUTSIDE EACH SEPARATE DWELLING UNIT SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS, AND ON EACH ADDITIONAL STORY OF THE DWELLING INCLUDING BASEMENTS AND HABITUAL ATTICS.
- CARBON MONOXIDE ALARMS CRC 315** INSTALL CO ALARMS OUTSIDE OF EACH SEPARATE DWELLING UNIT SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS, AND ON EVERY LEVEL OF THE DWELLING UNIT, INCLUDING BASEMENTS, TOP AND BOTTOM OF STAIRCASE LANDING.
- ALSO**, ROOMS ARE TO HAVE PRIMARY POWER SOURCE FROM BUILDING, HAVE BATTERY BACKUP AND ARE TO BE INTERCONNECTED SEC. 803.8 OF 2022 CRC CODE.
- LIGHT PANELS** IN FRONT ENTRY DOOR WINDOW WITHIN 24" OF THE ENTRY ACTIVATING DEVICES SHALL BE LAMINATED SECURITY GLASS (NOT TEMP. GLASS) WHICH IS A MIN. 1/4" THICK W/ AN VINYL INTERLAYER OR 1/4" POLYCARBONATE SECURITY SHEETS OR EQUIVALENT.
- 4 X 12 DF #1 HEADERS, OPENINGS, WINDOW DOOR LINDS.
- ALL CABINETS, MECHANICALS BY OTHERS.
- ALL FINISH REQUIREMENTS BY OTHERS.
- HEIGHT OF COMBUSTIBLE MATERIAL ABOVE KITCHEN RANGE TO BE 36 IN. UNPROTECTED OR 24 IN. PROTECTED.
- MAX. FLOOR HT. CHANGE @ DOOR IS 3/4 IN. @ UNDER FLOOR ACCESS** IF INCHES, 24 INCHES CLEAR WITHOUT PIPE OR INTERFERENCE. 2022 CRC SEC. 808.4
- ATTIC ACCESS** TO UNOCCUPIED AREA OPEN'G. NOT LESS THAN 22 IN. X 20 IN. WITH NOT LESS THAN 30 INCHES HEADROOM. 2022 CRC SEC. 807.1
- EMERGENCY ESCAPE WINDOWS / SLEEPING ROOMS**
 A. SCREEN OPENING TO BE MEASURED NOT MORE THAN BOTTOM OF SILL 44" ABOVE FINISHED FLOOR MAX.
 B. MIN. NET CLEAR OPERABLE AREA: 5.7 SF. R302.1.1 C. MIN. NET CLEAR OPERABLE WIDTH: 20 IN. R302.1.1 D. MIN. NET CLEAR OPERABLE HEIGHT: 20 IN. R302.1.1
- ALL WINDOWS, FRENCH AND SLIDING PATIO DOORS** SHALL HAVE DOUBLE GLAZING, WEATHER STRIPPED, AND FLASHED. TEMPERED GLASS SHALL BE AFFIXED WITH A PERMANENT LABEL.
- MECHANICAL VENTILATION SYSTEMS WITH TURBINE FAN** SHALL BE SUPPLY & EXHAUST PER HOUR IN BATHROOMS, LAUNDRY ROOM, BUT IN OTHER HABITABLE AREAS, 2 CHANGES PER HOUR ARE REQ.
- BATHROOMS:**
BATHROOM EXHAUST FAN R302.1.1
 EACH BATHROOM CONTAINING A BATH, SHOWER OR TUBSHOWER COMBINATION SHALL BE MECHANICALLY VENTILATED FOR THE PURPOSES OF HUMIDITY CONTROL WITH CAPTOR 4 MINIMUM 50 CFM AND HUMIDITY CONTROLLER.
SETTING WATER CLOSETS CPC 402.5
 WATER CLOSET AND RECES SHALL HAVE 18" FROM CENTER OF SINK WALL AND CLEAR SPACE FRONT OF 24 INCHES.
SHOWERS: CPC 408.5
 SHOWER DOORS SHALL OPEN SO AS TO MAINTAIN NOT LESS THAN 21 INCHES OF UNOBSTRUCTED OPENING OF EGRESS.
SHOWER COMPARTMENT CPC 408.6
 SHOWER PAN DIMENSIONS SHALL HAVE A MINIMUM OF 36" X 48" AND ALSO CAPABLE OF ENCOMPASSING A 12 INCH CIRCLE.
TUBSHOWER VALVES SHALL BE PRESSURE BALANCED WITH TEMPERATURE RATING SET AT 120 DEGREES F. CPC 408.9
 LOCATION OF SHOWER VALVES & HEADS CPC 408.9
 SHOWER VALVES & SHOWER HEADS SHALL BE LOCATED WHERE THE SHOWER HEAD DOES NOT DISCHARGE DIRECTLY INTO THE ENTRANCE TO THE COMPARTMENT.
SHOWER STALLS: COMPARTMENT & TUB ENCLOSURES MUST CONFORM WITH THE REQUIREMENTS CPC 411.1 FOR DRAINAGE 411.5, SINK PANS, RECEPTORS 411.8 THRESHOLD 2" DEEP, 102 SQ. IN. MIN. DOORS AND PANELS OF SHOWERS AND BATHETS ENCLOSURES SHALL BE FULLY TEMPERED, LAMINATED SAFETY GLASS OR APPROVED PLASTIC. FROST SAFETY GLASS AT WINDOWS IN TUBSHOWER AREA WITHIN 60" OF BATH/TUBSHOWER BATH INLET.
THE WALLS 0" CEMENTIOUS OR GYPSUM BOARD APPROVED AS UNDERLAYER OR BRICK FROM FLOOR TO CEILING AROUND TUBSHOWER AREA, AT RECESSED TILE TO BE 7/8" ABOVE FINISHED FLOOR OF SHOWER TUB SURFACE. SECTION R601.2 OF 2022 CRC IN. IN. PEOPLE. HD. FOR LAUNDRY WASHER AREA.
KITCHEN FAUCETS ARE NOT TO EXCEED 1.8 GAL. PER MIN. AT 60 PSI SEC. 401.1 2022 CPC & TABLE 408.2 CGC.
WATER CLOSETS (TOILETS): 1.28 GAL. / FLUSH
LAV. FAUCETS HD. MAX. 1.2 GPM AT 60 PSI, MIN. 0.4 GPM @ 20 PSI SEC. 401.2 2022 TABLE 408.2 2022 CGC.
SHOWERS: 2022 CGC SEC. 408.1.1
SINGLE SHOWER HEAD: 1.5 GPM AT 80 PSI
MULTIPLE SHOWER HEADS: COMBINED FLOW RATE AT ALL SHOWER HEADS AND/OR OTHER SHOWER OUTLETS CONTROLLED BY A SINGLE VALVE 1.5 GPM AT 80 PSI 2022 CGC SEC. 408.1.3
JETTED TUBS REQUIRE AGFC OUTLET ON SEP. CIRCUIT AND A READILY ACCESSIBLE HATCH PROVIDED TO ACCESS OUTLET. 2022 CRC SEC. 808.2.2
WATER HEATER SHALL BE MECHANICALLY ANCHORED WITH LIFTS TO INCLUDE ANCHORS OR STRAPS AT POINTS WITHIN THE UPPER AND LOWER ONE THIRD OF ITS VERTICAL DIMENSION. THE LOWER STRAP ANCHORS LOCATED TO MAINTAIN A MINIMUM DISTANCE OF 4 INCHES ABOVE THE CONTROLS. 2022 CRC 808.2
TANKLESS WATER HEATER. (SEE TWH PAGE).
CLOTHES DRYER EXHAUST VENT 2022 CRC 804.4
 86-4.2 IN. LAUNDRY SHALL BE EQUIPPED WITH EXHAUST DUCT TO OUTSIDE, CONSTRUCTED OF SMOOTH, RIGID METALLIC MATERIAL WITH A BACKDRAFT DAMPER WITH NO SCREENS. (ANY DEVICE ADDED TO VENT DUCT MUST HAVE ITS APPROVAL LISTING INFORMATION DENOTED ON DRAWINGS, DUCT LENGTH SHALL BE LIMITED TO 14 FT. LONG WITH TWO 90 DEGREE ELBOWS FROM DRYER TO POINT OF TERMINATION. REDUCE THE LENGTH BY TWO FT. FOR EVERY ELBOW IN EXCESS OF 2.
GLASS DOORS & WINDOWS SUBJECT TO HUMAN IMPACT MUST HAVE SAFETY GLASS OR PROTECTIVE GRILL OR PUSH BUTTON.
PROVIDE HEATING EQUIPMENT SUFFICIENT TO MEET 2022 CRC, CGC, GHS REQUIREMENTS
FORCED AIR FURNACE LOCATED IN ATTIC PROVIDE A MIN. CEILING ACCESS OF 30" X 30" CONSTRUCT A 36" WIDE ACCESS PLATFORM WITH FLOOR ACCESS TO F.A.U. AND SUPPLY AN ELECTRICAL RECEPTAL AT THE F.A.U. AND A LIGHT FIXTURE THAT IS SWITCHED AT THE ACCESS OPENING.
WALL SURFACES BEHIND CERAMIC TILE OR OTHER FINISHED WALL SURFACES SHALL BE MATERIALS NOT ADVERSELY AFFECTED BY WATER OR DAMP CONDITIONS. IF GYPSUM BOARD IS USED IT MUST BE APPROVED W.R.
NOTE PLUMBING, MECHANICAL REQUIREMENTS:
 PLUMBING FIXTURES AND MECHANICAL EQUIPMENT ARE SHOWN SCHEMATICALLY. INSTALLATION WORK SHALL BE THE CONTRACTOR / OWNER RESPONSIBILITY.
OPEN DOOR BETWEEN LIVING/DINING AREA SHALL BE 1-3/8" SOLID WOOD, SELF-CLOSING, TIGHT FITTING.
FLOORS AND LANDINGS AT EXT. DOORS R 311.3
 1-3/4" BELLOTT TOP OF THRESHOLD.
 2. NOT MORE THAN 1-1/2" LOWER THAN TOP OF general THRESHOLD 36" IN DIRECTION OF TRAVEL WIDTH. NOT LESS THAN WIDTH OF DOOR.

WALL LEGEND:

- NEW 2X4 WALLS
- REMOVE EXIST'G
- EXIST'G WALLS



- FOOTING HEIGHT: 12 INCHES + 1 INCH PER FT. TO STREET CURB MIN. FOOTING HT. 5% DRAINAGE - R401.3 R401.3
- FIRE DEPARTMENT ACCESS PROVIDED & MAINTAINED SERVICEABLE PRIOR & DURING CONSTRUCTION.



REVISIONS	BY

PLM COMMENTS TO:
 LOU@COSTANZO.COM
 408-472-8828/CELL
 408-472-8828/PHONE

A PROPOSED BASEMENT AS LIVING WITH STAIRS FOR:
THE SPENCER RESIDENCE
 1277 JACKSON ST., SANTA CLARA CA, 95050
 PLM: LOU COSTANZO 1501 SAN GABRIEL WAY, S.J. 95125 408-264-0220
 STRUCTURAL ENGINEER: TONY TRUONG PE. 408 899-0220

PROPOSED PLAN

DRAWN:
 LOU COSTANZO
 CHECKED:
 S.C.
 DATE:
 12 - 28 - 21
 SCALE:
 1/4" = 1'-0"
 JOB NO:
 S20210
 SHEET

A3

SECTION R310
EMERGENCY ESCAPE AND RESCUE OPENINGS

R310.1 Emergency escape and rescue opening required. Basements, habitable attic and every sleeping room shall have not less than one operable emergency escape and rescue opening. Where basements contain one or more sleeping rooms, an emergency escape and rescue opening shall be required in each sleeping room. Emergency escape and rescue openings shall open directly into a public way, or to a yard or court that opens to a public way.

- Exceptions:**
1. Screen shutters and basements used only to house mechanical equipment not exceeding a total floor area of 200 square feet (18.58 m²).
 2. Where the dwelling or townhouse is equipped with an automatic sprinkler system installed in accordance with Section F203.0, sleeping rooms in basements shall not be required to have emergency escape and rescue openings provided that the basements has one of the following:
 - 2.1. One means of egress complying with Section R311 and one emergency escape and rescue opening.
 - 2.2. Two means of egress complying with Section R311.

R310.1.1 Operational constraints and opening control devices. Emergency escape and rescue openings shall be unobstructed free of any obstruction other than those allowed by this section and shall be operational from the inside of the room without the use of keys, tools or special knowledge. Window opening control devices on windows serving as a required emergency escape and rescue opening shall comply with ASTM F3909.

R310.2 Emergency escape and rescue openings. Emergency escape and rescue openings shall have minimum dimensions as specified in this section.

R310.2.1 Minimum opening area. Emergency escape rescue openings shall have a net clear opening of not less than 5.7 square feet (0.53 m²). The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside. The net clear height of the opening shall be not less than 24 inches (610 mm) and the net clear width shall be not less than 20 inches (508 mm).

Exception: Grade floor openings or below-grade openings shall have a net clear opening area of not less than 3 square feet (0.48 m²).

R310.2.2 Window sill height. Where a window is provided as the emergency escape and rescue opening, it shall have the bottom of the clear opening not greater than 44 inches (1118 mm) measured from the floor, where the sill height is below grade, it shall be provided with a window well in accordance with Section R310.2.3.

R310.2.3 Window wells. The horizontal area of the window well shall be not less than 9 square feet (0.9 m²), with a horizontal projection and width of not less than 36 inches (914 mm). The area of the window well shall allow the emergency escape and rescue opening to be fully opened.

Exception: The ladder or steps required by Section R310.2.3.1 shall be permitted to encroach not more than 6 inches (152 mm) into the required dimensions of the window well.

R310.2.3.1 Ladder and steps. Window wells with a vertical depth greater than 44 inches (1118 mm) shall be equipped with a permanently affixed ladder or steps usable with the window to the fully open position. Ladders or steps required by this section shall not be required to comply with Section R311.7. Ladders or steps shall have an inside width of not less than 12 inches (305 mm), shall project not less than 3 inches (76 mm) from the wall and shall be spaced not more than 18 inches (457 mm) on center vertically for the full length of the window well.

R310.2.3.2 Drainage. Window wells shall be designed for proper drainage by connecting to the building's foundation drainage system required by Section R403.1, or by an approved alternative method.

Exception: A drainage system for window wells is not required where the foundation is well-drained soil or sand-gravel system in accordance with Section R403.1, as detailed in Table R403.1.

R310.2.3.3 Emergency escape and rescue openings under decks and porches. Emergency escape and rescue openings installed under decks and porches shall be fully operable and provide a path not less than 36 inches (914 mm) in height to a yard or court.

R310.2.3.4 Replacement windows. Replacement windows installed in buildings meeting the scope of this code shall be exempt from the maximum sill height requirements of Section R310.2.2 and the requirements of Section R310.2.3, provided that the replacement window meets the following conditions:

1. The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window is of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.
2. The replacement window is not part of a change of egress.

R310.2.3.5 Emergency escape and rescue doors. Where a door is provided as the required emergency escape and rescue opening, it shall be a side-hinged door or a slider. Where the opening is below the adjacent grade, it shall be provided with an air well.

R310.2.3.6 Minimum door opening size. The minimum net clear height opening for any door that serves as an emergency and rescue opening shall be in accordance with Section R310.2.1.

