

## SITE PLAN

12527 W HUSTON ST, CA 91607

### PROJECT SUMMARY:

## SCOPE OF WORK

HFWA -13D FIRE SPRINKLERS REQUIRED UNDER SEPARATE PERMIT

## GENERAL REQUIREMENTS

## SECURITY REQUIREMENTS

LOT AREA = 5,497.5 SQ.FT.+3,858.4 SQ.FT.= 9,355.9 SQ.FT.								DRAWINGS INDEX			
RFA CALCULATION								SHEET No	ARCHITECTURAL	SHEET No	
FLOOR	LIVING AREA OCCUPANCY R-3	GARAGE OCCUPANCY 'U'	COVERED PORCH	COVERED PATIO/ BALCONY	EXEMPT	OVERHUNG	TOTAL	A-1	SITE PLAN	T.1	TITLE 24 REPORT
1ST.	2,045.0 SQ.FT.	367 SQ.FT. ATTACHED	43 SQ.FT.	N/A	-200	7 SQ.FT.	2,262.0 SQ.FT.	A-1.1	GPI REPORT, PREVAILING SET-BACK CALCULATION	T.2	TITLE 24 REPORT
2ND.	1,909.0 SQ.FT.	N / A	N / A	N/A	- 46 SQ.FT. - STAIRS		1,863.0 SQ.FT.	GR.1	GREEN BUILDING FORMS	T.3	TITLE 24 REPORT
TOTAL RFA: 4,125.0 SQ.FT								SN.1	SANITATION		
ALLOWABLE MAX. RFA: 9,355.9 x 0.45 = 4,210.15 SQ.FT. < 45 % PROPOSED RFA : 4,125.0 SQ.FT.< 4,210.15								A-2	FLOOR AREA DIAGRAM		STRUCTURAL
BUILDING FLOOR AREA (with exterior walls)								A-3	PROPOSED 1ST. FLOOR PLAN	S.1	GENERAL NOTES
FLOOR	LIVING AREA OCCUPANCY R-3	GARAGE OCCUPANCY 'U'	COVERED PORCH	TRELLIS/ BALCONY	EXEMPT	TOTAL		A-4	1ST. FLOOR PLAN WINDOW AND DOOR SCHEDULE	S.2	FOUNDATION PLAN
1ST.	2,201.0 SQ.FT.	410 SQ.FT. ATTACHED	42 SQ.FT.	247'+65 = 313 SQ.FT.		2,436.0 SQ.FT.		A-5	PROPOSED 2ND. FLOOR PLAN	S.3	SECOND FLOOR FRAMING PLAN
2ND.	2,046.0 SQ.FT.	N / A	N / A	47'+44'+55'+63 = 209 SQ.FT.		2,046.0 SQ.FT.		A-6	ROOF PLAN	S.4	ROOF FRAMING PLAN
TOTAL BUILDING AREA (WITH EXTERIOR WALLS)						5,015.0 SQ.FT.					
SCHOOL FEE AREA (WITH EXTERIOR WALLS-410(GARAGE) SQ.FT.)						4,605.0 SQ.FT.					

## DRAWINGS INDEX

LEGEND:

SCALE:

# SITE PLAN

WRITTEN DIMENSIONS ON THESE SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY, AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. THE ABOVE DRAWINGS AND SPECIFICATIONS AND IDEAS, DESIGNS AND ARRANGEMENTS REPRESENTED THEREBY ARE AND SHALL REMAIN THE PROPERTY OF THE ENGINEER, AND NO PART THEREOF SHALL BE COPIED, DISCLOSED TO THE PUBLIC OR REPRODUCED IN ANY MANNER, WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. USUAL CONTACT WITH THESE DRAWINGS OR SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS.

**Art Designs**  
EXTERIOR and INTERIOR DESIGN SERVICES  
#335 W COLORADO ST., #102, GLENDALE CA 91204  
Tel.: 949.286.2899 e-mail: [artdesigner07@gmail.com](mailto:artdesigner07@gmail.com)

PROJECT TITLE: NEW 2 STORY S.F.D. WITH ATTACHED 2-CAR GARAGE

OWNER: BRETT KARNS

**JOB ADDRESS:**  
12527 HUSTON ST., VALLEY VILLAGE, CA 91607

JOB NO.:	A-2048
DRAWN BY:	A.I.
CHECKED BY:	M.S.
DATE:	12-28-20

SHEET NUMBER

A-1

SHEETS 1 OF 5



Los Angeles Department of Building and Safety

How To Use Prevailing Setback Calculator

- Click the "Add Lot" button.
- Enter the lot number, the frontage dimension and the corresponding front yard setback for each lot. Enter the frontage and setback dimensions in feet using decimals (e.g. 23.69). Inches to Feet Conversion Chart
- For vacant lots leave the setback blank.
- For buildings built up to the front lot line, enter 0 in the setback field.
- Click the "Calculate" button.
- If the frontage of all of the lots with front yards varying no more than 10' from each other is less than 40% of the total frontage, then there is no prevailing setback. In that case the front yard is a percentage of the depth of the lot according to the zoning of the lot as prescribed in the Zoning Code.
- Please read the Prevailing Setback Calculator Disclaimer

Add Lot

Enter the Lot information after adding rows:

Lot	Frontage (ft)	Setback (ft)
1	55	23
2	55	30
3	55	30
4	93	28
5	93	72

Clear

Calculate

Results

Number of lots: 5

Prevailing Setback: 2775 ft

Calculation

Total no of lots entered: 5

Total frontage entered: 351.00 ft

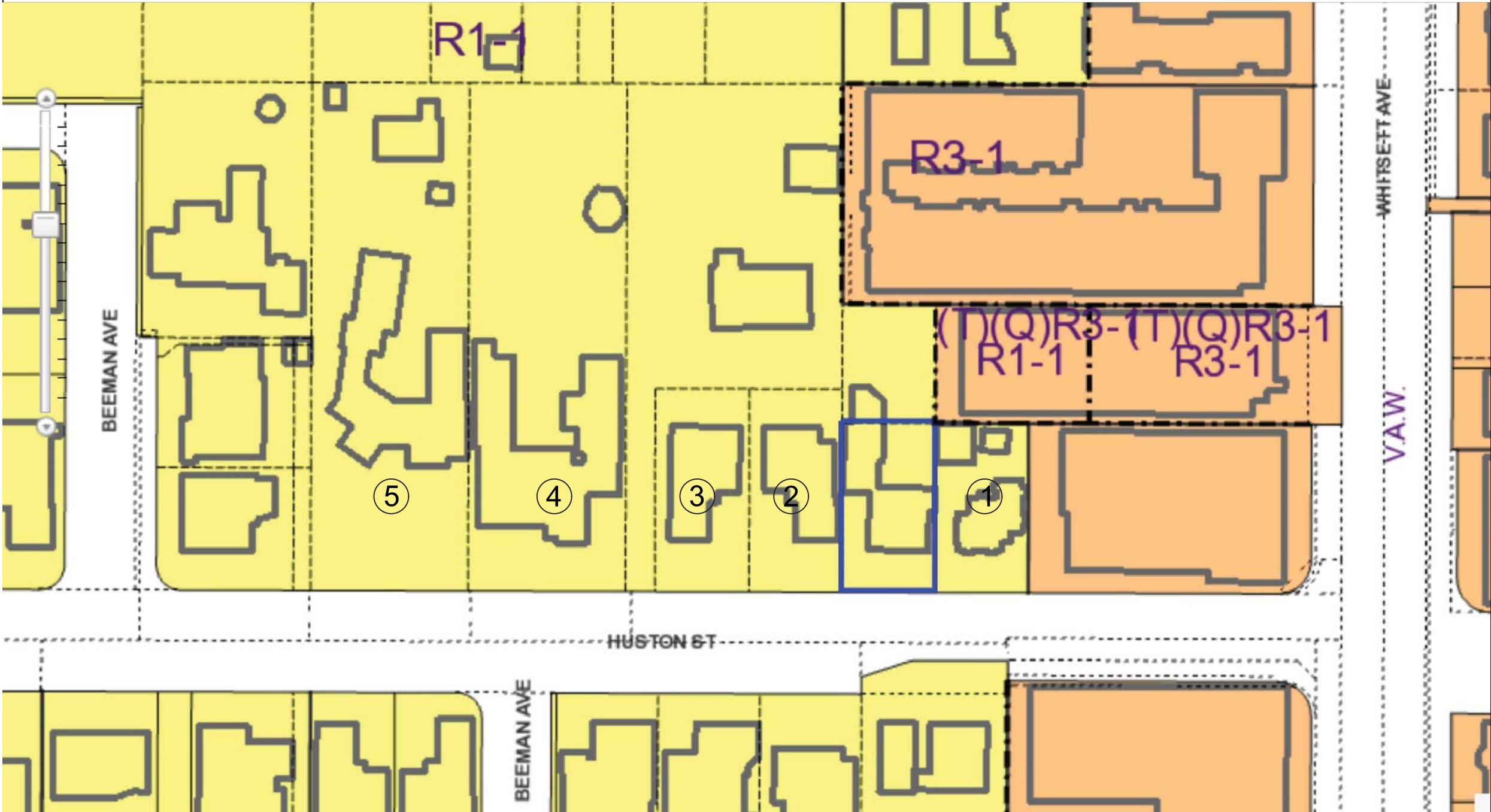
40% from total frontage entered: 140.40 ft  
No of lots used in the calculation: 4  
Setback range used: 23.00 ft - 30.00 ft  
Total frontage used in the calculation: 258.00 ft

Lot	Frontage (ft)	Setback (ft)
1	55.00	23.00
2	55.00	30.00
3	55.00	30.00
4	93.00	28.00

View Calculation Details

To find out about Zoning Codes, click here. ([http://www.amlegal.com/nxt/gateway.dll?f=templates&fn=default.htm&vid=amlegal:lapz\\_ca](http://www.amlegal.com/nxt/gateway.dll?f=templates&fn=default.htm&vid=amlegal:lapz_ca))

To find out about the Prevailing Setback Information Bulletin, click here. ([http://www.ladbs.org/LADBSWeb/LADBS\\_Forms/InformationBulletins/IB-P-ZC2002-015PrevailingSetback.pdf](http://www.ladbs.org/LADBSWeb/LADBS_Forms/InformationBulletins/IB-P-ZC2002-015PrevailingSetback.pdf))



SOILS REPORT REVIEW LETTER

February 22, 2021

LOG # 116110  
SOILS/GEOLOGY FILE - 2  
LIQ

Armenuhi Yeginyan  
14738 Hart St.  
Van Nuys, CA 91405

TRACT: 1000  
LOT(S): 93  
LOCATION: 12527 W. Huston St.

CURRENT REFERENCE REPORT/LETTER(S) No. DATE OF DOCUMENT PREPARED BY  
Soils Report 20-AE-538 01/18/2021 AGE Engineering

The Grading Division of the Department of Building and Safety has reviewed the referenced report that provide recommendations for the proposed 2 story single family residence over a basement. The earth materials at the subsurface exploration locations consist of up to 2 feet of uncertified fill underlain by native soils. The consultants recommend to support the proposed structure(s) on conventional foundations bearing on native undisturbed soils.

The site is located in a designated liquefaction hazard zone as shown on the Seismic Hazard Zones map issued by the State of California.

As of January 1, 2020, the City of Los Angeles has adopted the new 2020 Los Angeles Building Code (LABC). The 2020 LABC requirements will apply to all projects where the permit application submittal date is after January 1, 2020.

The review of the subject report(s) cannot be completed at this time and will be continued upon submittal of an addendum to the report which shall include, but not be limited to, the following:

(Note: Numbers in parenthesis ( ) refer to applicable sections of the 2020 City of LA Building Code. P/BC numbers refer the applicable Information Bulletin. Information Bulletins can be accessed on the internet at LADBS.ORG.)

- Clarify if the proposed foundation is proposed to be deeper than 10 feet below grade (historical high ground water level). If so, provide permanent ground water control recommendations.

LADBS G-5 (Rev. 07/21/2020) AN EQUAL EMPLOYMENT OPPORTUNITY - AFFIRMATIVE ACTION EMPLOYER

- Page 2  
12527 W. Huston St.
- Clarify the recommended height of the proposed ABC slot cut. Note: Calculations show 12 vertical cut however no recommendations were provided.
  - Provide lateral at-rest earth pressure recommendations for basement walls and other walls in which horizontal movement is restricted at the top. Calculations indicated that a pressure of 48.59H PCF is required which is greater than the recommended pressure of 38 PCF.
  - The liquefaction analysis appears to have negative values for fine content inputs. Clearly revise the input table and properly label each input for clarification.
  - The current ground water level in the analysis appears to be lower than the explored dept. Revise the ground water level input and changes in condition #4 of the current letter and revise the liquefaction analysis as needed.

The soils engineer shall prepare a report containing an itemized response to the review items indicated in this letter. If clarification concerning the review letter is necessary, the report review engineer may be contacted. Two copies of the response report, including one unbound wet-signed original for archiving purposes, a pdf-copy of the complete report in a CD or flash drive, and the appropriate fees will be required for submittal.

ALAN DANG  
Structural Engineering Associate II

AD/ad  
Log No. 116110  
213-482-0480

cc: AGE Engineering, Project Consultant  
VN District Office

Grading Pre-Inspection Report

Address: 12527 W HUSTON ST  
Council District: 2 Permit Application: 21030-20000-00111

Work Description:  
GRADING PRE-INSPECTION FOR NEW SINGLE FAMILY DWELLING WITH ATTACHED 2 CAR GARAGE AND BASEMENT \*\*\*\*\*POSTING REQUIRED\*\*\*CALL PRIOR TO INSPECTION FOR ACCESS TO SITE

Inspector/Telephone: TIMOTHY POWELL, (818) 374-4357  
Inspection District: VN  
Inspection Date: 01/13/2021

Property Posted: Yes Posting Date: 1-13-2021 Posting Fees Paid? Yes  
Tract: TR 1000  
Block: Lot(s): 193 ARB: 17 County Ref No: M B 19-3 (SHT 3)

Approved Graded Lot: No Fill Over 100 Feet: No Slope of Surface:	Bearing Value: per approved soils report Buttress Fill: No Natural Soil Classification 1804.2: Cut: degrees Height: ft in
Fill: degrees Height: ft in Natural: degrees Height: ft in Sewer Available: Yes Site is Above Street Condition of Street for Drainage Purposes paved asphalt Driveway Grade: % - Proposed	Slide Area: No PSDS Sized Per Code: N/A Roof Gutters: Yes Recommended Termination of Drainage to street or approved location Maximum Rough Grade Allowed: %

GRADING APPROVAL TO ISSUE PERMIT(S)  
OK TO ISSUE. SEE BELOW FOR COMMENTS.  
X DO NOT ISSUE UNTIL BELOW REQUIREMENTS HAVE BEEN SATISFIED.

Page 1 of 3

- X 1. A grading permit is required for excavation and backfill .
2. A retaining wall permit is required .
- X 3. OSHA permit required for vertical cuts 5 feet or over.
4. All footings shall be founded in undisturbed natural soil per Code.
5. Design for expansive soil or submit a soils report to the grading division per information bulletin P/BC 2008-116 and 91.1805.8.
6. In the event excavations reveal unfavorable conditions, the services of a soils engineer and/or geologist may be required.
- X 7. Soils report(s) are required. Submit three copies (1 original and 2 copies), with appropriate fees, to the Grading Section for review and approval.
- X 8. Incorporate all recommendations of the approved Soils report(s) and Department letters dated to come into the plans. Soils Engineer to sign plans.
9. Site is subject to mudflow. Comply with provisions of Section 91.7014.3. Geological and soils report required.
10. Buildings shall be located clear of the toe of all slopes which exceed a gradient of 3 horizontal to 1 vertical as per Section 91.1805.3.1.
11. Footings shall be set back from the descending slope surface exceeding 3 horizontal to 1 vertical as per Section 91.1805.3.7.
12. Swimming pools and spas shall be set back from descending and ascending slopes as per Section 91.1805.3.3.
13. Department approval is required for construction of . on or over slopes steeper than 2 horizontal to 1 vertical.
- X 14. Provide complete details of engineered temporary shoring or slot cutting procedures on plans. Call for inspection before excavation begins.
- X 15. All concentrated drainage, including roof water, shall be conducted, via gravity, to the street or an approved location at a 2% minimum. Drainage to be shown on the plans.
- X 16. A Registered Deputy Inspector is required.
- X 17. All fill or backfill shall be compacted by mechanical means to a minimum 90% relative compaction as determined by ASTM method D-1557. Subdrains shall be provided where required by Code.
- X 18. Specify on the plans: "The soils engineer is to approve the key or bottom and leave a certificate on the site for the grading inspector. The grading inspector is to be notified before any grading begins and, for bottom inspection, before fill is placed. Fill may not be placed without approval of the grading inspector."
19. Existing non-conforming slopes shall be cut back at 2:1 (26 degrees) or retained. All concentrated drainage, including roof water, shall be conducted, via gravity, to the street or an approved location at a 2% minimum. Drainage to be shown on the plans.
20. All cut or fill slopes shall be no steeper the 2:1 (26 degrees).
- X 21. Stake and flag the property lines in accordance with a licensed survey map .
22. Approval required by the Department for .
23. Approval required by the Department of Public Works, Urban Forestry Division, for native tree protected ORD. 177,040. Phone # (213) 847-3077
24. This is a preliminary pre-inspection only - base on limited information. When complete plans (and possibly calculations and/or required reports) are submitted for a permit, a new pre-inspection and fee will be required.

Page 2 of 3

\*\* Additional requirements: \*\*\*\*\*THIS GPI SHALL BE ON THE APPROVED PLANS\*\*\*\*\* 1) An on site initial grading inspection meeting is required prior to ANY excavation work. 2) Lateral support shall not be removed from adjacent properties, structures or public right of ways. 3) Structure shall be clear of all public utility easements. Obtain required clearances from DWP if applicable.

Construction of new occupied buildings or major additions to buildings on sites located in any of the Seismic Hazard Zones (liquefaction, Landslide or Alquist-Prado Fault Zone) will require a geology and/or soil engineering report. For questions call (213) 482-0480.

Page 3 of 3

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TEL.: 818-389-3885

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JOB NO.: A-2048	DRAWN BY: A.I.	CHECKED BY: M.S.	DATE: 12-28-20	SHEET TITLE:
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SHEET NUMBER

A-1.1



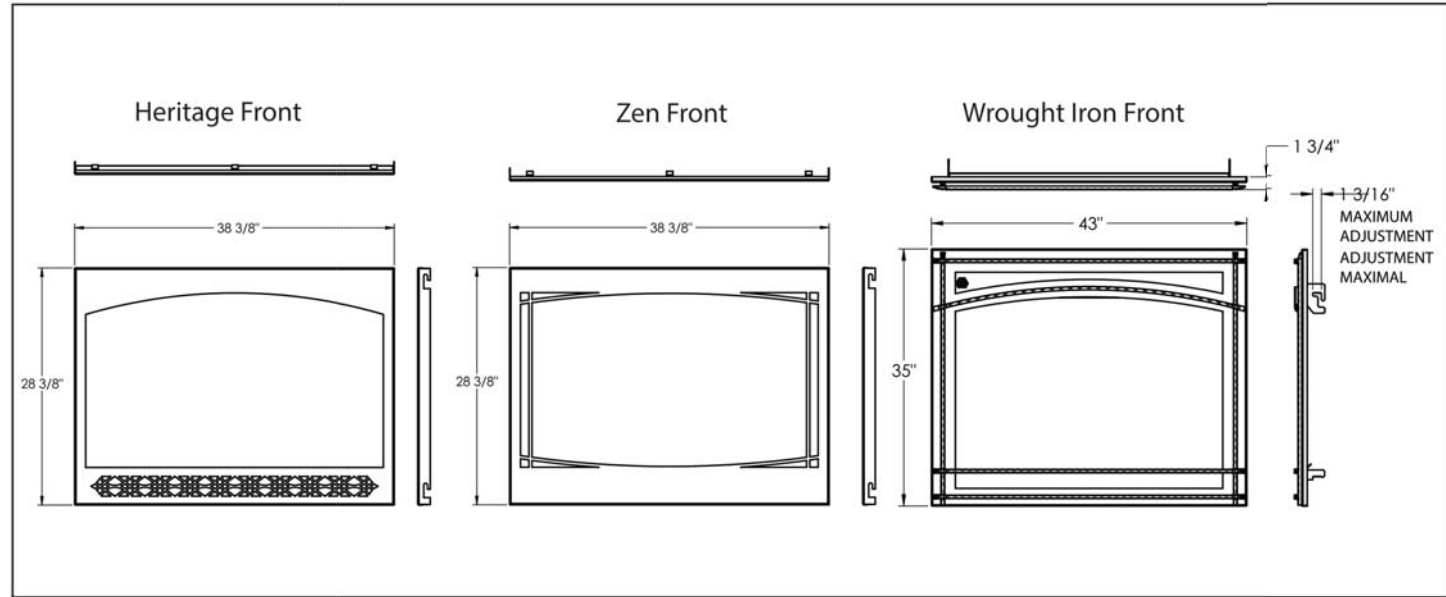
## ASCENT™ 42 DIRECT VENT GAS FIREPLACE



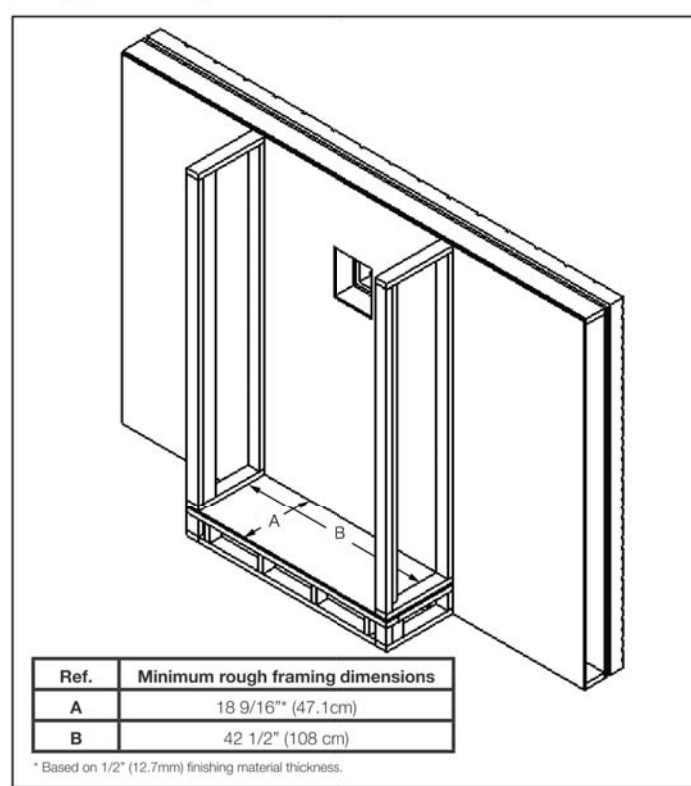
### Specifications

Model	BTU	Width		Height		Depth		Viewing Area
		Actual	Framing	Actual	Framing	Actual	Framing	
B42TR	22,000	42	42 1/2	34 5/8	35	18 5/16	18 9/16	23 11/16 X 37 11/16

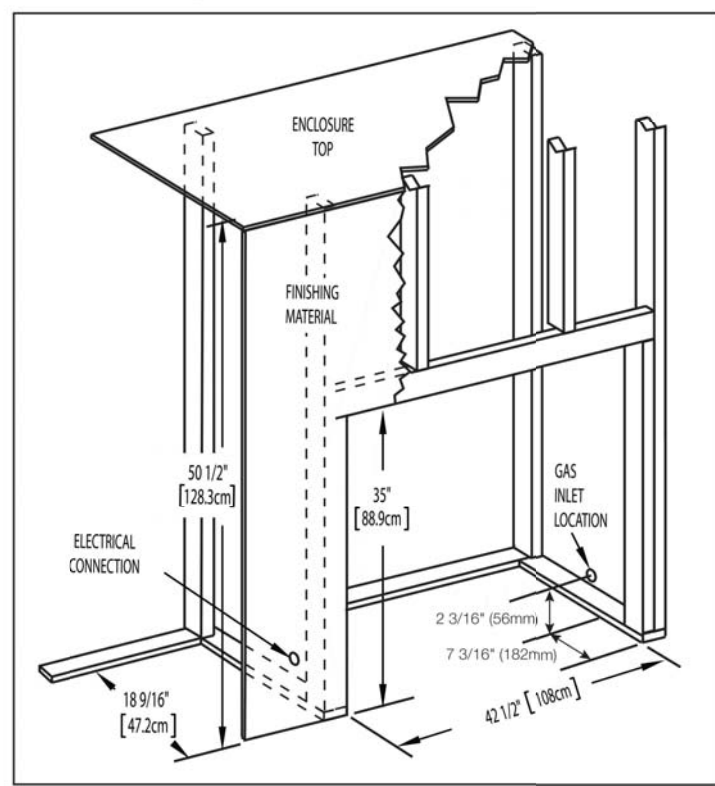
### Front Options



### Rough Framing



### Finish Framing



24 Napoleon Road, Barrie, Ontario, Canada L4M 0G8 • 214 Bayview Drive, Barrie, Ontario, Canada L4N 4Y8  
Fireplaces, Heating and Cooling: 705-721-1212 • Grills: 705-726-4278 • napoleonproducts.com

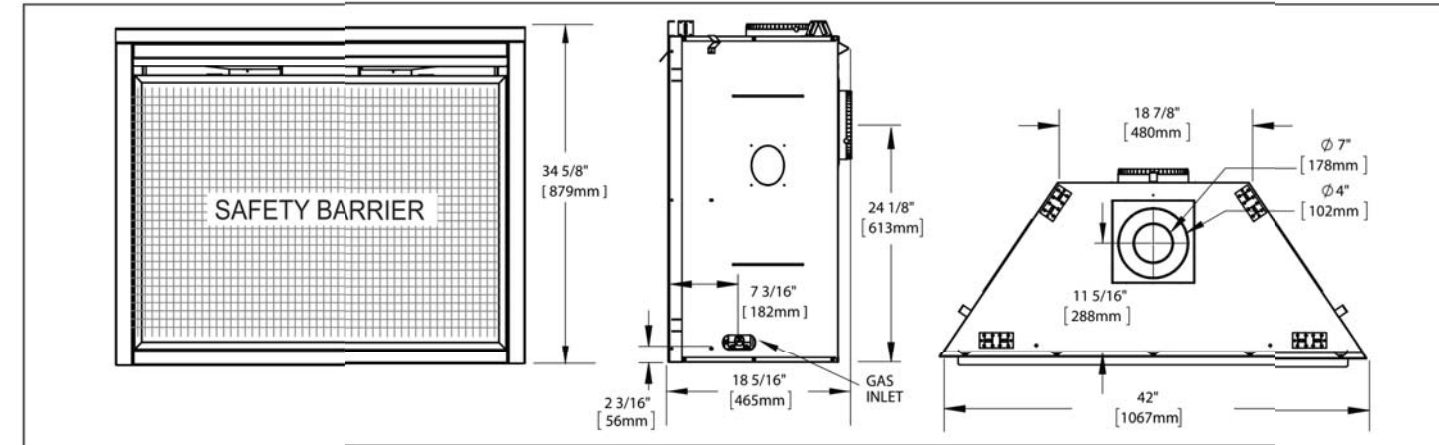
W415-1889 / 10.26.18

## ASCENT™ 42 DIRECT VENT GAS FIREPLACE

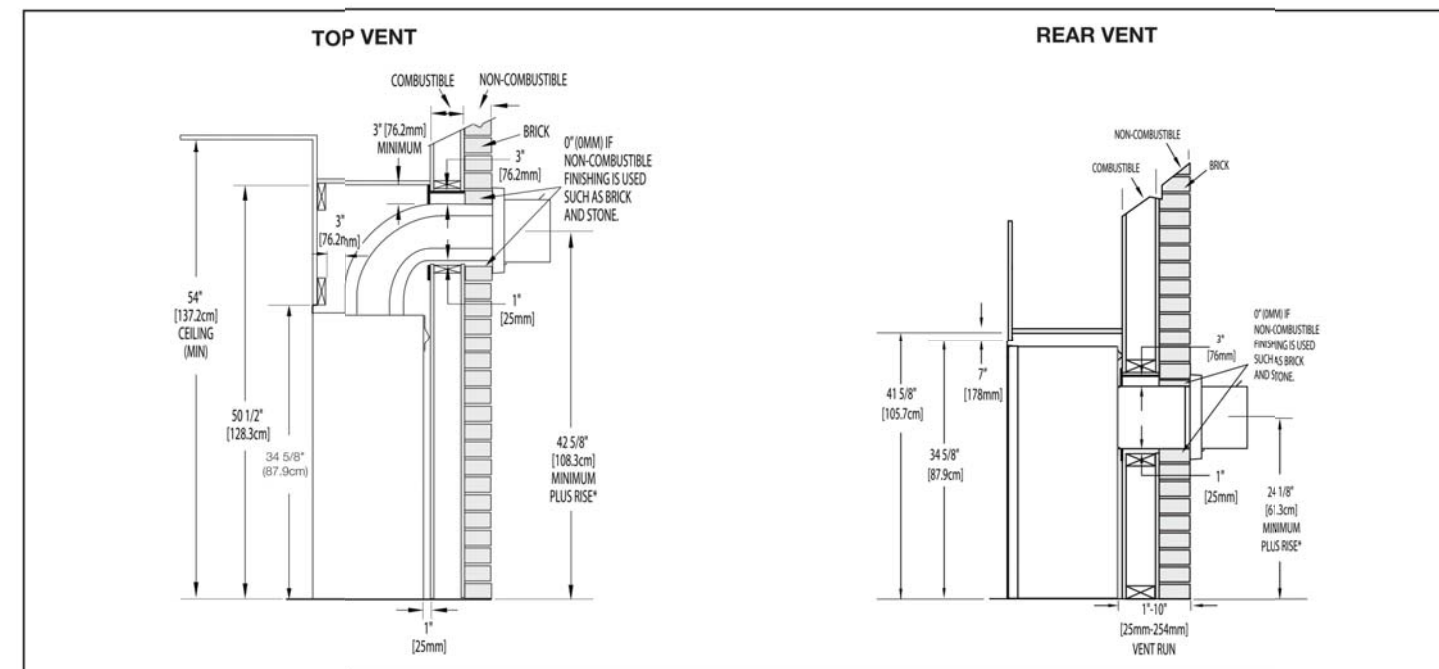


Product information provided is not complete and is subject to change without notice. Please consult the installation manual for the most up to date installation information.

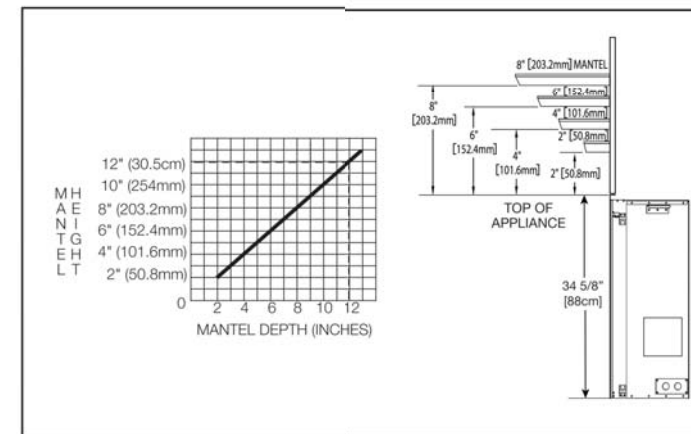
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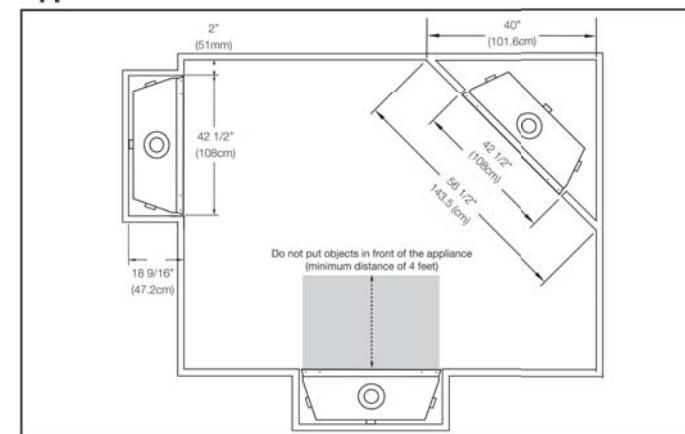
### Wall Penetration



### Combustible Mantel Clearances



### Appliance Location



24 Napoleon Road, Barrie, Ontario, Canada L4M 0G8 • 214 Bayview Drive, Barrie, Ontario, Canada L4N 4Y8  
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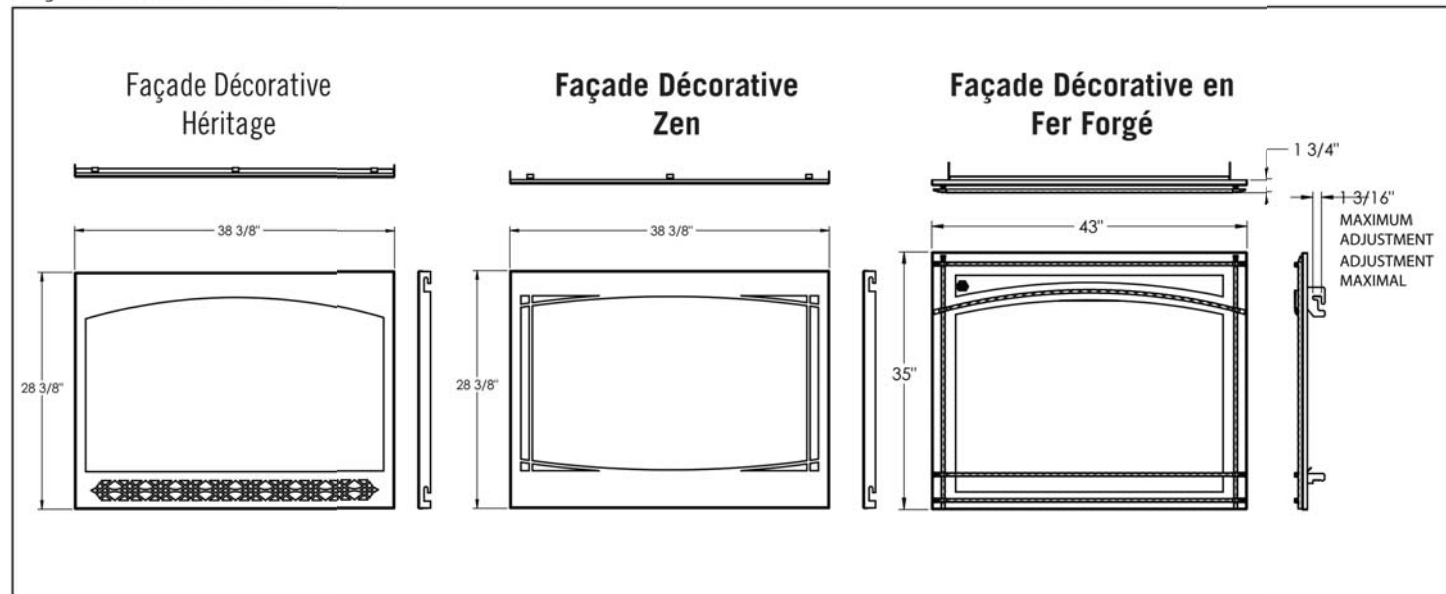
## FOYER À GAZ VENTILÉ DIRECTE ASCENT™ 42



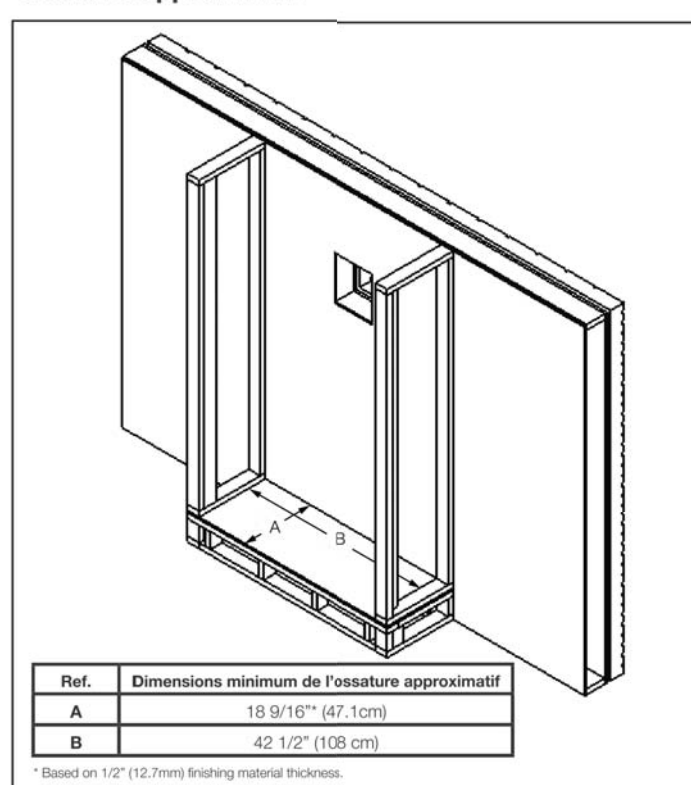
### Spécifications

Modèle	BTU	Largeur		Hauteur		Profondeur		Dimensions de Vision
		Réel	Ossature	Réel	Ossature	Réel	Ossature	
B42TR	22,000	42	42 1/2	34 5/8	35	18 5/16	18 9/16	23 11/16 X 37 11/16

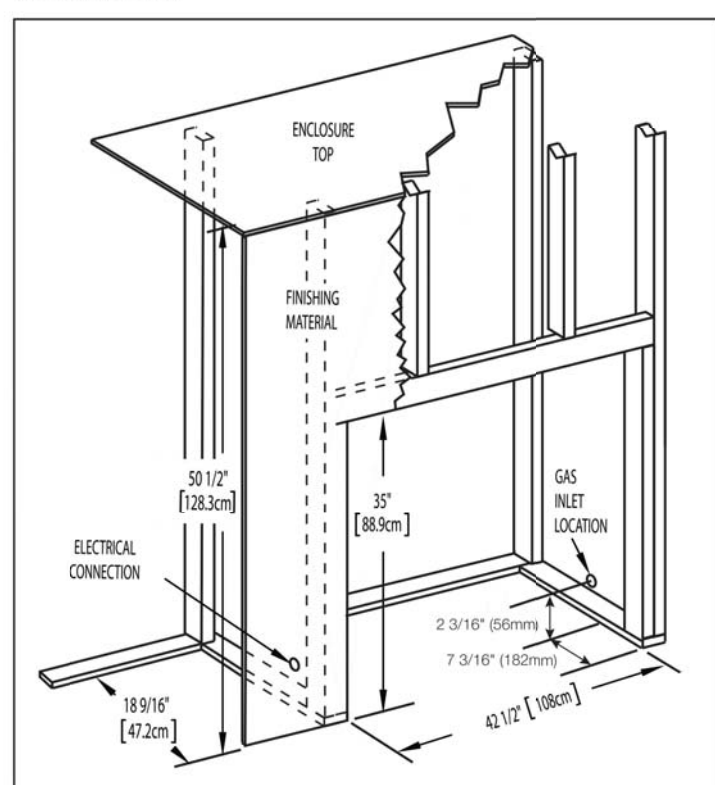
### Façades Décoratives



### Ossature approximatif



### Ossature fini



24 Napoleon Road, Barrie, Ontario, Canada L4M 0G8 • 214 Bayview Drive, Barrie, Ontario, Canada L4N 4Y8  
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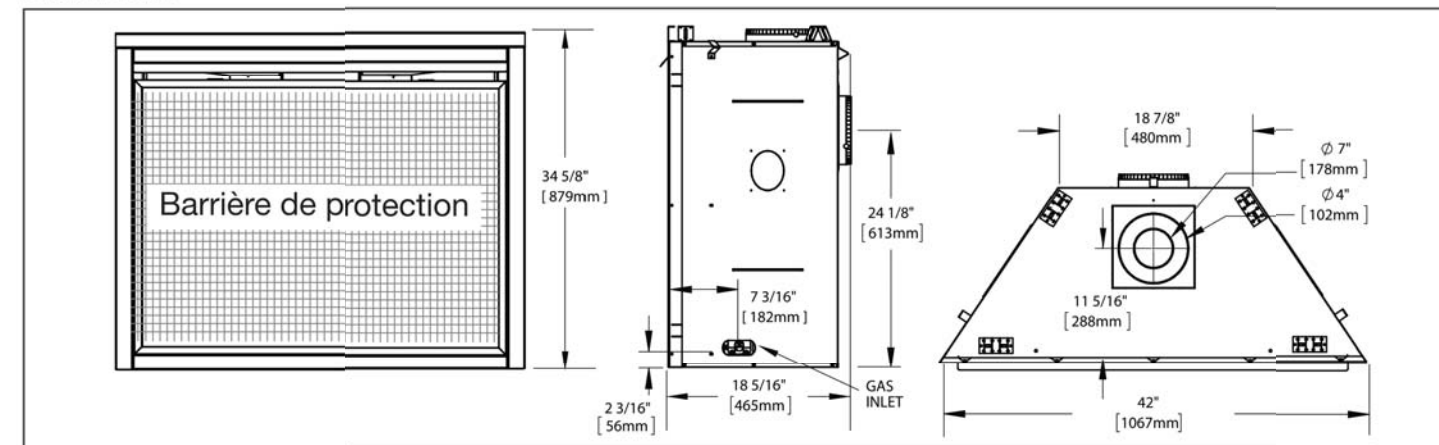
W415-1889 / 10.26.18

## FOYER À GAZ VENTILÉ DIRECTE ASCENT™ 42

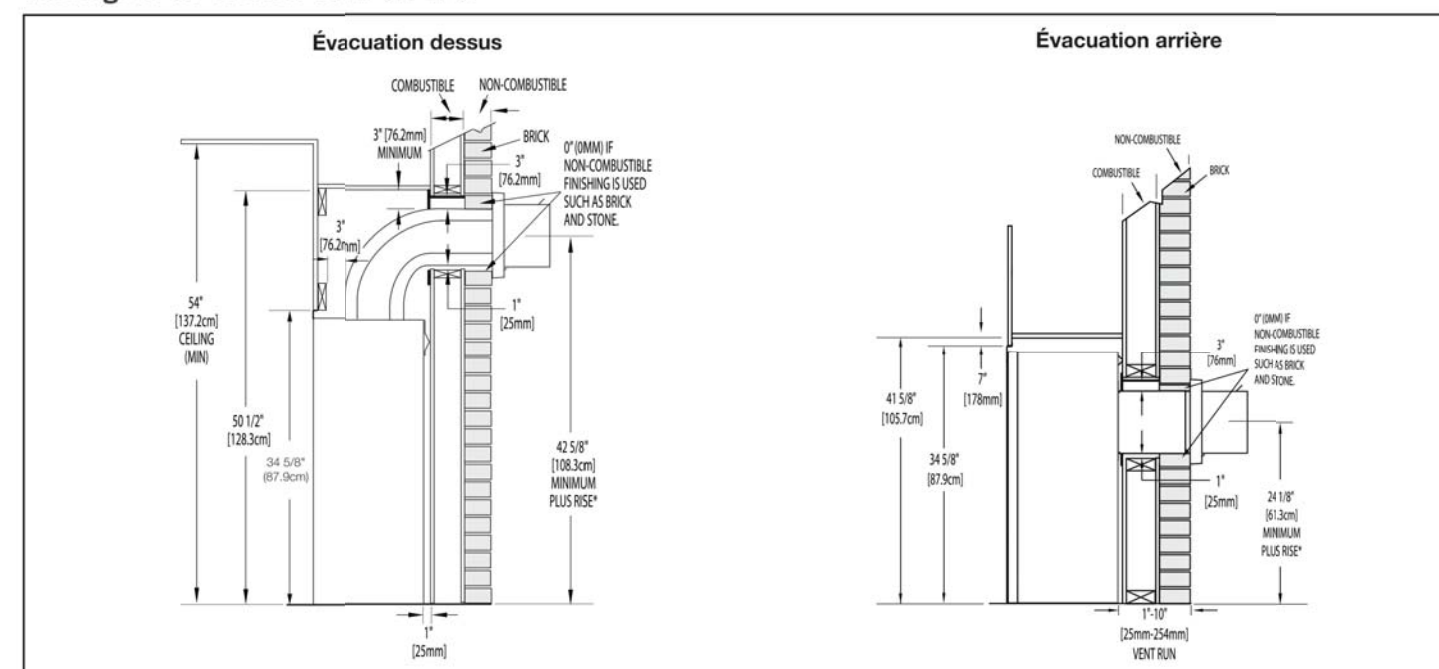


Information du produit fourni n'est pas complet et est sujet de changer sans préavis. Consultez le manuel d'installation pour information d'installation actuel.

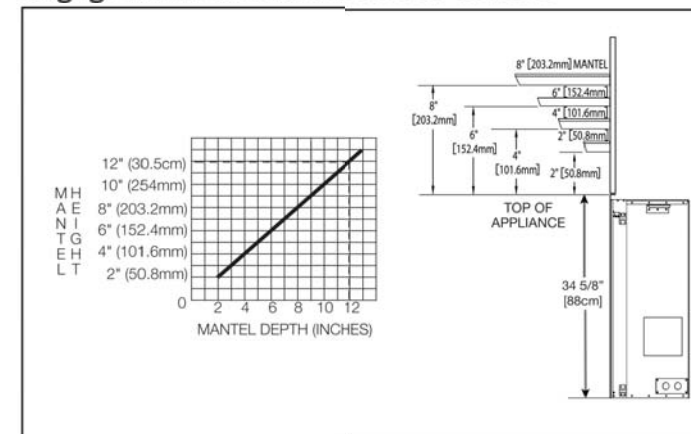
### Dimensions



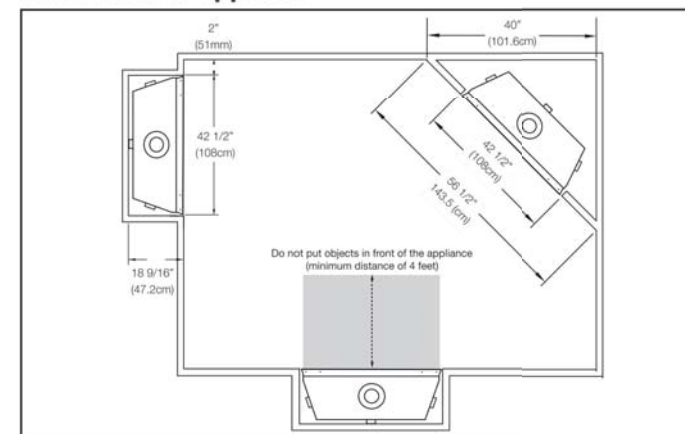
### Passage d'un section dans un mur



### Dégagements Combustible de la Tablette



### Location de l'appareil



24 Napoleon Road, Barrie, Ontario, Canada L4M 0G8 • 214 Bayview Drive, Barrie, Ontario, Canada L4N 4Y8  
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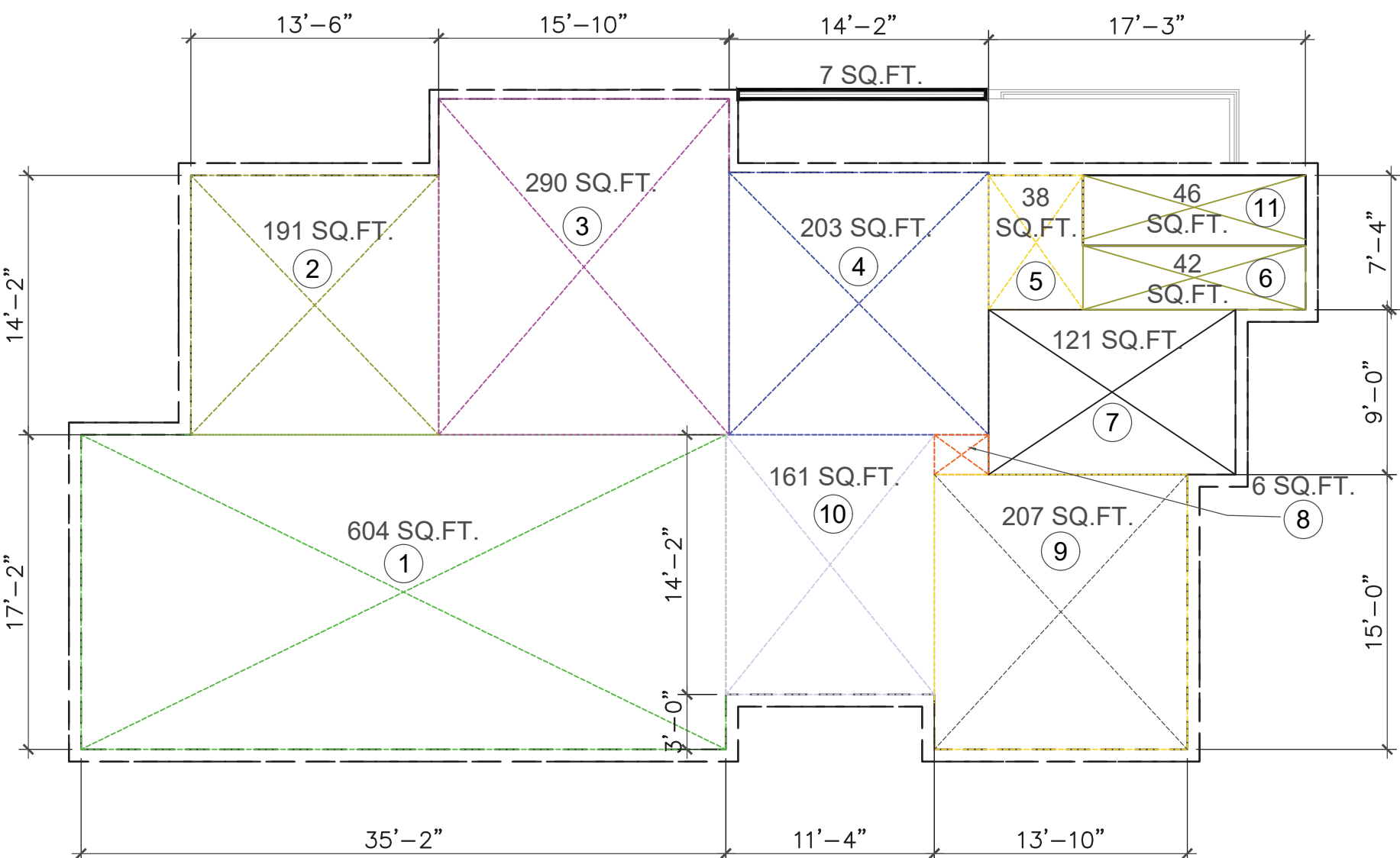
## 2ND FLOOR RFA DIAGRAM

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

1

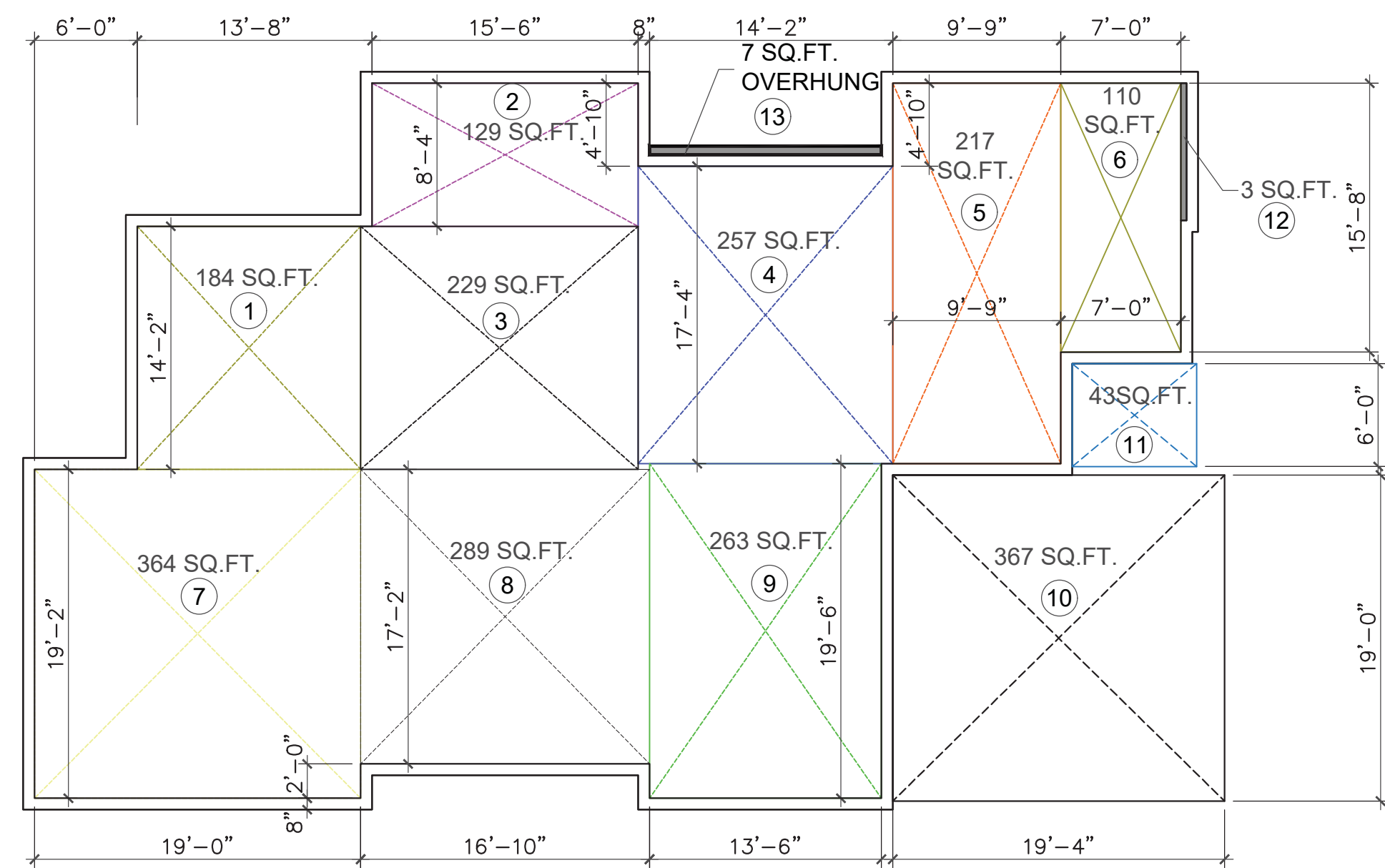
- 604 SQ.FT.
- 191 SQ.FT.
- 290 SQ.FT.
- 203 SQ.FT.
- 38 SQ.FT.
- 42 SQ.FT.
- 121 SQ.FT.
- 6 SQ.FT.
- 207 SQ.FT.
- 161 SQ.FT.
- 46 SQ.FT. STAIRS

2ND FLOOR TOTAL AREA:  
1,863.0 SQ.FT.



- 184 SQ.FT.
- 129 SQ.FT.
- 229 SQ.FT.
- 257 SQ.FT.
- 217 SQ.FT.
- 110 SQ.FT.
- 364 SQ.FT.
- 289 SQ.FT.
- 263 SQ.FT.
- 367 SQ.FT.
- 43 SQ.FT.
- 3 SQ.FT.
- 7 SQ.FT.

TOTAL AREA:  
2,462.0 SQ.FT.-200 = 2,262



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

2

## 1ST FLOOR RFA DIAGRAM

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A.I.

M.S.

