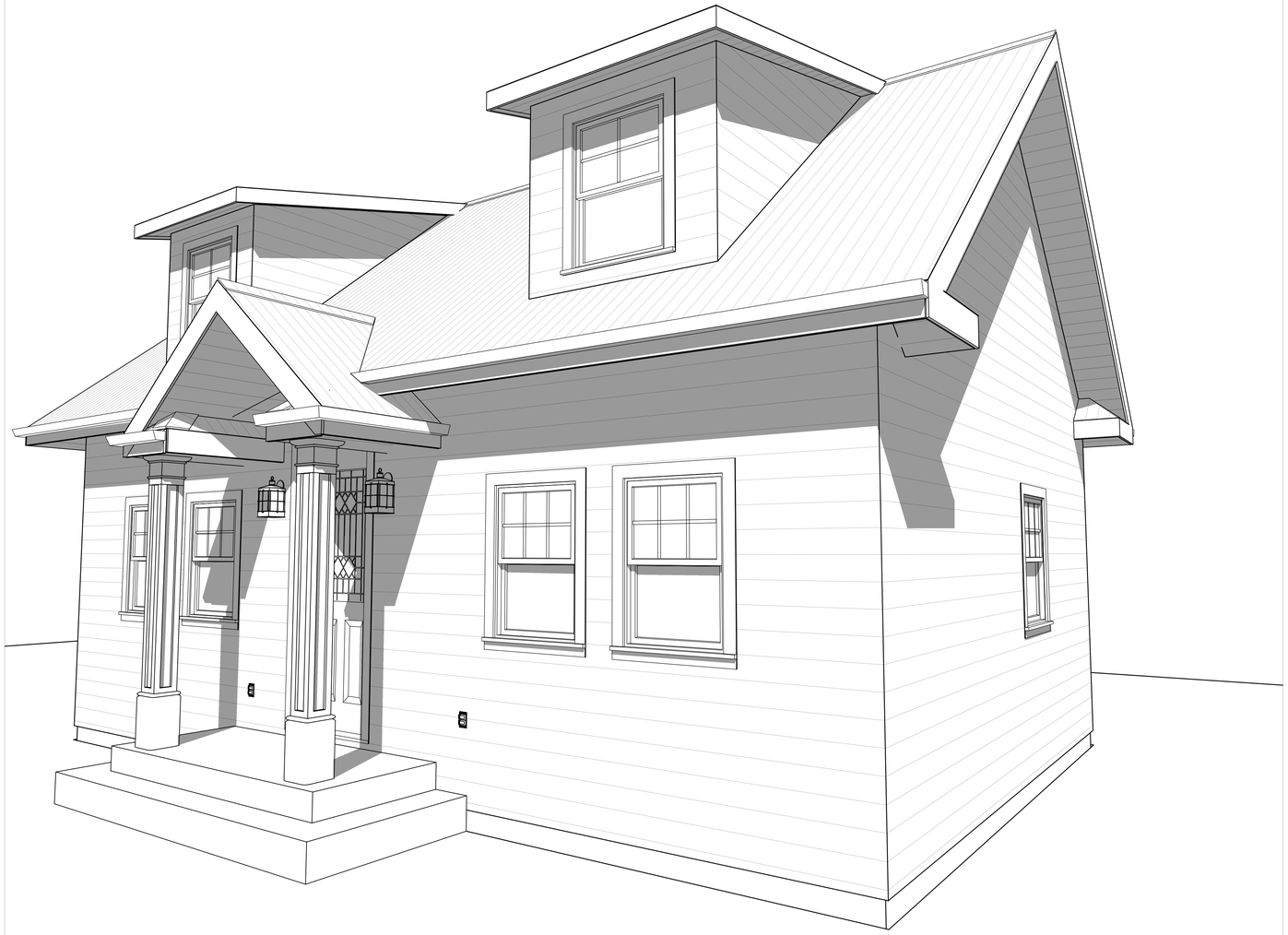

DRAWING INDEX:

ARCHITECTURAL

ADU ADDITION FOR

1651 PARKSIDE AVE. SAN JOSE, CA 95125

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Project Name and Address:

Date: APRIL 23, 2019

Scale:

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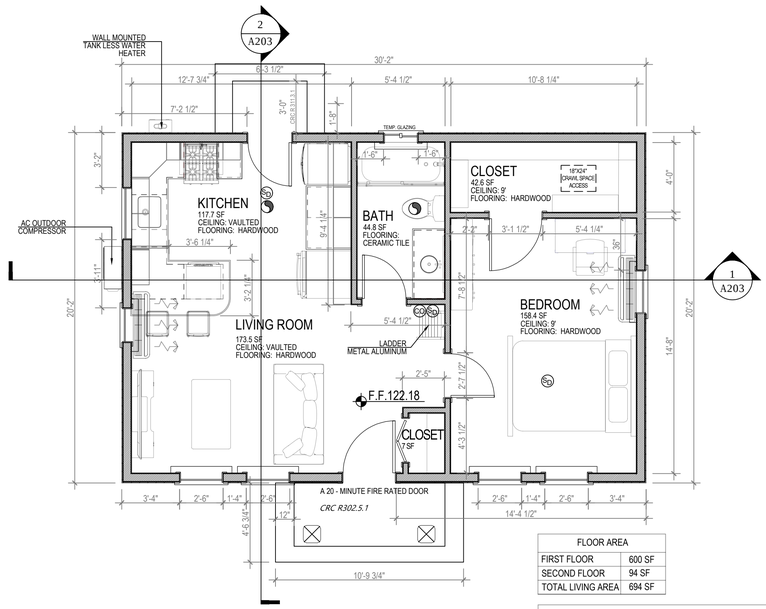
Sheet :

Page No. : A. 000

No.	Revision/Issue	Date
1	ISSUED FOR PLANNING APPROVAL	



FLOOR AREA	
FIRST FLOOR	600 SF
SECOND FLOOR	94 SF
TOTAL LIVING AREA	694 SF

BACK YARD AREA: 2494.3 SF
PERMITTED AREA: 2494.3 X .40 = 997.6 SF

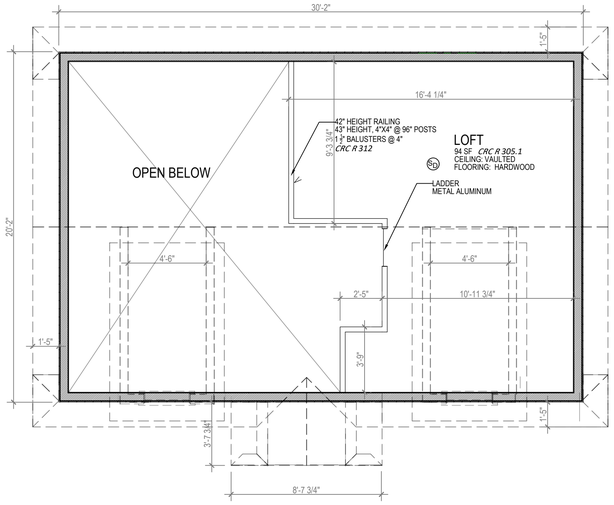
20.30.510 A : THE CUMULATIVE TOTAL OF THE REAR YARD COVERED BY ANY PART OF ACCESSORY BUILDINGS AND ACCESSORY STRUCTURES BUILT IN THE REAR YARD SHALL NOT EXCEED 40%.

1 PROPOSED ADU 1ST FLOOR PLAN

Scale: 1/4" = 1' - 00"

SYMBOLS

- BATHROOM FAN (MAY INCLUDE LIGHT UNIT).
- SD SMOKE DETECTOR - HARD WIRED TO ELECTRICAL SYSTEM W/BATTERY BACKUP PROVIDED IN ACCORDANCE WITH THE 2016 CALIFORNIA BUILDING CODE, SECTION R314.
- CO COMBINATION SMOKE & CARBON MONOXIDE DETECTOR, HARD WIRED TO ELECTRICAL SYSTEM W/BATTERY BACKUP PROVIDED IN ACCORDANCE WITH THE 2016 CALIFORNIA BUILDING CODE, SECTION R315.



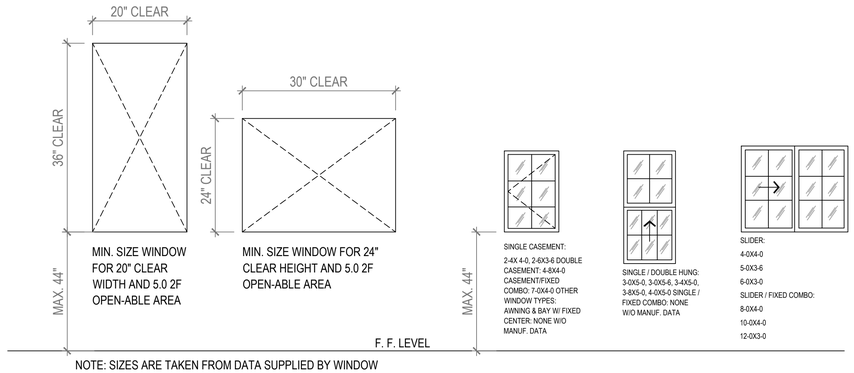
2 PROPOSED ADU LOFT FLOOR PLAN

Scale: 1/4" = 1' - 00"

FLOOR PLAN SHEET NOTES

1. GENERAL CONTACTOR TO BE RESPONSIBLE FOR ADEQUATELY FRAMING, BRACING, AND STRUCTURING ALL WALLS AND OTHER GYPSUM BOARD CONSTRUCTION IN ACCORDANCE WITH APPLICABLE TYPICAL DETAILS CONTAINED IN THESE DRAWINGS. WHETHER OR NOT SPECIFICALLY REFERENCED IN THE PLANS, ALL PARTITIONS SHALL BE BRACED IN ACCORDANCE WITH SEISMIC CODE REQUIREMENTS.
2. COORDINATE AND INSTALL BACKING AS REQUIRED FOR ALL NEW MILLWORK, MARKERBOARDS, EQUIPMENT, FURNITURE, PROJECTION SCREENS, ETC.
3. ALL PARTITIONS ARE DIMENSIONED FROM FACE OF FINISH TO FACE OF FINISH, U.O.N.
4. PARTITIONS SHOWN TO ALIGN WITH FACE OF EXISTING CONSTRUCTION OR NEW PARTITIONS SHOULD ALIGN FINISHED FACE TO FINISHED FACE.
5. DIMENSIONS INDICATED TO BE "CLEAR" OR TO HOLD SHALL BE MAINTAINED AND DISCREPANCIES OR VARIATIONS ON THESE DIMENSIONS SHALL BE REVIEWED WITH ARCHITECT BEFORE BEGINNING CONSTRUCTION.
6. PREPARE ALL GYP. BD. WALL SURFACES TO RECEIVE PARTITIONS, AND WALL FINISHES.
7. FLOOR TOLERANCE: FINISHED FLOOR TO BE LEVELED TO A TOLERANCE OF 1/4" SLOPE IN 10 FEET. GENERAL CONTRACTOR TO IMMEDIATELY VERIFY SLOPE AND REPORT ANY DEVIATIONS FROM ABOVE STATED TOLERANCE TO PIXELARCH LTD.
8. PRIOR TO COMMENCING WORK ALIGNMENT OF DOOR HEADS AND OTHER CRITICAL HORIZONTAL ELEMENTS SHALL BE MAINTAINED AT A CONSTANT LEVEL AND SHALL NOT FOLLOW VARIATIONS IN THE FLOOR PLATES.
9. THERMOSTATS TO BE LOCATED ABOVE LIGHT SWITCHES, TYP.
10. MULTIPLE LIGHT SWITCHES TO BE GANGED WITHIN A SINGLE COVER-PLATE TO MAXIMUM EXTENT POSSIBLE. WHERE MULTIPLE SWITCHES CANNOT BE GANGED WITHIN A SINGLE COVER-PLATE, SWITCHES ARE TO BE ADJACENT TO EACH OTHER OR AS CLOSE AS POSSIBLE.
11. GC TO PROVIDE ALL APPLIANCES AND FIXTURES, U.O.N.
12. THE CONTRACTOR SHALL "STRIKE OUT" LOCATION OF ALL WALLS, DOORS, MULLIONS, SOFFITS, RAISED FLOOR GRIDS, HOUSEKEEPING AND UTILITY EQUIPMENT PADS, AND OTHER MAJOR ELEMENTS, OR AS DIRECTED BY ARCHITECT AT THE BEGINNING OF THE PROJECT BEFORE PROCEEDING WITH CONSTRUCTION. IF DISCREPANCIES EXIST BETWEEN FIELD CONDITIONS AND THE DRAWINGS NOTIFY ARCHITECT.
13. ALL FURRED WALLS SHALL EXTEND VERTICALLY THRU THE CEILING WHERE INDICATED ON THE DRAWINGS OR TO THE STRUCTURE ABOVE WHERE NO CEILING OCCURS. U.O.N.
14. HINGE SIDE OF DOORS TO BE LOCATED PER DETAILS FROM THE FACE OF ADJACENT PERPENDICULAR PARTITIONS, U.O.N.
15. REFER TO ENLARGED PLANS FOR DIMENSIONS AND INFORMATION WHEN DESIGNATED.
16. THE GENERAL CONTRACTOR SHALL COORDINATE AND PROVIDE APPROPRIATE STRUCTURAL BACKING AND REINFORCING IN PARTITIONS BEHIND ALL WALL-MOUNTED, WALL ANCHORED OR SUPPORTED ITEMS. ALL CONCEALED WOOD USED FOR SUCH SUPPORT SHALL BE FIRE RETARDANT TREATED.
17. IN THE EVENT OF CONFLICT BETWEEN DATA SHOWN ON DRAWINGS AND DATA SHOWN ON THE SPECIFICATIONS, THE DRAWINGS SHALL TAKE PRECEDENCE. DETAIL DRAWINGS TAKE PRECEDENCE OVER DRAWING OF SMALLER SCALE. SHOULD THE CONTRACTOR AT ANY TIME DISCOVER AN ERROR IN A DRAWING OR SPECIFICATION OR A DISCREPANCY OR VARIATION BETWEEN DIMENSIONS ON DRAWINGS AND MEASUREMENTS AT THE SITE OR LACK OF DIMENSIONS OR OTHER INFORMATION, THE GENERAL CONTRACTOR SHALL NOT PROCEED WITH THE WORK AFFECTED UNTIL CLARIFICATION HAS BEEN MADE.
18. PROVIDE BACKING AS REQUIRED PER FURNITURE REQUIREMENTS.
19. THE FOLLOWING SHALL BE PROVIDED BY THE GENERAL CONTRACTOR AS DESIGN-BUILD SYSTEMS (*IF SUCH SYSTEMS ARE REQUIRED BY THE CITY*):
    A. AUTOMATIC FIRE SPRINKLER SYSTEM.
       CONTRACTOR SHALL FULLY COORDINATE THE DESIGN/ENGINEERING PROCESS OF THE ABOVE REFERENCED SYSTEMS AND THE COMPLETE AND PROPERLY FUNCTIONING INSTALLATION THEREOF.
20. THE FOLLOWING MAYBE PROVIDED BY THE OWNER'S VENDORS BUT THE INSTALLATION OF THOSE SYSTEMS SHALL BE COORDINATED BY THE GENERAL CONTRACTOR WITH EACH OF HIS SUBCONTRACTORS FOR THE SYSTEMS NOTED BELOW:
    A. TELECOMMUNICATIONS
    B. SECURITY
       THE GENERAL CONTRACTOR SHALL PROVIDE ELECTRICAL RACEWAY AND POWER TO ALL POINTS DESIGNATED BY THE VENDOR'S FOR EACH OF THE OWNER'S FURNISHED SYSTEMS.
21. ALL PARTITIONS, DOORS, GLAZED OPENINGS, SOFFITS, ETAL., SHALL BE STRUCTURALLY BRACED IN ACCORDANCE WITH SEISMIC CODE REQUIREMENTS.
22. COORDINATE LOCATION AND PROVIDE BLOCKING, BACKINGS AND/OR REINFORCEMENT IN PARTITIONS FOR ALL CABINETS, COUNTERTOPS AND ANY WALL-MOUNTED ITEMS. REFER TO THE PLANS, ELEVATIONS AND DETAILS FOR LOCATION OF ITEMS WHICH MAY REQUIRE SUPPORT.
23. THE CONTRACTOR IS RESPONSIBLE FOR VERIFING THE DIMENSIONS AND ELEVATIONS AT THE SITE. THE CONTRACTOR AND SUB-CONTRACTORS SHALL COORDINATE THE LAYOUT AND EXACT LOCATIONS OF ALL PARTITIONS, DOORS, ELECTRICAL/TELEPHONE OUTLETS, LIGHTSWITCHES AND THERMOSTATS WITH THE ARCHITECT IN THE FIELD PRIOR TO PROCEEDING.
24. WHEREVER DIAGONAL BRACING IS INDICATED OR OTHERWISE REQUIRED, INSTALL BRACING UNEXPOSED TO VIEW, PARTICULARLY AT SUSPENDED OR DRYWALL CEILING AREAS. IF EXPOSED TO VIEW CONDITIONS EXIST IN THE DESIGN, DO NOT BRACE INTO THE AREA WHERE NO CEILING IS TO BE INSTALLED, OR INTO THE "MORE OPEN"AND VISIBLE SIDE OF BULKHEAD/SOFFIT WHERE BOTH SIDES SHALL BE WITHOUT A CEILING.
25. WHERE NEW PARTITIONS MEET EXISTING MULLIONS OR COLUMNS INSTALL THE NEW PARTITION PERPENDICULAR TO THE EXISTING MULLION OR COLUMN AND ALIGN THE CENTERLINE OF THE NEW PARTITION WITH THE MULLION OR COLUMN U.O.N.
26. WHERE A GYPSUM BOARD PARTITION MEETS FLUSH WITH THE FACE OF AN EXISTING PARTITION, REMOVE THE EXISTING METAL CORNER BEAD BEFORE INSTALLING THE NEW PARTITION.
27. ALIGN NEW PARTITION SURFACES WITH THE EXISTING ADJACENT OR ADJOINING SURFACES WHERE INDICATED. TAPE AND SAND THE JOINTS TO SMOOTH WITHOUT ANY VISIBLE JOINTS. PATCH AND REPAIR SURFACES TO MATCH ADJACENT OR ADJOINING SURFACES.
28. PATCH EXISTING DAMAGED PARTITIONS THROUGHOUT ENTIRE PROJECT AREA TO MATCH ADJACENT SURFACES.
29. CUT AND FIT COMPONENTS AS REQUIRED TO ALTER EXISTING WORK FOR INSTALLATION OF NEW WORK. PATCH DAMAGED AREAS TO MATCH ADJACENT SURFACES.
30. AT OPENINGS IN GYPSUM BOARD WALLS FOR DUCT WORK, RETURN AIR, WRAP HEAD, JAMBS AND SILL OF OPENING WITH GYPSUM BOARD. U.O.N.
31. VERTICAL DIMENSIONS ARE FROM TOP OF FLOOR SLAB, EXCEPT WHERE OTHERWISE NOTED TO BE ABOVE FINISH FLOOR.
32. DIMENSION ARE NOT ADJUSTABLE WITHOUT APPROVAL OF THE ARCHITECT UNLESS NOTED +/- OR VIF.
33. THE GENERAL CONTRACTOR SHALL VERIFY THAT NO CONFLICT EXIST IN THE LOCATION OF ANY MECHANICAL, HVAC, TELEPHONE, ELECTRICAL, PLUMBING AND SPRINKLER EQUIPMENT (TO INCLUDE ALL PIPING, DUCTWORK, CONDUIT, CABLES, ETC.) AND THAT ALL REQUIRED CLEARANCES FOR INSTALLATION AND MAINTENANCE OF ABOVE EQUIPMENT ARE PROVIDED. ELEMENTS TO BE EXPOSED TO VIEW SHALL BE REVIEWED WITH THE ARCHITECT AND COORDINATED BY AND BETWEEN THE GENERAL CONTRACTOR AND PERTINENT SUB-CONTRACTORS PRIOR TO CONSTRUCTION OR FABRICATION PROCEEDING.

EMERGENCY ESCAPE / RESCUE OPENING (R310)



NOTE: SIZES ARE TAKEN FROM DATA SUPPLIED BY WINDOW MANUFACTURES. HOWEVER, THESE ARE GENERAL DIMENSIONS AND MUST BE VERIFIED WITH ACTUAL WINDOWS INSTALLED TO MEET MIN. EGRESS REQUIREMENTS.

SECTION 1026 OF THE 2016 INTERNATIONAL BUILDING CODE /SECTION 310 OF THE 2016 INTERNATIONAL RESIDENTIAL CODE

BASEMENTS IN A DWELLING UNIT AND EVERY SLEEPING ROOM BELOW THE FOURTH STORY (INCLUDES ROOMS WHICH COULD BE USED FOR SLEEPING SUCH AS DENS, SEWING ROOMS, STUDY, ETC.) MUST HAVE A LEAST ONE OPERABLE WINDOW OR DOOR APPROVED FOR EMERGENCY ESCAPE OR RESCUE WHICH SHALL OPEN DIRECTLY INTO A PUBLIC STREET, PUBLIC ALLEY, YARD, OR EXIT COURT. THE UNITS MUST BE OPERABLE FROM THE INSIDE TO PROVIDE A FULL CLEAR OPENING WITHOUT THE USE OF SEPARATE TOOLS.

FOR FULL EGRESS, ESCAPE OR RESCUE WINDOWS ARE REQUIRED TO HAVE A MINIMUM NET CLEAR OPEN-ABLE AREA OF 5.7 SQ. FT. (820.8 SQ IN). EXCEPTION: MAY BE REDUCED TO 5.0 SF (720 SQ IN) IF 44" OR LESS FROM EXTERIOR GROUND LEVEL TO SILL. THE MINIMUM NET CLEAR OPEN-ABLE HEIGHT DIMENSION MUST BE 24 INCHES. THE MINIMUM NET CLEAR OPEN-ABLE WIDTH DIMENSION MUST BE 20 INCHES. THEY MUST ALSO HAVE A FINISHED SILL HEIGHT (CLEAR OPENING) OF NOT MORE THAN 44 INCHES ABOVE THE FLOOR. IN ORDER TO MEET THE REQUIRED NET-CLEAR OPEN AREA SQUARE-FOOT OPENING, EITHER THE WIDTH OR HEIGHT OR BOTH MUST EXCEED THE MINIMUM DIMENSIONS THEREOF.
WHEN REPLACING EXISTING NONCONFORMING WINDOWS REQUIRED FOR EMERGENCY ESCAPE AND RESCUE THE REPLACEMENT WINDOWS MUST MEET THE FOLLOWING:

EMERGENCY ESCAPE AND RESCUE REPLACEMENT WINDOW OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 4 SQ. FT.; MINIMUM NET CLEAR OPENING HEIGHT OF 22 INCHES; MINIMUM NET CLEAR OPENING WIDTH OF 20 INCHES. MINIMUM SILL HEIGHT OF NOT MORE THAN 48 INCHES ABOVE THE FLOOR OR THE INSTALLATION OF ONE OR MORE PERMANENTLY AFFIXED STEPS EXTENDING THE FULL WIDTH OF THE WINDOW OPENING, CONSTRUCTED TO THE CURRENT ADOPTED IRC RISE AND RUN DIMENSIONAL REQUIREMENTS, SO THAT THE TOP STEP IS NO GREATER THAN 44 INCHES TO THE TOP OF THE SILL WHERE THE EXISTING ROUGH OPENING DOES NOT ALLOW FOR REPLACEMENT WINDOW DIMENSIONAL REQUIREMENTS THE ROUGH OPENING SHALL BE ENLARGED AND THE REPLACEMENT WINDOW SHALL MEET THE FULL EMERGENCY ESCAPE AND RESCUE OPENINGS PER IRC SECTION R310.1 THROUGH R310.5 OR IBC SECTION 1026 AS APPLICABLE FOR SCOPE OF PROJECT.