R310.2.3.7 Area wells. Area wells shall have a width of not less than 36 inches (914 mm). The area well shall be sized to allow the emergency escape and rescue door to fit fully

R310.2.3.1.1 Ladder and steps. Area wells with a vertical depth greater than 44 inches (1118 mm) shall be equipped with a permanently affixed ladder or steps usable with the door to the fully open position. Ladders or steps required by this section shall not be required to comply with Section R311.7. Ladders or steps shall have an inside width of not less than 12 inches (305 mm), shall project not less than 3 inches (76 mm) from the wall and shall be spaced not more than 18 inches (457 mm) on center vertically for the full height of the entire staircase.

R310.2.3.2 Drainage. Area wells shall be designed for proper drainage by connecting to the building's foundation drainage system required by Section R403.1, or by an approved alternative method.

Exception: A drainage system for area wells is not required where the foundation is on well-drained soil or sand-gravel mixture soils in accordance with the United Soil Classification System, Group 1 Soils, as detailed in Table R403.1.

R310.2.3.3 Emergency escape and rescue openings. An emergency escape and rescue opening is not required where existing basements undergo alteration or repair.

Exception: New sleeping rooms created in an existing basement shall be provided with emergency escape and rescue openings in accordance with Section R310.1.

R310.2.3.4 Replacement windows. Replacement windows installed in buildings meeting the scope of this code shall be exempt from the maximum sill height requirements of Section R310.2.2 and the requirements of Section R310.2.3, provided that the replacement window meets the following conditions:

1. The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window is of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.
2. The replacement window is not part of a change of egress.

R310.2.3.5 Emergency escape and rescue doors. Where a door is provided as the required emergency escape and rescue opening, it shall be a side-hinged door or a slider. Where the opening is below the adjacent grade, it shall be provided with an air well.

R310.2.3.6 Minimum door opening size. The minimum net clear height opening for any door that serves as an emergency and rescue opening shall be in accordance with Section R310.2.1.

R310.2.3.7 Area wells. Area wells shall have a width of not less than 36 inches (914 mm). The area well shall be sized to allow the emergency escape and rescue door to fit fully

R310.2.3.1.1 Ladder and steps. Area wells with a vertical depth greater than 44 inches (1118 mm) shall be equipped with a permanently affixed ladder or steps usable with the door to the fully open position. Ladders or steps required by this section shall not be required to comply with Section R311.7. Ladders or steps shall have an inside width of not less than 12 inches (305 mm), shall project not less than 3 inches (76 mm) from the wall and shall be spaced not more than 18 inches (457 mm) on center vertically for the full height of the entire staircase.

R310.2.3.2 Drainage. Area wells shall be designed for proper drainage by connecting to the building's foundation drainage system required by Section R403.1, or by an approved alternative method.

Exception: A drainage system for area wells is not required where the foundation is on well-drained soil or sand-gravel mixture soils in accordance with the United Soil Classification System, Group 1 Soils, as detailed in Table R403.1.

R310.2.3.3 Emergency escape and rescue openings. An emergency escape and rescue opening is not required where existing basements undergo alteration or repair.

Exception: New sleeping rooms created in an existing basement shall be provided with emergency escape and rescue openings in accordance with Section R310.1.

SECTION R311
MEANS OF EGRESS

R311.1 Means of egress. Dwellings shall be provided with a means of egress in accordance with this section. The means of egress shall provide a continuous and unobstructed path of vertical and horizontal egress travel from all portions of the dwelling to the required egress door without requiring travel through a garage. The required egress door shall open directly into a public way or to a yard or court that opens to a public way.

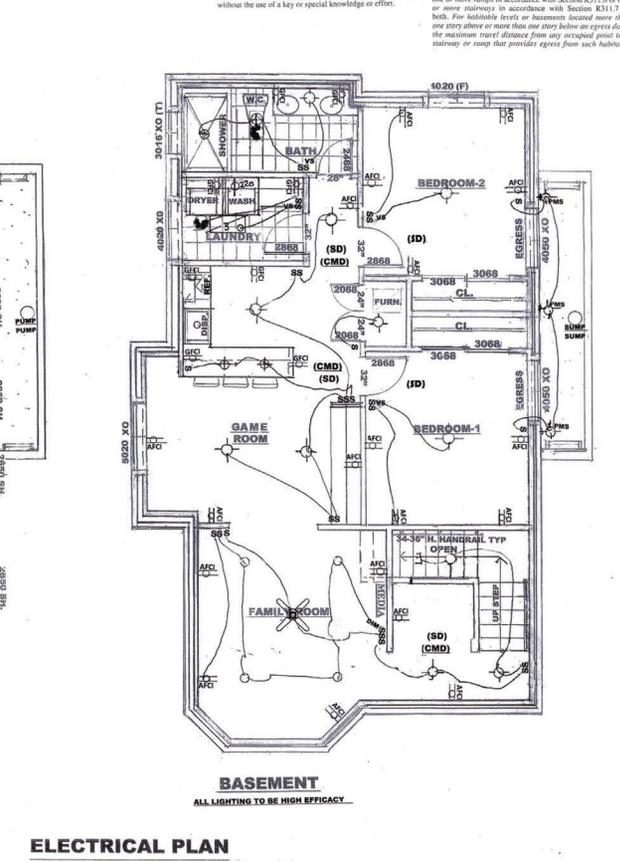
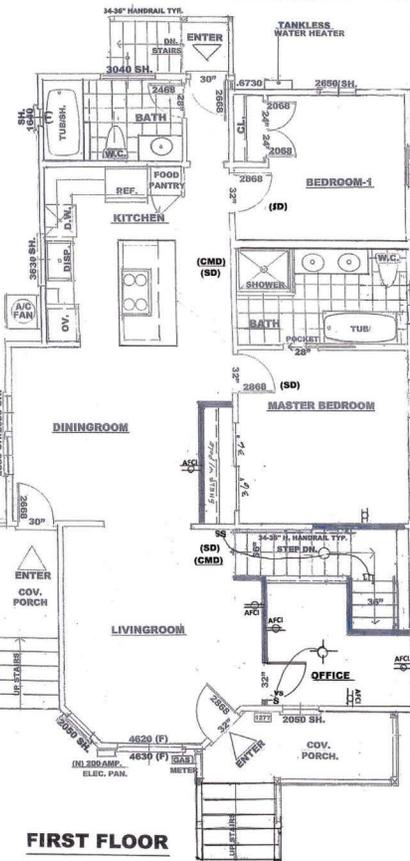
R311.2 Egress door. Not less than one egress door shall be provided for each dwelling unit. The egress door shall be side-hinged, and shall provide a clear width of not less than 32 inches (813 mm) when measured between the top of the door and the stop, with the door open 90 degrees (1.57 rad). The clear height of the door opening shall be not less than 78 inches (1981 mm) in height measured from the top of the threshold to the bottom of the stop. Other doors shall not be required to comply with these minimum dimensions. Egress doors shall be readily operable from inside the dwelling without the use of a key or special knowledge or effort.

R311.3 Egress door. Not less than one egress door shall be provided for each dwelling unit. The egress door shall be side-hinged, and shall provide a clear width of not less than 32 inches (813 mm) when measured between the top of the door and the stop, with the door open 90 degrees (1.57 rad). The clear height of the door opening shall be not less than 78 inches (1981 mm) in height measured from the top of the threshold to the bottom of the stop. Other doors shall not be required to comply with these minimum dimensions. Egress doors shall be readily operable from inside the dwelling without the use of a key or special knowledge or effort.

R311.4 Vertical egress. Egress from habitable levels including habitable attics and basements that are not provided with an egress door in accordance with Section R311.1 shall be by one or more ramps in accordance with Section R311.1.1 or one or more stairways in accordance with Section R311.1.2 or both. For habitable levels or basements located more than one story above or more than one story below an egress door, the maximum travel distance from any occupied point to a stairway or ramp that provides egress from such habitable

OTHER ELECTRICAL NOTES

1. RECESSED LIGHTING IN BATHROOM AREAS... REFER TO PLAN'S GENERAL NOTES.
2. ELECTRICAL DEVICES ARE SHOWN SCHEMATICALLY AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY FOR WORK COMPLIANCE TO CODE. SEE NEC.
3. ELECTRICAL SERVICES SHALL BE LOCATED IN THE VICINITY OF THE CLOSET DISTANCE TO UTILITY SERVICE AND KITCHEN FOR SMALL APPLIANCES. CONTRACTOR TO PROVIDE TWO 20 AMP. CIRCUITS.
4. INTERIOR SUB PANELS SHALL NOT BE LOCATED IN THE VICINITY OF EASILY IGNITABLE MATERIALS... SUCH AS CLOTHES CLOSETS.
5. LIGHTING REQUIREMENTS IN COMPLIANCE WITH 2022 CA ENERGY CODE SEC. 91004 WHICH INCLUDE THE FOLLOWING:
 - A. ALL LIGHTING AS HIGH EFFICACY. (IE, PEN-BASE CFL, PULSE START MR16/PLC-24 SOCKETS OTHER THAN LAPS, LED LUMINAIRES WITH INTEGRAL SOURCE, ETC. SEE TABLE 91004-A.
 - B. SCREW-BASED PERMANENTLY INSTALLED LIGHT FIXTURES MUST CONTAIN SCREW-BASED JOINT APPENDIX B COMPLIANT LAMP/LAMP COMPLIANT LIGHT SOURCES MUST BE MARKED AS "IAB-20P" OR "IAB-20E" (IAB-20E) LUMINAIRES ARE DEEMED APPROPRIATE FOR USE IN ENCLOSED LUMINAIRE CASES IBSBAG.
 - C. ALL AIR COMPLIANT LIGHT SOURCES IN THE FOLLOWING LOCATIONS ARE CONTROLLED BY VACANCY SENSORS OR DIMMERS EXCEPT CLOSETS LESS THAN 70 SF. AND HALLWAYS SEE CEC 91004.1.1. CEILING RECESSED DOWNLIGHT LUMINAIRES. 1. LED LUMINAIRES WITH INTEGRAL SOURCE. 2. PEN-BASED LED LAMP. (IE, MR16, BR11, ETC.) 4. GU-D BASED LED LIGHT SOURCES.
 - D. ALL BATHROOM LIGHTING SHALL BE HIGH EFFICACY WITH AT LEAST ONE BATHROOM LIGHT TO BE CONTROLLED BY A VACANCY SENSOR.
 - E. AT LEAST ONE FEATURE IN GARAGE CONTROLLED BY A VACANCY SENSOR CEC 91004.2.
 - F. AT LEAST ONE IN IN UTILITY ROOM CONTROLLED BY A VACANCY SENSOR IBSBAG.
 - G. EXHAUST FAN EXCLUDES KITCHEN EXHAUST HOODS SWITCHED SEPARATELY FROM LIGHTING (OR UTILIZE A DRYER WHERE LIGHTING CAN BE TURNED OFF WHILE THE FAN IS RUNNING).
 - H. SEPARATE SWITCHING FOR ANY UNDER CABINET LIGHTING (IN KITCHEN LIGHTING FROM OTHER LIGHTING SYSTEMS. CEC 91004.3).
 - I. OUTDOOR LIGHTING AS HIGH EFFICACY WITH MANUAL ON/OFF SWITCH AND ONE OF THE FOLLOWING: 1. PHOTO CONTROL. AND MOTION SENSOR. 2. PHOTOCONTROL AND AUTOMATIC TIME SWITCH CONTROL. 3. ASTRONOMICAL TIME SWITCH CONTROL.
 - J. ENERGY MANAGEMENT CONTROL SYSTEMS.
6. LIGHTING IN ALL BATHROOM AREAS, HALLWAYS SHALL:
 - A. PROVIDE DIMMER SWITCH.
 - B. PROVIDE MANUAL ON OCCUPANCY SENSOR AND MOTION SENSOR THAT COMBLES WITH AND SHALL NOT HAVE MOTION CONTROL THAT ALLOWS THE LUMINAIRE TO BE TURNED ON AUTOMATICALLY OR BEANS AN OVERDRIVE ALLOWING THE LUMINAIRE TO BE ALWAYS ON. C. CLOSETS LESS THAN 70 SF. ARE EXEMPT FROM LIGHTING REQUIREMENTS.
 - D. LUMINAIRES IN RECESSED CEILING SHALL BE IC RATED & AIRIGHT (A) FOR ALL RECESSED LUMINAIRE.
 - E. TERMINATION OF ALL BATHROOM LIGHTING SHALL BE A MIN. OF 3 FEET FROM ANY OPENINGS INTO THE BUILDING. I.E. BATHROOM LIGHTING SHALL BE TERMINATED IN UTILITY FAN, AND MUST BE 3 FT. AWAY FROM DOORS, WINDOWS, OPVING SKYLIGHTS, OR ATTC VENTS).



ELECTRICAL SYMBOLS

□	DUPLEX WALL OUTLET
⊖	ARC-FAULT-CIRCUIT INTERRUPTER OUTLET (EXCEPTION: LAUNDRY CLOTHES DRYER)
⊖	GROUNDED FAN-FAULT CIRCUIT OUTLET
□	DUPLEX WALL SWITCHED OUTLET
⊖	CEILING DUPLEX OUTLET
⊖	SINGLE PLUG RECESSED FLOOR OUTLET
⊖	220V S.C. 220 V. CLOTHES DRYER/VENTPLUG - IN W.P. EXT. WEATHERPROOF DUPLEX OUTLET

ALL LIGHTING SHALL BE HIGH EFFICACY

S	LIGHT SWITCH
S3	3-WAY LIGHT SWITCH
S VS	VACANCY SENSOR
S OS	OCCUPANCY SENSOR LIGHT SWITCH
S DIM	DIMMER LIGHT SWITCH WALED
S LVD	LOW VOLTAGE DIMMER SWITCH
S DIM3	3-WAY DIMMER SWITCH

⊖	EXT. BOX FOR WALL MTD. LIGHT FIXTURE
⊖	EXT. BOX FOR SURFACE LIGHT FIXTURE
⊖	LED FOR UNDER CABINET LIGHTING
⊖	CHAMMELER LIGHT FIXTURE
⊖	FAN BATTERY
⊖	CEILING RECESSED LED LIGHT FIX. 6" 6", 4", 3"
⊖	FIXTURE FLUOR. (H-HUBS LIGHT FIX.)
⊖	JASHRAE 62/100 CFM FAN OR 80 CFM OR 60 CFM DOOR BELL (CHIMES)
⊖	TV TELEVISION
⊖	PANASONIC CEILING EXHAUST FAN
⊖	PANASONIC EXHAUST FAN W/ LIGHT REQUIRE
⊖	LED LIGHT'S (UNDER-CABINET LIGHTING)
⊖	SMOKE DETECTOR (SEE 91011 CEC 91012)
⊖	HARD-WIRED BATTERY BACKUP
⊖	(CMD) CARBON MONOXIDE DET. (SEE 91016 CEC 91019)
⊖	(HIGH EFFICACY EXTERIOR FIXTURES)
⊖	PHS PHOTO-MOTION SENSOR CONTROLLED
⊖	OUTDOOR LIGHTING SHALL BE HIGH EFFICACY, CONTROLLED BY ONE OF THE FOLLOWING:
⊖	1. PHOTOCONTROL CONTROL SENSORS.
⊖	2. PHOTOSENSOR & AUTO. CONTROL TIME SWITCH.
⊖	3. ASTRONOMICAL TIME SWITCH
⊖	4. EMCS ENERGY MANAGEMENT CONTROL SYSTEMS
⊖	200 EXT. ELEC. PANEL 300 AMP.
⊖	300 EXT. ELEC. PANEL 200 AMP.
⊖	150 EXT. ELEC. PANEL 150 AMP.
⊖	100 SUB PAN 100 AMP AMP
⊖	CEILING FAN

REVISIONS	BY

PLANNING COMMENTS TO BE COMPLETED BY ARCHITECT/ENGINEER/GENERAL CONTRACTOR

100% Construction

A PROPOSED BASEMENT AS LIVING WITH STAIRS FOR:

THE SPENCER RESIDENCE
1277 JACKSON ST., SANTA CLARA CA, 95050
PLANNING: LOU COSTANZO 1501 SAN GABRIEL WAY, S. # 95125 408-264-0220
STRUCTURAL ENGINEER: TONY TRUONG PH. 408-899-0220

ELECTRICAL PLAN

DRAWN: LOU COSTANZO
CHECKED: T.T.
DATE: 5-22-23
SCALE: 1/4" = 1'-0"
JOB NO: S-20210
SHEET: A4

REVISIONS	BY

1. REPLACE "IN KIND" ALL EXISTING WOOD MEMBERS, JOISTS, PURLINS, SUBPURLINS, SHEATHING, STUDS, WALL PLATES WHICH SHOW SIGNS OF ROT OR STRUCTURAL DAMAGE.
2. ALL WOOD EXPOSED TO CONCRETE, WEATHER, OR WITHIN 5" OF FINISHED GRADE SHALL BE PRESERVATIVE TREATED.
3. ALL FASTENERS OR HARDWARE IN CONTACT WITH PRESERVE TREATED WOOD, CONCRETE OR MASONRY SHALL BE HOT-DIPPED, ZINC COATED, GALVANIZED STEEL OR STAINLESS STEEL.