12-28-20

JOB NO.:

DRAWN BY:

CHECKED BY:

DATE:

SHEET TITLE:

SHEET NUMBER

**A-2**

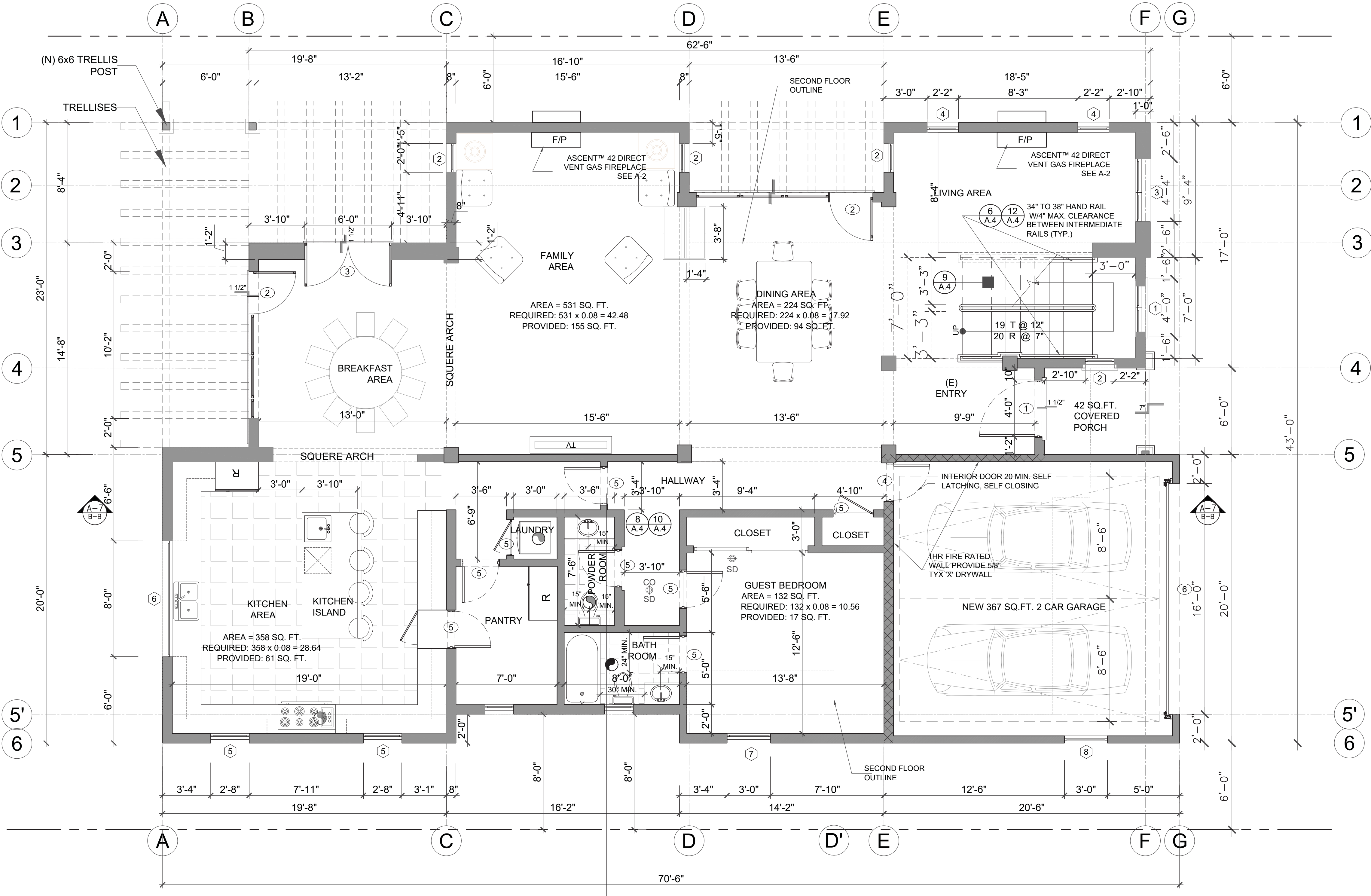
SHEETS 2 OF 12

## ASCENT™ 42 DIRECT VENT GAS FIREPLACE



PLAN NOTES:

1. PROVIDE LOW WATER CONSUMPTION AND CONSERVING PLUMBING FIXTURES AND FITTINGS PER CHAPTER 4 OF CAL GREEN BUILDING STANDARD CODE (CGBSC 4.303.3) SHALL COMPLY WITH THE FOLLOWING:
  - A. SHOWERHEADS 1.8 GPM @ 80 PSI
  - B. LAVATORY FAUCETS, RESIDENTIAL 1.2 GPM @ 60 PSI
  - C. KITCHEN FAUCET 1.8 GPM @ 60 PSI
  - D. ALL TYPE OF WATER CLOSETS 1.28 GALLON PER FLUSH
2. BATHTUB AND SHOWER FLOORS, WALLS ABOVE BATHTUB WITH A SHOWER HEAD, AND SHOWER COMPARTMENTS SHALL BE FINISHED WITH NONABSORBENT SURFACE EXTENDING TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR. (R307.2)
3. ALL SHOWERS AND TUB-SHOWERS SHALL HAVE EITHER A PRESSURE BALANCE OR THERMOSTATIC MIXING VALVE.
4. SHOWER DOORS SHALL SWING OUT, NET AREA OF SHOWER RECEPTOR SHALL BE NOT LESS THAN 1,024 SQ.INCH OF FLOOR AREA, AND ENCOMPASS 30-INCH DIAMETER CIRCLE. (CPC 408.6)
5. WATER AND WASTE CONNECTION TO EVERY BATHTUB SHALL BE PROVIDED WITH 12"x12" MINIMUM ACCESS DOOR OR PANEL.
6. DIMENSION ON THE PLANS THE 30 INCH CLEAR WIDTH FOR WATER CLOSET AND 24 INCH CLEARANCE IN FRONT OF WATER CLOSET FOR BATHROOM. (PC 407.5)
7. PROVIDE SOAP DISH AT TUB AND SHOWER, TWO TOWEL BARS AND ONE PAPER HOLDER AT EACH BATHROOM. MIRROR TOP AT 6'-8" ABOVE FINISH FLOOR. RECESSED MEDICINE CABINET WITH MIRROR.
8. BATHROOMS, WATER CLOSET COMPARTMENTS AND OTHER SIMILAR ROOMS SHALL BE PROVIDED WITH MINIMUM GLAZING AREA OF 3-SQ. FT. ONE-HALF OF WHICH IS OPENABLE. THE GLAZED AREAS ARE NOT REQUIRED WHERE ARTIFICIAL LIGHT AND A MECHANICAL VENTILATION OF 50 CFM INTERMITTENT OR 25 CFM CONTINUOUS VENTILATION ARE PROVIDED. (R303.3)
9. PROVIDE EXHAUST CEILING FAN WITH 50 AIR CHANGES PER HOUR IN ALL INTERIOR BATHROOMS, POWDER ROOMS, LAUNDRY ROOMS. FAN EXHAUST SYSTEM TO BE OPERABLE FROM LIGHT SWITCH. PROVIDE BACKDRAFT DAMPER AND SEPARATE SWITCH.
10. WATER SUPPLY TO FIXTURES:  
PLUMBING FIXTURES SHALL BE CONNECTED TO AN APPROVED WATER SUPPLY. KITCHEN SINKS, LAVATORIES, BATHTUBS, SHOWERS, BIDETS, LAUNDRY TUBS AND WASHING MACHINE OUTLETS SHALL BE PROVIDED WITH HOT AND COLD WATER.
11. INSTALL GFCI AND AFCI OUTLETS IN BATHROOMS.
12. EXHAUST FANS WITH HUMIDITY CONTROL:  
EACH BATHROOM CONTAINING A BATHTUB, SHOWER OR TUB/SHOWER COMBINATION SHALL BE MECHANICALLY VENTILATED FOR PURPOSE OF HUMIDITY CONTROL IN ACCORDANCE WITH CMC, CHAPTER 4.  
BATHROOM EXHAUST FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE TO THE OUTSIDE OF THE BUILDING. BATHROOM EXHAUST FANS, NOT FUNCTIONING AS A COMPONENT OF WHOLE HOUSE VENTILATION SYSTEM, MUST BE CONTROLLED BY HUMIDISTAT WHICH SHALL BE READILY ACCESSIBLE. HUMIDITY CONTROLS SHALL BE CAPABLE OF ADJUSTMENT BETWEEN RELATIVE HUMIDITY RANGE OF < 50% TO A MAXIMUM OF 80 %. A HUMIDITY CONTROL MAY UTILIZE MANUAL OR AUTOMATIC MEANS OF ADJUSTMENT.
13. SMOKE ALARMS: PROVIDE INTERCONNECTED HARD-WIRED "SMOKE ALARM" WITH BATTERY BACKUP IN THE FOLLOWING: (R314)
  - a. IN EACH SLEEPING ROOM
  - b. OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
  - c. ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS, BUT NOT INCLUDING CRAWL SPACES AND UNINHABITABLE ATTICS.
  - d. PROVIDE A NOTE: "SMOKE ALARM SHALL BE INTERCONNECTED HARD-WIRED WITH BATTERY BACKUP."SMOKE ALARMS SHALL BE TESTED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURE'S INSTRUCTIONS. SMOKE ALARMS THAT NO LONGER FUNCTION SHALL BE REPLACED. SMOKE ALARMS INSTALLED IN ONE- AND TWO- FAMILY DWELLINGS SHALL BE REPLACED AFTER 10 YEARS FROM THE DATE OF MANUFACTURE MARKED ON THE UNIT, OR IF THE DATE OF MANUFACTURE CANNOT BE DETERMINED. (R314.3.3)  
CONVENTIONAL IONIZATION SMOKE ALARMS: ARE SOLELY BATTERY POWERED SHALL BE EQUIPPED WITH A 10 YEAR BATTERY AND HAVE SILENCE FEATURE.
14. CARBON MONOXIDE DETECTORS: AN APPROVED CARBON MONOXIDE DETECTOR RECEIVING ITS PRIMARY SOURCE OF POWER FROM THE BUILDING WIRING AND HAVING BATTERY BACKUP SHALL BE INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA OR BEDROOM(S) AND ONE ON EVERY LEVEL OF THE DWELLING INCLUDING BASEMENTS. WHERE MORE THAN ONE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING, THE ALARMS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE WILL ACTIVATE ALL THE ALARMS IN THE UNIT. THE ALARM IS PERMITTED TO BE SOLELY BATTERY OPERATED WHERE THE WORK DOES NOT RESULT IN THE REMOVAL OF WALL OR CEILING FINISHES, OR THERE IS NO ACCESS THROUGH AN ATTIC, BASEMENT OR CRAWL SPACE. (CRC R315.1). DETECTORS SHALL MEET U.L. 2034 AND /OR NFPA 720 STANDARDS.
15. CLOTHES DRYER: A MINIMUM 4" IN DIAMETER MOISTURE EXHAUST DUCT MUST BE PROVIDED (CMC 504.3.1). A FLEXIBLE DUCT CANNOT EXTEND MORE THAN 6' AND CANNOT BE CONCEALED (CMC 504.3.1.1). DRYER EXHAUST DUCT MUST BE 4" IN DIAMETER AND CANNOT EXCEED 14' WITH A MAXIMUM OF TWO 90° ELBOWS (CMC 504.3.1.2). THE DUCT LENGTH SHALL BE REDUCED BY 2' FOR EVERY ELBOW IN EXCESS OF TWO.  
WASHER / DRYER SPACE: ROUGH-IN PLUMBING FOR HOT / COLD WATER AND WASTE. VENTILATE DRYER TO OUTSIDE AIR. PROVIDE 120V AND 220V ELECTRICAL OUTLET AND FUEL GAS OUTLET.
16. 30" x 30" MINIMUM ATTIC ACCESS AT 30" MINIMUM CLEAR HEADROOM.
17. KITCHEN CABINETS, APPLIANCES AND FIXTURES PER OWNER INSTRUCTIONS PROVIDE DOUBLE SINKS WITH GARBAGE DISPOSAL, AT REFRIGERATOR SPACE - PROVIDE COPPER TUBE WATER LINE FOR ICE MAKER.
18. LANDINGS AT EXTERIOR DOORS: THERE SHALL BE A LANDING OR FLOOR ON EACH SIDE OF EXTERIOR DOOR. THE WIDTH OF EACH LANDING SHALL BE NOT LESS THAN THE DOOR SERVED. EVERY LANDING SHALL HAVE A DIMENSION OF NOT LESS THAN 36" MEASURED IN THE DIRECTION OF TRAVEL. THE SLOPE AT EXTERIOR LANDINGS SHALL NOT EXCEED 1/4 UNIT VERTICAL IN 12 UNITS HORIZONTAL (2%).  
EXCEPTION: EXTERIOR BALCONIES LESS THAN 60 SQUARE FEET AND ONLY ACCESSIBLE FROM A DOOR ARE PERMITTED TO HAVE A LANDING LESS THAN 36" INCHES.
19. ENTREE / EXIT DOORS MUST BE OPEN OVER A LANDING NOT MORE THAN 1/2" BELOW THE THRESHOLD. FOR SLIDING DOORS NOT HIGHER THAN 3/4" BELOW THRESHOLD.
20. DOORS: NONCOMBUSTIBLE EXTERIOR DOORS OR IGNITION RESISTANT, 1-1/2" SOLID CORE WOOD, OR HAVE FIRE-PROTECTION RATING OF NOT LESS THAN 20 MINUTES. (708A.3) WINDOWS WITHIN DOORS AND GLAZED DOORS SHALL COMPLY WITH 708A.2.1, 716.6.7.3.  
EXCEPTION: GARAGE DOORS AND VEHICLE ACCESS DOORS PROVIDED THE INTERIOR OF THE GARAGE IS SHEATHED WITH 5/8" TYPE 'X' GYPSUM WALLBOARD.
21. GLAZING IN DOORS AND WINDOWS SHALL BE TEMPERED (CRC R308.4):
  - a. IN OPERABLE PANELS OF DOORS.
  - b. WITHIN 24" OF A DOOR WHEN BOTTOM EDGE IS LESS THAN 60" ABOVE A WALKING SURFACE.
  - c. IN AN INDIVIDUAL PANE LARGER THAN 9 SF, WHEN THE BOTTOM EDGE IS WITHIN 18" OF THE DOOR, WHEN THE TOP EDGE IS MORE THAN 36" ABOVE THE FLOOR, AND WHEN WITHIN 36" OF A WALKING SURFACE AS MEASURED HORIZONTALLY AND IN A STRAIGHT LINE.
  - d. IN RAILINGS.
  - e. WITHIN 60" OF TUB OR SHOWER FLOOR.
  - f. GLAZING ADJACENT TO STAIRWAYS, LANDINGS, AND RAMPS WITHIN 36" OF A WALKING SURFACE WHEN LESS THAN 60" ABOVE THE ADJACENT WALKING SURFACE.
  - g. WITHIN 60" OF STAIRS AND STAIR LANDINGS.
22. BEDROOM EGRESS WINDOWS HAVE A MINIMUM CLEAR OPENING AREA OF 5.7SF WHEN ABOVE THE GRADE FLOOR AND 5 SF ON THE GRADE FLOOR, A MINIMUM NET HEIGHT-24" AND MINIMUM NET WIDTH: 20", AND THE SILL HEIGHT NOT MORE THAN 44" ABOVE FINISH FLOOR.
23. SHOW THE FOLLOWING STAIRWAY DETAILS ON PLANS:
  - A. 7 3/4" MAXIMUM RISE AND MINIMUM 10" RUN (R311.7.5)
  - B. MINIMUM 6'-8" HEADROOM CLEARANCE (R311.7.2)
  - C. MINIMUM 36" CLEAR WIDTH (311.7.1)
  - D. HANDRAILS 34" TO 38" HIGH ABOVE TREAD NOSING (R311.7.8.1)
  - E. HANDGRIP PORTION OF HANDRAIL SHALL NOT BE LESS THAN 1 1/4" AND NO MORE THAN 2" CROSS-SECTIONAL DIMENSION HAVING A SMOOTH SURFACE WITH NO SHARP CORNERS (R311.7.7.3)
  - F. MAXIMUM 4" CLEAR SPACING OPENING BETWEEN RAILS (R312.1.3)
  - G. ALL STAIRWAYS SHALL HAVE AN ILLUMINATION LEVEL ON TREAD RUNS OF NOT LESS THAN 1 FOOT-CANDLE (11 lux) (R303.6)
24. FINISH MATERIALS INCLUDING ADHESIVES, SEALANTS, CAULKS, PAINTS AND COATING, AEROSOL PAINTS AND COATINGS, ADHESIVE SYSTEMS, CARPET CUSHIONS, CARPET ADHESIVES, RESILIENT FLOORING SYSTEMS AND COMPOSITE WOOD PRODUCTS SHALL MEET THE (VOC) EMISSION LIMITS PER CHAPTER 4 OF LOS ANGELES COUNTY GREEN BUILDING STANDARDS CODE.



LEGEND:

- NEW 2x4 STUD WALL @16" O.C. (INTERIOR)
- NEW 2x6 STUD WALL @16" O.C. (EXTERIOR)
- 1 HR FIRE RAITED WALL
- G.F.I. OUTLET
- ENERGY STAR rated EXHAUST CEILING FAN
- "Controlled by humidistat" 50 CFM
- SMOKE and CARBON MONOXIDE detector.
- SEE PLAN NOTES ON THIS SHEET
- SEE DOOR SCHEDULE ON THIS SHEET
- SEE WINDOW SCHEDULE ON THIS SHEET

NOTE: THE NFRC TEMPORARY LABEL DISPLAYED ON ALL WINDOWS AND SKYLIGHTS (INCLUDING TUBULAR) MUST REMAIN ON THE UNIT UNTIL FINAL INSPECTION HAS BEEN COMPLETED.

ADJACENT ONE STORY HOUSE

FIRST FLOOR PLAN

3. GLAZING IN THE FOLLOWING LOCATIONS SHALL BE SAFETY GLAZING CONFORMING TO THE HUMAN IMPACT LOADS OF SECTION R308.3 (SEE EXCEPTIONS) (R308.4):
  - A. FIXED AND OPERABLE PANELS OF SWINGING, SLIDING AND BI-FOLD DOOR ASSEMBLIES.
  - B. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 24-INCH ARC OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHOSE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR OR WALKING SURFACE.
  - C. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL THAT MEETS ALL OF THE FOLLOWING CONDITIONS:
    - I. EXPOSED AREA OF AN INDIVIDUAL PANE GREATER THAN 9 SQUARE FEET.
    - II. BOTTOM EDGE LESS THAN 18 INCHES ABOVE THE FLOOR.
    - III. TOP EDGE GREATER THAN 36 INCHES ABOVE THE FLOOR.
    - IV. ONE OR MORE WALKING SURFACES WITHIN 36 INCHES HORIZONTALLY OF THE GLAZING.
    - D. GLAZING IN GUARDS AND RAILINGS.
    - E. GLAZING IN ENCLOSURES FOR OR WALLS FACING HOT TUBS, WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS AND SHOWERS WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60 INCHES MEASURED VERTICALLY ABOVE ANY STANDING OR WALKING SURFACE.

- G. GLAZING WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 36 INCHES ABOVE THE PLANE OF THE ADJACENT WALKING SURFACE OF STAIRWAYS, LANDINGS BETWEEN FLIGHTS OF STAIRS AND RAMPS.
- H. GLAZING ADJACENT TO THE LANDING AT THE BOTTOM OF A STAIRWAY WHERE THE GLAZING IS LESS THAN 36 INCHES ABOVE THE LANDING AND WITHIN A 60 INCH HORIZONTAL ARC LESS THAN 180 DEGREES FROM THE BOTTOM TREAD NOSING (R304.2).
- F. GLAZING IN WALLS AND FENCES ADJACENT TO INDOOR AND OUTDOOR SWIMMING POOLS, HOT TUBS AND SPAS WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE A WALKING SURFACE AND WITHIN 60 INCHES MEASURED HORIZONTALLY AND IN A STRAIGHT LINE, OF THE WATER'S EDGE.
8. BUILDINGS SHALL HAVE APPROVED ADDRESS NUMBERS, BUILDING NUMBERS OR APPROVED BUILDING IDENTIFICATION PLACED IN A POSITION THAT IS PLAINLY LEGIBLE AND VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. (R319.1)
9. PROTECTION OF WOOD AND WOOD BASED PRODUCTS FROM DECAY SHALL BE PROVIDED IN THE LOCATIONS SPECIFIED PER SECTION R317.1 BY THE USE OF NATURALLY DURABLE WOOD OR WOOD THAT IS PRESERVATIVE-TREATED IN ACCORDANCE WITH AWPA U1 FOR THE SPECIES, PRODUCT, PRESERVATIVE AND END USE. PRESERVATIVES SHALL BE LISTED IN SECTION 4 OF AWPA U1
10. PROVIDE ANTI-GRAFFITI FINISH WITHIN THE FIRST 9 FEET, MEASURED FROM GRADE, AT EXTERIOR WALLS AND DOORS. EXCEPTION: MAINTENANCE OF BUILDING AFFIDAVIT IS RECORDED BY THE OWNER TO COVENANT AND AGREE WITH THE CITY OF LOS ANGELES TO REMOVE ANY GRAFFITI WITHIN 7-DAYS OF THE GRAFFITI BEING APPLIED. (6306).

FIRST FLOOR PLAN

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

1

WRITTEN DIMENSIONS ON THESE SHALL HAVE PRECEDENCE OVER SCALED DIMENSION. CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. THE ABOVE DRAWINGS AND SPECIFICATIONS AND IDEAS, DESIGNS AND ARRANGEMENTS REPRESENTED THEREBY SHALL BE COPIED DISCLOSED TO OTHERS OR USED IN CONNECTION WITH ANY OTHER WORK DEVELOPED WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. VISUAL CONTACT WITH THESE DRAWINGS OR ANY OTHER DOCUMENTS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS.

ART and INTERIOR DESIGN SERVICES

635 W. COLORADO ST., #102, GLENDALE CA 91204  
Tel.: 818-389-3888 email: artdesigns97@gmail.com

PROJECT TITLE: NEW 2 STORY S.F.D. WITH ATTACHED 2-CAR GARAGE

OWNER: BRETT KARNIS

JOB ADDRESS:  
12527 HUSTON ST., VALLEY VILLAGE, CA 91607

JOB NO.:

A-2048

AL:

DATE:

12-28-20

SHEET TITLE:

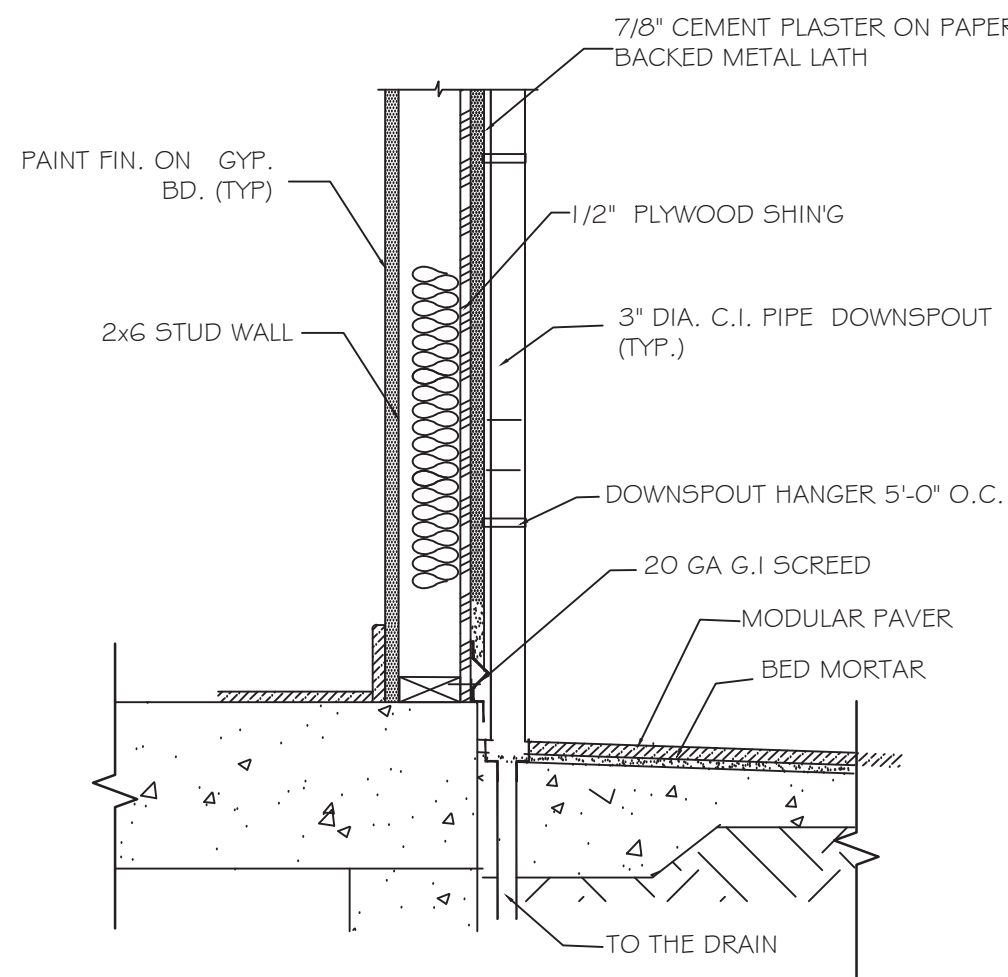
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SHEET NUMBER

A-3

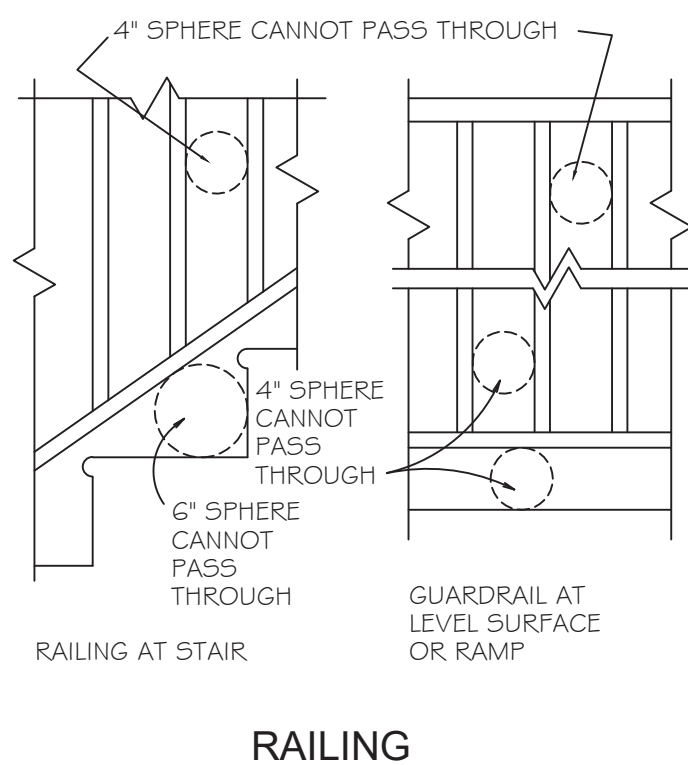
SHEETS 5 OF 12





UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY, AND BE RESPONSIBLE FOR ALL DIMENSIONS, THAT ALL DIMENSIONS AND CONDITIONS SHOWN BY THE DRAWINGS ARE IN ACCORDANCE WITH THE DIMENSIONS AND CONDITIONS SHOWN BY THE FIELD OF CONSTRUCTION. CONTRACTORS SHALL BE RESPONSIBLE FOR ALL VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THE DRAWINGS. THE ABOVE DRAWINGS AND SPECIFICATIONS ARE AND SHALL REMAIN THE PROPERTY OF THE ENGINEER, AND NO PART THEREOF SHALL BE COPIED, DISCLOSED TO ANY OTHERS OR USED IN CONNECTION WITH ANY OTHER WORK DEVELOPED WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. VISUAL CONFIRMATION OF THE DIMENSIONS, DRAWINGS OR SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS.

SCALE: 6  
1/4"=1'-0"



PROVIDE 2x12 SKIRT  
AT INSIDE STAIR FACE

1 LAYERS 3/4" PLYWOOD  
TREADS & RISERS

10" MIN.

7 3/8" MAX.

4"

2x BASE PLATE  
RAMSET TO FLOORING

2x14 STRINGER  
TOE NAILED TO  
BASE PLATE  
W/3-1 6d NAILS  
EACH STRINGER

5/8" TYPE 'X'  
DRYWALL

CONCRETE FLOOR

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

J. FOR EXISTING POOL ON SITE, PROVIDE ANTI-ENTRAPMENT COVER COVERS MEETING THE CURRENT ASTM OR ASME FOR THE SURTION TENTS OF THE SWIMMING POOL, TODDLER POOL AND SINGLE FAMILY DWELLINGS PER ASSEMBLY BILL (AB) NO. 2977 3162b  
K. AUTOMATIC GARAGE DOOR OPERATORS, IF PROVIDED, SHALL BE LISTED IN ACCORDANCE WITH UL 325. R0304  
L. ALL EXISTING AND PROPOSED SLEEPING UNITS FOR ALL DWELLING UNITS INTENDED FOR HUMAN OCCUPANCY, WHERE A PERMIT IS REQUIRED FOR ALTERATIONS, REPAIRS, OR ADDITIONS.  
R1342  
n. WHERE A PERMIT IS REQUIRED FOR ALTERATIONS, REPAIRS OR ADDITIONS, EXISTING DWELLINGS OR SLEEPING UNITS THAT HAVE ATTACHED GARAGES OR FUEL-BURNING APPLIANCES SHALL BE PROVIDED WITH CARBON MONOXIDE DETECTORS IN ACCORDANCE WITH SECTION R315.2. CARBON MONOXIDE ALARMS SHALL ONLY BE REQUIRED IN THE SPECIFIC DWELLING UNIT OR SLEEPING UNIT FOR WHICH THE PERMIT WAS OBTAINED.  
R0315  
n. EVERY SPACE INTENDED FOR HUMAN OCCUPANCY SHALL BE PROVIDED WITH NATURAL LIGHT BY MEANS OF EXTERIOR GLAZED OPENINGS IN ACCORDANCE WITH SECTION R0303.1 OR SHALL BE PROVIDED WITH ARTIFICIAL LIGHTING OF SUFFICIENTLY ADEQUATE TO PROVIDE AN AVERAGE ILLUMINATION OF 6 FOOT-CANDELES OVER THE AREA OF THE ROOM AT A HEIGHT OF 30 INCHES ABOVE THE ROOM SURFACE.  
R0303.1  
n. THE MINIMUM VERTICAL ELEVATION REAR AND/OR CONDITION

1. FIXED AND OPERABLE PANELS OF SWINGING, SLIDING, AND BI-FOLD DOORS
2. WHERE THE GLAZING IS WITHIN 24" OF EITHER SIDE OF THE DOOR IN THE PLANE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60" ABOVE THE FLOOR, (CIRC R308.4.2 ITEM 2) WHERE THE GLAZING IS WITHIN 24" OF EITHER SIDE OF THE DOOR IN A CLOSED POSITION AND WITHIN 24" OF THE HINGE SIDE OF AN IN-SWINGING DOOR, (CIRC R308.4.2 ITEM 2)
3. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL WITH AN EXPOSED AREA IN THE INDIVIDUAL PANEL AREA LARGER THAN 10 SQ. FT. THE BOTTOM EDGE OF THE GLAZING IS 18" ABOVE THE FLOOR, THE TOP EDGE OF THE GLAZING IS MORE THAN 36" ABOVE THE FLOOR, AND HAS ONE OR MORE WALKING SURFACES WITHIN 36" IN. OF THE GLAZING (CIRC R308.4.3, CIRC 2406.4.3)
5. GLAZING LESS THAN 60" ABOVE A SHOWER OR TUB FLOOR, (CIRC R308.4.5, CIRC 2406.5)
6. GLAZING IN A DOOR THE BOTTOM EDGE IS LESS THAN 36" ABOVE THE STAIRWAYS, LANDINGS, AND RAMPS (CIRC R308.4.6, CIRC 2406.4.6)
7. GLAZING ADJACENT TO THE STAIRWAY BOTTOM LANDING WHERE THE GLAZING IS LESS THAN 36" ABOVE THE LANDING AND WITHIN 60" HORIZONTAL ARC LESS THAN 180 DEGREES FROM THE BOTTOM TRIM NOTING SHALL BE VISIBLE GLAZING, (CIRC R308.4.7, CIRC 2406.4.7)
8. GLAZING IN GUARDS AND RAILINGS, (CIRC R308.4.4, CIRC 2406.4.4)

NOTE: THE NFRC TEMPORARY LABEL  
DISPLAYED ON ALL WINDOWS AND SKYLIGHTS  
(INCLUDING TUBULAR) MUST REMAIN ON THE  
UNIT UNTIL FINAL INSPECTION HAS BEEN  
COMPLETED.

FIRST FLOOR WINDOW SCHEDULE											
WINDOW NO ☉	TYPE	QUANTITY	WIDE X HEIGHT	COLOR & MATERIAL	TYPE OF OPERATION	BEDROOM ? Y / N	ENERGY EFFICIENT ? Y / N	TEMPERED GLASS ? Y / N	FIRE HAZARD ZONE ? Y / N	REMARKS	
										U-FACTOR	SHGC
1	A	01	48"x60"	VINYL	FIXED	NO	YES	YES	NO	0.290	0.21
2	B	05	24"x44"	VINYL	CASEMENT	NO	YES	YES	NO	0.290	0.21
3	C	01	52"x72"	VINYL	CASEMENT	NO	YES	YES	NO	0.290	0.21
4	D	01	28"x72"	VINYL	CASEMENT	NO	YES	YES	NO	0.290	0.21
5	B	02	32"x48"	VINYL	CASEMENT	NO	YES	YES	NO	0.290	0.21
6	E	01	96"x60"	VINYL	FIXED/ CASEMENT	NO	YES	YES	NO	0.290	0.21
7	B	01	36"x68"	VINYL	CASEMENT	YES	YES	YES	NO	0.290	0.21
8	B	01	36"x68"	VINYL	CASEMENT	NO	YES	YES	NO	0.290	0.21

## DOOR AND WINDOW SCHEDULE FOR FIRST FLOOR PLAN

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

PROJECT TITLE: NEW 2 STORY S.F.D. WITH ATTACHED 2-CAR GARAGE

OWNER: BRETT KARNS

JOB ADDRESS:  
12527 HUSTON ST., VALLEY VILLAGE, CA 91607

5	JOB NO.:	A-2048
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DRAWN BY:	A.I.
CHECKED BY:	M.S.

DATE:	12-28-20
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SHEET TITLE:

SHEET NUMBER

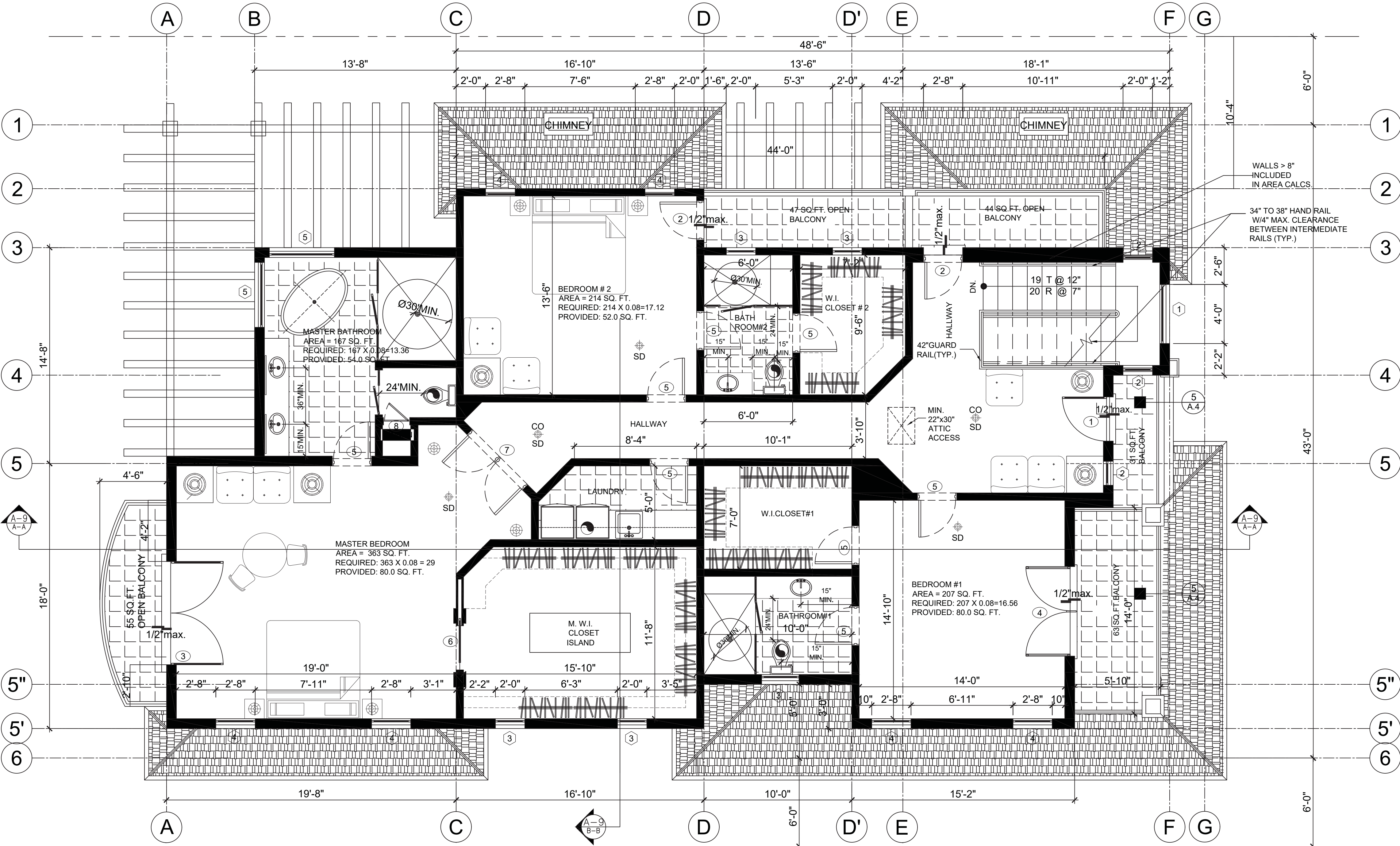
A-4

SHEETS 4 OF 12



PLAN NOTES:

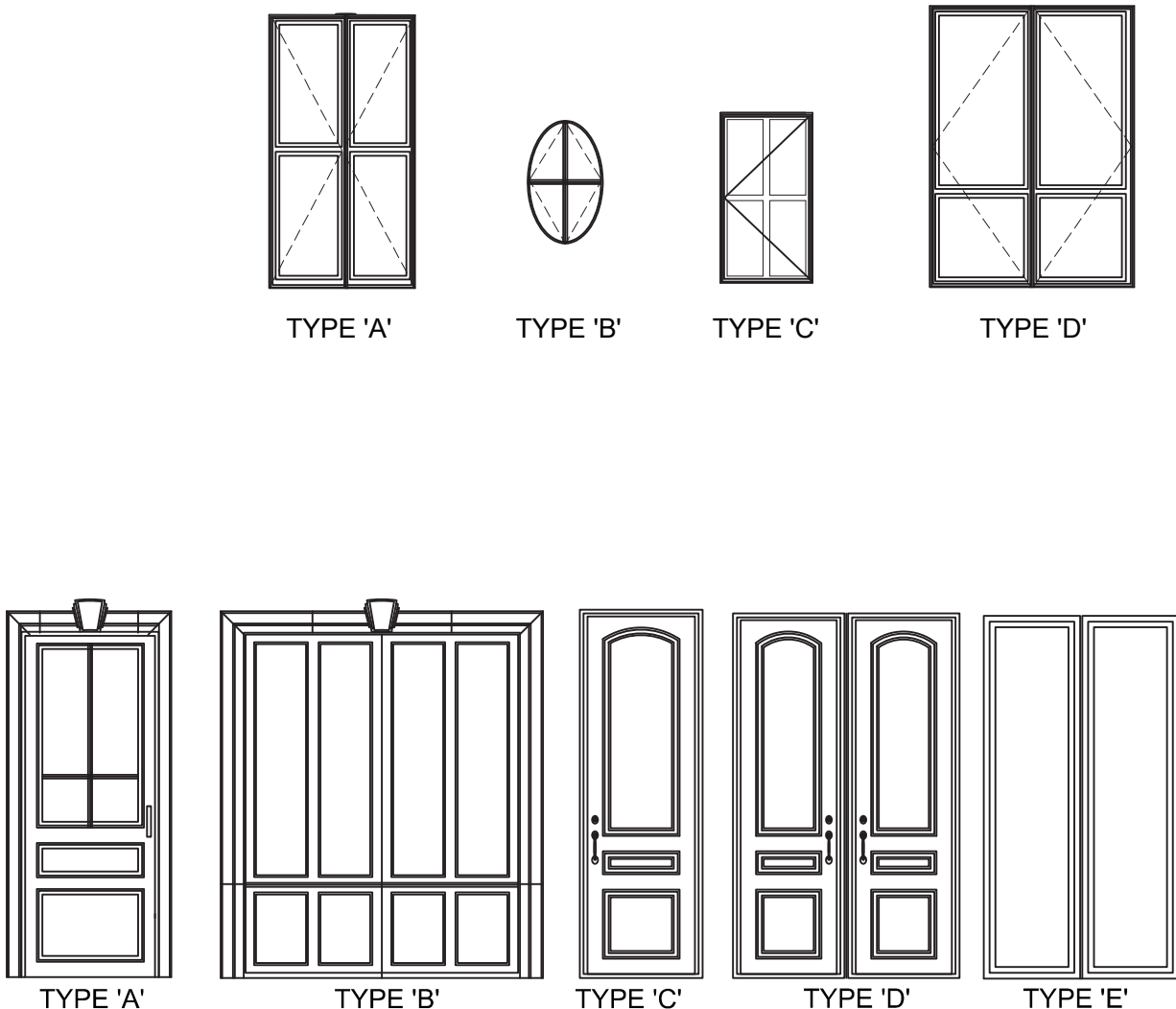
- PROVIDE LOW WATER CONSUMPTION AND CONSERVING PLUMBING FIXTURES AND FITTINGS PER CHAPTER 4 OF CAL GREEN BUILDING STANDARD CODE (CGBSC 4.303.3) SHALL COMPLY WITH THE FOLLOWING:  
A. SHOWERHEADS 1.8 GPM @ 80 PSI  
B. LAVATORY FAUCETS, RESIDENTIAL 1.2 GPM @ 60 PSI  
C. KITCHEN FAUCET 1.8 GPM @ 60 PSI  
D. ALL TYPE OF WATER CLOSETS 1.28 GALLON PER FLUSH
- BATHTUB AND SHOWER FLOORS, WALLS ABOVE BATHTUB WITH A SHOWER HEAD, AND SHOWER COMPARTMENTS SHALL BE FINISHED WITH NONABSORBENT SURFACE EXTENDING TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR. (R307.2)
- ALL SHOWERS AND TUB-SHOWERS SHALL HAVE EITHER A PRESSURE BALANCE OR THERMOSTATIC MIXING VALVE.
- SHOWER DOORS SHALL SWING OUT, NET AREA OF SHOWER RECEPTOR SHALL BE NOT LESS THAN 1,024 SQ.INCH OF FLOOR AREA, AND ENCOMPASS 30-INCH DIAMETER CIRCLE. (CPC 408.6).
- WATER AND WASTE CONNECTION TO EVERY BATHTUB SHALL BE PROVIDED WITH 12"x12" MINIMUM ACCESS DOOR OR PANEL.
- DIMENSION ON THE PLANS THE 30 INCH CLEAR WIDTH FOR WATER CLOSET AND 24 INCH CLEARANCE IN FRONT OF WATER CLOSET FOR BATHROOM. (PC 407.5)
- PROVIDE SOAP DISH AT TUB AND SHOWER, TWO TOWEL BARS AND ONE PAPER HOLDER AT EACH BATHROOM. MIRROR TOP AT 6'-8" ABOVE FINISH FLOOR. RECESSED MEDICINE CABINET WITH MIRROR.
- BATHROOMS, WATER CLOSET COMPARTMENTS AND OTHER SIMILAR ROOMS SHALL BE PROVIDED WITH MINIMUM GLAZING AREA OF 3-SQ. FT, ONE-HALF OF WHICH IS OPENABLE. THE GLAZED AREAS ARE NOT REQUIRED WHERE ARTIFICIAL LIGHT AND A MECHANICAL VENTILATION OF 50 CFM INTERMITTENT OR 25 CFM CONTINUOUS VENTILATION ARE PROVIDED. (R303.3)
- PROVIDE EXHAUST CEILING FAN WITH 50 AIR CHANGES PER HOUR IN ALL INTERIOR BATHROOMS, POWDER ROOMS, LAUNDRY ROOMS. FAN EXHAUST SYSTEM TO BE OPERABLE FROM LIGHT SWITCH. PROVIDE BACKDRAFT DAMPER AND SEPARATE SWITCH.
- WATER SUPPLY TO FIXTURES:  
PLUMBING FIXTURES SHALL BE CONNECTED TO AN APPROVED WATER SUPPLY. KITCHEN SINKS, LAVATORIES, BATHTUBS, SHOWERS, BIDETS, LAUNDRY TUBS AND WASHING MACHINE OUTLETS SHALL BE PROVIDED WITH HOT AND COLD WATER.
- INSTALL GFCI AND AFCI OUTLETS IN BATHROOMS.
- EXHAUST FANS WITH HUMIDITY CONTROL:  
EACH BATHROOM CONTAINING A BATHTUB, SHOWER OR TUB/SHOWER COMBINATION SHALL BE MECHANICALLY VENTILATED FOR PURPOSE OF HUMIDITY CONTROL IN ACCORDANCE WITH CMIC, CHAPTER 4.  
BATHROOM EXHAUST FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE TO THE OUTSIDE OF THE BUILDING. BATHROOM EXHAUST FANS, NOT FUNCTIONING AS A COMPONENT OF WHOLE HOUSE VENTILATION SYSTEM, MUST BE CONTROLLED BY HUMIDISTAT WHICH SHALL BE READILY ACCESSIBLE. HUMIDITY CONTROLS SHALL BE CAPABLE OF ADJUSTMENT BETWEEN RELATIVE HUMIDITY RANGE OF <50% TO A MAXIMUM OF 80 %. A HUMIDITY CONTROL MAY UTILIZE MANUAL OR AUTOMATIC MEANS OF ADJUSTMENT.
- SMOKE ALARMS: PROVIDE INTERCONNECTED HARD-WIRED "SMOKE ALARM" WITH BATTERY BACKUP IN THE FOLLOWING: (R314)  
a. IN EACH SLEEPING ROOM  
b. OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.  
c. ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS, BUT NOT INCLUDING CRAWL SPACES AND UNINHABITABLE ATTICS.  
d. PROVIDE A NOTE: "SMOKE ALARM SHALL BE INTERCONNECTED HARD-WIRED WITH BATTERY BACKUP.  
SMOKE ALARMS SHALL BE TESTED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURE'S INSTRUCTIONS. SMOKE ALARMS THAT NO LONGER FUNCTION SHALL BE REPLACED. SMOKE ALARMS INSTALLED IN ONE- AND TWO- FAMILY DWELLINGS SHALL BE REPLACED AFTER 10 YEARS FROM THE DATE OF MANUFACTURE MARKED ON THE UNIT, OR IF THE DATE OF MANUFACTURE CANNOT BE DETERMINED.(R314.3.3)  
CONVENTIONAL IONIZATION SMOKE ALARMS: ARE SOLELY BATTERY POWERED SHALL BE EQUIPPED WITH A 10 YEAR BATTERY AND HAVE SILENCE FEATURE.
- CARBON MONOXIDE DETECTORS: AN APPROVED CARBON MONOXIDE DETECTOR RECEIVING ITS PRIMARY SOURCE OF POWER FROM THE BUILDING WIRING AND HAVING BATTERY BACKUP SHALL BE INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA OR BEDROOM(S) AND ONE ON EVERY LEVEL OF THE DWELLING INCLUDING BASEMENTS, WHERE MORE THAN ONE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING, THE ALARMS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE WILL ACTIVATE ALL THE ALARMS IN THE UNIT. THE ALARM IS PERMITTED TO BE SOLELY BATTERY OPERATED WHERE THE WORK DOES NOT RESULT IN THE REMOVAL OF WALL OR CEILING FINISHES, OR THER IS NO ACCESS THROUGH AN ATTIC, BASEMENT OR CRAWL SPACE. (CRC R315.1), DETECTORS SHALL MEET U.L. 2034 AND /OR NFPA 720 STANDARDS.
- CLOTHES DRYER: A MINIMUM 4" IN DIAMETER MOISTURE EXHAUST DUCT MUST BE PROVIDED (CMC 504.3.1), A FLEXIBLE DUCT CANNOT EXTEND MORE THAN 6' AND CANNOT BE CONCEALED (CMC 504.3.1.1). DRYER EXHAUST DUCT MUST BE 4" IN DIAMETER AND CANNOT EXCEED 14' WITH A MAXIMUM OF TWO 90° ELBOWS (CMC 504.3.1.2), THE DUCT LENGTH SHALL BE REDUCED BY 2' FOR EVERY ELBOW IN EXCESS OF TWO.  
WASHER / DRYER SPACE: ROUGH-IN PLUMBING FOR HOT / COLD WATER AND WASTE. VENTILATE DRYER TO OUTSIDE AIR. PROVIDE 120V AND 220V ELECTRICAL OUTLET AND FUEL GAS OUTLET.
- 30" x 30" MINIMUM ATTIC ACCESS AT 30" MINIMUM CLEAR HEADROOM.
- KITCHEN CABINETS, APPLIANCES AND FIXTURES PER OWNER INSTRUCTIONS PROVIDE DOUBLE SINKS WITH GARBAGE DISPOSAL, AT REFRIGERATOR SPACE - PROVIDE COPPER TUBE WATER LINE FOR ICE MAKER.
- LANDINGS AT EXTERIOR DOORS: THERE SHALL BE A LANDING OR FLOOR ON EACH SIDE OF EXTERIOR DOOR. THE WIDTH OF EACH LANDING SHALL BE NOT LESS THAN THE DOOR SERVED. EVERY LANDING SHALL HAVE A DIMENSION OF NOT LESS THAN 36" MEASURED IN THE DIRECTION OF TRAVEL. THE SLOPE AT EXTERIOR LANDINGS SHALL NOT EXCEED 1/4 UNIT VERTICAL IN 12 UNITS HORIZONTAL (2%).  
EXCEPTION: EXTERIOR BALCONIES LESS THAN 60 SQUARE FEET AND ONLY ACCESSIBLE FROM A DOOR ARE PERMITTED TO HAVE A LANDING LESS THAN 36" INCHES.
- ENTREE / EXIT DOORS MUST BE OPEN OVER A LANDING NOT MORE THAN 1/2" BELOW THE THRESHOLD, FOR SLIDING DOORS NOT HIGHER THAN 3/4" BELOW THRESHOLD.
- DOORS: NONCOMBUSTIBLE EXTERIOR DOORS OR IGNITION RESISTANT, 1-1/3" SOLID CORE WOOD, OR HAVE FIRE-PROTECTION RATING OF NOT LESS THAN 20 MINUTES. (708A.3) WINDOWS WITHIN DOORS AND GLAZED DOORS SHALL COMPLY WITH 708A.2.1., 716.6.7.3.  
EXCEPTION: GARAGE DOORS AND VEHICLE ACCESS DOORS PROVIDED THE INTERIOR OF THE GARAGE IS SHEATHED WITH 5/8" TYPE 'X' GYPSUM WALLBOARD.
- GLAZING IN DOORS AND WINDOWS SHALL BE TEMPERED (CRC R308.4):  
a. IN OPERABLE PANELS OF DOORS,  
b. WITHIN 24" OF A DOOR WHEN BOTTOM EDGE IS LESS THAN 60" ABOVE A WALKING SURFACE.  
c. IN AN INDIVIDUAL PANE LARGER THAN 9 SF, WHEN THE BOTTOM EDGE IS WITHIN 18" OF THE DOOR, WHEN THE TOP EDGE IS MORE THAN 36" ABOVE THE FLOOR, AND WHEN WITHIN 36" OF A WALKING SURFACE AS MEASURED HORIZONTALLY AND IN A STRAIGHT LINE.  
d. IN RAILINGS,  
e. WITHIN 60" OF TUB OR SHOWER FLOOR.  
f. GLAZING ADJACENT TO STAIRWAYS, LANDINGS, AND RAMPS WITHIN 36" OF A WALKING SURFACE WHEN LESS THAN 60" ABOVE THE ADJACENT WALKING SURFACE,  
g. WITHIN 60" OF STAIRS AND STAIR LANDINGS.
- BEDROOM EGRESS WINDOWS HAVE A MINIMUM CLEAR OPENING AREA OF 5.7SF WHEN ABOVE THE GRADE FLOOR AND 5 SF ON THE GRADE FLOOR, A MINIMUM NET HEIGHT:24" AND MINIMUM NET WIDTH: 20". AND THE SILL HEIGHT NOT MORE THAN 44" ABOVE FINISH FLOOR.
- SHOW THE FOLLOWING STAIRWAY DETAILS ON PLANS:  
A. 7 3/4" MAXIMUM RISE AND MINIMUM 10" RUN (R311.7.5)  
B. MINIMUM 6'-8" HEADROOM CLEARANCE (R311.7.2)  
C. MINIMUM 36" CLEAR WIDTH (R311.7.1)  
D. HANDRAILS 34" TO 38" HIGH ABOVE TREAD NOSING (R311.7.8.1)  
E. HANDGRIP PORTION OF HANDRAIL SHALL NOT BE LESS THAN 1 1/4" AND NO MORE THAN 2" CROSS-SECTIONAL DIMENSION HAVING A SMOOTH SURFACE WITH NO SHARP CORNERS (R311.7.7.3)  
F. MAXIMUM 4" CLEAR SPACING OPENING BETWEEN RAILS (R312.1.3).  
G. ALL STAIRWAYS SHALL HAVE AN ILLUMINATION LEVEL ON TREAD RUNS OF NOT LESS THAN 1 FOOT-CANDLE (11 lux) (R303.6)
- FINISH MATERIALS INCLUDING ADHESIVES, SEALANTS, CAULKS, PAINTS AND COATING, AEROSOL PAINTS AND COATINGS, CARPET SYSTEMS, CARPET CUSHIONS, CARPET ADHESIVES, RESILIENT FLOORING SYSTEMS AND COMPOSITE WOOD PRODUCTS SHALL MEET THE (VOC) EMISSION LIMITS PER CHAPTER 4 OF LOS ANGELES COUNTY GREEN BUILDING STANDARDS CODE.



SECOND FLOOR PLAN



LEGEND:	
	NEW 2x4 STUD WALL @16" O.C. (INTERIOR)
	NEW 2x6 STUD WALL @16" O.C. (EXTERIOR)
	1 HR FIRE RATED WALL
	G.F.I. OUTLET
	ENERGY STAR rated EXHAUST CEILING FAN "Controlled by humidistat" 50 CFM
	SMOKE and CARBON MONOXIDE detector.
	SEE PLAN NOTES ON THIS SHEET
	SEE DOOR SCHEDULE ON THIS SHEET
	SEE WINDOW SCHEDULE ON THIS SHEET



SECOND FLOOR WINDOW SCHEDULE

WINDOW NO.	TYPE	QUANTITY	WIDE X HEIGHT	COLOR MATERIAL	TYPE OF OPERATION	BEDROOM Y / N	ENERGY EFFICIENT ? Y / N	TEMPERED GLASS ? Y / N	FIRE HAZARD ZONE ? Y / N	REMARKS U-FACTOR SHGC
1	A	01	48"x72"	VINYL	FIXED	NO	YES	YES	NO	0.290 0.21
2	B	03	20"x32"	VINYL	CASEMENT	NO	YES	YES	NO	0.290 0.21
3	C	05	24"x44"	VINYL	CASEMENT	NO	YES	YES	NO	0.290 0.21
4	C	06	32"x68"	VINYL	CASEMENT	YES	YES	YES	NO	0.290 0.21
5	D	01	54"x72"	VINYL	CASEMENT	NO	YES	YES	NO	0.290 0.21

SECOND FLOOR DOOR SCHEDULE

DOOR NO.	TYPE	QUANTITY	WIDE X HEIGHT	COLOR & MATERIAL	THICKNESS	TYPE OF OPERATION	ENERGY EFFICIENT ? Y / N	TEMPERED GLASS ? Y / N	REMARKS
1	A	01	36"x90"	WOOD GLASS	1 3/4"	FRENCH	YES	YES	EXTERIOR ENTRY DOOR WITH TEMPERED GLASS
2	A	02	32"x90"	VINYL GLASS	1 3/4"	FRENCH	YES	YES	EXTERIOR DOOR WITH TEMPERED GLASS
3	B	01	84"x90"	VINYL GLASS	1 3/4"	FRENCH	YES	NO	EXTERIOR DOUBLE DOOR WITH TEMPERED GLASS
4	B	01	73"x90"	VINYL	1 3/4"	FRENCH	YES	NO	EXTERIOR DOOR WITH TEMPERED GLASS
5	C	08	32"x96"	VINYL	1 3/4"	SWING	YES	NO	INTERIOR DOOR
6		01	32"x96"	VINYL	1 3/4"	POCKET	YES	NO	INTERIOR SLIDING DOOR
7	D	01	64"x96"	VINYL	1 3/4"	SWING	YES	NO	INTERIOR DOUBLE DOOR
8	E	01	21"x96"	VINYL	1 3/4"	SWING	YES	NO	INTERIOR DOOR

SECOND FLOOR PLAN

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

1

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Art and Interiors  
DESIGNERS

635 W. COLORADO ST., #102, GLENDALE CA 91204  
Tel.: 618-369-3688 email: artdesigns97@gmail.com

PROJECT TITLE: NEW 2 STORY S.F.D. WITH ATTACHED 2-CAR GARAGE

OWNER: BRETT KARNS

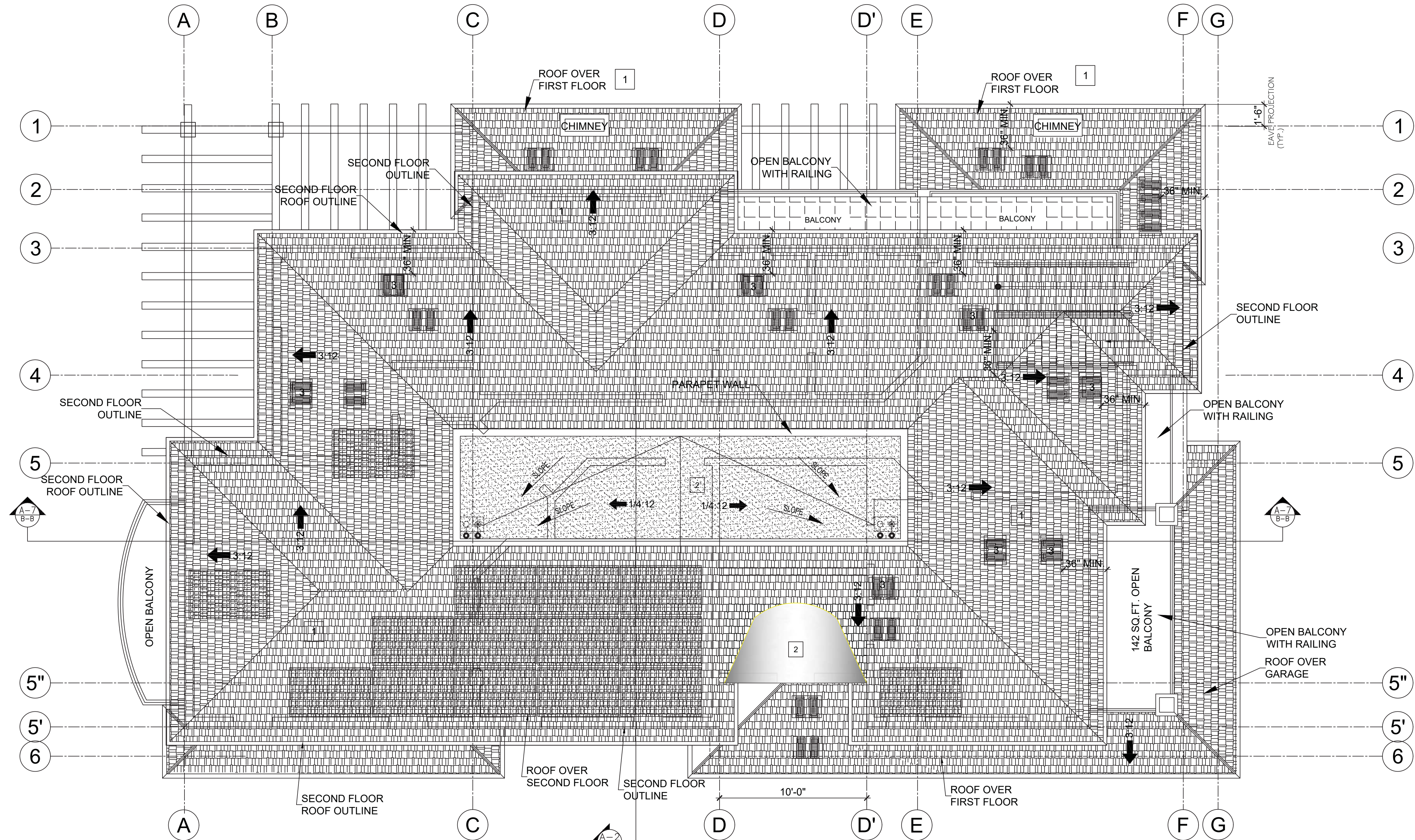
JOB ADDRESS:  
12527 HUSTON ST., VALLEY VILLAGE, CA 91607

JOB NO.: A-2048  
DRAWN BY: A.L.  
CHECKED BY: M.S.  
DATE: 12-28-20  
SHEET TITLE: SHEET NUMBER

A-5

SHEETS 6 OF 12





ROOF PLAN

NOTE: THE NFRC TEMPORARY LABEL DISPLAYED ON ALL WINDOWS AND SKYLIGHTS (INCLUDING TUBULAR) MUST REMAIN ON THE UNIT UNTIL FINAL INSPECTION HAS BEEN COMPLETED.

LG SOLAR - LG350N1C-V5 > 350 WATT BLACK FRAME NEON 2 SOLAR PANEL, CELLO TECHNOLOGY

CRRC PROD. ID	MANUFACTURER: BRAND MODEL	PRODUCT TYPE	COLOR	SOLAR REFLECTANCE		THERMAL EMITTANCE		SRI		MORE INFO
				Initial	3 year	Initial	3 year	Initial	3 year	
0676-0043a	GAF: Timberline® Cool Series® Cool Antique Slate	Steep Slope: Asphalt Shingles	Grey	0.28	0.26	0.92	0.91	30	27	+

COOL ROOF RATING COUNCIL 3519 NE 15th Ave, #205 TEL (866) 465-2523 EMAIL: info@coolroofs.org  
Portland, OR 97212



ROOF VENTILATION CALCULATIONS

\*\*\* ROOF 'A' AREA OVER SECOND FLOOR=1,799.0 SQ.FT.  
TOTAL REQUIRED OPENING 1799/150=11.99 SQ.FT.

\*\*\* FLAT ROOF AREA = 248 SQ.FT.

\*\*\* ROOF 'B' AREA OVER FIRST FLOOR= 595 SQ.FT.  
TOTAL REQUIRED OPENING 595 /150 = 3.96 SQ.FT.

ROOF VENTILATION CALCULATIONS

\*\*\*ROOF 'A' AREA =1,799.0 SQ.FT.  
TOTAL REQUIRED OPENING 1799 / 300= 6 SQ.FT.  
6 SQ.FT. x144 = 864 SQ.IN.  
PROVIDED MODEL O'HAGIN TAPERED LOW-PROFILE COMPOSITION VENT DESIGNED FOR SLATE, SHAKE OR COMPOSITION SHINGLE ROOFS PROVIDES  
WITH NET FREE VENTILATION AREA NFVA = 72 SQ. IN.  
864 SQ.IN / 72 SQ. IN = 12  
\*\*\*\*TOTAL PROVIDED 12 VENTS (6 INTAKE AND 6 EXHAUST)

\*\*\* ROOF 'B' AREA OVER FIRST FLOOR= 595 SQ.FT.  
TOTAL REQUIRED OPENING 595 /150 = 3.96 SQ.FT.  
X144 = 571.2 / 72=7.9  
\*\*\*\*TOTAL PROVIDED 8 VENTS (4 INTAKE AND 4 EXHAUST)

LEGEND:

1 COMPOSITION SHINGLE CLASS 'A' BY 'GAF' COOL SERIES - COOL ANTIQUE SLATE ICC-ESR-3267

2 'RUBEROID' MOP GRANULE MEMBRANE BY 'GAF', ICC ESR-1274, LA R.R. 25271

3 O'HAGIN'S TAPERED LOW-PROFILE VENT SERIES WITH 24, 3-1/2 INCH LOUVERS ON EACH SIDE, WATER DIVERTERS AND SPLASHGUARDS. EACH SIDE HAS A 4-INCH FLANGE WITH A TOP FLANGE OF 6-1/2 INCHES. THE VENT OPENING IS AN 11-INCH CIRCLE WITH A 1/4-INCH SCREEN AND 1/2-INCH LIP  
DIRECTION AND RATIO OF ROOF SLOPE

40"X66.38" = 18.4 SQ.FT.  
LG SOLAR - LG350N1C-V5 > 350 WATT BLACK FRAME NEON 2 SOLAR PANEL, CELLO TECHNOLOGY  
4x350 = 1400.0 WATT = 1.4 KW PER TITLE 24

WRITTEN DIMENSIONS ON THESE SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY, AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY DISCREPANCIES IMMEDIATELY. THE ABOVE DRAWINGS AND SPECIFICATIONS AND IDEAS, DESIGNS AND ARRANGEMENTS REPRESENTED THEREBY ARE AND SHALL REMAIN THE PROPERTY OF ART AND INTERIORS DESIGN. NO PART OF THESE DRAWINGS OR SPECIFICATIONS SHALL BE COPIED, REPRODUCED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. VISUAL CONTACT WITH THESE DRAWINGS OR SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS.