ADDITIONAL GLAZING REQUIREMENTS:

FOR MINIMUM LIGHT, ALL SLEEPING ROOMS AND OTHER HABITABLE ROOMS REQUIRE GLAZING EQUAL TO AT LEAST 8% OF THE FLOOR AREA OF THE ROOM; MINIMUM VENTILATION OF 4% OF THE FLOOR AREA. SEE THE INTERNATIONAL BUILDING OR RESIDENTIAL CODES AS APPLICABLE FOR EXCEPTIONS AND A COMPLETE LIST OF LIGHT AND VENTILATION REQUIREMENTS.

SAFETY GLAZING IS REQUIRED IN DOORS, STORM DOORS, RAILINGS, WITHIN 24 INCHES OF A DOOR, OR WHEN PANES ARE OVER 9 SQUARE FEET AND WITHIN 18 INCHES OF THE FLOOR. SEE THE INTERNATIONAL BUILDING OR RESIDENTIAL CODES FOR EXCEPTIONS AND A COMPLETE LIST OF SAFETY GLAZING REQUIREMENTS.

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Project Name and Address:

REMODEL AND ADU ADDITION FOR
CUONG NGUYEN
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Date: APRIL 23, 2019
Scale: 1/4"=1'-00"

DRAWING TITLE: PROPOSED ADU FLOOR PLANS

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No.	Revision/Issue	Date
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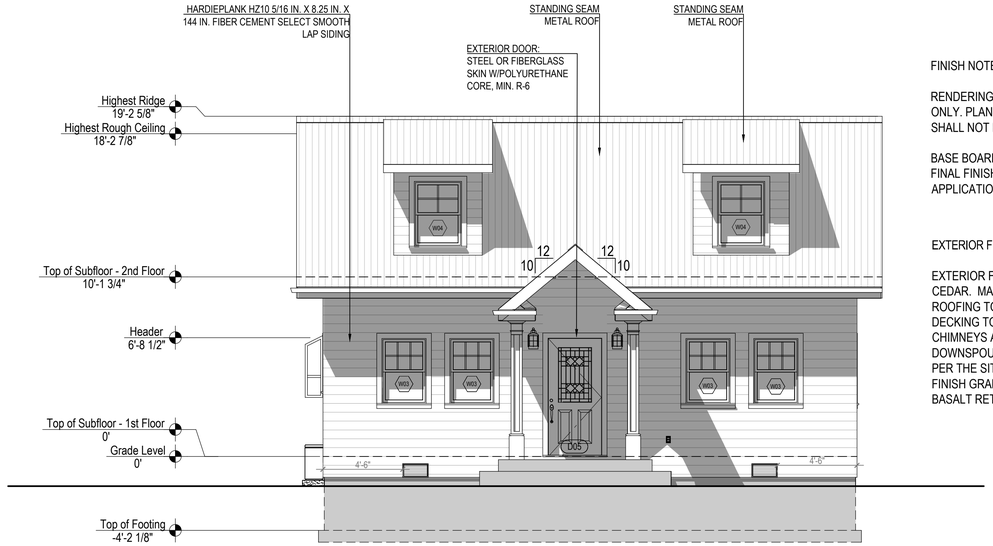


3

PROPOSED ADU SOUTH (FRONT) ELEVATION

Scale: 1/4" = 1' - 00"

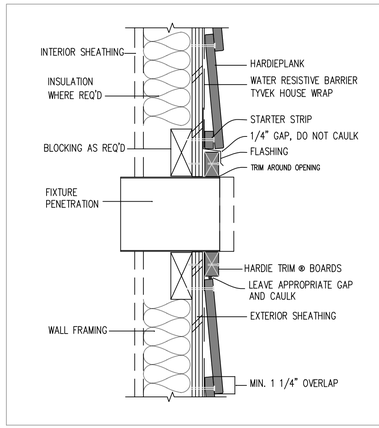
FINISH NOTES:

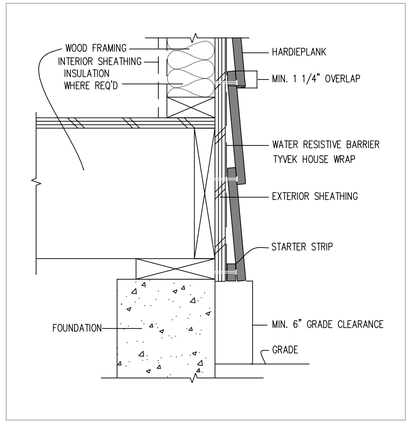
RENDERINGS ARE NOT TO SCALE; ALL RENDERINGS ARE FOR ARTISTIC DEPICTION ONLY. PLAN UPDATES MAY NOT BE REFLECTED IN RENDERINGS. RENDERINGS SHALL NOT BE USED FOR CONSTRUCTION.

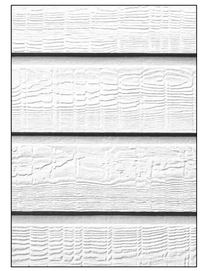
BASE BOARDS SHALL BE 6" IN ALL ROOMS, UNO.
FINAL FINISHES SHALL BE CONFIRMED WITH THE HOME OWNER PRIOR TO APPLICATION.

EXTERIOR FINISH NOTES:

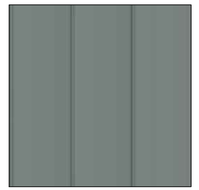
EXTERIOR FINISH TO BE FIBER CEMENT SIDING OVER 5/8 CDX PLYWOOD. WINDOW & DOOR TRIM CEDAR. MATERIAL AND COLOR BY OWNER.
ROOFING TO BE EXPOSED FASTENER METAL ROOFING OVER 30# FELT, 5/8 CDX PLYWOOD.
DECKING TO BE TREX OR WOOD. FINAL MATERIAL AND COLOR BY OWNER.
CHIMNEYS ARE DECORATIVE AND PROVIDE FOR VENTING OF GAS FIREPLACES ONLY.
DOWNSPOUTS TO BE COLLECTED AND ROOF RUN OFF TO BE DIRECTED AWAY FROM STRUCTURE PER THE SITE PLAN.
FINISH GRADE SHALL SLOPE AWAY FROM STRUCTURE MIN. 1/2" PER FOOT OF RUN FOR 4' MIN.
BASALT RETAINING WALLS TO MATCH EXISTING RETAINING WALL.



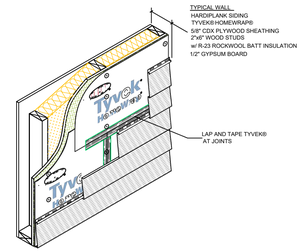




HARDIEPLANK HZ10 5/16 IN. X 8.25 IN. X 144 IN. FIBER CEMENT SELECT CEDARMILL LAP SIDING



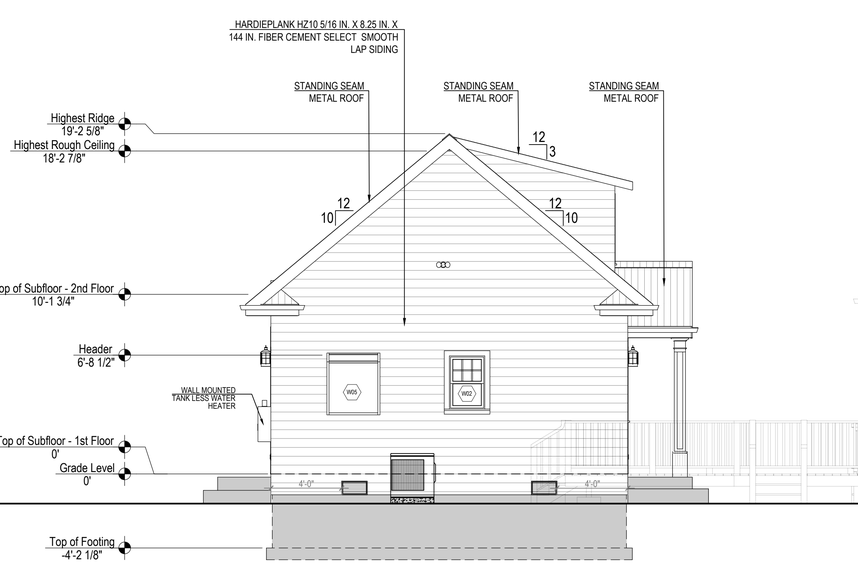
5V CRIMP EXPOSED FASTENER METAL ROOFING



TYPICAL WALL ISOMETRIC

RESIDENTIAL WOOD FRAME STRUCTURE w/ VINYL SIDING

PROPERTY LINE



PROPERTY LINE

4

PROPOSED ADU WEST ELEVATION

Scale: 1/4" = 1' - 00"

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Date: APRIL 23, 2019
Scale: 1/4"=1'-00"

DRAWING TITLE: PROPOSED SOUTH AND WEST ELEVATIONS

Sheet : 2 OF 10

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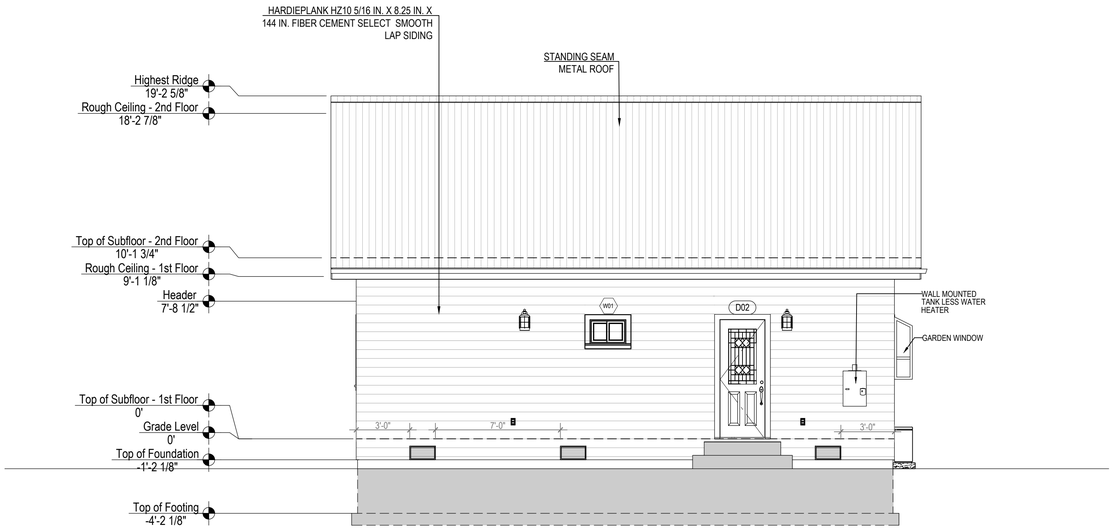
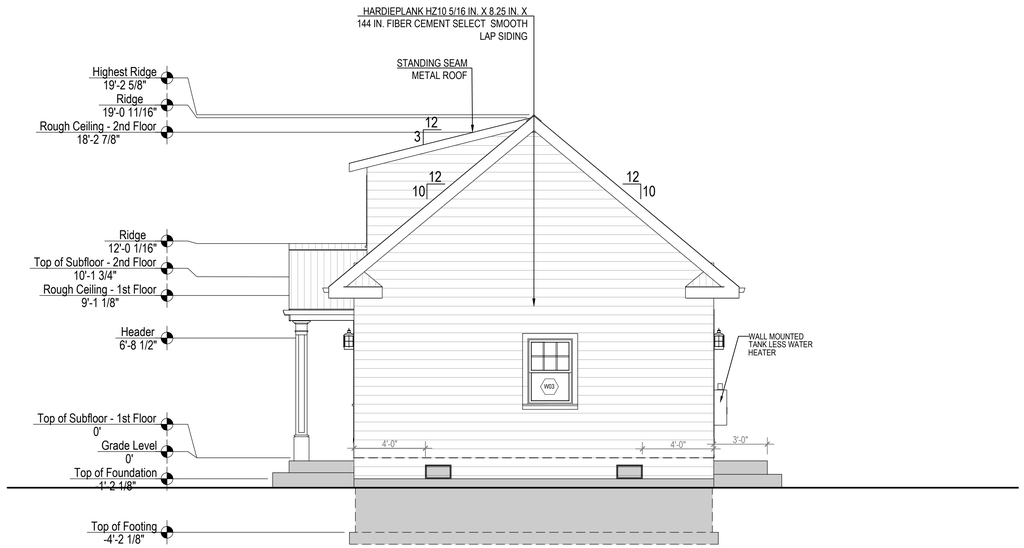


5 PROPOSED ADU NORTH ELEVATION

Scale: 1/4" = 1' - 00"



6 PROPOSED ADU EAST ELEVATION

Scale: 1/4" = 1' - 00"

NOTES

1. ATTICS; ACCESS PER CRC R807, DRAFTSTOPS PER CRC R302.10 & R502.12 AND VENTILATION PER R806 & R408.1.
2. WHERE EMERGENCY ESCAPE AND RESCUE OPENINGS ARE PROVIDED, THEY SHALL HAVE THE BOTTOM OF THE CLEAR OPENING NOT GREATER THAN 44" MEASURED FROM THE FLOOR.
3. PER CRC 310.1.
4. GLAZING IN ENCLOSURES FOR WALLS FACING HOT TUBS, WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS AND SHOWERS WHERE THE BOTTOM EXPOSED EDGE IS LESS THAN 60" MEASURED VERTICALLY ABOVE A STANDING OR WALKING SURFACE. PER CRC R308, R303.1 7 R301.2.1.2.
5. FACTORY-BUILT FIREPLACES AND CHIMNEYS PER CRC R1004, R1005, R1006, A.Q.M.D. RULE 445, AND CAL-GREEN SECTION 4.503.1.
6. COMBUSTION AIR TO FORCED AIR UNIT PER CMC CHAPTER 7.
7. COMBUSTION AIR TO WATER HEATER PER CPC SECTION 507.0.
8. ENVIRONMENTAL AIR DUCTS PER CMC SECTION 504.
9. MECHANICAL EQUIPMENT LOCATION AND PROTECTION AGAINST DAMAGE PER CMC 307.
10. PER THE BUILD IT GREEN PROGRAM'S "GREENPOINT RATING CHECKLIST" SECTION P(D)2, MOISTURE MATERIALS SHALL BE USED IN WET AREAS (i.e. KITCHEN, BATHROOM, UTILITY ROOMS, ETC.)EXTERIOR DOOR LANDING SHALL BE A MAX. OF 7-¾" BELOW DOOR THRESHOLD PER CRC R311.3.2.
11. GRADE NEEDS TO FALL 6" WITHIN THE FIRST 10'
12. CONCRETE SLAB THICKNESS FOR PORCH AND PATIO SLAB SHALL BE 3 ½" MIN. REQUIRED PER R506.1

EXTERIOR ELEVATION NOTES

1. NOTES AND SYMBOLS ARE TO APPLY AT ALL AREAS OF SIMILAR GRAPHIC REPRESENTATION. SUCH INDICATIONS MAY BE LIMITED TO PROMOTE CLARITY OR AVOID REDUNDANCY.
2. SLOPE FINISH GRADE 2% MINIMUM AWAY FROM BUILDING FOR 5'-0" MINIMUM, DIRECT DRAINAGE AWAY FROM BUILDING WALLS TO ELIMINATE PONDING.
3. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR GRILLES, REGISTERS, HORNS, SPEAKERS, PANELS, PULL STATIONS AND OTHER FEATURES NOT OTHERWISE SHOWN
4. FLASH AND SEAL ALL PENETRATIONS THROUGH EXTERIOR ROOFS AND WALLS, AND FLOORS WEATHER TIGHT AND WATERPROOF. PACK ALL PENETRATIONS THROUGH THE BUILDING INSULATION ENVELOPE WITH INSULATION.
5. FLASH ALL WINDOWS, DOORS, LOUVERS, ACCESS PANELS AND SIMILAR WALL OPENINGS PER DETAILS ON SHEET A401.
6. FIREBLOCKING, CBC 717.2.: PROVIDE MATERIALS COMPLYING WITH CBC 717.2.1 AT CONCEALED SPACES, FURRED SPACES, CEILING/FLOOR LEVELS AND 10'-0" INTERVALS ALONG LENGTH OF WALL, SOFFITS, DROP CEILINGS, AND COVE CEILINGS, CONCEALED PLACES BETWEEN STAIR STRINGERS & BETWEEN STUDS IN LINE WITH STAIR RUN, AND ALL LOCATIONS LISTED IN CBC 717.2.2 THROUGH 717.2.7.
7. FLOOR/CEILING DRAFTSTOPPING, CBC 717.3: PROVIDE MATERIALS COMPLYING WITH CBC 717.3.1. AT FLOOR/CEILING ASSEMBLIES AS REQUIRED BY CBC 717.3.2 THROUGH 717.3.3. -GROUP R-1, R-2, R-3, R-4

EXCEPTION: DRAFTSTOPPING NOT REQUIRED IN BUILDINGS SPRINKLERED PER CBC 903.3.1.1.

EXCEPTION: DRAFTSTOPPING NOT REQUIRED IN BUILDINGS SPRINKLERED PER CBC 903.3.2.1 WHEN SPRINKLERS ARE INSTALLED IN THE COMBUSTIBLE CONCEALED SPACES

8. ATTIC DRAFTSTOPPING, CBC 717.4: PROVIDE MATERIALS COMPLYING WITH CBC 717.3.1. IN ATTICS AND CONCEALED ROOF SPACES AS REQUIRED BY CBC 717.4.2 THROUGH 717.4.3. PROVIDE SELF-CLOSING DOORS WITH AUTOMATIC LATCHES CONSTRUCTED AS REQUIRED FOR DRAFTSTOPPING PARTITIONS.
9. REFER TO REFLECTED CEILING PLAN FOR LOCATION OF CLERESTORY WINDOWS, TYPICAL.
10. ELEVATIONS SHOWN ARE MEASURED FROM FINISHED FLOOR DATUM FOR THIS BUILDING.
11. NEW WORK PROVIDE BLOCKING, BACKING, FRAMING, SHEATHING, UTILITIES OR OTHER CONCEALED WORK, WHETHER SPECIFICALLY SHOWN OR INFERRED. REFER TO STRUCTURAL DRAWINGS FOR CONCEALED WORK NOT SHOWN ON ARCHITECTURAL DRAWINGS.
12. REMODEL/ADDITION WORK NEATLY CUT AND REMOVE SURFACES AND FINISHES AS REQUIRED OR TO A NATURAL POINT OF DIVISION TO ENABLE INSTALLATION OF BLOCKING, BACKING, FRAMING, SHEATHING, UTILITIES OR OTHER CONCEALED WORK, WHETHER SPECIFICALLY SHOWN OR INFERRED FOR SUPPORT OR RENOVATION. REFER TO STRUCTURAL DRAWINGS FOR CONCEALED WORK NOT SHOWN ON ARCHITECTURAL DRAWINGS.
13. REPAIR AND REPLACE ALL EXISTING SURFACES AND FINISHES TO MATCH EXISTING UNDISTURBED WORK.
14. ALL NEW ADDITION WORK FINISHES AND COLORS FOR SIDING, TRIM, WINDOWS, ROOFING, ETC. ARE TO MATCH EXISTING FINISHES AND COLORS.

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Project Name and Address:

REMODEL AND ADU ADDITION FOR
CUONG NGUYEN
1651 PARKSIDE AVE. SAN JOSE, CA 95125

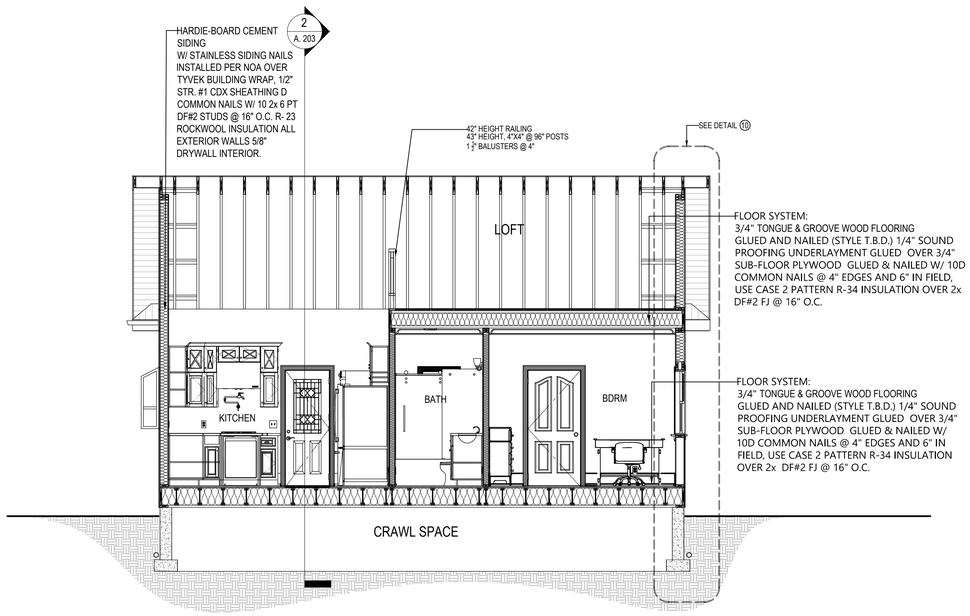
Date:
APRIL 23, 2019
Scale:
1/4"=1'-00"

DRAWING TITLE:
PROPOSED NORTH AND EAST ELEVATIONS

Sheet :
3 OF 10

Page No. :
A. 202

No.	Revision/Issue	Date
1	ISSUED FOR PLANNING APPROVAL	



7 PROPOSED CROSS SECTION 1

Scale: 1/4" = 1' - 00"

BUILDING CODE REQUIREMENT

ANY ACCESS DOOR TO THE CRAWL SPACE MUST BE AT LEAST 18X24 INCHES (2015 INTERNATIONAL CONFORM TO SPECIFICATIONS RESIDENTIAL CODE (IRC) - SECTION R408.4).

ANY DRAIN LOCATED IN THE CRAWL SPACE MUST BE ALLOWED TO RUN OFF AND TERMINATE OUTDOORS OR NEED TO MEET SPECIFICATIONS TO AN INTERIOR CRAWL SPACE DRAIN OR SUMF PUMP. CRAWL SPACE DRAINS MAY NOT RUN OFF TO GUTTERS OR FOUNDATION PERIMETER DRAINS, AND DRYER VENTS MUST BE TERMINATED OUTDOORS (2015 IRC – SECTIONS R405 AND P2719).

(R408.1), 2009 IRC- OPENINGS FOR UNDER-FLOOR VENTILATION:

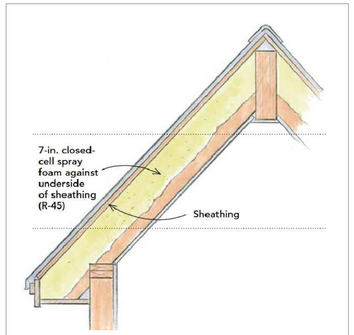
THE MINIMUM NET AREA OF VENTILATION OPENINGS SHALL NOT BE LESS THAN 1 SQUARE FOOT (0.0929 M2) FOR EACH 150 SQUARE FEET (14 M2) OF UNDER-FLOOR SPACE AREA.