THE SPENCER RESIDENCE
S-18-2023

- (E) & (H) HOUSE STRUCTURE:** (10:12" ROOF PITCH) (R.W. - REDWOOD)
- ROOF STRUCTURE**
1. PATTERNED ASPHALT SHINGLES ROOFING O2 LAYERS 150 FELT O 1/2" CDX PLYWOOD O 1" X 6" SKID SHEATHING SPACED @ 3" APART.
 2. 2" X 4" RAFTERS SPACED @ 32" O.C. (R.W.)
 3. 2X RAFTER BLOCKING
 4. 50 YR. CLASS "C" COMPOSITION ROOFING IC ES ESER 1389 O 3/8" FELT O 1/2" PLYWD (NAIL W/ 8d'S @ 6" O.C. (E) 12" O.C. (FIELD), SECURE ROOFING WITH CORROSION RESISTANT FASTENERS (CR 19063.5)
 5. G1 GUTTER O 2X FASCIA W/DN.SPOUTS; FR. DRAIN OR SPLASH BLKS'
- ATTIC CRIPPLE WALL**
6. 2 X 6" (R.W.) COLLAR TIES @ 10'-0" APART 4' X 6" R.W. SPACER
 7. 4 X 4" HDR.
 8. 2 X 4" STUDS @ 24" O.C.
 9. 2 X 4" BTM. PLATE

- MAIN STRUCTURE (CEILING, WALL, FLOOR)**
10. 2 X 6" CEILING JOISTS @ 16" O.C. (R.W.)
 11. 2 X 6" BLOCKING
 12. 5/8" GYP. BD. (WALLS & CEILING)
 13. 2 - 2 X 4" TOP PLATE (R.W.)
 14. 2 X 4" STUDS @ 16" O.C. (R.W.)
 15. 2 X 4" SOLE PLATE (R.W.)
 16. 1" X 6" REDWOOD SUB. FLOOR
 17. 2 X 6" FLOOR JOISTS @ 16" O.C. (R.W.)
 18. 2 X 6" F.J. BLOCKING.

19. 3/8" X 9/8" X 2.25 PBL BM W/ HUGS F.M. HANG. & EPCZ & PZC POST CAP & 4X4 PTFDF2 POST TO BM. SUPPORT.
 20. 4 X 12" DFP#1 HEADERS (DOORS & WINDOWS) U.N.O.
 21. 1/2" X 8" PTF GROOVE (R.W.) SIDING OVER "D" PAPER O 1/2" CDX PLYWD. (NAIL W/ 8d NAILS @ 6" O.C. ENDS, & 12" O.C. FIELD) U.N.O.
- (E) CRIPPLE WALL @ BASEMENT**
22. 2 - 2 X 4" DF 2 TOP PLATE TYP.
 23. 4 X 8" DFP#1 HDR. S.S.D. (WINDOWS)
 24. 2 X 4" DFP2 STUDS @ O.C. TYPICAL (R.W.)

25. R15 BATT. INSULATION
 26. 5/8" (GREEN) GYP. BD.
 27. 2 X 6" PTFD MUDDILL W/ 58" A.B.R. X 12" LG. @ 48" O.C. U.N.O. S.S.D.
- (H) 5 FT. WALL SECURED TO BASEMENT CONC. WALL**
28. DDL. 2 X 4" PTFD TOP PLATE
 29. 2 X 4" STUDS @ 16" O.C.
 30. 5/8" (GREEN) GYP. BD.

31. R13 BATT. INSULATION
32. 2 X 4" PTFD #2 SOLE PLATE SECURE TO CONC. W/ R170 POWDER HEAD FASTENERS @ 32" O.C. S.S.D.
33. 5" THICK CONC. SLAB W/ #4 BARS AT 16" EA. WAY AT MIDSPAN OVER 10 MIL FLLM OVER 6" OF 3/4" GRAVEL.
34. SIMPSON HANGER S.S.D.
35. A 35 SIMPSON CLIP 24" O.C. S.S.D.
36. H25A CIP @ EA. TRUSS

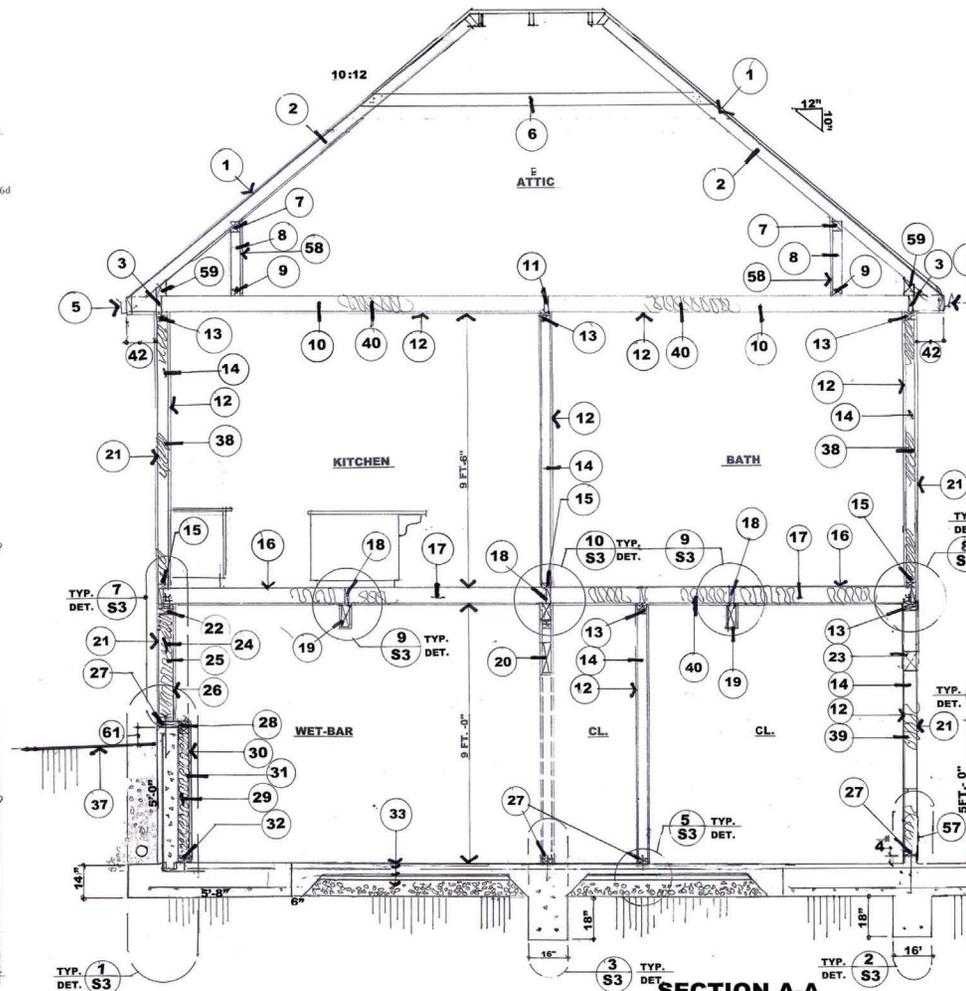
37. GRADE SOIL AWAY FROM FDN. 5% AT 18"
38. INSULATION (SEE TITLE 24 REPORT)
39. R-13 BATT. INSULATION (WALL)
40. R-19 BATT. INSULATION (FLOOR OR RAFTER)
41. R-38 BATT. INSULATION (CEILING)
42. 12" OVERHANGS & 12" EAVES.
43. WEEP SCREED PER CODE (4" TO GRADE & 2" TO CONCRETE SLAB PER BLOCK W/ #4 MESH)

- TYPICAL STAIR CONSTRUCTION**
44. HAND RAIL WITH 2 X BLOCKS IN WALL, 34 - 38" H., 1-1/2" SPACI BETWN. WALL & HANDRAIL WITH METAL BRACKETS.
 45. BALUSTERS SPACED < 3 3/4"
 46. 3 - 2" X 12" DF 1 STRINGERS
 47. 2 X FIRE BLOCK @ SFT. MAX.
 48. 5/8" CDX PLYWD. RISER/STEP MIN.
 49. HDR. BM. S.S.D.
 50. 2ND. FLR RAIL/W/BALUSTRADE 3FT. - 6" HIGH OR 42" HIGH PONY WALL W/ 2 X 6 FINISHED CAP S.S.D.

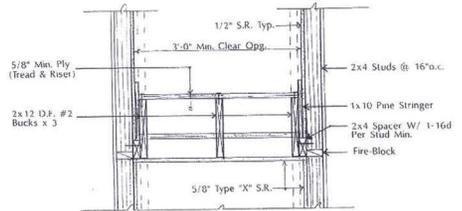
51. STAIR SLOPE RISE AND RUN TO -17"
52. USE 5/8" TYP. (X) GYP. BOARD UNDER STAIRCASE
53. RISE 7.5"
54. STEP 10" MIN.
55. NOSE 1 INCH
56. 2 X SPACER W/16DS AT EA. STUD

57. 26GA. G1 FLASHING 24" H.
58. 1/2" CDX PLYWD. NAIL W/8D'S @ 6" (ENDS) & 12" (FIELD)
59. (E) 4 X 6 BEVELLED BLOCK
60. (E) 2 X 8' RIDGE BM.
61. 8" MIN.

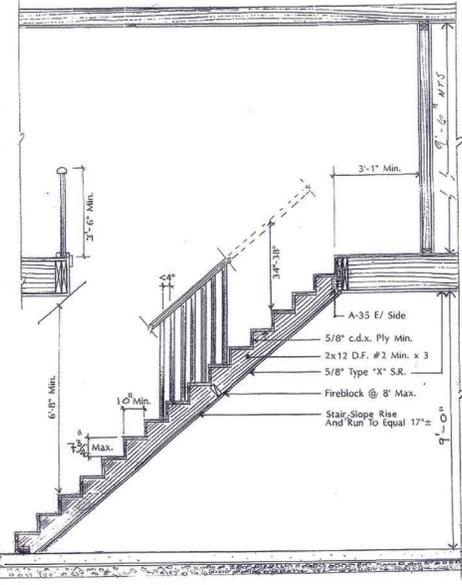
- APPROVAL STAMP**
- 10'-0"
- 8"
- 12"
- 8'-0"



SECTION A-A
SCALE - 1/8" = 1" - 0"



Typical Stairwell Construction 1"=1'-0"



Typical Stair Construction 1/2"=1'-0"

PLAN COMMENTS TO
OWNER/ARCHITECT
FOR REVIEW
DATE: 10-28-22
LOU COSTANZO
STRUCTURAL ENGINEER

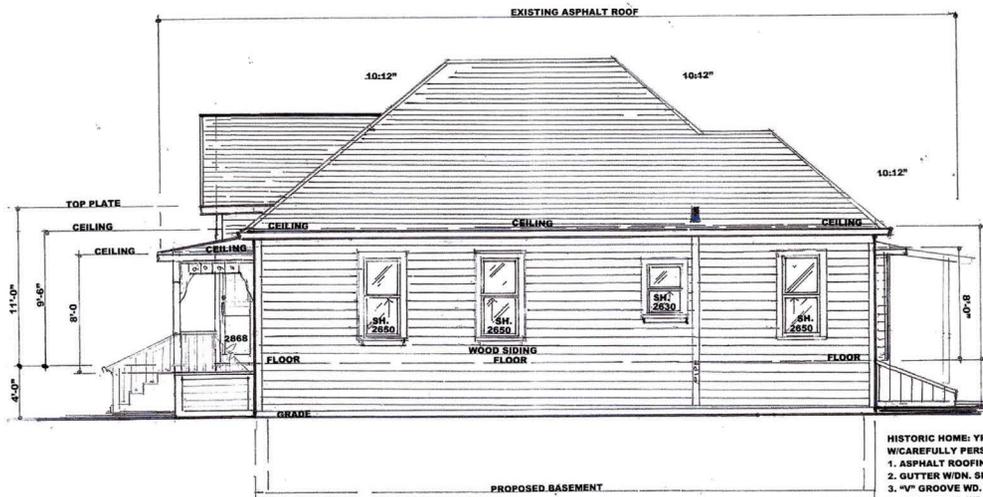
**A PROPOSED BASEMENT AS LIVING WITH STAIRS FOR:
THE SPENCER RESIDENCE
1277 JACKSON ST., SANTA CLARA, CA. 95050
PHONE: (408) 291-1144 FAX: (408) 291-1145
STRUCTURAL ENGINEER: TONY TRUONG P.E. (408) 899-0220**

SECTIONS

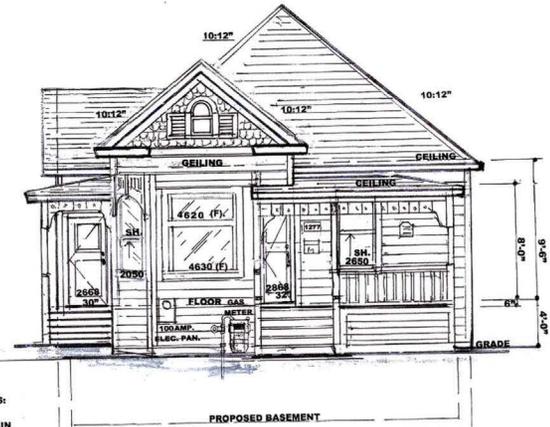
DESIGNER
LOU COSTANZO
CHECKED
S.C.
DATE
10-28-22
SCALE
1/2" = 1'-0"
JOB NO.
S20210
SHEET

A5

OF SHEETS



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

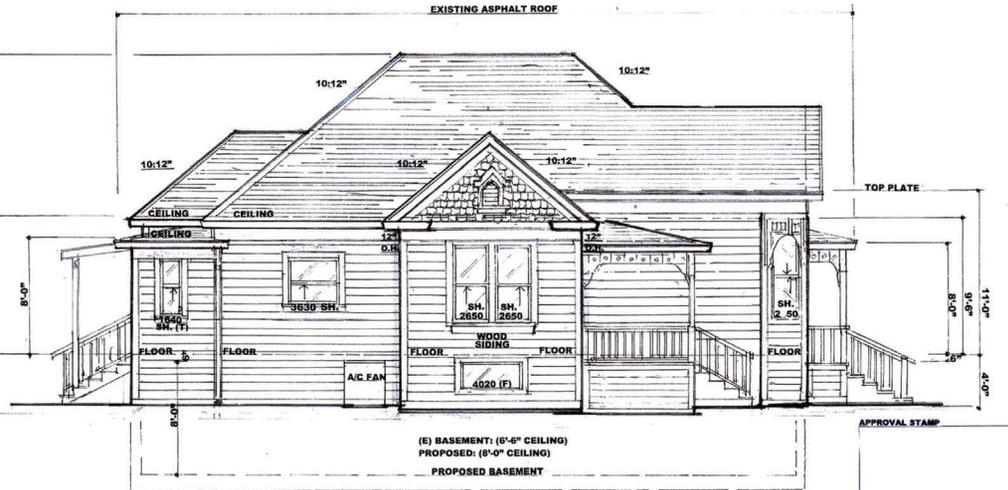


FRONT ELEVATION
SCALE - 1/4" = 1'-0"