Art and Interiors Design  
635 W. COLORADO ST., #102, GLENDALE CA 91204  
Tel.: 618-389-3686 email: artdesigns97@gmail.com

PROJECT TITLE: NEW 2 STORY S.F.D. WITH ATTACHED 2-CAR GARAGE  
OWNER: BRETT KARNS  
JOB ADDRESS: 12527 HUSTON ST., VALLEY VILLAGE, CA 91607

JOB NO.: A-2048  
DRAWN BY: A.I.  
CHECKED BY: M.S.  
DATE: 12-28-20  
SHEET TITLE: SHEET NUMBER

A-6

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

1

GARAGE AND RESIDENCE ROOF PLAN

SHEETS 4 OF 12



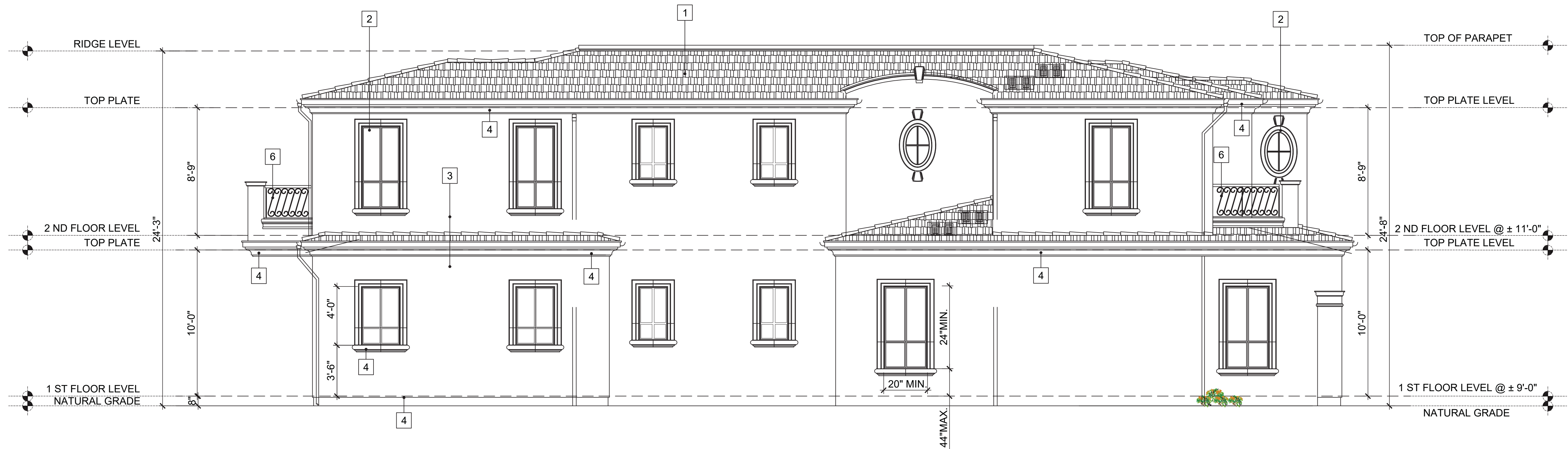
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**Art and Interiors Designs**  
635 W. COLORADO ST. #102, GLENDALE CA 91204  
Tel. 818-389-3888 email: artdesigns97@gmail.com

PROJECT TITLE: NEW 2 STORY S.F.D. WITH ATTACHED 2-CAR GARAGE  
OWNER: BRETT KARNS  
JOB ADDRESS: 12527 HUSTON ST., VALLEY VILLAGE, CA 91607

JOB NO.: A-2048	A.I.
DRAWN BY: M.S.	
CHECKED BY: M.S.	
DATE: 12-28-20	
SHEET TITLE: ELEVATIONS	

SHEET NUMBER  
**A-7**  
SHEETS 7 OF 12

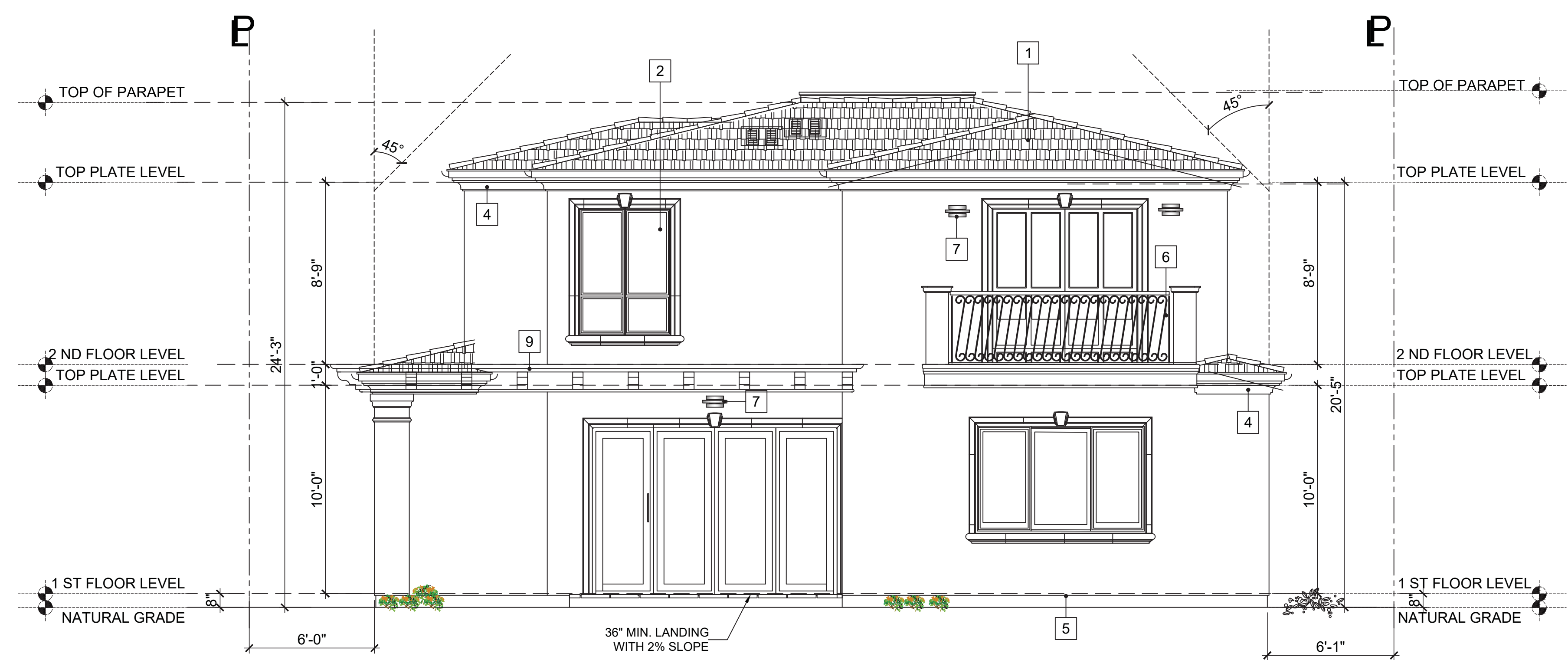


WEST ELEVATION

SCALE: 1/4"=1'-0" 2

- 1 COMPOSITION SHINGLE CLASS 'A' BY 'GAF' COOL SERIES - COOL ANTIQUE SLATE ICC-ESR-3267
- 2 RECESSED DOORS AND WINDOWS SIZES, HEIGHTS PER SCHEDULE
- 3 SMOOTH STUCCO FINISH. MINIMUM 7/8" THICK 3-COAT PLASTER WITH METAL MESH OVERLAPPED 2-LAYERS OF GRADE "D" BUILDING PAPER
- 4 SMOOTH STUCCO FINISH MOLDING
- 5 A CORROSION - RESISTANT WEEP SCREED, MIN. 26 GALV. SHEET, WITH A MINIMUM VERTICAL ATTACHMENT FLANGE OF 3-1/2" SHALL BE PROVIDED BELLOW THE STUCCO AT THE FOUNDATION PLATE LINE A MINIMUM 4" ABOVE EARTH OR 2" ABOVE PAVED AREA. WEEP SCREED SHALL BE OF A TYPE THAT WILL ALLOW TRAPPED WATER TO DRAIN TO THE EXTERIOR OF THE BUILDING.
- 6 42" MIN. HIGH GUARD RAIL WITH 4" MAX. CLEARANCE BETWEEN INTERMEDIATE RAILS
- 7 LED EXTERIOR LIGHTING
- 8 ADDRESS NUMBER
- 9 WOOD TRELLISES

ALL DOWNSPOUTS LEAD TO LINED RAIN GARDENS



NORTH ELEVATION

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



WRITTEN DIMENSIONS ON THESE SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY DISCREPANCIES IMMEDIATELY. THE ABOVE DRAWINGS AND SPECIFICATIONS AND IDEAS, DESIGNS AND ARRANGEMENTS REPRESENTED THEREBY ARE AND SHALL REMAIN THE PROPERTY OF ART AND NITE DESIGNS INC. NO PARTS OF THESE DRAWINGS OR SPECIFICATIONS OR ANY OTHER WORK DEVELOPED WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. VISUAL CONTACT WITH THESE DRAWINGS OR SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS.

**Art and Nite Designs**  
635 W. COLORADO ST., #102, GLENDALE CA 91204  
Tel.: 818-389-3888 email: artdesigns7@gmail.com

PROJECT TITLE: NEW 2 STORY S.F.D. WITH ATTACHED 2-CAR GARAGE  
OWNER: BRETT KARNS  
JOB ADDRESS: 12527 HUSTON ST., VALLEY VILLAGE, CA 91607

JOB NO.: A-2048  
DRAWN BY: A.L.  
CHECKED BY: M.S.  
DATE: 12-28-20  
SHEET TITLE: ELEVATIONS  
SHEET NUMBER

**A-8**

SHEETS 8 OF 12

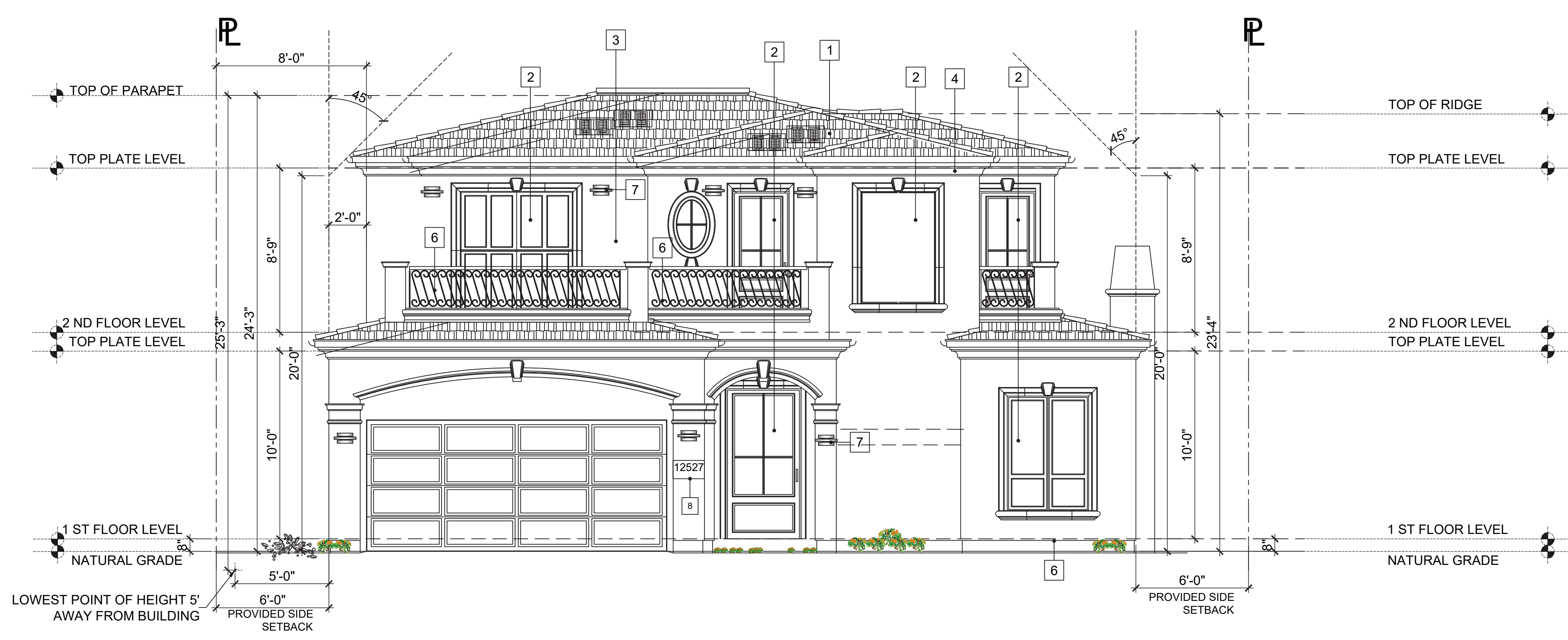


EAST ELEVATION

SCALE: 1/4"=1'-0" 2

- 1 COMPOSITION SHINGLE CLASS 'A' BY 'GAF' COOL SERIES - COOL ANTIQUE SLATE ICC-ESR-3267
- 2 RECESSED DOORS AND WINDOWS SIZES, HEIGHTS PER SCHEDULE
- 3 SMOOTH STUCCO FINISH. MINIMUM 7/8" THICK 3-COAT PLASTER WITH METAL MESH OVERLAPPED 2-LAYERS OF GRADE "D" BUILDING PAPER
- 4 SMOOTH STUCCO FINISH MOLDING
- 5 A CORROSION - RESISTANT WEEP SCREED, MIN. 26 GALV. SHEET, WITH A MINIMUM VERTICAL ATTACHMENT FLANGE OF 3-1/2" SHALL BE PROVIDED BELOW THE STUCCO AT THE FOUNDATION PLATE LINE A MINIMUM 4" ABOVE EARTH OR 2" ABOVE PAVED AREA. WEEP SCREED SHALL BE OF A TYPE THAT WILL ALLOW TRAPPED WATER TO DRAIN TO THE EXTERIOR OF THE BUILDING.
- 6 42" MIN. HIGH GUARD RAIL WITH 4" MAX. CLEARANCE BETWEEN INTERMEDIATE RAILS
- 7 LED EXTERIOR LIGHTING
- 8 ADDRESS NUMBER
- 9 WOOD TRELLISES

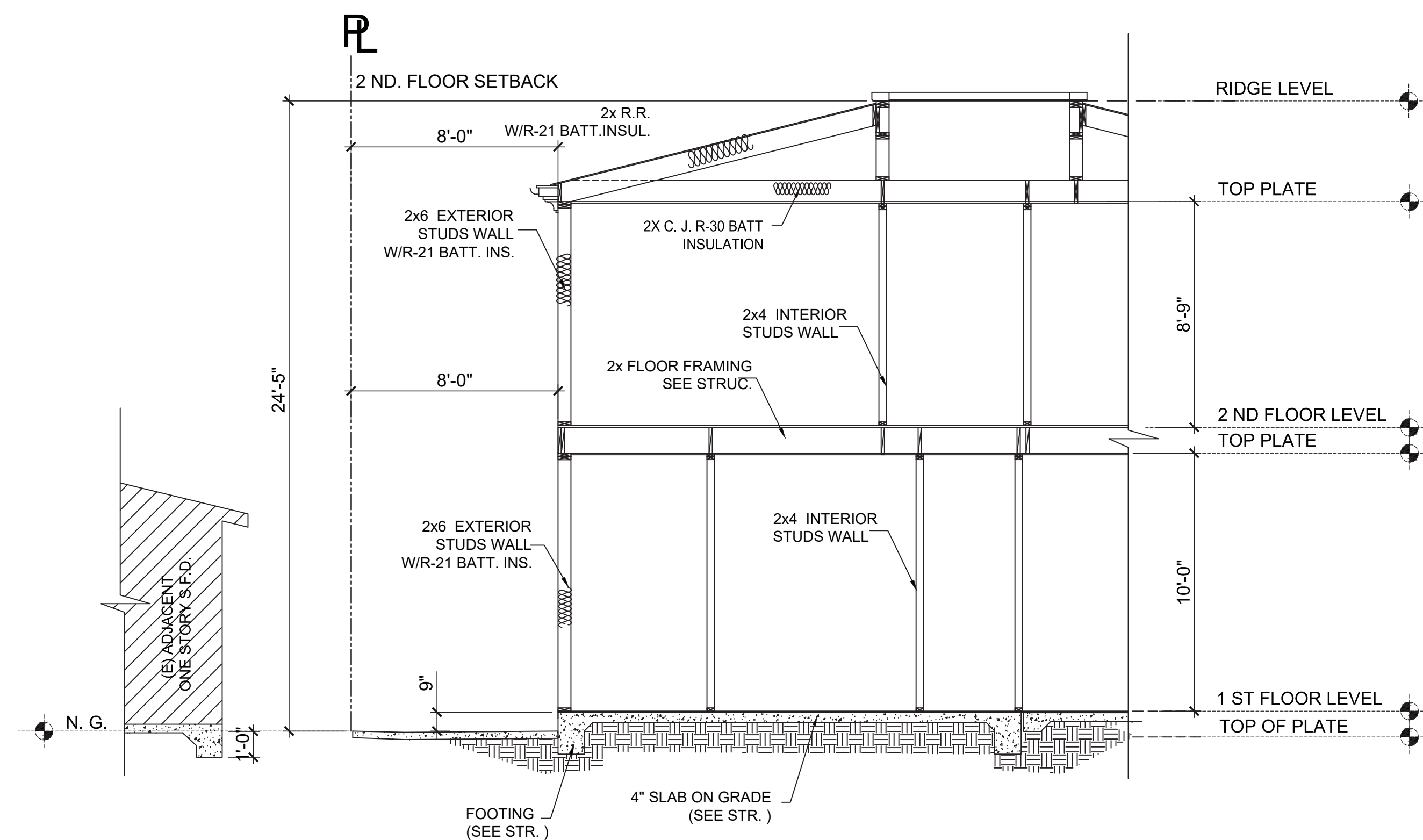
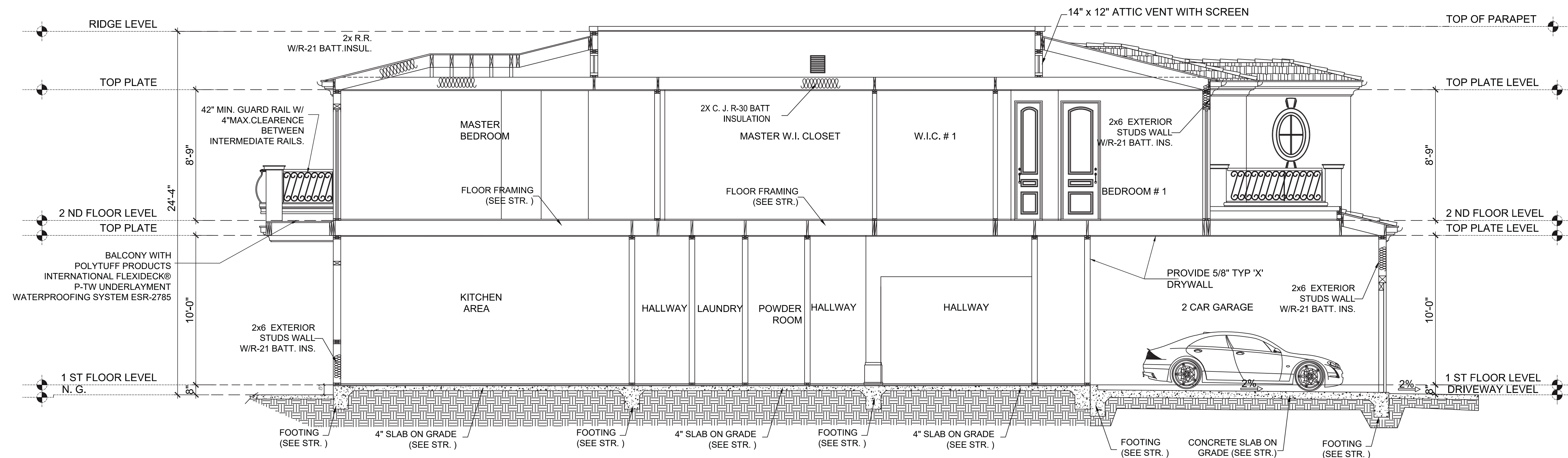
ALL DOWNSPOUTS LEAD TO LINED RAIN GARDENS



SOUTH ELEVATION

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





dimension. CONTRACTORS SHALL VERIFY, AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. THE ABOVE DRAWINGS AND SPECIFICATIONS AND IDEAS, DESIGNS AND ARRANGEMENTS REPRESENTED THEREBY ARE AND SHALL REMAIN THE PROPERTY OF THE ENGINEER, AND NO PART THEREOF SHALL BE COPIED OR DISCLOSED TO ANY OTHER PARTY WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. USUAL CONTACT WITH THESE DRAWINGS OR SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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DATE	ALL
ORIGIN BY:	
DATE	

DEBATE

SHEET NUMBER

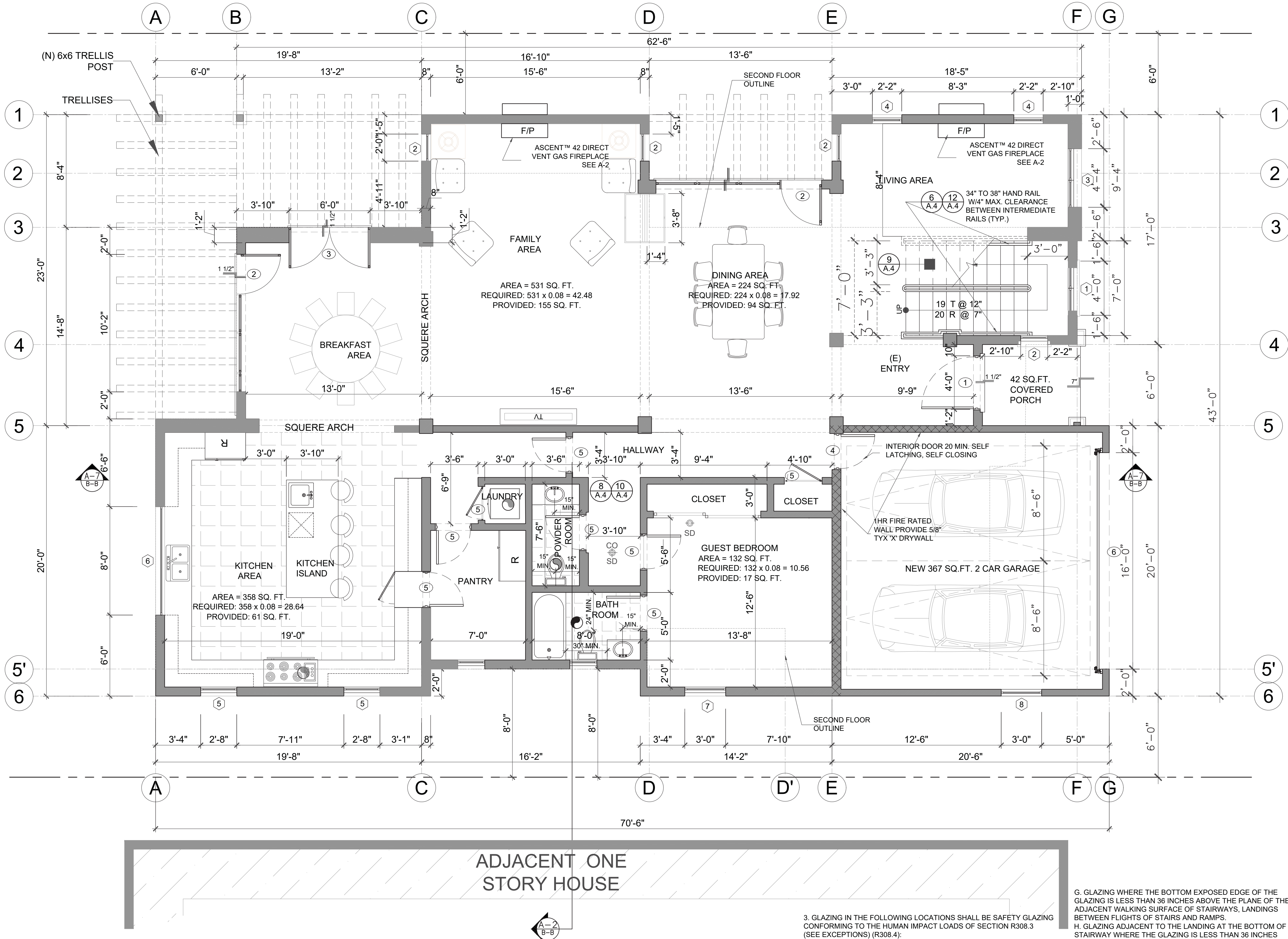
A-9

SHEETS 9 OF 12



PLAN NOTES:

1. PROVIDE LOW WATER CONSUMPTION AND CONSERVING PLUMBING FIXTURES AND FITTINGS PER CHAPTER 4 OF CAL GREEN BUILDING STANDARD CODE (CGBSC 4.303.3) SHALL COMPLY WITH THE FOLLOWING:
  - A. SHOWERHEADS 1.8 GPM @ 80 PSI
  - B. LAVATORY FAUCETS, RESIDENTIAL 1.2 GPM @ 60 PSI
  - C. KITCHEN FAUCET 1.8 GPM @ 60 PSI
  - D. ALL TYPE OF WATER CLOSETS 1.28 GALLON PER FLUSH
2. BATHTUB AND SHOWER FLOORS, WALLS ABOVE BATHTUBS WITH A SHOWER HEAD, AND SHOWER COMPARTMENTS SHALL BE FINISHED WITH NONABSORBENT SURFACE EXTENDING TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR. (R307.2)
3. ALL SHOWERS AND TUB-SHOWERS SHALL HAVE EITHER A PRESSURE BALANCE OR THERMOSTATIC MIXING VALVE.
4. SHOWER DOORS SHALL SWING OUT, NET AREA OF SHOWER RECEPTOR SHALL BE NOT LESS THAN 1.024 SQ. INCH OF FLOOR AREA, AND ENCOMPASS 30-INCH DIAMETER CIRCLE. (CPC 408.6)
5. WATER AND WASTE CONNECTION TO EVERY BATHTUB SHALL BE PROVIDED WITH 12"x12" MINIMUM ACCESS DOOR OR PANEL.
6. DIMENSION ON THE PLANS THE 30 INCH CLEAR WIDTH FOR WATER CLOSET AND 24 INCH CLEARANCE IN FRONT OF WATER CLOSET FOR BATHROOM. (PC 407.5)
7. PROVIDE SOAP DISH AT TUB AND SHOWER, TWO TOWEL BARS AND ONE PAPER HOLDER AT EACH BATHROOM. MIRROR TOP AT 6'-8" ABOVE FINISH FLOOR. RECESSED MEDICINE CABINET WITH MIRROR.
8. BATHROOMS, WATER CLOSET COMPARTMENTS AND OTHER SIMILAR ROOMS SHALL BE PROVIDED WITH MINIMUM GLAZING AREA OF 3-SQ. FT. ONE-HALF OF WHICH IS OPENABLE. THE GLAZED AREAS ARE NOT REQUIRED WHERE ARTIFICIAL LIGHT AND A MECHANICAL VENTILATION OF 50 CFM INTERMITTENT OR 25 CFM CONTINUOUS VENTILATION ARE PROVIDED. (R303.3)
9. PROVIDE EXHAUST CEILING FAN WITH 50 AIR CHANGES PER HOUR IN ALL INTERIOR BATHROOMS, POWDER ROOMS, LAUNDRY ROOMS. FAN EXHAUST SYSTEM TO BE OPERABLE FROM LIGHT SWITCH. PROVIDE BACKDRAFT DAMPER AND SEPARATE SWITCH.
10. WATER SUPPLY TO FIXTURES:  
PLUMBING FIXTURES SHALL BE CONNECTED TO AN APPROVED WATER SUPPLY. KITCHEN SINKS, LAVATORIES, BATHTUBS, SHOWERS, BIDETS, LAUNDRY TUBS AND WASHING MACHINE OUTLETS SHALL BE PROVIDED WITH HOT AND COLD WATER.
11. INSTALL GFCI AND AFCI OUTLETS IN BATHROOMS.
12. EXHAUST FANS WITH HUMIDITY CONTROL:  
EACH BATHROOM CONTAINING A BATHTUB, SHOWER OR TUB/SHOWER COMBINATION SHALL BE MECHANICALLY VENTILATED FOR PURPOSE OF HUMIDITY CONTROL IN ACCORDANCE WITH CMC, CHAPTER 4.  
BATHROOM EXHAUST FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE TO THE OUTSIDE OF THE BUILDING. BATHROOM EXHAUST FANS, NOT FUNCTIONING AS A COMPONENT OF WHOLE HOUSE VENTILATION SYSTEM, MUST BE CONTROLLED BY HUMIDISTAT WHICH SHALL BE READILY ACCESSIBLE. HUMIDITY CONTROLS SHALL BE CAPABLE OF ADJUSTING RELATIVE HUMIDITY RANGE OF ± 50% TO A MAXIMUM OF 80 %. A HUMIDITY CONTROL MAY UTILIZE MANUAL OR AUTOMATIC MEANS OF ADJUSTMENT.
13. SMOKE ALARMS: PROVIDE INTERCONNECTED HARD-WIRED "SMOKE ALARM" WITH BATTERY BACKUP IN THE FOLLOWING: (R314)
  - a. IN EACH SLEEPING ROOM
  - b. OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
  - c. ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS, BUT NOT INCLUDING CRAWL SPACES AND UNINHABITABLE ATTICS.
  - d. PROVIDE A NOTE: "SMOKE ALARM SHALL BE INTERCONNECTED HARD-WIRED WITH BATTERY BACKUP."SMOKE ALARMS SHALL BE TESTED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. SMOKE ALARMS THAT NO LONGER FUNCTION SHALL BE REPLACED. SMOKE ALARMS INSTALLED IN ONE- AND TWO- FAMILY DWELLINGS SHALL BE REPLACED AFTER 10 YEARS FROM THE DATE OF MANUFACTURE MARKED ON THE UNIT, OR IF THE DATE OF MANUFACTURE CANNOT BE DETERMINED. (R314.3.3)  
CONVENTIONAL IONIZATION SMOKE ALARMS: ARE SOLELY BATTERY POWERED SHALL BE EQUIPPED WITH A 10 YEAR BATTERY AND HAVE SILENCE FEATURE.
14. CARBON MONOXIDE DETECTORS: AN APPROVED CARBON MONOXIDE DETECTOR RECEIVING ITS PRIMARY SOURCE OF POWER FROM THE BUILDING WIRING AND HAVING BATTERY BACKUP SHALL BE INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA OR BEDROOM(S) AND ONE ON EVERY LEVEL OF THE DWELLING INCLUDING BASEMENTS. WHERE MORE THAN ONE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING, THE ALARMS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE WILL ACTIVATE ALL THE ALARMS IN THE UNIT. THE ALARM IS PERMITTED TO BE SOLELY BATTERY OPERATED WHERE THE WORK DOES NOT RESULT IN THE REMOVAL OF WALL OR CEILING FINISHES, OR THERE IS NO ACCESS THROUGH AN ATTIC, BASEMENT OR CRAWL SPACE. (CRC R315.1). DETECTORS SHALL MEET U.L. 2034 AND/OR NFPA 720 STANDARDS.
15. CLOTHES DRYER: A MINIMUM 4" IN DIAMETER MOISTURE EXHAUST DUCT MUST BE PROVIDED (CMC 504.3.1). A FLEXIBLE DUCT CANNOT EXTEND MORE THAN 6' AND CANNOT BE CONCEALED (CMC 504.3.1.1). DRYER EXHAUST DUCT MUST BE 4" IN DIAMETER AND CANNOT EXCEED 14' WITH A MAXIMUM OF TWO 90° ELBOWS (CMC 504.3.1.2). THE DUCT LENGTH SHALL BE REDUCED BY 2' FOR EVERY ELBOW IN EXCESS OF TWO.  
WASHER, DRYER SPACE: SUFFICIENT PLUMBING FOR HOT / COLD WATER AND WASTE. VENTILATE DRYER TO OUTSIDE AIR. PROVIDE 120V AND 220V ELECTRICAL OUTLET AND FUEL GAS OUTLET.
16. 30" x 30" MINIMUM ATTIC ACCESS AT 30" MINIMUM CLEAR HEADROOM.
17. KITCHEN CABINETS, APPLIANCES AND FIXTURES PER OWNER INSTRUCTIONS PROVIDE DOUBLE SINKS WITH GARBAGE DISPOSAL. AT REFRIGERATOR SPACE - PROVIDE COPPER TUBE WATER LINE FOR ICE MAKER.
18. LANDINGS AT EXTERIOR DOORS: THERE SHALL BE A LANDING OR FLOOR ON EACH SIDE OF EXTERIOR DOOR. THE WIDTH OF EACH LANDING SHALL BE NOT LESS THAN THE DOOR SERVED. EVERY LANDING SHALL HAVE A DIMENSION OF NOT LESS THAN 36" MEASURED IN THE DIRECTION OF TRAVEL. THE SLOPE AT EXTERIOR LANDINGS SHALL NOT EXCEED 1/4 UNIT VERTICAL IN 12 UNITS HORIZONTAL (2%).  
EXCEPTION: EXTERIOR BALCONIES LESS THAN 60 SQUARE FEET AND ONLY ACCESSIBLE FROM A DOOR ARE PERMITTED TO HAVE A LANDING LESS THAN 36" INCHES.
19. ENTREE / EXIT DOORS MUST BE OPEN OVER A LANDING NOT MORE THAN 1/2" BELOW THE THRESHOLD, FOR SLIDING DOORS NOT HIGHER THAN 3/4" BELOW THRESHOLD.
20. DOORS: NONCOMBUSTIBLE EXTERIOR DOORS OR IGNITION RESISTANT, 1-1/3" SOLID CORE WOOD, OR HAVE FIRE-PROTECTION RATING OF NOT LESS THAN 20 MINUTES. (708A.3) WINDOWS WITHIN DOORS AND GLAZED DOORS SHALL COMPLY WITH 708A.2.1, 716.6.7.3.  
EXCEPTION: GARAGE DOORS AND VEHICLE ACCESS DOORS PROVIDED THE INTERIOR OF THE GARAGE IS SHEATHED WITH 5/8" TYPE 'X' GYPSUM WALLBOARD.
21. GLAZING IN DOORS AND WINDOWS SHALL BE TEMPERED (CRC R308.4):
  - a. IN OPERABLE PANELS OF DOORS.
  - b. WITHIN 24" OF A DOOR WHEN BOTTOM EDGE IS LESS THAN 60" ABOVE A WALKING SURFACE.
  - c. IN AN INDIVIDUAL PANE LARGER THAN 9 SF, WHEN THE BOTTOM EDGE IS WITHIN 18" OF THE DOOR, WHEN THE TOP EDGE IS MORE THAN 36" ABOVE THE FLOOR, AND WHEN WITHIN 36" OF A WALKING SURFACE AS MEASURED HORIZONTALLY AND IN A STRAIGHT LINE.
  - d. IN RAILINGS.
  - e. WITHIN 60" OF TUB OR SHOWER FLOOR.
  - f. GLAZING ADJACENT TO STAIRWAYS, LANDINGS, AND RAMPS WITHIN 36" OF A WALKING SURFACE WHEN LESS THAN 60" ABOVE THE ADJACENT WALKING SURFACE.
  - g. WITHIN 60" OF STAIRS AND STAIR LANDINGS.
22. BEDROOM EGRESS WINDOWS HAVE A MINIMUM CLEAR OPENING AREA OF 5.75F WHEN ABOVE THE GRADE FLOOR AND 5.7 SF ON THE GRADE FLOOR. A MINIMUM NET HEIGHT 24" AND MINIMUM NET WIDTH: 20". AND THE SILL HEIGHT NOT MORE THAN 44" ABOVE FINISH FLOOR.
23. SHOW THE FOLLOWING STAIRWAY DETAILS ON PLANS:
  - A. 7 3/4" MAXIMUM RISE AND MINIMUM 10" RUN (R311.7.5)
  - B. MINIMUM 6'-8" HEADROOM CLEARANCE (R311.7.2)
  - C. MINIMUM 36" CLEAR WIDTH (311.7.1)
  - D. HANDRAILS 34" TO 38" HIGH ABOVE TREAD NOSING (R311.7.8.1)
  - E. HANDGRIP PORTION OF HANDRAIL SHALL NOT BE LESS THAN 1 1/4" AND NO MORE THAN 2" CROSS-SECTIONAL DIMENSION HAVING A SMOOTH SURFACE WITH NO SHARP CORNERS (R311.7.7.3)
  - F. MAXIMUM 4" CLEAR SPACING OPENING BETWEEN RAILS (R312.1.3)
  - G. ALL STAIRWAYS SHALL HAVE AN ILLUMINATION LEVEL ON TREAD RUNS OF NOT LESS THAN 1 FOOT-CANDLE (11 lux) (R303.6)
24. FINISH MATERIALS INCLUDING ADHESIVES, SEALANTS, CAULKS, PAINTS AND COATING, AEROSOL PAINTS AND COATINGS, CARPET SYSTEMS, CARPET CUSHIONS, CARPET ADHESIVES, RESILIENT FLOORING SYSTEMS AND COMPOSITE WOOD PRODUCTS SHALL MEET THE (VOC) EMISSION LIMITS PER CHAPTER 4 OF LOS ANGELES COUNTY GREEN BUILDING STANDARDS CODE.



LEGEND:

- NEW 2x4 STUD WALL @16" O.C. (INTERIOR)
- NEW 2x6 STUD WALL @16" O.C. (EXTERIOR)
- 1 HR FIRE RATED WALL
- G.F.I. OUTLET
- ENERGY STAR rated EXHAUST CEILING FAN "Controlled by humidistat" 50 CFM
- SMOKE and CARBON MONOXIDE detector.
- SEE PLAN NOTES ON THIS SHEET
- SEE DOOR SCHEDULE ON THIS SHEET
- SEE WINDOW SCHEDULE ON THIS SHEET

NOTE: THE NFRC TEMPORARY LABEL DISPLAYED ON ALL WINDOWS AND SKYLIGHTS (INCLUDING TUBULAR) MUST REMAIN ON THE UNIT UNTIL FINAL INSPECTION HAS BEEN COMPLETED.

3. GLAZING IN THE FOLLOWING LOCATIONS SHALL BE SAFETY GLAZING CONFORMING TO THE HUMAN IMPACT LOADS OF SECTION R308.3 (SEE EXCEPTIONS) (R308.4):
  - A. FIXED AND OPERABLE PANELS OF SWINGING, SLIDING AND BI-FOLD DOOR ASSEMBLIES.
  - B. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 24-INCH ARC OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHOSE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR OR WALKING SURFACE.
  - C. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL THAT MEETS ALL OF THE FOLLOWING CONDITIONS:
    - I. EXPOSED AREA OF AN INDIVIDUAL PANE GREATER THAN 9 SQUARE FEET.
    - II. BOTTOM EDGE LESS THAN 18 INCHES ABOVE THE FLOOR.
    - III. TOP EDGE GREATER THAN 36 INCHES ABOVE THE FLOOR.
    - IV. ONE OR MORE WALKING SURFACES WITHIN 36 INCHES HORIZONTALLY OF THE GLAZING.
    - D. GLAZING IN GUARDS AND RAILINGS.
    - E. GLAZING IN ENCLOSURES FOR OR WALLS FACING HOT TUBS, WHIRLPools, SAUNAS, STEAM ROOMS, BATHTUBS AND SHOWERS WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60 INCHES MEASURED VERTICALLY ABOVE ANY STANDING OR WALKING SURFACE.

- G. GLAZING WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 36 INCHES ABOVE THE PLANE OF THE ADJACENT WALKING SURFACE OF STAIRWAYS, LANDINGS BETWEEN FLIGHTS OF STAIRS AND RAMPS.
- H. GLAZING ADJACENT TO THE LANDING AT THE BOTTOM OF A STAIRWAY WHERE THE GLAZING IS LESS THAN 36 INCHES ABOVE THE LANDING AND WITHIN A 60 INCH HORIZONTAL ARC LESS THAN 180 DEGREES FROM THE BOTTOM TREAD NOSING (R304.2).
- F. GLAZING IN WALLS AND FENCES ADJACENT TO INDOOR AND OUTDOOR SWIMMING POOLS, HOT TUBS AND SPAS WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE A WALKING SURFACE AND WITHIN 60 INCHES, MEASURED HORIZONTALLY AND IN A STRAIGHT LINE, OF THE WATER'S EDGE.
8. BUILDINGS SHALL HAVE APPROVED ADDRESS NUMBERS, BUILDING NUMBERS OR APPROVED BUILDING IDENTIFICATION PLACED IN A POSITION THAT IS PLAINLY LEGIBLE AND VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. (R319.1)
9. PROTECTION OF WOOD AND WOOD BASED PRODUCTS FROM DECAY SHALL BE PROVIDED IN THE LOCATIONS SPECIFIED PER SECTION R317.1 BY THE USE OF NATURALLY DURABLE WOOD OR WOOD THAT IS PRESERVATIVE-TREATED IN ACCORDANCE WITH AWPA U1 FOR THE SPECIES, PRODUCT, PRESERVATIVE AND END USE. PRESERVATIVES SHALL BE LISTED IN SECTION 4 OF AWPA U1
10. PROVIDE ANTI-GRAFFITI FINISH WITHIN THE FIRST 9 FEET, MEASURED FROM GRADE, AT EXTERIOR WALLS AND DOORS. EXCEPTION: MAINTENANCE OF BUILDING AFFIDAVIT IS RECORDED BY THE OWNER TO COVENANT AND AGREE WITH THE CITY OF LOS ANGELES TO REMOVE ANY GRAFFITI WITHIN 7-DAYS OF THE GRAFFITI BEING APPLIED. (6306).

FIRST FLOOR PLAN

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

1

WRITTEN DIMENSIONS ON THESE SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY, AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DRAWINGS. THESE DRAWINGS ARE NOT TO BE USED FOR ANY OTHER PURPOSES AND SPECIFICATIONS AND IDEAS, DESIGNS AND ARRANGEMENTS REPRESENTED THEREBY ARE AND SHALL REMAIN THE PROPERTY OF THE ENGINEER, AND NO PART THEREOF SHALL BE COPIED, DISCLOSED TO OTHERS OR USED IN CONNECTION WITH ANY OTHER WORK WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. THESE DRAWINGS OR SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS.

Art and Interior Design Services  
635 W. COLORADO ST., #102, GLENDALE CA 91204  
Tel.: 818-389-3888 email: artdesigns97@gmail.com

PROJECT TITLE: NEW 2 STORY S.F.D. WITH ATTACHED 2-CAR GARAGE

OWNER: BRETT KARNIS

JOB ADDRESS:  
12527 HUSTON ST., VALLEY VILLAGE, CA 91607

JOB NO.: A-2048

DRAWN BY: A.L.

CHECKED BY: M.S.

DATE: 12-28-20

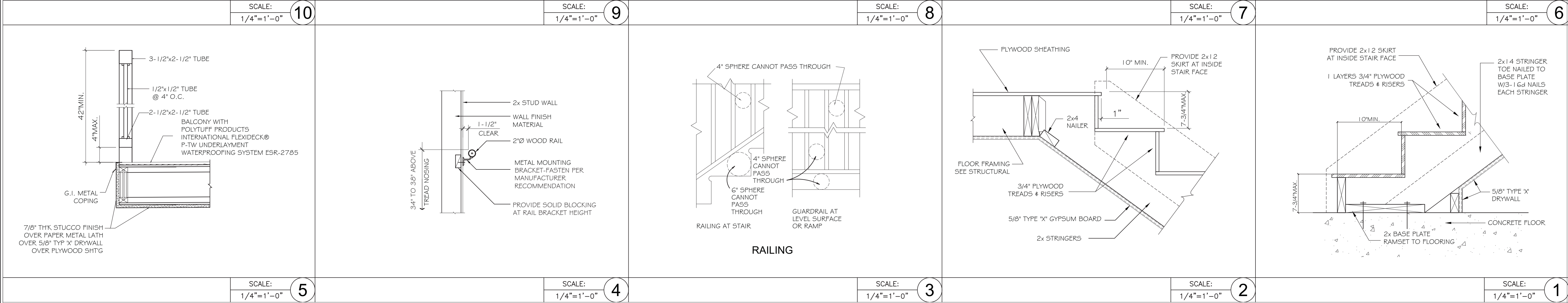
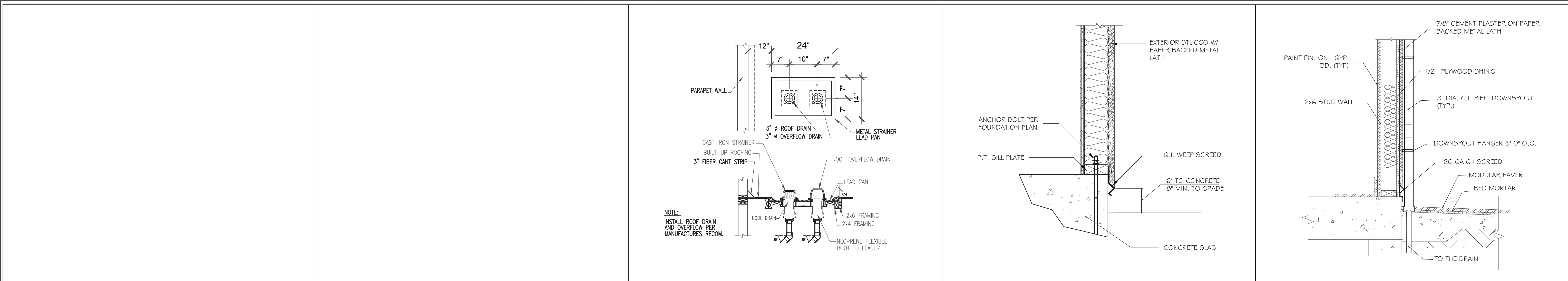
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SHEET NUMBER


A-3

SHEETS 5 OF 12





<p>A. THE CONSTRUCTION SHALL NOT RESTRICT A FIVE-FOOT CLEAR AND UNOBSTRUCTED ACCESS TO ANY WATER OR POWER DISTRIBUTION FACILITIES (POWER POLES, PULL-BOXES, TRANSFORMERS, VAULTS, PUMPS, VALVES, METERS, APPURTENANCES, ETC.) OR TO THE LOCATION OF THE HOOKUP. THE CONSTRUCTION SHALL NOT BE WITHIN TEN FEET OF ANY POWER LINES WHETHER OR NOT THE LINES ARE LOCATED ON THE PROPERTY. FAILURE TO COMPLY MAY CAUSE CONSTRUCTION DELAYS AND/OR ADDITIONAL EXPENSES.</p> <p>B. AN APPROVED SEISMIC GAS SHUTOFF VALVE WILL BE INSTALLED ON THE FUEL GAS LINE ON THE DOWNSTREAM SIDE OF THE UTILITY METER AND BE RIGIDLY CONNECTED TO THE EXTERIOR OF THE BUILDING OR STRUCTURE CONTAINING THE FUEL GAS PIPING. (PER ORDINANCE 170.158) (SEPARATE PLUMBING PERMIT IS REQUIRED).</p> <p>C. PLUMBING FIXTURES ARE REQUIRED TO BE CONNECTED TO A SANITARY SEWER OR TO AN APPROVED SEWAGE DISPOSAL SYSTEM. R308.3</p> <p>D. KITCHEN SINKS, LAVATORIES, BATHTUBS, SHOWERS, BIDETS, LAUNDRY TUBS AND WASHING MACHINE OUTLETS SHALL BE PROVIDED WITH HOT AND COLD WATER AND CONNECTED TO AN APPROVED WATER SUPPLY. R308.4</p> <p>E. BATHTUB AND SHOWER FLOORS, WALLS ABOVE BATHTUBS WITH A SHOWERHEAD, AND 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. R307.2</p> <p>F. PROVIDE ULTRA-LOW FLUSH WATER CLOSETS FOR ALL NEW CONSTRUCTION. EXISTING SHOWER HEADS AND TOILETS MUST BE ADAPTED FOR LOW-WATER CONSUMPTION.</p> <p>G. UNIT SKYLIGHTS SHALL BE LABELED BY A LA CITY APPROVED LABELING AGENCY. SUCH LABEL SHALL STATE THE APPROVED LABELING AGENCY NAME, PRODUCT DESIGNATION AND PERFORMANCE GRADE RATING. (RESEARCH REPORT NOT REQUIRED). R308.6.9</p> <p>H. WATER HEATER MUST BE STRAPPED TO WALL. SEC. 507.3, LAPC</p> <p>I. FOR EXISTING POOL ON SITE, PROVIDE AN ALARM FOR DOORS TO THE DWELLING THAT FORM A PART OF THE POOL ENCLOSURE. THE ALARM SHALL SOUND CONTINUOUSLY FOR A MIN. OF 30 SECONDS WHEN THE DOOR IS OPENED. IT SHALL AUTOMATICALLY RESET AND BE EQUIPPED WITH A MANUAL MEANS TO DEACTIVATE (FOR 15 SECS. MAX.) FOR A SINGLE OPENING. THE DEACTIVATION SWITCH SHALL BE AT LEAST 54" ABOVE THE FLOOR. 6109 OF LABC</p> <p>J. FOR EXISTING POOL ON SITE, PROVIDE ANTI-ENTRAPMENT COVER MEETING THE CURRENT ASTM OR ASME FOR THE SUCTION OUTLETS OF THE SWIMMING POOL, TODDLER POOL AND SPA FOR SINGLE FAMILY DWELLINGS PER ASSEMBLY BILL (AB) NO. 2877, 3162B</p> <p>K. AUTOMATIC GARAGE DOOR OPENERS, IF PROVIDED, SHALL BE LISTED IN ACCORDANCE WITH UL 325, R308.4</p> <p>L. SMOKE DETECTORS SHALL BE PROVIDED FOR ALL DWELLING UNITS INTENDED FOR HUMAN OCCUPANCY, WHERE A PERMIT IS REQUIRED FOR ALTERATIONS, REPAIRS, OR ADDITIONS. R314.2</p> <p>M. WHERE A PERMIT IS REQUIRED FOR ALTERATIONS, REPAIRS OR ADDITIONS, EXISTING DWELLINGS OR SLEEPING UNITS THAT HAVE ATTACHED GARAGES OR FUEL-BURNING APPLIANCES SHALL BE PROVIDED WITH A CARBON MONOXIDE ALARM IN ACCORDANCE WITH SECTION R315.2. CARBON MONOXIDE ALARMS SHALL ONLY BE REQUIRED IN THE SPECIFIC DWELLING UNIT OR SLEEPING UNIT FOR WHICH THE PERMIT WAS OBTAINED. R315.2</p> <p>N. EVERY SPACE INTENDED FOR HUMAN OCCUPANCY SHALL BE PROVIDED WITH NATURAL LIGHT BY MEANS OF EXTERIOR GLAZED OPENINGS IN ACCORDANCE WITH SECTION R303.1 OR SHALL BE PROVIDED WITH ARTIFICIAL LIGHT THAT IS ADEQUATE TO PROVIDE AN AVERAGE ILLUMINATION OF 6 FOOT-CANDLES OVER THE AREA OF THE ROOM AT A HEIGHT OF 30 INCHES ABOVE THE FLOOR LEVEL. R303.1</p> <p>O. A COPY OF THE EVALUATION REPORT AND/OR CONDITION</p>									
<p>NOTE: THE NFRC TEMPORARY LABEL DISPLAYED ON ALL WINDOWS AND SKYLIGHTS (INCLUDING TUBULAR) MUST REMAIN ON THE UNIT UNTIL FINAL INSPECTION HAS BEEN COMPLETED.</p>									
<p>SAFETY GLAZING (TEMPERED GLAZING) IS REQUIRED FOR THE FOLLOWING</p> <ol style="list-style-type: none"><li>FIXED AND OPERABLE PANELS OF SWINGING, SLIDING, AND BI-FOLD DOORS</li><li>WHERE THE GLAZING IS WITHIN 24" OF EITHER SIDE OF THE DOOR IN THE PLANE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60" ABOVE THE FLOOR. (CRC R308.4.2 ITEM 1)</li><li>WHERE THE GLAZING IS ON A WALL LESS THAN 180 DEGREES FROM THE DOOR IN A CLOSED POSITION AND WITHIN 24" OF THE HINGE SIDE OF AN IN-SWINGING DOOR. (CRC R308.4.2 ITEM 2)</li><li>GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL WITH AN EXPOSED AREA IN THE INDIVIDUAL PANE LARGER THAN 9 SQ. FT., THE BOTTOM EDGE OF THE GLAZING IS 18 IN. ABOVE THE FLOOR, THE TOP EDGE OF THE GLAZING IS MORE THAN 36 IN. ABOVE THE FLOOR, AND HAS ONE OR MORE WALKING SURFACES WITHIN 36 IN. OF THE GLAZING. (CRC R308.4.3, CBC 2406.4.3)</li><li>GLAZING LESS THAN 60" ABOVE A SHOWER OR TUB FLOOR. (CRC R308.4.5, CBC 2406.5)</li><li>GLAZING WHERE THE BOTTOM EDGE IS LESS THAN 36" ABOVE THE STAIRWAYS, LANDINGS, AND RAMPS. (CRC R308.4.6, CBC 2406.4.6)</li><li>GLAZING ADJACENT TO THE STAIRWAY BOTTOM LANDING WHERE THE GLAZING IS LESS THAN 36" ABOVE THE LANDING AND WITHIN 60" HORIZONTAL ARC LESS THAN 180 DEGREES FROM THE BOTTOM TREAD NOSING SHALL BE SAFETY GLAZING. (CRC R308.4.7, CBC 2406.4.7)</li><li>GLAZING IN GUARDS AND RAILINGS. (CRC R308.4.4, CBC 2406.4.4)</li></ol>									
<p>DOOR AND WINDOW SCHEDULE FOR FIRST FLOOR PLAN</p>									

FIRST FLOOR DOOR SCHEDULE										
DOOR NO. 	TYPE	QUANTITY	WIDE X HEIGHT	COLOR & MATERIAL	THICKNESS	TYPE OF OPERATION	ENERGY EFFICIENT ? Y / N	TEMPERED GLASS ? Y / N	FIRE HAZARD ZONE ? Y / N	REMARKS
1	A	01	48"x96"	WOOD GLASS	1 3/4"	FRENCH	YES	YES	NO	EXTERIOR ENTRY DOOR WITH TEMPERED GLASS
2	B	02	122"x96"	VIMYL GLASS	1 3/4"	FRENCH	YES	YES	NO	EXTERIOR DOOR WITH TEMPERED GLASS
3	C	01	72"x96"	VINYL GLASS	1 3/4"	FRENCH	YES	NO	NO	EXTERIOR DOUBLE DOOR WITH TEMPERED GLASS
4	E	01	32"x96"	SOLID CORE	1 3/4"	SWING	YES	NO	NO	INTERIOR DOOR 20 MIN. SELF LATCHING, SELF CLOSING
5	E	05	32"x96"	VINYL	1 3/4"	SWING	YES	NO	NO	INTERIOR DOOR
6	F	01	192"x84"	VINYL	1 3/4"	FRENCH	YES	NO	NO	GARAGE DOOR

FIRST FLOOR WINDOW SCHEDULE											
WINDOW NO ☉	TYPE	QUANTITY	WIDE X HEIGHT	COLOR & MATERIAL	TYPE OF OPERATION	BEDROOM ? Y / N	ENERGY EFFICIENT ? Y / N	TEMPERED GLASS ? Y / N	FIRE HAZARD ZONE ? Y / N	REMARKS	
										U-FACTOR	SHGC
1	A	01	48"x60"	VINYL	FIXED	NO	YES	YES	NO	0.290	0.21
2	B	05	24"x44"	VINYL	CASEMENT	NO	YES	YES	NO	0.290	0.21
3	C	01	52"x72"	VINYL	CASEMENT	NO	YES	YES	NO	0.290	0.21
4	D	01	28"x72"	VINYL	CASEMENT	NO	YES	YES	NO	0.290	0.21
5	B	02	32"x48"	VINYL	CASEMENT	NO	YES	YES	NO	0.290	0.21
6	E	01	96"x60"	VINYL	FIXED/ CASEMENT	NO	YES	YES	NO	0.290	0.21
7	B	01	36"x68"	VINYL	CASEMENT	YES	YES	YES	NO	0.290	0.21
8	B	01	36"x68"	VINYL	CASEMENT	NO	YES	YES	NO	0.290	0.21

Art and Interior Design Services

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Tel: 618-389-3888 email: artdesigns97@gmail.com

PROJECT TITLE: NEW 2 STORY S.F.D. WITH ATTACHED 2-CAR GARAGE

OWNER: BRETT KARNIS

JOB ADDRESS: 12527 HUSTON ST., VALLEY VILLAGE, CA 91607

JOB NO.: A-2048  
DRAWN BY: A.L.  
CHECKED BY: M.S.  
DATE: 12-28-20

SHEET TITLE: SHEET NUMBER

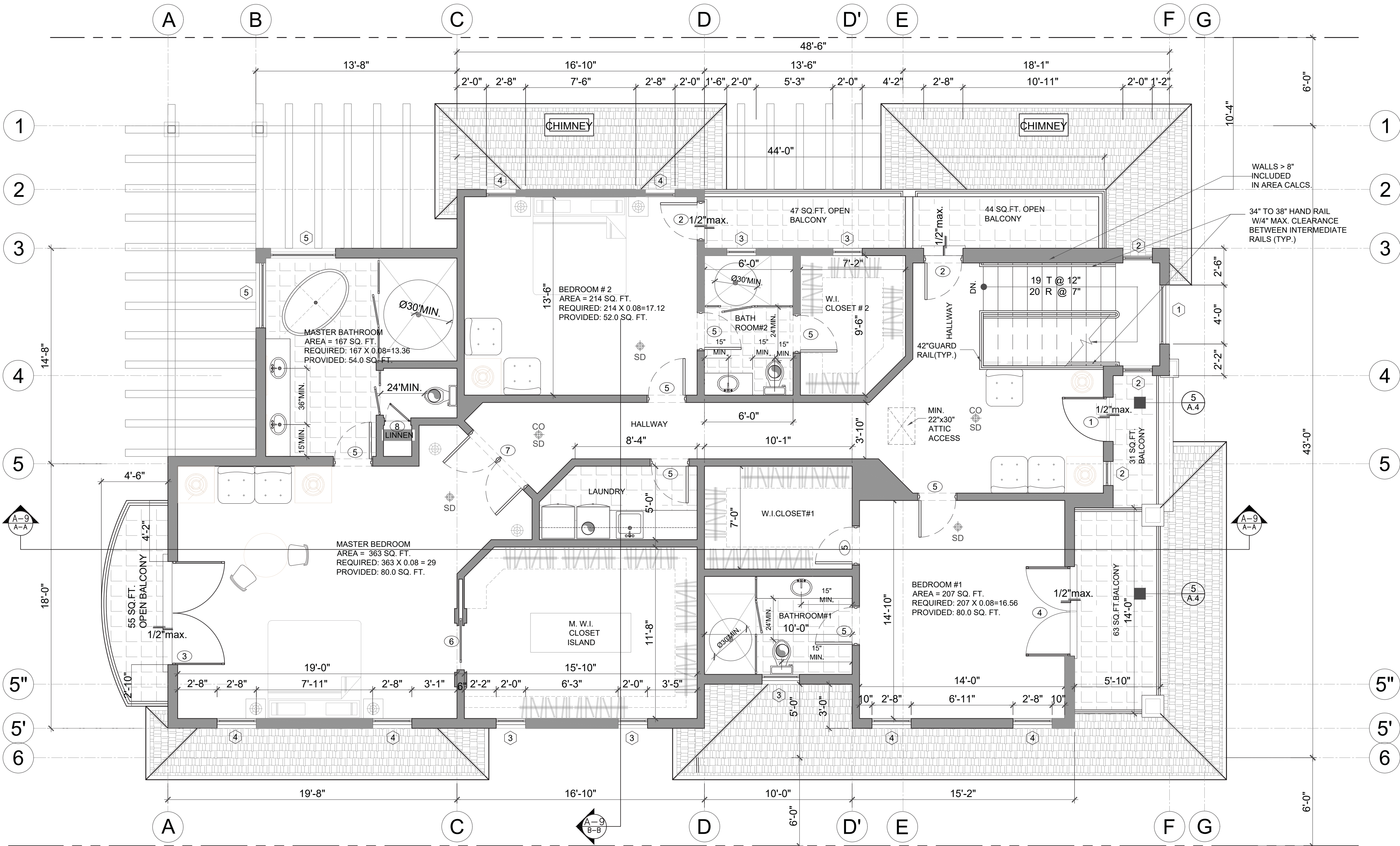
A-4

SHEETS 4 OF 12



PLAN NOTES:

- PROVIDE LOW WATER CONSUMPTION AND CONSERVING PLUMBING FIXTURES AND FITTINGS PER CHAPTER 4 OF CAL GREEN BUILDING STANDARD CODE (CGBSC 4.303.3) SHALL COMPLY WITH THE FOLLOWING:
  - SHOWERHEADS 1.8 GPM @ 80 PSI
  - LAVATORY FAUCETS, RESIDENTIAL 1.2 GPM @ 60 PSI
  - KITCHEN FAUCET 1.8 GPM @ 60 PSI
  - ALL TYPE OF WATER CLOSETS 1.28 GALLON PER FLUSH
- BATHTUB AND SHOWER FLOORS, WALLS ABOVE BATHTUB WITH A SHOWER HEAD, AND SHOWER COMPARTMENTS SHALL BE FINISHED WITH NONABSORBENT SURFACE EXTENDING TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR. (R307.2)
- ALL SHOWERS AND TUB-SHOWERS SHALL HAVE EITHER A PRESSURE BALANCE OR THERMOSTATIC MIXING VALVE.
- SHOWER DOORS SHALL SWING OUT, NET AREA OF SHOWER RECEPTOR SHALL BE NOT LESS THAN 1,024 SQ.INCH OF FLOOR AREA, AND ENCOMPASS 30-INCH DIAMETER CIRCLE. (CPC 408.6).
- WATER AND WASTE CONNECTION TO EVERY BATHTUB SHALL BE PROVIDED WITH 12"x12" MINIMUM ACCESS DOOR OR PANEL
- DIMENSION ON THE PLANS THE 30 INCH CLEAR WIDTH FOR WATER CLOSET AND 24 INCH CLEARANCE IN FRONT OF WATER CLOSET FOR BATHROOM. (PC 407.5)
- PROVIDE SOAP DISH AT TUB AND SHOWER, TWO TOWEL BARS AND ONE PAPER HOLDER AT EACH BATHROOM. MIRROR TOP AT 6'-8" ABOVE FINISH FLOOR. RECESSED MEDICINE CABINET WITH MIRROR.
- BATHROOMS, WATER CLOSET COMPARTMENTS AND OTHER SIMILAR ROOMS SHALL BE PROVIDED WITH MINIMUM GLAZING AREA OF 3-SQ. FT, ONE-HALF OF WHICH IS OPENABLE. THE GLAZED AREAS ARE NOT REQUIRED WHERE ARTIFICIAL LIGHT AND A MECHANICAL VENTILATION OF 50 CFM INTERMITTENT OR 25 CFM CONTINUOUS VENTILATION ARE PROVIDED. (R303.3)
- PROVIDE EXHAUST CEILING FAN WITH 50 AIR CHANGES PER HOUR IN ALL INTERIOR BATHROOMS, POWDER ROOMS, LAUNDRY ROOMS. FAN EXHAUST SYSTEM TO BE OPERABLE FROM LIGHT SWITCH. PROVIDE BACKDRAFT DAMPER AND SEPARATE SWITCH.
- WATER SUPPLY TO FIXTURES: PLUMBING FIXTURES SHALL BE CONNECTED TO AN APPROVED WATER SUPPLY. KITCHEN SINKS, LAVATORIES, BATHTUBS, SHOWERS, BIDETS, LAUNDRY TUBS AND WASHING MACHINE OUTLETS SHALL BE PROVIDED WITH HOT AND COLD WATER.
- INSTALL GFCI AND AFCI OUTLETS IN BATHROOMS.
- EXHAUST FANS WITH HUMIDITY CONTROL: EACH BATHROOM CONTAINING A BATHTUB, SHOWER OR TUB/SHOWER COMBINATION SHALL BE MECHANICALLY VENTILATED FOR PURPOSE OF HUMIDITY CONTROL IN ACCORDANCE WITH CMIC, CHAPTER 4. BATHROOM EXHAUST FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE TO THE OUTSIDE OF THE BUILDING. BATHROOM EXHAUST FANS, NOT FUNCTIONING AS A COMPONENT OF WHOLE HOUSE VENTILATION SYSTEM, MUST BE CONTROLLED BY HUMIDISTAT WHICH SHALL BE READILY ACCESSIBLE. HUMIDITY CONTROLS SHALL BE CAPABLE OF ADJUSTMENT BETWEEN RELATIVE HUMIDITY RANGE OF < 50% TO A MAXIMUM OF 90 %. A HUMIDITY CONTROL MAY UTILIZE MANUAL OR AUTOMATIC MEANS OF ADJUSTMENT.
- SMOKE ALARMS: PROVIDE INTERCONNECTED HARD-WIRED "SMOKE ALARM" WITH BATTERY BACKUP IN THE FOLLOWING: (R314)
  - IN EACH SLEEPING ROOM
  - OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
  - ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS, BUT NOT INCLUDING CRAWL SPACES AND UNINHABITABLE ATTICS.
  - PROVIDE A NOTE: "SMOKE ALARM SHALL BE INTERCONNECTED HARD-WIRED WITH BATTERY BACKUP. SMOKE ALARMS SHALL BE TESTED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURE'S INSTRUCTIONS. SMOKE ALARMS THAT NO LONGER FUNCTION SHALL BE REPLACED. SMOKE ALARMS INSTALLED IN ONE- AND TWO- FAMILY DWELLINGS SHALL BE REPLACED AFTER 10 YEARS FROM THE DATE OF MANUFACTURE MARKED ON THE UNIT, OR IF THE DATE OF MANUFACTURE CANNOT BE DETERMINED.(R314.3.3) CONVENTIONAL IONIZATION SMOKE ALARMS: ARE SOLELY BATTERY POWERED SHALL BE EQUIPPED WITH A 10 YEAR BATTERY AND HAVE SILENCE FEATURE.
- CARBON MONOXIDE DETECTORS: AN APPROVED CARBON MONOXIDE DETECTOR RECEIVING ITS PRIMARY SOURCE OF POWER FROM THE BUILDING WIRING AND HAVING BATTERY BACKUP SHALL BE INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA OR BEDROOM(S) AND ONE ON EVERY LEVEL OF THE DWELLING INCLUDING BASEMENTS WHERE MORE THAN ONE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING. THE ALARMS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE WILL ACTIVATE ALL THE ALARMS IN THE UNIT. THE ALARM IS PERMITTED TO BE SOLELY BATTERY OPERATED WHERE THE WORK DOES NOT RESULT IN THE REMOVAL OF WALL OR CEILING FINISHES, OR THER IS NO ACCESS THROUGH AN ATTIC, BASEMENT OR CRAWL SPACE. (CRC R315.1), DETECTORS SHALL MEET U.L. 2034 AND /OR NFPA 720 STANDARDS.
- CLOTHES DRYER: A MINIMUM 4" IN DIAMETER MOISTURE EXHAUST DUCT MUST BE PROVIDED (CMC 504.3.1). A FLEXIBLE DUCT CANNOT EXTEND MORE THAN 6' AND CANNOT BE CONCEALED (CMC 504.3.1.1). DRYER EXHAUST DUCT MUST BE 4" IN DIAMETER AND CANNOT EXCEED 14' WITH A MAXIMUM OF TWO 90° ELBOWS (CMC 504.3.1.2). THE DUCT LENGTH SHALL BE REDUCED BY 2' FOR EVERY ELBOW IN EXCESS OF TWO. WASHER / DRYER SPACE: ROUGH-IN PLUMBING FOR HOT / COLD WATER AND WASTE. VENTILATE DRYER TO OUTSIDE AIR. PROVIDE 120V AND 220V ELECTRICAL OUTLET AND FUEL GAS OUTLET.
- 30" x 30" MINIMUM ATTIC ACCESS AT 30" MINIMUM CLEAR HEADROOM.
- KITCHEN CABINETS, APPLIANCES AND FIXTURES PER OWNER INSTRUCTIONS PROVIDE DOUBLE SINKS WITH GARBAGE DISPOSAL, AT REFRIGERATOR SPACE - PROVIDE COPPER TUBE WATER LINE FOR ICE MAKER.
- LANDINGS AT EXTERIOR DOORS: THERE SHALL BE A LANDING OR FLOOR ON EACH SIDE OF EXTERIOR DOOR. THE WIDTH OF EACH LANDING SHALL BE NOT LESS THAN THE DOOR SERVED. EVERY LANDING SHALL HAVE A DIMENSION OF NOT LESS THAN 36" MEASURED IN THE DIRECTION OF TRAVEL. THE SLOPE AT EXTERIOR LANDINGS SHALL NOT EXCEED 1/4 UNIT VERTICAL IN 12 UNITS HORIZONTAL (2%). EXCEPTION: EXTERIOR BALCONIES LESS THAN 60 SQUARE FEET AND ONLY ACCESSIBLE FROM A DOOR ARE PERMITTED TO HAVE A LANDING LESS THAN 36" INCHES.
- ENTREE / EXIT DOORS MUST BE OPEN OVER A LANDING NOT MORE THAN 1/2" BELOW THE THRESHOLD. FOR SLIDING DOORS NOT HIGHER THAN 3/4" BELOW THRESHOLD.
- DOORS: NONCOMBUSTIBLE EXTERIOR DOORS OR IGNITION RESISTANT, 1-1/3" SOLID CORE WOOD, OR HAVE FIRE-PROTECTION RATING OF NOT LESS THAN 20 MINUTES. (708A.3) WINDOWS WITHIN DOORS AND GLAZED DOORS SHALL COMPLY WITH 708A.2.1., 716.6.7.3. EXCEPTION: GARAGE DOORS AND VEHICLE ACCESS DOORS PROVIDED THE INTERIOR OF THE GARAGE IS SHEATHED WITH 5/8" TYPE 'X' GYPSUM WALLBOARD.
- GLAZING IN DOORS AND WINDOWS SHALL BE TEMPERED (CRC R308.4):
  - IN OPERABLE PANELS OF DOORS.
  - WITHIN 24" OF A DOOR WHEN BOTTOM EDGE IS LESS THAN 60" ABOVE A WALKING SURFACE.
  - IN AN INDIVIDUAL PANE LARGER THAN 9 SF, WHEN THE BOTTOM EDGE IS WITHIN 18" OF THE DOOR, WHEN THE TOP EDGE IS MORE THAN 36" ABOVE THE FLOOR, AND WHEN WITHIN 36" OF A WALKING SURFACE AS MEASURED HORIZONTALLY AND IN A STRAIGHT LINE.
  - IN RAILINGS.
  - WITHIN 60" OF TUB OR SHOWER FLOOR.
  - GLAZING ADJACENT TO STAIRWAYS, LANDINGS, AND RAMPS WITHIN 36" OF A WALKING SURFACE WHEN LESS THAN 60" ABOVE THE ADJACENT WALKING SURFACE.
  - WITHIN 60" OF STAIRS AND STAIR LANDINGS.
- BEDROOM EGRESS WINDOWS HAVE A MINIMUM CLEAR OPENING AREA OF 5.7SF WHEN ABOVE THE GRADE FLOOR AND 5 SF ON THE GRADE FLOOR, A MINIMUM NET HEIGHT:24" AND MINIMUM NET WIDTH: 20", AND THE SILL HEIGHT NOT MORE THAN 44" ABOVE FINISH FLOOR.
- SHOW THE FOLLOWING STAIRWAY DETAILS ON PLANS:
  - 7 3/4" MAXIMUM RISE AND MINIMUM 10" RUN (R311.7.5)
  - MINIMUM 6'-8" HEADROOM CLEARANCE (R311.7.2)
  - MINIMUM 36" CLEAR WIDTH (R311.7.1)
  - HANDRAILS 34" TO 38" HIGH ABOVE TREAD NOSING (R311.7.8.1)
  - HANDGRIP PORTION OF HANDRAIL SHALL NOT BE LESS THAN 1 1/4" AND NO MORE THAN 2" CROSS-SECTIONAL DIMENSION HAVING A SMOOTH SURFACE WITH NO SHARP CORNERS (R311.7.7.3)
  - MAXIMUM 4" CLEAR SPACING OPENING BETWEEN RAILS (R312.1.3).
  - ALL STAIRWAYS SHALL HAVE AN ILLUMINATION LEVEL ON TREAD RUNS OF NOT LESS THAN 1 FOOT-CANDLE (11 lux) (R303.6)
- FINISH MATERIALS INCLUDING ADHESIVES, SEALANTS, CAULKS, PAINTS AND COATING, AEROSOL PAINTS AND COATINGS, CARPET SYSTEMS, CARPET CUSHIONS, CARPET ADHESIVES, RESILIENT FLOORING SYSTEMS AND COMPOSITE WOOD PRODUCTS SHALL MEET THE (VOC) EMISSION LIMITS PER CHAPTER 4 OF LOS ANGELES COUNTY GREEN BUILDING STANDARDS CODE.

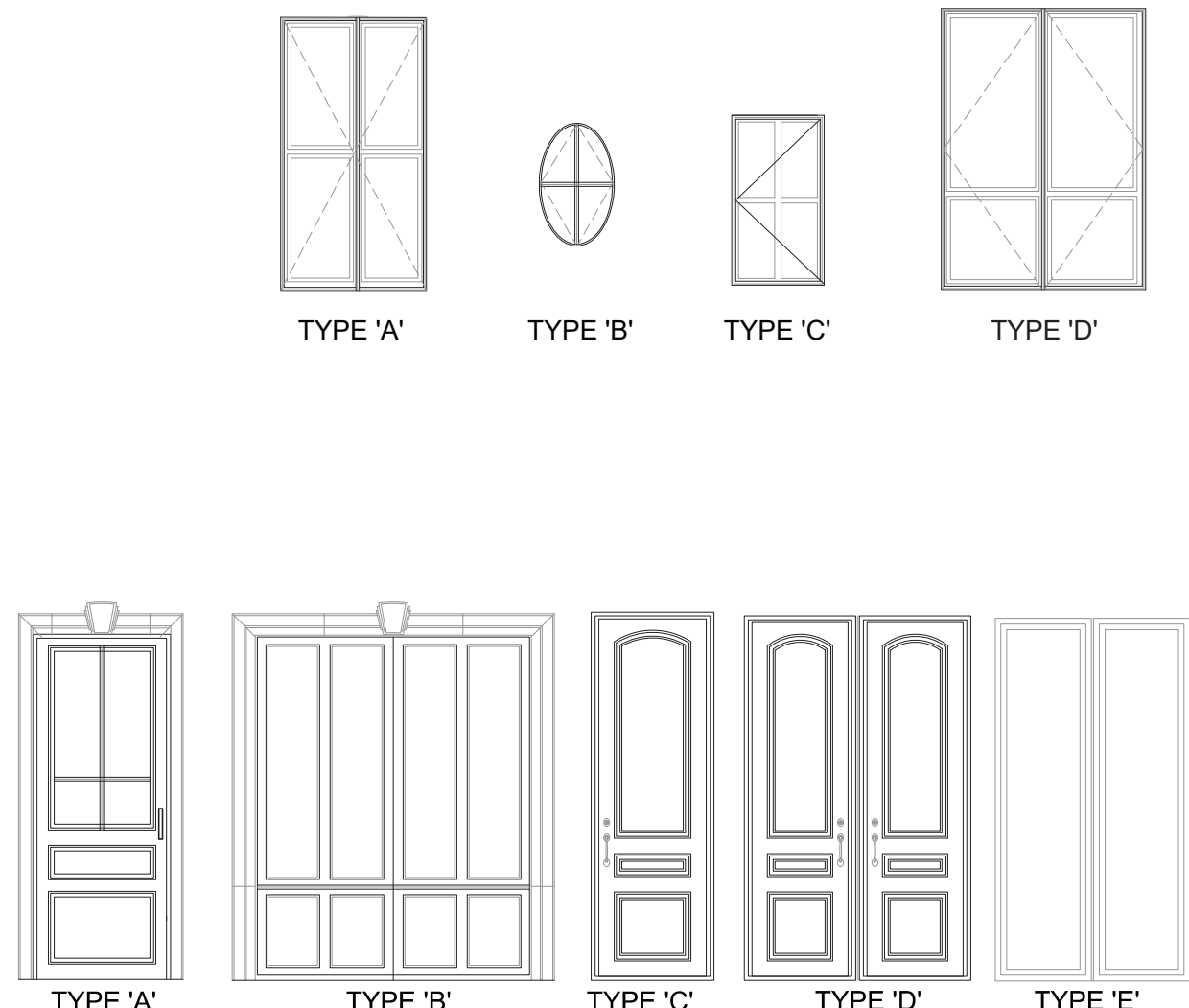


SECOND FLOOR PLAN



**LEGEND:**

	NEW 2x4 STUD WALL @16" O.C. (INTERIOR)
	NEW 2x6 STUD WALL @16" O.C. (EXTERIOR)
	1 HR FIRE RATED WALL
	G.F.I. OUTLET
	ENERGY STAR rated EXHAUST CEILING FAN "Controlled by humidistat" 50 CFM
	SMOKE and CARBON MONOXIDE detector.
	SEE PLAN NOTES ON THIS SHEET
	SEE DOOR SCHEDULE ON THIS SHEET
	SEE WINDOW SCHEDULE ON THIS SHEET



SECOND FLOOR WINDOW SCHEDULE

WINDOW NO	TYPE	QUANTITY	WIDE X HEIGHT	COLOR & MATERIAL	TYPE OF OPERATION	BEDROOM Y / N	ENERGY EFFICIENT ? Y / N	TEMPERED GLASS ? Y / N	FIRE HAZARD ZONE ? Y / N	REMARKS
1	A	01	48"x72"	VINYL	FIXED	NO	YES	YES	NO	0.290 0.21
2	B	03	20"x32"	VINYL	CASEMENT	NO	YES	YES	NO	0.290 0.21
3	C	05	24"x44"	VINYL	CASEMENT	NO	YES	YES	NO	0.290 0.21
4	C	06	32"x68"	VINYL	CASEMENT	YES	YES	YES	NO	0.290 0.21
5	D	01	54"x72"	VINYL	CASEMENT	NO	YES	YES	NO	0.290 0.21

SECOND FLOOR DOOR SCHEDULE

DOOR NO	TYPE	QUANTITY	WIDE X HEIGHT	COLOR & MATERIAL	THICKNESS	TYPE OF OPERATION	ENERGY EFFICIENT ? Y / N	TEMPERED GLASS ? Y / N	REMARKS
1	A	01	36"x90"	WOOD GLASS	1 3/4"	FRENCH	YES	YES	EXTERIOR ENTRY DOOR WITH TEMPERED GLASS
2	A	02	32"x90"	VINYL GLASS	1 3/4"	FRENCH	YES	YES	EXTERIOR DOOR WITH TEMPERED GLASS
3	B	01	84"x90"	VINYL GLASS	1 3/4"	FRENCH	YES	NO	EXTERIOR DOUBLE DOOR WITH TEMPERED GLASS
4	B	01	73"x90"	VINYL	1 3/4"	FRENCH	YES	NO	EXTERIOR DOOR WITH TEMPERED GLASS
5	C	08	32"x96"	VINYL	1 3/4"	SWING	YES	NO	INTERIOR DOOR
6		01	32"x96"	VINYL	1 3/4"	POCKET	YES	NO	INTERIOR SLIDING DOOR
7	D	01	64"x96"	VINYL	1 3/4"	SWING	YES	NO	INTERIOR DOUBLE DOOR
8	E	01	21"x96"	VINYL	1 3/4"	SWING	YES	NO	INTERIOR DOOR

SECOND FLOOR PLAN

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

1

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**Art Design Services**  
EXTERIOR and INTERIOR DESIGN SERVICES

635 W. COLORADO ST., #102, GLENDALE CA 91204  
Tel. 818-389-3888 email: artdesigns97@gmail.com

PROJECT TITLE: NEW 2 STORY S.F.D. WITH ATTACHED 2-CAR GARAGE

OWNER: BRETT KARNS

JOB ADDRESS:  
12527 HUSTON ST., VALLEY VILLAGE, CA 91607

JOB NO.: A-2048

DRAWN BY: A.L.

CHECKED BY: M.S.

DATE: 12-28-20

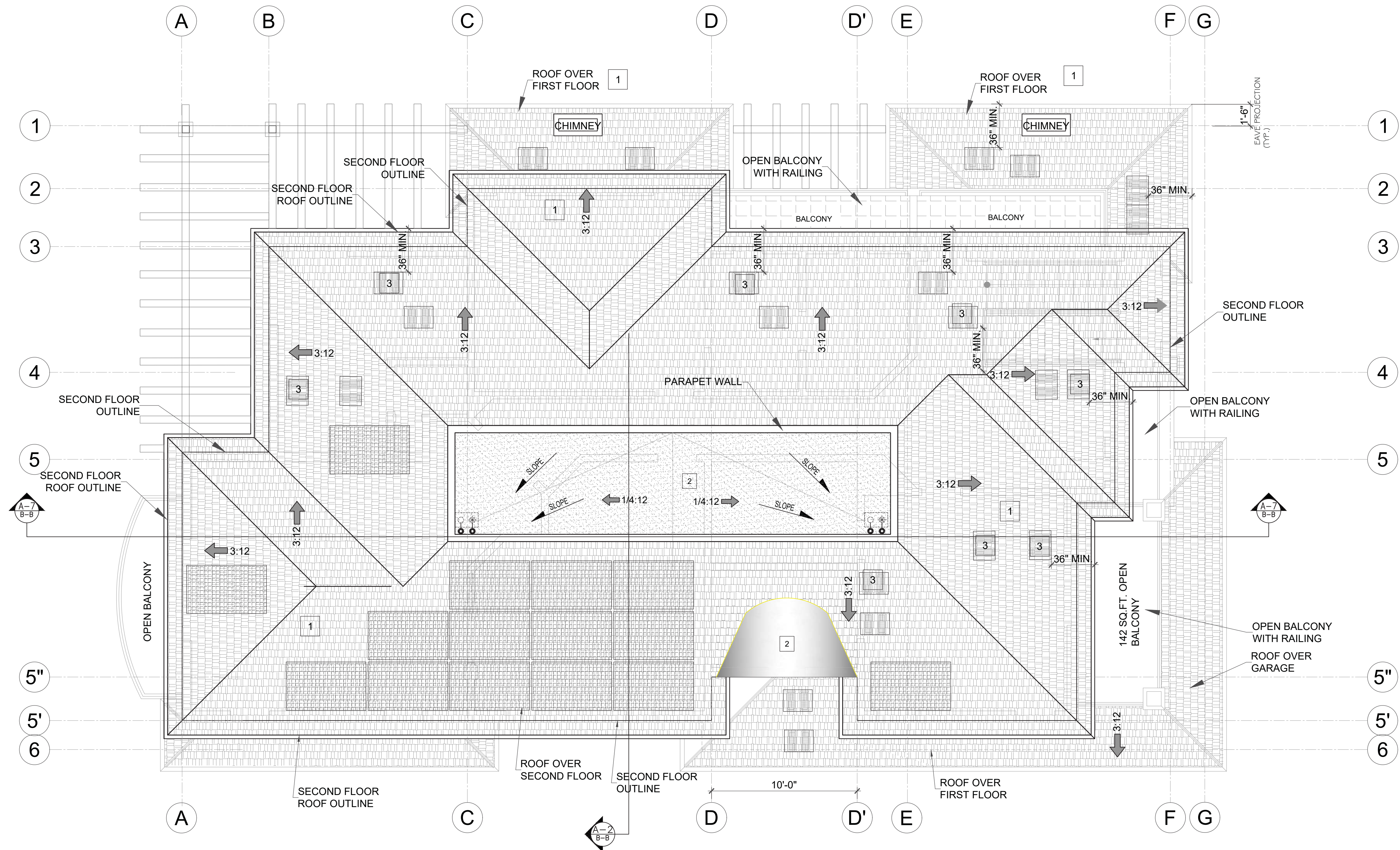
SHEET TITLE:

SHEET NUMBER

**A-5**

SHEETS 6 OF 12





NOTE: THE NFRC TEMPORARY LABEL DISPLAYED ON ALL WINDOWS AND SKYLIGHTS (INCLUDING TUBULAR) MUST REMAIN ON THE UNIT UNTIL FINAL INSPECTION HAS BEEN COMPLETED.

LG SOLAR - LG350N1C-V5 > 350 WATT BLACK FRAME NEON 2 SOLAR PANEL, CELLO TECHNOLOGY

CRRC PROD. ID	MANUFACTURER: BRAND MODEL	PRODUCT TYPE	COLOR	SOLAR REFLECTANCE		THERMAL EMITTANCE		SRI		MORE INFO
				Initial	3 year	Initial	3 year	Initial	3 year	
0676-0043a	GAF: Timberline® Cool Series® Cool Antique Slate	Steep Slope: Asphalt Shingles	Grey	0.28	0.26	0.92	0.91	30	27	+

COOL ROOF RATING COUNCIL 3519 NE 15th Ave, #205 TEL (866) 465-2523 EMAIL: info@coolroofs.org Portland, OR 97212



## ROOF PLAN

### ROOF VENTILATION CALCULATIONS

\*\*\* ROOF 'A' AREA OVER SECOND FLOOR=1,799.0 SQ.FT. TOTAL REQUIRED OPENING 1799/150=11.99 SQ.FT.

\*\*\* FLAT ROOF AREA = 248 SQ.FT.

\*\*\* ROOF 'B' AREA OVER FIRST FLOOR= 595 SQ.FT. TOTAL REQUIRED OPENING 595 /150 = 3.96 SQ.FT.

### ROOF VENTILATION CALCULATIONS

\*\*\*ROOF 'A' AREA =1,799.0 SQ.FT. TOTAL REQUIRED OPENING 1799 / 300= 6 SQ.FT. 6 SQ.FT. x144 = 864 SQ.IN. PROVIDED MODEL O'HAGIN TAPERED LOW-PROFILE COMPOSITION VENT DESIGNED FOR SLATE, SHAKE OR COMPOSITION SHINGLE ROOFS PROVIDES WITH NET FREE VENTILATION AREA NFVA = 72 SQ. IN. 864 SQ.IN / 72 SQ. IN = 12 \*\*\*\*\*TOTAL PROVIDED 12 VENTS (6 INTAKE AND 6 EXHAUST)

\*\*\* ROOF 'B' AREA OVER FIRST FLOOR= 595 SQ.FT. TOTAL REQUIRED OPENING 595 /150 = 3.96 SQ.FT. X144 = 571.2 / 72=7.9 \*\*\*\*\*TOTAL PROVIDED 8 VENTS (4 INTAKE AND 4 EXHAUST)

### LEGEND:

1 COMPOSITION SHINGLE CLASS 'A' BY 'GAF' COOL SERIES - COOL ANTIQUE SLATE ICC-ESR-3267

2 'RUBEROID' MOP GRANULE MEMBRANE BY 'GAF', ICC ESR-1274, LA R.R. 25271

3 O'HAGIN'S TAPERED LOW-PROFILE VENT SERIES WITH 24, 3-1/2 INCH LOUVERS ON EACH SIDE. WATER DIVERTERS AND SPLASHGUARDS. EACH SIDE HAS A 4-INCH FLANGE WITH A TOP FLANGE OF 6-1/2 INCHES. THE VENT OPENING IS AN 11-INCH CIRCLE WITH A 1/4-INCH SCREEN AND 1/2-INCH LIP

40"X66.38" = 18.4 SQ.FT. LG SOLAR - LG350N1C-V5 > 350 WATT BLACK FRAME NEON 2 SOLAR PANEL, CELLO TECHNOLOGY 4x350 = 1400.0 WATT = 1.4 KW PER TITLE 24

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

1

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Art Design SERVICES  
EXTERIOR and INTERIOR DESIGN  
635 W. COLORADO ST., #102, GLENDALE CA 91204  
Tel.: 818-389-3886 email: artdesigns97@gmail.com

PROJECT TITLE: NEW 2 STORY S.F.D. WITH ATTACHED 2-CAR GARAGE

OWNER: BRETT KARNIS

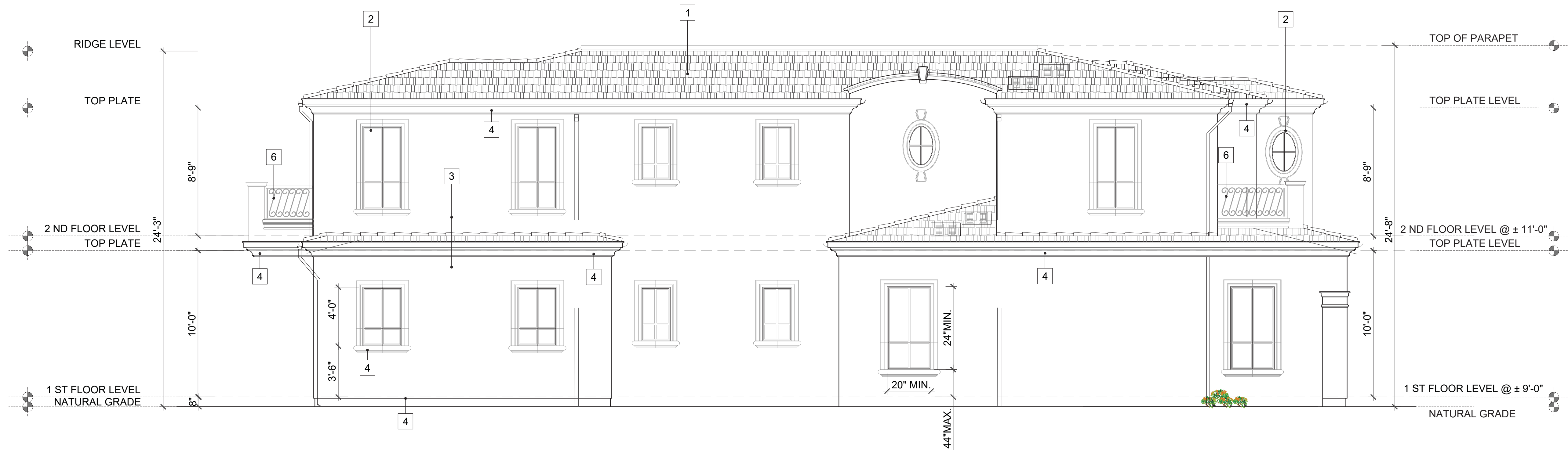
JOB NO.: A-2048  
DRAWN BY: A.L.  
CHECKED BY: M.S.  
DATE: 12-28-20  
SHEET TITLE:

SHEET NUMBER

A-6

SHEETS 4 OF 12





WEST ELEVATION

SCALE:  
1/4"=1'-0" 2

- 1 COMPOSITION SHINGLE CLASS 'A' BY 'GAF' COOL SERIES - COOL ANTIQUE SLATE ICC-ESR-3267
- 2 RECESSED DOORS AND WINDOWS SIZES, HEIGHTS PER SCHEDULE
- 3 SMOOTH STUCCO FINISH. MINIMUM 7/8" THICK 3-COAT PLASTER WITH METAL MESH OVERLAPPED 2-LAYERS OF GRADE "D" BUILDING PAPER
- 4 SMOOTH STUCCO FINISH MOLDING
- 5 A CORROSION - RESISTANT WEEP SCREED, MIN. 26 GALV. SHEET, WITH A MINIMUM VERTICAL ATTACHMENT FLANGE OF 3-1/2" SHALL BE PROVIDED BELLOW THE STUCCO AT THE FOUNDATION PLATE LINE A MINIMUM 4" ABOVE EARTH OR 2" ABOVE PAVED AREA. WEEP SCREED SHALL BE OF A TYPE THAT WILL ALLOW TRAPPED WATER TO DRAIN TO THE EXTERIOR OF THE BUILDING.
- 6 42" MIN. HIGH GUARD RAIL WITH 4" MAX. CLEARANCE BETWEEN INTERMEDIATE RAILS
- 7 LED EXTERIOR LIGHTING
- 8 ADDRESS NUMBER
- 9 WOOD TRELLISES

ALL DOWNSPOUTS LEAD TO LINED RAIN GARDENS



NORTH ELEVATION

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



WRITTEN DIMENSIONS ON THESE SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY, AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY DISCREPANCIES IMMEDIATELY. THE ABOVE DRAWINGS AND SPECIFICATIONS AND IDEAS, DESIGNS AND ARRANGEMENTS REPRESENTED THEREBY ARE AND SHALL REMAIN THE PROPERTY OF ART AND INTERIOR DESIGN SERVICES. NO PART OF THESE DRAWINGS OR SPECIFICATIONS SHALL BE REPRODUCED OR USED IN CONNECTION WITH ANY OTHER WORK DEVELOPED WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. VISUAL CONTACT WITH THESE DRAWINGS OR SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS.

**Art and Interior Design Services**  
635 W. COLORADO ST., #102, GLENDALE CA 91204  
Tel.: 818-389-3888 email: artdesigns77@gmail.com

PROJECT TITLE: NEW 2 STORY S.F.D. WITH ATTACHED 2-CAR GARAGE  
OWNER: BRETT KARNS  
JOB ADDRESS: 12527 HUSTON ST., VALLEY VILLAGE, CA 91607

JOB NO.: A-2048  
DRAWN BY: A.L.  
CHECKED BY: M.S.  
DATE: 12-28-20  
SHEET TITLE: ELEVATIONS  
SHEET NUMBER

**A-8**

SHEETS 8 OF 12



EAST ELEVATION

SCALE: 1/4"=1'-0" 2

- 1 COMPOSITION SHINGLE CLASS 'A' BY 'GAF' COOL SERIES - COOL ANTIQUE SLATE ICC-ESR-3267
- 2 RECESSED DOORS AND WINDOWS SIZES, HEIGHTS PER SCHEDULE
- 3 SMOOTH STUCCO FINISH. MINIMUM 7/8" THICK 3-COAT PLASTER WITH METAL MESH OVERLAPPED 2-LAYERS OF GRADE "D" BUILDING PAPER
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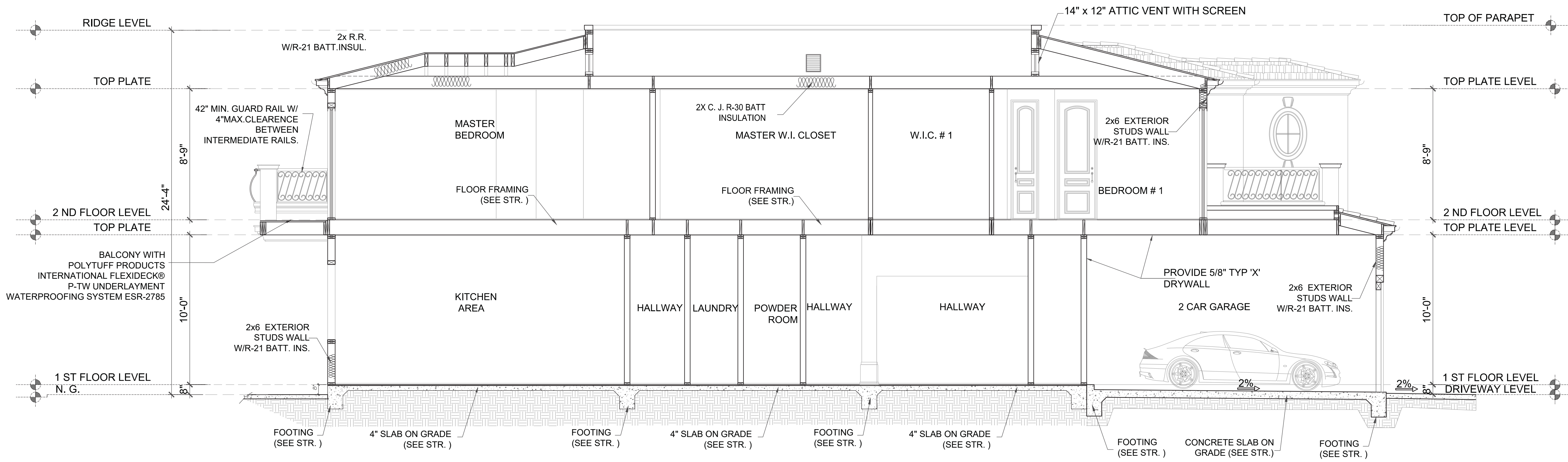
ALL DOWNSPOUTS LEAD TO LINED RAIN GARDENS



SOUTH ELEVATION

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

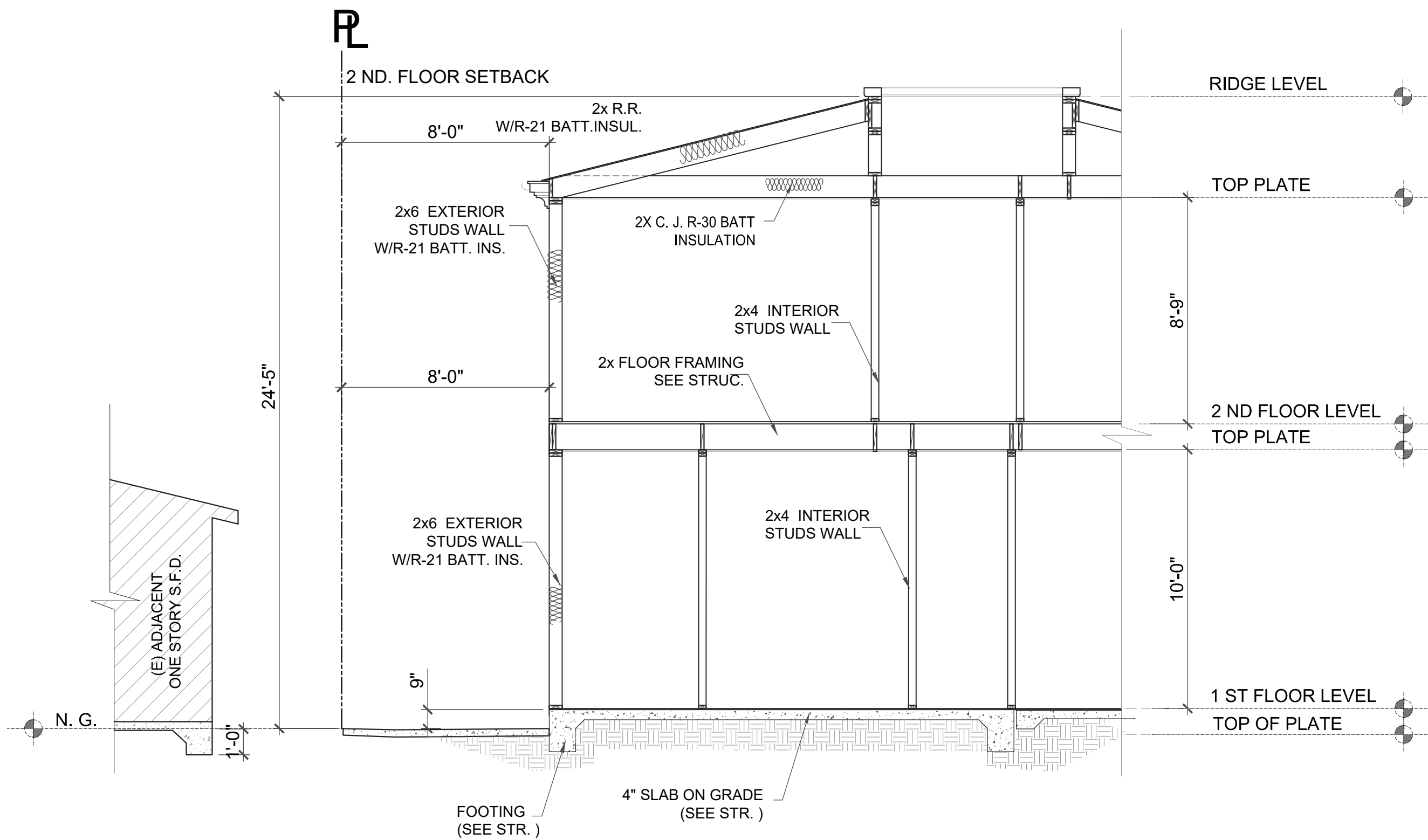




SECTION A - A

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

1



SECTION B - B

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

2

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OWNER: BRETT KARNS

JOB ADDRESS:  
12527 HUSTON ST., VALLEY VILLAGE, CA 91607

A-2048

JOB NO.:

DRAWN BY:

CHECKED BY:

DATE:

SHEET TITLE:

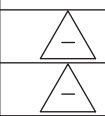
ELEVATIONS

SHEET NUMBER

SHEETS 9 OF 12

**A-9**





Roben Mardirosian, P.E.  
10540 Jardine Ave.  
Sunland, CA 91040  
Tel: (818) 484-0495  
Email: roben@armenengineers.com

12527 W. HUSTON ST.  
SUN VALLEY, CA 91607

TITLE-24 REPORT

DATE: 5/11/21

SHEET NUMBER

T-1

## CERTIFICATE OF COMPLIANCE

Project Name: 12527 W. Huston St.

Calculation Description: Title 24 Analysis

Calculation Date/Time: 2021-05-11T14:03:47-07:00

Input File Name: 12527 W. Huston St...rbd19x

CF1R-PRF-01E

(Page 1 of 13)

GENERAL INFORMATION			
01	Project Name	12527 W. Huston St.	
02	Run Title	Title 24 Analysis	
03	Project Location	12527 W. Huston St.	
04	City	05	Standards Version
06	Zip code	07	Software Version
08	Climate Zone	09	Front Orientation (deg/ Cardinal)
10	Building Type	11	Number of Dwelling Units
12	Project Scope	13	Number of Bedrooms
14	Addition Cond. Floor Area (ft <sup>2</sup> )	15	Number of Stories
16	Existing Cond. Floor Area (ft <sup>2</sup> )	17	Fenestration Average U-factor
18	Total Cond. Floor Area (ft <sup>2</sup> )	19	Glazing Percentage (%)
20	ADU Bedroom Count	21	ADU Conditioned Floor Area
22	Is Natural Gas Available?	Yes	

## COMPLIANCE RESULTS

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

Registration Number: 221-P010091407A-000-000-0000000-0000

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Registration Date/Time: 2021-05-11 14:09:40

Report Version: 2019.1.300  
Schema Version: rev 20200901

HERS Provider:

CalCERTS inc.

Report Generated: 2021-05-11 14:05:01

## CERTIFICATE OF COMPLIANCE

Project Name: 12527 W. Huston St.

Calculation Description: Title 24 Analysis

Calculation Date/Time: 2021-05-11T14:03:47-07:00

Input File Name: 12527 W. Huston St...rbd19x

CF1R-PRF-01E

(Page 2 of 13)

ENERGY DESIGN RATING				
Energy Design Ratings			Compliance Margins	
			Efficiency <sup>1</sup> (EDR)	Total <sup>2</sup> (EDR)
Standard Design			40.2	23.3
Proposed Design			39.8	22.9
			0.4	0.4
RESULT: <sup>3</sup> COMPLIES				
1: Efficiency EDR includes improvements to the building envelope and more efficient equipment 2: Total EDR includes efficiency and demand response measures such as photovoltaic (PV) systems and batteries 3: Building complies when efficiency and total compliance margins are greater than or equal to zero				
• Standard Design PV Capacity: 3.27 kWdc • Proposed PV system downsized to 3.25 kWdc (a factor of 0.677) due to cap of 1 x proposed design electricity use				

ENERGY USE SUMMARY				
Energy Use (kTOD/ft <sup>2</sup> -yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	9.03	10.25	-1.22	-13.5
Space Cooling	16.82	15.02	1.8	10.7
IAQ Ventilation	2.09	2.09	0	0
Water Heating	5.51	5.55	-0.04	-0.7
Self Utilization/Flexibility Credit	n/a	0	0	n/a
Compliance Energy Total	33.45	32.91	0.54	1.6

## REQUIRED PV SYSTEMS - SIMPLIFIED

01	02	03	04	05	06	07	08	09	10	11	12
DC System Size (kWdc)	Exception	Module Type	Array Type	Power Electronics	CR	Azimuth (deg)	Tilt Input	Array Angle (deg)	Tilt: (x in 12)	Inverter Eff. (%)	Annual Solar Access (%)
3.25	2 habitable stories	Standard	Fixed	none	false	180	Degre es	22	4.85	96	100

Registration Number: 221-P010091407A-000-000-0000000-0000

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Registration Date/Time: 2021-05-11 14:09:40

Report Version: 2019.1.300  
Schema Version: rev 20200901

HERS Provider:

CalCERTS inc.

Report Generated: 2021-05-11 14:05:01

## CERTIFICATE OF COMPLIANCE

Project Name: 12527 W. Huston St.

Calculation Description: Title 24 Analysis

Calculation Date/Time: 2021-05-11T14:03:47-07:00

Input File Name: 12527 W. Huston St...rbd19x

CF1R-PRF-01E

(Page 3 of 13)

## REQUIRED SPECIAL FEATURES

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

- PV System: 3.25 kWdc
- PV description 3: 2 h habitable stories (4.8 kW)
- Cool roof
- Insulation below roof deck
- Non-standard duct location (any location other than attic)

## HERS FEATURE SUMMARY

The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry

## Building-level Verifications:

- Quality insulation installation (QII)
- Indoor air quality ventilation

## Cooling System Verifications:

- Minimum Airflow
- Verified EER
- Fan Efficacy Watts/CFM

## Heating System Verifications:

- -- None --

## HVAC Distribution System Verifications:

- Duct leakage testing
- Verified low-leakage ducts in conditioned space must meet maximum 25 cfm leakage to outside (RA3.1.4.3.8)

## Domestic Hot Water System Verifications:

- -- None --

## BUILDING - FEATURES INFORMATION

01	02	03	04	05	06	07
Project Name	Conditioned Floor Area (ft <sup>2</sup> )	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
12527 W. Huston St.	4780	1	4	3	0	2

Registration Number: 221-P010091407A-000-000-0000000-0000

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Registration Date/Time: 2021-05-11 14:09:40

Report Version: 2019.1.300  
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Project Name: 12527 W. Huston St.

Calculation Description: Title 24 Analysis

Calculation Date/Time: 2021-05-11T14:03:47-07:00

Input File Name: 12527 W. Huston St...rbd19x

CF1R-PRF-01E

(Page 4 of 13)

ZONE INFORMATION						
01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft <sup>2</sup> )	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2
Basement	Conditioned	AC1	533	8	DHW Sys 1	DHW Sys 2
FirstFloor	Conditioned	AC1	2201	10	DHW Sys 1	DHW Sys 2
SecondFloor	Conditioned	AC2	2046	8.75	DHW Sys 1	DHW Sys 2

OPAQUE SURFACES							
01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft <sup>2</sup> )	Window and Door Area (ft <sup>2</sup> )	Tilt (deg)
North Wall	FirstFloor	R-21	0	Back	430	170	90
East Wall	FirstFloor	R-21	90	Right	685	135.5	90
South Wall	FirstFloor	R-21	180	Front	430	60.4	90
West Wall	FirstFloor	R-21	270	Left	685	150.8	90
North Wall 2	SecondFloor	R-21	0	Back	320	79.5	90
East Wall 2	SecondFloor	R-21	90	Right	596	96.6	90
South Wall 2	SecondFloor	R-21	180	Front	320	141.23	90
West Wall 2	SecondFloor	R-21	270	Left	596	87.4	90
Interior Surface	Basement>FirstFloor	R-9 Wall	n/a	n/a	350	0	n/a
Interior Surface 2	FirstFloor	R-9 Wall	n/a	n/a	850	0	n/a
Roof 2	SecondFloor	R-30 Attic	n/a	n/a	1826	n/a	n/a
North Wall 3	Basement	6 Concrete Wall w/R-13	n/a	n/a	248	n/a	n/a
East Wall 3	Basement	6 Concrete Wall w/R-13	n/a	n/a	160	n/a	n/a
South Wall 3	Basement	6 Concrete Wall w/R-13	n/a	n/a	248	n/a	n/a
West Wall 3	Basement	6 Concrete Wall w/R-13	n/a	n/a	160	n/a	n/a

Registration Number: 221-P010091407A-000-000-0000000-0000

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Registration Date/Time: 2021-05-11 14:09:40

Report Version: 2019.1.300  
Schema Version: rev 20200901

HERS Provider:

CalCERTS inc.

Report Generated: 2021-05-11 14:05:01

## CERTIFICATE OF COMPLIANCE

Project Name: 12527 W. Huston St.

Calculation Description: Title 24 Analysis

Calculation Date/Time: 2021-05-11T14:03:47-07:00

Input File Name: 12527 W. Huston St...rbd19x

CF1R-PRF-01E

(Page 5 of 13)

OPAQUE SURFACES - CATHEDRAL CEILINGS										
01	02	03	04	05	06	07	08	09	10	11
Name	Zone	Construction	Azimuth	Orientation	Area (ft <sup>2</sup> )	Skylight Area (ft <sup>2</sup> )	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Cool Roof
Roof	Secon dFloor	R-21 Raft er	0	Back	220	0	0.1	0.63	0.75	Yes

## ATTIC

01	02	03	04	05	06	07	08
Name	Construction	Type	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Radiant Barrier	Cool Roof
Attic SecondFloor	Attic Roof/SecondFloor	Ventilated	0	0.26	0.91	No	Yes

## PENETRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft <sup>2</sup> )	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
Door 3 FirstFloor	Window	North Wall	Back	0	1	48	0.29	NFRC	0.21	NFRC	Bug Screen		
Door 2 FirstFloor	Window	North Wall	Back	0	1	96	0.29	NFRC	0.21	NFRC	Bug Screen		
Window 4 FirstFloor	Window	North Wall	Back	0	1	13	0.29	NFRC	0.21	NFRC	Bug Screen		
Window 4 FirstFloor 2	Window	North Wall	Back	0	1	13	0.29	NFRC	0.21	NFRC	Bug Screen		
Window 2 FirstFloor	Window	East Wall	Right	90	1	7.4	0.29	NFRC	0.21	NFRC	Bug Screen		
Window 3 FirstFloor	Window	East Wall	Right	90	1	26	0.29	NFRC	0.21	NFRC	Bug Screen		
Window 1 FirstFloor	Window	East Wall	Right	90	1	48.7	0.29	NFRC	0.21	NFRC	Bug Screen		
Window 2 SecondFloor 2	Window	South Wall	Front	180	1	7.2	0.29	NFRC	0.21	NFRC	Bug Screen		
Window 7 FirstFloor	Window	South Wall	Front	180	1	17	0.29	NFRC	0.21	NFRC	Bug Screen		
Window 2 FirstFloor 3	Window	South Wall	Front	180	1	7.4	0.29	NFRC	0.21	NFRC	Bug Screen		
Window 2 FirstFloor 4	Window	South Wall	Front	180	1	7.4	0.29	NFRC	0.21	NFRC	Bug Screen		
Window 5 FirstFloor	Window	South Wall	Front	180	1	10.7	0.29	NFRC	0.21	NFRC	Bug Screen		
Window 5 FirstFloor 2	Window	South Wall	Front	180	1	10.7	0.29	NFRC	0.21	NFRC	Bug Screen		
Window 6 FirstFloor	Window	West Wall	Left	270	1	40	0.29	NFRC	0.21	NFRC	Bug Screen		

Registration Number: 221-P010091407A-000-000-0000000-0000

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Registration Date/Time: 2021-05-11 14:09:40

Report Version: 2019.1.300  
Schema Version: rev 20200901

HERS Provider:

CalCERTS inc.

Report Generated: 2021-05-11 14:05:01

## CERTIFICATE OF COMPLIANCE

Project Name: 12527 W. Huston St.

Calculation Description: Title 24 Analysis

Calculation Date/Time: 2021-05-11T14:03:47-07:00

Input File Name: 12527 W. Huston St...rbd19x

CF1R-PRF-01E

(Page 6 of 13)

## FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft²)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
Door 2 FirstFloor 2	Window	West Wall	Left	270			1	96	0.29	NFRC	0.21	NFRC	Bug Screen
Window 2 FirstFloor 5	Window	West Wall	Left	270			1	7.4	0.29	NFRC	0.21	NFRC	Bug Screen
Window 2 FirstFloor 6	Window	West Wall	Left	270			1	7.4	0.29	NFRC	0.21	NFRC	Bug Screen
Door 3 SecondFloor	Window	North Wall 2	Back	0			1	52.5	0.29	NFRC	0.21	NFRC	Bug Screen
Window 5 SecondFloor	Window	North Wall 2	Back	0			1	27	0.29	NFRC	0.21	NFRC	Bug Screen
Window 5 SecondFloor 2	Window	East Wall 2	Right	90			1	27	0.29	NFRC	0.21	NFRC	Bug Screen
Window 4 SecondFloor	Window	East Wall 2	Right	90			1	15.2	0.29	NFRC	0.21	NFRC	Bug Screen
Window 4 SecondFloor 2	Window	East Wall 2	Right	90			1	15.2	0.29	NFRC	0.21	NFRC	Bug Screen
Window 3 SecondFloor	Window	East Wall 2	Right	90			1	7.4	0.29	NFRC	0.21	NFRC	Bug Screen
Window 3 SecondFloor 2	Window	East Wall 2	Right	90			1	7.4	0.29	NFRC	0.21	NFRC	Bug Screen
Window 2 SecondFloor	Window	East Wall 2	Right	90			1	4.8	0.29	NFRC	0.21	NFRC	Bug Screen
Door 2 SecondFloor	Window	East Wall 2	Right	90			1	29	0.29	NFRC	0.21	NFRC	Bug Screen
Door 2 SecondFloor 2	Window	South Wall 2	Front	180			1	20	0.29	NFRC	0.21	NFRC	Bug Screen
Window 1 SecondFloor	Window	South Wall 2	Front	180			1	48.7	0.29	NFRC	0.21	NFRC	Bug Screen
Window 2 SecondFloor 2	Window	South Wall 2	Front	180			1	4.4	0.29	NFRC	0.21	NFRC	Bug Screen
Door 1 SecondFloor	Window	South Wall 2	Front	180			1	22.5	0.29	NFRC	0.21	NFRC	Bug Screen
Door 4 SecondFloor	Window	South Wall 2	Front	180			1	45.63	0.29	NFRC	0.21	NFRC	Bug Screen
Window 4 SecondFloor 3	Window	West Wall 2	Left	270			1	4.4	0.29	NFRC	0.21	NFRC	Bug Screen
Window 4 SecondFloor 3	Window	West Wall 2	Left	270			1	15.2	0.29	NFRC	0.21	NFRC	Bug Screen
Window 4 SecondFloor 4	Window	West Wall 2	Left	270			1	15.2	0.29	NFRC	0.21	NFRC	Bug Screen
Window 3 SecondFloor 3	Window	West Wall 2	Left	270			1	7.4	0.29	NFRC	0.21	NFRC	Bug Screen
Window 3 SecondFloor 4	Window	West Wall 2	Left	270			1	7.4	0.29	NFRC	0.21	NFRC	Bug Screen
Window 3 SecondFloor 5	Window	West Wall 2	Left	270			1	7.4	0.29	NFRC	0.21	NFRC	Bug Screen
Window 4 SecondFloor 5	Window	West Wall 2	Left	270			1	15.2	0.29	NFRC	0.21	NFRC	Bug Screen
Window 4 SecondFloor 6	Window	West Wall 2	Left	270			1	15.2	0.29	NFRC	0.21	NFRC	Bug Screen



CF1R-PRF-01E

(Page 7 of 13)

Project Name: 12527 W. Huston St.

Calculation Date/Time: 2021-05-11T14:03:47-07:00

Calculation Description: Title 24 Analysis

Input File Name: 12527 W. Huston St...r1bd19x

OPAQUE DOORS			
01	02	03	04
Name	Side of Building	Area (ft <sup>2</sup> )	U-factor
Door 1 FirstFloor	East Wall	32	0.2
Door 4 FirstFloor	East Wall	21.4	0.2

SLAB FLOORS							
01	02	03	04	05	06	07	08
Name	Zone	Area (ft <sup>2</sup> )	Perimeter (ft)	Edge Insul. R-value and Depth	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
Slab-on-Grade	FirstFloor	1650	0.1	none	0	80%	No
Underground Floor	Basement	533	n/a	n/a	n/a	80%	No

OPAQUE SURFACE CONSTRUCTIONS							
01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-21	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-21	None / None	0.069	Inside Finish: Gypsum Board Cavity / Frame: R-21 / 2x6 Exterior Finish: 3 Coat Stucco
R-21 Rafter	Cathedral Ceilings	Wood Framed Ceiling	2x6 @ 16 in. O. C.	R-21	None / None	0.053	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-21 / 2x6 Inside Finish: Gypsum Board
R-0 Wall	Interior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-0	None / None	0.277	Inside Finish: Gypsum Board Cavity / Frame: no Insul. / 2x4 Other Side Finish: Gypsum Board

Registration Number: 221-P010091407A-000-000-0000000-0000

Registration Date/Time: 2021-05-11 14:09:40

HERS Provider: CalCERTS inc.

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Report Version: 2019.1.300

Schema Version: rev 20200901

Report Generated: 2021-05-11 14:05:01

CF1R-PRF-01E

(Page 8 of 13)

Project Name: 12527 W. Huston St.

Calculation Date/Time: 2021-05-11T14:03:47-07:00

Calculation Description: Title 24 Analysis

Input File Name: 12527 W. Huston St...r1bd19x

OPAQUE SURFACE CONSTRUCTIONS							
01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
Attic RoofSecondFloor	Attic Roofs	Wood Framed Ceiling	2x6 @ 24 in. O. C.	R-15	None / None	0.066	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-15 / 2x6
R-30 Attic	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 16 in. O. C.	R-30	None / None	0.032	Over Ceiling Joists: R-20.9 Insul. Cavity / Frame: R-9.1 / 2x4 Inside Finish: Gypsum Board
6 Concrete Wall w/R-13	Underground Walls	Concrete / ICF / Brick	None	n/a	R-13 / None	0.083	Inside Finish: Gypsum Board Insulation/Furring: R-13 / 3.5in. wd Mass Layer: 6 in. Concrete

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

WATER HEATING SYSTEMS						
01	02	03	04	05	06	07
Name	System Type	Distribution Type	Water Heater Name (#)	Solar Heating System	Compact Distribution	HERS Verification
DHW Sys 1	Domestic Hot Water (DHW)	Standard Distribution System	DHW Heater 1 (1)	n/a	None	n/a
DHW Sys 2	Domestic Hot Water (DHW)	Standard Distribution System	DHW Heater 2 (1)	n/a	None	n/a

Registration Number: 221-P010091407A-000-000-0000000-0000

Registration Date/Time: 2021-05-11 14:09:40

HERS Provider: CalCERTS inc.

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Report Version: 2019.1.300

Schema Version: rev 20200901

Report Generated: 2021-05-11 14:05:01

CF1R-PRF-01E

(Page 9 of 13)

Project Name: 12527 W. Huston St.

Calculation Date/Time: 2021-05-11T14:03:47-07:00

Calculation Description: Title 24 Analysis

Input File Name: 12527 W. Huston St...r1bd19x

WATER HEATERS											
01	02	03	04	05	06	07	08	09	10	11	12
Name	Heating Element Type	Tank Type	# of Units	Tank Vol. (gal)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value (Int/Ext)	Standby Loss or Recovery Eff	1st Hr. Rating or Flow Rate	NEEA Heat Pump Brand or Model	Tank Location or Ambient Condition
DHW Heater 1	Gas	Consumer Instantaneous	1	0	0.96-UEF	200000-Btu/Hr	0	n/a	n/a	n/a	n/a
DHW Heater 2	Gas	Consumer Instantaneous	1	0	0.96-UEF	200000-Btu/Hr	0	n/a	n/a	n/a	n/a

WATER HEATING - HERS VERIFICATION							
01	02	03	04	05	06	07	08
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Central DHW Distribution	Shower Drain Water Heat Recovery
DHW Sys 1 - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required
DHW Sys 2 - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required

SPACE CONDITIONING SYSTEMS										
01	02	03	04	05	06	07	08	09	10	11
Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Required Thermostat Type	Status	Verified Existing Condition	Heating Equipment Count	Cooling Equipment Count
AC1	Heating and cooling system other	Heating Component 1	Cooling Component 1	HVAC Fan 1	Air Distribution System 1	Setback	New	NA	1	1
AC2	Heating and cooling system other	Heating Component 2	Cooling Component 2	HVAC Fan 2	Air Distribution System 2	Setback	New	NA	1	1

Registration Number: 221-P010091407A-000-000-0000000-0000

Registration Date/Time: 2021-05-11 14:09:40

HERS Provider: CalCERTS inc.

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Report Version: 2019.1.300

Schema Version: rev 20200901

Report Generated: 2021-05-11 14:05:01

CF1R-PRF-01E

(Page 10 of 13)

Project Name: 12527 W. Huston St.

Calculation Date/Time: 2021-05-11T14:03:47-07:00

Calculation Description: Title 24 Analysis

Input File Name: 12527 W. Huston St...r1bd19x

HVAC - HEATING UNIT TYPES			
01	02	03	04
Name	System Type	Number of Units	Heating Efficiency
Heating Component 1	Packaged Gas Furnace	1	AFUE:80
Heating Component 2	Packaged Gas Furnace	1	AFUE:80

HVAC - COOLING UNIT TYPES							
01	02	03	04	05	06	07	08
Name	System Type	Number of Units	Efficiency EER/CEER	Efficiency SEER	Zonally Controlled	Multi-speed Compressor	HERS Verification
Cooling Component 1	Central packaged AC	1	12	14	Not Zonal	Single Speed	Cooling Component 1-hers-cool
Cooling Component 2	Central packaged AC	1	12	14	Not Zonal	Single Speed	Cooling Component 2-hers-cool

HVAC COOLING - HERS VERIFICATION					
01	02	03	04	05	06
Name	Verified Airflow	Airflow Target	Verified EER	Verified SEER	Verified Refrigerant Charge
Cooling Component 1-hers-cool	Required	350	Required	Not Required	Not Required
Cooling Component 2-hers-cool	Required	350	Required	Not Required	Not Required

Registration Number: 221-P010091407A-000-000-0000000-0000

Registration Date/Time: 2021-05-11 14:09:40

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CA Building Energy Efficiency Standards - 2019 Residential Compliance

Report Version: 2019.1.300

Schema Version: rev 20200901

Report Generated: 2021-05-11 14:05:01

CF1R-PRF-01E

(Page 11 of 13)

Project Name: 12527 W. Huston St.

Calculation Date/Time: 2021-05-11T14:03:47-07:00

Calculation Description: Title 24 Analysis

Input File Name: 12527 W. Huston St...r1bd19x

HVAC - DISTRIBUTION SYSTEMS											
01	02	03	04	05	06	07	08	09	10	11	12
			Duct Ins. R-value		Duct Location		Surface Area				
Name	Type	Design Type	Supply	Return	Supply	Return	Supply	Return	Bypass Duct	Duct Leakage	HERS Verification
Air Distribution System 1	Verified low-leakage ducts in conditioned space	Non-Verified	R-6	R-6	Conditioned Zone	Conditioned Zone	n/a	n/a	No Bypass Duct	Sealed and Tested	Air Distribution System 1-hers-dist
Air Distribution System 2	Unconditioned attic	Non-Verified	R-6	R-6	Attic	Attic	n/a	n/a	No Bypass Duct	Sealed and Tested	Air Distribution System 2-hers-dist

HVAC DISTRIBUTION - HERS VERIFICATION							
01	02	03	04	05	06	07	08
Name	Duct Leakage Verification	Duct Leakage Target (%)	Verified Duct Location	Verified Duct Design	Buried Ducts	Deeply Buried Ducts	Low-leakage Air Handler
Air Distribution System 1-hers-dist	Yes	See RA3.1.4.3.8	Required	Not Required	Not Required	Credit not taken	Not Required
Air Distribution System 2-hers-dist	Yes	5.0	Not Required	Not Required	Not Required	Credit not taken	Not Required

HVAC - FAN SYSTEMS			
01	02	03	04
Name	Type	Fan Power (Watts/CFM)	Name
HVAC Fan 1	HVAC Fan	0.45	HVAC Fan 1-hers-fan
HVAC Fan 2	HVAC Fan	0.45	HVAC Fan 2-hers-fan

Registration Number: 221-P010091407A-000-000-0000000-0000

Registration Date/Time: 2021-05-11 14:09:40

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CA Building Energy Efficiency Standards - 2019 Residential Compliance

Report Version: 2019.1.300

Schema Version: rev 20200901

Report Generated: 2021-05-11 14:05:01

CF1R-PRF-01E

(Page 12 of 13)

Project Name: 12527 W. Huston St.