600/150= 4 SF

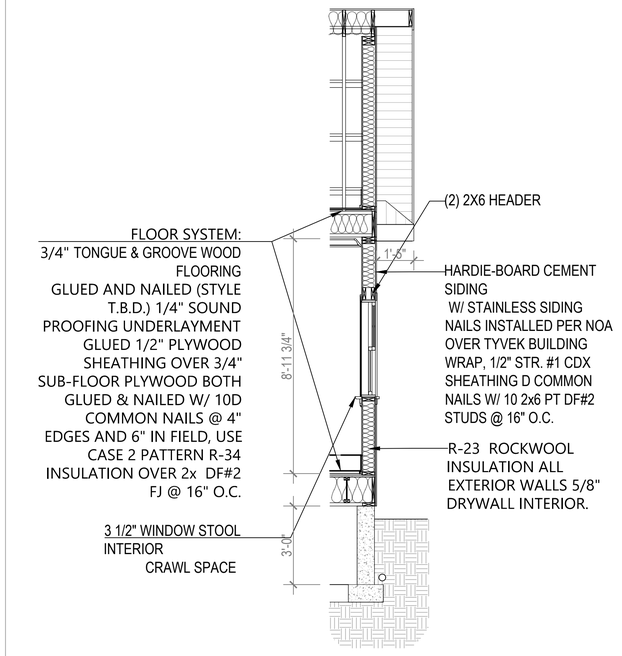
(8"X16") VENT DIMENSION=.88 SF

4/.88= 4.5

5 VENTS REQUIRED 9 VENTS DESIGNED

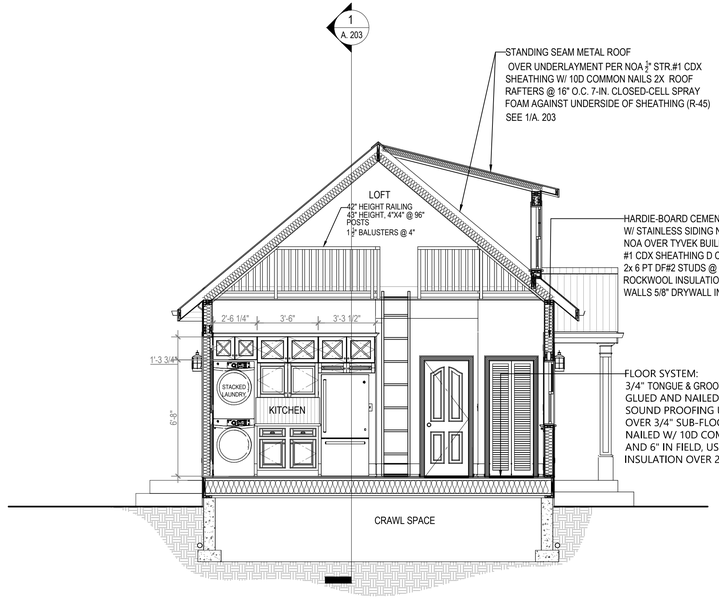


1 A.203 7 " CLOSED-CELL SPRAY FOAM AGAINST UNDERSIDE OF SHEATHING



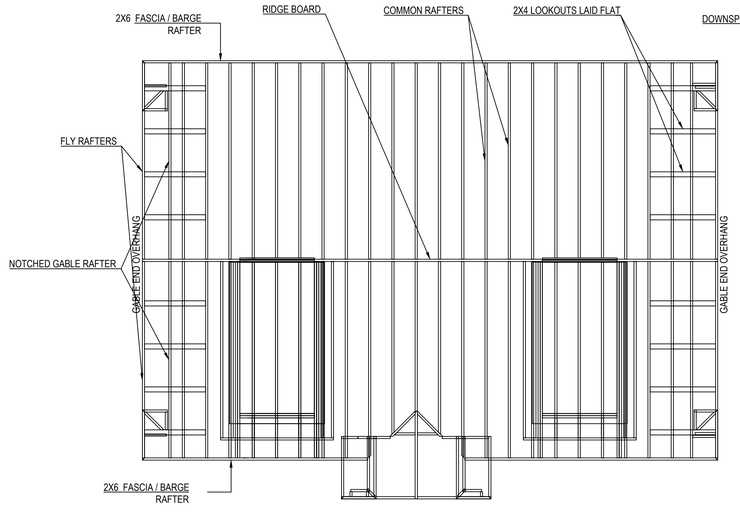
10 TYPICAL WALL SECTION

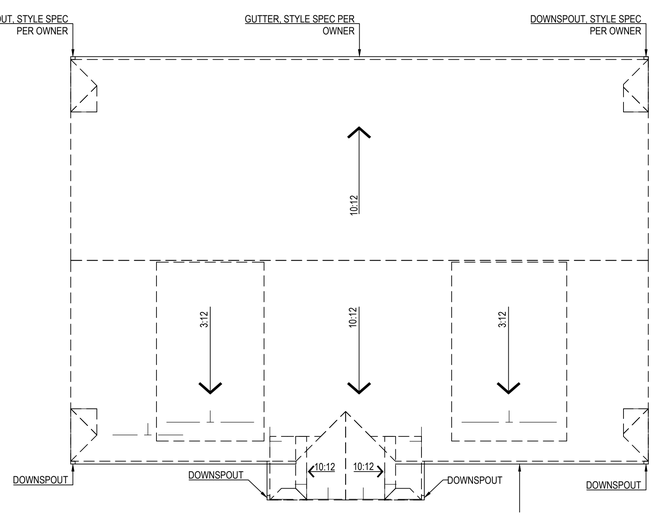
Scale: 3/8" = 1' - 00"



8 PROPOSED CROSS SECTION 2

Scale: 1/4" = 1' - 00"





9 PROPOSED ROOF PLAN

Scale: 1/4" = 1' - 00"

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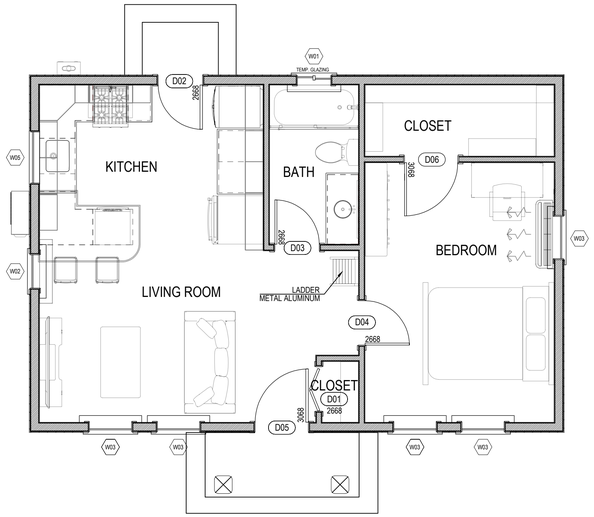
Date: APRIL 23, 2019
Scale: 1/4"=1'-00"

DRAWING TITLE:
PROPOSED CROSS SECTIONS AND ROOF PLAN

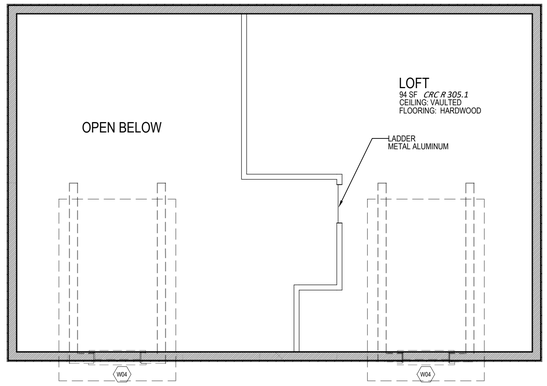
Sheet : 4 OF 10

Page No. : A. 203

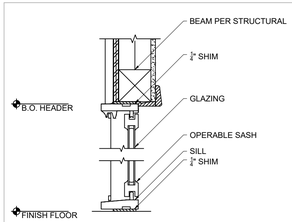
No.	Revision/Issue	Date
1	ISSUED FOR PLANNING APPROVAL	



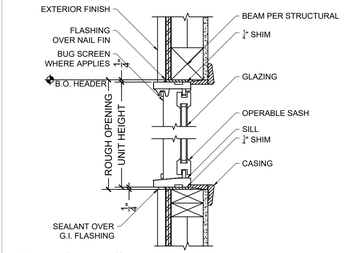
11 1ST FLOOR
NTS



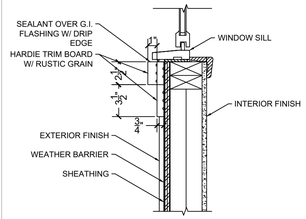
12 2ND FLOOR
NTS



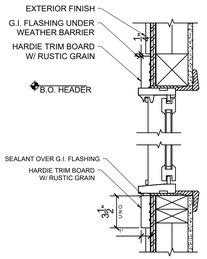
1 SLIDING GLASS DOOR HEAD/SILL
NTS



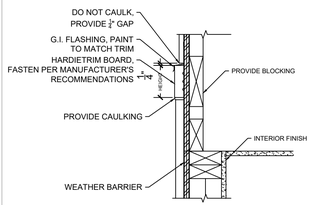
2 WINDOW HEAD/SILL
NTS



3 HARDIE SILL
NTS



4 HARDIE TRIM
NTS



5 HARDIETRIM BOARD
NTS

DOOR SCHEDULE

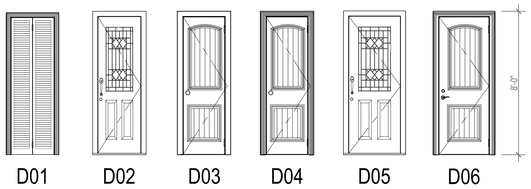
NUMBER	LABEL	QTY	FLOOR	SIZE	WIDTH	HEIGHT	R/O	DESCRIPTION	HEADER	THICKNESS	MANUFACTURER	ROOM NAME	SHGC	SWING SIDE	U-FACTOR
D01	2668	1	1	2668 L	30 "	80 "	32"X82 1/2"	2 DR. BIFOLD-LOUVERED	2X6X35" (2)	1 3/8"	to be chosen by owner	LIVING/CLOSET	0.3	IN	0.35
D02	2668	1	1	2668 L EX	30 "	80 "	32"X83"	EXT. HINGED-DOOR L05	2X6X35" (2)	1 3/4"	to be chosen by owner	KITCHEN	0.3	IN	0.35
D03	2668	1	1	2668 L IN	30 "	80 "	32"X82 1/2"	HINGED-DOOR PS02	2X6X35" (2)	1 3/8"	to be chosen by owner	LIVING/BATH	0.3	OUT	0.35
D04	2668	1	1	2668 R IN	30 "	80 "	32"X82 1/2"	HINGED-DOOR PS02	2X6X35" (2)	1 3/8"	to be chosen by owner	BEDROOM/LIVING	0.3	IN	0.35
D05	3068	1	1	3068 R EX	36 "	80 "	38"X83"	EXT. HINGED-DOOR L05	2X6X41" (2)	1 3/4"	to be chosen by owner	LIVING	0.3	IN	0.35
D06	3068	1	1	3068 R IN	36 "	80 "	38"X82 1/2"	HINGED-DOOR PS02	2X6X41" (2)	1 3/8"	to be chosen by owner	BEDROOM/CLOSET	0.3	IN	0.35

WINDOW SCHEDULE

NUMBER	LABEL	QTY	FLOOR	SIZE	WIDTH	HEIGHT	R/O	EGRESS	DESCRIPTION	HEADER	MANUFACTURER	COMMENTS	SHGC	U-FACTOR	TEMPERED
W01	2010RS	1	1	2014RS	24 "	12 ''	25''X13''		RIGHT SLIDING	2X6X28" (2)	to be chosen by owner		0.4	0.35	TEMP. GLAZING
W02	2030DH	1	1	2030DH	24 "	36 "	25"X37"		DOUBLE HUNG	2X6X28" (2)	to be chosen by owner		0.4	0.35	
W03	2638DH	5	1	2638DH	30 "	44 "	31"X45"		DOUBLE HUNG	2X6X34" (2)	to be chosen by owner		0.4	0.35	
W04	2838DH	2	DORMER WINDOW	2838DH	32 "	44 "	33"X45"		DOUBLE HUNG	2X6X36" (2)	to be chosen by owner		0.4	0.35	
W05	3036CU	1	1	3036CU	36 "	42 "	$36\frac{1}{2}$"X $42\frac{1}{2}$"		GARDEN	2X6X39" (2)	to be chosen by owner		0.4	0.35	

ENERGY NOTES

1. ALL OPENABLE WINDOWS AND SLIDING DOORS SHALL LIMIT AIR LEAKAGE AND BE CERTIFIED AND LABELED TO COMPLY WITH ANSI STANDARD AIS 4.2-1972.
2. FIXED WINDOWS SHALL BE SEALED TO LIMIT AIR INFILTRATION.
3. ALL EXTERIOR DOORS AND WINDOWS ARE TO BE WEATHERSTRIPPED.
4. SITE BUILT DOORS MOUNTED ON THE INSIDE OR THE OUTSIDE OF EXTERIOR WALLS SHALL HAVE A MIN. 1" LAP AT JAMBS.
5. OPEN EXTERIOR JOINTS AROUND WINDOW AND DOOR FRAMES BETWEEN WALLS, FOUNDATIONS, ROOFS, PANELS, AND AT PENETRATION OF UTILITIES THRU THE ENVALOPE, SHALL BE SEALED, CAULKED, OR WEATHERSTRIPPED TO LIMIT AIR LEAKAGE.
6. PROVIDE A "CERTIFICATE OF COMPLIANCE" SIGNED BY THE OWNER, G.C., ARCHITECT, OR ENGINEER TO THE BLDG. DEPARTMENT STATING THAT THE WORK HAS BEEN PERFORMED AND MATERIALS INSTALLED ACCORDING TO THE PLANS AND SPECIFICATIONS AFFECTING NON-RESIDENTIAL ENERGY.
7. INSULATION SHALL BE INSTALLED TO MEET FLAME SPREAD AND SMOKE DENSITY REQUIREMENTS OF 5311 AND TITLE 24.



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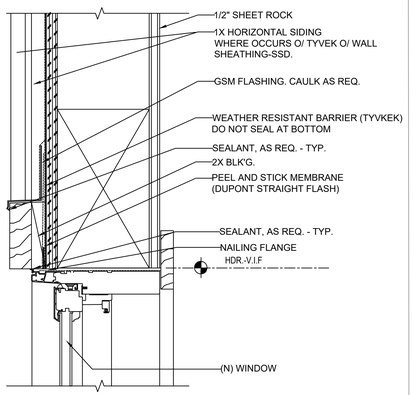
Date: APRIL 23, 2019
Scale: 1/4"=1'-00"

DRAWING TITLE: PROPOSED DOOR & WINDOW SCHEDULE

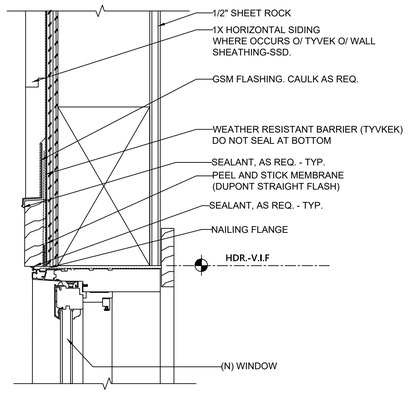
Sheet : 5 OF 10

Page No. : A. 301

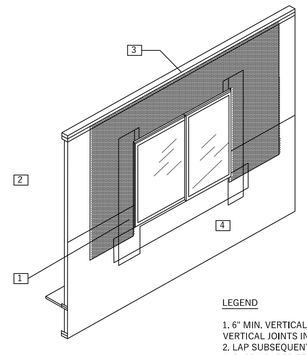
No.	Revision/Issue	Date
1	ISSUED FOR PLANNING APPROVAL	



WINDOW HEAD @ WD. BOARD & BATTEN SIDING 12



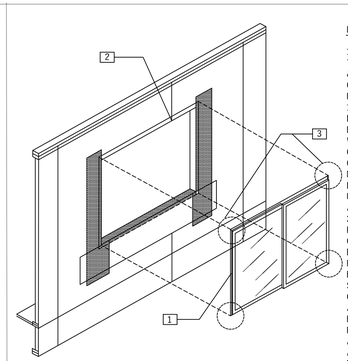
WINDOW HEAD @ HORIZONTAL SIDING 9



LEGEND

1. 6" MIN. VERTICAL LAP FOR ALL HORIZONTAL & VERTICAL JOINTS IN BUILDING PAPER.
2. LAP SUBSEQUENT COURSES OVER "MOISTOP".
3. CARRY PAPER TO UPPER EDGE OF TOP PLATE.
4. HOLD PAPER BACK 1" FROM WINDOW.

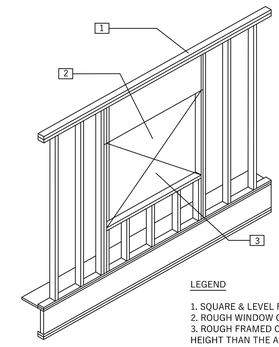
BUILDING PAPER-SECOND COURSE 7



LEGEND

1. SHIM & ADJUST WINDOW TO ACHIEVE SQUARE PLUMB & LEVEL CONDITION. USE CORROSION RESISTANT FASTENERS. FASTEN WITHIN 10" AND NO CLOSER THAN 3" IN EACH DIRECTION FROM EVERY CORNER. SECURE WINDOW AROUND FRAME OPENING WITH EQUIVALENT OF 64 FASTENERS AT 16" O.C. MAX. REFER TO MFG.'S INSTRUCTIONS REGARDING UPPER NAIL FIN ATTACHMENT.
2. TO SEAL THE WINDOW FRAME TO OPENING, APPLY CONTINUES SEALANT TO THE BACKSIDE OF THE MOUNTING FLANGE NEAR THE OUTER EDGE OR APPLY CONTINUES SEALANT TO PERIMETER OF OPENING AT A POINT TO ASSURE CONTACT WITH BACKSIDE OF MOUNTING FLANGE.
AFTER INSTALLATION, SEAL ALL CORNERS OF MECHANICALLY JOINT FRAMES TO SEAL FRAME SEAM JUNCTURE.

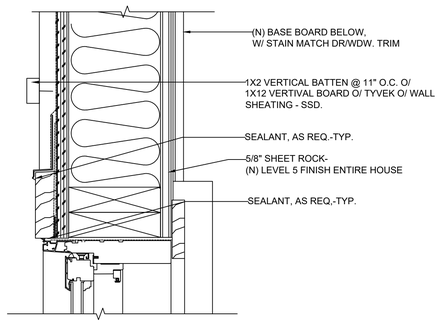
WINDOW INSTALLATION 4



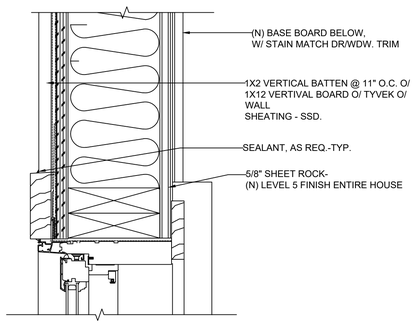
LEGEND

1. SQUARE & LEVEL FRAMING.
2. ROUGH WINDOW OPENING.
3. ROUGH FRAMED OPENING SUFFICIENTLY IN WIDTH & HEIGHT THAN THE ACTUAL FRAME DIMENSIONS OF THE WINDOW. TO ASSURE ADEQUATE CLEARANCE CONSULT THE WINDOW MANUFACTURED'S LITERATURE FOR THE RECOMMENDED ROUGH OPENING DIMENSIONS.

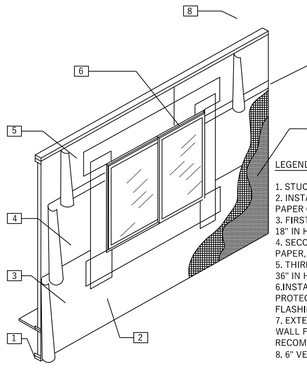
ROUGH WINDOW OPENING 1



WINDOW JAMB @ WD. BOARD & BATTEN SIDING 13



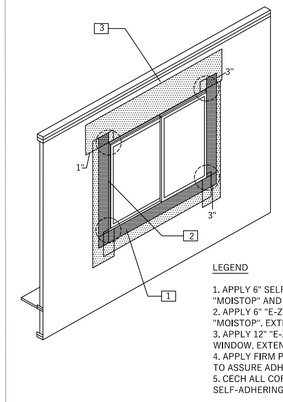
WINDOW JAMB@HORIZONTAL SIDING 10



LEGEND

1. STUCCO WEED
2. INSTALL SECOND LAYER OF 60 MIN. PAPER OVER EVERYTHING.
3. FIRST COURSE OF BUILDING PAPER, 18" IN HEIGHT.
4. SECOND COURSE OF BUILDING PAPER, 36" IN HEIGHT.
5. THIRD COURSE OF BUILDING PAPER, 36" IN HEIGHT.
6.INSTALL WINDOW HEAD FLASHING. PROTECTION LAYER LAPS OVER FLASHING FLANGE.
7. EXTERIOR WALL FINISH: INSTALL PER WALL FINISH MFG.'S RECOMMENDATION.
8. 6" VERTICAL/HORIZONTAL LAPS.

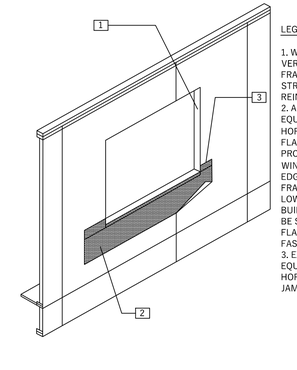
TRIM-FLASHING-PROTECTION COURSE 8



LEGEND

1. APPLY 6" SELF-ADHERING "E-Z SEAL" MEMBRANE OVER "MOISTOP" AND 3" BEYOND WINDOW FLANGE.
2. APPLY 6" "E-Z SEAL" MEMBRANE AT JAMBS OVER "MOISTOP". EXTEND 3" BEYOND WINDOW FLANGE.
3. APPLY 12" "E-Z SEAL" MEMBRANE AT HEADER OF WINDOW. EXTEND 1" BEYOND "MOISTOP".
4. APPLY FIRM PRESSURE TO SELF-ADHERING MEMBRANE TO ASSURE ADHERENCE TO WINDOW FINS.
5. CECH ALL CORNERS FOR PROPER SEAL OF SELF-ADHERING MEMBRANE.

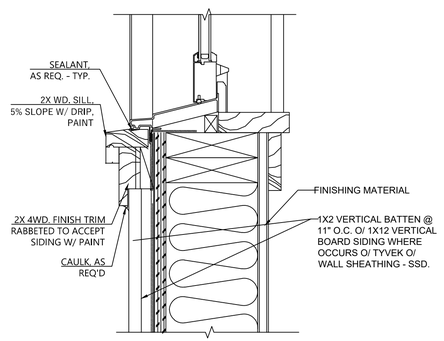
SELF-ADHESIVE MEMBRANE 5



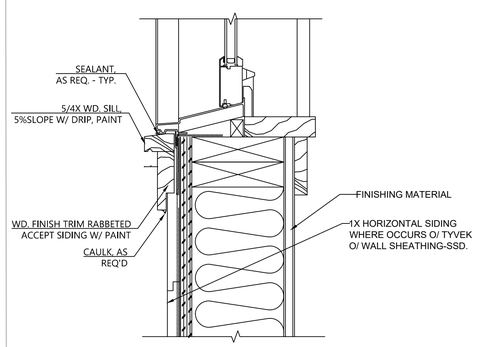
LEGEND

1. WALL SHEATHING (WHERE OCCURS). VERIFY SHEATHING EDGES FLUSH WITH FRAME OPENING AND COMPLETION OF STRUCTURAL NAILING & REINFORCEMENT BEFORE PROCEEDING.
2. APPLY 9" "MOISTOP" OR APPROVED EQUIVALENT SILL FLASHING HORIZONTALLY BELOW THE SILL. (WRAP FLASHING INTO ROUGH OPENING TO PROTECT FRAMING , AT RECESSED WINDOWS ONLY.) FASTEN THE TOP EDGE OF THE SILL FLASHING TO THE FRAMING, BUT DO NOT FASTEN THE LOWER EDGE, SO WEATHER RESISTANT BUILDING PAPER APPLIED LATER MAY BE SLIPPED UP & UNDERNEATH THE FLASHING IN WEATHER BOARD FASHION.
3. EXTEND "MOISTOP" OR APPROVED EQUIVALENT SILL FLASHING HORIZONTALLY 1" BEYOND VERTICAL JAMB FLASHING APPLIED LATER.