- HISTORIC HOME, YR. BUILT: 1890
WCAREFULLY PERSERVED ELEMENTS:
1. ASPHALT ROOFING
 2. GUTTER W/DN. SPOUTS TO FR. DRAIN
 3. 1/4" GROOVE WD. SIDING
 4. GABLE WALL WD. SIDING W/ SCALLOPED ENDS
 5. 1 X 12" TRIMMER UNDER SOFFIT OVERHANGS
 6. 4" WINDOW TRIM TYP.
 7. 14 X 24" GWV. W/TRIM
 8. DBL. 12" X 12" GWV. W/16 X 24 WIN.
 9. SINGLE HUNG WINDOWS
 10. (E) BASEMENT; (6'-6" CEILING)
PROPOSED; (8'-0" CEILING)
 11. PICKET FENCING



REAR ELEVATION
SCALE - 1/4" = 1'-0"



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

EXISTING ELEVATIONS
SCALE - 1/4" = 1'-0"

REVISIONS	BY

PLAN COMMENTS TO:
LUCIO COSTANZO
408-472-8829 CELL
408-472-8829 CELL

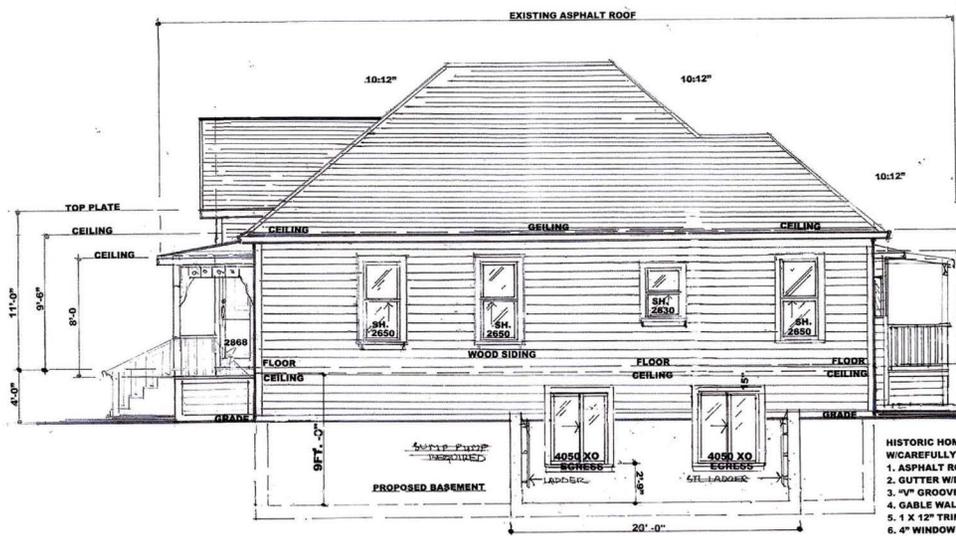
Luc Costanzo

A PROPOSED BASEMENT AS LIVING WITH STAIRS FOR:
THE SPENCER RESIDENCE
1277 JACKSON ST., SANTA CLARA CA. 95050
1277 JACKSON ST., SANTA CLARA CA. 95050
STRUCTURAL ENGINEER: TONY TRUONG P.E. 408-899-0220

EXISTING ELEVATIONS

DRAWN
LOU COSTANZO
CHECKED
S.C.
DATE
12-28-21
SCALE
1/4" = 1'-0"
JOB NO.
S20210
SHEET

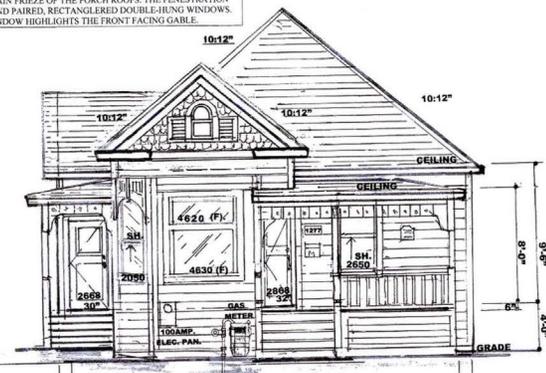
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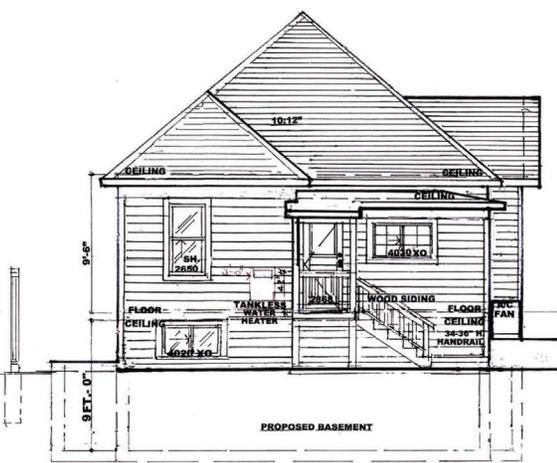
RIGHT-SIDE ELEVATION
SCALE ~ 1/4" = 1'-0"

HOUSE HISTORIC DESCRIPTION:
HOUSE IS A QUEEN ANNE COTTAGE STYLE, SINGLE STORY WOODEN RESIDENCE WITH STEEPLY HIPPED CENTRAL ROOF WITH TWO OFFSET PEDIMENTAL-SHAPED GABLES AND 3 LOW HIPPED PORCH ROOFS PROJECTING FROM IT. THE ROOF IS SHEATHED IN PATTERNS ASPHALT SHINGLES. THE BODY OF THE HOUSE IS SHEATHED IN WIDE SHIP-LAP WITH OVER-SIZED WOODEN ENDBOARDS. FISHS-SCALE SHINGLES ORNAMENT THE TWO GABLES. THE FACADE IS DISTINGUISHED BY A SLIGHTLY CUT-OUT, ANGLED BAY AND TWO PORCHES. THE RECTANGULAR ENTRY PORCH SUPPORTED BY 3 TURNED POSTS AND A SMALL SIDE ENTRY PORCH THAT IS SUPPORTED BY 3 TURNED POSTS. BOTH PORCHES CONTAIN 6 STRAIGHT STEP WOODEN STAIRS/HIGHLY ORNAMENTED BY SUNBURSTS AND CUTOUT WOODEN SCREENS UNDER THE BONED CORNICE AND PLAIN BRIEFS OF THE PORCH ROOFS. THE FENESTRATION IS GENERALLY SINGLE AND PAIRED, RECTANGLED DOUBLE-HUNG WINDOWS. A SMALL PALLADIAN WINDOW HIGHLIGHTS THE FRONT FACING GABLE.

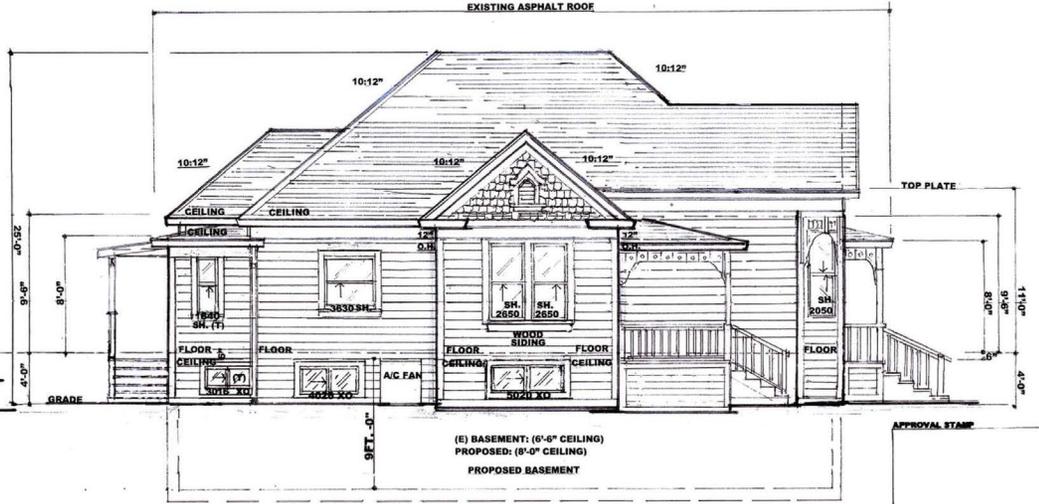
- HISTORIC HOME: YR. BUILT: 1890**
W/CAREFULLY PERSERVED ELEMENTS:
1. ASPHALT ROOFING
 2. GUTTER W/DN. SPOUTS TO FR. DRAIN
 3. 1/4" GROOVE WD. SIDING
 4. GABLE WALL WD. SIDING W/ SCALLOPED ENDS
 5. 1 X 12" TRIMMER UNDER SOFFIT OVERHANG
 6. 4" WINDOW TRIM TYP.
 7. 14 X 24" GWV. W/TRIM
 8. DBL. 12" X 12" GWV. W/16 X 24 WIN.
 9. SINGLE HUNG WINDOWS
 10. (E) BASEMENT: (0'-0" CEILING)
PROPOSED: (8'-0" CEILING)
 11. PICKET FENCING



FRONT ELEVATION
SCALE ~ 1/4" = 1'-0"



REAR ELEVATION
SCALE ~ 1/4" = 1'-0"



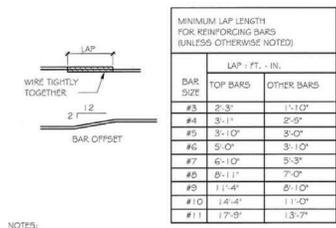
LEFT-SIDE ELEVATION
SCALE ~ 1/4" = 1'-0"

PROPOSED ELEVATIONS
SCALE ~ 1/4" = 1'-0"

REVISIONS	BY

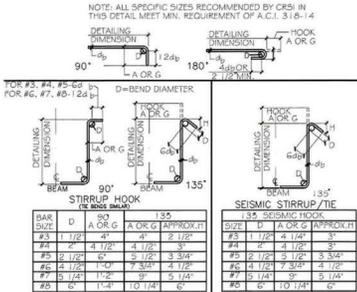
A PROPOSED BASEMENT AS LIVING WITH STAIRS FOR:
THE SPENCER RESIDENCE
 1277 JACKSON ST., SANTA CLARA CA. 95050
 PLAN: LOU COSTANZO 1901 SAN GABRIEL WAY, S.J. 95125 408-264-0220
 STRUCTURAL ENGINEER TONY TRUONG PE. 408 893-0223

DRAWN
 LOU COSTANZO
 CHECKED
 S.C.
 DATE
 12 - 28 - 21
 SCALE
 1/4" = 1'-0"
 JOB NO.
 S20210
 SHEET
A7



NOTES:
 1. TOP BARS ARE HORIZ. BARS SO PLACED THAT MORE THAN 1/2" OF CONCRETE IS CAST IN THE MEMBER BELOW THE BARS.
 2. LAP LENGTHS ARE BASED ON $f_y=60,000$ psi AND $f_c=4,000$ psi.

1 TYP. CONC. REBAR SPLICES

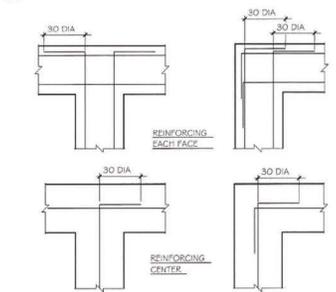


2 STANDARD REBAR HOOKS

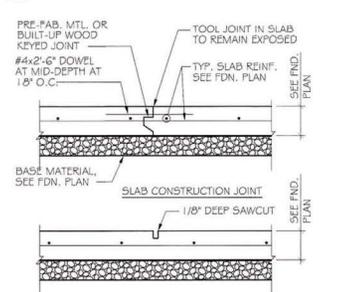
BAR SIZES	D=FINISHED INSIDE BEND DIAMETER	STANDARD HOOKS	STIRRUP/TIE HOOKS
#3, #4, #5	6d _b	4d _b	
#6, #7, #8	6d _b	6d _b	
#9, #10, #11	6d _b	6d _b	
#14, #18	10d _b	10d _b	

d_b = NOMINAL BAR DIAMETER

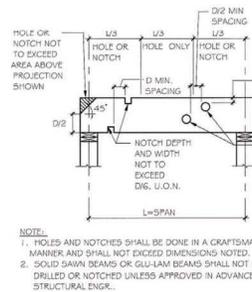
BAR SIZE	D	A OR G	Q	DIMENSIONS OF STANDARD 180° HOOKS, ALL GRADES	DIMENSIONS OF STANDARD 90°/135° HOOKS, ALL GRADES
#3	5"	3"	2 1/4"	6"	2 1/4"
#4	6"	4"	3"	8"	3"
#5	7"	5"	3 3/4"	10"	3 3/4"
#6	8"	6"	4 1/2"	11 1/2"	4 1/2"
#7	10"	7"	5 1/4"	14"	5 1/4"
#8	11"	8"	6"	14"	6"
#9	13"	11 3/4"	9 1/2"	17"	9 1/2"
#10	15"	14 1/4"	10 3/4"	17 1/2"	10 3/4"
#11	17"	17 3/4"	12"	20"	12"
#14	21"	21 3/4"	16 1/4"	23"	16 1/4"
#18	30"	24 1/2"	24"	30"	24"



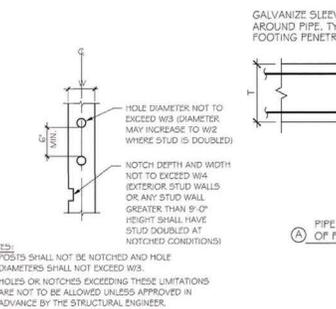
3 CONCRETE FTG. INTERSECTION



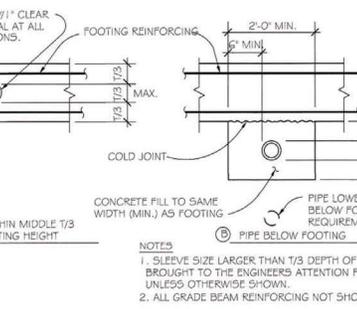
4 SLAB JOINTS



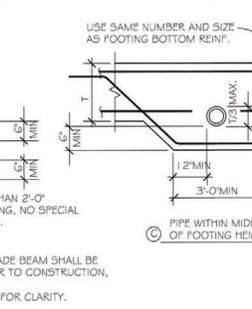
5 JOIST NOTCHING OR DRILLING (SOLID SAWN LUMBER)



6 STUD NOTCHING OR DRILLING



7 TYPICAL PIPE PENETRATIONS THRU FOOTING



CONCRETE NOTES

- CONCRETE STRENGTH - PROVIDE CONCRETE WITH THE FOLLOWING STRENGTHS AT THE LOCATIONS NOTED. MAX DESIGN, SLURRY, AIR ENTRAINMENT, AGGREGATE SIZE, ETC. SHALL BE IN CONFORMANCE WITH THE A.C.I. CODE, LATEST EDITION.