Calculation Date/Time: 2021-05-11T14:03:47-07:00

Calculation Description: Title 24 Analysis

Input File Name: 12527 W. Huston St...r1bd19x

HVAC FAN SYSTEMS - HERS VERIFICATION		
01	02	03
Name	Verified Fan Watt Draw	Required Fan Efficacy (Watts/CFM)
HVAC Fan 1-hers-fan	Required	0.45
HVAC Fan 2-hers-fan	Required	0.45

IAQ (INDOOR AIR QUALITY) FANS					
01	02	03	04	05	06
Dwelling Unit	IAQ CFM	IAQ Watts/CFM	IAQ Fan Type	IAQ Recovery Effectiveness (%)	IAQ Recovery Effectiveness - SREIAQ Recovery Effectiveness - SRE
SFan IAQVentRpt	171	0.25	Default	0	n/a

Registration Number: 221-P010091407A-000-000-0000000-0000

Registration Date/Time: 2021-05-11 14:09:40

HERS Provider: CalCERTS inc.

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Report Version: 2019.1.300

Schema Version: rev 20200901

Report Generated: 2021-05-11 14:05:01

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12527 W. HUSTON ST.  
SUN VALLEY, CA 91607

TITLE-24 REPORT

DWELLING UNIT: 1

DWELLING UNIT: 2

DWELLING UNIT: 3

DWELLING UNIT: 4

DWELLING UNIT: 5

DWELLING UNIT: 6

DWELLING UNIT: 7

DWELLING UNIT: 8

DWELLING UNIT: 9

DWELLING UNIT: 10

DWELLING UNIT: 11

DWELLING UNIT: 12

DWELLING UNIT: 13

DWELLING UNIT: 14

DWELLING UNIT: 15

DWELLING UNIT: 16

DWELLING UNIT: 17

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DWELLING UNIT: 45

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DWELLING UNIT: 49

DWELLING UNIT: 50

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CERTIFICATE OF COMPLIANCE

Project Name: 12527 W. Huston St.

Calculation Description: Title 24 Analysis

CF1R-PRF-01E

(Page 13 of 13)

Documentation Author's Declaration Statement

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

Documentation Author Name: Roben Mardirosian

Company: Armen Engineers

Address: 10540 Jardine Ave

City/State/Zip: Sunland, CA 91040

Documentation Author Signature: Roben Mardirosian

Signature Date: 2021-05-11 14:08:45

CEA/HERS Certification Identification (if applicable):

Phone: 818-484-0495

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance.

2. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.

3. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

Responsible Designer Name: Arthur Israelyan

Company: ArtDesigns

Address: 635 W. Colorado St. #102

City/State/Zip: Glendale, CA 91204

Date Signed: 2021-05-11 14:09:40

License: N/A

Phone: 818-389-3888

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

Registration Number: 221-PO10981407A-000-000-0000000-0000

Registration Date/Time: 2021-05-11 14:09:40

HERS Provider: Ca/CERTS's Inc.

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Report Version: 2019.1.300

Schema Version: rev 20200901

Report Generated: 2021-05-11 14:05:01

ASHRAE Standard 62.2 Table 7.1

Table 7.1 Prescriptive Duct Sizing Requirements

Duct Type	Flex Duct	Smooth Duct							
Fan Rating cfm @ 0.25 in. w.g.	50	80	100	125	50	80	100	125	
Diameter, (in)	Maximum Allowable Duct Length (ft)								
	Flex Duct				Smooth Duct				
3	X	X	X	X	5	X	X	X	
4	70	3	X	X	105	35	5	X	
5	NL	70	35	20	NL	135	85	55	
6	NL	NL	125	95	NL	NL	NL	145	
7 and above	NL	NL	NL	NL	NL	NL	NL	NL	

This table assumes no elbows. Deduct 15 ft of allowable duct length for each turn, elbow, or fitting.  
NL = no limit on duct length of this size  
X = not allowed, any length of duct of this size with assumed turns, elbows, fittings will exceed the rated pressure drop.

Specifications: WhisperCeiling FV-0511VQ1

Ventilation Fan Characteristics (HVI Certified data)	4"		4"		4"	
	Static Pressure in inches w.g.					
	Air Volume (CFM)	50	53	80	83	110
	Noise (sones)	<0.3	0.4	<0.3	0.6	<0.3
	Power Consumption (watts)	4	7.2	5.9	10.8	10.6
Energy Efficiency (CFM/Watt)	12.5	7.4	13.6	7.7	10.6	6.9
Speed (RPM)	756	1093	821	1172	957	1239
Current (amps)	0.07	0.13	0.11	0.18	0.18	0.26
Power Rating (V/Hz)	120/60		120/60		120/60	
ENERGY STAR rated	YES		YES		YES	

- VENTILATION NOTES:
- 1- Whole building mechanical ventilation calcs for Continuous run Fan:  
Ventilation Rate (cfm) = (0.03XCFPA) + 7.5 X (Number Bedrooms + 1)  
Ventilation Rate (cfm) = (0.03X4780) + 7.5 X (4 + 1)=180.9 ≈ 181 cfm
- 2- Bathrooms with a bathtub, shower or tub/shower combination and intermittent mechanical ventilation shall be controlled by a humidistat capable of adjusting a relative humidity range of 50 to 80 percent.
- 3- Kitchen shall have local Exhaust System minimum 100 cfm (intermittent). Each Bathroom shall have local Exhaust System minimum 50 cfm (intermittent).
- 4- Clothes dryers shall be vented to the outdoors.
- 5- Ventilation air shall come from out of doors and shall not be transferred from adjacent dwelling units, garage or crawl spaces.
- 6- Ventilation Control System shall be included a label:  
"This fan is intended to run continuously to provide mechanical ventilation in indoor quality for the home."
- 7- Combustion appliances shall be properly vented and air systems shall be designed to prevent back drafting.
- 8- Mechanical System including heating & air conditioning system that supply air to habitable spaces shall have MERV 13 filters or better.
- 9- Air inlets (not exhaust) shall be located away from known contaminants.
- 10- a. All continuously operating fans shall be rated a maximum of 1.0 sone.  
b. Intermittently operated local Exhaust fans shall be rated at a maximum of 3.0 sone.  
c. Remotely located air moving equipment (mounted outside of habitable spaces) need not meet sound requirements if there is at least 4 feet ductwork between the fan and the intake grille.
- 11- The ducting for the Exhaust Fans shall be sized according to ASHRAE Standards 62.2 Table 7.1.

RESIDENTIAL MEASURES SUMMARY								RMS-1	
Project Name 12527 W. Huston St.			Building Type <input checked="" type="checkbox"/> Single Family <input type="checkbox"/> Multi Family			<input type="checkbox"/> Addition Alone <input type="checkbox"/> Existing+ Addition/Alteration		Date 5/11/2021	
Project Address 12527 W. Huston St. Valley Village			California Energy Climate Zone CA Climate Zone 09		Total Cond. Floor Area 4,780		Addition n/a		# of Units 1
INSULATION			Area (ft <sup>2</sup> )		Special Features			Status	
Construction	Type	Cavity							
Demising	Wood Framed	- no insulation	1,200					New	
Wall/IG	Solid Unit Masonry	- no insulation	816		Add=R-13.0 Depth = 96.000"			New	
Floor/BG	Unheated Slab-on-Grade	- no insulation	2,183					New	
Wall	Wood Framed	R-21	3,141					New	
Door	Opaque Door	R-5	53					New	
Roof	Wood Framed Attic	R-30	1,826		Add=R-15.0 Cool Roof			New	
Roof	Wood Framed Rafter	R-21	220		Cool Roof			New	
FENESTRATION		Total Area:	868	Glazing Percentage:	18.2%	New/Altered Average U-Factor:		0.29	
Orientation	Area(ft <sup>2</sup> )	U-Fac	SHGC	Overhang	Sidefins	Exterior Shades		Status	
Rear (N)	249.5	0.290	0.21	none	none	N/A		New	
Right (E)	178.7	0.290	0.21	none	none	N/A		New	
Front (S)	201.6	0.290	0.21	none	none	N/A		New	
Left (W)	238.2	0.290	0.21	none	none	N/A		New	

2019 Low-Rise Residential Mandatory Measures Summary

NOTE: Low-rise residential buildings subject to the Energy Standards must comply with all applicable mandatory measures, regardless of the compliance approach used. Review the respective section for more information. \*Exceptions may apply.

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Building Envelope Measures:

§ 110.6(a)1: Air Leakage. Manufactured fenestration, exterior doors, and exterior pet doors must limit air leakage to 0.3 CFM per square foot or less, when tested per NFRC-400, ASTM E283 or AIAA/MO/MACSA 1010 S.2444C.2011.\*

§ 110.6(a)5: Labeling. Fenestration products and exterior doors must have a label meeting the requirements of § 10.111(a).

§ 110.6(b): Field fabricated exterior doors and fenestration products must use U-factors and solar heat gain coefficient (SHGC) values from Tables 110.6-A, 110.6-B, or JAI.5 for exterior doors. They must be caulked and/or weather-stripped.\*

§ 110.7: Air Leakage. All joints, penetrations, and other openings in the building envelope that are potential sources of air leakage must be caulked, gasketed, or weather stripped.

§ 110.8(a): Insulation Certification by Manufacturers. Insulation must be certified by the Department of Consumer Affairs, Bureau of Household Goods and Services (BHGS).

§ 110.8(b): Insulation Requirements for Heated Slab Floors. Heated slab floors must be insulated per the requirements of § 110.8(g).

§ 110.8(c): Roofing Products Solar Reflectance and Thermal Emittance. The thermal emittance and aged solar reflectance values of the roofing material must meet the requirements of § 110.8(h) and be labeled per §10-113 when the installation of a cool roof is specified on the CF1R.

§ 110.8(d): Radiant Barrier. When required, radiant barriers must have an emittance of 0.05 or less and be certified to the Department of Consumer Affairs.

§ 150.0(a): Ceiling and Rafter Roof Insulation. Minimum R-22 insulation in wood frame ceiling, or the weighted average U-factor must not exceed 0.043. Minimum R-19 or weighted average U-factor of 0.054 or less in a rafter roof alteration. Attic access doors must have permanently attached insulation using adhesive or mechanical fasteners. The attic access must be gasketed to prevent air leakage. Insulation must be installed in direct contact with a continuous roof or ceiling which is sealed to limit infiltration and exfiltration as specified in § 110.7, including but not limited to placing insulation either above or below the roof deck or on top of a dwarf wall ceiling.\*

§ 150.0(b): Loose-fill Insulation. Loose fill insulation must meet the manufacturer's required density for the labeled R-value.

§ 150.0(c): Wall Insulation. Minimum R-13 insulation in 2x4 inch wood framing wall or have a U-factor of 0.102 or less, or R-20 in 2x6 inch wood framing or have a U-factor of 0.071 or less. Opaque non-framed assemblies must have an overall assembly U-factor not exceeding 0.102. Masonry walls must meet Tables 150.1-A or B.\*

§ 150.0(d): Raised-floor Insulation. Minimum R-19 insulation in raised wood framed floor or 0.037 maximum U-factor.\*

§ 150.0(f): Slab Edge Insulation. Slab edge insulation must meet all of the following, have a water absorption rate, for the insulation material alone without facings, no greater than 0.3 percent, have a water vapor permeance no greater than 2.0 perm per inch, be protected from physical damage and UV light deterioration, and, when installed as part of a heated slab floor, meet the requirements of § 110.8(g).

§ 150.0(g)1: Vapor Retarder. In climate zones 1 through 16, the earth floor of unvented crawl space must be covered with a Class I or Class II vapor retarder. This requirement also applies to controlled ventilation crawl space for buildings complying with the exception to § 150.0(g).

§ 150.0(g)2: Vapor Retarder. In climate zones 14 and 16, a Class I or Class II vapor retarder must be installed on the conditioned space side of all insulation in all exterior walls, vented attics, and unvented attics with air-permeable insulation.

§ 150.0(g): Fenestration Products. Fenestration, including skylights, separating conditioned space from unconditioned space or outdoors must have a maximum U-factor of 0.68, or the weighted average U-factor of fenestration must not exceed 0.59.\*

Fireplaces, Decorative Gas Appliances, and Gas Log Measures:

§ 110.5(a): Pilot Light. Continuously burning pilot lights are not allowed for indoor and outdoor fireplaces.

§ 150.0(g)1: Closable Doors. Masonry or factory-built fireplaces must have a closable metal or glass door covering the entire opening of the firebox.

§ 150.0(g)2: Combustion Intake. Masonry or factory-built fireplaces must have a combustion outside air intake, which is at least six square inches in area and is equipped with a readily accessible, operable, and light-tighting damper or combustion-air control device.\*

§ 150.0(g)3: Flue Damper. Masonry or factory-built fireplaces must have a flue damper with a readily accessible control.\*

Space Conditioning, Water Heating, and Plumbing System Measures:

§ 110.0(a)§ 110.3: Certification. Heating, ventilation and air conditioning (HVAC) equipment, water heaters, showerheads, faucets, and all other regulated appliances must be certified by the manufacturer to the California Energy Commission.\*

§ 110.2(a): HVAC Efficiency. Equipment must meet the applicable efficiency requirements in Table 110.2-A through Table 110.2-K.\*

§ 110.2(b): Controls for Heat Pumps with Supplementary Electric Resistance Heaters. Heat pumps with supplementary electric resistance heaters must have controls that prevent supplementary heater operation when the heating load can be met by the heat pump alone, and in which the on-temperature for compression heating is higher than the cut-on temperature for supplementary heating, and the cut-off temperature for compression heating is higher than the cut-off temperature for supplementary heating.\*

§ 110.2(c): Thermostats. All heating or cooling systems not controlled by a central energy management control system (EMCS) must have a setback thermostat.\*

§ 110.3(c)4: Water Heating Recirculation Loops Serving Multiple Dwelling Units. Water heating recirculation loops serving multiple dwelling units must meet the air release valve, backflow prevention, pump priming, pump isolation valve, and recirculation loop connection requirements of § 110.3(c)4.

§ 110.3(c)6: Isolation Valves. Instantaneous water heaters with an input rating greater than 6.8 kBtu per hour (21kW) must have isolation valves with hose bibbs or other fittings on both cold and hot water lines to allow for flushing the water heater when the valves are closed.

§ 110.5: Pilot Lights. Continuously burning pilot lights are prohibited for natural gas, fan-type central furnaces, household cooking appliances (except appliances without an electrical supply voltage connection with pilot lights that consume less than 150 Btu per hour), and pool and spa heaters.\*

§ 150.0(h)1: Building Cooling and Heating Loads. Heating and/or cooling loads are calculated in accordance with the ASHRAE Handbook, Equipment Volume, Applications Volume, and Fundamentals Volume, the SMACNA Residential Comfort System Installation Standards Manual, or the ACCA Manual J using design conditions specified in § 150.0(h)2.

2019 Low-Rise Residential Mandatory Measures Summary

Clearances. Air conditioner and heat pump outdoor condensing units must have a clearance of at least five feet from the outlet of any dryer manufacturer's instructions.

§ 150.0(h)3a: Liquid Line Drier. Air conditioners and heat pump systems must be equipped with liquid line filter driers if required, as specified by the manufacturer's instructions.

§ 150.0(h)3b: Storage Tank Insulation. Unfired hot water tanks, such as storage tanks and backup storage tanks for solar water-heating systems, must have a minimum of R-12 external insulation or R-16 internal insulation where the internal insulation R-value is indicated on the exterior of the tank.

§ 150.0(h)2a: Water Piping, Solar Water-heating System Piping, and Space Conditioning System Line Insulation. All domestic hot water piping must be insulated as specified in Section 609.11 of the California Plumbing Code. In addition, the following piping conditions must have a minimum insulation wall thickness of one inch or a minimum insulation R-value of 7.7: the first five feet of cold water piping from the storage tank; all hot water piping with a nominal diameter equal to or greater than 3/4 inch and less than one inch; all hot water piping with a nominal diameter less than 3/4 inch that is associated with a domestic hot water recirculation system; from the heating source to storage tank or between tanks, buried below grade, and from the heating source to kitchen fixtures.\*

§ 150.0(h)3: Insulation Protection. Piping insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind as required by Section 120.3(b). Insulation exposed to weather must be water retardant and protected from UV light (no adhesive tapes). Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space must include, or be protected by, a Class I or Class II vapor retarder. Pipe insulation buried below grade must be installed in a waterproof and non-crushable casing or sleeve.

§ 150.0(h)1: Gas or Propane Water Heating Systems. Systems using gas, or propane water heaters to serve individual dwelling units must include all of the following: A dedicated 120 volt, 20 amp electrical receptacle connected to the electric panel with a 100040 volt 3 conductor, 10 AWG copper branch circuit, within three feet of the water heater without obstruction. Both ends of the unswitched conductor must be labeled with the word "space" and be electrically isolated. Have a reserved single pole circuit breaker space in the electrical panel adjacent to the circuit breaker for the branch circuit and labeled with the words "Future 240V Use", a Category III or IV vent, or a Type B vent with straight pipe between the outdoor termination and the water heater, and a dedicated 120 volt, 20 amp electrical receptacle connected to the electric panel with a 100040 volt 3 conductor, 10 AWG copper branch circuit, within three feet of the water heater without obstruction. 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GENERAL NOTES

1. NOTES: NOTES PROVIDED ON STRUCTURAL PLANS SHALL TAKE PRECEDENCE OVER THESE GENERAL NOTES AND SPECIFICATIONS.

2. DIMENSIONS: WRITTEN DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALE DIMENSIONS. CONTRACTOR SHALL CHECK ALL DIMENSIONS AGAINST ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION.

3. CODES AND SPECIFICATIONS: ALL WORK AND CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE BUILDING CODES, SPECIFICATIONS, REGULATIONS AND SAFETY REQUIREMENTS.

4. SAFETY: DURING THE CONSTRUCTION PERIOD THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE BUILDING. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING, BRACING AND GUYS IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL SAFETY ORDINANCES.

5. ERECTION: ALL ERECTION PROCEDURES SHALL CONFORM TO OSHA STANDARDS. ANY DEVIATION MUST BE APPROVED BY OSHA PRIOR TO ERECTION.

6. EARTH WORK: THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS AND UTILITIES IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL SAFETY ORDINANCES.

7. OTHER TRADES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AND SHALL CHECK ALL DIMENSIONS AND CONDITIONS OF THE JOB. ALL DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT OR ENGINEER AND BE RESOLVED BEFORE PROCEEDING WITH WORK.

8. SHOP DRAWINGS: SHOP DRAWINGS REQUIRED BY THE SPECIFICATIONS SHALL BE SUBMITTED TO THE ARCHITECT OR ENGINEER FOR REVIEW PRIOR TO FABRICATION.

9. DETAILS: DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS AND NOTES OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED SUBJECT TO REVIEW BY THE ARCHITECT OR ENGINEER.

10. OPENINGS: SEE ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATION OF ALL FLOOR AND WALL OPENINGS, FLOOR FINISHES, ETC.

11. OTHER TRADES: SEE MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR SIZE AND LOCATION OF ALL OPENINGS REQUIRED FOR DUCTS, PIPES AND ALL PIPE SLEEVES, ELECTRICAL CONDUITS AND OTHER ITEMS TO BE EMBEDDED IN CONCRETE OR OTHERWISE INCORPORATED IN STRUCTURAL WORK.

12. SPECIAL DETAILS: PROVIDE OPENINGS AND SUPPORTS, AS REQUIRED PER SPECIAL DETAILS FOR HEATERS, MECHANICAL EQUIPMENT, VENTS, DUCTS, PIPING, ETC. ALL SUSPENDED MECHANICAL EQUIPMENT TO BE STRAPPED OR LATERSLALLY BRACED.

13. MODIFICATIONS: ALL INFORMATION SHOWN ON THE DRAWINGS, RELATIVE TO EXISTING CONDITIONS IS GIVEN AS THE BEST PRESENT KNOWLEDGE, BUT WITHOUT GUARANTEE OF ACCURACY, WHERE ACTUAL CONDITIONS CONFLICT WITH THE DRAWINGS THEY SHALL BE REPORTED TO THE ARCHITECT OR ENGINEER SO THAT PROPER REVISIONS MAY BE MADE. MODIFICATION OF DETAILS OF CONSTRUCTION SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL OF THE ARCHITECT AND ENGINEER.

14. OTHER PLANS: ARCHITECTURAL PLANS ARE CONSIDERED AS PART OF THE STRUCTURAL DESIGN DRAWINGS AND ARE TO BE USED TO DEFINE DETAIL CONFIGURATIONS INCLUDING, BUT NOT LIMITED TO RELATIVE LOCATION OF MEMBERS, ELEVATIONS, LOCATION OF ALL OPENINGS, ETC.

15. SHORING: IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO DESIGN AND PROVIDE ADEQUATE SHORING, BRACING AND FORMWORK AS REQUIRED FOR THE CONSTRUCTION OF PROTECTION OF LIFE AND PROPERTY DURING THE CONSTRUCTION OF THIS BUILDING. POST-TENSIONED OR REINFORCED CONCRETE SLABS MAY CARRY SHORING LOADS EQUIVALENT TO THEIR DESIGN SUPERIMPOSED LOADS INCLUDING LIVE LOAD, PARTITION LOAD, AND ANY OTHER LOAD NOT IN PLACE AT TIME OF SHORING.

16. BACKFILL: BACKFILL AROUND THE EXTERIOR PERIMETER OF WALLS SHALL NOT BE PLACED UNTIL AFTER THE WALLS ARE SUPPORTED BY THE COMPLETION OF INTERIOR FLOOR SYSTEM. DO NOT PROCEED WITH BACKFILL UNTIL 7 DAYS (MINIMUM) AFTER THE COMPLETION OF INTERIOR FLOOR SYSTEMS DOES NOT PROCEED WITH BACKFILL UNTIL 7 DAYS (MINIMUM) AFTER THE COMPLETION OF INTERIOR FLOOR SYSTEMS UNLESS WALLS ARE ADEQUATELY BRACED. BACKFILL SHALL NOT BE PLACED UNTIL AFTER THE COMPLETION AND INSPECTION OF DAMP PROOFING.

17. BRACING: DO ALL TEMPORARY BRACING AS REQUIRED TO HOLD THE VARIOUS ELEMENTS IN PLACE UNTIL FINAL SUPPORT IS SECURELY ANCHORED.

18. THE DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED WORK AND DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES, INCLUDING, BUT NOT LIMITED TO BRACING AND SHORING. OBSERVATION VISITS TO THE SITE BY THE ENGINEER SHALL NOT INCLUDE INSPECTIONS OF THE PROTECTIVE MEASURES OR THE CONSTRUCTION PROCEDURES. ANY SUPPORT SERVICES PERFORMED BY THE ENGINEER DURING THE CONSTRUCTION SHALL BE DISTINGUISHED FROM CONTINUOUS AND DETAILED INSPECTION SERVICES. THESE SUPPORT SERVICES PERFORMED BY THE ENGINEER, WHETHER OF MATERIAL OF WORK, AND WHETHER PERFORMED PRIOR TO, DURING OR AFTER COMPLETION OF CONSTRUCTION, ARE PERFORMED SOLELY FOR THE PURPOSE OF ASSISTING IN QUALITY CONTROL AND IN ACHIEVING CONFORMANCE WITH CONTRACT DOCUMENTS, BUT DO NOT GUARANTEE CONTRACTOR'S PERFORMANCE AND SHALL NOT BE CONSTRUED AS SUPERVISION OF CONSTRUCTION.

19. WHERE CONSTRUCTION MATERIALS ARE TEMPORARILY STORED ON ROOF OR FLOOR FRAMING, THEY SHALL BE DISTRIBUTED SO THAT THE LOAD DOES NOT EXCEED DESIGN LIVE LOAD. ADEQUATE SHORING AND/OR BRACING SHALL BE PROVIDED WHERE STRUCTURAL MEMBERS HAVE NOT ATTAINED

REINFORCING STEEL

1. GENERAL: DESIGN, DETAILING, FABRICATION, PLACEMENT AND SPECIAL INSPECTION SHALL BE IN ACCORDANCE WITH ALL CODES AND MANUALS (318-14) AND C.B.C. 2016 EDITION. STEEL REINFORCEMENT SHALL BE NEW DEFORMED BILLET STEEL, MEETING ASTM STANDARD "A" #615; GRADE 60 KSI FOR #4 AND LARGER BARS, EXCEPT AS NOTED; GRADE 40 KSI FOR #3 AND SMALLER BARS. SHOP DRAWINGS SHALL BE MARKED ACCORDINGLY AND SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION. GRADE 60 KSI REBARS SHALL NOT BE BENT IN FIELD AFTER PLACING.

2. LAPS: ALL TENSIONS SPLICES ARE ACCORDING TO ACI 318-14, CLASS C, OR 40 TIMES BAR DIAMETERS AND ALL COMPRESSION SPLICES 40 TIMES DIAMETERS (U.O.O.).

3. WELDING: TACK WELDING OF REBARS IS NOT PERMITTED UNLESS CALLED FOR OR APPROVED BY THE ENGINEER.

4. REINFORCING: ALL REINFORCING SHALL BE SECURELY TIED AND BRACED IN PLACE PRIOR TO POURING CONCRETE OR GROUTING MASONRY.

5. WIRE FABRIC: WELDED WIRE FABRIC (WWM OR WWF) SHALL CONFORM TO ASTM A-82 AND A-185. LAP 1 1/2 SPACES OR 9" MINIMUM.

MASONRY NOTES

1. BLOCKS: CONCRETE BLOCK SHALL BE OF SIZE SHOWN ON STRUCTURAL DRAWINGS AND SHALL CONFORM TO ASTM C-90 GRADE N LIGHT WEIGHT UNITS, UNLESS NOTED OTHERWISE.

2. MORTAR: SHALL BE COMPOSED OF NOT LESS THAN 1/4 PART NOR MORE THAN 1/2 PART LIME PUTTY OR DRY HYDRATED LIME, 1 PART PORTLAND CEMENT, AND 4 PARTS SAND BASED ON DRY LOOSED VOLUMES. THE TOTAL CLAY CONTENTS, INCLUDING THAT IN THE SAND, SHALL NOT EXCEED 2% OF SAND CONTENT OR 6% OF THE CEMENT CONTENT.

3. GROUT: NOT LESS THAN 7 SACKS OF CEMENT PER CUBIC YARD, FLUID CONSISTENCY, FOR POURING WITHOUT SEGREGATION OF CONSTITUENT PARTS.

4. MIX:1 PART PORTLAND CEMENT TO NOT MORE THAN 3 PARTS PER GRAVEL, 3/8 INCH MAXIMUM SIZE COARSE AGGREGATE, GROUT USING COARSE AGGREGATE MAY BE USED IF MIXED WITH PROPERLY DESIGNED AND APPROVED BY ENGINEER. MAXIMUM SIZE OF AGGREGATE: MAX. 1/5 LEAST LATERAL DIMENSION OF CELL TO BE FILLED. MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS. ONLY APPROVED ADMIXTURES MAY BE ADDED.

5. MIXING: PLACE THE SAND, CEMENT AND WATER IN MIXER IN THAT ORDER FOR EACH BATCH OF MORTAR OR GROUT AND MIX FOR A PERIOD OF AT LEAST 2 MINUTES. ADD THE LIME AND CONTINUE MIXING FOR AS LONG AS NEEDED TO SECURE A UNIFORM MASS, BUT IN NO CASE LESS THAN 10 MINUTES. USE MIXERS TO SECURE A UNIFORM CAPACITY. BATCHES REQUIRED FRACTIONAL SACKS SHALL NOT BE PERMITTED. PERMITS WEIGHT FOR EACH SUCH BATCH, RETEMPER MORTAR ONLY BY ADDING WATER INTO A BATCH MADE WITH MORTAR AND THEN CAREFULLY WORKING THE WATER INTO THE MORTAR. RETEMPERING THE MORTAR BY DASHING WATER OVER THE MORTAR SHALL NOT BE PERMITTED. ANY MORTAR OR GROUT WHICH IS UNUSED WITHIN ONE HOUR AFTER THE INITIAL MIXING SHALL BE REMOVED FROM THE WORK. MORTAR SHALL BE MIXED AND MAINTAINED ON BOARDS TO SLUMP OF 2 3/4 INCHES PLUS OR MINUS 1/4".

6. CONSTRUCTION JOINTS: WHEN GROUTING IS STOPPED FOR A PERIOD OF ONE HOUR OR LONGER, FORM HORIZONTAL CONSTRUCTION JOINTS BY STOPPING THE GROUT POUR 1-1/2 INCHES MINIMUM BELOW THE UPPERMOST UNIT.

7. ALIGNMENT OF VERTICAL CELLS: ALL MASONRY SHALL BE BUILT TO PRESERVE THE UNOBSTRUCTED VERTICAL CONTINUITY. CELLS TO BE FILLED, THE VERTICAL ALIGNMENT SHALL BE SUFFICIENT TO MAINTAIN A CLEAR UNOBSTRUCTED VERTICAL FLUE MEASURING NOT LESS THAN 3 INCHES BY 3 INCHES.

8. LAYING: IN PLACING MORTAR IN HORIZONTAL JOINTS, COMPLETELY COVER THE FACE SHELLS OF THE UNITS WITH MORTAR. SOLIDLY FILL ALL HEAD JOINTS. LAY ALL MASONRY WITH COMMON BOND. HOLD RAKING TO A MINIMUM.

9. GROUT PLACEMENT: MAXIMUM GROUT LIFT SHALL BE 4'-0"(U.N.O.) NON-CONTINUOUS POURS SHALL BE STOPPED 1' 2" BELOW THE TOP OF A COURSE TO FORM A KEY AT POUR JOINTS.  
A. GROUT ALL CELLS SOLD (U.N.O.)  
B. SOLID GROUT ONLY CELLS CONTAINING REINFORCEMENTS, ANCHORS, BOLTS, INSERTS, ETC. WHERE NOTED.

10. PROVIDE CLEANOUT OPENINGS AT THE BOTTOM OF ALL VERTICALLY GROUTED CELLS IF GROUT LIFT EXCEEDS 4'-0".

11. NO PIPES OR DUCTS SHALL BE PLACED IN MASONRY WALLS UNLESS SPECIFICALLY NOTED OR DETAILED.

12. DOWELS IN MASONRY WALLS SHALL BE THE SAME SIZE AND SPACING AS VERTICAL WALL REINFORCING (U.N.O.).

13. ALL VERTICAL REINFORCING IN MASONRY WALLS NOT RETAINING EARTH SHALL BE LOCATED IN CENTER OF THE WALLS.

14. SEE MECHANICAL, ELECTRICAL AND ARCHITECTURAL DRAWINGS FOR OPENINGS IN WALLS LESS THAN 8" IN DIMENSIONS. PROVIDE STANDARD PIPE SLEEVES AT THESE OPENINGS.

15. STRENGTH: ULTIMATE TEST PRISM COMPRESSIVE STRENGTH, F'<sub>c</sub> SHALL BE 1500 PSI.(U.N.O.)

16. MASONRY REBAR LAP LENGTHS:

STRUCTURAL STEEL

1. STEEL: ALL STRUCTURAL AND MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A-992 (FY=50KSI) AND SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS, LATEST EDITION.

2. PIPE COLUMNS: PIPE COLUMNS SHALL CONFORM TO ASTM A-500, GRADE B (FY=42KSI) U.N.O. SULFUR CONTENT SHALL BE LESS THAN OR EQUAL TO 0.05%.

3. TUBES: STEEL TUBES SHALL CONFORM TO ASTM A-500, GRADE B (FY=46KSI) U.N.O. SULFUR CONTENT SHALL BE LESS THAN OR EQUAL TO 0.05%.

4. BOLTS: BOLTS SHALL CONFORM TO ASTM A-325, U.N.O.

5. SHOP DRAWINGS: STRUCTURAL STEEL SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION AND ERECTION.

6. PROTECTION: HOT DIP GALVANIZE OR PROVIDE 3" MINIMUM CONCRETE COVER AROUND ALL STRUCTURAL STEEL BELOW GRADE. STRUCTURAL STEEL EMBEDDED IN CONCRETE OR MASONRY SHALL BE UNPAINTED.

7. WELDING: ALL WELDING IS TO COMPLY WITH AWS SPECIFICATION AND IS TO BE DONE BY WELDERS CERTIFIED FOR THE TYPE OF WELDING TO BE PERFORMED AS REQUIRED BY THE DEPARTMENT OF BUILDING AND SAFETY.

8. ALL WELDING IS TO BE DONE BY ELECTRIC ARC PROCESS WITH E70XX ELECTRODES.

9. ALL WELDING SHALL BE DONE IN THE SHOP OF A LICENSED FABRICATOR OR WITH CONTINUOUS INSPECTION BY A REGISTERED DEPUTY BUILDING INSPECTOR, U.N.O.

10. ALL BUTT WELDS SHALL BE FULL PENETRATION WELDS UNLESS OTHERWISE INDICATED ON THE DRAWINGS. ALL BUTT WELDS SHALL BE STANDARD BEVEL QUALIFIED WELDS. IF OTHER JOINT FORMS ARE USED TESTING AND QUALIFICATION OF JOINTS SHALL BE IN ACCORDANCE WITH AWS STANDARD QUALIFICATIONS PROCEDURE.

MICROLLAMS / PARALLAMS / TIMBERSTRAND BY TRUS JOIST

Research Report No. RR 25202: Weyerhaeuser /Pro(trim) Series Joists and Open Web Trusses – based on COLA Revised ICC ES Legacy Report No. PFC-4354 – Dated April 1, 2003. Revised October 2014 Research Report No. RR 25202: TimberStrand(r) LSL, Microllam(r) LVL, Parallam(r) PSL, TJ-Strand(r) Rim Board and e-Rim(r) Board – based on COLA Revised ICC ES Report No. ESR-1387 – Issued October 1, 2004. Reevaluation – October 1,2016 Research Report No. RR 25538: TJ(r) Joists – based on COLA Revised ICC ES Report No. ESR-1153 – Issued June 1, 2013, Reevaluation – March 1,2015

NOTE: USENCED FABRICATOR IS REQUIRED.

CONCRETE

1. STRENGTH & QUALITY: CONCRETE STRENGTH AT 28 DAYS SHALL BE MINIMUM f'c=2500 PSI OR AS INDICATED BELOW:  
  
CONCRETE QUALITY:  
  
CONCRETE USE: STRENGTH AGG. FOOTINGS AND SLABS 2500 PSI @ 28 DAYS GRADE BEAMS 3000 PSI @ 28 DAYS FRICTION PILES 4000 PSI @ 28 DAYS SUSPENDED POST-TENSIONED 3500 PSI @ 7 DAYS

2. CEMENT: ALL CEMENT SHALL CONFORM TO ASTM C-150, TYPE II, UNLESS ALKALINE SOILS ARE PRESENT. WATER-CEMENT RATIO = 0.5.

3. AGGREGATES: ALL CONCRETE UNLESS OTHERWISE NOTED SHALL BE REGULAR WEIGHT HARD ROCK TYPE (150 LBS/CU.FT.). AGGREGATES SHALL CONFORM TO ASTM C-33 WITH PROVEN SHRINKAGE CHARACTERISTICS OF LESS THAN .05%.

4. CURING: CONCRETE SHALL BE MAINTAINED IN A MOIST CONDITION FOR A MINIMUM OF 7 DAYS AFTER THE PLACEMENT. APPROVED CURING COMPOUNDS MAY BE USED IN LIEU OF MOST CURING. STRENGTH TEST OF CONCRETE SHALL BE REQUIRED AS PER SECTION 1905A OF C.B.C. 2016 PLACEMENT OF CONCRETE AND REINFORCING STEEL SHALL BE INSPECTED BY A QUALIFIED SPECIAL INSPECTOR FROM AN AGENCY APPROVED BY THE BUILDING DEPARTMENT. KEYED CONSTRUCTION JOINTS SHALL BE USED IN ALL CASES. ALL CONSTRUCTION JOINTS SHALL BE THOROUGHLY CLEANED AND ALL LAITANCE SHALL BE REMOVED. ALL VERTICAL JOINTS SHALL BE THOROUGHLY WETTED AND SLUSHED WITH A COAT OF NEAT CEMENT IMMEDIATELY BEFORE PLACING NEW CONCRETE.

5. SLEEVES: SLEEVES NOT SPECIFICALLY SHOWN ON THE DRAWING SHALL BE LOCATED BY THE TRADES INVOLVED AND SHALL BE REVIEWED BY THE ENGINEER BEFORE CONCRETE IS POURED. CHECK WITH ALL TRADES TO INSURE PROPER PLACEMENT OF OPENING, SLEEVES, CURBS, CONDUITS, ETC., RELATING TO THE WORK.

6. INSERTS: ALL ITEMS TO BE CAST IN CONCRETE SUCH AS REINFORCING BARS, DOWELS, BOLTS, ANCHORS, PIPES, SLEEVES, ETC., SHALL BE SECURELY POSITIONED IN THE FORMS BEFORE PLACING THE CONCRETE.

7. SEGREGATION OF AGGREGATES: CONCRETE SHALL NOT BE DROPPED THROUGH REINFORCING STEEL (AS IN WALLS AND COLUMNS) SO AS TO CAUSE SEGREGATION OF AGGREGATES. USE HOPPERS, CHUTES OR TRUNKS OF VARYING LENGTH SO THAT THE FREE UNCONFINED FALL OF CONCRETE SHALL NOT EXCEED FIVE FEET, AND A SUFFICIENT NUMBER SHALL BE USED TO ENSURE THE CONCRETE BEING KEPT LEVEL AT ALL TIMES.

8. DOWELING: ALL WALLS AND COLUMNS SHALL BE DOWELED INTO FOOTINGS, WALLS, BEAMS OR SLABS WITH BARS OF THE SAME SIZE AND SPACING AS THE WALL BARS EXCEPT WHERE SPECIFICALLY INDICATED OTHERWISE WITH 40 BAR DIAMETER LAP.

9. SPLICES: SPLICES IN CONTINUOUS REINFORCEMENT AS USED IN WALL, GRADE BEAMS, ETC., SHALL HAVE A LAP OF 40 TIMES BAR DIAMETERS BUT NOT LESS THAN 12 INCHES. THE SPLICES IN ADJACENT BARS SHALL NOT BE LESS THAN 6'-0" APART. VERTICAL WALL BARS SHALL BE SPLICED AT OR NEAR FLOOR LINES. SPICE BARS IN SPANDRELS, WALLS, BEAMS, GRADE BEAMS, ETC., AS FOLLOWS: TOP BARS AT CENTER LINE OF WALL, BOTTOM BARS AT THE SUPPORT. ALL REINFORCING STEEL SHALL BE SECURELY WIRE AND PROPERLY SUPPORTED ABOVE GROUND AND AWAY FROM THE FORMS.

10. CONSTRUCTION JOINTS: SHALL HAVE ENTIRE SURFACE REMOVED TO EXPOSE CLEAN AGGREGATE SOLIDLY EMBEDDED. THE CONTRACTOR SHALL OBTAIN THE ENGINEER'S APPROVAL OF CONSTRUCTION JOINT LOCATION OTHER THAN DETAILED OR SPECIFIED IN ALL SLABS, BEAMS AND SHEAR WALLS.

LUMBER & PLYWOOD

1. GRADE & SIZE: ALL STRUCTURAL LUMBER SHALL BE 454 DOUGLAS FIR OF THE FOLLOWING GRADES UNLESS NOTED OTHERWISE ON FRAMING PLANS.  
  
STUDS, PLATES AND BLOCKING STANDARD JOISTS AND PLANKS 2" TO 4" WIDE AND 6" AND DEEPER NO.2 BEAMS AND STRINGERS (2x AND 4x) NO.1 BEAMS AND STRINGERS (4x AND LARGER) NO.1 POSTS AND TIMBERS NO.1  
ALL LUMBER SHALL BE GRADE STAMPED BY AN APPROVED GRADING AGENCY.

2. MOISTURE CONTENT: MAXIMUM MOISTURE CONTENT SHALL NOT EXCEED 19% UNLESS NOTED OTHERWISE.

3. PLYWOOD: PLYWOOD SHALL BE STRUCTURAL I OR CDX GRADE (WITH EXTERIOR TYPE GLUE) AND SHALL CONFORM TO PS-1-09. EACH SHEET SHALL BE IDENTIFIED BY A REGISTERED STAMP OR BRAND OF THE A.P.A.

4. PRESSURE TREATED WOOD: ALL WOOD BEARING ON CONCRETE OR MASONRY SHALL BE PRESSURE TREATED DOUGLAS FIR AND CONFORM TO SECTION 2303.1.8 C.B.C. 2016.

5. BOLTS: ALL BOLTS BEARING ON WOOD SHALL HAVE STANDARD CUT WASHERS UNDER HEAD AND NUT UNLESS NOTED OTHERWISE. ALL BOLTS SHALL BE TIGHTENED PRIOR TO APPLICATION OF PLYWOOD, PLASTER, OR ANY WALL SHEATHING.

6. HOLES: HOLES FOR BOLTS SHALL BE BORED WITH A BIT 1/32" TO 1/16" LARGER THAN THE NOMINAL BOLT DIAMETER.

7. CUTTING: STRUCTURAL MEMBERS SHALL NOT BE CUT FOR PIPES, ETC. UNLESS SPECIFICALLY NOTED OR DETAILED.

8. BLOCKING: TWO INCH SOLID BLOCKING SHALL BE PLACED BETWEEN JOISTS OR RAFTERS AT ALL SUPPORTS.

9. BRACING: PROVIDE 1"x6" DIAGONAL LET-IN BRACES OR EQUAL STEEL STRAPS EVERY 25' IN ALL STUD WALLS. NON PLYWOOD SHEATHED BRACING SHALL BE CONTINUOUS FROM TOP TO BOTTOM PLATES.

10. HARDWARE: ALL METAL HARDWARE THAT IS JOIST HANGERS AND OTHER CONNECTORS SHALL BE MANUFACTURED BY SIMPSON OR EQUAL.

11. FIRE STOPS: PROVIDE 2x fire STOPS AT INTERSECTION OF STUD WALLS AND FLOORS, CEILINGS AND ROOFS. PLACE FIRE STOPS AT A MAXIMUM SPACING OF 8'-0" O.C. IN THE VERTICAL DIRECTION. PROVIDE FIRE STOPS IN ALL FURRED SPACES VERTICALLY AND HORIZONTALLY AT A MAXIMUM SPACING OF 8'-0" O.C.

12. NAILING: SEE PLANS AND/OR SCHEDULES FOR NAILING OF VERTICAL AND HORIZONTAL SHEATHING (SHEAR PANELS AND DIAPHRAGMS). INSTALLATION OF VERTICAL AND HORIZONTAL SHEATHING SHALL BE NAILED AND INSPECTED PRIOR TO COVERING. NAILS SHALL BE DRIVEN PERPENDICULAR WHERE POSSIBLE INSTEAD OF USING JOINT NAILS. PREDRILL FOR ALL NAILS 20d AND LARGER. NAILING SHALL BE IN ACCORDANCE WITH NAILING SCHEDULES IN C.B.C. 2016.

13. DOUBLE JOISTS: USE DOUBLE JOISTS UNDER WALLS OR PARTITIONS PARALLEL TO JOISTS. USE SOLID BLOCK UNDER PARTITIONS PERPENDICULAR TO JOISTS. ALL DOUBLE JOISTS SHALL BE NAILED TOGETHER WITH 16d NAILS @ 9"O.C. STAGGERED 1 1/2 FROM EDGES.

14. SILL PLATES: SILL PLATES FOR EXTERIOR WALLS AND STUD WALLS ON CURBS SHALL BE ATTACHED TO CONCRETE WITH 5/8" DIAMETERS BY 12" ANCHOR BOLTS AT 4'-0" MAXIMUM ON CENTER AND WITHIN 12" OF THE ENDS OF SILL MEMBERS, UNLESS OTHERWISE NOTED.

15. SPLICE: PLATE SPLICES SHALL HAVE 4'-0" MINIMUM LAP.

16. ALL HORIZONTAL PLYWOOD SHALL HAVE TONGUE AND GROOVE JOINTS GLUE-NAILED TO JOISTS, BLOCKERS, NAILS & BEAMS. USE APPROVED CONSTRUCTION TYPE GLUE. TONGUE & GROOVE JOINTS MUST ALSO BE GLUED.

17. PROVIDE 2x FULL DEPTH SOLID BLOCKING FOR 8'-0" AND LARGER SPANS FOR ALL SOLID-SAWN RECTANGULAR LUMBER BEAMS, RAFTERS AND JOISTS.

18. FASTENERS IN PRESERVATIVE-TREATED WOOD (I.E. ANCHOR BOLTS, NAILS, SCREWS, ETC) SHALL BE APPROVED SILICON BRONZE OR COPPER, STAINLESS STEEL, OR HOT-DIPPED ZINC-COATED STEEL. (CBC 2304.9.5.1)

FOUNDATIONS & RETAINING WALLS

1. SOIL REPORT: THE FOUNDATION DESIGN IS BASED ON THE RECOMMENDATIONS IN REPORT NO. 20-AE-538, DATED JANUARY 18, 2021 BY A.G.E. ENGINEERING. FOUNDATION WORK SHALL BE PERFORMED IN ACCORDANCE WITH THIS REPORT. THE REPORT IS PART OF THIS PLANS AND SHOULD BE KEPT ON THE JOB SITE AT ALL TIMES.

2. INSPECTION: FOUNDATION EXCAVATION SHALL BE EXAMINED AND CERTIFIED BY THE SOILS ENGINEER OR HIS REPRESENTATIVE PRIOR TO THE PLACEMENT OF ANY REINFORCING STEEL OR CONCRETE.

3. BEARING: THE FOUNDATION DESIGN IS BASED ON A BEARING CAPACITY OF (2,100 PSF ) AND ALL FOOTINGS SHALL BE FOUNDED AT LEAST 24" INTO THE COMPETENT BEDROCK.

4. BASE: ALL FOOTINGS SHALL BE FOUNDED ON A COMPETENT BEDROCK APPROVED BY SOIL ENGINEER.

5. COMPACTION: MATERIAL FOR FILLING AND BACKFILLING SHALL CONSIST OF THE EXCAVATED MATERIAL AND/OR IMPORTED BORROW AND SHALL BE FREE OF ORGANIC MATTER, TRASH, LUMBER OR OTHER DEBRIS. BACKFILL AROUND THE EXTERIOR WALLS SHALL NOT BE PLACED UNTIL AFTER THE WALLS ARE SUPPORTED BY THE COMPLETION OF INTERIOR FLOOR SYSTEMS. DO NOT PROCEED WITH BACKFILL UNTIL 7 DAYS (MINIMUM) AFTER THE COMPLETION OF INTERIOR FLOOR SYSTEMS UNLESS WALLS ARE ADEQUATELY BRACED. BACKFILL SHALL NOT BE PLACED UNTIL AFTER COMPLETION AND INSPECTION OF DAMP PROOFING. FILL AND BACKFILL SHALL BE DEPOSITED IN LAYERS OF 8 INCHES THICK PROPERLY MOISTENED TO APPROXIMATE OPTIMUM REQUIREMENTS AND THOROUGHLY ROLLED OR COMPACTED WITH APPROVED EQUIPMENT IN SUCH A MANNER AND EXTENT AS TO PRODUCE A RELATIVE COMPACTION OF 90% OF MAXIMUM POSSIBLE DENSITY FOR OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D1557-54 METHOD OF COMPACTION. HAND TAMPERS SHALL WEIGHT AT LEAST 50 LBS. EACH SHALL HAVE A FACE AREA NOT IN EXCESS OF 64 SQUARE INCHES. HAND TAMPER SHALL BE OPERATED EITHER MANUALLY OR MECHANICALLY AND SHALL BE USED WHERE LARGER POWER DRIVEN COMPACTION EQUIPMENT CANNOT BE USED. ALL COMPACTION SHALL CONFORM TO METHODS DESCRIBED IN THE SOIL REPORT.

6. GRADE SLAB: GRADE SLAB SHALL BE SUPPORTED ON COMPACTED GRADE.

7. BACKFILL: BACKFILLING BEHIND A RETAINING WALL SHALL NOT BE PLACED UNTIL THE CONCRETE OR MASONRY OBTAINS ITS DESIGNED STRENGTH. SOILS SHALL BE PLACED AND COMPACTED IN EQUAL LIFTS ON BOTH SIDES OF THE WALL UNTIL THE LOWER ELEVATION IS REACHED. USE LIGHTWEIGHT TAMPERS BEHIND WALLS AT NO.1 ELEVATION.

8. SOILS ENGINEER SHALL REVIEW AND SIGN SITE/PLOT PLAN AND FOUNDATIONS PLANS DURING REQUIRED FIELD INSPECTIONS TO AFFIRM CORRECTNESS AND CONSISTENCY WITH THE RECOMMENDED COMMENTS OF THE SOILS REPORT, AS AN BUILT RECORD.

9. FOR SIZE AND SPACING OF ANCHOR BOLTS, SEE SHEAR WALL SCHEDULE AND/OR FOUNDATION PLAN.

10. SOIL COMPACTION REPORT SHALL BE PROVIDED TO THE BUILDING INSPECTOR AT THE JOB SITE PRIOR TO PLACEMENT OF CONCRETE FOR THE FOUNDATION.

MICROLLAMS/PARALLAMS/ /TIMBERSTRAND

1) MICROLLAMS/PARALLAMS/TIMBERSTRANDS SHALL BE FABRICATED BY THE TRUS-JOIST OR AN APPROVED EQUAL IN STRUCTURAL DESIGN AND LOAD VALUES, AND CONFORM TO NER – 481 AND SHALL HAVE THE

	DESIGN STRESSES (100 % LOAD DURATION)					
	CATEGORY	E psi	F(b) psi	Fc ± psi	Fc II psi	Fv psi
TIMBER STRAND LVL	1.5x10 <sup>4</sup>	2250 <sup>N</sup>	650	1950	285	
MICROLLAM LVL	1.9x10 <sup>4</sup>	2600 <sup>N</sup>	750	2310	285	
PARALLAM PSL	2.0x10 <sup>4</sup>	2905 <sup>N</sup>	650	2000	290	

(1) FOR 12 INCH DEPTH, FOR OTHERS, MULTIPLY BY (12/d) 0.111  
(2) Fc ± SHALL NOT BE INCREASED FOR DURATION OF LOAD.  
(3) DEPTHS GREATER THAN 12", MULTIPLY F(b) BY (12/d) 0.136  
(4) DEPTHS GREATER THAN 12", MULTIPLY F(b) BY (12/d) 0.092  
2) FOR NOTCHING, DRILLING, AND MULTIPLE MEMBER CONNECTION, COMPLY WITH  
3) ICC-ES ESR-1387

SPECIAL INSPECTION REQUIREMENTS

1. PERIODIC SPECIAL INSPECTION IS REQUIRED FOR WOOD SHEAR WALLS, SHEAR PANELS AND DIAPHRAGMS INCLUDING NAILING, BOLTING, ANCHORING AND OTHER FASTENING TO COMPONENTS OF THE STRUCTURE. THE CONTRACTOR SHALL CONTACT SPECIAL INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED WHERE THE FASTENER SPACING OF THE SHEATHING IS 4 INCHES O.C. OR LESS.

2. THE FAILURE OF AN INSPECTOR TO IDENTIFY A DEFECT OR ERROR AT THE TIME THAT IT IS MADE SHALL NOT RELIEVE THE CONTRACTOR OF THE OBLIGATION TO CORRECT THE DEFECT OR ERROR.

3. SPECIAL INSPECTION REQUIREMENTS LISTED IN THIS SECTION OF THE NOTES ARE PRESENTED FOR THE CONVENIENCE OF THE RESIDENT INSPECTOR. TESTING AGENCY AND CONTRACTOR OTHER INSPECTIONS MAY BE REQUIRED BY THE GOVERNING AGENCY AND/OR BY THE CONSTRUCTION DOCUMENTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE DOCUMENTS AND TO VERIFY INSPECTION AND TESTING REQUIREMENTS WITH THE GOVERNING AGENCY PRIOR TO THE START OF WORK.

4. IN CASE OF ANY INCONSISTENCY OR OTHER UNCERTAINTY CONCERNING WHETHER OR NOT AN INSPECTION OR TEST IS REQUIRED, THE CONTRACTOR SHALL CONTACT THE ARCHITECT AND STRUCTURAL ENGINEER FOR CLARIFICATION AND SHALL PROCEED ON THE ASSUMPTION THAT THE INSPECTION OR TEST IS REQUIRED PENDING THEIR RESPONSE.

5. WORK REQUIRING INSPECTION WHICH IS DONE WITHOUT INSPECTION SHALL BE SUBJECT TO REJECTION WITHOUT OTHER CAUSE. THE CONTRACTOR SHALL NOT PROCEED WITH WORK REQUIRING INSPECTION UNTIL AND UNLESS THE OWNER'S INSPECTORS ARE PRESENT.

6. THE CONTRACTOR DENIED STAIRS OR OTHER STRUCTURAL COMPONENTS MAY REQUIRE SPECIAL INSPECTION DURING SHOP FABRICATION AND/OR FIELD INSTALLATION DEPENDING UPON TYPE AND LOAD AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN SUCH REQUIREMENTS ON SHOP AND/OR ERECTION DRAWINGS.

7. SPECIAL INSPECTION IS REQUIRED FOR FABRICATION OF PREFABRICATED WOOD STRUCTURAL ELEMENTS SUCH AS GULUM BEAMS, PREFABRICATED JOISTS, ETC. PER SECTIONS 1704.2 AND 1704.6 OF THE CODE UNLESS DONE IN A SHOP CERTIFIED BY THE GOVERNING AGENCY AND ACCEPTED BY THE STRUCTURAL ENGINEER.

8. PERIODIC SPECIAL INSPECTION FOR SEISMIC RESISTANCE OF STRUCTURAL LUMBER SHALL BE REQUIRED FOR NAILING, BOLTING AND ANCHORING AND OTHER FASTENING OF COMPONENTS WITHIN THE SEISMIC—FORCE—RESISTING—SYSTEM SUCH AS WOOD DIAPHRAGMS, WOOD SHEAR WALLS, DRAG STRUTS, BRACES, SHEAR PANELS AND HOLD-DOWNS AS REQUIRED IN SECTION 1705.5 OF THE CODE.

9. SPECIAL INSPECTION AND VERIFICATION FOR STEEL CONSTRUCTION SHALL BE AS REQUIRED IN SECTION 1705.2 OF THE CODE.

10. SPECIAL INSPECTION AND VERIFICATION OF CONCRETE CONSTRUCTION SHALL BE AS REQUIRED IN SECTION 1704.4 OF THE CODE.

11. SPECIAL INSPECTION AND VERIFICATION OF CONCRETE BLOCK MASONRY CONSTRUCTION SHALL BE AS REQUIRED IN SECTION 1705.4.

12. CONTRACTORS RESPONSIBLE FOR THE CONSTRUCTION OF A WIND OR SEISMIC FORCE RESISTING SYSTEM/COMPONENT LISTED IN THE "STATEMENT OF SPECIAL INSPECTION" SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY OF THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON SUCH SYSTEM OR COMPONENT PER SEC 1706.1

13. SPECIAL INSPECTION IS REQUIRED FOR FABRICATION OF STRUCTURAL STEEL PER SECTION 1704.2 AND 1704.3 OF THE CODE UNLESS IT IS DONE IN A SHOP CERTIFIED BY THE GOVERNING AGENCY AND IS APPROVED BY THE ENGINEER OF RECORD.

14. CONTINUOUS SPECIAL INSPECTION BY A REGISTERED DEPUTY INSPECTOR IS REQUIRED FOR FIELD WELDING, CONCRETE STRENGTH TESTING, HIGH STRENGTH BOLTING, SPRAYED-ON FIREPROOFING, ENGINEERED MASONRY, HIGH-LIFT GROUTING, PRE-STRESSED CONCRETE, HIGH LOAD DIAPHRAGMS AND SPECIAL MOMENT RESISTING CONCRETE FRAMES.

SPECIAL INSPECTION PROGRAM

NO.	WORK REQUIRED TO HAVE SPECIAL INSPECTION	TYPE OF INSPECTION
1	CONSTRUCTION OF SHEAR WALLS WITH EDGE NAILING SPACING 4" OR CLOSER	PERIODIC
2	INSTALLATION OF HARRY PANELS AND FRAMES	PERIODIC
3	BASE COMPACTION FOR GRADE SLABS AND FOUNDATION	CONTINUOUS
4	CMU RETAINING WALLS GROUTING	CONTINUOUS
5	POURING CONCRETE W/ f'c>2500 PSI	CONTINUOUS
6	ALL STRUCTURAL WELDS INCLUDING SHOP & FIELD WELDING	PERIODIC
7	MULTIPLE PASS WELDS, DIP & RWP WELDS, SINGLE PASS FILLET WELDS 7/8"	CONTINUOUS
8	INSTALLATION AND TIGHTENING OF HIGH STRENGTH BOLTS (ASTM 325, A490 OR OTHER)	PERIODIC
9	APPLICATION OF PNEUMATIC CONCRETE (SHOTCRETE OR GUNITE)	CONTINUOUS
10	INSTALLATION OF DRILL-IN EXPANSION ANCHOR	CONTINUOUS
11	INSTALLATION OF ANY DRILL-IN REINFORCEMENT OR DOWEL WITH EXISTING CONCRETE OR MASONRY USING EPOXY	CONTINUOUS
12	EPOXY INJECTION, PRESSURE GROUTING OR OTHER STRUCT'L REPAIR OF DAMAGED STRUCT'L CONC. ON MASONRY	CONTINUOUS

EARTHQUAKE DESIGN DATA

a. SEISMIC IMPORTANCE FACTOR I=1, OCCUPANCY CATEGORY II  
b. MAPPED SPECTRAL RESPONSE COEFFICIENTS, S<sub>s</sub>=2.392 S<sub>1</sub>=0.8208  
c. SITE CLASS D  
d. SPECTRAL RESPONSE COEFFICIENTS SDS=1.914 SD1=0.93  
e. SEISMIC DESIGN CATEGORY I  
f. BASIC SEISMIC FORCE RESISTING SYSTEM – BEARING WALL SYSTEM  
g. DESIGN BASE SHEAR: MAIN HOUSE – 17.37  
h. SEISMIC DESIGN COEFFICIENT C<sub>s</sub>=0.2944  
i. RESPONSE MODIFICATION FACTOR R=6.5  
j. ANALYSIS PROCEDURE USED – ELM  
k. REDUNDANCY FACTOR USED – 1.3  
l. THE DESIGN LOAD BEARING VALUE OF SOILS = 1500PSF

ROOF LIVE LOAD 20 PSF  
FLOOR LIVE LOAD 40 PSF

Los Angeles Regional Uniform Code Program

Committee I-3: Structural Observation

STRUCTURAL OBSERVATION PROGRAM AND DESIGNATION OF THE STRUCTURAL OBSERVER

PROJECT ADDRESS: \_\_\_\_\_ PERMIT APPL. NO.: \_\_\_\_\_

Description of Work: \_\_\_\_\_

Owner: \_\_\_\_\_ Architect: \_\_\_\_\_ Engineer: A. PAPAZYAN

STRUCTURAL OBSERVATION (only checked items are required)

Firm or Individual to be responsible for the Structural Observation:

Name: APEX ENGINEERING Phone:(818)500-0333 Calif. Registration: C-56824

FOUNDATION	WALL	FRAME	DIAPHRAGM
<input type="checkbox"/> Footing, Stem Walls, Piers	<input type="checkbox"/> Concrete	<input type="checkbox"/> Steel Moment Frame	<input type="checkbox"/> Concrete
<input type="checkbox"/> Mat Foundation	<input type="checkbox"/> Masonry	<input type="checkbox"/> Steel Braced Frame	<input type="checkbox"/> Steel Deck
<input type="checkbox"/> Caisson, Piles, Grade Beams	<input type="checkbox"/> Wood	<input type="checkbox"/> Concrete Moment Frame	<input type="checkbox"/> Wood
<input type="checkbox"/> Stepp g/Retain g Foundation, Hillside Special Anchors	<input type="checkbox"/> Others:	<input type="checkbox"/> Masonry Wall Frame	<input type="checkbox"/> Others:
<input type="checkbox"/> Others:		<input type="checkbox"/> Others:	

DECLARATION BY OWNER

I, the Owner of the project, declare that the above listed firm or individual is hired by me to be the Structural Observer.

Signature \_\_\_\_\_ Date \_\_\_\_\_

DECLARATION BY ARCHITECT OR ENGINEER OF RECORD (required if the Structural Observer is different from the Architect or Engineer of Record)

I, the Architect or Engineer of record for the project, declare that the above listed firm or individual is designated by me to be responsible for the Structural Observation.

Signature \_\_\_\_\_ License No. \_\_\_\_\_ Date \_\_\_\_\_

IN/Form.08 (Part 2) (Rev. 1/1/2017) www.ladbs.org

FASTENING SCHEDULE [CBC 2016 TABLE 2304.10.1] – Common or box nails permitted unless noted. Staples shall have min. 7/16" crown width.

1. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOENAIL 3 – 8d common, 3 – 3" x 0.131" nails, 3 – 3" x 14 gage staples.  
BLOCKING BETWEEN RAFTERS OR TRUSS NAT AT THE WALL TOP PLATE, 2 – 8d common, 2 – 3" x 0.131" nails, 2 – 3" x 14 gage staples  
(NO THRUSET), FACE NAIL

FLAT BLOCKING TO TRUSS AND WEB FILLER, FACE NAIL 2 – 8d common, 2 – 3" x 0.131" nails, 2 – 3" x 14 gage staples

2. CEILING JOISTS TO PLATE, TOENAIL 3– 8d common, 3– 10d box

3. CEILING JOIST NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS (NO THRUSET), FACE NAIL 3 – 16d common, 4– 10d box

4. COLLAR JOISTS ATTACHED TO PARALLEL RAFTER (HEEL JOINT), FACE NAIL

5. CEILING TIE TO RAFTER, FACE NAIL 3 – 16d common, 4– 10d box

6. RAFTER OR ROOF TRUSS TO TOP PLATE, TOENAIL (c) 3 – 10d common, 3– 16d box

7. ROOF RAFTERS TO RIDGE VALLEY OR HIP RAFTERS, OR ROOF RAFTER TO 2" RIDGE BEAM, END NAIL 2 – 16d common, 3– 10d box

8. STUD TO STUD (NOT AT BRACED WALL PANELS), FACE NAIL 16d common 24" O.C., 10d box 16" O.C.

9. STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (AT BRACED WALL PANELS), FACE NAIL 16d common 16" O.C., 16d box 12" O.C.

10. CONTINUOUS HEADER TO STUD, TOENAIL 16d common 16" O.C., 4-10d box

11. TOP PLATE TO TOP PLATE, FACE NAIL 4-8d common, 4-10d box

12. TOP PLATE TO TOP PLATE, AT END JOINTS, FACE NAIL 16d common 16" O.C., 10d box 12" O.C.

13. TOP PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (NOT AT BRACED WALL PANELS), FACE NAIL 8-16d common, 12-10d box

14. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING AT BRACED WALL PANELS, FACE NAIL 16d common 16" O.C., 16d box 12" O.C.

15. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING AT BRACED WALL PANELS, FACE NAIL 2-16d common 16" O.C., 3-16d box 12" O.C.

16. STUD TO TOP OR BOTTOM PLATE, TOENAIL 4-8d common, 4-10d box

17. TOP OR BOTTOM PLATE TO STUD, END NAIL 2-16d common, 3-10d box

18. TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS, FACE NAIL 2-16d common, 3-10d box

19. 1" BRACE TO EACH STUD AND PLATE, FACE NAIL 2-8d common, 2-10d box

20. 1"x6" SHEATHING TO EACH BEARING, FACE NAIL 2-8d common, 2-10d box

21. 4x4 AND WIDER SHEATHING TO EACH BEARING, FACE NAIL 3-8d common, 3-10d box

22. JOIST TO SILL, TOP PLATE, OR GIRDER, TOENAIL 3-8d common, 3-10d box

23. RIM JOIST, BAND JOIST, OR BLOCKING TO TOP PLATE, SILL OR OTHER FRAMING BELOW, TOENAIL 8d common 6" O.C., 10d box 6" O.C.

24. 1"x6" SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL 2-8d common, 2-10d box

25. 2" SUBFLOOR TO JOIST OR GIRDER, FACE NAIL 2-16d common

26. 2" PLANK, FACE NAIL 2-16d common

27. BUILT UP GIRDERS AND BEAMS, 2" LUMBER LAYERS, FACE NAIL 20d common, 32" O.C., 10d box 24" O.C.

28. LEDGER STRIP SUPPORTING JOISTS OR RAFTERS, FACE NAIL 3-16d common, 4-10d box

29. JOIST TO BAND JOIST OR RIM JOIST, END NAIL 3-16d common, 4-10d box

30. BRIDGING OR BLOCKING TO JOIST, RIM JOIST OR TRUSS, END NAIL 2-8d common, 2-10d box

WOOD STRUCTURAL PANS, SUB FLOOR, ROOF AND INTERIOR WALL SHEATHING TO FRAMING AND PARTICLEBOARD WALL SHEATHING TO FRAMING (a) 31. 3/8"-1/2" 6" EDGE 12" INTERMEDIATE SUPPORTS 6d common or deformed (2"x0.131") subfloor and wall, 8d box or deformed (cso) 8d common, 6d deformed

32. 19/32"-3/4" 6" EDGE 12" INTERMEDIATE SUPPORTS 8d common, 6d deformed

33. 7/8"-1 1/4" EDGE 12" INTERMEDIATE SUPPORTS 10d common, 8d deformed

OTHER EXTERIOR WALL SHEATHING

34. 1/2" FIBERBOARD SHEATHING) EDGE 12" INTERMEDIATE SUPPORTS 1 1/2" galvanized roof nail, 1 1/2" 16 gage staple with 7/16" or 1" crown

35. 1/2" FIBERBOARD SHEATHING) EDGE 12" INTERMEDIATE SUPPORTS 1 1/2" galvanized roof nail, 1 1/2" 16 gage staple with 7/16" or 1" crown

WOOD STRUCTURAL PANELS, COMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING 36. 1/4" AND LESS EDGE 12" INTERMEDIATE SUPPORTS 8d common, 6d deformed

37. 7/8"-1" EDGE 12" INTERMEDIATE SUPPORTS 8d common, 6d deformed

38. 1 1/8"-1 1/2" EDGE 12" INTERMEDIATE SUPPORTS 8d common, 6d deformed

39. 1/2" OR LESS EDGE 12" INTERMEDIATE SUPPORTS 6d corrosion-resistant siding, 6d corrosion-resistant casing

40. 5/8" EDGE 12" INTERMEDIATE SUPPORTS 8d corrosion-resistant siding, 8d corrosion-resistant casing

41. 1/2" EDGE 12" INTERMEDIATE SUPPORTS 4d casing, 4d finish

42. 3/8" EDGE 12" INTERMEDIATE SUPPORTS 4d casing, 4d finish

For Sill 1 inch = 25.4 mm  
a. Nails spaced at 6 inches at intermediate supports where spans are 48" or more. For nailing of wood structural panel and particleboard sheathings and shear walls, refer to Section 230



ANCHOR BOLT SCHEDULE		
MARK	SIZE & SPACING	SILL PLATE
A	5/8" Ø @ 32" o.c.	2x PRESSURE TREATED
B	5/8" Ø @ 24" o.c.	2x PRESSURE TREATED
C	5/8" Ø @ 16" o.c.	3x PRESSURE TREATED
D	5/8" Ø @ 12" o.c.	3x PRESSURE TREATED
E	3/4" Ø @ 12" o.c.	3x PRESSURE TREATED
F	5/8" Ø @ 48" o.c.	2x PRESSURE TREATED

NOTES :  
1. MINIMUM ANCHOR BOLT EMBEDMENT SHALL BE 7" MIN. INTO FTG.  
2. EACH PIECE OF WOOD PLATE 9" OR LONGER SHALL HAVE A MIN. OF TWO ANCHOR BOLTS.  
3. ANCHOR BOLTS SHALL NOT OCCUR FARTHER THAN 12" FROM THE END OF EACH PIECE OF PLATE.

COLUMN PAD SCHEDULE				
MARK	PAD SIZE	DEPTH	REINFORCEMENT	f'c
1	1'-8" x 1'-8"	2'-0"	3 - # 4 AT BOTTOM EACH WAY	2,500 PSI
2	2'-0" x 2'-0"	2'-0"	3 - # 4 AT BOTTOM EACH WAY	2,500 PSI
3	2'-6" x 2'-6"	2'-0"	3 - # 4 AT BOTTOM EACH WAY	2,500 PSI
4	3'-0" x 3'-0"	2'-0"	4 - # 4 AT BOTTOM EACH WAY	2,500 PSI
5	3'-6" x 3'-6"	2'-0"	4 - # 4 AT BOTTOM EACH WAY	2,500 PSI

PLATE WASHER SCHEDULE		
SILL PLATE ANCHOR BOLTS AND HOLDOWN CONNECTOR BOLTS		
BOLTS SIZE	PLATE SIZE T x W x L	NOTES :
5/8" Ø	1/4" x 3" x 3"	APPROVED PLATE WASHERS, INSTEAD OF CUT WASHERS, SHALL BE PROVIDED FOR ALL PLYWOOD SHEAR WALL SILL PLATE ANCHOR BOLTS AND FOR ALL HOLDOWN CONNECTOR BOLTS TO SHEAR WALL WOOD FLANGES
3/4" Ø	5/16" x 3" x 3"	
7/8" Ø	5/16" x 3" x 3"	
1" Ø	3/8" x 3-1/2" x 3-1/2"	

4" CONCRETE SLAB MIN.

SLAB SHOULD BE SUPPORTED ON NATURAL SOIL AND REINFORCED WITH A MIN. OF #4 BAR SPACED AT 16-INCHES ON CENTER EACH WAY. SLABS TO BE COVERED WITH FLOORING SHOULD BE PROTECTED WITH 10 MIL. PLASTIC VAPOR BARRIER TO PREVENT PUNCTURES AND AID IN THE CONCRETE CURE. THE BARRIER SHOULD BE OVER A 2-INCH LAYER OF SAND OVER A 4-INCH LAYER OF 1/2" GRAVEL.

NOTE:

1) ALL EXTERIOR WALL SHALL BE 2x6 STUDS @ 16" o.c. (MIN.) U.N.O. MAX. HEIGHT 12'-0".

2) ALL INTERIOR WALL SHALL BE 2x6 STUDS @ 16" o.c. (MIN.) U.N.O. MAX. HEIGHT 12'-0".

NOTE:

FOUNDATION CONSTRUCTION SEQUENCE:  
REMOVE EXISTING FOOTINGS AT "A" SECTIONS THEN EXCAVATE, REINFORCE AND CONSTRUCT "A" SECTIONS. AFTER 3 DAYS REMOVE EXISTING FOOTINGS AT "B" SECTIONS AND EXCAVATE, REINFORCE AND CONSTRUCT "B" SECTIONS.

NOTE:

TYPICAL FLOOR SHEATHING 5/8" CDX PLYWOOD T&G PLYWOOD GLUENAIL (P.I. = 48/24) 10d NAILS AT 4/6/10 AS REQUIRED

LEGEND & NOTES :

1. NEW CONCRETE PAD FOUNDATION

2. NEW CONTINUOUS CONC. FTG.

3. EXISTING CONCRETE

4. EXISTING WALL

5. NEW WALL

6. WALL ABOVE

7. DEMO WALLS

8. DENOTES FLOOR JOIST OR ROOF JOIST

9. DENOTES CEILING JOIST

10. DENOTES WOOD BEAM

11. DENOTES SLOPED ROOF RAFTERS

12. DENOTES SHEAR WALL TYPE AND LENGTH (REFER TO SHEAR WALL SCHEDULE).
13. DENOTES POST SIZE (SEE PLAN)

14. DENOTES KING POST SIZE (SEE PLAN)

15. HOLDOWN ANCHORS SHALL BE RE-TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING.

16. ALL FOOTINGS SHALL BE FOUNDED INTO NATURAL UNDISTURBED SOIL.

17. FOR DIMENSIONS & ELEVATIONS NOT SHOWN, SEE ARCHITECTURAL DRAWINGS

18. SEE S-1 GENERAL NOTES.

19. PROVIDE 2-2x STUDS UNDER ALL BEAM ENDS WHERE NO POST IS CALLED FOR.

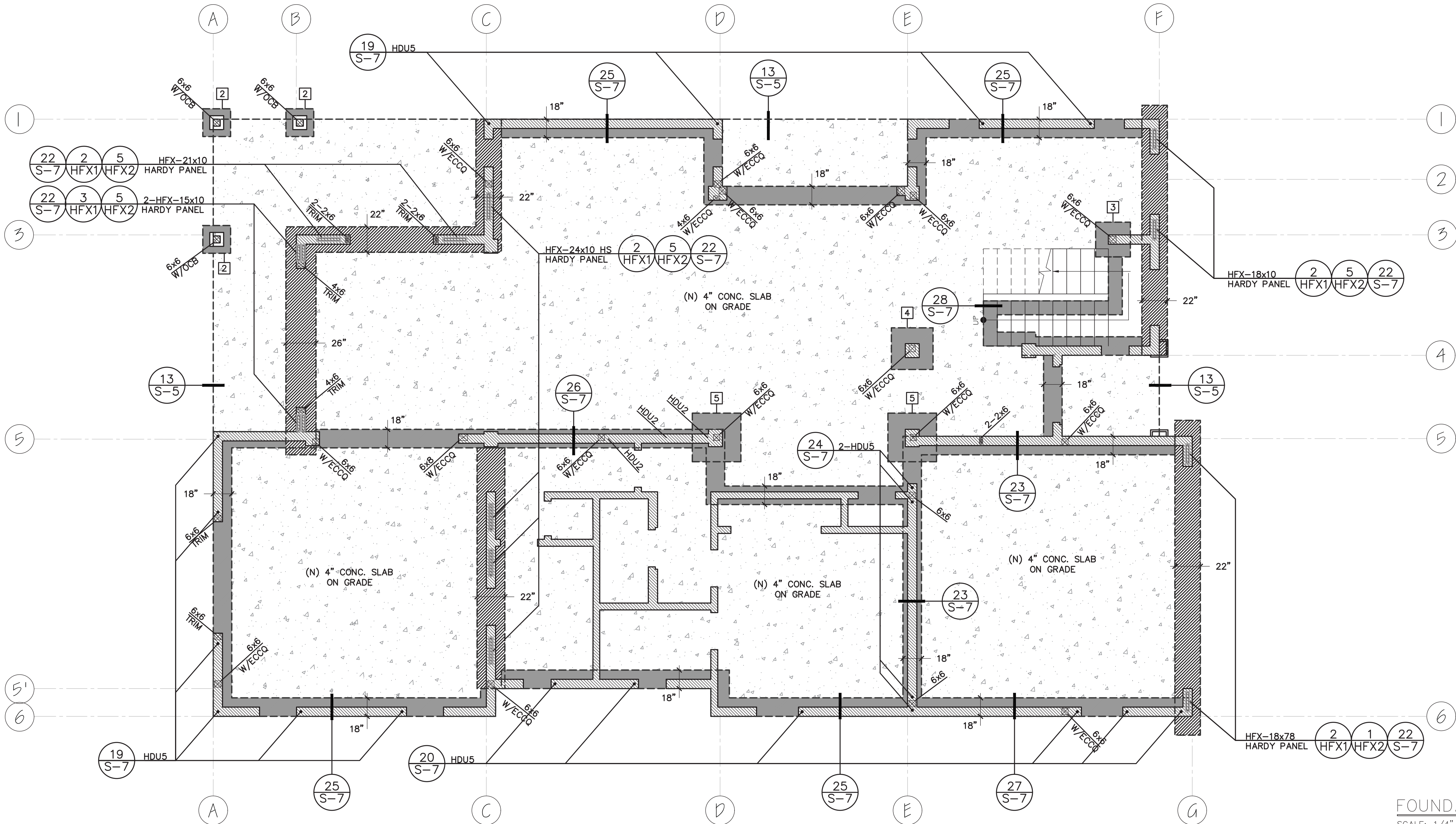
20. ALL SHEAR WALL MUST CARRY WITH SHEAR WALL MATERIAL TO ROOF SHEATHING. NO JOINTS NOR HINGES.

21. IF ADVERSE SOIL CONDITIONS ARE ENCOUNTERED, A SOIL INVESTIGATION REPORT MAY BE REQUIRED. (1803.5.2)

22. ALL UPPER FLOOR POSTS TO CONTINUE DOWN TO FOUNDATION OR BEAM BELOW.

23. ALL EXTERIOR WALL NOT DESIGNATED AS A SHEAR WALL TO BE TYPE "A" SHEAR WALL.

24. ALL HARDWARE TO BE "SIMPSON STRONG TIE"



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

WRITTEN DIMENSIONS ON THESE SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR THE ACCURACY OF ALL DIMENSIONS. ANY DISCREPANCIES OR OMISSIONS SHALL BE NOTED BY THE ENGINEER AND SPECIFICATIONS SHALL BE REVISED TO REFLECT THE CORRECT DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. THE ABOVE DRAWINGS AND SPECIFICATIONS SHALL BE THE SOLE BASIS FOR CONSTRUCTION. THE ENGINEER AND NO PART THEREOF SHALL BE COPIED OR REPRODUCED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. THESE DRAWINGS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS.

REVISIONS	BY

DATE: SEP. 2, 2020  
DRAWN BY: N2HDE MATEWOSYAN

635 W. COLGARD ST. STE 100, GLENDALE, CA 91204  
TEL.: 818. 500-0333

**apex**  
ENGINEERING

DESIGN BY: ANDRANIK PAPAZYAN

JOB NO. A-2075

PROJECT ADDRESS  
12527 W HUSTON ST., VALLEY VILLAGE,  
CA 91607

SHEET NUMBER

S-2

PAGE 2 OF 7



SHEAR WALL NOTES.

- WHERE PLYWOOD IS APPLIED ON BOTH FACES OF A WALL, AND NAIL SPACING IS LESS THAN 6 INCHES ON CENTER ON EITHER SIDE, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS OR FRAMING SHALL BE 3 INCH NOMINAL OR THICKER AND NAILS ON EACH SIDE SHALL BE STAGGERED. ALL HARDWARE (ANCHOR BOLTS, A35, LTP5, SDS SCREWS) SHALL BE DOUBLED.
- FRAMING AT ADJOINING PANEL EDGES SHALL BE NOMINAL 3" OR WIDER. NAILS SHALL BE STAGGERED IN TWO LINES ALONG PANEL EDGES WHEN NAIL SPACING IS 2" o.c., OR WHEN 10d COMMON NAILS SPACED 3" o.c. PENETRATE FRAMING MORE THAN 1-5/8".
- NAILS SHALL BE PLACED AT LEAST 3/8" FROM PANEL EDGES AND AT LEAST 1/4" FROM THE EDGE OF THE CONNECTING MEMBER FOR SHEARS OF 300 LB/FT. OR LESS.
- STUCCO AND/OR STUCCO WITH VENEER OVER A PLYWOOD SHEAR WALL WILL BE WATERPROOFED WITH A MINIMUM OF (2)1/5# FELT UNDERLAYMENTS.
- HD ANCHOR NUT TO BE TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING. ENGINEER TO VERIFY.(LEAVE ENOUGH SPACE BETWEEN SILL AND HD TO ALLOW FOR SOME SLIP AT POST CONNECTION WHEN TIGHTENED).
- PLYWOOD TO BE PRODUCT STANDARD PS-1-09, DOUGLAS FIR-LARCH, STRUCTURAL I OR CDX. PARTICLE BOARD; ANSI A208.1-2016. NOTE: PARTICLE BOARD MUST BE PROTECTED FROM MOISTURE.
- SOLID BLOCKING SHALL BE PROVIDED AT ALL HORIZONTAL JOINTS OCCURRING IN BRACED WALL PANELS.
- STUCCO SHEAR WALLS SHALL UTILIZE FURRING, GALVANIZED NAILS (HAVING A MIN. II GA. 1-1/2" LONG 7/16" DIAMETER HEAD, AND FURRED OUT A MIN. OF 1/4") TO ATTACH THE LATH TO THE STUDS. STAPLES SHALL NOT BE USED.
- THE FOLLOWING APPLIES TO ALL SHEAR WALLS WITH A SHEAR VALUE GREATER THAN 350 PLF. THESE WALLS SHALL BE CLEARLY IDENTIFIED ON THE PLANS. PROVIDE THE FOLLOWINGS.
  - 3x FOUNDATION SILL PLATES OR SOLE PLATE AT RAISED FLOORS OR SECOND FLOOR WALLS
  - 3x STUDS AND BLOCKS BETWEEN ADJACENT PANELS.
  - 1/2" EDGE DISTANCE FOR PLYWOOD BOUNDARY NAILING.
  - STAGGER NAILS IF NAILS SPACING IS LESS THAN 2" o.c.
  - SQUARE PLATE WASHERS SHALL BE USED WITH ALL ANCHOR BOLTS.  
5/8" BOLT - 3x3x1/4"      3/4" BOLT - 3x3x5/16"  
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- A COPY OF THE LOS ANGELES RESEARCH REPORT AND/OR CONDITIONS OF LISTINGS SHALL BE MADE AVAILABLE AT THE JOB SITE.
- ROOF DIAPHRAGM NAILING TO BE INSPECTED BEFORE COVERING. FACE GRAIN OF PLYWOOD SHALL BE PERPENDICULAR TO SUPPORTS. FLOOR WALL HAVE TONGUE AND GROOVE OR BLOCKED PANEL EDGES. PLYWOOD SPANS SHALL CONFORM WITH TABLE 2304.8 (1)
- HOLD-DOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION.

NOTE:

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NOTE:

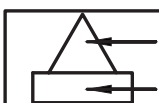
CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS IN THE FIELD. PLEASE NOTIFY THIS OFFICE OF ANY DISCREPANCIES BEFORE COMMENCING ANY WORK.

NOTE:

TYPICAL FLOOR SHEATHING 5/8" CDX PLYWOOD T&G PLYWOOD GLUENAILLED (P.I. = 48/24) 10d NAILS AT 4/6/10 AS REQUIRED

NOTE:

TYPICAL ROOF SHEATHING 1/2" CDX PLYWOOD UNBLOCKED (P.I. = 32/16) 8d NAILS AT 6/6/12



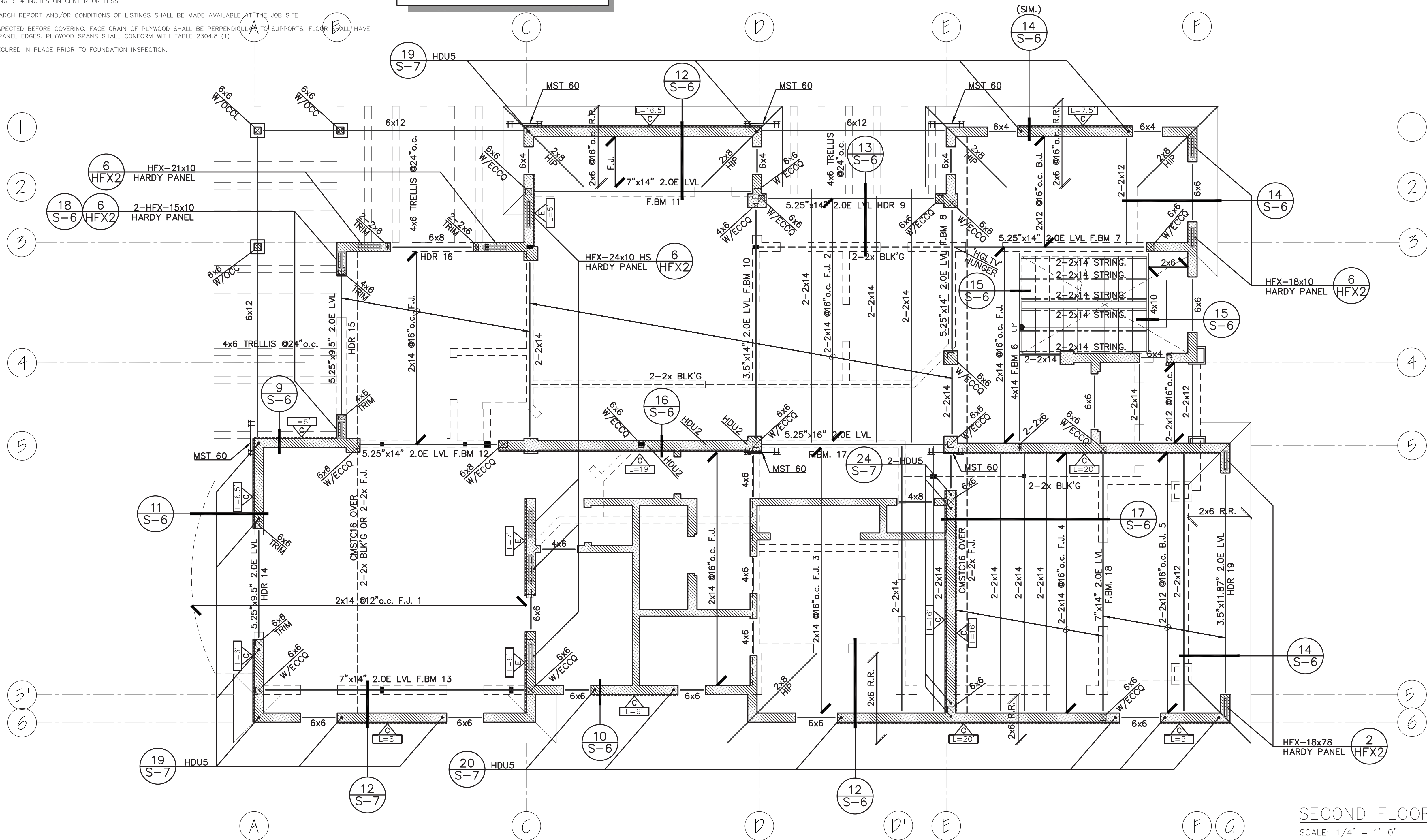
SHEAR WALL DESIGNATION  
MINIMUM SHEAR WALL LENGHT

SHEAR WALL SCHEDULE

SYM.	MATERIAL NAILING	PLY	SILL ANCHORAGE		BLK'G TO TOP PLATE	FRAMING REMARKS	SHEAR VALUE	ONE OR TWO SIDE S.W.
			CONCRETE	WOOD				
A	1/2" PLWD CDX 8d @12"o.c.FN	3	5/8"x12" A.B. @32"o.c.	16D NAILS 4" o.c.	A35 @ 24" o.c. OR LTP 5 @ 24"o.c.	2x STUDS, SILL PLATES & BLK'G	200 PLF	ONE SIDE
B	1/2" PLWD CDX 10d @6"o.c. EN 10d @12"o.c.FN	3	5/8"x12" A.B. @24"o.c.	16D NAILS 3" o.c.	A35 @ 16" o.c. OR LTP 5 @ 16"o.c.	2x STUDS, SILL PLATES & BLK'G	340 PLF	ONE SIDE
C	1/2" PLWD STR. 1 10d @4"o.c. EN 10d @12"o.c.FN	4	5/8"x12" A.B. @16"o.c.	1/4"x6" SDS SCREWS @6"o.c.	A35 @ 12" o.c. OR LTP 5 @ 12"o.c.	3x STUDS @ PANEL EDGES, 3x SILL PLATE & BLK'G	510 PLF	ONE SIDE
D	1/2" PLWD STR. 1 10d @3"o.c. EN 10d @12"o.c.FN	4	5/8"x12" A.B. @12"o.c.	1/4"x6" SDS SCREWS @4"o.c.	A35 @ 8" o.c. OR LTP 5 @ 8"o.c.	3x STUDS @ PANEL EDGES, 3x SILL PLATE & BLK'G	665 PLF	ONE SIDE
E	1/2" PLWD STR. 1 10d @2"o.c. EN 10d @12"o.c.FN	4	3/4"x12" A.B. @12"o.c.	1/4"x6" SDS SCREWS @3"o.c.	A35 @ 8" o.c. OR LTP 5 @ 8" o.c.	3x STUDS @ PANEL EDGES, 3x SILL PLATE & BLK'G	870 PLF	ONE SIDE
F	5/8" EXPANDED METAL OR WOVEN WIRE LATH AND PORTLAND CEMENT PLASTER 3/4" 16 GA. GALV. STAPLE @6" O.C., 7/8" LEGS		5/8"x12" A.B. @48"o.c.	16D NAILS 4" o.c.	A35 @ 24" o.c. OR LTP 5 @ 24"o.c.	2x STUDS, SILL PLATES & BLK'G	90 PLF	ONE SIDE

LEGEND & NOTES :

- NEW CONCRETE PAD FOUNDATION
- NEW CONTINUOUS CONC. FTG.
- EXISTING CONCRETE
- EXISTING WALL
- NEW WALL
- WALL ABOVE
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13. DENOTES POST SIZE (SEE PLAN)
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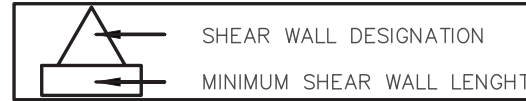
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NOTE:

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SHEAR WALL SCHEDULE

SYM.	MATERIAL NAILING	PLY	SILL ANCHORAGE		BLK'G TO TOP PLATE	FRAMING REMARKS	SHEAR VALUE	ONE OR TWO SIDE S.W.
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LEGEND & NOTES :



NEW CONCRETE PAD FOUNDATION



NEW CONTINUOUS CONC. FTG.



EXISTING CONCRETE



EXISTING WALL



NEW WALL



WALL ABOVE



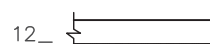
DEMO WALLS



DENOTES FLOOR JOIST OR ROOF JOIST



DENOTES CEILING JOIST



DENOTES WOOD BEAM



DENOTES SLOPED ROOF RAFTERS



DENOTES SHEAR WALL TYPE AND LENGTH (REFER TO SHEAR WALL SCHEDULE).

13. DENOTES POST SIZE (SEE PLAN)

14. DENOTES KING POST SIZE (SEE PLAN)

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REVISIONS BY

NO.	DESCRIPTION	BY

DATE: 2, 2020

DRAWN BY: NZHDE MATEWOSYAN

635 W COLGARD ST. STE 100, GLENDALE CA 91204  
TEL.: 818. 500-0333

apex  
ENGINEERING

DESIGN BY: ANDRANIK PAPAZYAN

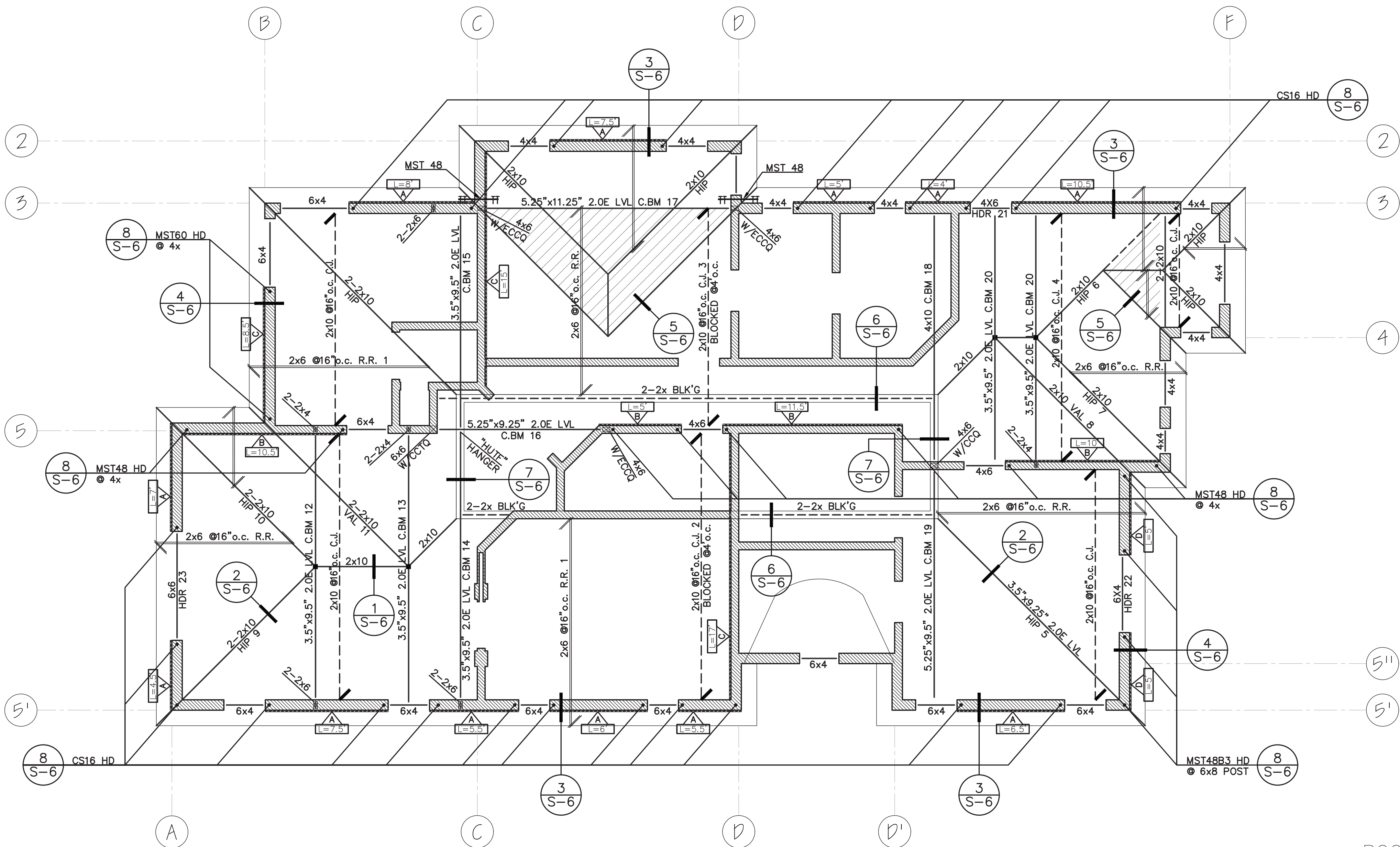
JOB NO. A-2075

PROJECT ADDRESS  
12527 W HUSTON ST., VALLEY VILLAGE,  
CA 91607

SHEET NUMBER

S-4

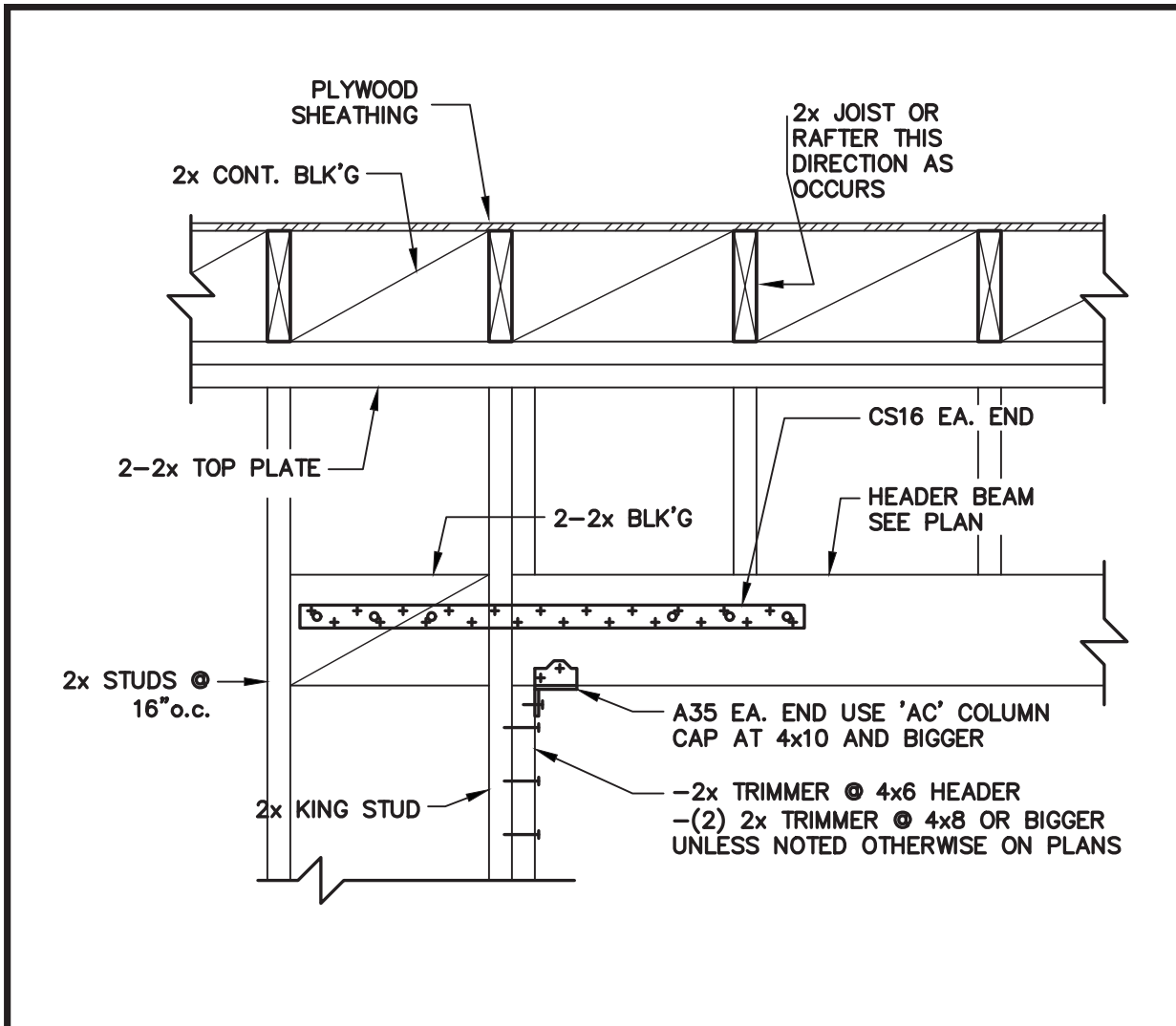
PAGE 4 OF 7



ROOF FRAMING PLAN

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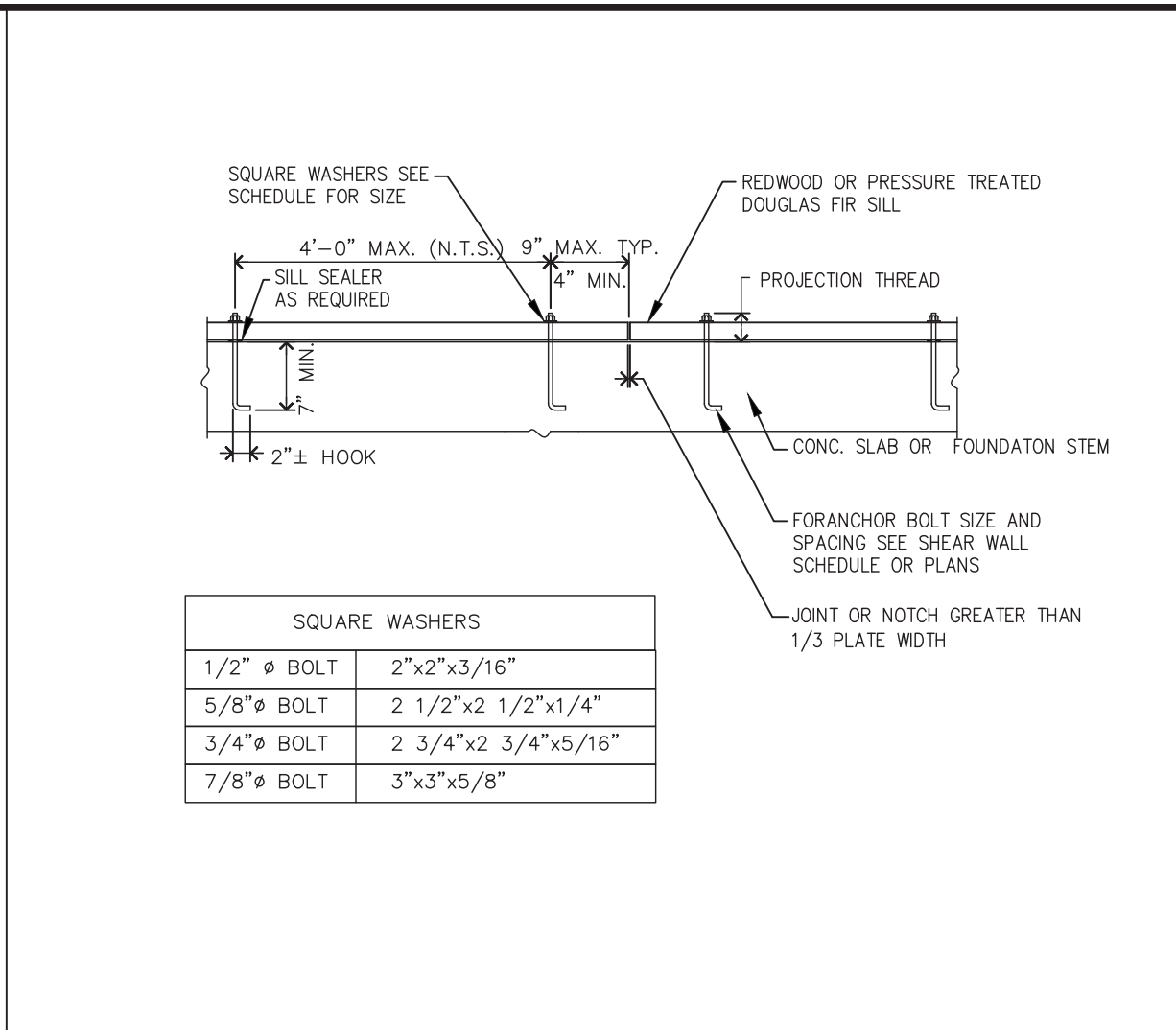




TYPICAL DOOR/WINDOW HEADER

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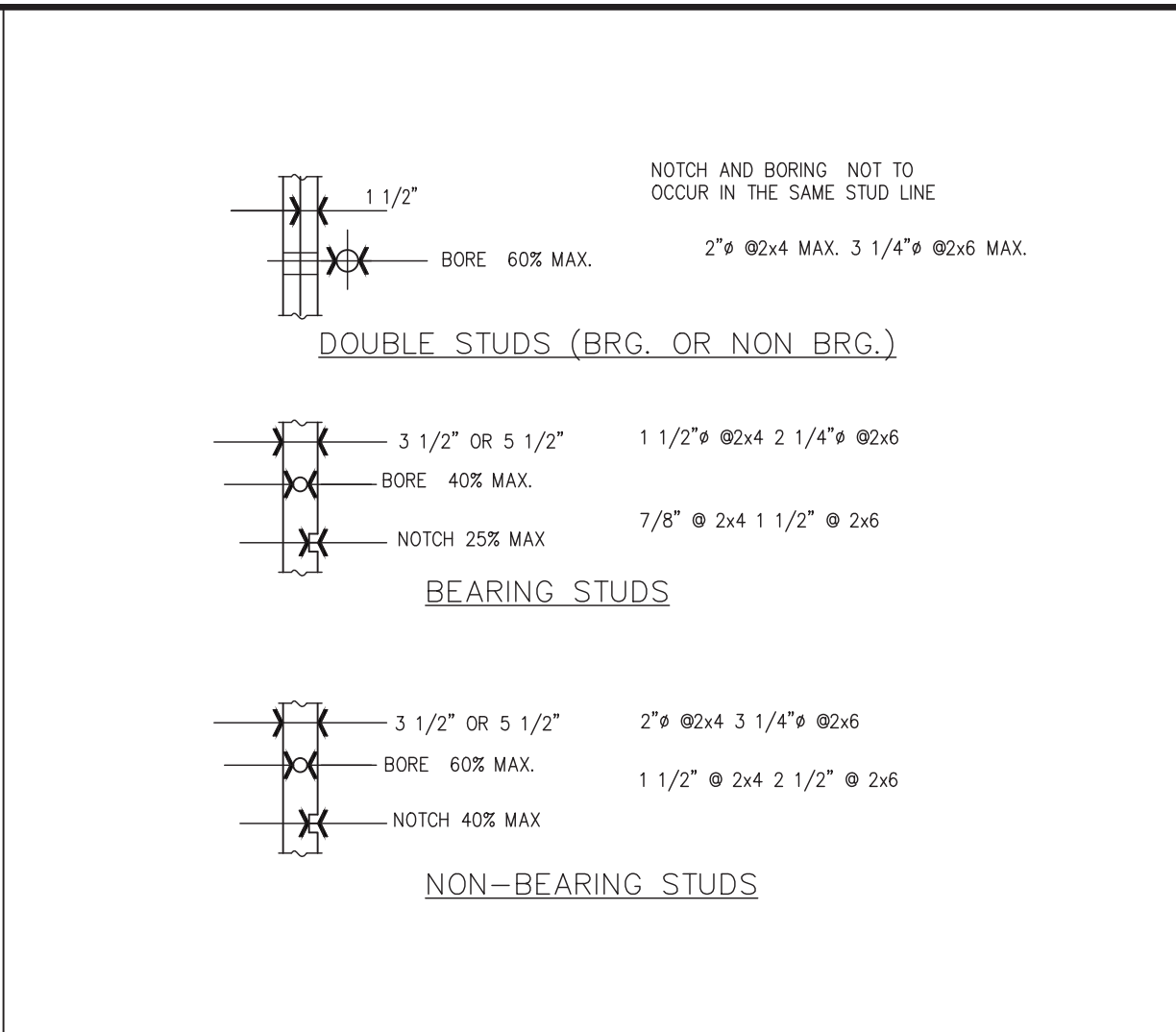
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SILL PLATE TO CONC. FOOTING

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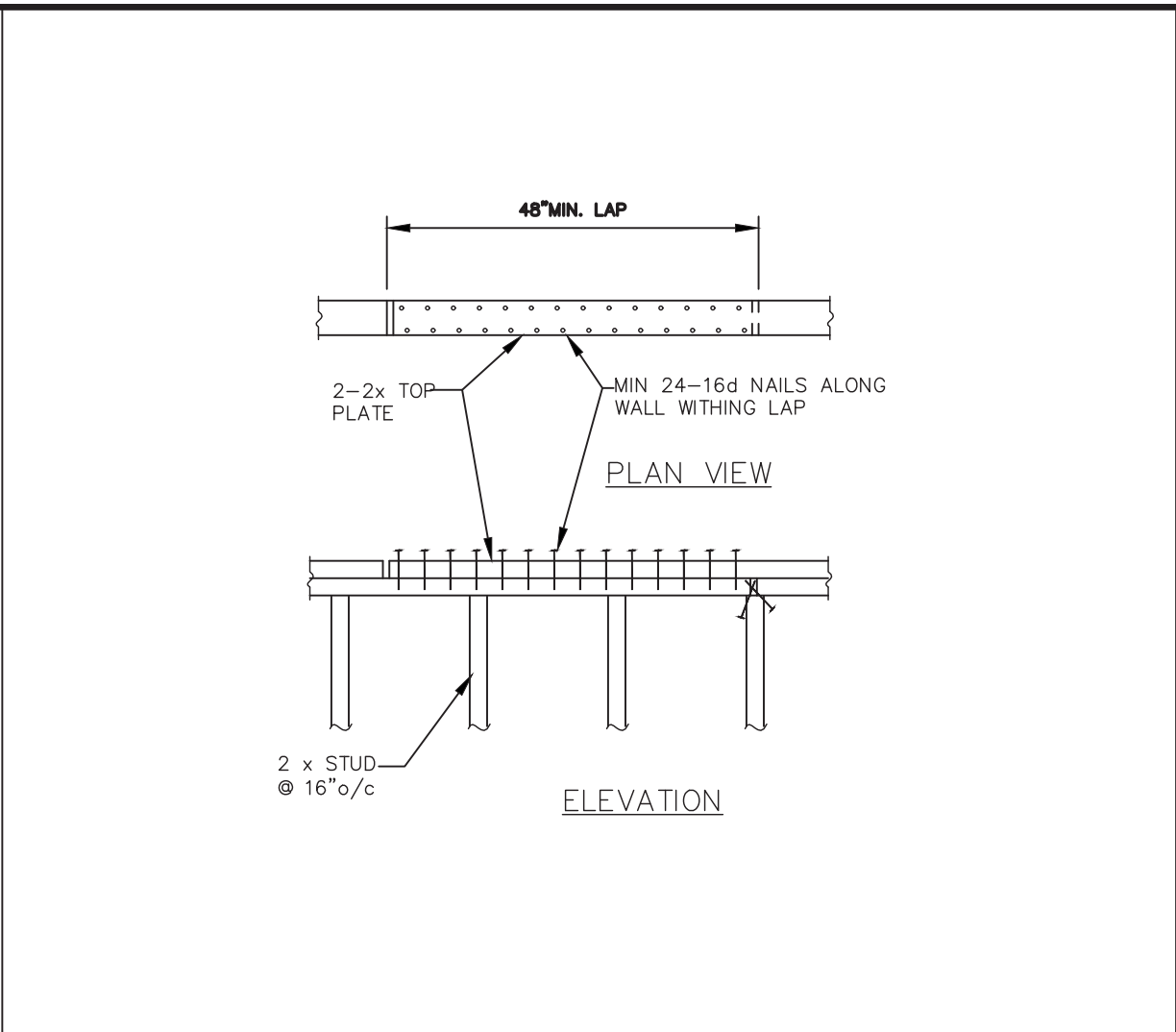
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NON-BEARING STUDS

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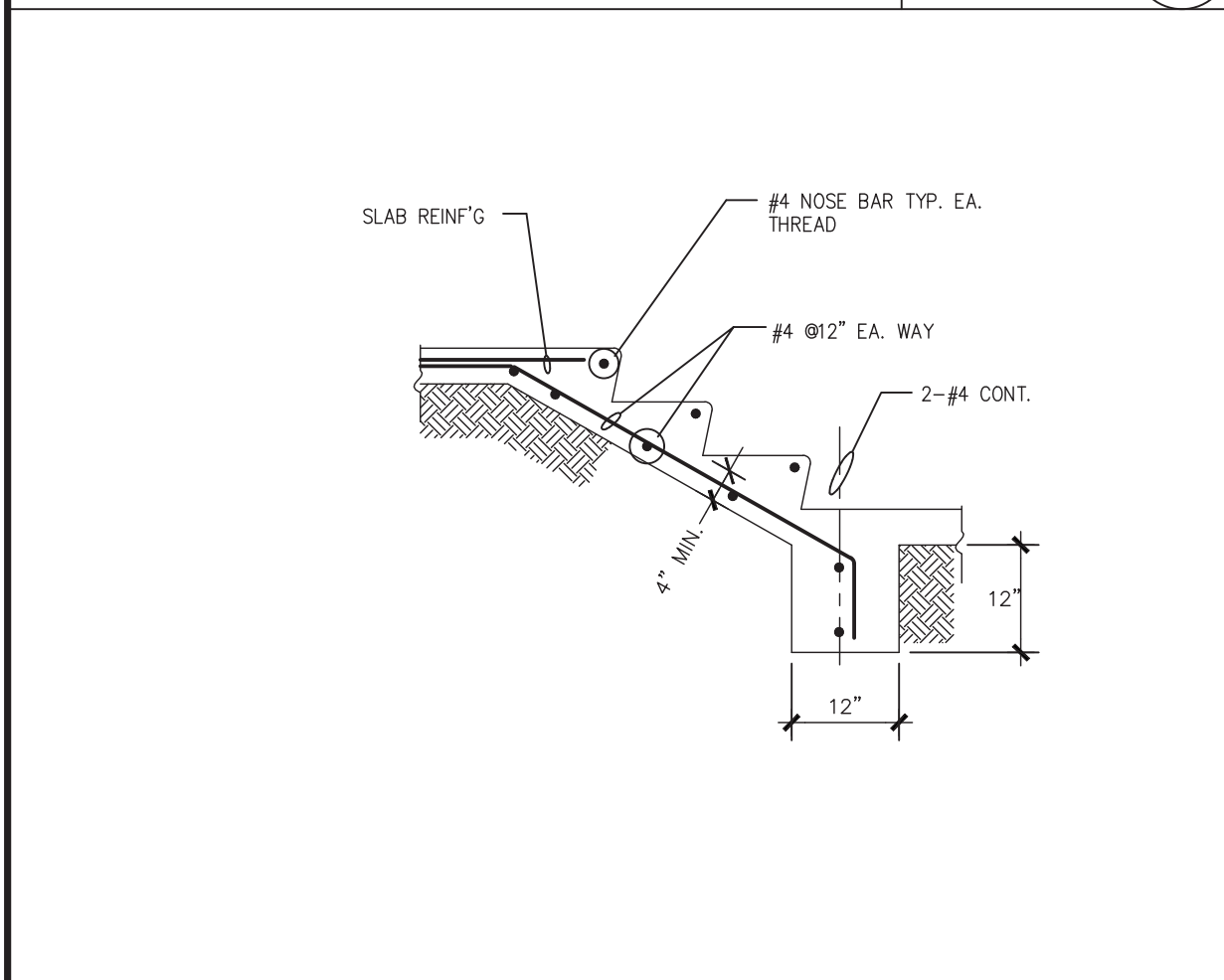
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TOP PLATE SPLICE

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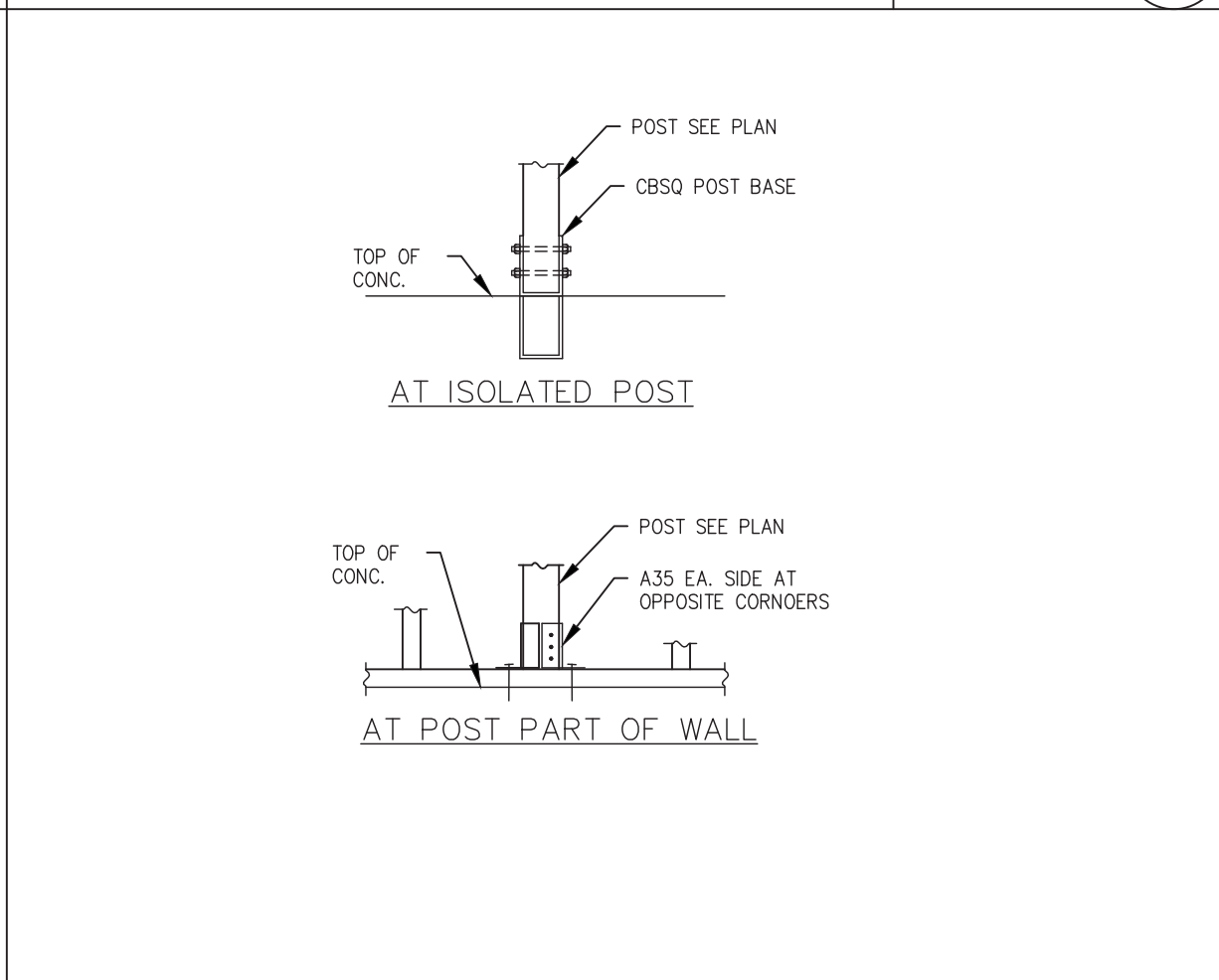
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CONC. STEPS ON GRADE

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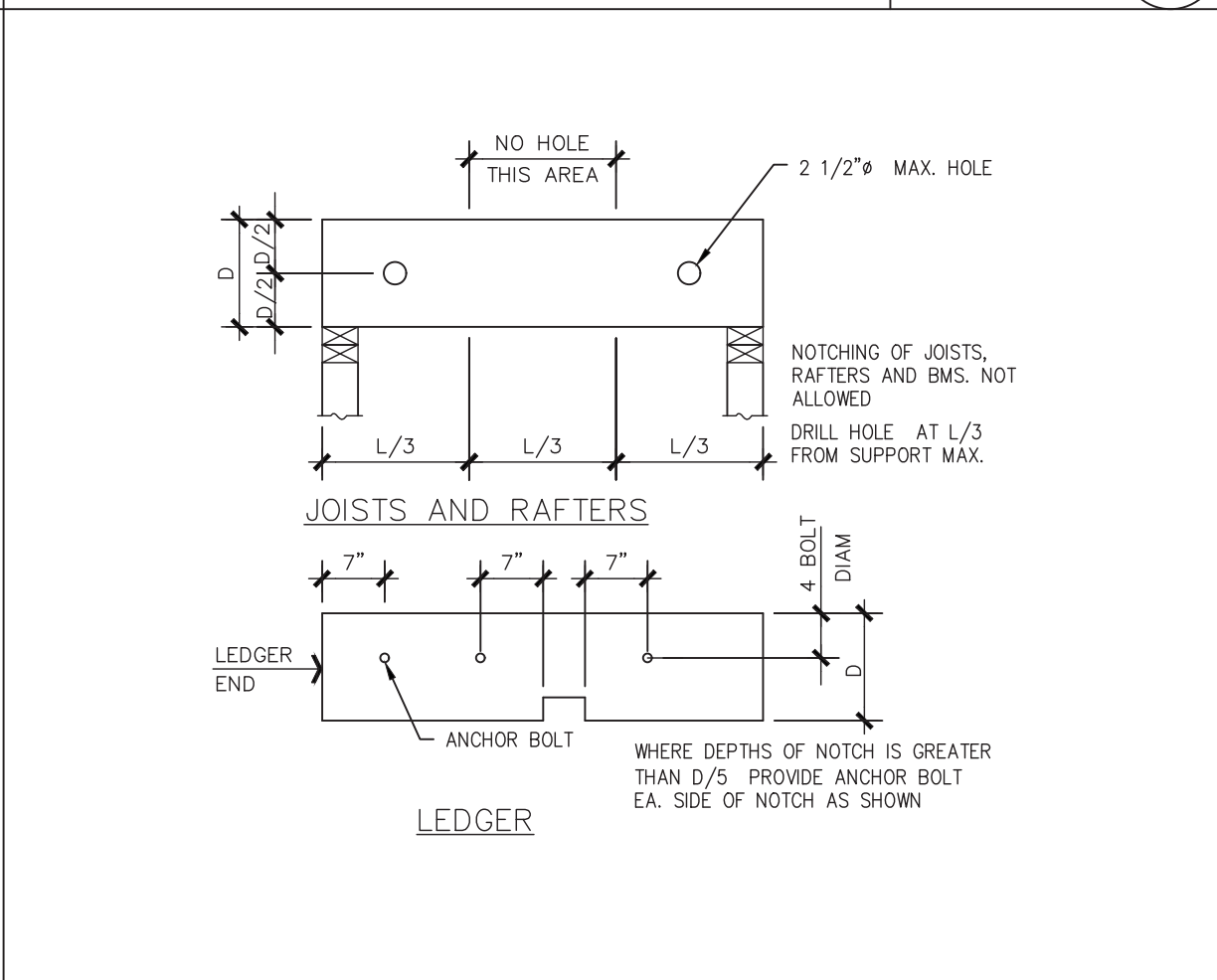
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POST BASE