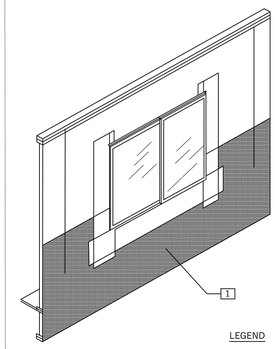
SILL FLASHING 2



WINDOW SILL @ WD. BOARD & BATTEN SIDING 14



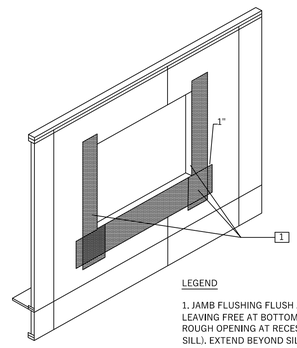
WINDOW SILL @ HORIZONTALN SIDING 11



LEGEND

1. INSERT FIRST COURSE 60 MIN. PAPER UNDER "MOISTOP" AND STAPLE "MOISTOP".

BUILDING PAPER- FIRST COURSE 6



LEGEND

1. JAMB FLUSHING FLUSH AT BOTH SIDES OF OPENING LEAVING FREE AT BOTTOM. (WRAP JAMB FLASHING INTO ROUGH OPENING AT RECESSED WINDOWS ONLY. SIMILAR AT SILL). EXTEND BEYOND SILL FLASHING ABOVE WHERE HEAD FLASHING WILL INTERSECT. LAP JAMB FLASHING OVER TOP SILL FLASHING. LEAVE PAPER FLASHING UNATTACHED FROM SILL DOWN.

JAMB FLASHING 3

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Date: APRIL 23, 2019
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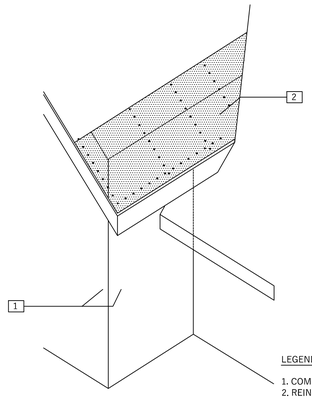
DRAWING TITLE:
PROPOSED BUILDING PAPER/ HOUSE WRAP DETAILS AROUND WINDOWS

Sheet : 6 OF 10

Page No. : A. 401

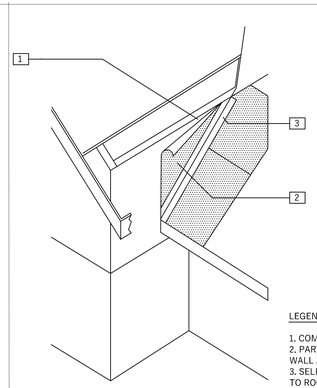
No.	Revision/Issue	Date
1	ISSUED FOR PLANNING APPROVAL	



LEGEND

1. COMPLETE INSTALL OF STUCCO.
2. REINSTALL PLY AFTER STUCCO IS INSTALLED.

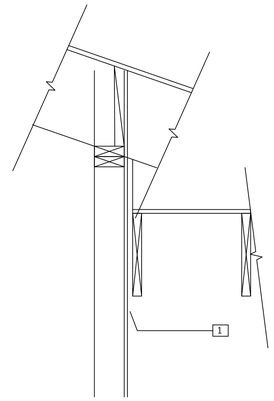
FINAL ROOF SHEATHING 7



LEGEND

1. COMPLETE PAPERING OF WALL.
2. PARTIAL INSTALL 30# ROOF FELT 18" UP WALL AND 24" ON ROOF TOP.
3. SELF-ADHERING MEMBRANE 3" ON WALL TO ROOF.

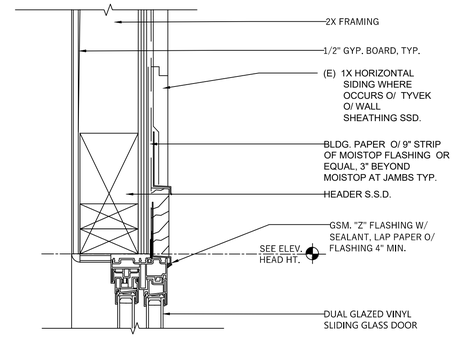
BUILDING PAPER TO WALL 4



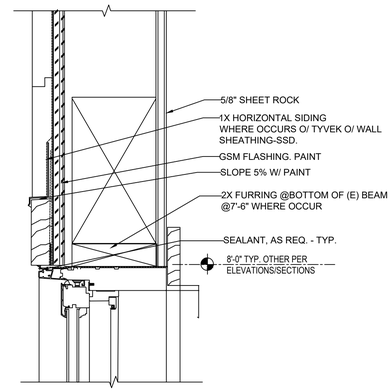
LEGEND

1. 1/2" CLEARANCE BETWEEN WALL AND ROOF SHEATHING.

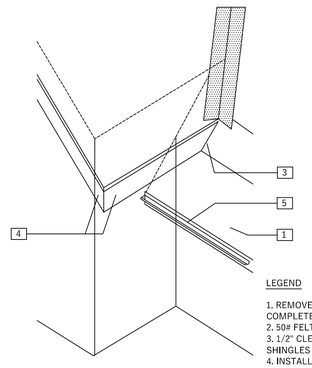
ROOF TO WALL 1



SLIDING GLASS DOOR HEAD/JAMB 18



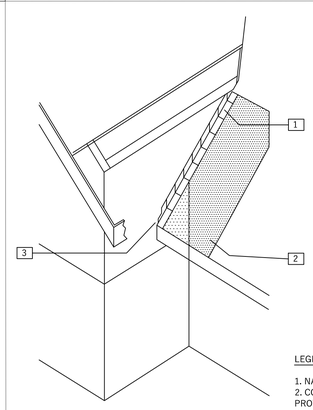
TYP. DOOR HEAD @ HORIZONTAL WD. SIDING 15



LEGEND

1. REMOVE PROTECTION BOARD & COMPLETE ROOFING FELT.
2. 50# FELT OVER WOVEN 30# VALLEY.
3. 1/2" CLEARANCE BETWEEN ROOF SHINGLES AND FASCIA.
4. INSTALL FINISH FASCIAS.
5. INSTALL GUTTERS.

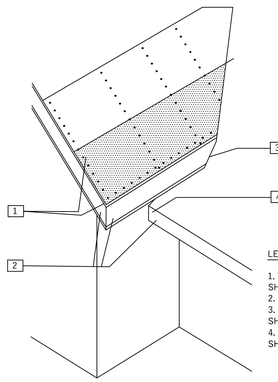
FINISH APPLICATION 8



LEGEND

1. NAIL G.I. FLASHING TO WALL.
2. COVER ROOF FELT WITH PROTECTION BOARD.
3. DIVERTER STEP FLASHING.

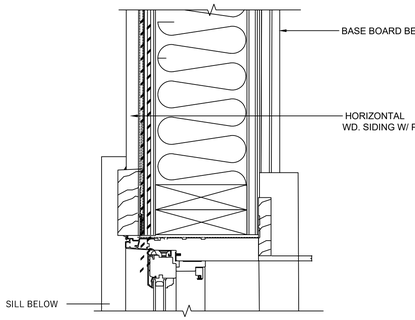
STEP FLASHING 5



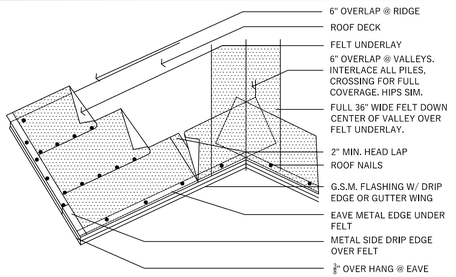
LEGEND

1. TACK NAIL LOWER EPIC OF ROOF SHEATHING.
2. 2X ROUGH FASCIA.
3. 1 1/2" CLEARANCE BETWEEN FASCIA AND SHEATHING.
4. 1 1/2" CLEARANCE BETWEEN WALL SHEATHING & ROOF RAFTER.

ROUGH FRAMING 2

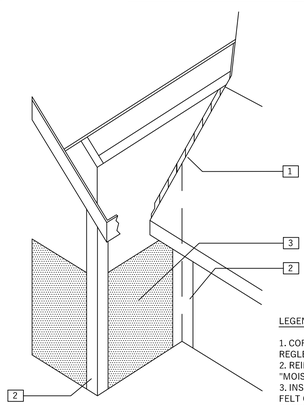


TYP. DOOR JAMB @ HORIZONTAL WD. SIDING 16



APPLICATION NOTES FOR LOW SLOPE, 2:12 TO LESS THAN 4:12 :
1. START W/ 1-19" WIDE SHEET OF FELT ALONG EAVE W/ ¾" OVERHANG.
2. TROWEL A CONTINUOUS LAYER OF ROOFING CEM. (@ A RATE OF 2 GAL. PER 100 SQ. FT) ON TO THE FELT.
3. PRESS 1-36" WIDE SHEET OF FELT FIRMLY ONTO THE CEM., & NAIL DOWN W/ GALV. ROOFING NAILS @ 12" O.C. ALONG A LINE 18" ABOUT THE BTM. EDGE OF THE FELT.
4. APPLY ROOFING CEM. TO THE UPPER 19" OF THE EXPOSED FELT.
5. COVER THE CEMENTED PORTION W/ THE NEXT SHEET OF FELT & NAILS.
6. REPEAT PROCESS UNTIL 24" INSIDE THE INTERIOR WALL LINE.
7. COVER THE REMAINING ROOF W/ DBL. LAYERS OF FELT, W/O CEM., UP TO THE RIDGE.

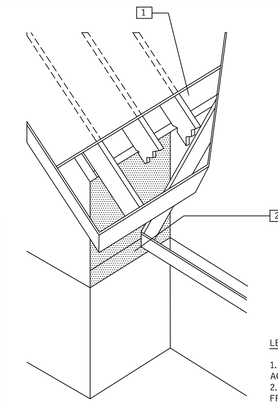
FELT UNDERLAYMENT 9



LEGEND

1. CORNER FLASH FLASHING WITH G.I. REGLET.
2. REINFORCE CORNERS WITH 12" "MOISTOP".
3. INSTALL SECOND COURSE OF 60 MINUTE FELT OVER REGLET AND STUCCO WEEP SCREED.

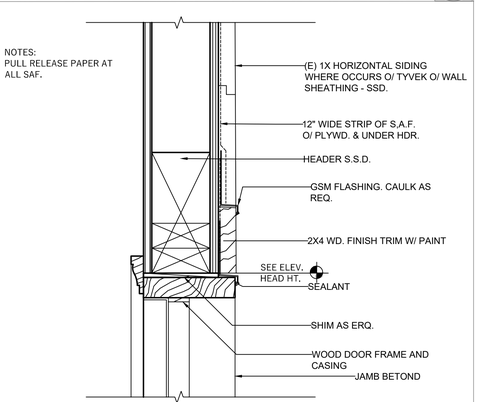
CORNER FLASHING 6



LEGEND

1. ROOF PLY TEMPORARILY MOVED FOR ACCESS.
2. INSTALL CONTINUOUS PIECE OF FELT FROM CORNER TO CORNER EXTENDING UP TO TOP PLATE.

FELT APPLICATION 3



DOOR HEAD/JAMB 17

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Project Name and Address:

REMODEL AND ADU ADDITION FOR
CUONG NGUYEN
1651 PARKSIDE AVE. SAN JOSE, CA 95125

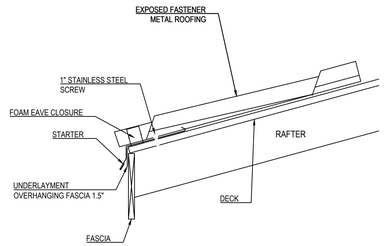
Date: APRIL 23, 2019
Scale: NTS

DRAWING TITLE:
PROPOSED BUILDING PAPER/ HOUSE WRAP
DETAILS AROUND WALL TO ROOF TRANSITION

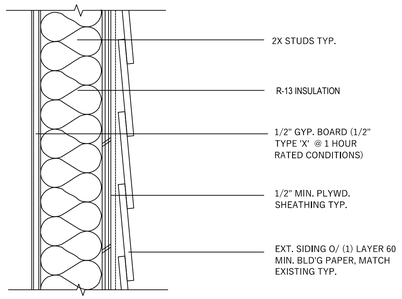
Sheet : 7 OF 10

Page No. : A. 402

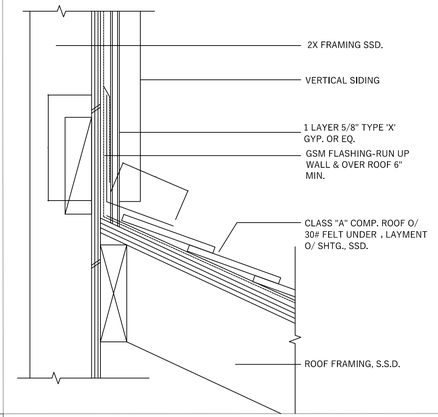
No.	Revision/Issue	Date
1	ISSUED FOR PLANNING APPROVAL	



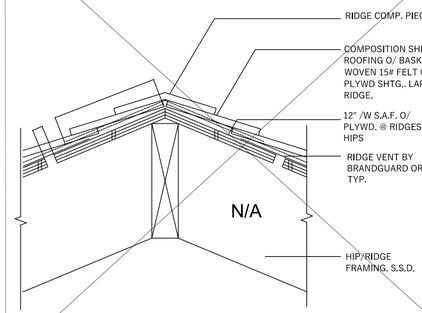
22 HORIZONTAL LAP SIDING



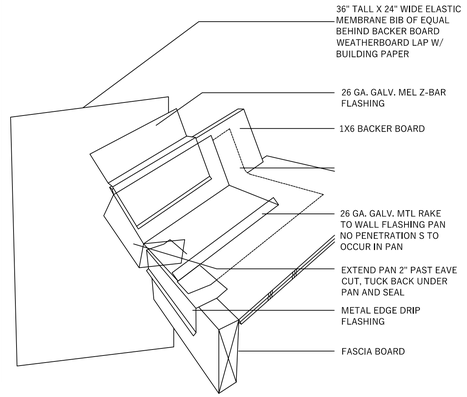
19 ROOF TO WALL PERP.



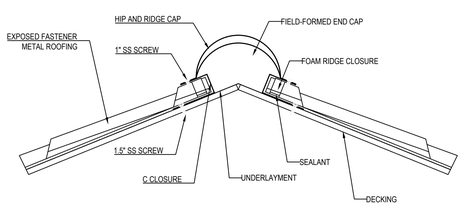
16 RIDGE



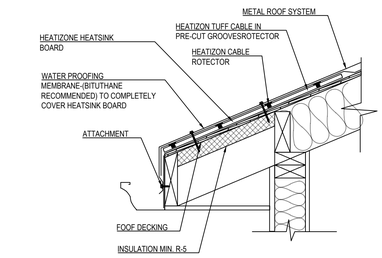
13 RAKE TO WALL DIVERTER



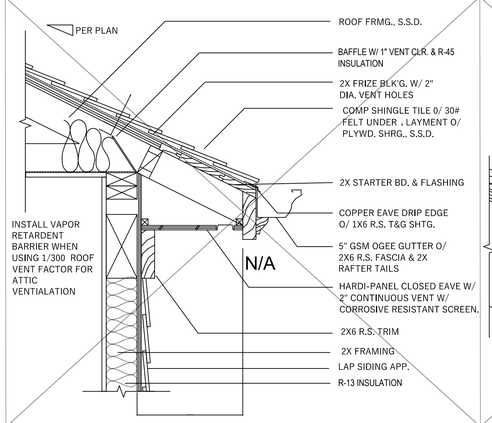
10



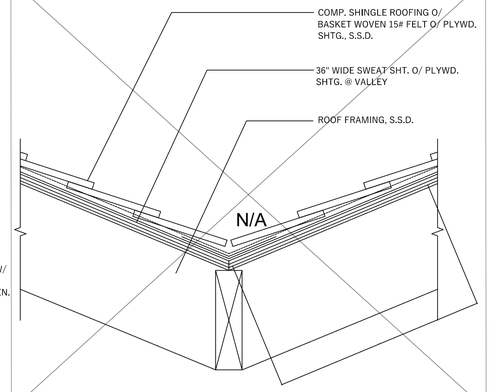
23 RIDGE CAP DETAIL



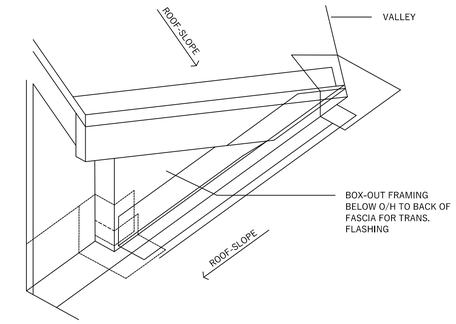
20 EAVE DETAIL-TUFF CABLE IN HEATSINK UNDER METAL ROOF



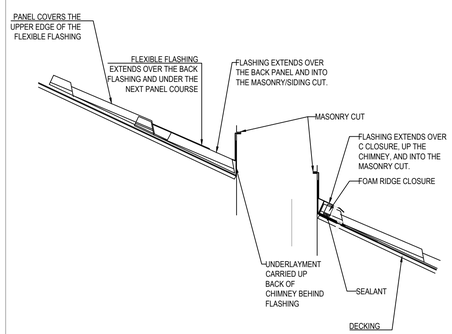
17 EAVE



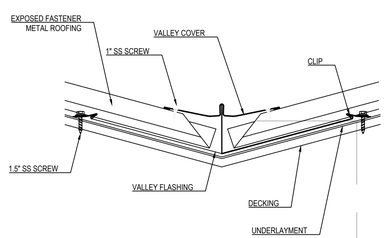
14 VALLEY



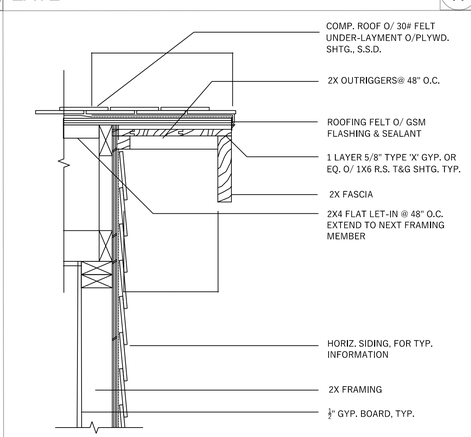
11 RAKE TO EAVE TRANSITION



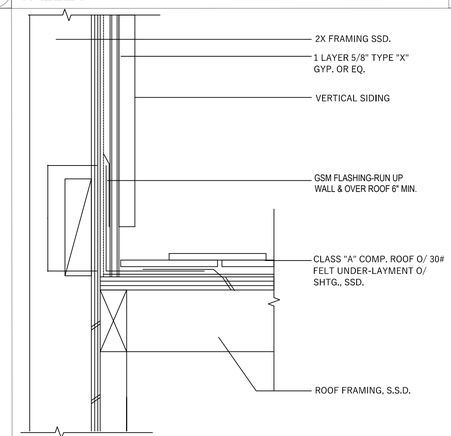
24 METAL ROOF CHIMNEY FLASHING DETAILS



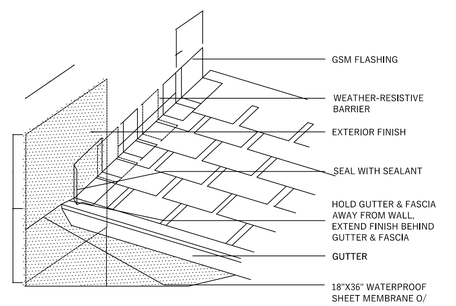
21 METAL ROOF VALLEY DETAIL



18 RAKE



15 ROOF TO WALL PARALLEL



12 ISOMETRIC EAVE PERP. TO WALL @ COMP.

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Project Name and Address:

REMODEL AND ADU ADDITION FOR
CUONG NGUYEN
1651 PARKSIDE AVE. SAN JOSE, CA 95125

Date: APRIL 23, 2019
Scale: NTS

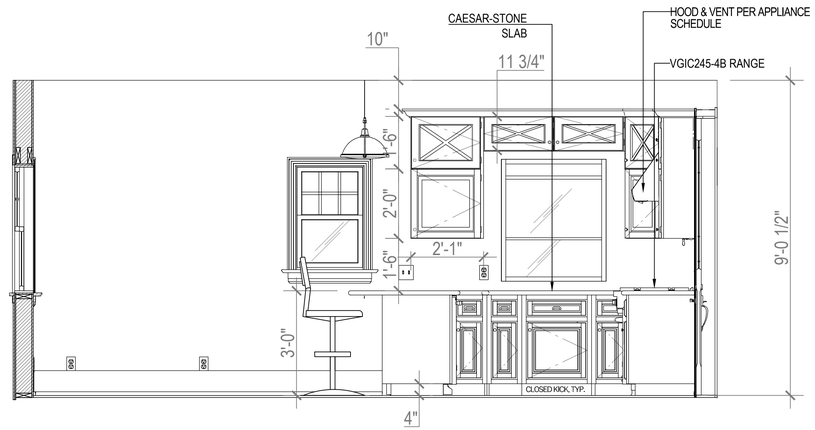
DRAWING TITLE:
PROPOSED BUILDING PAPER/ HOUSE WRAP DETAILS AT WALL TO ROOF TRANSITION

Sheet : 8 OF 10
Page No. : A. 403

No.	Revision/Issue	Date
1	ISSUED FOR PLANNING APPROVAL	

13 KITCHEN FLOOR PLAN

Scale: 1/2" = 1' - 00"



1 KITCHEN INTERIOR ELEVATION

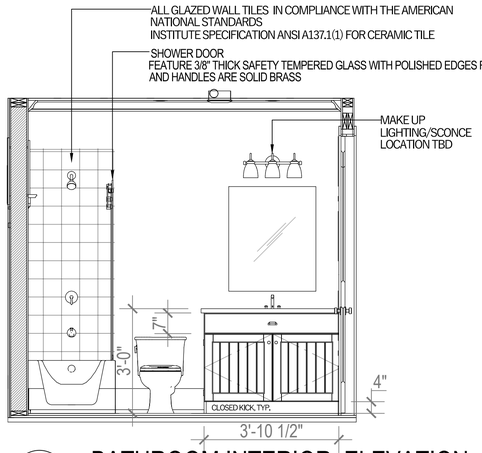
Scale: 1/2" = 1' - 00"

14 KITCHEN PERSPECTIVE VIEW

NTS

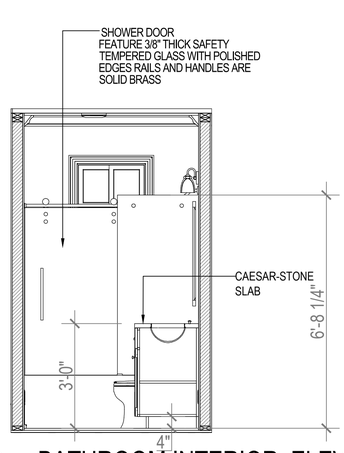
15 BATHROOM FLOOR PLAN

Scale: 1/2" = 1' - 00"



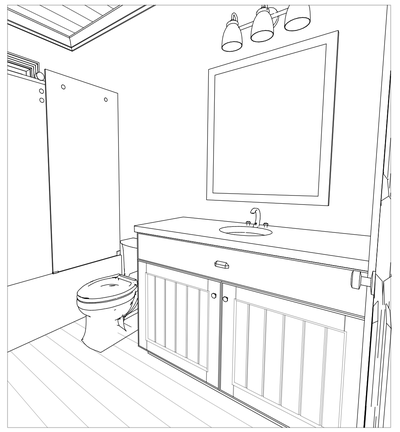
1 BATHROOM INTERIOR. ELEVATION

Scale: 1/2" = 1' - 00"



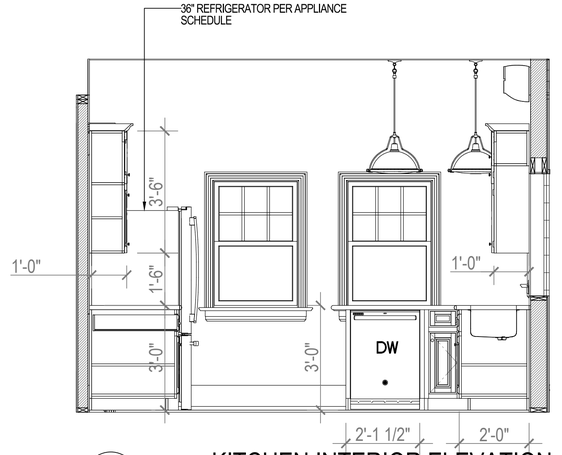
2 BATHROOM INTERIOR. ELEVATION

Scale: 1/2" = 1' - 00"