FOUNDATION	STRENGTH (PSI @ 28 DAYS)
BUILDING SLABS-ON-GRADE	2500
EXTERIOR WALKWAYS ON GRADE (see notes under reinforcing below)	2500
- REINFORCING STEEL - ASTM A615 WITH THE FOLLOWING STRENGTHS:

SIZE	STRENGTH
#3 AND SMALLER	GRADE 40 (f _y = 40000psi)
#4 AND LARGER	GRADE 60 (f _y = 60000psi)
- EXTERIOR WALKWAYS, WHERE NOT SPECIFICALLY NOTED ON THE FOUNDATION PLAN, SHALL BE 4" THICK, HAVE A MINIMUM 4" COMPACTED CLASS II BASE, AND SHALL BE REINFORCED WITH 6x6-W/ 5x9" WELDED WIRE FABRIC LOCATED AT MID DEPTH.
- FABRICATE AND PLACE REINFORCEMENT IN ACCORDANCE WITH ACI PUBLICATION SP-66, ACI DETAILING MANUAL - LATEST EDITION.
- PLACE CONCRETE IN COMPLIANCE WITH ACI 318-14. ALL CONCRETE SHALL BE MECHANICALLY VIBRATED.
- COMPLETE COVER FOR REINFORCEMENT FOR NON-PRESTRESSED, CAST IN PLACE CONCRETE SHALL BE AS FOLLOWS:

CONDITION	COVER
CAST AGAINST EARTH	3"
#3 AND SMALLER	1 1/2"
#4 AND LARGER	2"
- REINFORCING - ALL ITEMS TO BE CAST INTO CONCRETE SUCH AS REINFORCING DOWELS, BOLTS, ANCHORS, PIPES, SLEEVES, ETC., SHALL BE SECURELY AND ACCURATELY POSITIONED INTO THE FORMS PRIOR TO PLACING THE CONCRETE.
- CONCRETE JOINTS - THE CONTRACTOR SHALL OBTAIN THE ENGINEER'S APPROVAL FOR CONCRETE CONSTRUCTION JOINT LOCATIONS. REINFORCING STEEL DETAILING MAY CHANGE AND THE CONTRACTOR MAY BE RESPONSIBLE FOR ADDITIONAL DETAILS AS A RESULT.

GENERAL NOTES

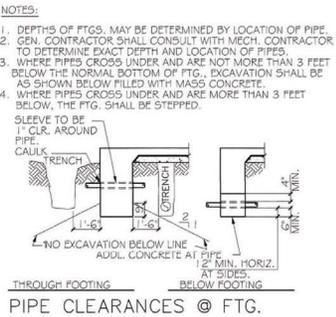
- ALL WORK SHALL BE CARRIED OUT BY A CALIFORNIA LICENSED CONTRACTOR. ALL CONSTRUCTION PROCEDURES SHALL CONFORM TO USIA STANDARDS.
- THE CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINEST STRUCTURES UNLESS OTHERWISE SHOWN. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION OR SHALL SUPERSEDE ANY AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES.
- ALL HOLES DRILLED FOR BOLTS SHALL BE 1/16 INCH LARGER THAN THE BOLT DIAMETER EXCEPT AS NOTED ON PLAN. THE TOP PORTION OF THE BOLTS SHALL NOT DAMAGE EXISTING OR NEW FRAMING ELEMENTS. ALL BOLTS AND THREADS SHOULD BE PROTECTED WITH BUTTS AND WAGNERS.
- TYPICAL NOTES AND DETAILS ARE PROVIDED TO COVER GENERAL CONSTRUCTION CONDITIONS. THE GENERAL CONTRACTOR SHALL FOLLOW THOSE DETAILS AND NOTES PERTAINING TO THE SPECIFIC NATURE OF THE WORK TO BE PERFORMED.
- NOTES AND DETAILS ON THESE STRUCTURAL DRAWINGS SHALL APPLY UNLESS SPECIFICALLY SHOWN OR NOTED OTHERWISE. DETAILS ARE SHOWN IN DIAGRAMMATIC FORM AND ARE NOT TO BE SCALED (SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS, ELEVATIONS, SLOPES, FINISHES, ETC.). CONSTRUCTION DETAILS NOT SHOWN OR NOTED SHALL BE SIMILAR TO DETAILS SHOWN FOR SIMILAR CONDITIONS. ALL WORK OR CONSTRUCTION SHALL CONFORM WITH THE 2022 CBC AND 2021 IBC AND ALL OTHER APPLICABLE REGULATIONS AND SAFETY REQUIREMENTS.
- DISCREPANCIES - THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS (WHERE APPLICABLE) AT THE JOB SITE AS WELL AS THE PROVISIONS OF THE ENTIRE CONSTRUCTION DOCUMENTS AND BRING TO THE ARCHITECT'S ENGINEER ATTENTION ANY DISCREPANCY. IN THE EVENT OF A DISCREPANCY IN THE STRUCTURAL CONSTRUCTION DOCUMENTS, THE NOTE OR DETAIL UTILIZING THE STRICTER REQUIREMENT SHALL APPLY.
- EXCAVATION, SHORING, AND BRACING - IT SHALL BE THE GENERAL CONTRACTOR'S SOLE RESPONSIBILITY TO DESIGN AND PROVIDE ADEQUATE SHORING, BRACING, FORM WORK, ETC., AS REQUIRED FOR PROTECTION OF LIFE AND PROPERTY AND TO SUPPORT ANY CONSTRUCTION LOAD, AND TO MAINTAIN ALL BUILDING COMPONENTS SAFELY IN PLACE PRIOR TO THEIR FINAL ASSEMBLY AND ANCHORAGE INTO THE COMPLETED STRUCTURE.
- INSPECTIONS - ALL INSPECTION AND TESTING SHALL BE PERFORMED ACCORDING TO BUILDING CODE AND/OR LOCAL BUILDING DEPARTMENT REQUIREMENTS.
- COORDINATION - REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND ALL OTHER PERTINENT DRAWINGS FOR THE SIZE AND LOCATION OF PIPE, VENT, DUCT AND OTHER OPENINGS AND DETAILS NOT SHOWN ON THESE STRUCTURAL DRAWINGS. ALL DIMENSIONS ARE TO BE CHECKED AND VERIFIED WITH THE ARCHITECTURAL DRAWINGS.

TIMBER NOTES

LUMBER SCHEDULE: (UNLESS OTHERWISE NOTED ON FRAMING PLANS)

USE	SIZE / TYPE	SPECIES	GRADE
FRAMING	2'-4" THICK	DF	NO. 2
ROOF JOIST	2'-6" WIDE		
CEILING JOIST	2'-4" THICK, 3" AND WIDER	DF	NO. 2
BEAMPOST	ANY	DF	NO. 2
SKILL	ANY	DF	PREST. TRTD. #2
PSL BEAM	2.2 E ICC ESR-1387I	(TRUSS JOIST MAX/MILLAN)	

PIPE CLEARANCES @ FTG.



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STRUCTURAL NOTES AND DETAILS

Date: 7-23
 Scale: AS NOTED
 Engineer: T.T.
 Reviewed: P.S.
 Job: S-2023-24
 Sheet: 50 of 50

NOTE: A MINIMUM OF TWO SILL ANCHORS ARE TO BE PROVIDED PER PLATE, AND THAT THEY ARE TO BE LOCATED NOT MORE THAN 12-INCHES OR LESS THAN SEVEN BOLT DIAMETERS FROM THE ENDS AS REQUIRED BY (CRC R403.1.6.)

NOTE 1:
 1. CONTRACTOR SHALL VERIFY EXISTING FOUNDATIONS IS CONVENTIONAL AND NOT A PIER AND GRADE BEAM FOUNDATION. CONTRACTOR SHALL ALERT STRUCTURAL ENGINEER IF EXISTING FOUNDATION IS PIER AND GRADE BEAM PRIOR TO CONSTRUCTION.
 2. ALL ANCHOR EDGE DISTANCE FROM CONCRETE EDGE SHALL BE 2 INCHES MINIMUM (UNLESS NOTIFY OTHERWISE), TYPICAL.

NOTE 2:
 a) FASTENERS FOR PRESERVATIVE-TREATED WOOD SHALL BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER (R3.17.3.1).
EXCEPTIONS:
 1. ONE-HALF-INCH DIAMETER OR GREATER STEEL BOLTS.
 2. PLAIN CARBON STEEL FASTENERS IN SBWDOT AND ZINC BORATE PRESERVATIVE-TREATED WOOD IN AN INTERIOR, DRY ENVIRONMENT SHALL BE PERMITTED.

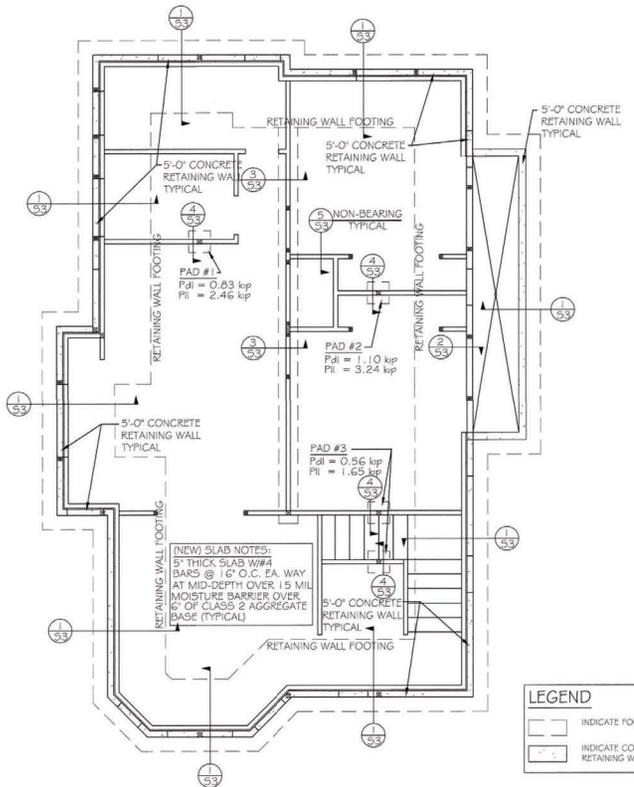
b) FASTENERS, INCLUDING NUTS AND WASHERS, FOR FIRE-RETARDANT-TREATED WOOD USED IN EXTERIOR APPLICATIONS OR WET OR DAMP LOCATIONS SHALL BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER (R3.17.3.3).

NOTES
 1. THE NEW FOUNDATION AT THE NEW ADDITIONS ARE DESIGN PER CRC-2022 MINIMUM (1,500 PSF) (CRC TABLE R401.4.1) ALLOWABLE BEARING. THE NEW FOUNDATIONS ARE DESIGN WITHOUT A SOIL REPORT, HOWEVER, IF THE CITY REQUIRED A SOIL REPORT FOR THIS PROJECT, THE OWNER SHALL PROVIDE ONE. IN THE FUTURE IF THERE ARE ANY SETTLEMENTS AND CRACKS TO THE NEW FOUNDATIONS LOCATION, THE ENGINEER OF RECORD AND TRUONG DESIGN SHALL NOT TAKE ANY RESPONSIBILITY FOR THESE RESULT.

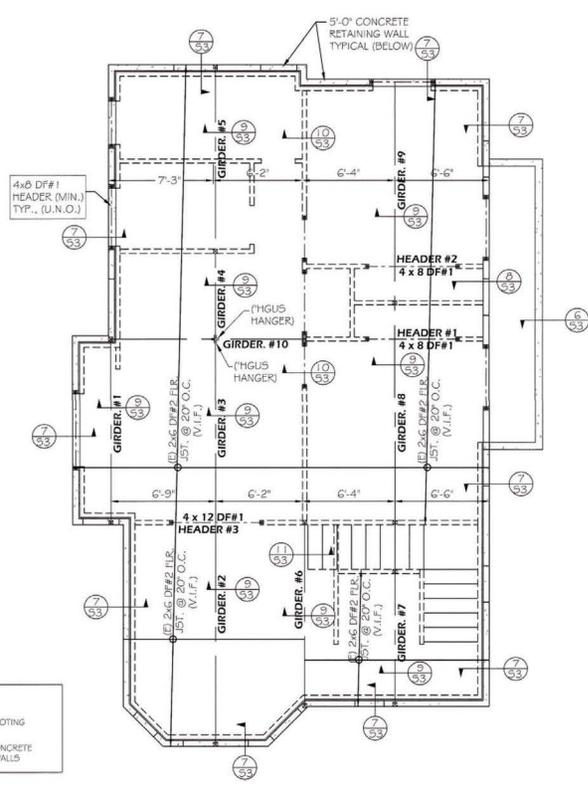
BEAMS SCHEDULE: (NOTE: CONTRACTOR SHALL VERIFY ALL ACTUAL SPAN OF ALL BEAMS)

DESCRIPTION	SPAN	BEAM SIZE	HANGER (FACE MOUNT)	MAX. LOAD (lbs.)	BEAM TO COLUMN (CONN.)	BEAM SUPPORT
GIRDER #1	11'-9"	3.5" x 9.5" 2.2E P5L BM.	-	-	"EPC2" AND "PC2" POST CAP	4x4 PTD#2 POST
GIRDER #2	14'-10"	3.5" x 9.5" 2.2E P5L BM.	-	-	"EPC2" AND "PC2" POST CAP	4x4 PTD#2 POST
GIRDER #3	12'-7"	3.5" x 9.5" 2.2E P5L BM.	HGU5	9,100	"EPC2" AND FACE MOUNT HANGER	4x4 PTD#2 POST
GIRDER #4	6'-0"	3.5" x 9.5" 2.2E P5L BM.	HGU5	9,100	"EPC2" AND FACE MOUNT HANGER	4x4 PTD#2 POST
GIRDER #5	12'-3"	3.5" x 9.5" 2.2E P5L BM.	-	-	"EPC2" AND "PC2" POST CAP	4x4 PTD#2 POST
GIRDER #6	12'-0"	3.5" x 9.5" 2.2E P5L BM.	-	-	"EPC2" AND "PC2" POST CAP	4x4 PTD#2 POST
GIRDER #7	8'-8"	3.5" x 9.5" 2.2E P5L BM.	-	-	"EPC2" AND "PC2" POST CAP	4x4 PTD#2 POST
GIRDER #8	12'-8"	3.5" x 9.5" 2.2E P5L BM.	-	-	"EPC2" AND "PC2" POST CAP	4x4 PTD#2 POST
GIRDER #9	12'-3"	3.5" x 9.5" 2.2E P5L BM.	-	-	"EPC2" AND "PC2" POST CAP	4x4 PTD#2 POST
GIRDER #10	13'-0"	3.5" x 9.5" 2.2E P5L BM.	-	-	"EPC2" AND "PC2" POST CAP	4x4 PTD#2 POST

DESIGN CRITERIA:
 1. SCOPE: CONVERT BASEMENT TO LIVING
 ROOF DL = 14.5 psf; ROOF LL = 20.0 psf; EXTERIOR WALL DL = 9.0 psf
 FLOOR DL = 12.0 psf; FLOOR LL = 40.0 psf; INTERIOR WALL DL = 8.0 psf
 MINIMUM ALLOWABLE BEARING: 1,500 psf. (CRC TABLE 401.4.1)



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



FIRST FLOOR FRAMING PLAN AT BASEMENT
 SCALE: 1/4" = 1'-0"