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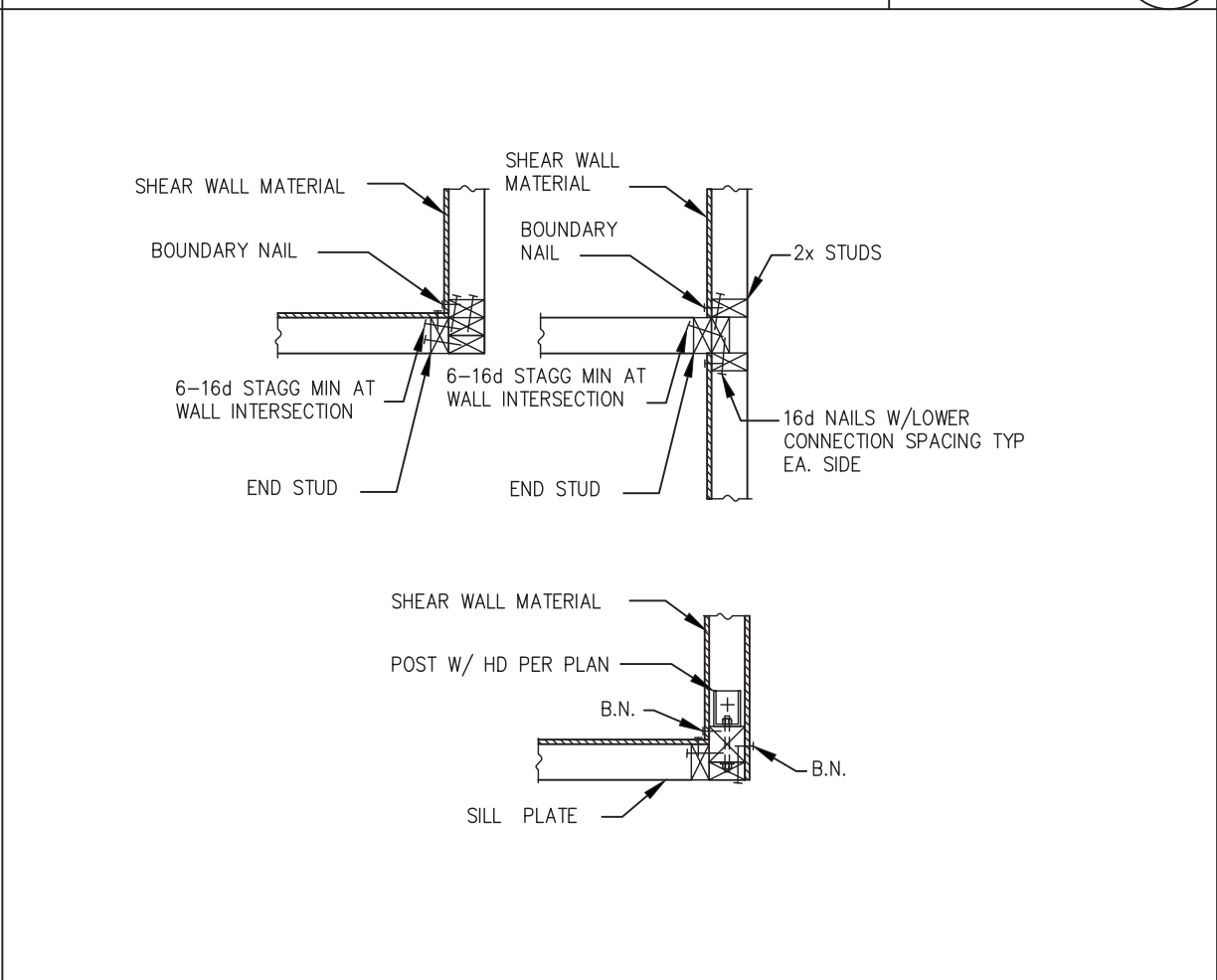
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BEAM NOTCH/HOLE

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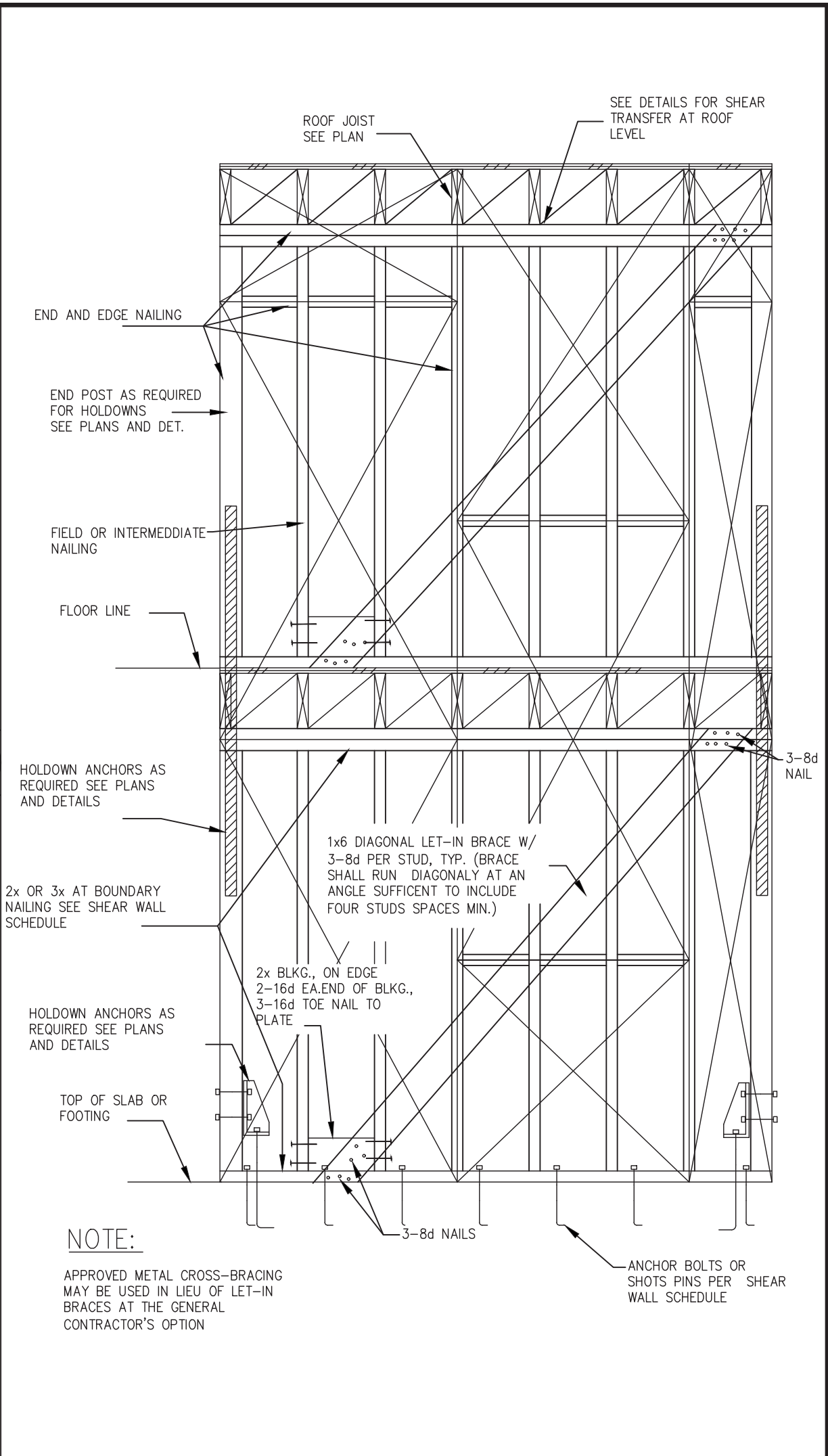
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WALL CORNER/INTERSECTION

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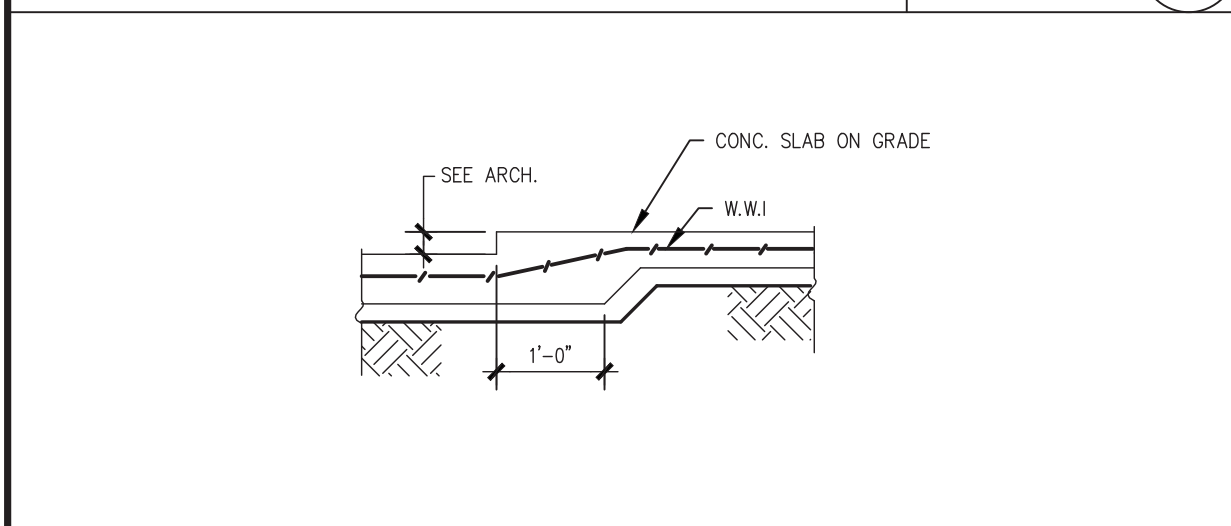
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TYPICAL PLYWOOD SHEARWALL

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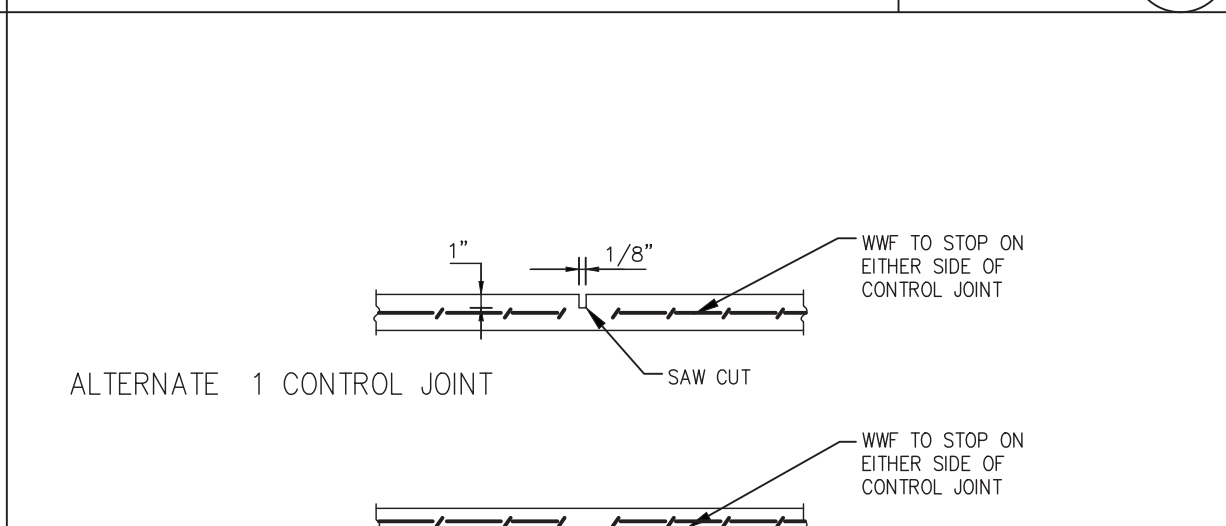
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SLAB DEPRESSION

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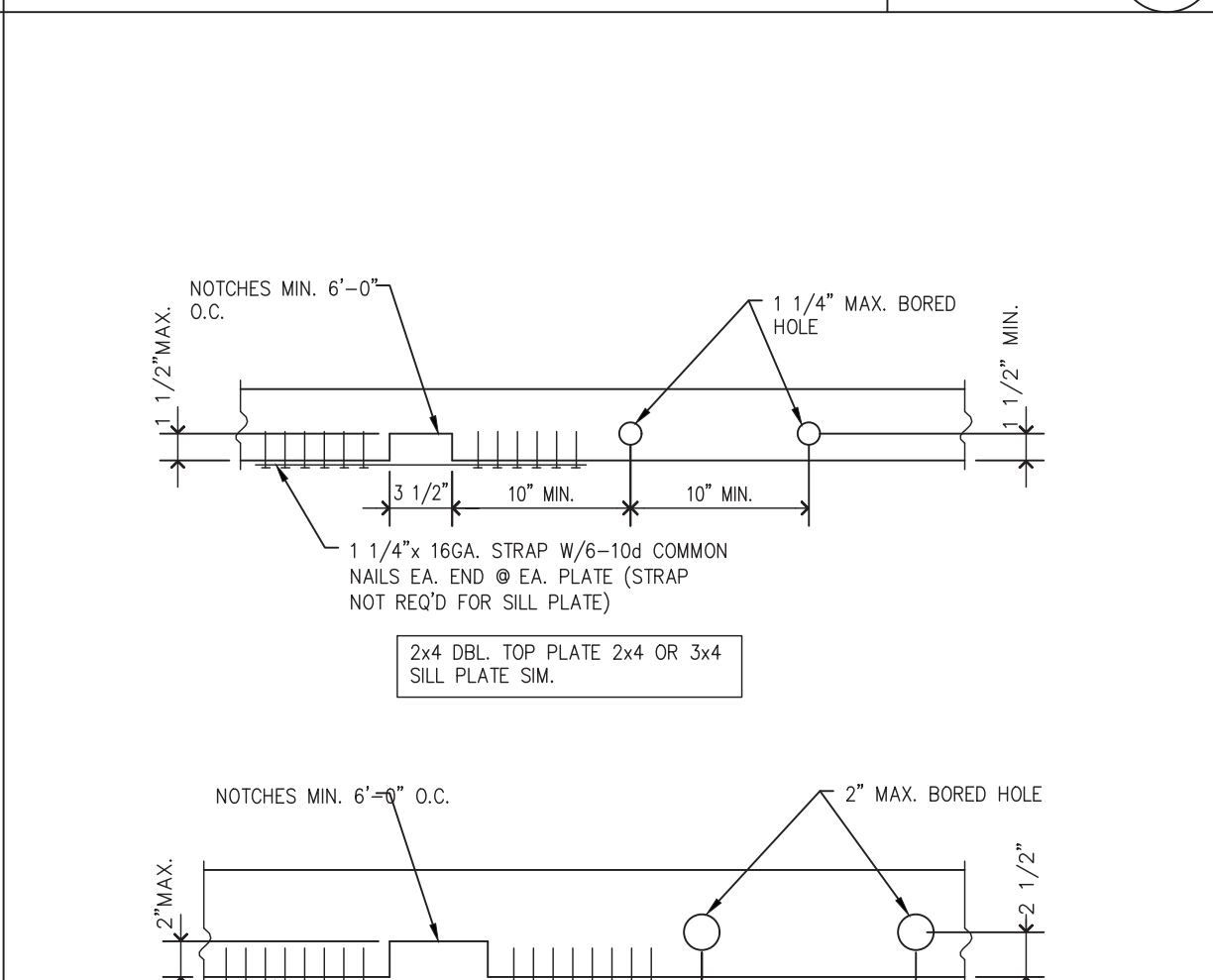
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CONTROL JOINT

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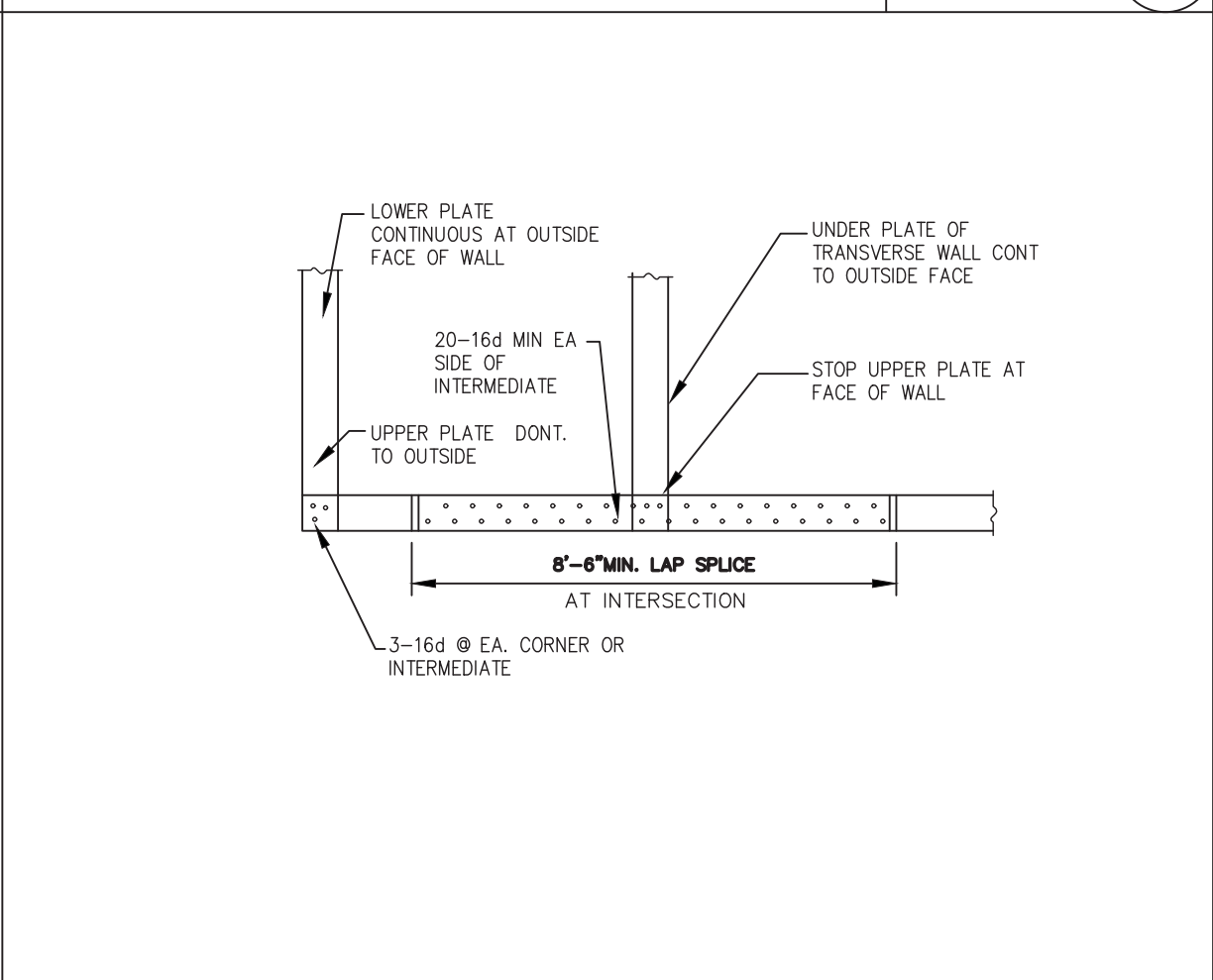
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DOUBLE PLATE NOTCH/HOLE

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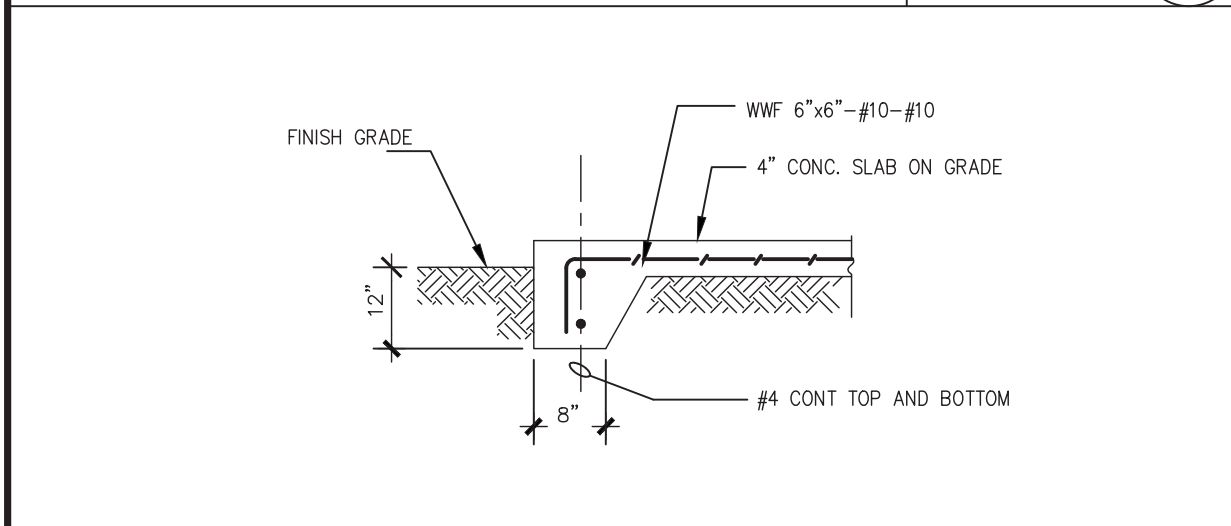
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WALL INTERSECTION

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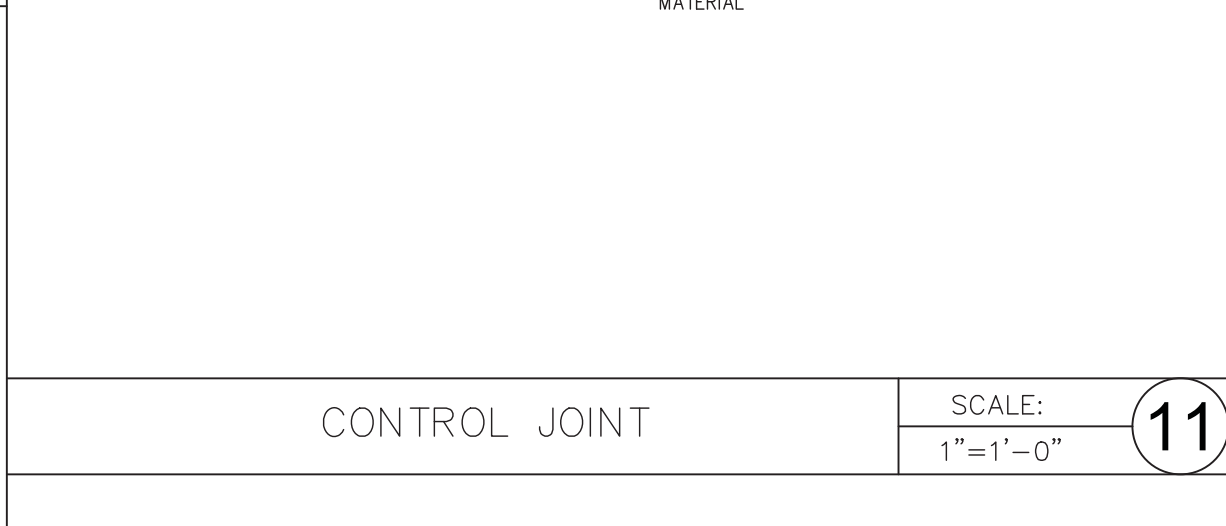
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END OF SLAB ON GRADE

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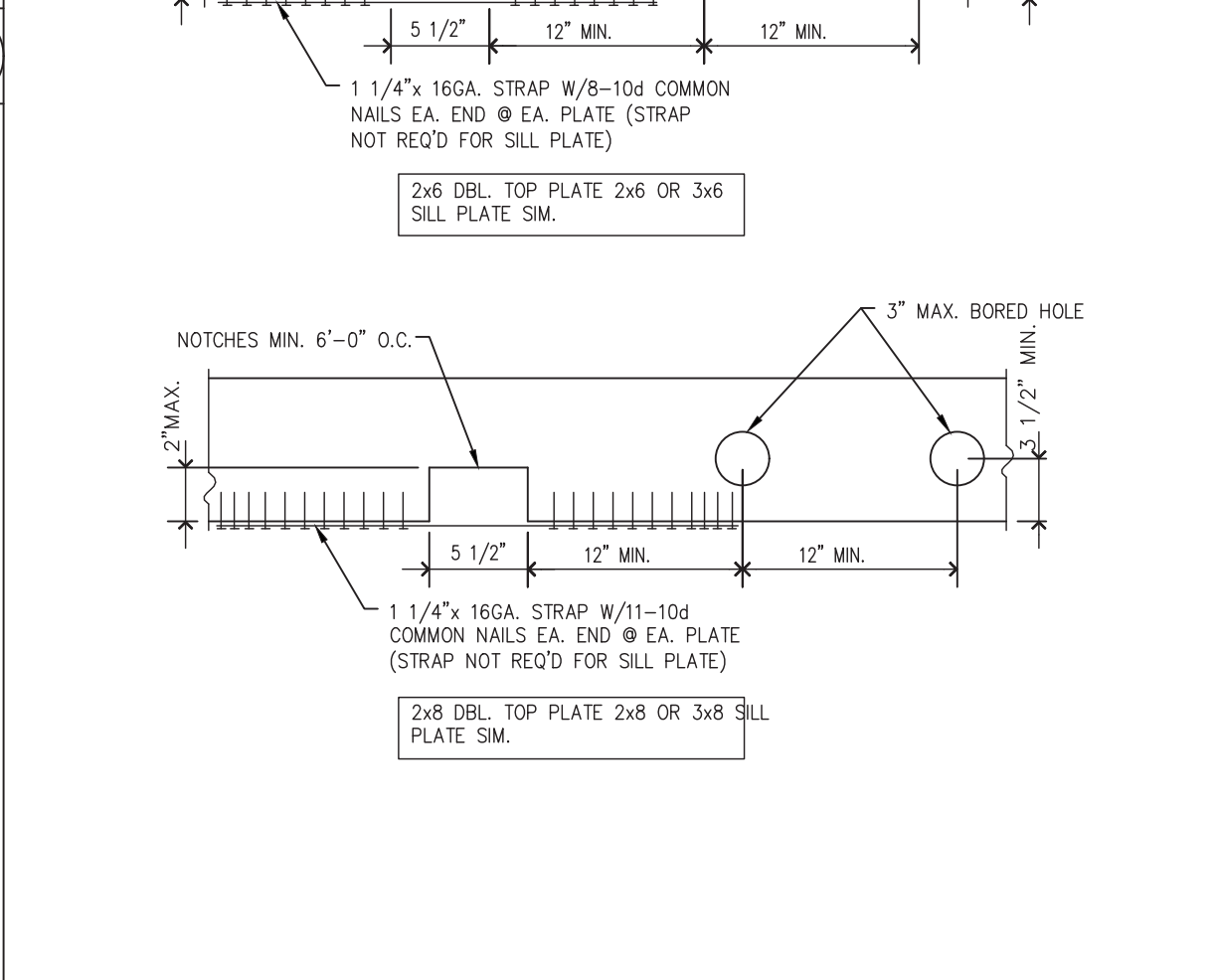
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CONSTRUCTION JOINT

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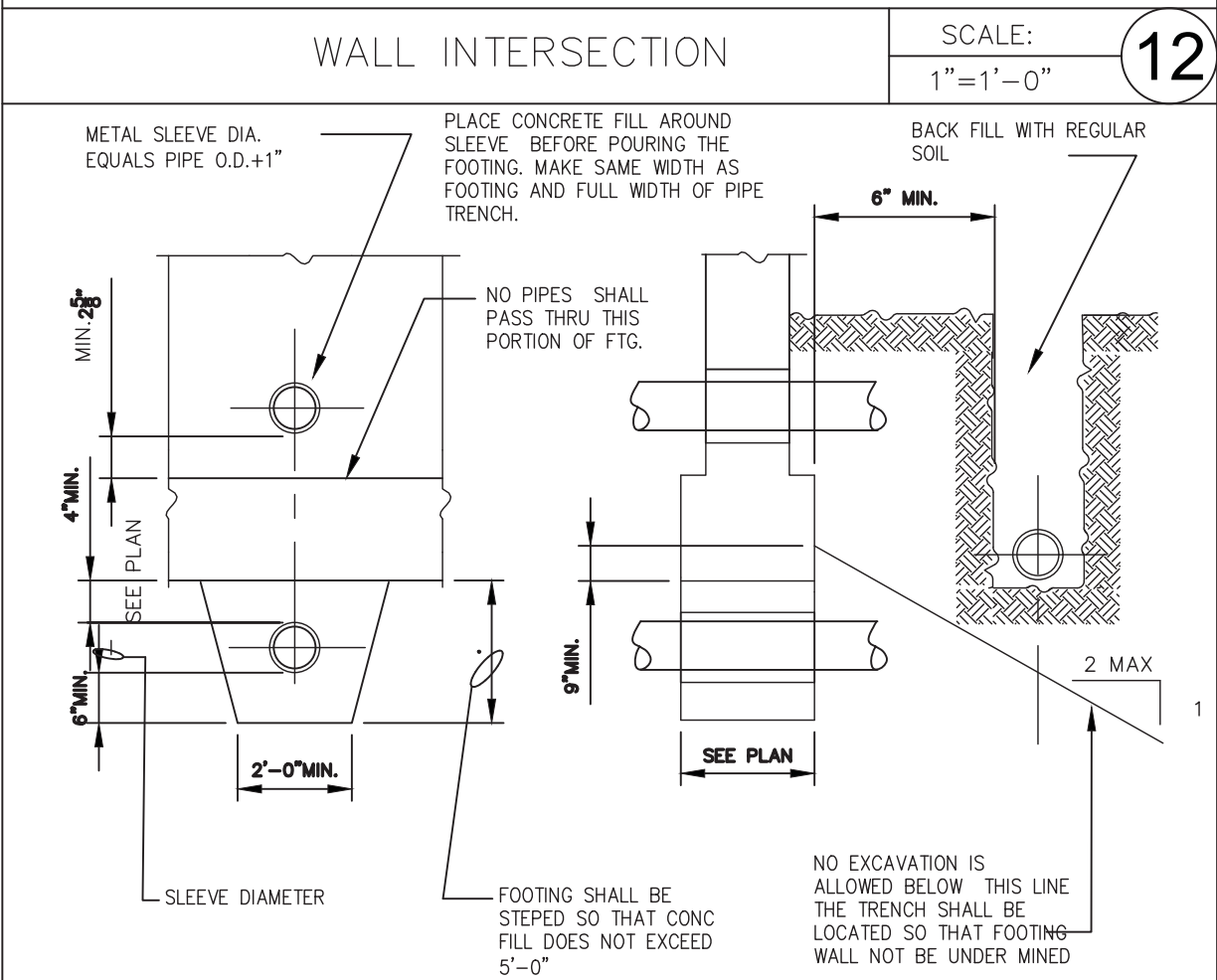
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PIPE THROUGH FOUNDATION

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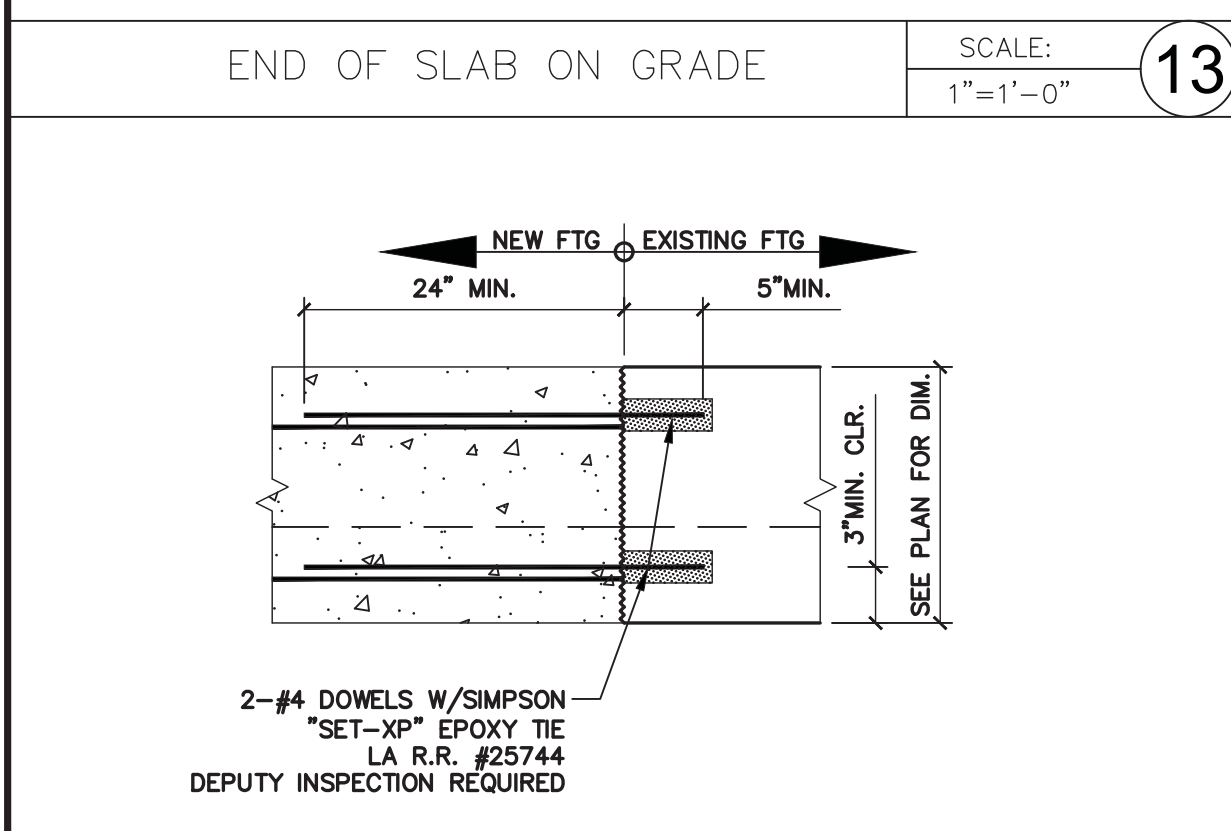
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TYPICAL HORIZ. DIAPHRAGM

SCALE:  
1"=1'-0"

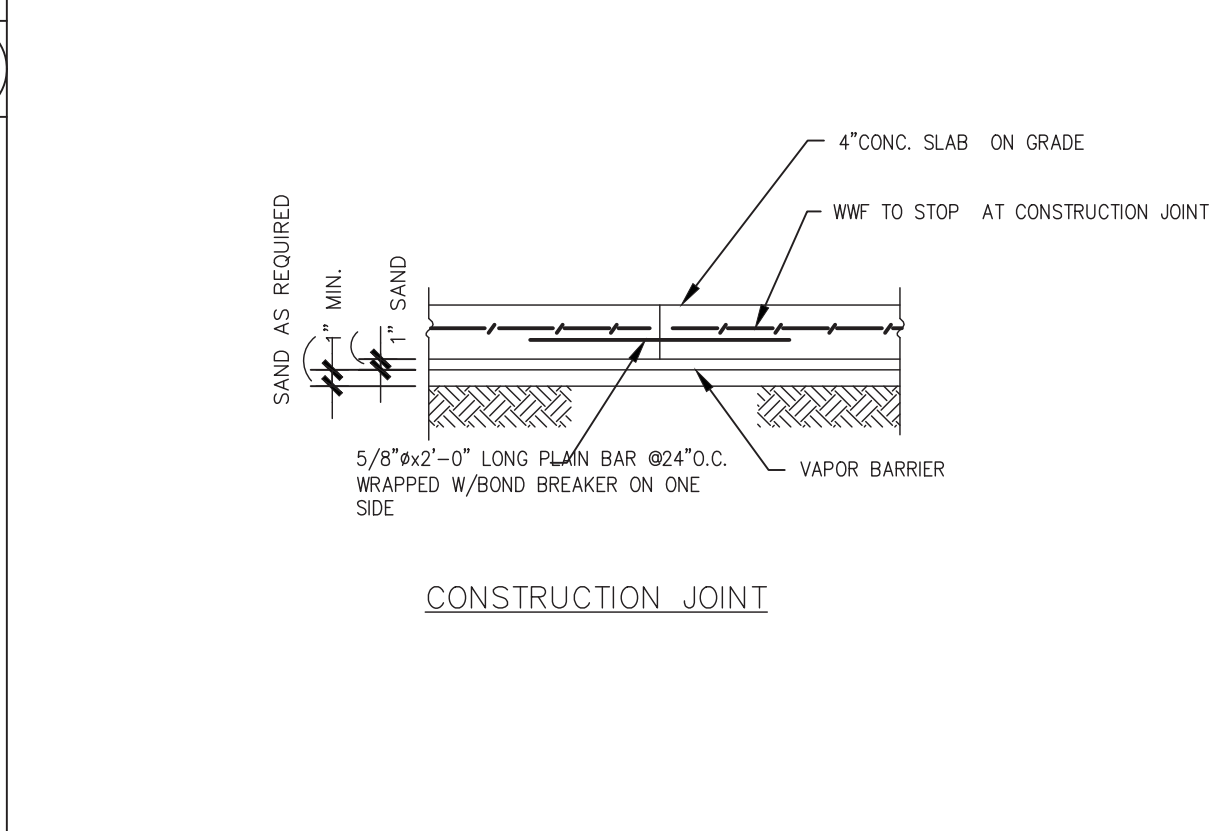
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OLD/NEW CONNECTION

SCALE:  
1"=1'-0"

18



CONSTRUCTION JOINT

SCALE:  
1"=1'-0"

14



DOUBLE PLATE NOTCH/HOLE

SCALE:  
1"=1'-0"

15



PIPE THROUGH FOUNDATION

SCALE:  
1"=1'-0"

16



TYPICAL HORIZ. DIAPHRAGM

SCALE:  
1"=1'-0"

17

WRITTEN DIMENSIONS ON THESE SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY, AND BE RESPONSIBLE FOR, ALL DIMENSIONS AND CONDITIONS OF THE WORK SHOWN ON THESE DRAWINGS. ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS, THE ABOVE DRAWINGS, AND SPECIFICATIONS SHALL BE NOTED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE ENGINEER AND NO PART THEREOF SHALL BE COPIED OR REPRODUCED FOR ANY OTHER WORK DEVELOPED WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS.

REVISIONS BY

DATE: 2, 2020  
SEP: 2, 2020  
DRAWN BY: NZHDE MATEWOSYAN

635 W COLGARD ST. STE 100, GLENDALE CA 91204  
TEL.: 818, 500-0333

**apex** ENGINEERING

DESIGN BY: ANDRANIK PAPAZYAN

JOB NO. A-2075

PROJECT ADDRESS  
12527 W HUSTON ST., VALLEY VILLAGE, CA 91607

SHEET NUMBER  
S-5

PAGE 5 OF 7







		<p>2x6 @16" O.C. STUD WALL SHT'G PER SCHED. P.T. SILL PLATE W/5/8" A. BOLTS PER SCHEDULE B.N. FINISH GRADE 8" MIN. 24" MIN. 4" CONC. SLAB-ON GRADE SAND &amp; VISQUEEN SEE SLAB NOTE ON FOUNDATION PLAN PER PLAN 2 # 4 AT TOP &amp; BOTTOM</p>	<p>2x6 @16" O.C. STUD WALL SHT'G PER SCHED. P.T. SILL PLATE W/5/8" A. BOLTS PER SCHEDULE B.N. FINISH GRADE 8" MIN. 24" MIN. 4" CONC. SLAB-ON GRADE SAND &amp; VISQUEEN SEE SLAB NOTE ON FOUNDATION PLAN PER PLAN 2 # 4 AT TOP &amp; BOTTOM</p>	<p>2x6 @16" O.C. STUD WALL SHT'G PER SCHED. P.T. SILL PLATE W/5/8" A. BOLTS PER SCHEDULE B.N. FINISH GRADE 8" MIN. 24" MIN. 4" CONC. SLAB-ON GRADE SAND &amp; VISQUEEN SEE SLAB NOTE ON FOUNDATION PLAN PER PLAN 2 # 4 AT TOP &amp; BOTTOM</p>	SCALE: 1"=1'-0" 27	SCALE: 1"=1'-0" 23	SCALE: 1"=1'-0" 19
		<p>2x6 @16" O.C. STUD WALL SHT'G PER SCHED. P.T. SILL PLATE W/5/8" A. BOLTS PER SCHEDULE B.N. FINISH GRADE 8" MIN. 24" MIN. 4" CONC. SLAB-ON GRADE SAND &amp; VISQUEEN SEE SLAB NOTE ON FOUNDATION PLAN PER PLAN 2 # 4 AT TOP &amp; BOTTOM</p>	<p>2x6 @16" O.C. STUD WALL SHT'G PER SCHED. P.T. SILL PLATE W/5/8" A. BOLTS PER SCHEDULE B.N. FINISH GRADE 8" MIN. 24" MIN. 4" CONC. SLAB-ON GRADE SAND &amp; VISQUEEN SEE SLAB NOTE ON FOUNDATION PLAN PER PLAN 2 # 4 AT TOP &amp; BOTTOM</p>	<p>2x6 @16" O.C. STUD WALL SHT'G PER SCHED. P.T. SILL PLATE W/5/8" A. BOLTS PER SCHEDULE B.N. FINISH GRADE 8" MIN. 24" MIN. 4" CONC. SLAB-ON GRADE SAND &amp; VISQUEEN SEE SLAB NOTE ON FOUNDATION PLAN PER PLAN 2 # 4 AT TOP &amp; BOTTOM</p>	SCALE: 1"=1'-0" 28	SCALE: 1"=1'-0" 24	SCALE: 1"=1'-0" 20
		<p>2x6 @16" O.C. STUD WALL SHT'G PER SCHED. P.T. SILL PLATE W/5/8" A. BOLTS PER SCHEDULE B.N. FINISH GRADE 8" MIN. 24" MIN. 4" CONC. SLAB-ON GRADE SAND &amp; VISQUEEN SEE SLAB NOTE ON FOUNDATION PLAN PER PLAN 2 # 4 AT TOP &amp; BOTTOM</p>	<p>2x6 @16" O.C. STUD WALL SHT'G PER SCHED. P.T. SILL PLATE W/5/8" A. BOLTS PER SCHEDULE B.N. FINISH GRADE 8" MIN. 24" MIN. 4" CONC. SLAB-ON GRADE SAND &amp; VISQUEEN SEE SLAB NOTE ON FOUNDATION PLAN PER PLAN 2 # 4 AT TOP &amp; BOTTOM</p>	<p>2x6 @16" O.C. STUD WALL SHT'G PER SCHED. P.T. SILL PLATE W/5/8" A. BOLTS PER SCHEDULE B.N. FINISH GRADE 8" MIN. 24" MIN. 4" CONC. SLAB-ON GRADE SAND &amp; VISQUEEN SEE SLAB NOTE ON FOUNDATION PLAN PER PLAN 2 # 4 AT TOP &amp; BOTTOM</p>	SCALE: 1"=1'-0" 25	SCALE: 1"=1'-0" 21	
		<p>2x6 @16" O.C. STUD WALL SHT'G PER SCHED. P.T. SILL PLATE W/5/8" A. BOLTS PER SCHEDULE B.N. FINISH GRADE 8" MIN. 24" MIN. 4" CONC. SLAB-ON GRADE SAND &amp; VISQUEEN SEE SLAB NOTE ON FOUNDATION PLAN PER PLAN 2 # 4 AT TOP &amp; BOTTOM</p>	<p>2x6 @16" O.C. STUD WALL SHT'G PER SCHED. P.T. SILL PLATE W/5/8" A. BOLTS PER SCHEDULE B.N. FINISH GRADE 8" MIN. 24" MIN. 4" CONC. SLAB-ON GRADE SAND &amp; VISQUEEN SEE SLAB NOTE ON FOUNDATION PLAN PER PLAN 2 # 4 AT TOP &amp; BOTTOM</p>	<p>2x6 @16" O.C. STUD WALL SHT'G PER SCHED. P.T. SILL PLATE W/5/8" A. BOLTS PER SCHEDULE B.N. FINISH GRADE 8" MIN. 24" MIN. 4" CONC. SLAB-ON GRADE SAND &amp; VISQUEEN SEE SLAB NOTE ON FOUNDATION PLAN PER PLAN 2 # 4 AT TOP &amp; BOTTOM</p>	SCALE: 1"=1'-0" 26	SCALE: 1"=1'-0" 22	

WRITTEN DIMENSIONS ON THESE SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY, AND BE RESPONSIBLE FOR, THE ACCURACY OF ALL DIMENSIONS. ANY DISCREPANCIES SHALL BE NOTED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. THE ABOVE DRAWINGS, SPECIFICATIONS AND CONDITIONS SHALL BE THE SOLE RESPONSIBILITY OF THE ENGINEER AND NO PART THEREOF SHALL BE COPIED, REPRODUCED, OR USED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. THE ENGINEER'S DRAWINGS OR SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS.

REVISIONS	BY

DATE: SEP. 2, 2020  
DRAWN BY: NZHIDE MATEVOSYAN

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TEL.: 818. 500-0333

apex

ENGINEERING

DESIGN BY: ANDRANIK PAPAZYAN

JOB NO. A-2075

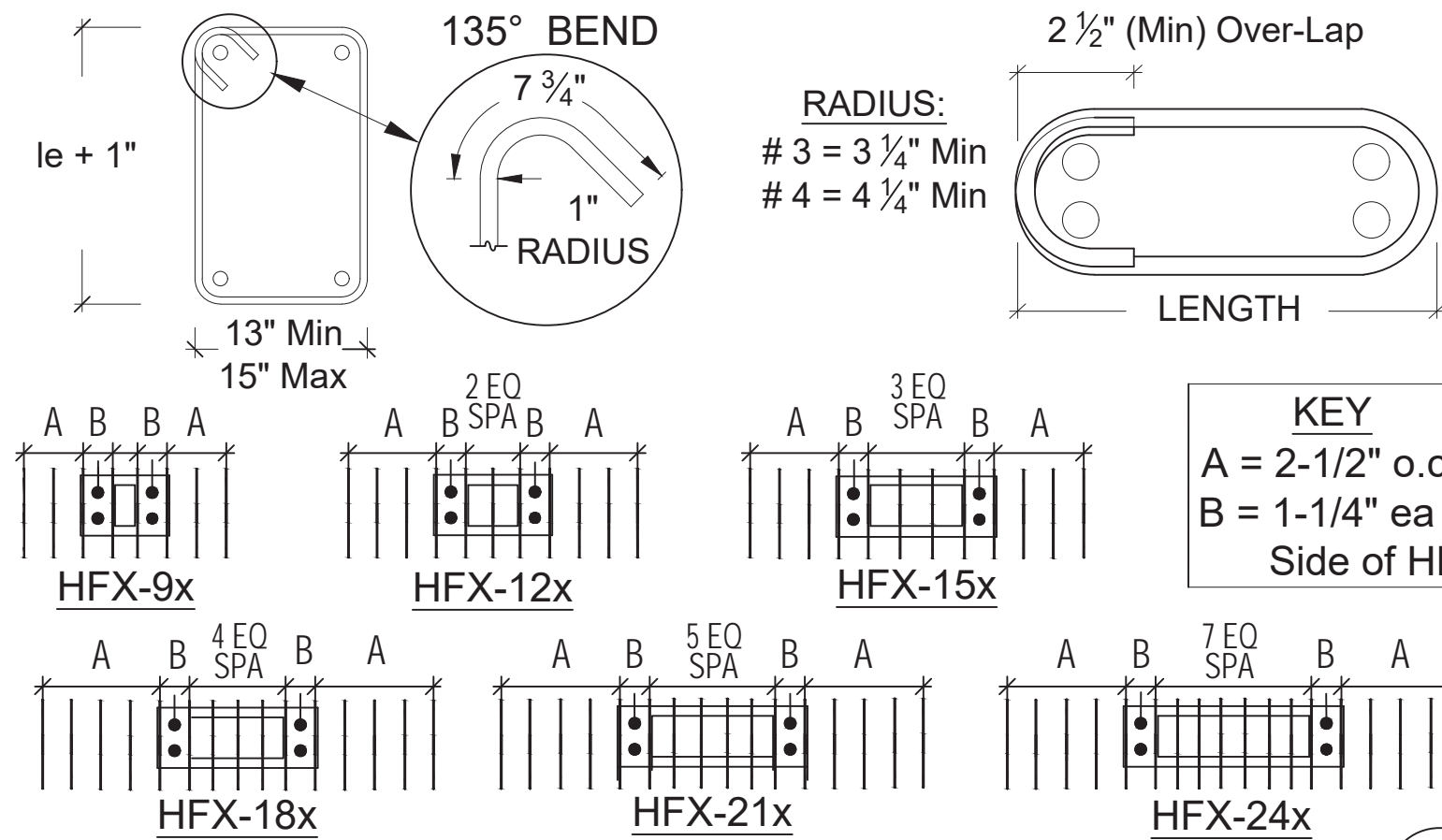
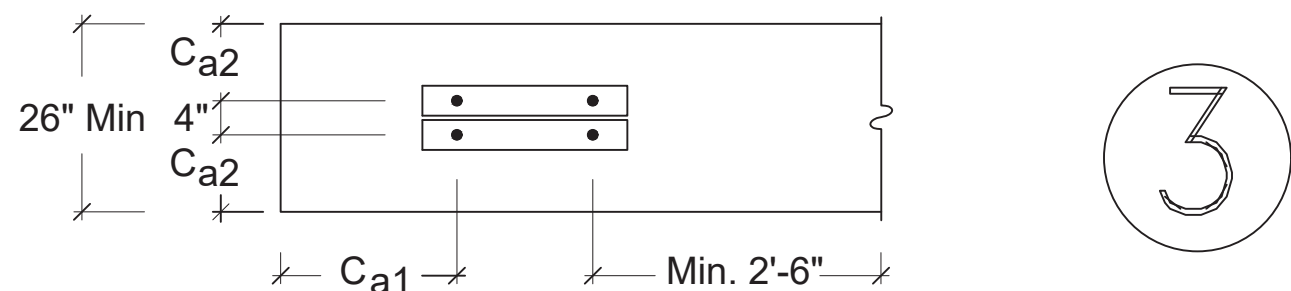
PROJECT ADDRESS  
12527 W HUSTON ST., VALLEY VILLAGE, CA 91607



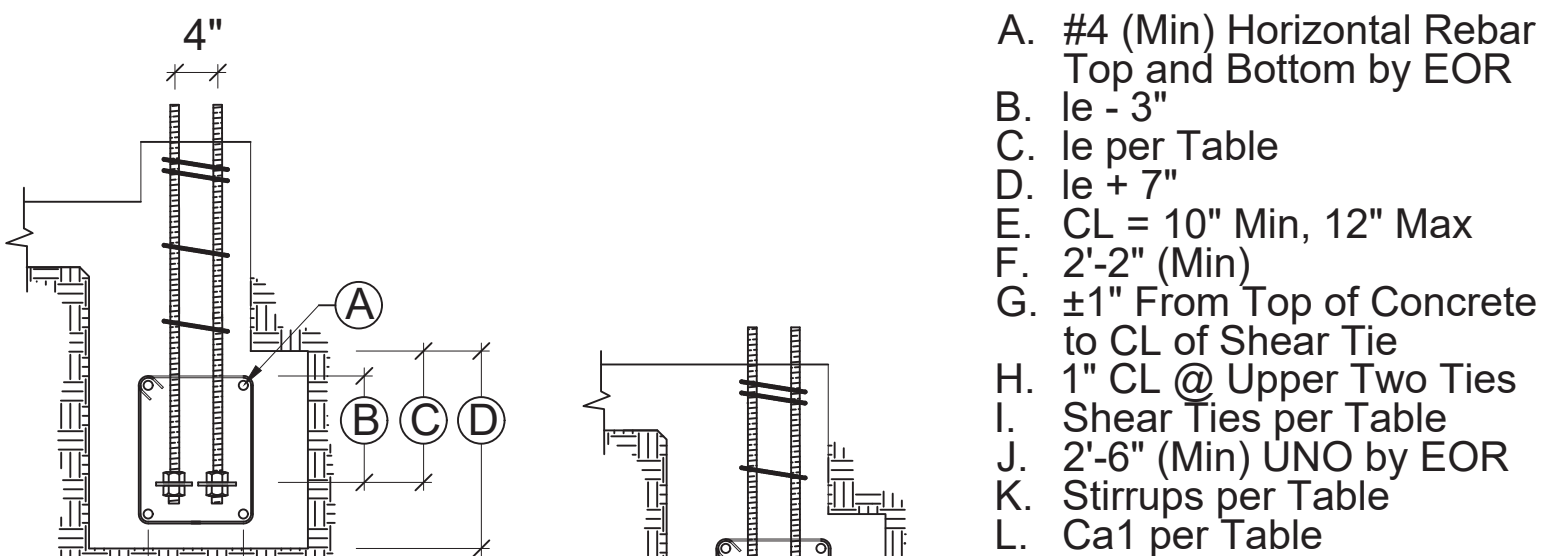
BACK TO BACK REINFORCED ANCHORAGE (BB-RA)

Model	Panel Width (in)	Anchorage <sup>1</sup>	Rod Dia (in)	Rod 2,3 Grade	BB-RA <sup>5</sup>			Stirrups <sup>9</sup> (in)	Shear <sup>7</sup> Ties
					le <sup>4</sup> (in)	Ca <sub>1</sub> <sup>5</sup> (in)	Ca <sub>2</sub> <sup>6</sup> (in)		
HFX-9x	9	1-1/8-STD-BB-RA	1-1/8	STD	13	19-3/4	11	8 - # 4	# 3 (min) @ 3-3/4" OC
HFX-12x	12	1-1/8-STD-BB-RA		STD	18			11 - # 4	# 3 (min) @ 4" OC
		1-1/8-HS-BB-RA		HS					
HFX-15x	15	1-1/8-STD-BB-RA		STD	20	12 - # 4		# 4 (min) @ 4" OC	
		1-1/8-HS-BB-RA		HS					
HFX-18x	18	1-1/8-STD-BB-RA		STD	23	15 - # 4			
		1-1/8-HS-BB-RA		HS					
HFX-21x	21	1-1/8-STD-BB-RA		STD	20-5/8	16 - # 4			
		1-1/8-HS-BB-RA	HS						
HFX-24x	24	1-1/8-STD-BB-RA	STD	26	18 - # 4				
		1-1/8-HS-BB-RA	HS						

BACK TO BACK REINFORCED ANCHORAGE NOMENCLATURE  
1-1/8 - STD - BB - RA  
REINFORCED ANCHORAGE  
"BACK TO BACK" INSTALLATION  
ROD GRADE  
ROD DIAMETER



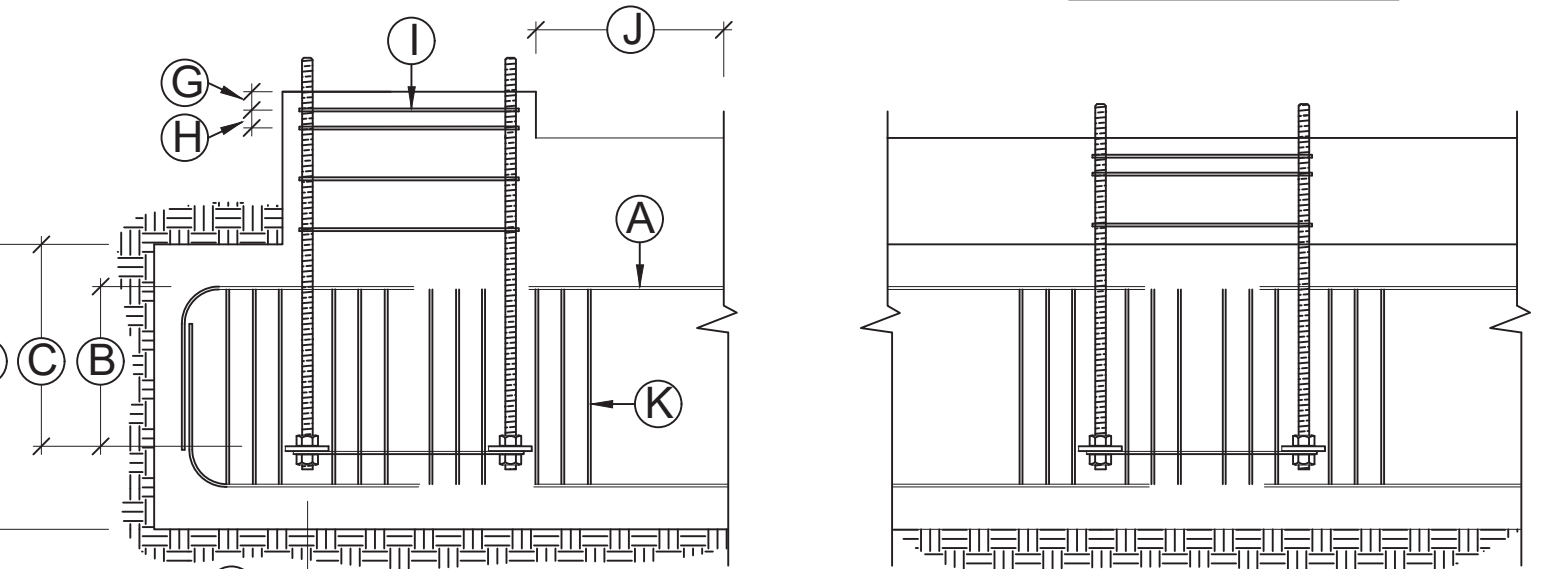
BB-RA SHEAR TIES & STIRRUPS



CURB (12" MIN) WIDTH

EXTERIOR SLAB

INTERIOR SLAB



CURB @ OUTSIDE CORNER

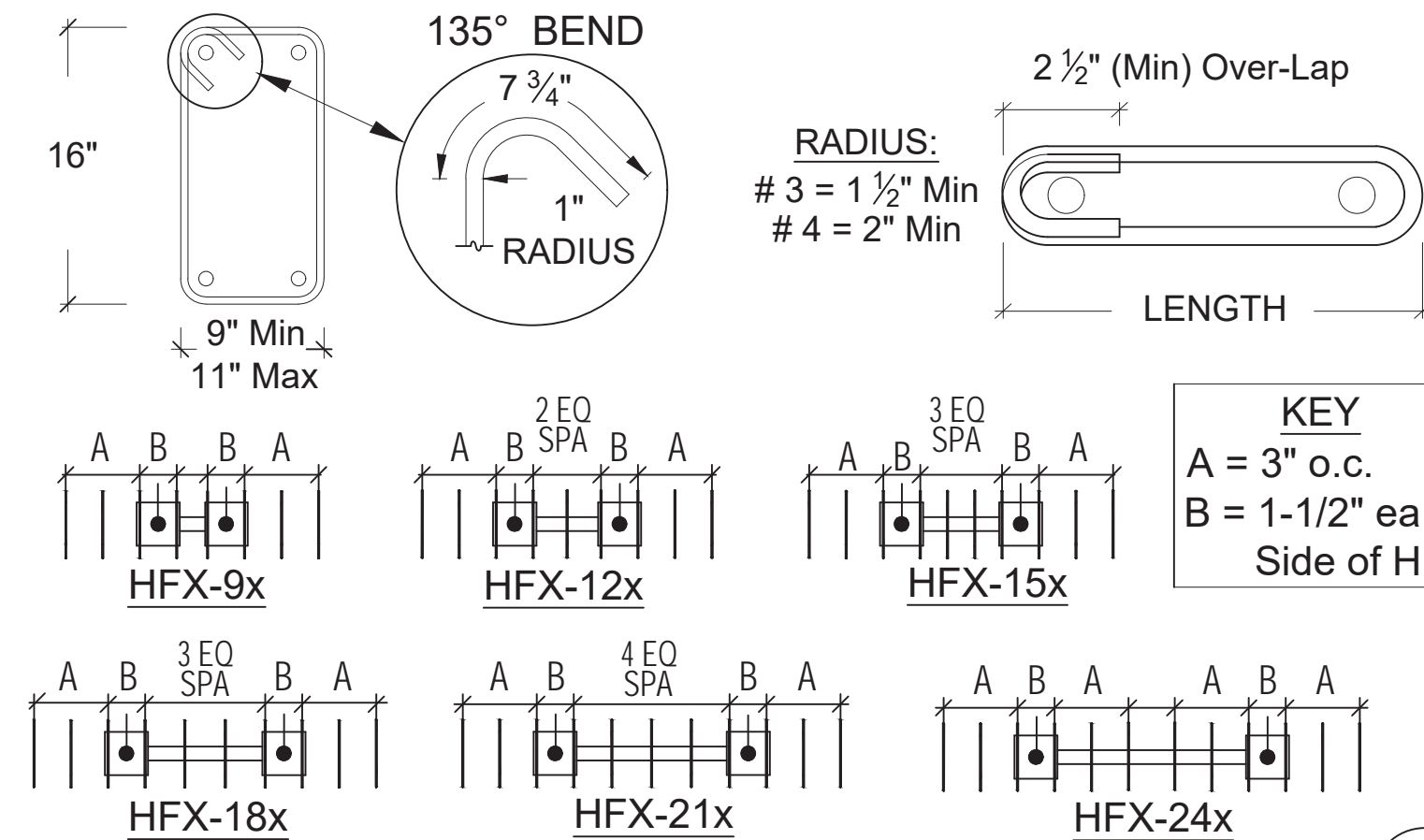
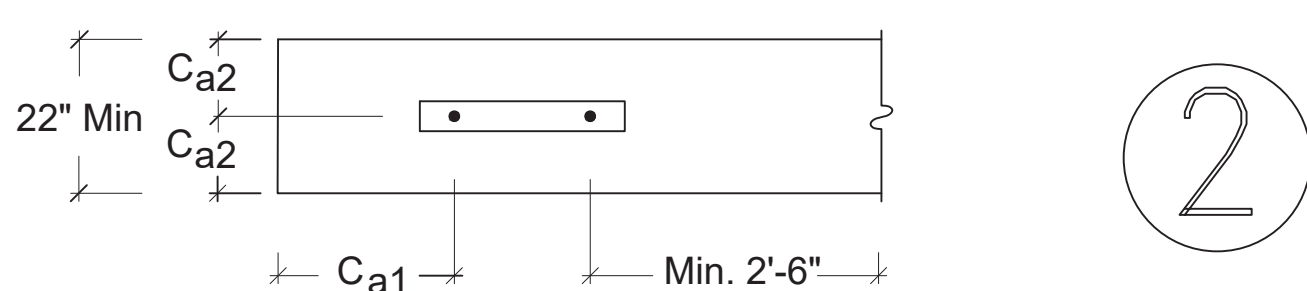
CONTINUOUS FOOTING