16 BATH PERSPECTIVE VIEW

Scale: 1/2" = 1' - 00"



2 KITCHEN INTERIOR ELEVATION

Scale: 1/2" = 1' - 00"

FIXTURE SCHEDULE

LABEL	QTY	FLOOR	WIDTH	DEPTH	HEIGHT	DESCRIPTION	CODE	MANUFACTURER	COMMENTS
AC OUTDOOR COMPRESSOR	1	1	31 "	12 3/4 "	29 1/2 "	AC OUTDOOR COMPRESSOR			All appliance, finish fixtures to be determined by owner
BOWL (UNDERMOUNT) SINK [12 7/16W]	1	1	12 7/16 "	14 11/16 "	11 7/16 "	BOWL (UNDERMOUNT) SINK [12 7/16W]			All appliance, finish fixtures to be determined by owner
DUCTLESS AC HEAT	2	1	43 3/16 "	8 11/16 "	12 5/8 "	DUCTLESS AC HEAT			All appliance, finish fixtures to be determined by owner
FAUCET (ARC)	4	1	12 5/16 "	8 5/16 "	12 "	FAUCET (ARC)			All appliance, finish fixtures to be determined by owner
GDE25ESKSS	1	1	32 13/16 "	37 1/2 "	69 7/8 "	GDE25ESKSS		GE	All appliance, finish fixtures to be determined by owner
GDT635H	1	1	23 3/4 "	24 "	30 1/4 "	GDT635H		GE	All appliance, finish fixtures to be determined by owner
GFD48ES	2	1	28 "	34 3/8 "	39 3/8 "	GFD48ES		GE	All appliance, finish fixtures to be determined by owner
K-3325-HCF UNDERTONE, PRESERVE UNDER-MOUNT KITCHEN SINK	1	1	23 "	17 9/16 "	10 3/8 "	K-3325-HCF UNDERTONE, PRESERVE UNDER-MOUNT KITCHEN SINK		KOHLER	All appliance, finish fixtures to be determined by owner
K-3639	1	1	30 "	36 "	26 3/16 "	K-3639 ARCHER TOILET		KOHLER	All appliance, finish fixtures to be determined by owner
K-99270	1	1	13 7/8 "	4 3/4 "	12 7/16 "	K-99270 ARTIFACTS POT FILLER KITCHEN SINK FAUCET		KOHLER	All appliance, finish fixtures to be determined by owner
PW302418	1	1	29 15/16 "	22 1/8 "	18 7/8 "	30" PRO WALL HOOD - 24" DEPTH		SUB-ZERO GROUP, INC	All appliance, finish fixtures to be determined by owner
TANKLESS WATER HEATER	1	1	15 3/4 "	9 "	28 "	TANKLESS WATER HEATER			All appliance, finish fixtures to be determined by owner
TUB-SHOWER 5	1	1	60 "	30 1/2 "	83 1/4 "	TUB-SHOWER 5			All appliance, finish fixtures to be determined by owner
VGIC245-4B RANGE	1	1	23 7/8 "	27 3/4 "	37 1/8 "	VGIC245-4B RANGE		VIKING RANGE CORPORATION	All appliance, finish fixtures to be determined by owner

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Project Name and Address:

REMODEL AND ADU ADDITION FOR
CUONG NGUYEN
1651 PARKSIDE AVE. SAN JOSE, CA 95125

Date: APRIL 23, 2019

Scale: AS NOTED

DRAWING TITLE: PROPOSED KITCHEN AND BATH INTERIOR ELEVATIONS

Sheet : 9 OF 10

Page No. : A. 501

No.	Revision/Issue	Date
1	ISSUED FOR PLANNING APPROVAL	

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REMODEL AND ADU ADDITION FOR
CUONG NGUYEN
1651 PARKSIDE AVE. SAN JOSE, CA 95125

Date:
APRIL 23, 2019
Scale:

DRAWING TITLE:
3D RENDERS

Sheet :
10 OF 10

Page No. :
A. 601

No.	Revision/Issue	Date
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△		
△		
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REMODEL AND ADU ADDITION

1651 Parkside Ave.
San Jose
CA 95125

MEP set of plans:

1	Cover	Cover & List of plans
2	M00	HVAC Legend, abbreviations and codes
3	M01	HVAC ductworks-1
4	M02	HVAC ductworks-2
5	M03	HVAC Equip.Details
6	M04	Furnace & Heat pump details
7	M05	Isometric view
8	E00	Electrical Legend and codes
9	E01	Appliances & wiring-1
10	E02	Appliances & wiring-2
11	E03	Lighting circutray and branches-1
12	E04	Lighting circutray and branches-2
13	E05	Equipment Specifications & Details
14	E06	Power riser SLD
15	E07	distribution panel details DP-1
16	E08	distribution panel details DP-2
17	E09	Lights &Photometric studies & FC Levels
18	E10	PhotometricPlan-1
19	E11	PhotometricPlan-2
20	E12	Fire Alarm sensors 1
21	E13	Fire Alarm sensors 2
22	E14	Lightening protection and Grounding
23	E15	Data and CATV -1
24	E16	Data and CATV -2
25	P00	Piping Codes and Legends
26	P01	Plumbing Plan 1
27	P02	Plumbing plan 2
28	P03	Plumbing SLD 1
29	P04	Plumbing SLD 2
30	P05	Main House rough-in and Plumbing SLD
31	P06	Water Softner & Water meter connection
32	P07	Waste Water Plan-1
33	P08	Waste Water Plan-2
34	P09	Sectional views
35	P10	Natural Gas Piping
36	P11	Natural Gas Piping SLD and Equip. details
37	P12	Roof Drainage plan

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Project Name and Address:

REMODLE AND ADU SINGLE FAMILY HOUSE

1651 PARKSIDE AVE. SAN JOSE, CA 95125

Date:

Scale:

DRAWING TITLE:
-

Sheet :

Page No. :
00

No.	Revision/Issue	Date
01	"Issued for Planing Approval Rev1.0"	8/18/2019

Space Schedule

Name	Number	Number of People	Calculated Cooling Load	Calculated Cooling Load per area	Calculated Heating Load	Calculated Heating Load per area	Calculated Supply Airflow	Calculated Supply Airflow per area
Master Bed room	1	2	309 W	1.73 W/ft²	-309 W	-1.73 W/ft²	36.2 ft³/min	0.20 CFM/ft²
Kitchen and Great Room	2	10	4916 W	4.63 W/ft²	3980 W	3.75 W/ft²	575.2 ft³/min	0.54 CFM/ft²
Dining	3	10	575 W	3.59 W/ft²	-575 W	-3.59 W/ft²	67.3 ft³/min	0.42 CFM/ft²
Bed room 2	13	2	1641 W	9.72 W/ft²	2350 W	13.91 W/ft²	192.0 ft³/min	1.14 CFM/ft²
family room	16	2	2438 W	11.51 W/ft²	1128 W	5.32 W/ft²	285.3 ft³/min	1.35 CFM/ft²
Bed room 3	19	2	3521 W	14.64 W/ft²	1670 W	6.94 W/ft²	412.0 ft³/min	1.71 CFM/ft²

STATE OF CALIFORNIA
ALTERATIONS - HVAC
CEC-CF1R-ALT-04-E (Revised 01/16) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	CF1R-ALT-04-E
Alterations - HVAC CZ 2, and 8-15	(Page 1 of 1)

Site Address:				Enforcement Agency:	Date Prepared:	Permit#:
Equipment Type		Equipment Efficiency		New Ducting or Lineset: Required R-value	Conditioned Floor Area (ft²)	Thermostat
☐ Packaged System ☐ Split System ☐ Mini Split ☐ Furnace	☐ Evaporator Coil ☐ Condensing Unit ☐ Compressor ☐ Lineset ☐ TXV	____AFUE ____SEER ____EER	____COP ____HSPF	☐ R-6 *(CZ 1-10, 12&13)* Ducts ☐ R-8[1] *(CZ 11, 14-16)* Ducts ☐ ≥ R-2.8 Lineset[4]	Served by system _____ft²	☐ Setback *(if not already present, must be installed)*

HERS VERIFICATION SUMMARY Installer determines work to be completed and matches to one of the options below. At permit application this form is allowed to be filled out by hand. For final inspection all forms are to be registered (no hand filled forms allowed) and a copy left on site.

☐ 1. HVAC Changeout/Repair	Required Compliance Documents to be left on site for Final:
All Equipment, Condenser Unit, Evaporator Coil, Compressor, TXV, Lineset, Air Handler/Furnace[2] (Can include new ducting)	CF1R-ALT-02-E CF2R-MCH-01-E, MCH-20-H, MCH-(23 or 24)[2]-H, MCH-25-H[2] CF3R-MCH-20-H, MCH-(23 or 24)-H[2], MCH-25-H[2]

Installer Requirement: Duct leakage (≤15%, or ≤10% to outside, or seal all accessible leaks), Air Flow ≥ 300 CFM/ton, Refrigerant Charge.
Exempted from duct leakage testing if:
☐ 1. Duct system registered with HERS provider as previously sealed, or ☐ 2. There is less than 40 linear feet of duct in unconditioned space, or
☐ 3. Existing duct systems are constructed, insulated or sealed with asbestos (list manufacture date of building _____)

☐ 2. New HVAC System	Required Compliance Documents to be left on site for Final:
All new equipment and All New Ducts[3] including Mini Split	CF1R-ALT-02-E CF2R-MCH-01-E, MCH-20-H, MCH-22-H, MCH-(23 or 24)-H[2], MCH-25-H[2] CF3R-MCH-20-H, MCH-22-H, MCH-(23 or 24)-H[2], MCH-25-H[2] Mini Splits require CF1R-ALT-02-E, CF2R-MCH-01-E, and (CF2R-CF3R) MCH-25-H

Installer Requirement: Duct leakage ≤ 5%, Fan Efficacy (0.58W/CFM), Air Flow ≥ 350 CFM/ton (or alternative), Refrigerant Charge

☐ 3. All New Ducts with Replacement	Required Compliance Documents to be left on site for Final:
All New Ducts[3] and one or more of the following replaced: Condenser Unit, Evaporator Coil, Compressor, TXV, Lineset, Furnace[2]	CF1R-ALT-02-E CF2R-MCH-01-E, MCH-20-H, MCH-(23 or 24)-H, MCH-25-H CF3R-MCH-20-H, MCH-(23 or 24)-H, MCH-25-H

Installer Requirement: Duct leakage ≤ 5%, Air Flow ≥ 350 CFM/ton (or alternative), Refrigerant Charge
Exempted from duct leakage testing if: ☐ 1. Existing duct systems are constructed, insulated or sealed with asbestos

☐ 4. New Ducting over 40 feet	Required Compliance Documents to be left on site for Final:
New ducting but less than All New Ducts[3]	CF1R-ALT-02-E, CF2R-MCH-20-H, CF3R-MCH-20-H

Installer Required to: Duct leakage (≤15% or, ≤10% to outside or, or seal all accessible leaks)
☐ EXCEPTION: Existing duct systems constructed, insulated or sealed with asbestos.

[1] All new ducting requires R-8 insulation when more than 40 ft installed in CZs 11 & 14-16 and R-6 in CZs 1-10, 12 &13, and R-6 insulation when less than 40 ft installed. This includes in walls, between floors etc.
[2] Heating only systems and Air Handler/Furnace changes do not require Air Flow MCH-(23 or 24), or Refrigerant Charge verification MCH-25
[3] All New Ducts is when at least 75%of the duct system is new duct material, and up to 25%may consist of reused parts from the dwelling unit's existing duct system (e.g., registers, grilles, boots, air handler, coil, plenums, duct material)
[4] R-2.8 (1" thick insulation) for linesets 1" and less.

Contractor (Documentation Author's /Responsible Designer's Declaration Statement)

I certify the following under penalty of perjury, under the laws of the State of California:
1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the California Business and Professions Code to accept responsibility for the information on this document.
3. That the energy features and performance specifications for the design identified on this Certificate of Compliance conform to the requirements of Title 24, Parts 1 and 6 of the California Code of Regulations (CCR).
4. That the energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the CCR.
5. 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:	Responsible Designer Signature:	Date Signed:	License:
Company :	Address:	City/State/Zip:	Phone:

For assistance or questions regarding the Energy Standards, contact the Energy Hotline at: 1-800-772-3300

Building Type	Single Family
Area (SF)	3,246
Volume (CF)	35,292.06
calculated results	
Peak Cooling Total Load (W)	**35,517**
Peak Cooling Month and Hour	September 3:00 PM
Peak Cooling Sensible Load (W)	35,754
Peak Cooling Latent Load (W)	-237
Maximum Cooling Capacity (W)	35,517
Peak Cooling Airflow (ft³/min)	3,977.20
Peak Heating Load (W)	**28,911**
Peak Heating Airflow (ft³/min)	3,753.00
Cooling Load Density (W/ft²)	10.94
Cooling Flow Density (CFM/ft²)	1.23
Cooling Flow / Load (CFM/ton)	393.81
Cooling Area / Load (ft²/ton)	321.38
Heating Load Density (W/ft²)	8.91
Heating Flow Density (CFM/ft²)	1.16
1st floor summary	
Area (SF)	2,150
Volume (CF)	21,592.74
Peak Cooling Total Load (W)	**7,925**
Peak Cooling Month and Hour	July 11:00 AM
Peak Cooling Sensible Load (W)	7,438
Peak Cooling Latent Load (W)	486
Peak Cooling Airflow (ft³/min)	747.5
Peak Heating Load (W)	**2,507**
Peak Heating Airflow (ft³/min)	842.3
Cooling Load Density (W/ft²)	3.69
Cooling Flow Density (CFM/ft²)	0.35
Cooling Flow / Load (CFM/ton)	331.73
Cooling Area / Load (ft²/ton)	953.93
Heating Load Density (W/ft²)	1.17
Heating Flow Density (CFM/ft²)	0.39
2nd Floor summary	
Area (SF)	1,096
Volume (CF)	13,699.32
Peak Cooling Total Load (W)	**27,601**
Peak Cooling Month and Hour	September 3:00 PM
Peak Cooling Sensible Load (W)	27,781
Peak Cooling Latent Load (W)	-179
Peak Cooling Airflow (ft³/min)	3,229.70
Peak Heating Load (W)	**22,287**
Peak Heating Airflow (ft³/min)	2,910.60
Cooling Load Density (W/ft²)	25.18
Cooling Flow Density (CFM/ft²)	2.95
Cooling Flow / Load (CFM/ton)	411.51
Cooling Area / Load (ft²/ton)	139.66
Heating Load Density (W/ft²)	20.33
Heating Flow Density (CFM/ft²)	2.66

	Flex duct
	Diffuser
	Supply Duct
	Exhaust Duct
	Supply Fan
	Setback thermostat
	A/C Liquid line
	A/C Suction line
	Return diffuser
	Return Duct

Notes:
Duct Insulation:
In all cases, unless ducts are enclosed entirely in conditioned space, the minimum allowed duct insulation value is R-6
Thermostats:
Automatic setback thermostats will be installed in the house.
Air Distribution Ducts and Plenums:
air distribution ducts should be sealed and HERS tested for leakage be done by contractor.

HVAC ABBREVIATIONS

A	AMPERES	HZ	FREQUENCY
AC	AIR CONDITIONING	IN	INCH OR INCHES
AD	ACCESS DOOR	KW	KILOWATT
AFF	ABOVE FINISHED FLOOR	LG	LENGTH
AL	ACOUSTICAL LINING	LAT	LEAVING AIR TEMPERATURE
BHP	BRAKE HORSEPOWER	LBS	POUNDS
BTU	BRITISH THERMAL UNIT	LDB	LEAVING DRY BULB TEMPERATURE
BTUH	BTU PER HOUR	LIN FT	LINEAR FEET
CD	CEILING DIFFUSER	LWB	LEAVING WET BULB TEMPERATURE
CFM	CUBIC FEET PER MINUTE	MAX	MAXIMUM
CG	CEILING GRILLE	MBH	THOUSAND BTU PER HOUR
CLG	CEILING	MHP	MOTOR HORSEPOWER
COMPR	COMPRESSOR	MIN	MINIMUM
CR	CEILING REGISTER	NIC	NOT IN CONTRACT
DB	DRY BULB	NO.	NUMBER
DIAM	DIAMETER	NTS	NOT TO SCALE
DN	DOWN	RA	RETURN AIR
DWG	DRAWING	RM	ROOM
DX	DIRECT EXPANSION	RPM	REVOLUTIONS PER MINUTE
EAT	ENTERING AIR TEMPERATURE	SP	STATIC PRESSURE
EDB	ENTERING DRY BULB TEMPERATURE	SPEC	SPECIFICATION
EF	EXHAUST FAN	TEMP	TEMPERATURE
EWB	ENTERING WET BULB	TG	TOP GRILLE
EWT	ENTERING WATER TEMPERATURE	TV	TURNING VANES
°F	DEGREES FAHRENHEIT	TYP	TYPICAL
FC	FLEXIBLE CONNECTION	W	WIDTH
FD	FIRE DAMPER	W/	WITH
FIN FL	FINISHED FLOOR	W/O	WITHOUT
FLA	FULL LOAD AMPERES	WB	WET BULB
FPM	FEET PER MINUTE	WMS	WIRE MESH SCREEN
FT	FEET	SG	SUPPLY GRILLE
HD	HEAD	RG	RETURN GRILLE
HR	HOUR	SP	SMOKE PURGE
MAU	MAKE UP AIR UNIT		

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Project Name and Address:

REMODLE AND ADU SINGLE FAMILY HOUSE

1651 PARKSIDE AVE. SAN JOSE, CA 95125

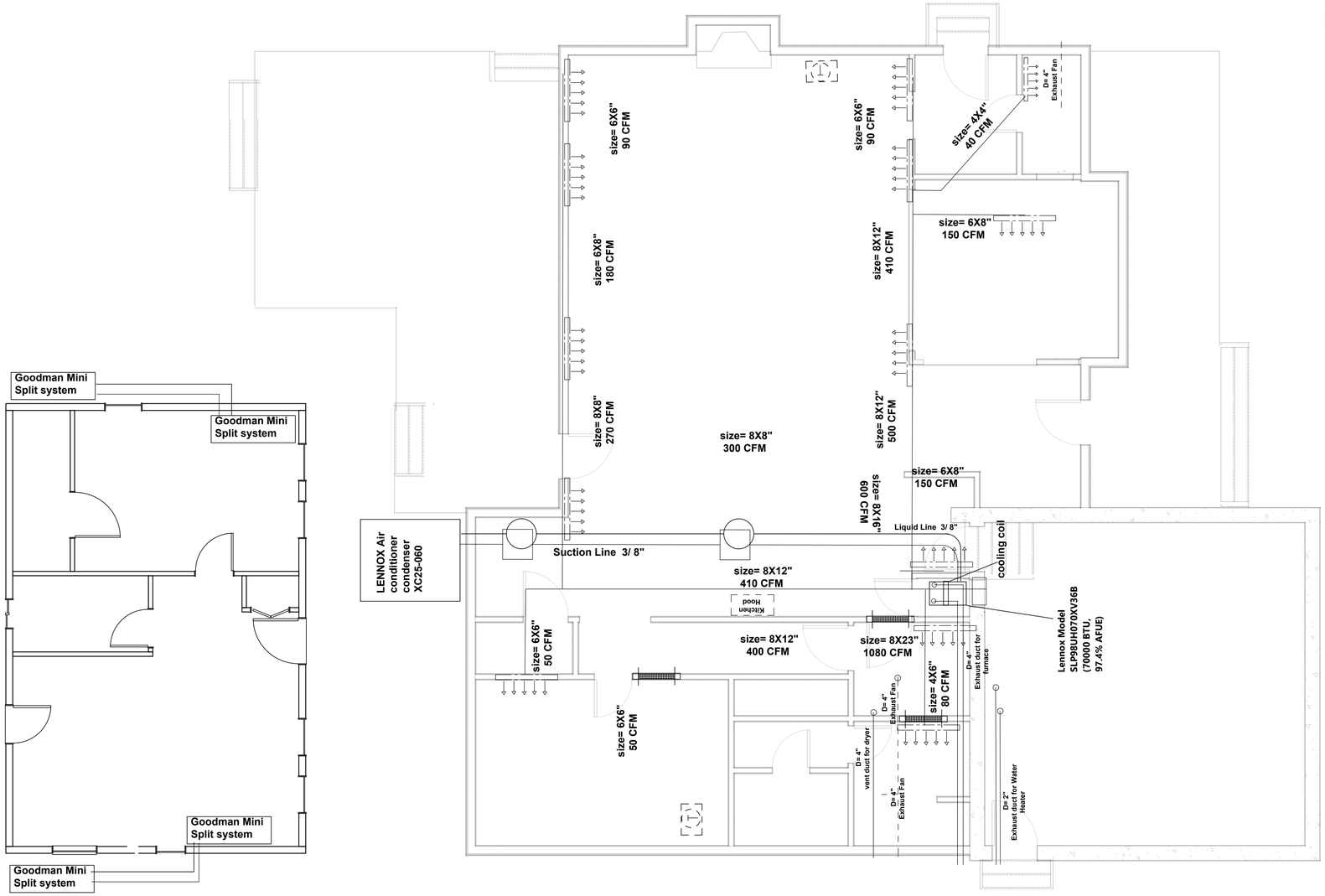
Date:
Scale:

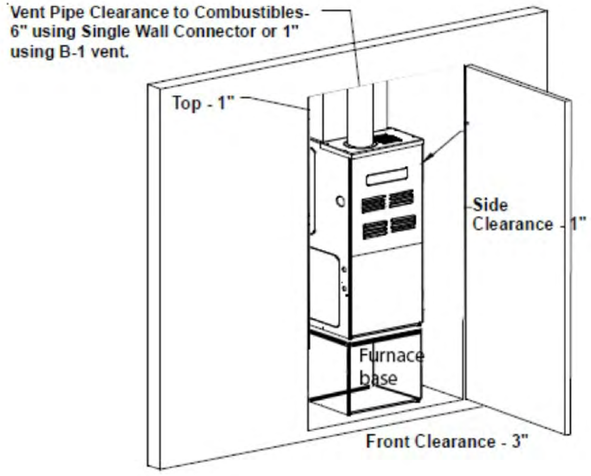
DRAWING TITLE:
HVAC Legend, abbreviations and codes

Sheet :

Page No. :
M00

No.	Revision/Issue	Date
01	"Issued for Planing Approval Rev1.0"	8/18/2019





Furnace must be completely sealed to floor or base.
Combustion/ ventilation air supply pipes must terminate 12" from top of closet and 12" from floor of closet. DO NOT remove solid base plate for side return.
Return air ducts must be completely sealed to the furnace and terminate outside the enclosure surfaces.
Unobstructed front clearance of 24" for servicing is recommended.