FOUNDATION / FIRST FLOOR PLAN NOTES

- CONFIRM ALL DIMENSIONS AND ELEVATIONS WITH THE LATEST ARCHITECTURAL DRAWINGS. ALERT THE ARCHITECT OF ANY DISCREPANCY. DO NOT SCALE THE STRUCTURAL DRAWINGS.
- REFER TO STRUCTURAL NOTES ON SHEET 50.
- FOR TYPICAL CONCRETE REBAR SPLICES REFER TO DETAIL 1/50.
- FOR TYPICAL REINFORCING AT FOUNDATION INTERSECTION, REFER TO DETAIL 3/50.
- FOR STANDARD REBAR HOOKS, REFER TO DETAIL 2/50.
- FOR TYPICAL SLAB JOINT, REFER TO DETAIL 4/50.
- FOR PIPE THROUGH FOOTING, REFER TO DETAIL 7/50.
- FOR STUD AND JOIST DRILLING OR NOTCHING, REFER TO DETAILS 5 AND 6/50.
- FOR WALL PLYWOOD, REFER TO DETAIL 1/2/53.
- FOR FLOOR PLYWOOD, REFER TO DETAIL 1/3/53.
- SHEATH ALL NEW EXTERIOR WALLS WITH 1/2" CDX EXPOSURE 1, A.P.A. RATED PLYWOOD WITH 8@4 @ 6" O.C. (EDGE, P.E.N.) 12" O.C. FIELD. ALL EDGES ARE TO BE NAILED TO 2x BLOCKING MINIMUM. PROVIDE PLYWOOD EDGE NAILING (P.E.N.) TO ALL POSTS, DOUBLE TOP PLATES, BOTTOM SOLE PLATES, MUD SILLS, EDGE JOISTS, JOIST END BLOCKS, AND OTHER LOCATIONS NOTED IN THE DRAWINGS. (AT 2x CRIPPLE WALLS TO NEW CONCRETE RETAINING WALLS)
- SHEATH NEW FLOOR WITH 3/4" T&G A.P.A. RATED 1STUD-I-FLOOR, EXPOSURE 1 PLYWOOD WITH FACE GRAIN PERPENDICULAR TO JOISTS WITH ADHESIVE TO BEARING SURFACES AND T&G JOINTS WITH 10@4 @ 6" O.C. EDGES, P.E.N.) 10" O.C. (FIELD). STAGGER END SPLICES. (AS REQUIRED)
- ALL POSTS SHOWN AND KING POSTS SHOWN SHALL BE 4x STUD WALL THICKNESS, U.O.N. (S.A.D. FOR STUD WALL THICKNESS); TYPICAL POST TO BEAM CONNECTIONS SHALL BE EPIC5 @ ENDS & PCS @ INTERIOR SUPPORTS, U.O.N. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING THE CORRECT POST CAP SIZE. PLYWOOD SHALL BE USED WHERE SHIMMING IS REQUIRED.

Revisions	By

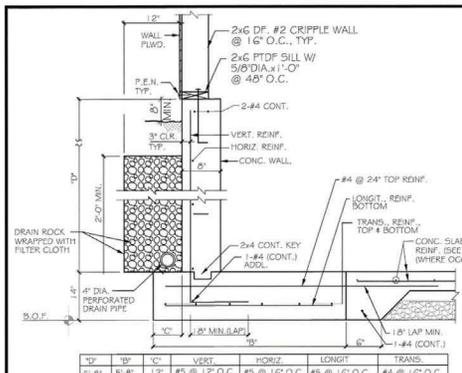
TRUONG DESIGN
 500 E. CALAVERA BL. (N.D. SUITE 218)
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ENGINEER'S SIGNATURE

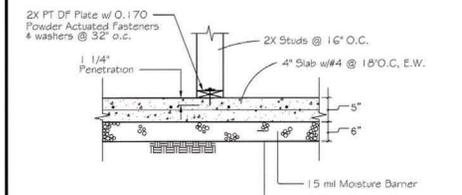
FOUNDATION & FIRST FLOOR FRAMING AT BASEMENT

A BASEMENT AS LIVING W/STAIR FOR:
SPENCER RESIDENCE
 1277 JACKSON STREET
 SANTA CLARA, CA 95050

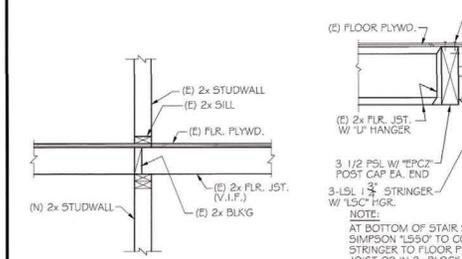
Date: 7-8-23
 Scale: AS NOTED
 Engineer: T.T.
 Reviewed: P.S.
 Job: S-2023-24
 Sheet: **S1**
 of 1 Sheets



1 TYP. CONC. RETAINING WALL DETAIL



5 NON-SHEAR / NON-BEARING WALLS AT CONCRETE SLAB



10 SECTION AT BEARING WALL



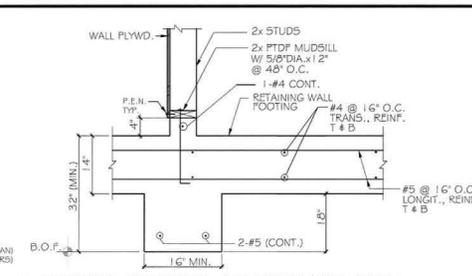
11 STAIR SECTION



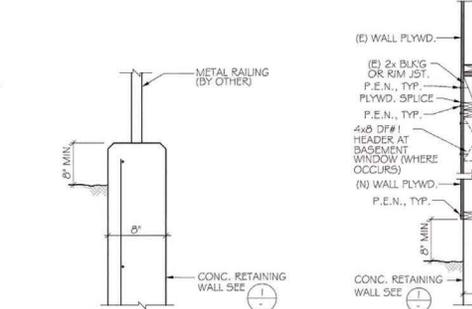
12 PLYWOOD SHEAR WALLS



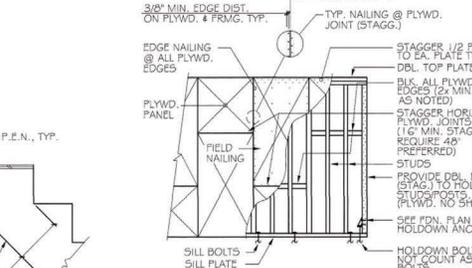
13 ROOF/FLOOR PLYWOOD



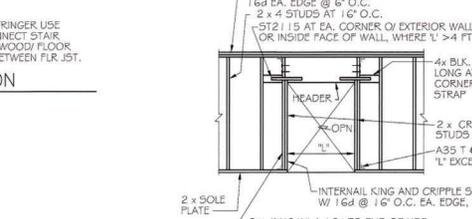
2 THICKEN FOOTING AT EXTERIOR WALL



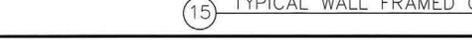
6 SECTION AT LIGHT WELL (RETAINING WALL)



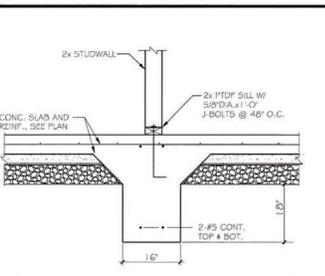
7 FLOOR SECTION AT RETAINING WALL



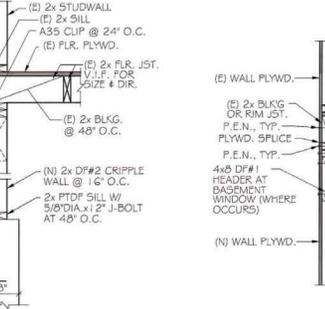
14 DOUBLE TOP PLATE SPLICE



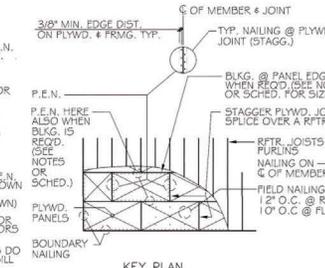
15 TYPICAL WALL FRAMED OPNG.



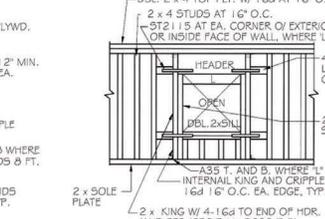
3 SECTION AT BEARING WALL



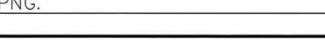
8 FLOOR SECTION AT LIGHT WELL



9 SECTION AT PSL GIRDER



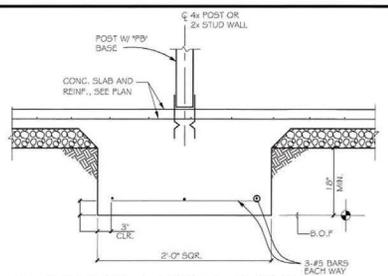
10 SECTION AT BEARING WALL



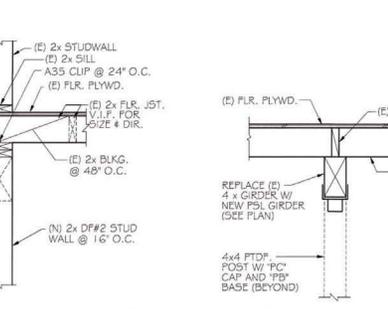
11 STAIR SECTION



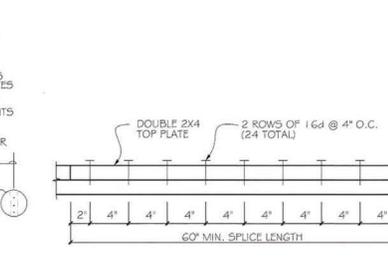
12 PLYWOOD SHEAR WALLS



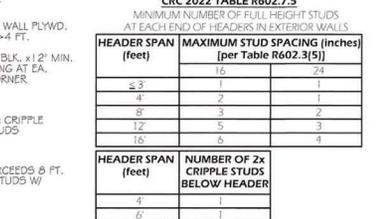
4 INTERIOR FOOTING SECTION



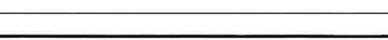
5 NON-SHEAR / NON-BEARING WALLS AT CONCRETE SLAB



6 SECTION AT LIGHT WELL (RETAINING WALL)



7 FLOOR SECTION AT RETAINING WALL



8 FLOOR SECTION AT LIGHT WELL



9 SECTION AT PSL GIRDER

CRC 2022 TABLE R602.7.5
MINIMUM NUMBER OF FULL HEIGHT STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS

HEADER SPAN (feet)	MAXIMUM STUD SPACING (inches) [per Table R602.3(5)]
≤3	24
4	1
8	3
12	5
16	6

CRC 2022 TABLE R602.7.5
MINIMUM NUMBER OF FULL HEIGHT STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS

HEADER SPAN (feet)	NUMBER OF 2x CRIPPLE STUDS BELOW HEADER
4	1
8	1
12	2
16	2

NOTES:
1. PROVIDE EDGE FASTENING FROM WALL GYP. BD. AND PLYWD. TO HDR., KING AND CRIPPLE STUDS AND CORNER BLOCKS.
2. REFER TO C.B.C. TABLE 2304.10.1 FOR ADDITIONAL NAILING

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A BASEMENT AS LIVING W/STAIR FOR:

STRUCTURAL DETAILS

Date: 7-9-23
Scale: AS NOTED
Engineer: T.T.
Reviewed: P.S.
Job: S-2023-24
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[CRC 314.486, 315.586]

LIGHTING:

Electrical - Lighting:

- All installed lighting shall be high efficiency [CNC 150.001(A)]
- Under-cabinet lighting must be switched separately from other lighting [CNC 150.002(G)]

KITCHENS

Electrical - Lighting:

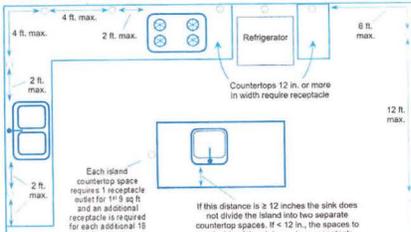
- All installed lighting shall be high efficiency [CNC 150.001(A)]
- must be switched separately from other lighting [CNC 150.002(G)]

Electrical - Branch Circuits:

- A minimum of two 20-amp small appliance branch circuits are required to serve countertop and wall receptacles in the kitchen, pantry and dining room [CEC 210.11(C)(1)]. No built-in appliances are allowed on these circuits (except an electric clock or the ignition of a gas range).
- Individual (dedicated) circuits are required for garbage disposals, microwaves, compactors, and dishwashers [CEC 210.19(A)(1)(a)].
- AFCI (arc-fault circuit-interrupter) protection is required for all 120V 15-20-amp branch circuits supplying kitchen outlets or devices. [CEC 210.12(A)]

Electrical - Receptacles:

- Receptacles shall be installed at each countertop space 2 1/2 in. in width. Receptacles shall be installed so that no point along the wall line is more than 24 inches horizontally from an outlet in that space [CEC 210.52(C)(1)]. The maximum spacing between receptacles, measured on the wall/countertop line, is 48 inches.



- All receptacles serving kitchen countertop surfaces shall have GFCI protection [210.84(A)].
- Countertop receptacles shall not be installed in a face-up position [CEC 406.5(2)]. Listed "top-up" receptacles are allowed [CEC 210.52(C)(5)]. Receptacles or outlets can be installed on the underside of the cabinet above the countertop if within 20 inches of the countertop.
- Dishwashers require GFCI protection, including 240-volt dishwashers [CEC 210.84(A)(7), 422.54(A)(7)].
- All GFCI device controls must be in readily accessible locations. Outlets behind a dishwasher are not readily accessible. GFCI protection can be provided by using a GFCI circuit breaker.
- All general purpose and countertop receptacles must be tamper resistant [CEC 406.5(2)].
- All 125-volt through 250-volt receptacles installed in kitchen cabinets within 8 ft. of sink shall have ground-fault circuit-interrupter protection for personnel [CEC 210.84(A)].
- At least one receptacle required within 2 ft. of the outer end of peninsula. A peninsula countertop shall be measured from the connected perpendicular wall [CEC 210.52(C)(7)(b)].
- Receptacles shall not be installed in a face-up position in the area below a sink [CEC 406.5(2)(2)].
- Corner sinks require the space on each side when the distance between the corner and the sink is < 18 inches. If > 18 in., the 2 ft. 1/4 in. rule continues behind the sink [CEC 210.52(C)(1)].



- On islands and peninsulas only, receptacles are allowed on the side of the cabinet, not more than 12 inches below the countertop and with no overhanging countertop greater than 6 inches [CEC 210.52(C)(5)(c)].
- An island or peninsula is considered divided into separate countertop spaces when a sink or range is installed and does not have 12 inches of space behind it. See the diagram on page 2.
- Bar-type counters are considered wall space. Wallspaces 2 ft. long require receptacles so that no portion of the wall is more than 4 ft. from a receptacle outlet, measured at the floor/ceiling line [CEC 210.52(A)(1) & (2)].
- A range hood/microwave combination can be connected to the circuit if the circuit is an individual (dedicated) branch circuit. The receptacle outlet shall be a single type, not a duplex receptacle that would accept two plugs [CEC 422.10(B)(4)].