BB-RA SECTIONS & ELEVATIONS

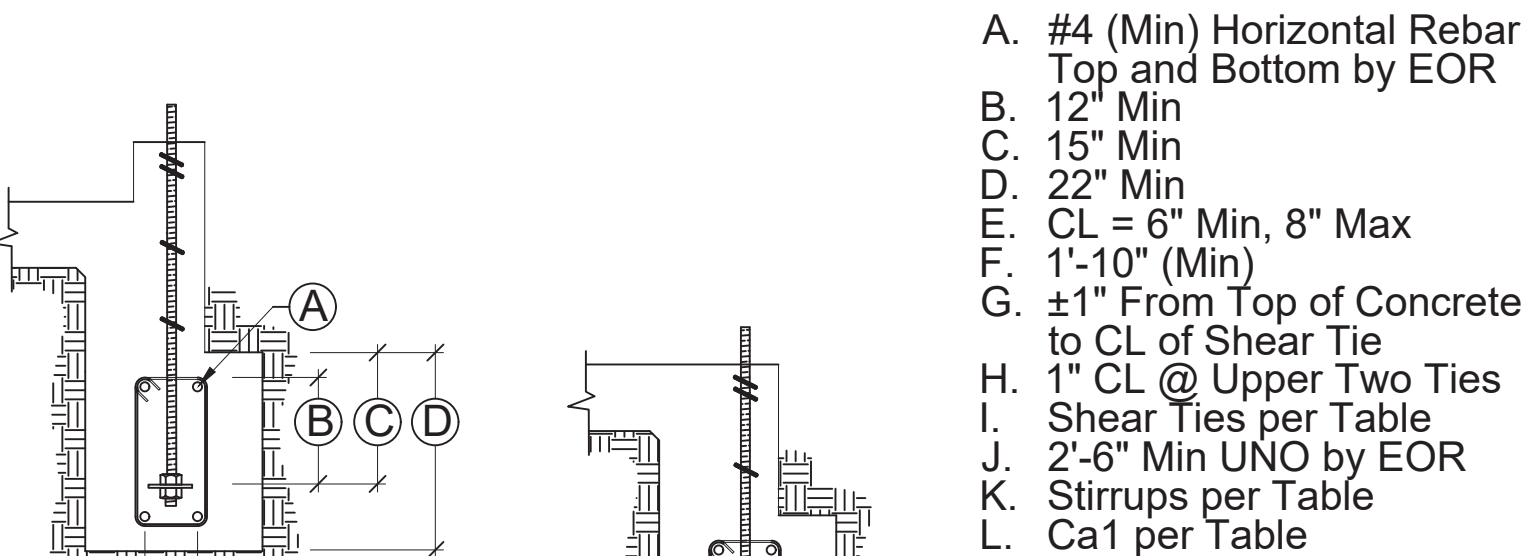
REINFORCED ANCHORAGE (RA)

Model	Panel Width (in)	Anchorage <sup>1</sup>	Rod Dia (in)	Rod <sup>2,3</sup> Grade	RA		Stirrups <sup>9</sup> (in)	Shear <sup>7</sup> Ties
					le <sup>4</sup> (in)	Ca <sub>1</sub> <sup>5</sup> (in)		
HFX-9x	9	1-1/8-STD-RA	1-1/8	STD	19-3/4	11	8 - # 4	# 3 (min) @ 3-3/4" OC
HFX-12x	12	1-1/8-STD-RA 1-1/8-HS-RA		STD HS			9 - # 4	# 3 (min) @ 4" OC
HFX-15x	15	1-1/8-STD-RA 1-1/8-HS-RA		STD HS	20-5/8		10 - # 4	
HFX-18x	18	1-1/8-STD-RA 1-1/8-HS-RA		STD HS			11 - # 4	# 4 (min) @ 4" OC
HFX-21x	21	1-1/8-STD-RA 1-1/8-HS-RA		STD HS				
HFX-24x	24	1-1/8-STD-RA 1-1/8-HS-RA		STD HS				

REINFORCED ANCHORAGE NOMENCLATURE  
1-1/8 - STD - RA  
REINFORCED ANCHORAGE  
ROD GRADE  
ROD DIAMETER



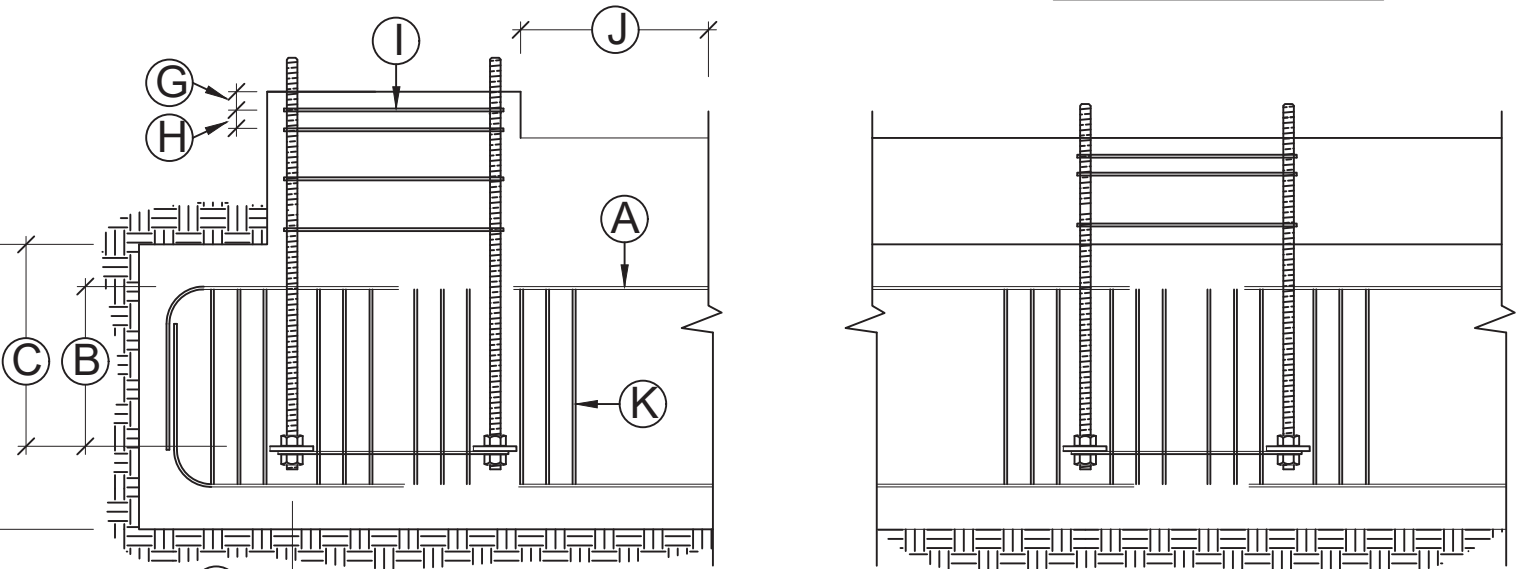
RA SHEAR TIES & STIRRUPS



CURB (6" MIN) WIDTH

EXTERIOR SLAB

INTERIOR SLAB



CURB @ OUTSIDE CORNER

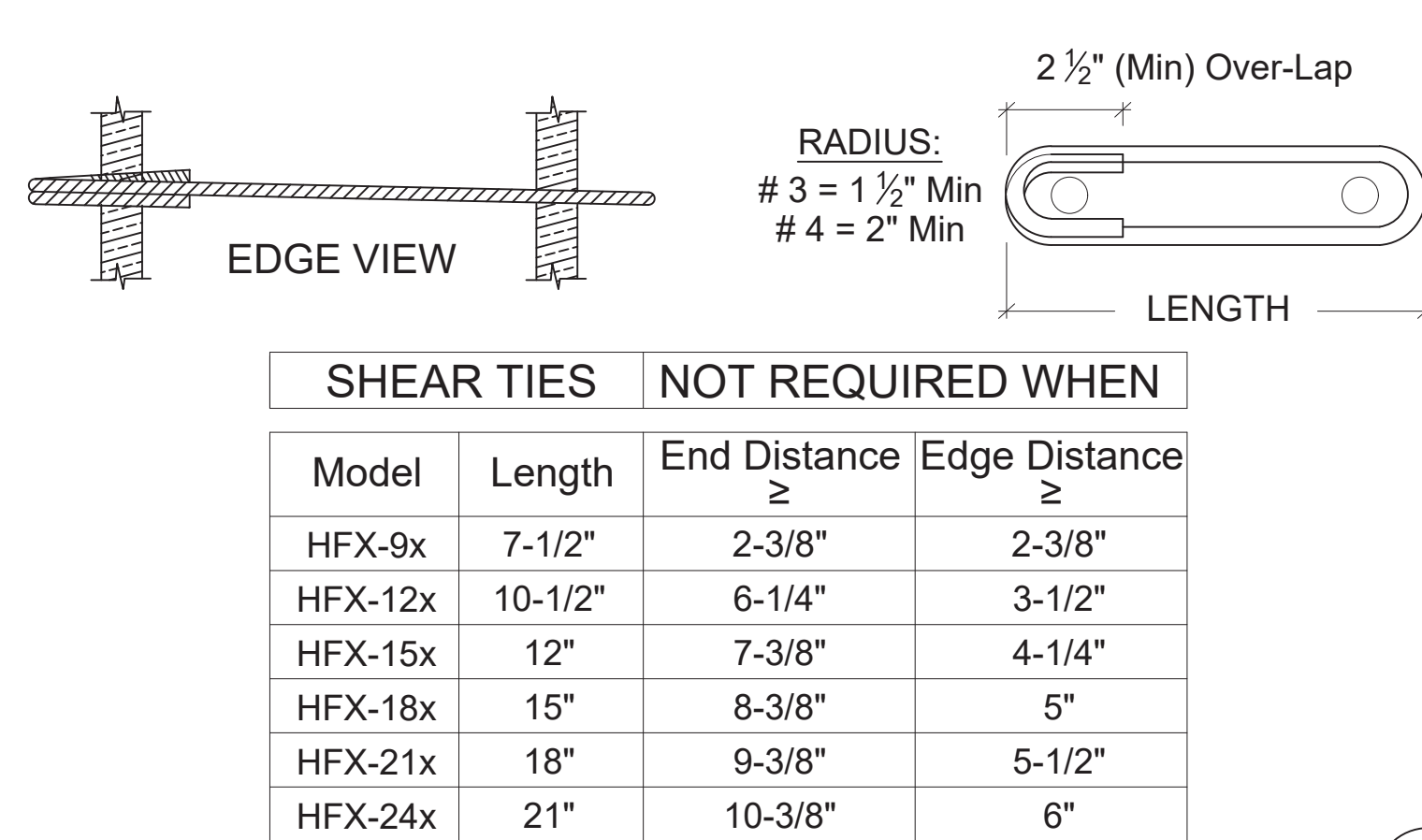
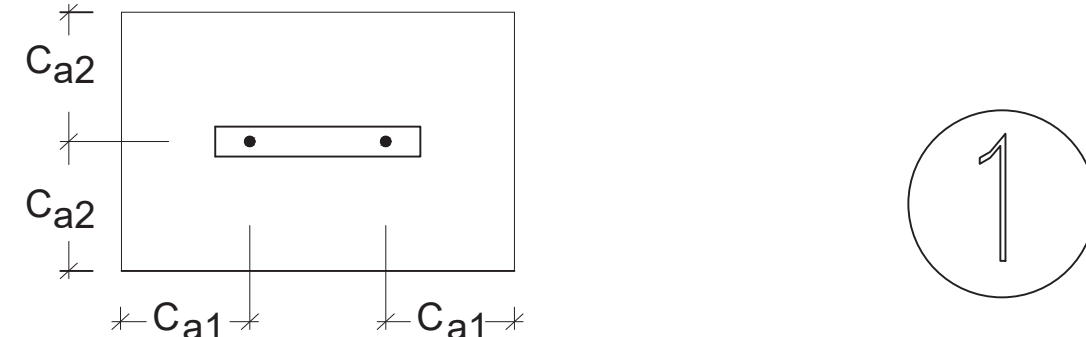
CONTINUOUS FOOTING

RA SECTIONS & ELEVATIONS

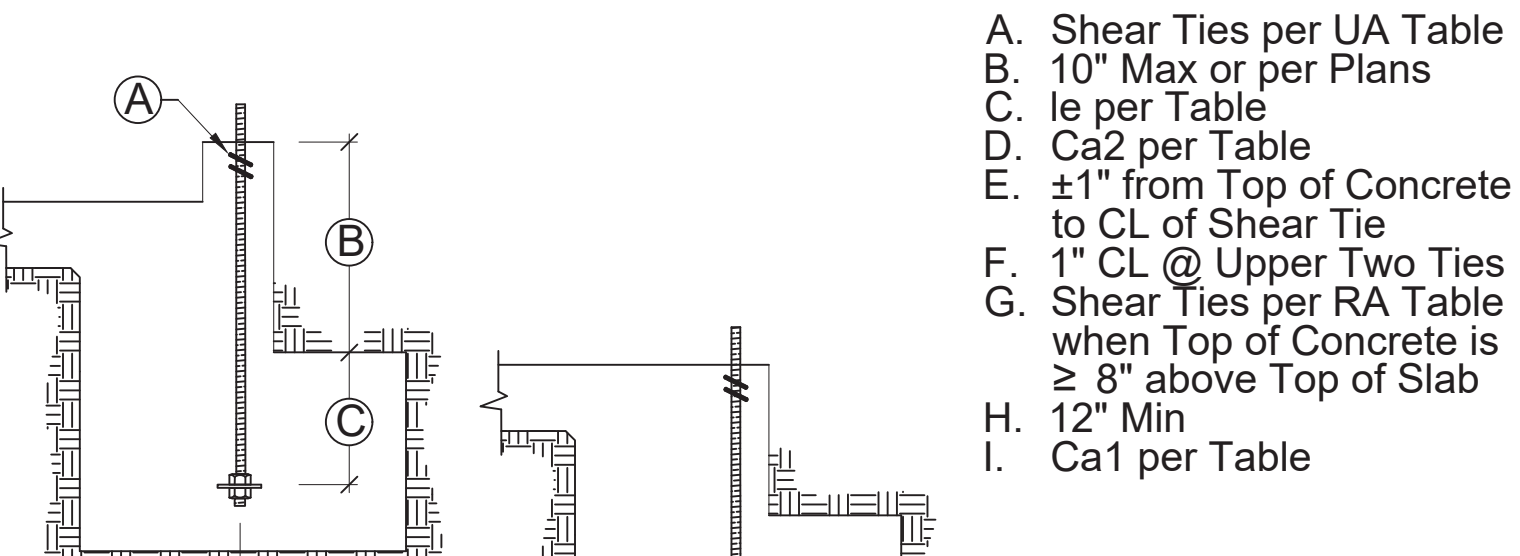
UNREINFORCED ANCHORAGE (UA)

Model	Panel Height	Anchorage <sup>1</sup>	Rod Dia (in)	Rod 2,3 Grade	le <sup>4</sup> (in)	Ca1 <sup>5</sup> & Ca2 <sup>6</sup> (in)	Shear <sup>7,8</sup> Ties
HFX-9x	79.5" - 8'	1-1/8-STD-13-19	1-1/8	STD	13	19	1 - # 3
HFX-12x	78" - 10'	1-1/8-HS-20-30		HS	20	30	
HFX-15x, 18x	78" - 13'	1-1/8-STD-14-20		STD	14	20	
HFX-15x, 18x Balloon	14' - 20'	1-1/8-HS-20-30		HS	20	30	
HFX-21x, 24x	78" - 13'	1-1/8-STD-14-20 1-1/8-HS-23-34	1-1/8	STD	14	20	2 - # 3
HFX-21x, 24x Balloon	14' - 20'	1-1/8-HS-20-30		HS	20	30	

UNREINFORCED ANCHORAGE NOMENCLATURE  
1-1/8 - STD - 14 - 20  
END & EDGE DISTANCE (Ca1 & Ca2)  
EMBEDMENT DEPTH (le)  
ROD GRADE  
ROD DIAMETER



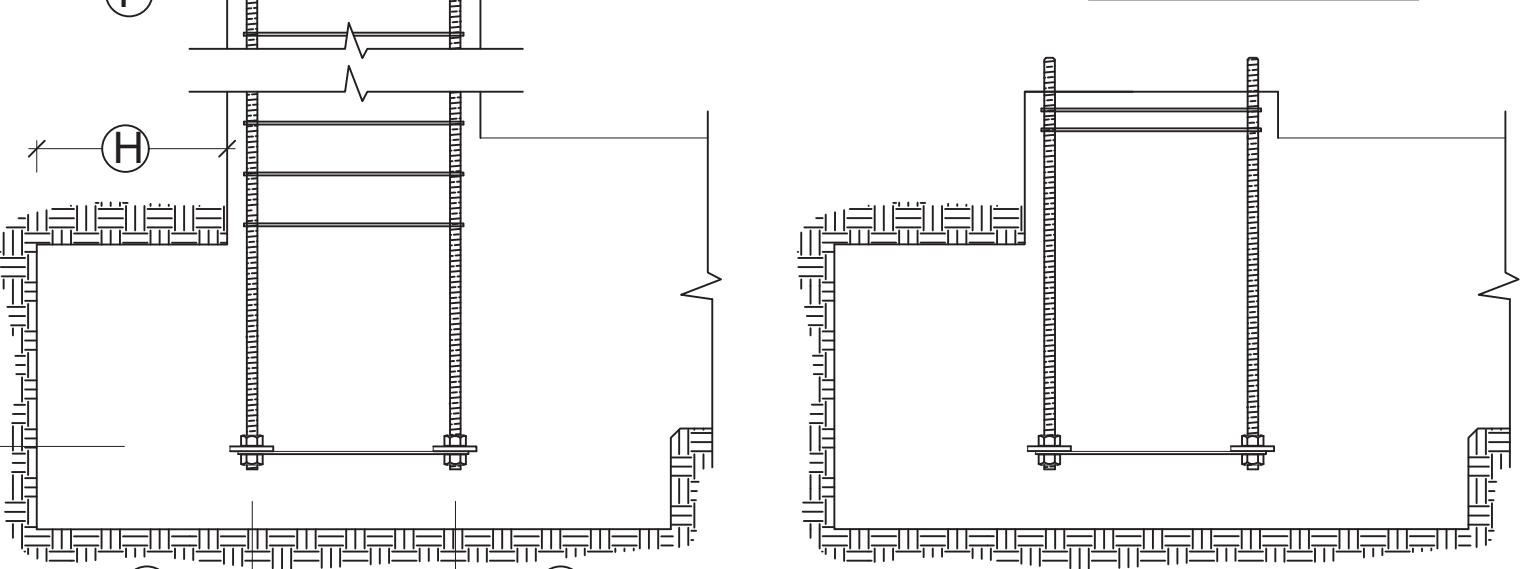
UA SHEAR TIES - NOT REQUIRED



CURB (6" MIN) WIDTH

EXTERIOR SLAB

INTERIOR SLAB



STEM WALL @ OUTSIDE CORNER

CURB @ OUTSIDE CORNER

UA SECTIONS & ELEVATIONS

TABLE NOTES

- Designs are to resist loading per ACI 318-14, Section 17.2.3.4.3.
- STD indicates Anchors complying with ASTM F1554 Grade 36 with a Hardy Frame Bolt Brace (HFXBB) installed with double nuts on the embed end.
- HS indicates Anchors complying with ASTM A193 Grade B7 with a 1/2"x3"(Min) Plate Washer installed with double nuts on the embed end (HFXBB not required).
- le = length of embedment from the top of footing or grade beam to the top of the HFXBB Bolt Brace (top of the embedded Plate Washer @ HS anchors)
- Ca1 = distance from HD Centerline to the end of the footing or grade beam.
- Ca2 = distance from HD Centerline to both the front and the back face of the footing or grade beam.
- Shear Ties are Grade 60 (Min) rebar and required for near edge distance conditions per ACI-318-14, f'c = 2,500 psi. Curbs and stem walls must be 6 inch (min) width for UA and RA, 12 inch (min) width for BB-RA.
- For UA applications, additional ties may be required at stem walls. Shear Ties are not required for installation away from edge (see detail 1A), installation on wood framing, or for IRC Braced Wall Panel applications.
- Stirrups are Grade 60 (Min) rebar. See table for size and spacing. See "Stirrup Layout" diagrams and "Key" for layout patterns.
- Concrete Edge Distances must comply with ACI 318-14, Section 17.7.1

HFX ANCHOR CENTERLINES			
TOP OF CONCRETE			
Model	Width	(A)	(B)
HFX-9x	9"	1-3/4"	5-1/2"
HFX-12x	12"		8-1/2"
HFX-15x	15"	2-5/8"	9-3/4"
HFX-18x	18"		12-3/4"
HFX-21x	21"		15-3/4"
HFX-24x	24"		18-3/4"

HFX ANCHOR CENTERLINES

IMPORTANT!

- ANCHORAGE IS DESIGNED FOR TENSION AND SHEAR TRANSFER ONLY, FOUNDATION DESIGN PER EOR.
- REINFORCEMENT SHOWN IS THE MINIMUM REQUIREMENT AND IS NOT INTENDED TO REPLACE REINFORCEMENT DESIGNED BY THE EOR.
- FOR RA AND BB-RA INSTALLATIONS, THE HFXBB BOLT BRACE MAY BE PLACED ON TOP OF THE STIRRUPS WITH DOUBLE-NUTS INSTALLED AT EMBED END OF STANDARD GRADE ANCHOR RODS. (NOTE: 1/2" x 3" x 3" PLATE WASHERS ARE REQUIRED TO BE DOUBLE-NUTTED AT EMBED END OF HIGH STRENGTH ANCHOR RODS.)
- HIGH STRENGTH ALL-THREAD RODS PROVIDED BY HARDY FRAMES ARE STAMPED ON BOTH ENDS.

HF B7

IMPORTANT NOTES

ANCHORAGE DETAILS - HFX PANELS

THIS DETAIL SHEET IS NOT PROPRIETARY AND IS NOT REQUIRED FOR PLAN SUBMITTAL WITH HARDY FRAME PRODUCTS

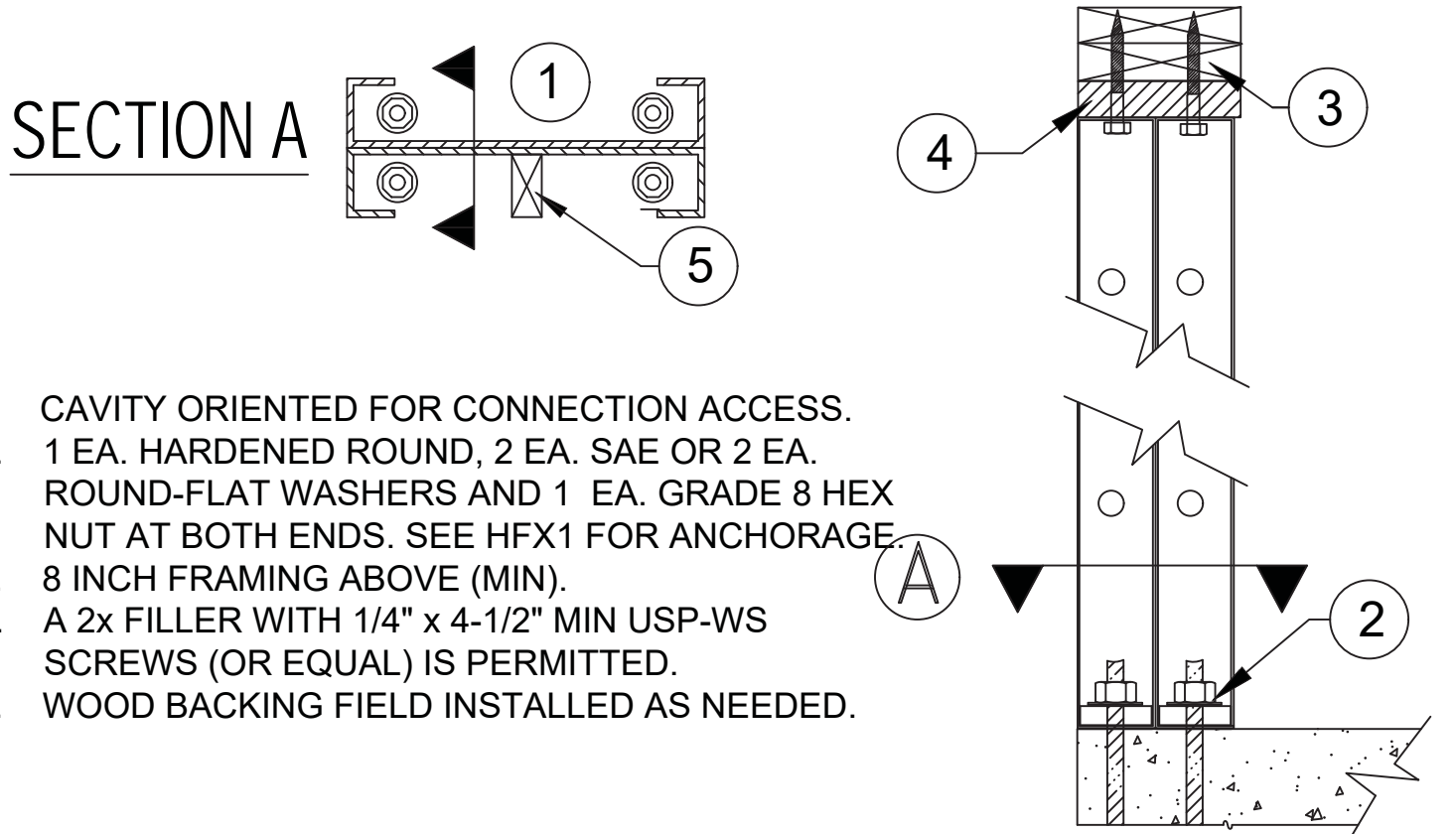
**HARDY FRAME**  
SHEAR WALL SYSTEM  
1732 PALMA DRIVE, SUITE 200, VENTURA, CA 93003  
TELEPHONE: 800 754-3030 / www.hardyframe.com

**HFX**  
SERIES

DATE:  
1-1-2017

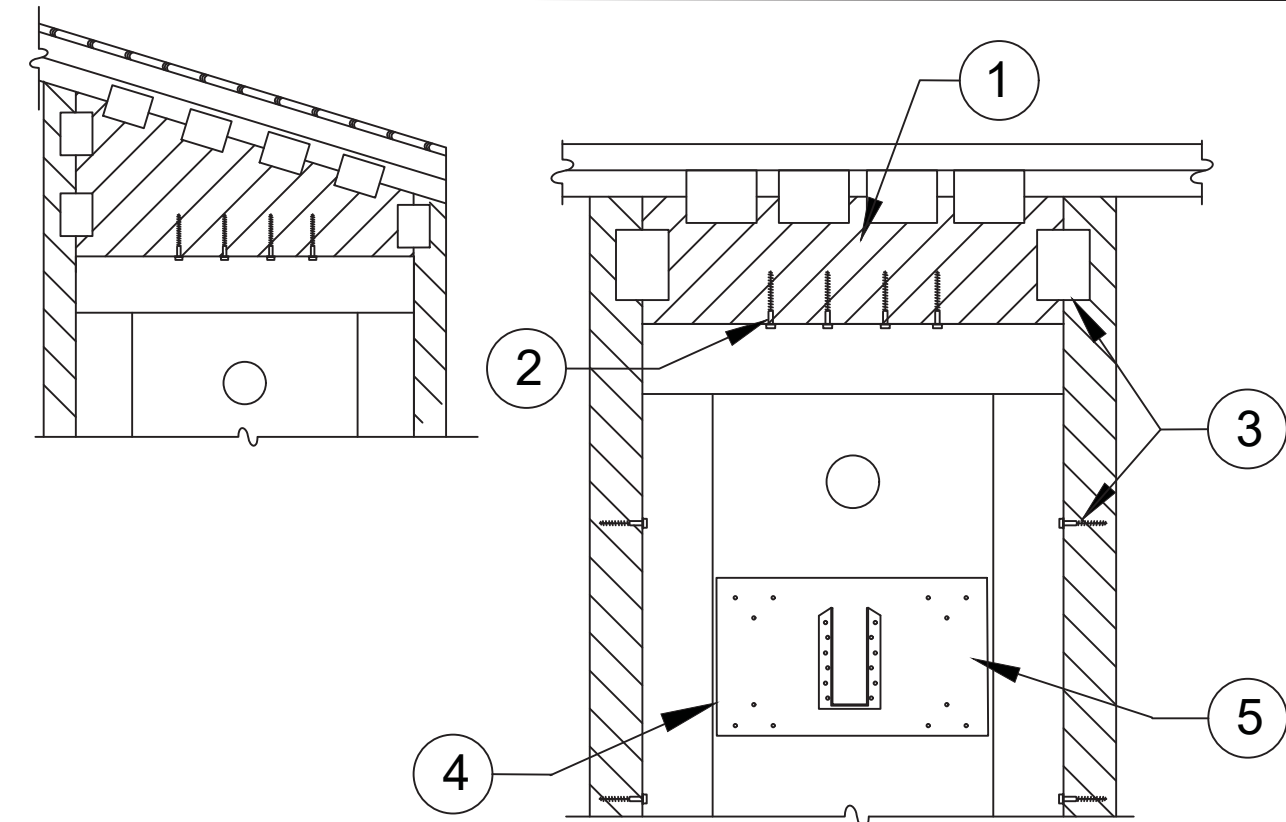
**HFX1**





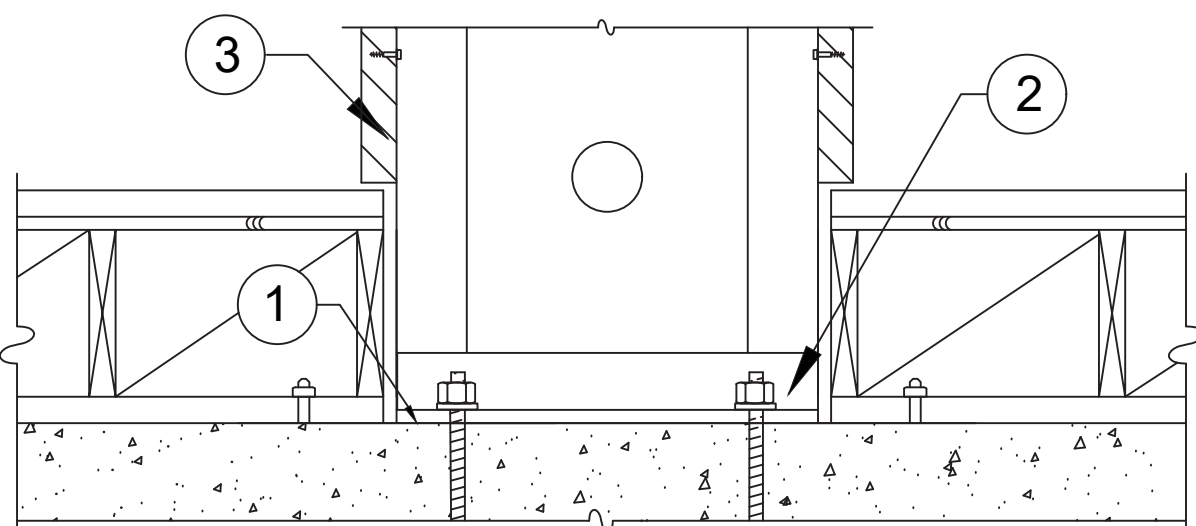
1. CAVITY ORIENTED FOR CONNECTION ACCESS.
2. 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT AT BOTH ENDS. SEE HFX1 FOR ANCHORAGE.
3. 8 INCH FRAMING ABOVE (MIN).
4. A 2x FILLER WITH 1/4" x 4-1/2" MIN USP-WS SCREWS (OR EQUAL) IS PERMITTED.
5. WOOD BACKING FIELD INSTALLED AS NEEDED.

## BACK TO BACK INSTALLATION



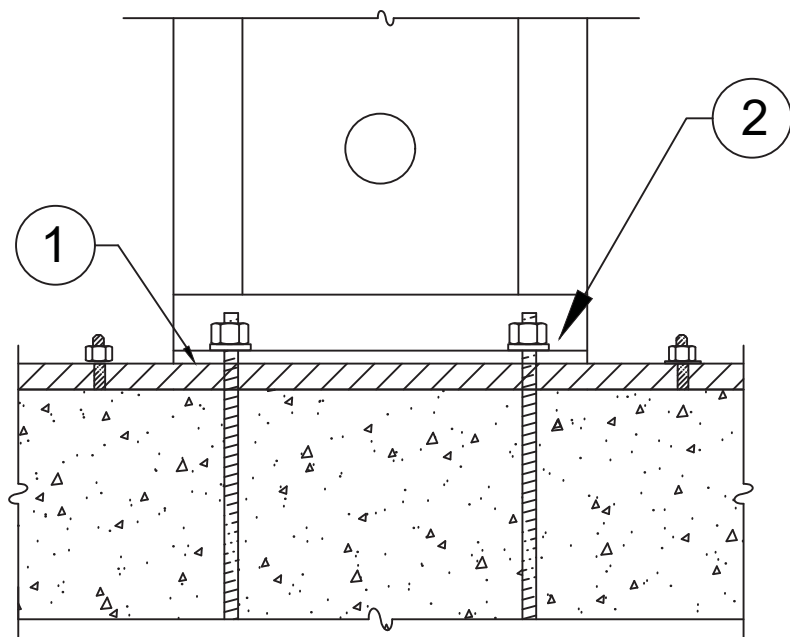
1. 4x WOOD FILLER WITH USP MP4-F CONNECTORS (OR EQUAL) BY BUILDING DESIGN PROFESSIONAL.
2. 1/4" x 3" (MIN) USP "WS-SERIES" SCREWS (OR EQUAL). QUANTITY PER TABLES
3. ADJACENT FRAMING WITH 1/4" DIAMETER SCREWS IS INSTALLED AT THE EDGES WHEN INSTALLING A 4x FILLER ABOVE OR WHEN SPECIFIED BY DESIGN PROFESSIONAL.
4. OPTIONAL LEDGER PRE-DRILL 3/16" DIA. HOLES, EVENLY SPACED IN FACE OF PANEL AND INSTALL 1/4" DIA. WOOD SCREWS INTO 2x (MIN.) WOOD LEDGER LOCATED IN PANEL CAVITY.
5. CONNECTOR AND ATTACHMENT BY BUILDING DESIGN PROFESSIONAL.

## TOP CONNECTION W/ 4x FILLER



1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
2. 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT AT BOTH ENDS. SEE HFX1 FOR ANCHORAGE.
3. ADACCENT FRAMING WITH 1/4" DIAMETER SCREWS IS INSTALLED AT THE EDGES WHEN INSTALLING A 4x FILLER ABOVE OR WHEN SPECIFIED BY DESIGN PROFESSIONAL.

## RAISED FLOOR HEAD-OUT



1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
2. 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT. SEE HFX1 FOR ANCHORAGE.

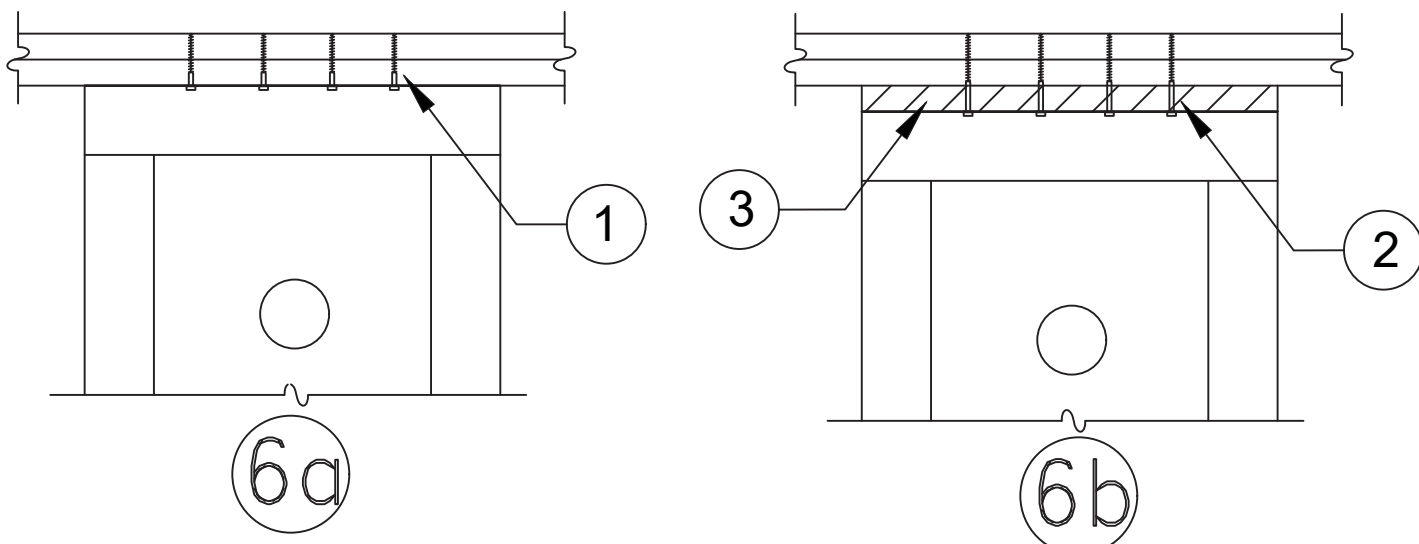
## INSTALLATION ON 2x PLATE

NOTES:  
A) OUT OF PLANE FORCES TO BE RESISTED BY OTHER FRAMING MEMBERS PER THE BUILDING DESIGN PROFESSIONAL.

B) BALLOON WALL APPLICATIONS REQUIRE HIGH STRENGTH ANCHORAGE. SEE FOUNDATION PLAN AND ANCHORAGE TABLES ON SHEET HFX-1

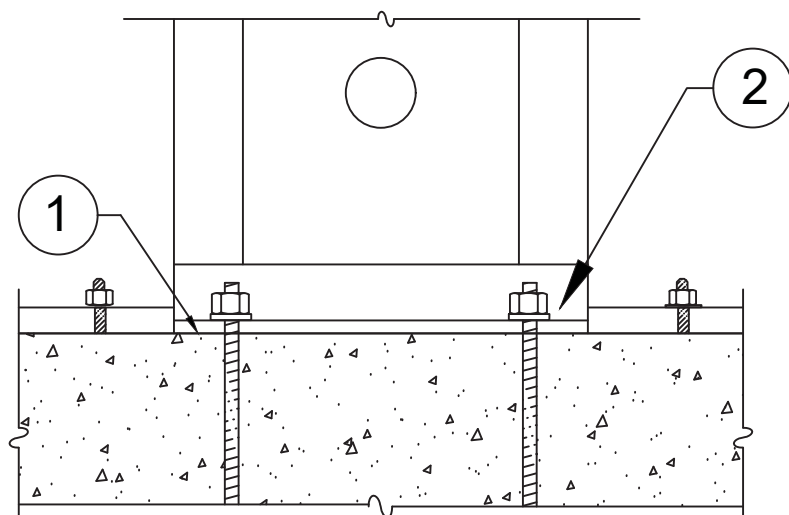
1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
2. 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT. SEE HFX1 FOR ANCHORAGE.
3. WELDED CONNECTION BY HARDY FRAMES, INC. (NO FIELD CONNECTION REQUIRED).
4. A 2x FILLER WITH 1/4" x 4-1/2" MIN USP-WS SCREWS (OR EQUAL) IS PERMITTED.
5. WHEN REQUIRED BY THE BUILDING DESIGN PROFESSIONAL ATTACH ADJACENT WOOD MEMBERS TO PANEL WITH 1/4" USP-WS SCREWS (OR EQUAL) THROUGH THE PANEL EDGE INTO THE WOOD MEMBER.

## BALLOON WALL INSTALLATION



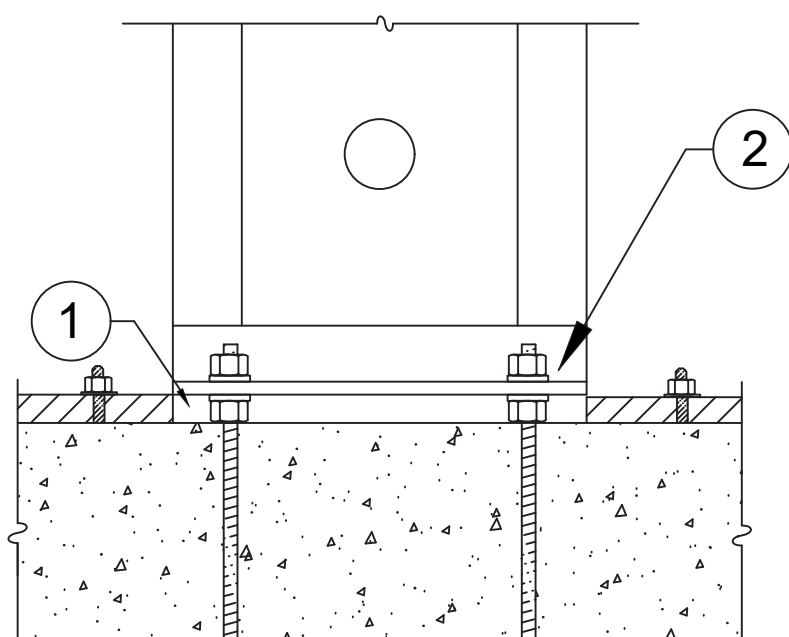
1. 1/4" x 3" (MIN) USP "WS-SERIES" SCREWS (OR EQUAL). QUANTITY PER TABLES
2. 1/4" x 4-1/2" (MIN) USP "WS-SERIES" SCREWS (OR EQUAL). QUANTITY PER TABLES
3. 2x WOOD FILLER.

## TOP PLATE CONNECTIONS



1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
2. 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT AT BOTH ENDS. SEE HFX1 FOR ANCHORAGE.

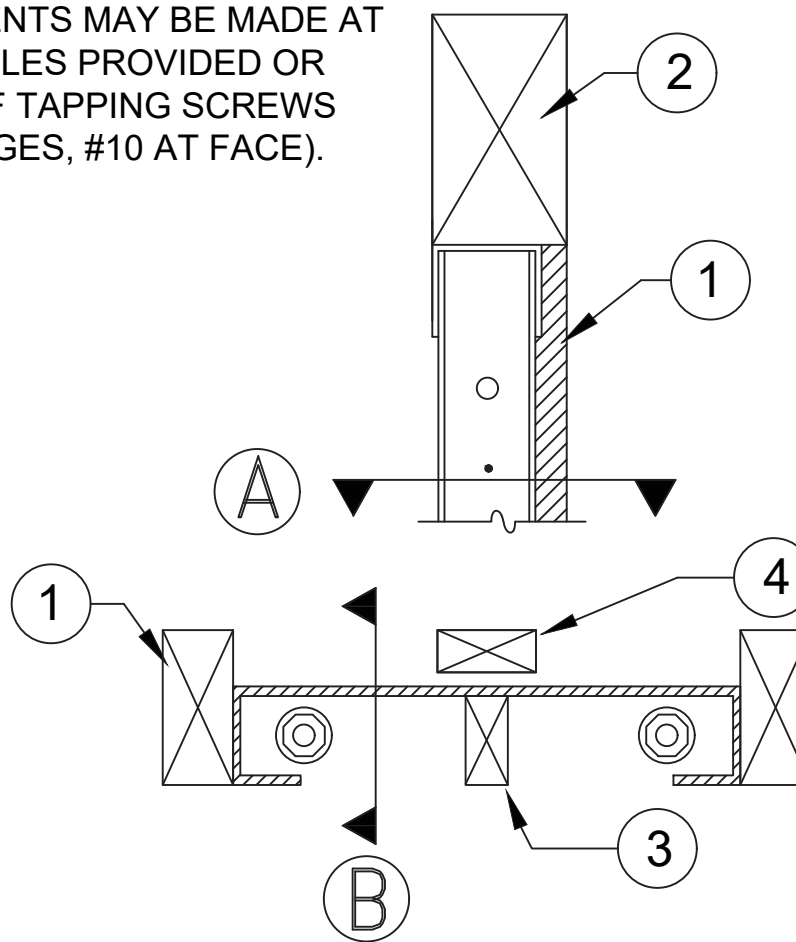
## INSTALLATION ON FOUNDATION



1. PLUS OR MINUS 1-1/2" GAP TO BE FILLED WITH MIN 5,000 PSI STRENGTH NON-SHRINK GROUT.
2. 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT. SEE HFX1 FOR ANCHORAGE.

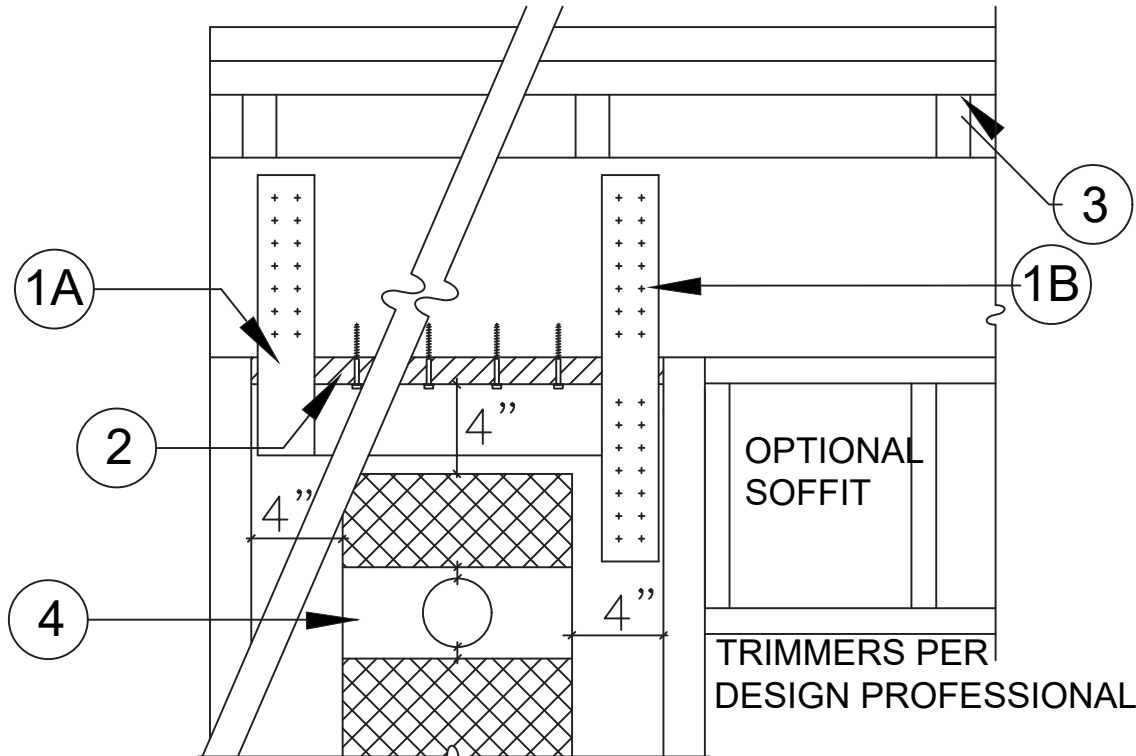
## INSTALLATION ON NUTS&WASHERS

NOTES:  
ATTACHMENTS MAY BE MADE AT SCREW HOLES PROVIDED OR WITH SELF TAPPING SCREWS (#12 AT EDGES, #10 AT FACE).



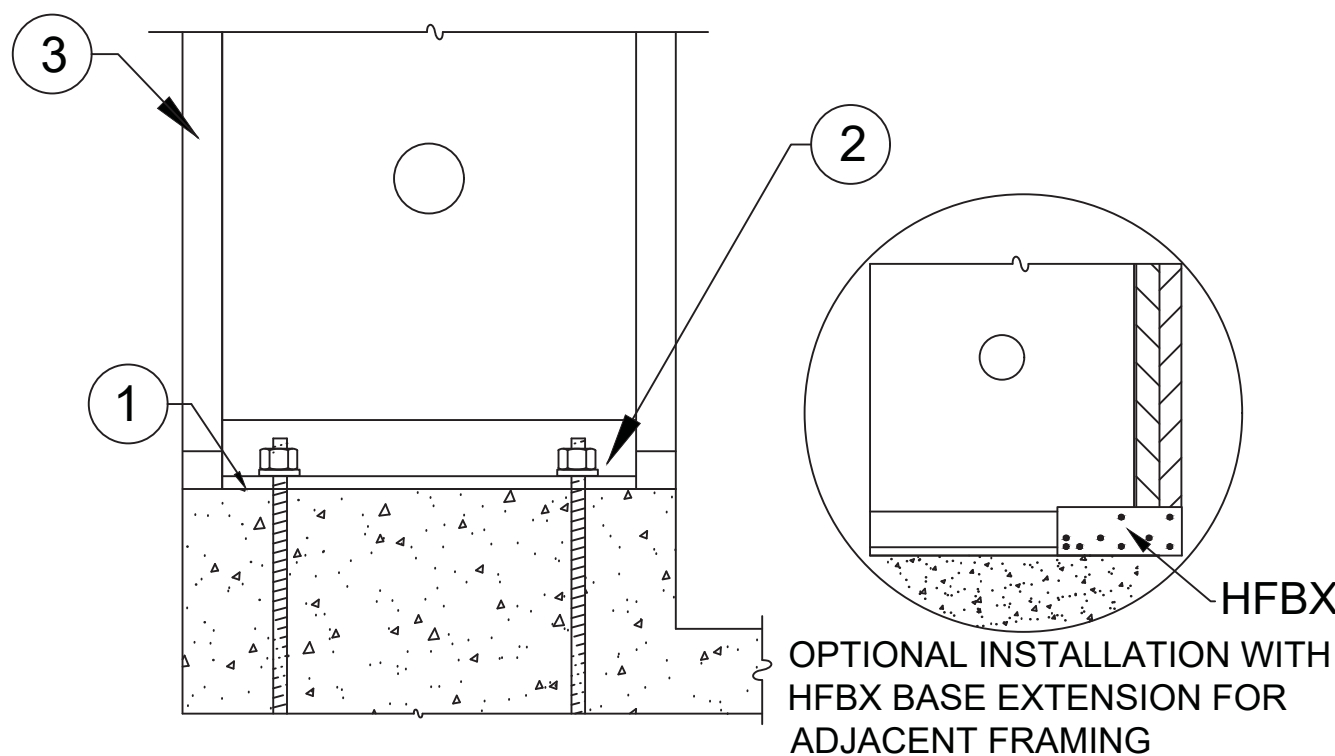
1. TRIMMERS PROVIDE FULL BEARING FOR HEADER ABOVE, DESIGN AND CONNECTIONS BY OTHERS.
2. 6x HEADER.
3. WOOD MEMBERS MAY BE INSERTED VERTICALLY OR HORIZONTALLY IN CAVITY FOR BACKING AS NEEDED.

## 6x HEADER ABOVE-SECTION



- 1A. WELDED STRAPS ARE AVAILABLE FROM MANUFACTURER WHEN REQUIRED BY THE DESIGN PROFESSIONAL.
- 1B. WHEN STRAPS ARE FIELD INSTALLED THE DESIGN AND CONNECTION IS BY THE DESIGN PROFESSIONAL. CONNECTION TO PANEL WITH SELF TAPPING SCREWS IS PERMITTED.
2. A 2x WOOD FILLER WITH 1/4"x4-1/2" (MIN.) USP "WS" SERIES SCREWS OR EQUAL IS PERMITTED.
3. WHEN CRIPPLE STUDS OCCUR, SHEAR TRANSFER DESIGN TO BE PER THE DESIGN PROFESSIONAL.
- 4A. THERE IS NO "INSIDE" OR "OUTSIDE" FACE OF PANEL. TO PREVENT THE NEED FOR ADDITIONAL HOLES ORIENT THE PANEL CAVITY TOWARD THE FIXTURE BEING INSTALLED.
- 4B. A 1" DIA. HOLE MAY BE ADDED IN THE PANEL FACE WHEN IT IS LOCATED IN THE UPPER HALF OF THE PANEL HEIGHT AND IS 4" MIN. FROM ANY EDGE. FOR PANELS MORE THAN 12" WIDE, ADDITIONAL HOLES MUST ALSO BE 1" MINIMUM ABOVE AND BELOW THE 3" DIA. HOLE PROVIDED.
- 4C. FOR HOLES LARGER THAN 1" DIA. OR TO ADD MORE THAN ONE HOLE CONTACT HARDY FRAMES, INC.

## TOP CONNECTION TO HEADER



1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
2. 1 EA. HARDENED ROUND, 2 EA. SAE OR 2 EA. ROUND-FLAT WASHERS AND 1 EA. GRADE 8 HEX NUT. SEE HFX1 FOR ANCHORAGE.
3. ADJACENT FRAMING OPTIONAL U.N.O. BY BUILDING DESIGN PROFESSIONAL.

## INSTALLATION ON CURB

### HFX-SERIES 78 IN. THRU 13 FOOT

Model Number	Net Height (in)	Depth (in)	Hold Down Diameter <sup>1</sup> (in)	Top Screw Qty <sup>2</sup> (ea)	Screw Qty Available at Edges (ea) <sup>3</sup>
HFX-12,15,18,21 & 24x78	78	3-1/2	1-1/8	9" Width = 5	4
HFX-9x79.5	79-1/2			12" Width = 6	
HFX-12,15,18,21 & 24x8	92-1/4			15" Width = 8	
HFX-9x8	93-3/4			18" Width = 10	5
HFX-12,15,18,21 & 24x9	104-1/4			21" Width = 12	
HFX-12,15,18,21 & 24x10	116-1/4			24" Width = 14	6
HFX-15,18,21 & 24x11	128-1/4	3-1/2	1-1/8	15" Width = 8	6
HFX-15,18,21 & 24x12	140-1/4			18" Width = 10	
HFX-15,18,21 & 24x13	152-1/4			21" Width = 12	

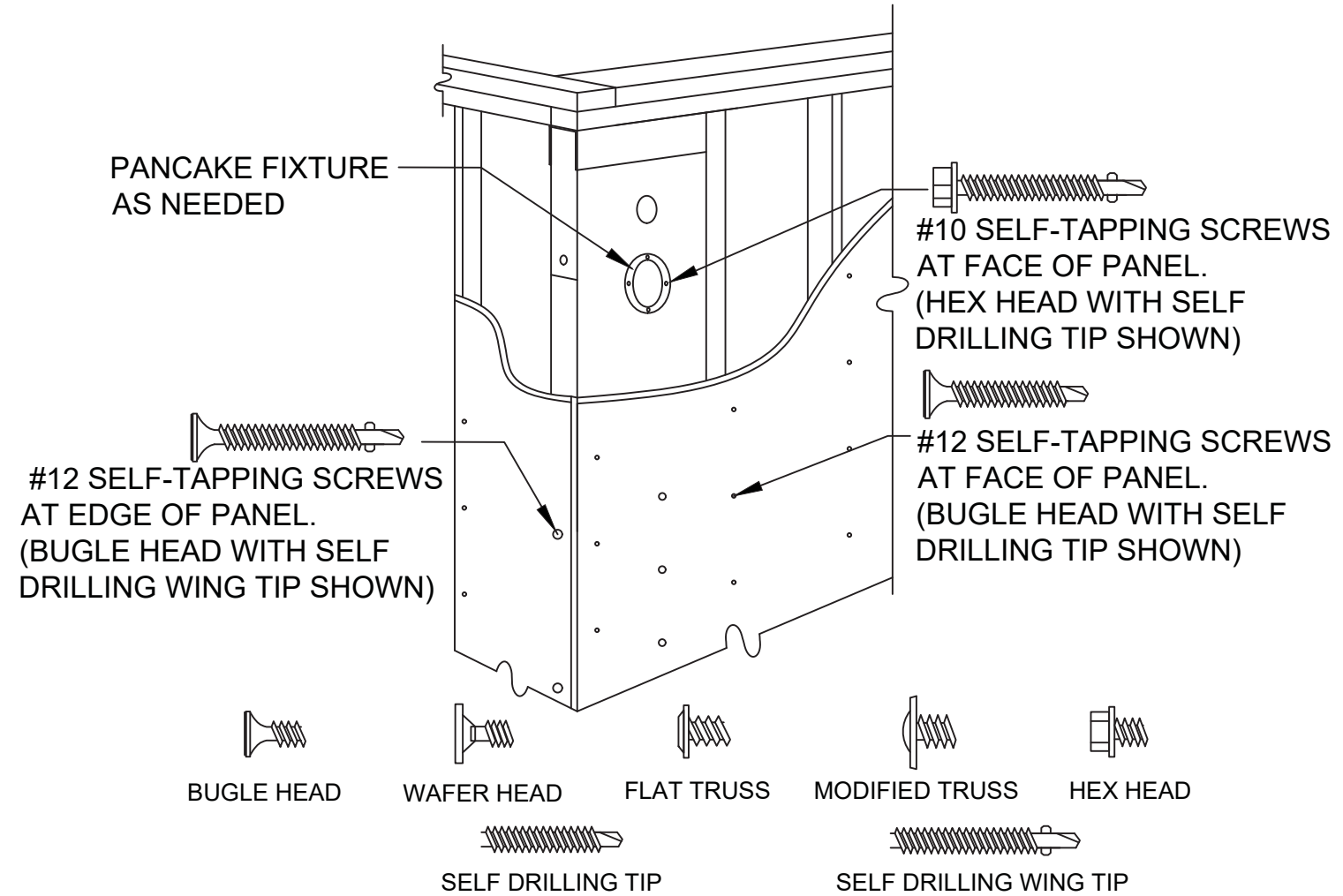
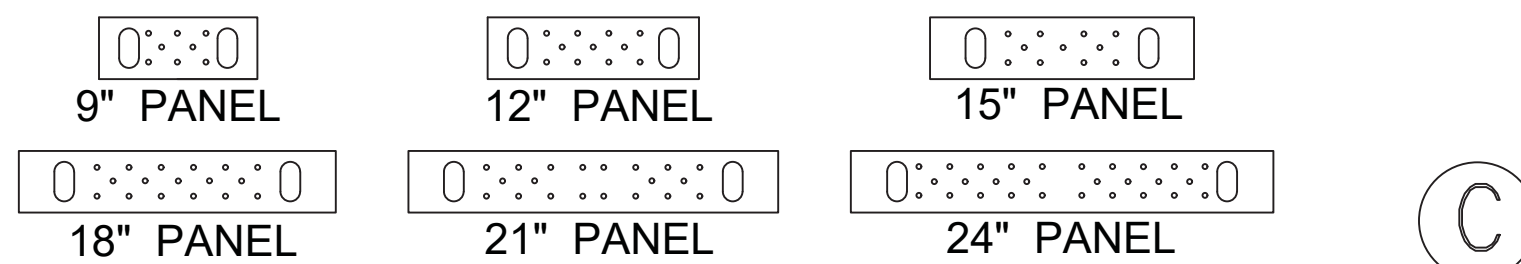
### BALLOON PANELS 14 FEET THRU 20 FEET

Model Number	Net Height (in)	Depth (in)	Hold Down Diameter <sup>1</sup> (in)	Top Screw Qty <sup>2</sup> (ea)	Screw Qty Available at Edges (ea) <sup>3</sup>
HFX-15,18,21 & 24x14	164-1/4	3-1/2	1-1/8	15" Width = 8	6
HFX-15,18,21 & 24x15	176-1/4			18" Width = 10	
HFX-15,18,21 & 24x16	188-1/4			21" Width = 12	7
HFX-15,18,21 & 24x17	200-1/4			24" Width = 14	
HFX-15,18,21 & 24x18	212-1/4				8
HFX-15,18,21 & 24x19	224-1/4				
HFX-15,18,21 & 24x20	236-1/4				

- 1) Hold down bolts connect to the Panel base with (1 ea) Hardened Round, (2 ea) Round-Flat or (2 ea) SAE Washers below (1 ea) Grade 8 Hex Nut on each rod or as specified by the Building Design Professional.
- 2) 1/4" diameter USP-WS Series screws (or equal). Length is 3" (minimum) when attached directly to the collector and 4-1/2" (minimum) when installing a 2x filler above the Panel.
- 3) Adjacent framing with 1/4" diameter screws is required at the edges when installing a 4X filler above or when specified by the Design Professional.

### INSTALLATION INSTRUCTIONS

- A) When installing directly on concrete, place Panel over bolts and connect with (1 ea) Hardened Round, (2 ea) Round-Flat or (2 ea) SAE Washers below (1 ea) Grade 8 or 2H Heavy Hex Nut. Secure with a deep socket (recommended) until "Snug Tight".
- B) If bottom connection is not detailed on plans, confirm with Design Professional before installing on Nuts & Washers or on a Mudsill.
- C) Use 1/4"x4-1/2" USP-WS Series screws (or equal) at top connections with a 2x filler. If the top of Panel is in direct contact with the collector above (top plates, header, beam, etc.) use 1/4 x 3" (minimum)
- D) For installations with a 4x filler above 1/4" diameter screws are required at the Panel edges to brace for the out-of-plane hinge or when they are specified by the Design Professional.



- NOTES:  
1) SURFACE FINISHES, CONNECTORS AND FIXTURES ARE ATTACHED TO THE PANEL FACE WITH # 10 SELF-TAPPING SCREWS SPACED NO LESS THAN 2-1/4" OC.  
2) ATTACHMENTS TO THE PANEL EDGES ARE MADE WITH # 12 SELF-TAPPING SCREWS.  
3) STRUCTURAL CONNECTIONS ARE TO BE DESIGNED BY THE DESIGN PROFESSIONAL.  
4) STRUCTURAL HARDWARE USED TO TRANSFER LOADS SHOULD NOT EXCEED 12 GAGE.

REVISIONS	DATE

## FRAMING DETAILS - HFX PANELS

THIS DETAIL SHEET IS NOT PROPRIETARY AND IS NOT REQUIRED FOR PLAN SUBMITTAL WITH HARDY FRAME PRODUCTS

**HARDY FRAME**  
SHEAR WALL SYSTEM  
1732 PALMA DRIVE, SUITE 200, VENTURA, CA 93003  
TELEPHONE: 800 754-3030 / www.hardyframe.com



DATE:  
1-1-2017

HFX2