HVAC ductworks plan - 1st floor

---

scale : 1 / 4" = 1'

HVAC System 1st floor

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Project Name and Address:

REMODLE AND ADU SINGLE FAMILY HOUSE

1651 PARKSIDE AVE. SAN JOSE, CA 95125

Date:

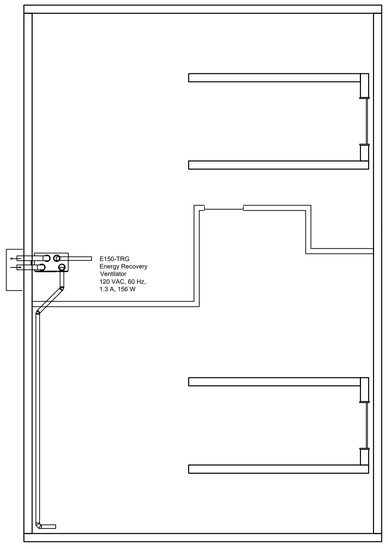
Scale: 1/4" = 1'-00"

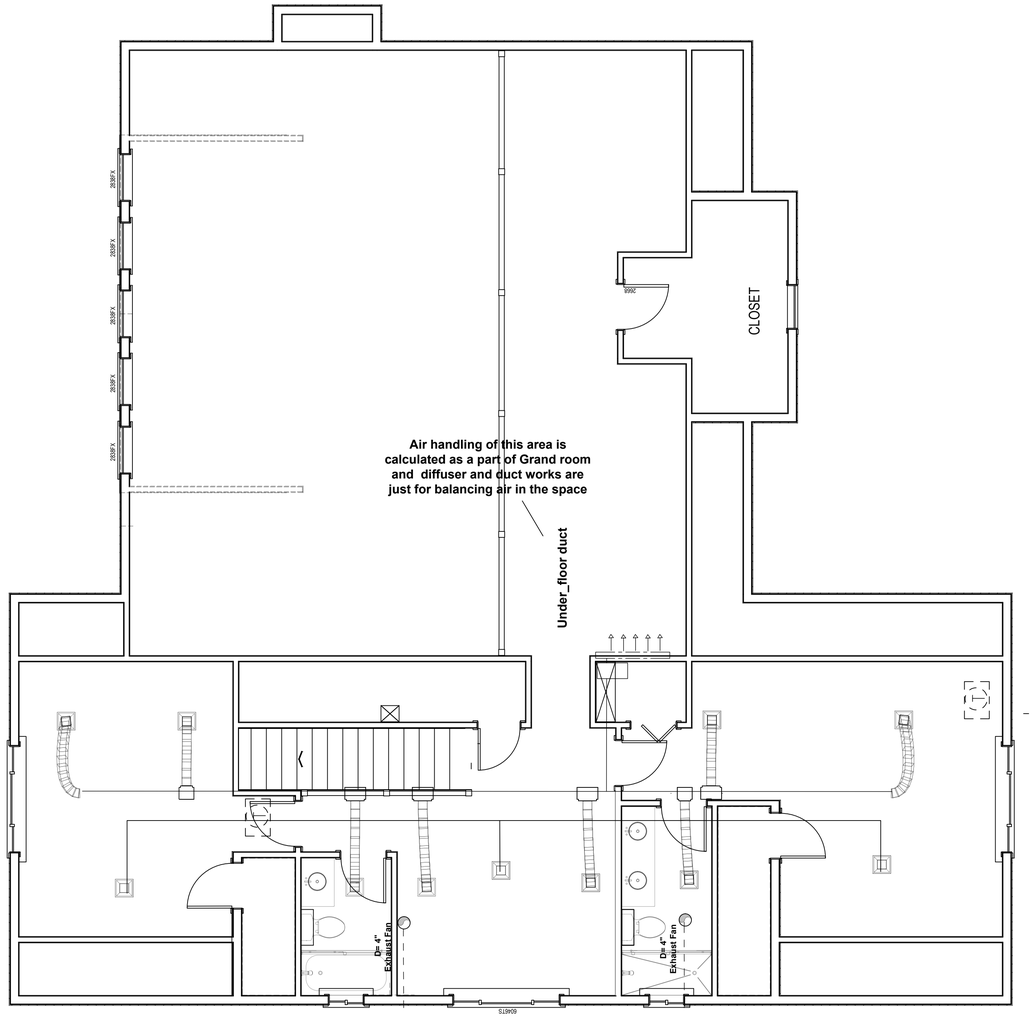
DRAWING TITLE: HVAC ductworks

Sheet :

Page No. : M01

No.	Revision/Issue	Date





HVAC ductworks plan - 2nd floor

scale : 1 / 4" = 1'

HVAC system 2nd floor

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REMODLE AND ADU SINGLE FAMILY HOUSE

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Date:

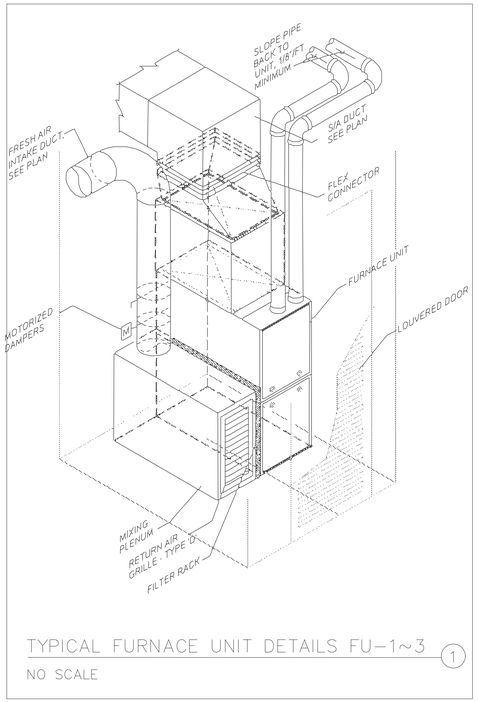
Scale: 1/4" = 1'-00"

DRAWING TITLE: HVAC ductworks

Sheet :

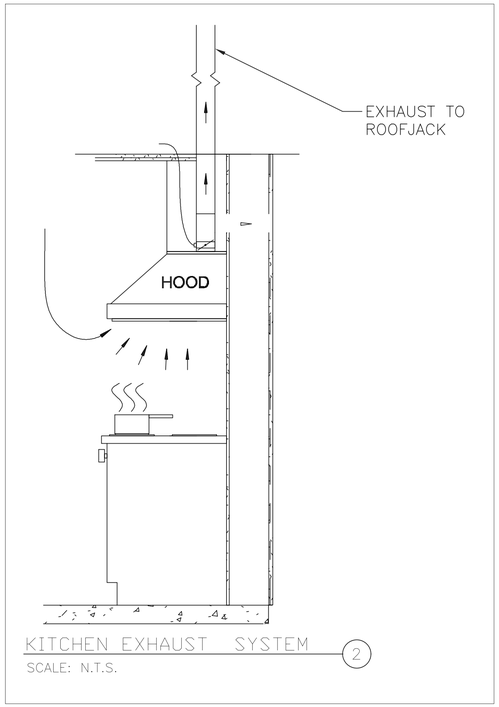
Page No. : M02

No.	Revision/Issue	Date



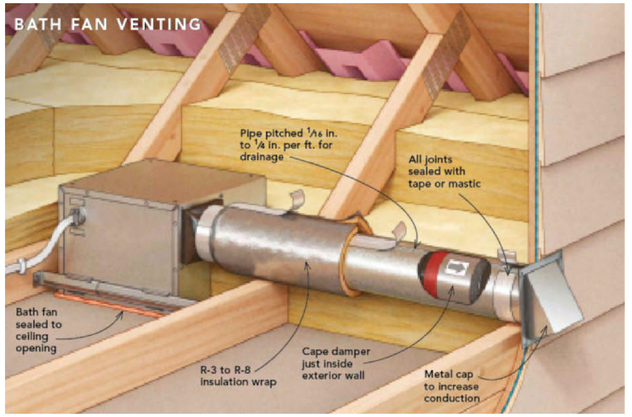
TYPICAL FURNACE UNIT DETAILS FU-1~3 (1)

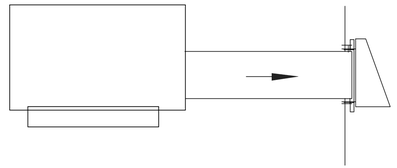
NO SCALE



KITCHEN EXHAUST SYSTEM (2)

SCALE: N.T.S.

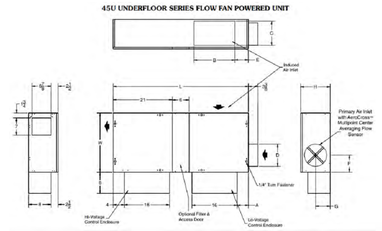




Bath- Fan Venting System

AW908 Ducted Ceiling Exhaust Fan
And Duct Kit - Box Grille

FLOOR AIR DIFFUSER /
RECTANGULAR AXIS™ 35BF-V



UNIT SIZE	INLET SIZE	DIMENSIONS (in.)									
		A	B	C	D	E	F	G	H	L	W
3	9-in. Diameter	5	14	8	8 7/8	3 1/2	5 5/8	7	10 1/2	48	21
4	9-in. Diameter	5	14	12	8 7/8	3	5 5/8	7	14 1/8	48	21
	10-in. Diameter				9 7/8		6 5/8				

XC25-060
Air Conditioner

CX35-60D-6F Cooling Coil

SPECIFICATIONS

General Data	Model No.	XC25-024	XC25-036	XC25-048	XC25-060
	Nominal Tonnage	2	3	4	5
Connections (sweat)	Liquid line (o.d.) - in.	3/8	3/8	3/8	3/8
	Suction line (o.d.) - in.	7/8	7/8	7/8	1-1/8
Refrigerant	[1] R-410A charge furnished	13 lbs. 10 oz.	10 lbs. 12 oz.	14 lbs. 8 oz.	12 lbs. 9 oz.
Outdoor Coil	Net face area - sq. ft. Outer coil	27.21	27.21	27.21	27.21
	Inner coil	26.36	26.36	26.36	26.36
	Tube diameter - in.	5/16	5/16	5/16	5/16
	No. of rows	2	2	2	2
	Fins per inch	22	22	22	22
Outdoor Fan	Diameter - in.	26	26	26	26
	No. of blades	5	5	5	5
	Motor hp	1/3	1/3	1/3	1/3
	Cfm - Max. Speed	2925	4100	4220	4385
	Min. Speed	1950	1950	3020	3020
	Rpm - Max. Speed	490	650	675	700
	Min. Speed	350	350	500	500
	Watts - Max. Speed	75	157	185	212
	Min. Speed	32	32	82	82
Shipping Data - lbs. - 1 pkg.		303	303	330	330

SPECIFICATIONS — **4 TO 5 TON**

General Data	Model No.	CX35-49C-6F	CX35-50/60C-6F	CX35-60C-6F	CX35-60D-6F
	Nominal size - Tons	4	4 / 5	5	5
	Factory Installed Expansion Valve	12J20	12J20	12J20	12J20
Line Connections in.	Suction / vapor o.d. - sweat	7/8	7/8	7/8	7/8
	Liquid o.d. - sweat	3/8	3/8	3/8	3/8
	Condensate drain (fpt)	(2) 3/4	(2) 3/4	(2) 3/4	(2) 3/4
Shipping Data - lbs.		70	60	73	72

SLP98UH070XV36B Furnace

SPECIFICATIONS

Gas Heating Performance	Model No.	SLP98UH070XV36B	SLP98UH090XV36C	SLP98UH090XV48C
	AHRI Reference No.	4792115	4792116	4792117
	[1] AFUE	98.1%	98.1%	98.2%
Maximum	Input - Btuh	66,000	88,000	88,000
	Output - Btuh	64,000	85,000	85,000
	Temperature rise range - °F	50 - 80	60 - 90	50 - 80
	Gas Manifold Pressure (in. w.g.) Nat. Gas / LPG/Propane	3.5 / 10.0	3.5 / 10.0	3.5 / 10.0
Minimum	Input - Btuh	23,000	31,000	31,000
	Output - Btuh	22,000	30,000	30,000
	Temperature rise range - °F	35 - 65	35 - 65	35 - 65
	Gas Manifold Pressure (in. w.g.) Nat. Gas / LPG/Propane	0.5 / 1.5	0.5 / 1.5	0.5 / 1.5
	High static - in. w.g.	0.8	0.8	0.8
Connections in.	Intake / Exhaust Pipe (PVC)	2 / 2	2 / 2	2 / 2
	Gas pipe size IPS	1/2	1/2	1/2
	Condensate Drain Trap (PVC pipe) - i.d.	3/4	3/4	3/4
	with furnished 90° street elbow	3/4 slip x 3/4 Mipt	3/4 slip x 3/4 Mipt	3/4 slip x 3/4 Mipt
	with field supplied (PVC coupling) - o.d.	3/4 slip x 3/4 MPT	3/4 slip x 3/4 MPT	3/4 slip x 3/4 MPT
Indoor Blower	Wheel nominal diameter x width - in.	10 x 9	10 x 9	11 x 11
	Motor output - hp	1/2	1/2	3/4
	Tons of add-on cooling	2 - 3	2 - 3.5	2.5 - 4
	Air Volume Range - cfm	339 - 1365	520 - 1360	528 - 1770
Electrical Data	Voltage (Maximum Amps)	120 volts - 60 hertz - 1 phase		
	Blower motor full load amps	7.7	7.7	10.1
	Maximum overcurrent protection	15	15	15
Shipping Data	lbs. - 1 package	138	155	165

NOTE - Filters and provisions for mounting are not furnished and must be field provided.
[1] Annual Fuel Utilization Efficiency based on DOE test procedures and according to FTC labeling regulations. Isolated combustion system rating for non-weatherized furnaces.

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Project Name and Address:

REMODLE AND ADU SINGLE FAMILY HOUSE

1651 PARKSIDE AVE. SAN JOSE, CA 95125

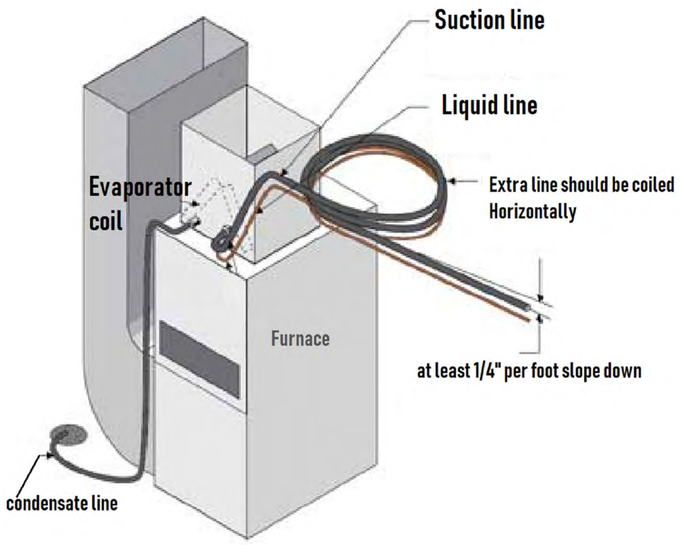
Date:

Scale:

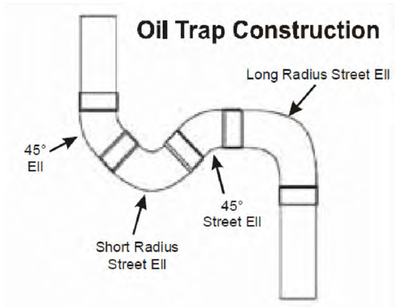
DRAWING TITLE:
HVAC Equip. details

Sheet :

No.	Revision/Issue	Date



Installation of Refrigerant Piping



Losses from suction line elbows (equivalent length, ft.)

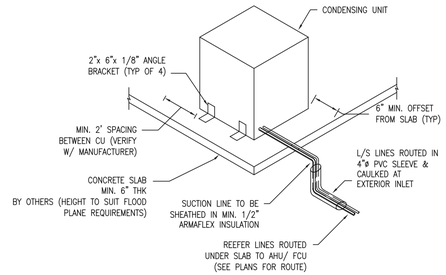
Type of Elbow Fitting	Inside Diameter (inches)		
	3/4	7/8	1 1/8
90° short radius	1.7	2	2.3
90° long radius	1.5	1.7	1.6
45°	0.7	0.8	1

Installation of Refrigerant Piping (Horizontal)

INSTALLATION GENERAL NOTES:
Clearance space to the structure, wall, or fence Allow at least 12" distance to a wall or fence or similar solid obstruction - typical of most installation instructions.

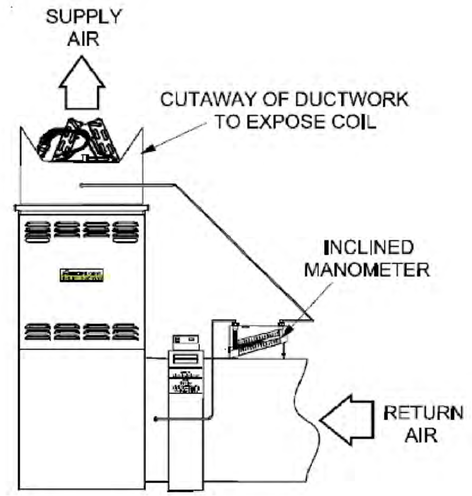
Clearance distances from an inside corner Inside corner locations on single story structures require evaluation. Large overhanging soffits may cause air recirculation in a corner area even though recommended clearances are maintained. As a guide locate the unit far enough out so that half of the discharge grille is out from under the soffit.

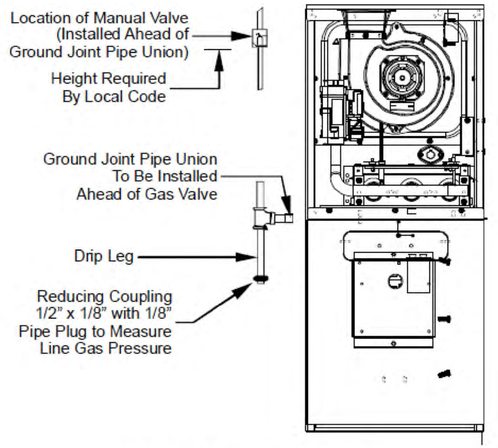
Clearance distances for the compressor/condenser from water, ice, snow : Position so water, snow, or ice from roof or eaves cannot fall directly on unit.

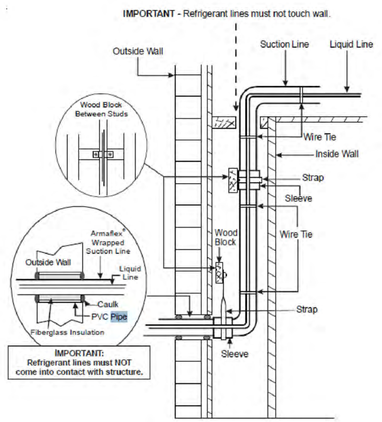


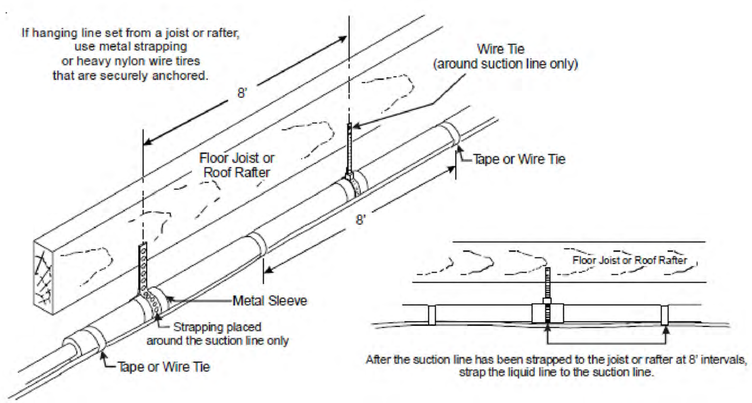
AIR COOLED CONDENSING UNIT
SCALE: N.T.S. 3

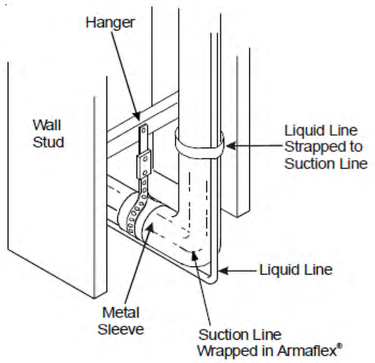
Installation of Refrigeration Piping From Vertical to Horizontal







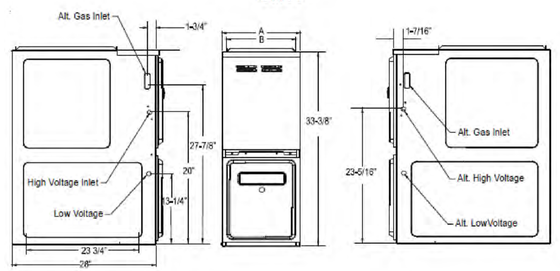




NOTE: For any residential split system installed with a long line set, 3/8” liquid line size must be used.

General Furnace Layout

GMS8



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REMODLE AND ADU SINGLE FAMILY HOUSE

1651 PARKSIDE AVE. SAN JOSE, CA 95125

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Scale:

DRAWING TITLE:

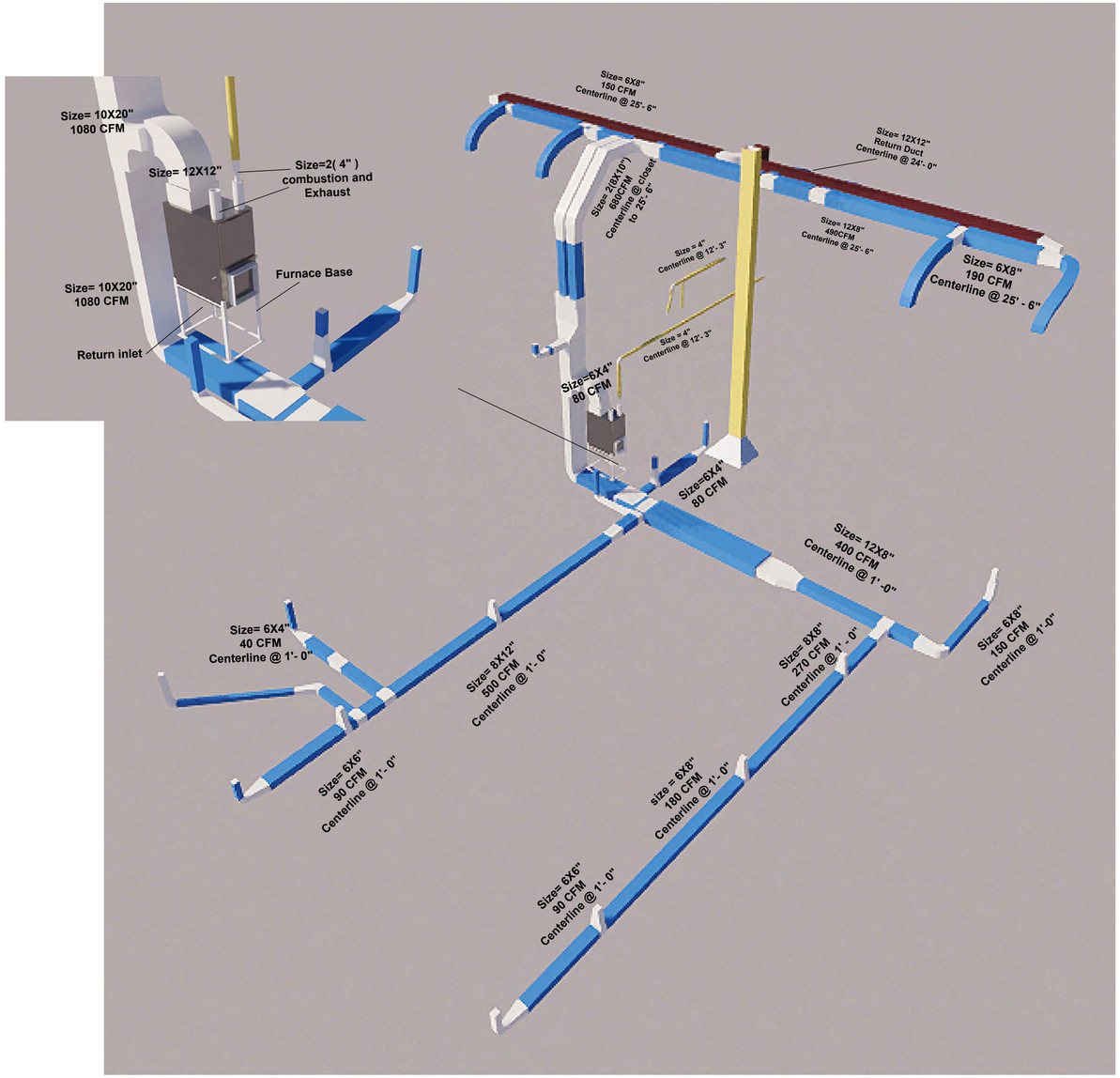
Furnace & Heat pump Details

Sheet :

Page No. :