Kitchen Plumbing:

- Dishwashers shall be connected with an approved drainage air gap device located above the flood level rim of the sink [CPC 807.3].
- Newly installed kitchen faucets shall not exceed 1.8 gallons per minute [GRN 4.303.1.4.4]. All existing plumbing fixtures not included in the scope of new work shall be repaired if necessary to comply with ASHRAE Plumbing Fixtures Replacement requirements - See Water Conservation/Certification Form.
- A gas test is required on all piping modifications of at least 10 PSI for 15 minutes. A maximum 15 PSI gauge is required for the gas test [CPC 1213.3].
- Gas lines that run under a slab shall run through an approved, vented, gas tight conduit [CPC 1210.1(d)].
- An accessible shutoff valve shall be installed outside each appliance and ahead of the union connected thereto and in addition to any valve on the appliance [CPC 1212.6].
- Appliance gas flexible connectors shall be list and of minimum length but not to exceed 6 feet [CPC 1212.3].
- All hot water pipes require insulation to be at least the thickness of the pipe diameter [CPC 609.12, 908.12-2].

Kitchen Mechanical:

- A mechanical permit is required to replace a kitchen exhaust hood that includes an outside air vent. The vent must terminate on the building exterior at least 3 ft. from other openings into the building [CNC 502.2.1].
- A mechanical exhaust duct is not included in the scope of new work shall be repaired if necessary to comply with at least 100 CFM. Mechanical exhaust fans including downblast appliances shall have exhaust rate at a minimum 30 CFM [CNC 405.4, 405.4.1].
- A ducted residential exhaust hood is required and shall be constructed of metal with a smooth interior surface. Flexible (corrugated) ducting is not allowed for exhaust hoods. Provide back draft protection [CNC 504.1.1, 504.3].
- Minimum 30" vertical clearance above cooktop surface to combustibles or metal cabinets [CNC 422.3].

BATHROOMS

Bath Electrical:

- All installed lighting shall be high efficiency [CNC 150.001(A)].
- At least one light shall be controlled by a vacancy sensor (a manual-on, automatic-off occupancy sensor) [CNC 150.002(A)].
- Exhaust fans must be switched separate from lighting, with the exception that lighting integral to an exhaust fan can be on the same switch if the fan is controlled by a humidistat that continues its operation after the light is off.
- All receptacle outlets in bathrooms shall be GFCI protected [CEC 210.84(A)(1)].
- All receptacle outlets in bathrooms shall be tamper resistant [CEC 406.12(A)].
- When a bathtub or shower stall is in an area not technically considered a bathroom (by the definitions in the electrical code), receptacles within 8 ft. of the tub/shower stall must be GFCI-protected [CEC 210.84(A)(1)].
- A receptacle outlet is required within 3 feet of each wash basin location. It may be on the wall, or an adjacent partition, or on the face or side of the cabinet not more than 12 inches below the top of the basin [CEC 210.52(D)].
- Receptacles cannot be face-up in a vanity surface; listed top-up receptacles are allowed [CEC 406.5(2) & 210.52(D)].
- A minimum of one 110-volt, 20-amp circuit is required for the receptacle outlet(s) within 8 ft. of the outside edge of the sink basin in the bathroom. This circuit can share multiple bathroom receptacles within 3 ft. of edge of sink basin or countertops and similar work surfaces but can have no other outlets, including lights [CEC 210.11(C)(3), 210.52(D)]. However, if a 20-amp circuit serves only one:
- Bathroom, lights and fans can be on the same circuit with the receptacles in that bathroom [CEC 210.11(C)(3) exception].
- Hydro-message tube require an individual (dedicated) branch circuit and readily accessible GFCI protection [CEC 880.7.1]. An access door is required and must be large enough to remove the motor and pump. Cord-connected equipment must have the receptacle facing the opening and be no more than one foot behind the access hatch [CEC 880.7.3].



- Recessed light fixtures in shower enclosures must be listed for a damp or wet location [CEC 410.10(A)].
- Pendant light fixtures, track lights, and paddle fans shall not be installed lower than 8 feet above the flood-level rim of a tub, including areas 3 feet past the edge of the tub [CEC 410.10(D)].
- Electrical panels shall not be installed in bathrooms [CEC 240.24(E)].
- All 125-volt through 250-volt receptacles installed in bathrooms, within 8 ft. of bathtub or shower enclosure, within 8 ft. of any sink, or floor damp locations shall have ground-fault circuit-interrupter protection for personnel [CEC 210.84(A)].
- Shower and receptacles are not allowed in bathtub or shower spaces. Receptacles shall not be installed in shower stalls [CEC 410.10(A)].

Bathroom Plumbing, General:

- All hot water pipes require insulation thickness to be at least equal to the pipe diameter [CPC 609.12, 908.12-2].
- Newly installed plumbing fixtures shall be water-conserving in compliance with the California Plumbing Code and Green Building Standards:
 - Water closets shall not exceed 1.28 gallons per flush [CPC 411.3, CGSBC 4.303.1.1].
 - Showersheds shall not exceed 1.8 GPM at 80 psi [CPC 408.2.1, CGSBC 4.303.1.3].
 - Lavatory faucets shall not exceed 1.2 GPM at 60 PSI [CPC 407.2.2].
- All existing plumbing fixtures not included in the scope of new work shall be replaced if necessary to comply with ASHRAE Plumbing Fixtures Replacement requirements - See Water Conservation/Certification Form.

Bathroom Plumbing, Shower:

- Shower stalls require a minimum of 102.4 sq. inches and a 30" circle must fit from the back of the finished shower wall to middle of the dam. Shower doors must swing out and must be at least 27" wide [CPC 406.5, 406.6]. The curb may encroach on these size requirements. All surfaces shall be waterproof up to 72 inches above the drain inlet [CPC 1307.2].
- Safety glass (tempered or laminated) is required for all glass shower doors and partitions and for windows in walls facing the tub or shower and located less than 60 inches above the standing surface of the tub/shower and within 60 inches horizontally [CPC 1308.4.1(1)(a)(5)].
- Showers require a minimum 1/2 inch drain and trap [CPC Table 702.1].

Bathroom Plumbing, Toilets & Bidets:

- Toilets and bidets require a minimum 15 inches of clearance from the center line of the bowl to each side, and 24 inches of clearance from the front edge of the bowl [CPC 402.5].
- Lavatory sinks require a minimum of 24 inches front clearance [CPC 402.5].
- The maximum water temperature to a shower or tub/shower combination is 120°F. The water heater thermostat cannot be used as the control for this temperature. Valves shall provide scald and thermal shock protection, and be pressure-balanced, thermostatic, or combination pressure-balanced/thermostatic mixing in accordance with ASSE 1016 or ASME A112.18.1/CSA B125.1 [CPC 408.3.2].

Mechanical:

- Mechanical ventilation is required in all bathrooms with tubs or showers. Operable windows is not an accepted way of providing bathroom exhaust for humidity control [CNC 405.3, CGSBC 4.506.1, CPC 303.3.1]. The fan capacity must be minimum 50 CFM of air and be separately controlled from the lighting. Fans that operate continuously can be 20 CFM [CNC 405.3, 405.3.1]. The duct must terminate in the exterior not less than 3 feet from openings into the building, 3 ft. from a property line or 10 ft. from a forced air inlet [CNC 502.2.1].
- Bathrooms with no tub or shower (half bath) do not require mechanical ventilation if they are provided with a window at least 3 sq. ft. half of which is operable [CPC R303.3].

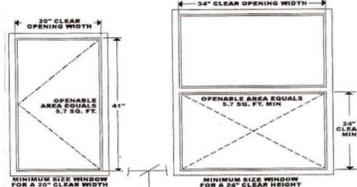
Tile & Backing:

- Water-resistant gypsum board (purple board) can be used as a tile backer board in areas that are not subject to direct exposure to water or high humidity [CPC 702.3.7.1]. Examples would be a wall behind a toilet or above a vanity countertop. Purple board cannot be used in a shower for direct application of tile. It can be used in showers behind a water-resistant membrane with mortar bed and with other acceptable materials for application of tile in showers include cement board, fiber-cement board or glass mat gypsum backers [CPC 702.4.2].
- Bathrooms and shower floors and walls above bathtubs with installed shower heads and no shower compartments shall be finished with a nonabsorbent surface. Such wall surfaces shall extend to a height of not less than 6 feet above the floor [CPC R307.2].

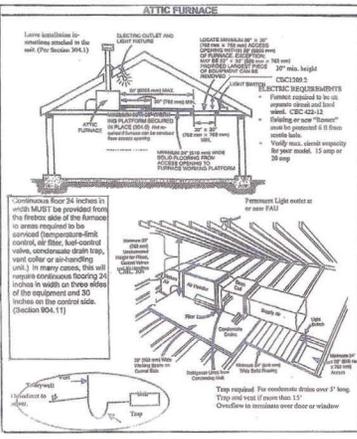
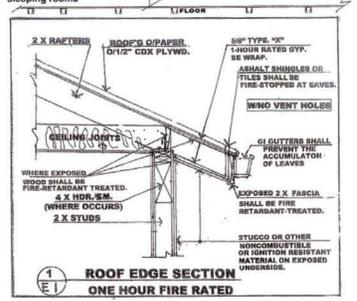
Laundry Rooms

Electrical:

- All new or altered lighting shall be high efficiency [CNC 150.001(A)].
- At least one light shall be controlled by a vacancy sensor (a manual-on, automatic-off occupancy sensor) [CNC 150.002(A)].
- All 125-volt through 250-volt receptacles in laundry areas require GFCI protection, including but not limited to the clothes washer and dryer receptacles [CEC 210.84(A)(1)].
- All non-locking type 125-volt, 15- and 20-amp receptacle outlets shall be listed tamper-resistant, except those within dedicated space for an appliance not easily moved from one place to another (behind clothes washer) [CEC 406.12(A)].
- A separate 20-amp circuit is required for the laundry equipment. The lights and other receptacles in the room cannot be on that circuit [CEC 210(C)(2)].
- All circuits supplying outlets or devices in the laundry area (including laundry areas in garages) must be AFCI protected [CEC 210.12(A)].



44" max. from bottom of clear opening to floor in egress windows in sleeping rooms

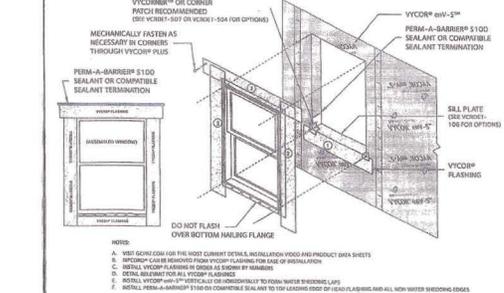


Plumbing:

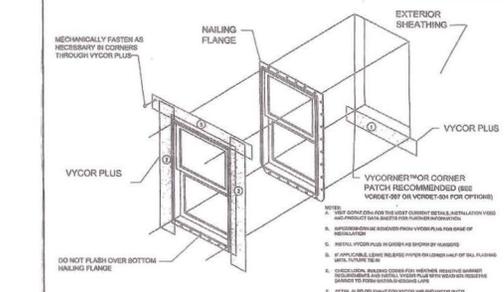
- Clothes washer standpipes must be 2-inch diameter. The weir of the trap must be roughed in 6 - 18 inches above the floor; the standpipe must be a minimum of 18 and a maximum of 30 inches above the trap [CPC 804.1].

Mechanical:

- Clothes dryers in closets require a minimum of 100 sq. in. of opening for makeup air which can be supplied by louvers or undercutting the door [CNC 504.4.1].
- Dryer ducts must be smooth-walled rigid metal at least 4-inch diameter and not more than 14 feet in length. Two 90° bends are allowed within the 14 ft. and for 90° bends in excess of two deduct 2 ft. from allowed 14 ft. length for each additional bend [CNC 504.4.1].
- Ducts may not pass through plenums or be shared with other systems or vents. They cannot be connected with screws that penetrate the duct interior [CNC 504.4].
- Dryer ducts must terminate on the building exterior in a backdraft damper. Screens or louvers cannot be installed [CNC 504.4].
- Flexible transition ducts (connections) between the dryer and the metal duct are allowed in lengths up to 6 feet and cannot be concealed within construction [CNC 504.4.2.2 exception]. They must be UL listed and labeled (E.L.) as dryer transition ducts, and cannot be plastic.



Flashing YVOR907-100
Scale: Not to scale
Effective Date: 08/04/19
Supersedes: N/A



Flashing YVOR908-102
Scale: Not to scale
Effective Date: 01/21/20
Supersedes: 09/13/03

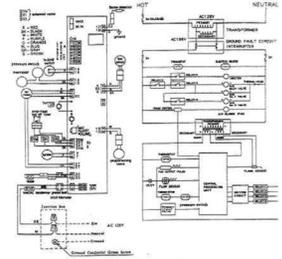
REVISIONS	BY

PLAN COMMENTS TO: PROJECT MANAGER
DATE: 11/1/2019
686-975889 CELL
686-975889 FAX
LOU COSTANZO

A PROPOSED BASEMENT AS LIVING WITH STAIRS FOR:
THE SPENCER RESIDENCE
1277 JACKSON ST., SANTA CLARA CA. 95050
PLAN: LOU COSTANZO - 1501 SAN GABRIEL WAY, S. 4. 95125 408-264-0220
STRUCTURAL ENGINEER: TONY TRUONG PE. 408-899-0220

NOTES

DRAWN: LOU COSTANZO
CHECKED: S.C.
DATE: 5-22-23
SCALE: NONE
PROJECT NO.: S-28210
SHEET: E1



Wiring Diagram
 Note: If any of the original wiring supplied with this appliance must be replaced, it must be replaced with appliance wiring material (AWM) of the equivalent. This is indicated by the manufacturer.

For Your Safety

- Follow all local codes, or in the absence of local codes, follow the most recent edition of the National Fuel Gas Code, ANSI Z223.1/NFPA 54 in USA or the CSA standard, CAN/CSA B149.1 or 2 Installation Codes for Gas Burning Appliances in Canada.
 - Properly ground the unit in accordance with all local codes, or in the absence of local codes, with the National Electrical Codes, ANSI/NFPA 70 in the USA or CSA standard C22.1 Canada Electrical Code Part 1 in Canada.
 - Carefully plan where to install your Flash Water Heater. Insure that your heater will have enough combustible air, proper ventilation, and locate your heater where water leakage will not do damage to surrounding areas. If there is a possibility of water damage, install a suitable drain pan under the unit, which will not restrict combustible airflow.
 - Check the rating plate for the correct gas type, gas pressure, water pressure, and electrical rating. Do not install this unit if these requirements can't be met.
-
- If a problem should occur, turn off all hot water taps and turn off the gas. Call a trained technician, the Gas Company, or the manufacturer.

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Specifications

Natural Gas Input	Min. 37,000 Btu	Max. 165,000 Btu
LP Gas Input	Min. 35,000 Btu	Max. 165,000 Btu
Gas Connection	3/4" NPT	
Water Connections	3/2" NPT	
Water Pressure	Min. 15 psi	Max. 150 psi
Natural Gas Pressure Inlet	Min. 5" WC	Max. 10.5" WC
LP Gas Pressure Inlet	Min. 11" WC	Max. 14" WC
Manifold Pressure	Natural 3.2" WC	Propane 4.0" WC
Weight	60 lbs.	
Dimensions	24.5" H x 18.3" D	
Ignition	Electronic Ignition	
Electrical Supply	AC 120 V	

Flow

The flow rate through the T-K1 is limited to a maximum of 5.5 GPM. The flow rate, along with the supply temperature of the water, will determine the outlet temperature of the water. Consult the flow charts on the last page of this manual to determine the possible outlet temperature and flow rate combinations. Based on the United States Department of Energy model testing water heater outlet, the T-K1 is rated for 216 gallons per hour, or 3.6 GPM, at a 77° F inlet water and inlet temperature. Refer to the following chart of typical household flow rates to determine what the T-K1 can do in a household application. Remember that for bathing, cold water will be mixed for a comfortable temperature, increasing the flow output rate.