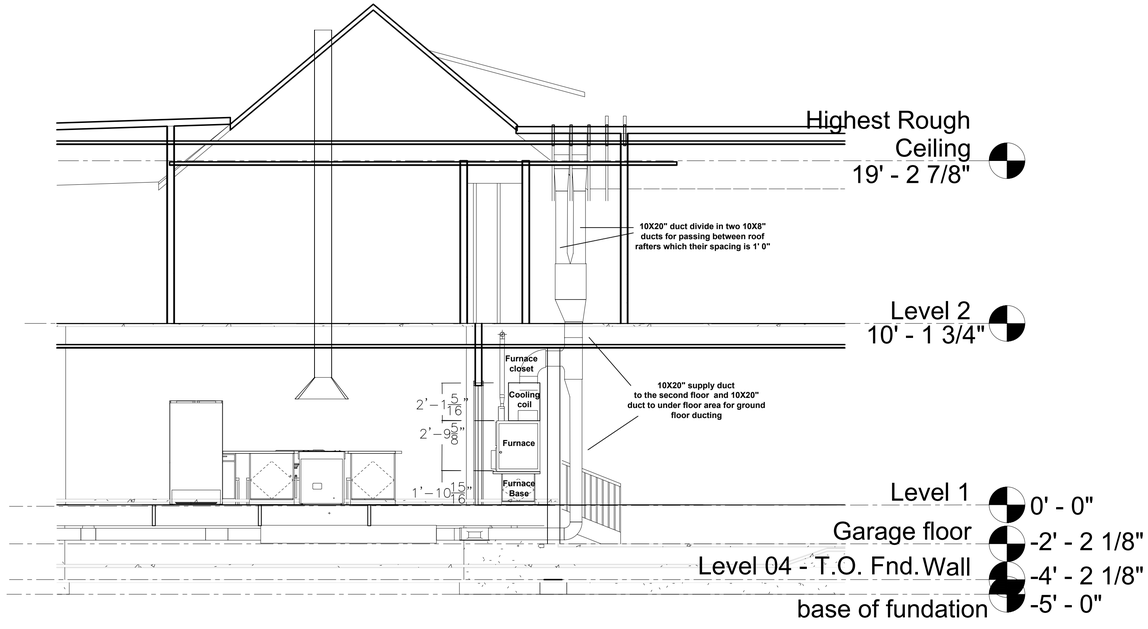
M04

No.	Revision/Issue	Date

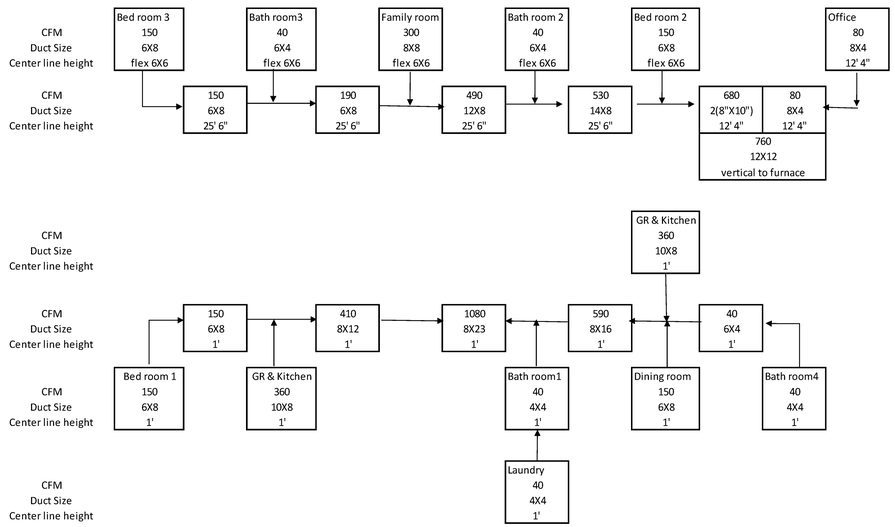


HVAC System Isometric view

ALL LEVELS ARE MEASURED FROM GARAGE FLOOR



Duct size and Air Flow requirement for the rooms



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Duct works Isometric vieww

Sheet :

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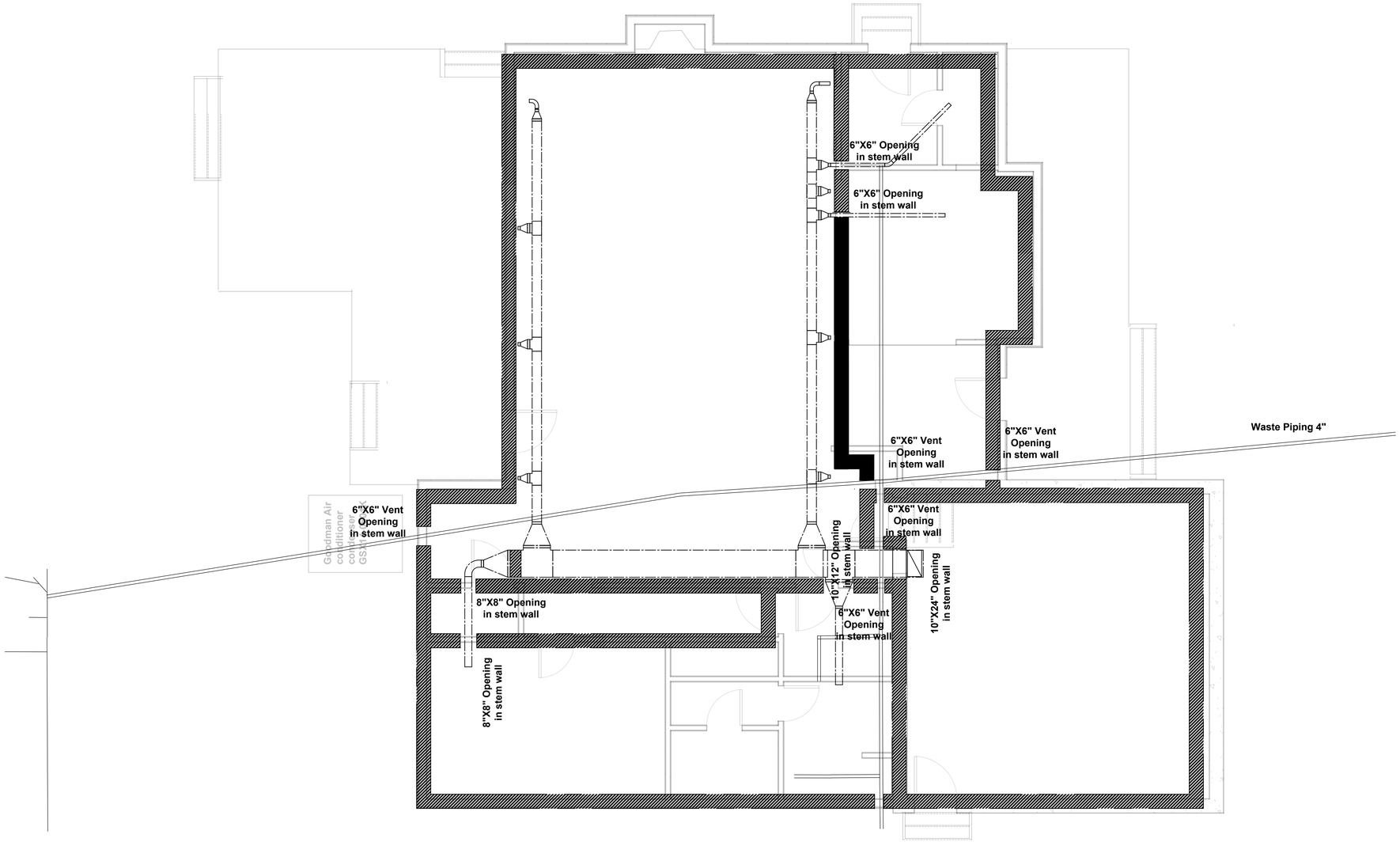
M05

No.	Revision/Issue	Date



Opening in Stem walls

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scale : 1 / 4" = 1'

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stem wall openings

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M06

No.	Revision/Issue	Date

Return Air flow plan - 1st floor

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scale : 1 / 4" = 1'

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Scale:

DRAWING TITLE:
return air flow 1st floor

Sheet :

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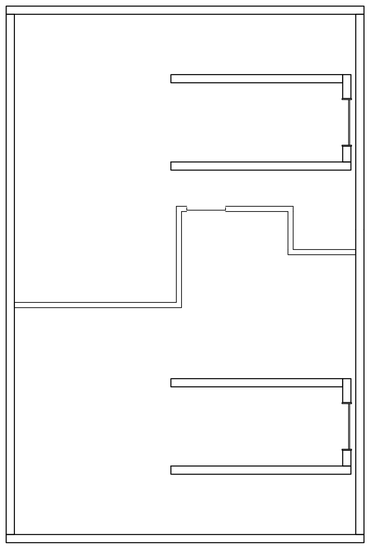
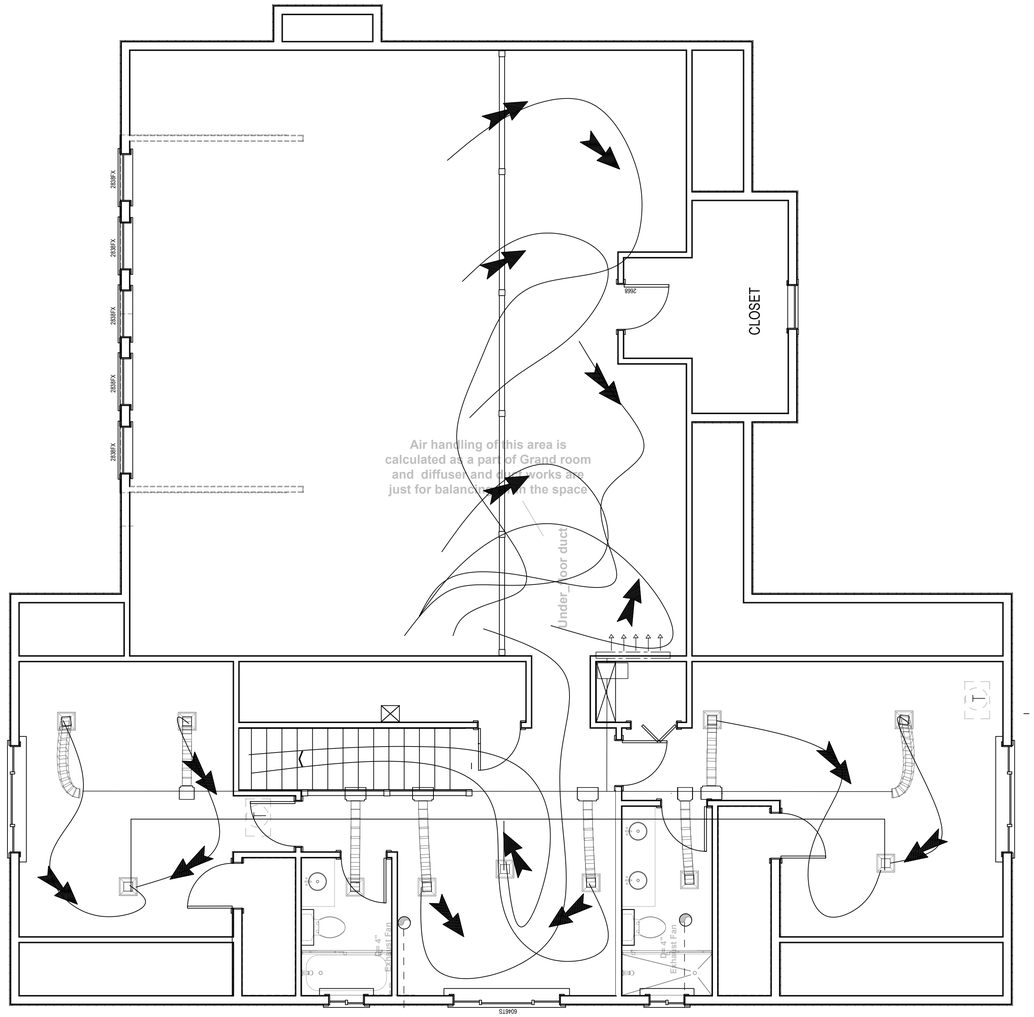
M07

No.	Revision/Issue	Date





Return Air flow plan - 2nd floor

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scale : 1 / 4" = 1'

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return airflow 2nd floor

Sheet :

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M08

No.	Revision/Issue	Date

NEC considerations:

210.12Arc–Fault Circuit–Interrupter Protection. Arc fault circuit–interrupter protection shall be provided as required in (210.12A) and (B). The arc–fault circuit interrupter shall be installed in a readily accessible location

(A) Dwelling Units. All –120volt, single phase– 15, and –20ampere branch circuits supplying outlets or devices installed in dwelling unit kitchens, family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, laundry areas, or similar rooms or areas shall be protected as described by (1), (2), (3) or (4)

)1(A listed combination type arc–fault circuit interrupter, installed to provide protection of the entire branch circuit.

)2(A listed outlet branch circuit type arc–fault circuit interrupter installed at the first outlet on the branch circuit where all of the following conditions are met:

a. The branch circuit over current protection device shall be a listed circuit breaker having an instantaneous trip not exceeding 300 amperes

b. The branch circuit wiring shall be continuous from the branch circuit overcurrent device to the outlet branch circuit arc–fault circuit interrupter

c. The maximum length of the branch circuit wiring from the branch circuit overcurrent device to the first outlet shall not exceed 15.2m 50(ft) for a 14AWG or 21.3m 70(ft) for a 12AWG conductor– d. The first outlet box in the branch circuit shall be identified .

)1(A listed outlet branch circuit type arc–fault circuit interrupter installed at the first outlet on the branch circuit where the portion of the branch circuit between the branch–circuit overcurrent device and the first outlet is installed using RMC, IMC, EMT, Type MC, or steel armored Type AC cables meeting the requirements of 250.118and using metal outlet and junction boxes.

)2(A listed outlet branch circuit type arc–fault circuit interrupter installed at the first outlet on the branch circuit where the portion of the branch circuit between the branch–circuit overcurrent device and the first outlet is installed using a listed metal or nonmetallic conduit or tubing encased in not less than 50mm 2(in.) of concrete.

IRC Notes :

R314.6 Power source
Smoke alarms shall receive their primary power from the building wiring provided that such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms with integral strobes that are not equipped with battery backup shall be connected to an emergency electrical system. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.

R314.7 Fire alarm systems
Fire alarm systems shall be permitted to be used in lieu of smoke alarms and shall comply with Sections R314.7.1 through R314.7.4

R322.1.6 Protection of mechanical, plumbing and electrical systems
Electrical systems, equipment and components; heating, ventilating, air conditioning; plumbing appliances and plumbing fixtures; duct systems; and other service equipment shall be located at or above the elevation required in Section R322.2 or R322.3. If replaced as part of a substantial improvement, electrical systems, equipment and components; heating, ventilating, air conditioning and plumbing appliances and plumbing fixtures; duct systems; and other service equipment shall meet the requirements of this section. Systems, fixtures, and equipment and components shall not be mounted on or penetrate through walls intended to break away under flood loads..

R338.2 Charging In any building or interior area used for charging electric vehicles, electrical equipment shall be installed in accordance with the California Electrical Code.

ARTICLE 625 Electric Vehicle Charging:
625.15 Markings.
The electric vehicle supply equipment shall comply with 625.15(A) through (C).
(A) General. All electric vehicle supply equipment shall be marked by the manufacturer as follows:
FOR USE WITH ELECTRIC VEHICLES
(B) Ventilation Not Required. Where marking is required by 625.29(C), the electric vehicle supply equipment shall be clearly marked by the manufacturer as follows:
VENTILATION NOT REQUIRED
The marking shall be located so as to be clearly visible after installation.
(C) Ventilation Required. Where marking is required by 625.52(B), the electric vehicle supply equipment shall be clearly marked by the manufacturer, “Ventilation Required.” The marking shall be located so as to be clearly visible after installation.

Bedroom - Dormitory	20-30 FC	200-300 lux	0.38
Cafeteria - Eating	20-30 FC	200-300 lux	0.65
Classroom - General	30-50 FC	300-500 lux	1.24
Conference Room	30-50 FC	300-500 lux	1.23
Corridor	5-10 FC	50-100 lux	0.66
Exhibit Space	30-50 FC	300-500 lux	1.45
Gymnasium - Exercise / Workout	20-30 FC	200-300 lux	0.72
Gymnasium - Sports / Games	30-50 FC	300-500 lux	1.2
Kitchen / Food Prep	30-75 FC	300-750 lux	1.21
Laboratory (Classroom)	50-75 FC	500-750 lux	1.43
Laboratory (Professional)	75-120 FC	750-1200 lux	1.81
Library - Stacks	20-50 FC	200-500 lux	1.71
Library - Reading / Studying	30-50 FC	300-500 lux	1.06
Loading Dock	10-30 FC	100-300 lux	0.47
Lobby - Office/General	20-30 FC	200-300 lux	0.9
Locker Room	10-30 FC	100-300 lux	0.75
Lounge / Breakroom	10-30 FC	100-300 lux	0.73
Mechanical / Electrical Room	20-50 FC	200-500 lux	0.95
Office - Open	30-50 FC	300-500 lux	0.98
Office - Private / Closed	30-50 FC	300-500 lux	1.11
Parking - Interior	5-10 FC	50-100 lux	0.19

ELECTRICAL LEGEND		
SYMBOL	DEFINITION	NOTES
	125V OUTLET	20 AMP SINGLE POLE
	110V OUTLET	20 AMP two POLE
GFCI	110V OUTLET	EQUIPED WITH GROUND FAULT INTERRUPTER (TAMPER RESISTANT TYPE)
WP	EXTERIOR WATERPROOF OUTLET	GROUND FAULT INTERRUPTER
$ $ $_4$	SWITCH	
	Chandelier	
	WALL MOUNTED LIGHT	
RM	CEILING LIGHT	
DP-	PANEL	
M	METER	
SD	SMOKE DETECTOR	
CO	CARBON MONOXIDE/ SMOKE DETECTOR COMBO	BATT. BACK-UP W/ HARDWIRE INTER-CONNECTED SHALL BE A DISTANCE OF NOT LESS THEN 4' FROM WALL
	Exhaust fan JACK	
CO	Outdoor Fire Alarm	
	Light mounted Fan	
TV.	TELEVISION JACK	
	Countertop Island LIGHT	

NOTES:
* LOCATION OF TV JACKS & PHONE OUTLETS & FANS TO BE VERIFIED @ HOMEOWNER PRE-CONSTRUCTION MEETING.
* ALL RECEPTACLES IN ALL HABITABLE ROOMS TO BE ARC FAULT PROTECTED PER ELECTRICAL PROVISIONS OF FBCR 5TH EDITION (2011).
* BATHROOM EXHAUST FAN TO HAVE MIN. CAPACITY OF 50 CFM INTERMITTENT PER ELECTRICAL PROVISIONS OF SECTION M1507.3 FBCR 5TH EDITION (2011).
* LAUNDRY ROOM RECEPTACLE SHALL BE GROUND FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL ON FEEDERS
* WIRING METHOD SHALL BE NON METALLIC CABLE PER ELECTRICAL PROVISIONS OF FBCR 5TH ED (2011).
* ALL RECEPTACLES TO BE TAMPER- RESISTANT TYPE
* ALL WORK TO COMPLY WITH ELECTRICAL PROVISIONS OF THE FBCR 5TH ED (2011).

Note :
1. All receptacles are TAMPER RESISTANT RECEPTACLES
2. The main disconnector in DP is AFCI
3. receptacles in bathrooms are all GFI type

TITLE 24 NOTES
1. ALL HIGH EFFICACY LUMINAIRES SHALL BE SWITCHED SEPARATELY FROM LOW EFFICACY LUMINAIRES.
2. HIGH–EFFICACY LUMINAIRES SHALL CONSTITUTE MIN. 50% OF TOTAL WATTAGE IN KITCHEN LIGHTING. ADDITIONAL 50–WATTS OF LOW–EFFICACY LUMINAIRES ARE PERMITTED FOR DWELLING UNIT UNDER 2,500–SF AND ADDITIONAL 100–WATTS ALLOWED FOR OVER 2,500–SF.
3. ALL LOW–EFFICACY KITCHEN LUMINAIRES SHALL BE CONTROLLED BY CEC APPROVED VACANCY SENSOR OR DIMMER.
4. NO MORE THAN 20–WATTER PER LINEAR FOOT OF PERMANENTLY INSTALLED INTERNAL CABINET LIGHTING IS PROHIBITED.
5. ALL LOW–EFFICACY BUILDING MOUNTED EXTERIOR LUMINAIRES SHALL BE CONTROLLED BY PHOTOCELL & MOTION SENSOR.
6. ALL LOW–EFFICACY LUMINAIRES IN BATHROOMS MUST BE CONTROLLED BY CEC APPROVED VACANCY SENSOR OR TIMER.
7. ALL LOW EFFICACY LUMINAIRES LOCATED IN GARAGE, LAUNDRY ROOM, CLOSETS, AND UTILITY ROOMS SHALL BE CONTROLLED BY CEC APPROVED VACANCY SENSOR.
8. ALL LOW EFFICACY LUMINAIRES IN AREAS OTHER THAN THOSE LISTED ABOVE SHALL BE CONTROLLED BY DIMMERS OR CEC APPROVED VACANCY SENSOR.
9. ALL FIXTURES INSTALLED IN INSULATED CEILINGS MUST BE C–RATED & LABELED, AND OF AIR–TIGHT CONSTRUCTION BEARING AN ASTM E283 COMPLIANCE LABEL, AND SHALL BE SEALED WITH A GASKET OR CAULK BETWEEN THE HOUSING AND CEILING.
10. ALL EXHAUST FANS SHALL BE SWITCHES SEPARATELY FROM LUMINAIRES.
11. NO SWITCH SHALL BYPASS DIMMER OR CEC APPROVED VACANCY SENSOR.

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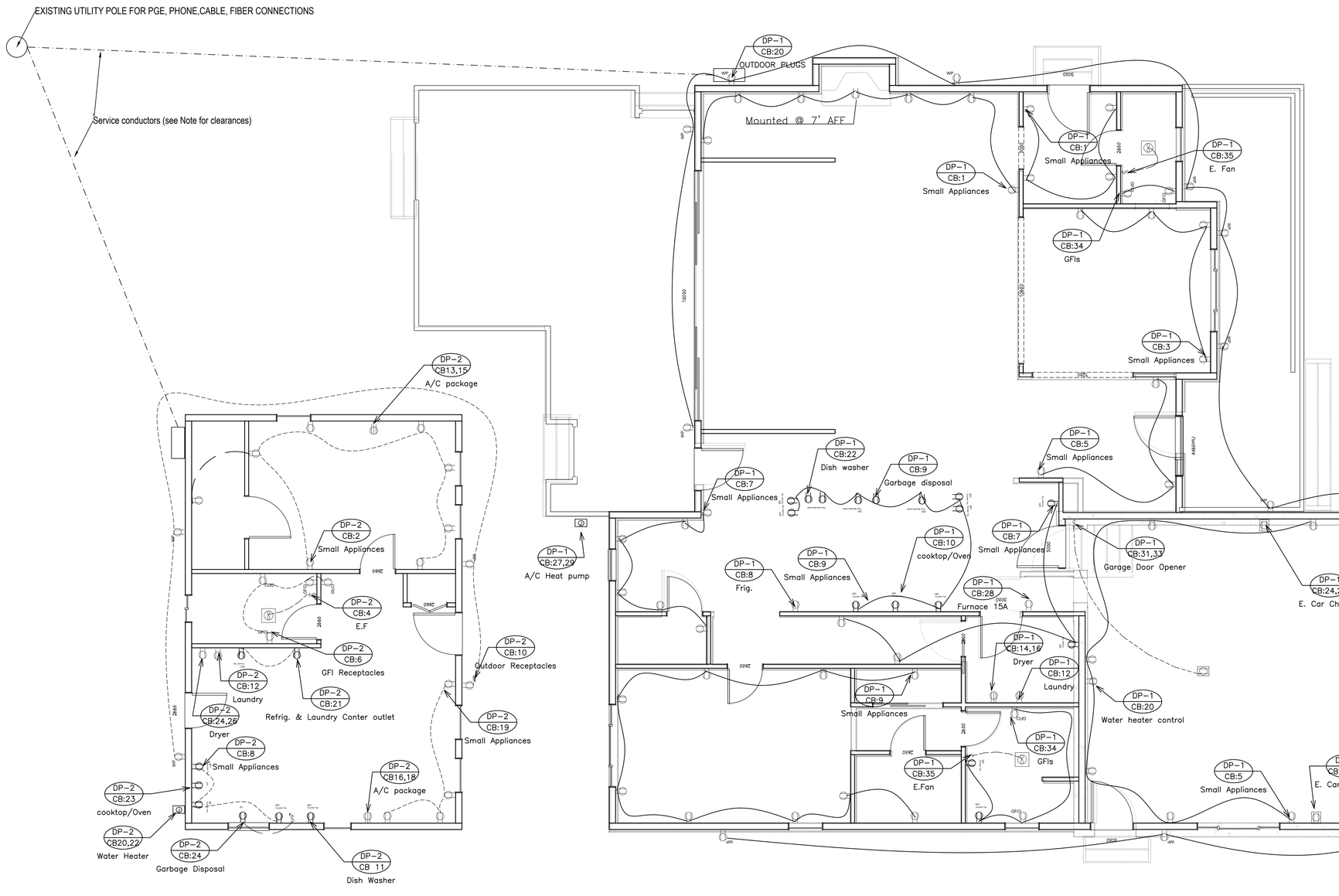
Scale: 1/4" = 1'-00"

DRAWING TITLE: Electrical Legend, Notes and NEC Notes

Sheet :

Page No. : E00

No.	Revision/Issue	Date



NEC Note for Service conductors

230.24 Clearances

Overhead service conductors shall not be readily accessible and shall comply with 230.24(A) through (E) for services not over 600 volts, nominal.