Appliance / Flow Rate	Flow Rate (GPM)
Lavatory Faucet	1.0
Bath Tub	4.0
Shower	2.0
Kitchen Sink	1.5
Dishwasher	1.5
Washing Machine	2.0

Taken from UPC 1997

Freeze Protection

This unit comes equipped with heaters that discourage the unit from freezing. For this freeze prevention system to operate, there has to be electrical power to the unit. This unit will not work if the electrical power source is disconnected. The unit has been rated for temperatures down to 0° F (-18° C) in a wind free environment. The wind chill factor will cause the unit to freeze at temperatures above 0° F (32° C), even if the unit is installed indoors.

Indoor Clearances

Piping side	12"
Front (Maintenance Space)	Suggested 24"
Back	Noncombustible base
Back of heater	1"
Non piping side	2"
Top of heater	11"

Warning: The pipe heaters are located on the Flash Water Heater only.

- Turn off the power supply to the Flash Water Heater.
- Close manual water shut off valve.
- Open all hot water taps in the house, (Bathroom, Kitchen, Laundry room, etc.). When the hot water has ceased, close all hot water taps.
- Have a bucket or pan ready to catch the water from the units drain plugs. Remove the drain plugs to drain the water out of the unit.
- Let drain for 5 minutes.
- Locate and screw the drain plugs back into place.

Wall Hanging Installation

For a wall mount installation, use TK-BK01 brackets to securely attach the T-K1 to the wall. Locate the heater as desired, but follow all applicable local codes, as well as the indoor or outdoor clearances that apply to the installation.

Use the included L brackets to connect the unit to a wall to insure that it does not fall over. These brackets will maintain the required 1" clearance between the back of the unit and a combustible surface.

Installation

This section is for the installer. The installer is responsible for the correct installation of your Flash Water Heater. Only a certified and licensed technician or qualified plumber may service or install your product.

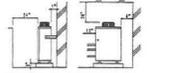
General

- All gas water heaters require careful and correct installation to ensure safe and efficient operation. This manual must be followed exactly.
- Read the For Your Safety section in the beginning of this manual. This is computer controlled and should not need adjustment.
- Suitable for potable water heating only. Well water or hard water may cause scale problems that will not be covered by the manufacturer's warranty.
- Maintain proper space for servicing. Install the unit so that it can be connected or removed easily.
- Insure that the electrical power can be switched off if necessary.
- Avoid installing in an area with high levels of dust, sand or debris. Particles may clog the air vent, reduce fan function, or cause improper combustion.
- Do not install the unit where the exhaust vent is pointing into any opening in a building or where the noise may disturb your neighbors.

Outdoor Clearances

Piping side	12"
Front (Maintenance Space)	24"
Back of heater	1"
Non piping side	2"
Top of heater	36"

If this unit is installed under an overhang, there must be a 36" clearance from the top of the unit to the overhang, and the surrounding area must be open in front and on the sides of the unit.



WARNING: Do not have the flue terminal pointing toward any opening into a building. Do not locate your heater in a pit or any location where gas and water can accumulate.

Accessories

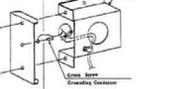
Parts	Shape	Number
Manual		1
Washer		4
Screws		4
Wall Mount Bracket		2

Electrical Connections

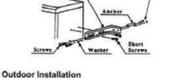
The T-K1 requires a 60 Hz 120 VAC electrical power supply, and it should be properly grounded in accordance with the most recent edition of the National Electrical Code, ANSI/NFPA 70 and any local codes. In Canada, all electrical wiring to the heater should be installed in accordance with the Canadian Electrical Code, CSA C22.1 Part 1, and any local codes. Do not rely on the gas or water piping to ground the metal parts of the heater.

CAUTION: Label all wires prior to disconnection when servicing controls. Wiring error can cause improper and dangerous operation. Verify proper operation after servicing.

- A means for switching off the 120 VAC power supply must be provided.
- Wire the heater exactly as shown in the wiring diagram.
- A green screw is provided in the junction box for the grounding connection. Refer to the following wiring diagram. Wiring diagrams are also printed on the inside panel of the appliance.



Outdoor Installation



Follow all local codes, or in the absence of local codes, follow the codes for Installation of Gas Burning Appliances, National Fuel Gas Code ANSI Z223.1 in USA or CAN/CSA B149.1 or 2 in Canada. Do not install the heater where water, debris, or flammable vapors may get into the flue terminal. This may cause damage to the heater.

WARNING: Do not install the heater where water, debris, or flammable vapors may get into the flue terminal. This may cause damage to the heater.

WARNING: Conversion of this unit from natural gas to propane or vice versa must be done in the field. Contact your local retailer or distributor to get the correct unit for your gas type. Always install a manual shut-off valve on the gas supply line in case of an emergency, or if service or maintenance is necessary.

This appliance and its individual shut-off valve must be isolated from the gas supply piping system by uncoupling the unit and turning off the main gas valve during any pressure testing of the gas supply piping system at pressures equal to or less than 1/2 PSI.

When all of the connections have been made, check the gas line for leaks. Apply soapy water to all gas fittings and connectors, if bubbles form, there may be a leak.

Gas Supply Piping

Check the rating plate to make sure that the unit was built for the type of gas available in the area. The gas supply piping should be sized according to the Applicable Plumbing Code for a maximum draw of 165,000 BTU/h. First determine the effective length of the gas supply line by measuring the actual length of piping, and then adding 5 ft. for every elbow or tee to the actual length. Use the charts below to determine the pipe diameter necessary to accommodate the BTU demand of the unit. If there are more gas drawing appliances on the line, size according to the maximum amount of BTU demand.

Natural Gas Supply Piping

Natural Gas Supply Pressure	Min. 5" WC	Max. 10.5" WC
Propane Gas Supply Pressure	Min. 11" WC	Max. 14" WC

Propane Supply Piping

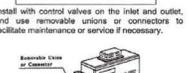
Pipe Size	Length	20"	30"	40"	50"	60"	70"	80"	90"	100"	125"	150"	200"
1/2"	275	189	152	129	114	103	96	89	83	78	69	63	55
3/4"	363	249	200	171	152	138	127	118	110	102	84	76	67
1"	684	470	377	323	286	259	239	222	208	197	174	158	135
1 1/2"	1458	984	763	663	586	537	494	462	432	404	338	304	275
2"	2102	1444	1181	993	880	788	734	683	641	605	536	488	416
2 1/2"	3050	2184	1725	1493	1319	1186	1096	1024	954	903	783	707	615
3"	4321	3043	2499	2146	1894	1694	1554	1441	1341	1254	1103	993	851

Water Plumbing

Follow local guidelines for the length of the plumbing line in order to ensure that there is enough water pressure for all the fixtures on the line. First, calculate the effective length of the plumbing line by measuring the total length of pipe, and then adding to this 5' for each elbow or tee in the line. Use the following chart to determine the total number of fixture units on the line, and then compare with the chart at the bottom of this page to find the pipe diameter and water pressure necessary.

Fixture Unit Per Fixture (from UPC)	Plumbing Fixture Description	Fixture Unit
1	Combination Bath / Shower	4
1	Whirlpool Bath	2
1	Shower	2
1	Lavatory	1
1	Cooktop	1
1.5	Dishwasher	1.5
1.5	Kitchen Sink	1.5

Install with control valves on the inlet and outlet, and use renewable unions or connectors to facilitate maintenance or service if necessary.



If the water heater is installed in a closed water system, means shall be provided to control thermal expansion. Contact the water supplier or local plumbing inspector on how to correct this situation.

Pressure Relief Valve

The Pressure relief valve must be rated for 150 PSI, and have a discharge capacity of 165,000 BTU. Connect the discharge opening of the relief valve to a suitable drain to prevent water damage should discharge occur. This may be due to thermal expansion in a closed water supply system. Contact the water supplier or local plumbing inspector on how to correct this situation. Do not plug the pressure relief valve. The line should have no reduced fittings or other restrictions and should allow for complete drainage of valve and line. The pressure relief valve should be manually operated once a year to check for proper operation and to check the operation. Should overheating occur or the gas supply fail to shut off, turn off the manual gas control valve to the heater.

Flow Charts

Flow Size	Pressure Range 30 to 45 PSI	Pressure Range 45 to 60 PSI	Pressure Range 60 to 75 PSI	Pressure Range 75 to 90 PSI
Length	312	268	200	150
1/2"	312	268	200	150
3/4"	425	371	311	241
1"	1225	617	513	412
1 1/4"	2448	1742	1325	1024
1 1/2"	3218	2248	1742	1325
2"	4321	3043	2499	1946
2 1/2"	5843	4146	3311	2541
3"	7684	5441	4341	3341

REVISIONS

NO.	DESCRIPTION	DATE
1	Initial Issue	05-22-23

FOR YOUR SAFETY

PLEASE READ THIS MANUAL CAREFULLY AND FOLLOW IT EXACTLY FOR YOUR SAFETY.

WARNING: Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

WARNING: Do not reverse the water and gas connections. This will damage your heater and can cause severe injury or death from scalds.

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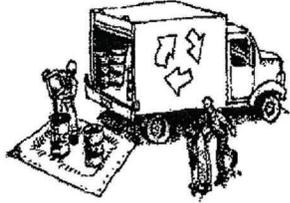
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Construction Best Management Practices (BMPs)

Construction projects are required to implement year-round stormwater BMPs.

Materials & Waste Management



Non-Hazardous Materials

- ❑ Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or when they are not in use.
- ❑ Use (but don't overuse) reclaimed water for dust control.
- ❑ Ensure dust control water doesn't leave site or discharge to storm drains.

Hazardous Materials

- ❑ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with City, County, State and Federal regulations.
- ❑ Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecast.
- ❑ Follow manufacturer's application instructions for hazardous materials and do not use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- ❑ Arrange for appropriate disposal of all hazardous wastes.

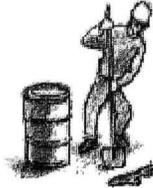
Waste Management

- ❑ Cover and maintain dumpsters. Check frequently for leaks. Place dumpsters under roofs or cover with tarps or plastic sheeting secured around the outside of the dumpster. A plastic liner is recommended to prevent leaks. Never clean out a dumpster by hosing it down on the construction site.
- ❑ Place portable toilets away from storm drains. Make sure they are in good working order. Check frequently for leaks.
- ❑ Dispose of all wastes and demolition debris properly. Recycle materials and wastes that can be recycled, including solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation.
- ❑ Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.
- ❑ Keep site free of litter (e.g. lunch items, cigarette butts).
- ❑ Prevent litter from uncovered loads by covering loads that are being transported to and from site.

Construction Entrances and Perimeter

- ❑ Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- ❑ Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking.

Equipment Management & Spill Control



Maintenance and Parking

- ❑ Designate an area of the construction site, well away from streams or storm drain inlets and fitted with appropriate BMPs, for auto and equipment parking, and storage.
- ❑ Perform major maintenance, repair jobs, and vehicle and equipment washing off site.
- ❑ If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- ❑ If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters.
- ❑ Do not clean vehicle or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment, and do not use diesel oil to lubricate equipment or parts onsite.

Spill Prevention and Control

- ❑ Keep spill cleanup materials (e.g., rags, absorbents and cat litter) available at the construction site at all times.
- ❑ Maintain all vehicles and heavy equipment. Inspect frequently for and repair leaks. Use drip pans to catch leaks until repairs are made.
- ❑ Clean up leaks, drips and other spills immediately and dispose of cleanup materials properly.
- ❑ Use dry cleanup methods whenever possible (absorbent materials, cat litter and/or rags).
- ❑ Sweep up spilled dry materials immediately. Never attempt to "wash them away" with water, or bury them.
- ❑ Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- ❑ Report significant spills to the appropriate local spill response agencies immediately. If the spill poses a significant hazard to human health and safety, property or the environment, you must report it to the State Office of Emergency Services. (800) 852-7550 (24 hours).

Earthmoving



Grading and Earthwork

- ❑ Schedule grading and excavation work during dry weather.
- ❑ Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- ❑ Remove existing vegetation only when absolutely necessary, plant temporary vegetation for erosion control on slopes or where construction is not immediately planned.
- ❑ Prevent sediment from migrating offsite and protect storm drain inlets, drainage courses and streams by installing and maintaining appropriate BMPs (i.e. silt fences, gravel bags, fiber rolls, temporary swales, etc.).
- ❑ Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.

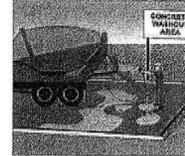
Contaminated Soils

- ❑ If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board:
 - Unusual soil conditions, discoloration, or odor.
 - Abandoned underground tanks.
 - Abandoned wells
 - Buried barrels, debris, or trash.
- ❑ If the above conditions are observed, document any signs of potential contamination and clearly mark them so they are not disturbed by construction activities.

Landscaping

- ❑ Protect stockpiled landscaping materials from wind and rain by storing them under tarps all year-round.
- ❑ Stack bagged material on pallets and under cover.
- ❑ Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.

Concrete Management and Dewatering



Concrete Management

- ❑ Store both dry and wet materials under cover, protected from rainfall and runoff and away from storm drains or waterways. Store materials off the ground, on pallets. Protect dry materials from wind.
- ❑ Wash down exposed aggregate concrete only when the wash water can (1) flow onto a dirt area; (2) drain onto a bermed surface from which it can be pumped and disposed of properly; or (3) block any storm drain inlets and vacuum washwater from the gutter. If possible, sweep first.
- ❑ Wash out concrete equipment/trucks offsite or in a designated washout area onsite, where the water will flow into a temporary waste pit, and make sure wash water does not leach into the underlying soil. (See CASQA Construction BMP Handbook for properly designed concrete washouts.)

Dewatering

- ❑ Discharges of groundwater or captured runoff from dewatering operations must be properly managed and disposed. When possible, send dewatering discharge to landscaped area or sanitary sewer. If discharging to the sanitary sewer, call your local wastewater treatment plant.
- ❑ Divert run-on water from offsite away from all disturbed areas.
- ❑ When dewatering, notify and obtain approval from the local municipality before discharging water to a street gutter or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- ❑ In areas of known or suspected contamination, call your local agency to determine whether the ground water must be tested. Pumped groundwater may need to be collected and hauled off-site for treatment and proper disposal.

Paving/Asphalt Work



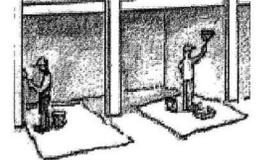
Paving

- ❑ Avoid paving and seal coating in wet weather or when rain is forecast, to prevent materials that have not cured from contacting stormwater runoff.
- ❑ Cover storm drain inlets and manholes when applying seal coat, slurry seal, fog seal, or similar materials.
- ❑ Collect and recycle or properly dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters.

Sawcutting & Asphalt/Concrete Removal

- ❑ Protect storm drain inlets during saw cutting.
- ❑ If saw cut slurry enters a catch basin, clean it up immediately.
- ❑ Shovel or vacuum saw cut slurry deposits and remove from the site. When making saw cuts, use as little water as possible. Sweep up, and properly dispose of all residues.

Painting & Paint Removal



Painting Cleanup and Removal

- ❑ Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- ❑ For water-based paints, paint out brushes to the extent possible, and rinse into a drain that goes to the sanitary sewer. Never pour paint down a storm drain.
- ❑ For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste.
- ❑ Sweep up or collect paint chips and dust from non-hazardous dry stripping and sand blasting into plastic drop cloths and dispose of as trash.
- ❑ Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste. Lead based paint removal requires a state-certified contractor.



**Santa Clara Valley
Urban Runoff
Pollution Prevention Program**

Storm drain polluters may be liable for fines of up to \$10,000 per day!