(A) Above Roofs

Conductors shall have a vertical clearance of not less than 2.5 m (8 ft) above the roof surface. The vertical clearance above the roof level shall be maintained for a distance of not less than 900 mm (3 ft) in all directions from the edge of the roof.

(B) Vertical Clearance for Overhead Service Conductors

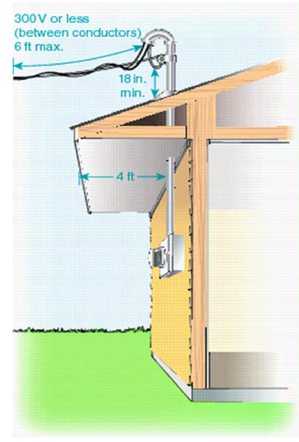
Overhead service conductors, where not in excess of 600 volts, nominal, shall have the following minimum clearance from final grade:

(1) 3.0 m (10 ft) -- at the electrical service entrance to buildings, also at the lowest point of the drip loop of the building electrical entrance, and above areas or sidewalks accessible only to pedestrians, measured from final grade or other accessible surface only for service-drop cables supported on and cabled together with a grounded bare messenger where the voltage does not exceed 150 volts to ground

(2) 3.7 m (12 ft) -- over residential property and driveways, and those commercial areas not subject to truck traffic where the voltage does not exceed 300 volts to ground

(3) 4.5 m (15 ft) -- for those areas listed in the 3.7-m (12-ft) classification where the voltage exceeds 300 volts to ground

(4) 5.5 m (18 ft) -- over public streets, alleys, roads, parking areas subject to truck traffic, driveways on other than residential property, and other land such as cultivated, grazing, forest, and orchard



Appliance plan - First floor

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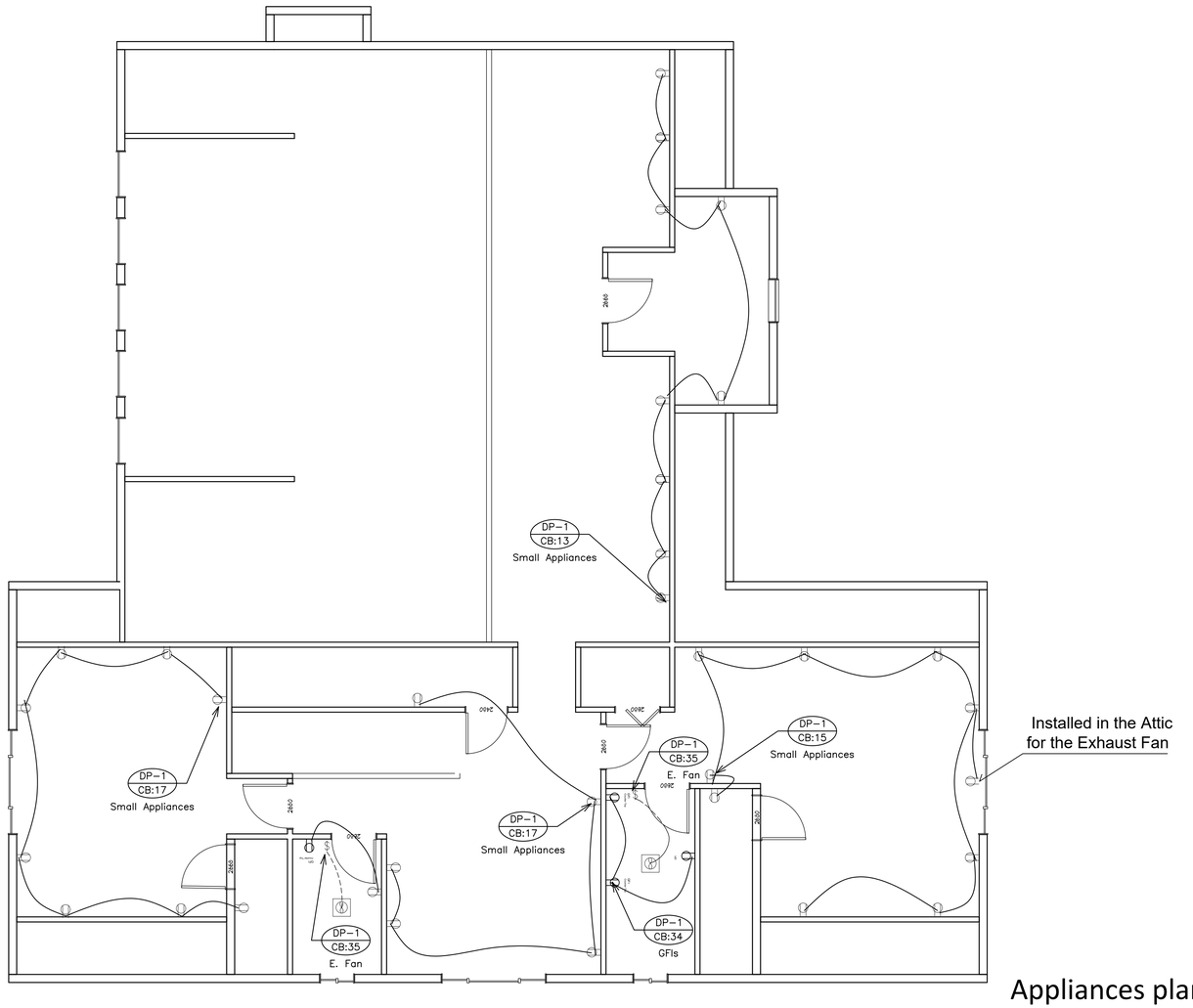
DRAWING TITLE: Appliances & wiring 1st floor

Sheet :

Page No. : E01

No.	Revision/Issue	Date



Appliances plan - second floor

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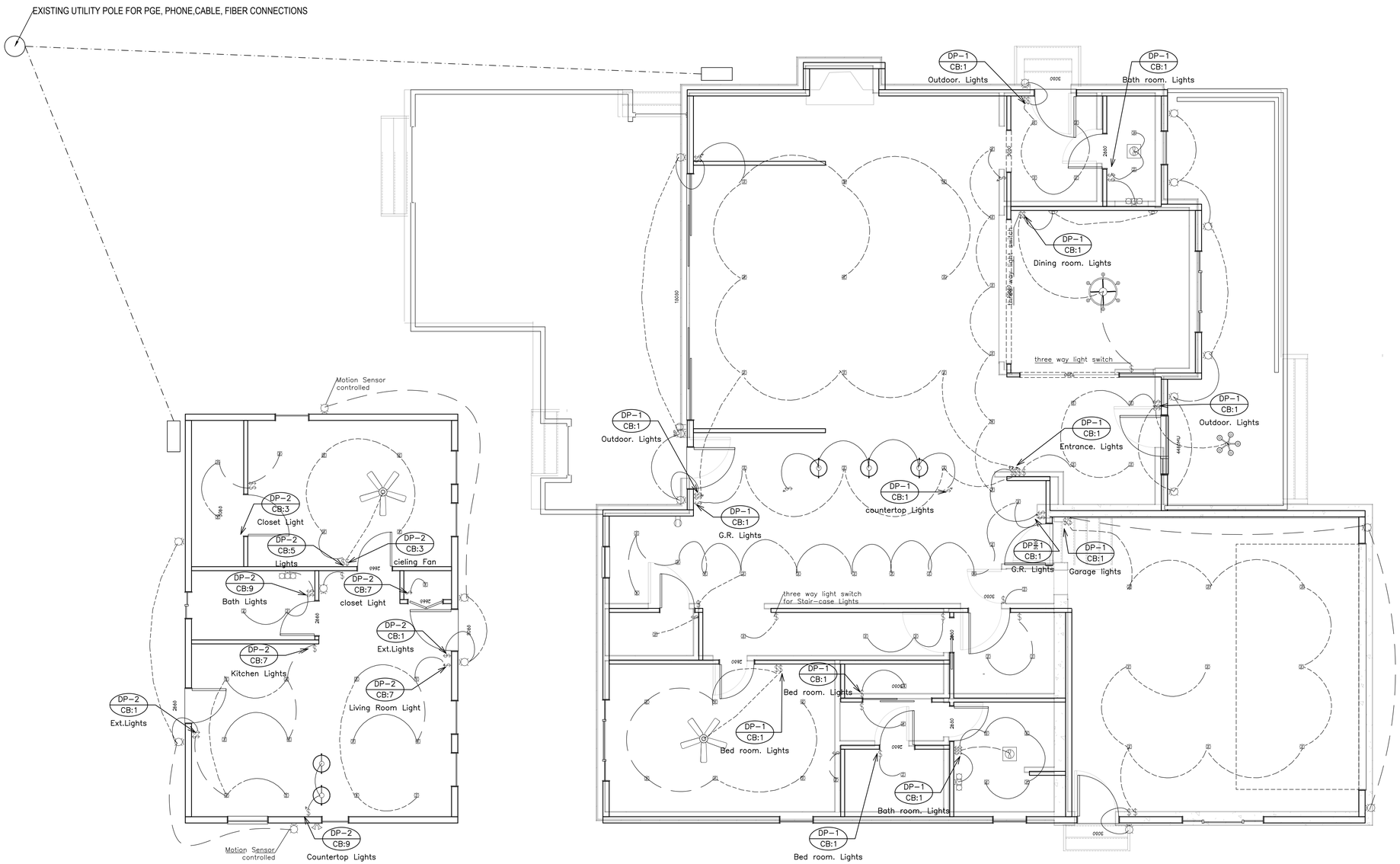
DRAWING TITLE: Appliances Plan 2nd Floor

Sheet :

Page No. : E02

No.	Revision/Issue	Date



Lights Circuit plan - First floor

scale : 1 / 4" = 1'

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DRAWING TITLE:

Lights circuitry Plan 1st floor

Sheet :

Page No. :

E03

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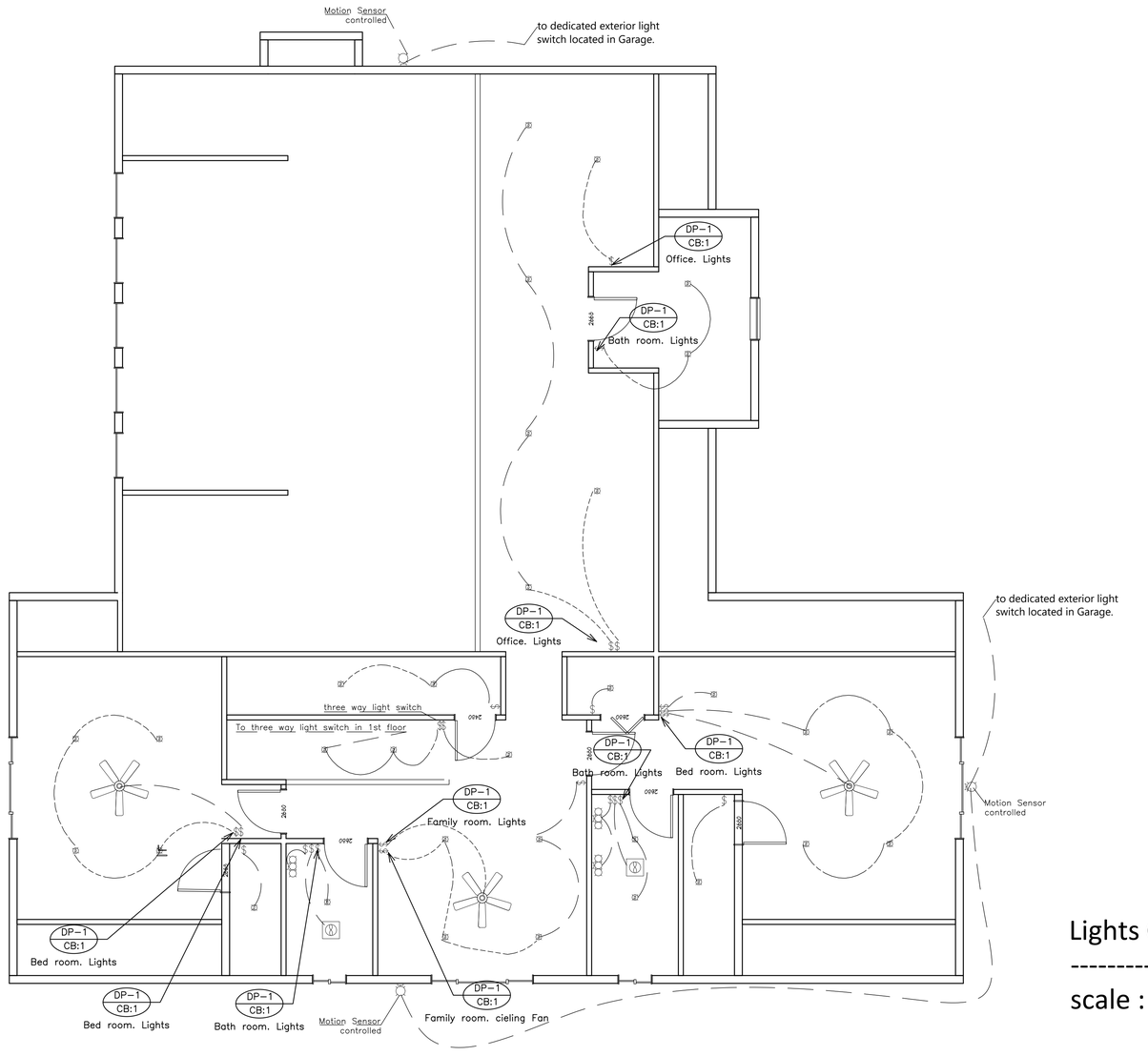

Lights Circuit plan - second floor

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DRAWING TITLE: Lights circuitry Plan 2nd floor

Sheet :

Page No. : E04

No.	Revision/Issue	Date

Gas fueled tankless water heater sizing For Main House:

people	5 X5 =25 gal/Hr
Dishwasher	1 X 10=10
Laundry Machine	1 X20= 20
Full Bath room	3 X10 = 30

Total Hot water requirement per Hour = 85 gal/Hr
Minimum Flow rate per minute = 1.41 Gal/Minute
Required a water heater to provide 50 degrees of Heat @ minimum 1.5 Gal/Hr
#2 water heater Rheem Model # RTGH-95DVELN-2 will be used in master- Slave connection mode

More Information
SKU RTGH-84XLN-2
MPN RTGH-84XLN-2
Weight 78.0000
Manufacturer Rheem
UPC 20352695143
GTIN 00020352695143
Energy Source Natural Gas
width 18 1/2
Height27 1/2
Flow Rate @ 35 F Rise 8.4 GPM
Flow Rate @ 45 F Rise 6.6 GPM
Flow Rate @ 65 F Rise 4.4
Max Flow Rate GPM 8.4 GPM
Water Connection 3/4 Inch
Max Heating BTU 157,000

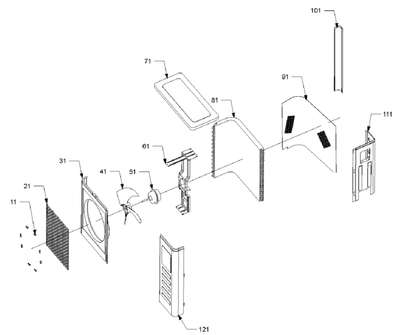
Rheem RTGH-84XLN-2 Natural Gas Condensing Tankless Water Heater

ADU tankless water heater sizing:

people	3 X5 =15 gal/Hr
Dishwasher	1 X 10=10
Laundry Machine	1 X20= 20
Full Bath room	1 X10 = 10

Total Hot water requirement per Hour = 55 gal/Hr
Minimum Flow rate per minute = 1 Gal/Minute
Required a water heater to provide 50 degrees of Heat @ minimum 1 Gal/Hr
A gas water heater Rheem Model # RTGH-84XLN-2 will be used.

24,000 Btu 13 Seer Goodman Single-Zone Mini Split Air Conditioning System - MSG24CRN1N - MSG24CRN1W



11 FRONT GRILLE CLAMPS
21 FRONT GRILLE
31 FRONT PANEL (M1)
41 FAN BLADE (M7, M8)
51 FAN MOTOR (M2, M3, M4)
61 FAN BRACKET (M1)
71 TOP COVER (M1)
81 CONDENSER (M4)
91 REAR GRILLE (M1)
101 LEFT PANEL (M2, M3, M4)
111 REAR PANEL (M5, M6)
121 RIGHT PANEL (M1)

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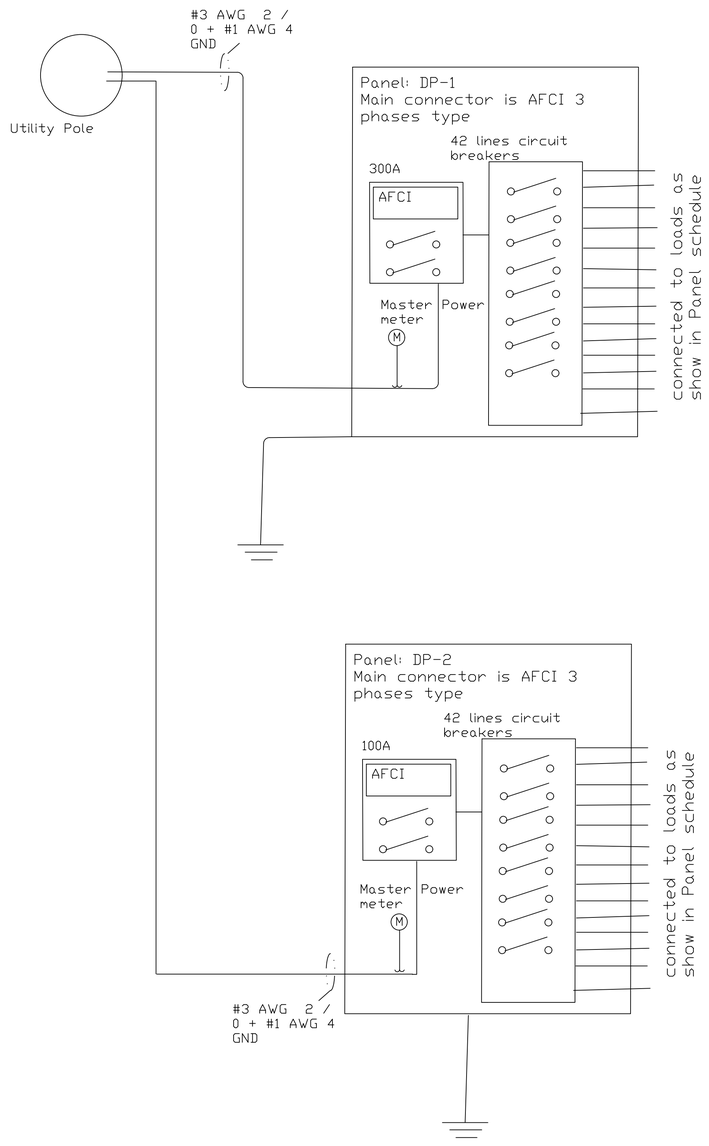
Scale:
DRAWING TITLE: Equipment, Specifications
Sheet :
Page No. : E05

No.	Revision/Issue	Date



POWER- SLD

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DRAWING TITLE: Power Riser SLD

Sheet :

Page No. : E06

No.	Revision/Issue	Date

PANELBOARD SCHEDULE - "DP-1"

	MAIN: 350A MCB		1ST FLOOR						VOLTAGE: 208/120				PHASE: 1		WIRE: 3		MOUNTING: SURFACE		AIC: 22,000		
CKT	TRIP		LOAD (KVA)							PHASE		LOAD (KVA)								TRIP	CKT
#	POLE	DESCRIPTION	LTG	REC	MTR	A/C	HTG	KIT	MISC	A	B	LTG	REC	MTR	A/C	HTG	KIT	MISC	DESCRIPTION	POLE	#
1	20/1	Small Appliances 1		1.80										0.80					ceiling fans	20/1	2
3	20/1	Small Appliances 2		1.20								2.00							Lights 1	20/1	4
5	20/1	Small Appliances 3		1.80								2.00							Lights 2	20/1	6
7	20/1	Small Appliances 4		1.60													0.40		Refrigerator	20/1	8
9	20/1	Small Appliances 5(Kitchen GFIs)						1.60								1.80			Oven/Cooktop	20/1	10
11	20/1	Small Appliances 6		1.20													1.20		Laundry Machine	20/1	12
13	20/1	Small Appliances 7		1.60													1.80		Dryer Machine		14
15	20/1	Small Appliances 8		1.60																20/ 2	16
17	20/1	Bath rooms & Kitchen GFIs		1.60															Fire alarm & DATA	20/1	18
19	20/1	Extrior lghts	1.00										0.10						Gas Water heater control	20/ 1	20
21	20/1	Extrior Receptacles		1.80										1.44					DishWasher	20/ 1	22
23	20 /1																		Elec. Car charger	30/2	24
25																7.70					26
27	50 /2	AC Heat pump												1.80					Furnace	20/1	28
29						6.60													Elec. Car charger		30
31	30 /2	Garage Door														7.70				30 /2	32
33					2.00																34
35	20 /1	Elec. Fans			0.40																36
LIGHTING (KVA):		5.0	1.0	14.2	2.4	6.6	0.0	1.6	0.0			4.0	0.1	4.0	0.0	17.2	3.4	0.0	CONNECTED LOAD (KVA):	54.5	
RECEPTACLES (KVA):		14.3																	DEMAND LOAD (KVA):	50.6	
MOTORS (KVA):		6.4							PHASE A	25.7		247.5									
A/C (KVA):		6.6							PHASE B	28.8		276.9							CONNECTED LOAD (AMPS):	262.2	
HEATING (KVA):		17.2								KVA		AMPS							DEMAND LOAD (AMPS):	243.5	
KITCHEN (KVA):		5.0																			
MISCELLANEOUS (KVA):		0.0																	AMPACITY REQUIRED:	249.5	

NOTES PROVIDE FEED THRU LUG KIT(S).
BREAKERS PROTECTING MULTI-WIRE BRANCH CIRCUITS SHALL BE FIELD-EQUIPPED WITH A MANUALLY OPERATED HANDLE-TIE DEVICE TO ENSURE THAT ALL UNGROUNDED CONDUCTORS ARE SIMULTANEOUSLY DISCONNECTED PER NEC 240.15.

San Jose Notes
Electrical Service Panel Upgrades:

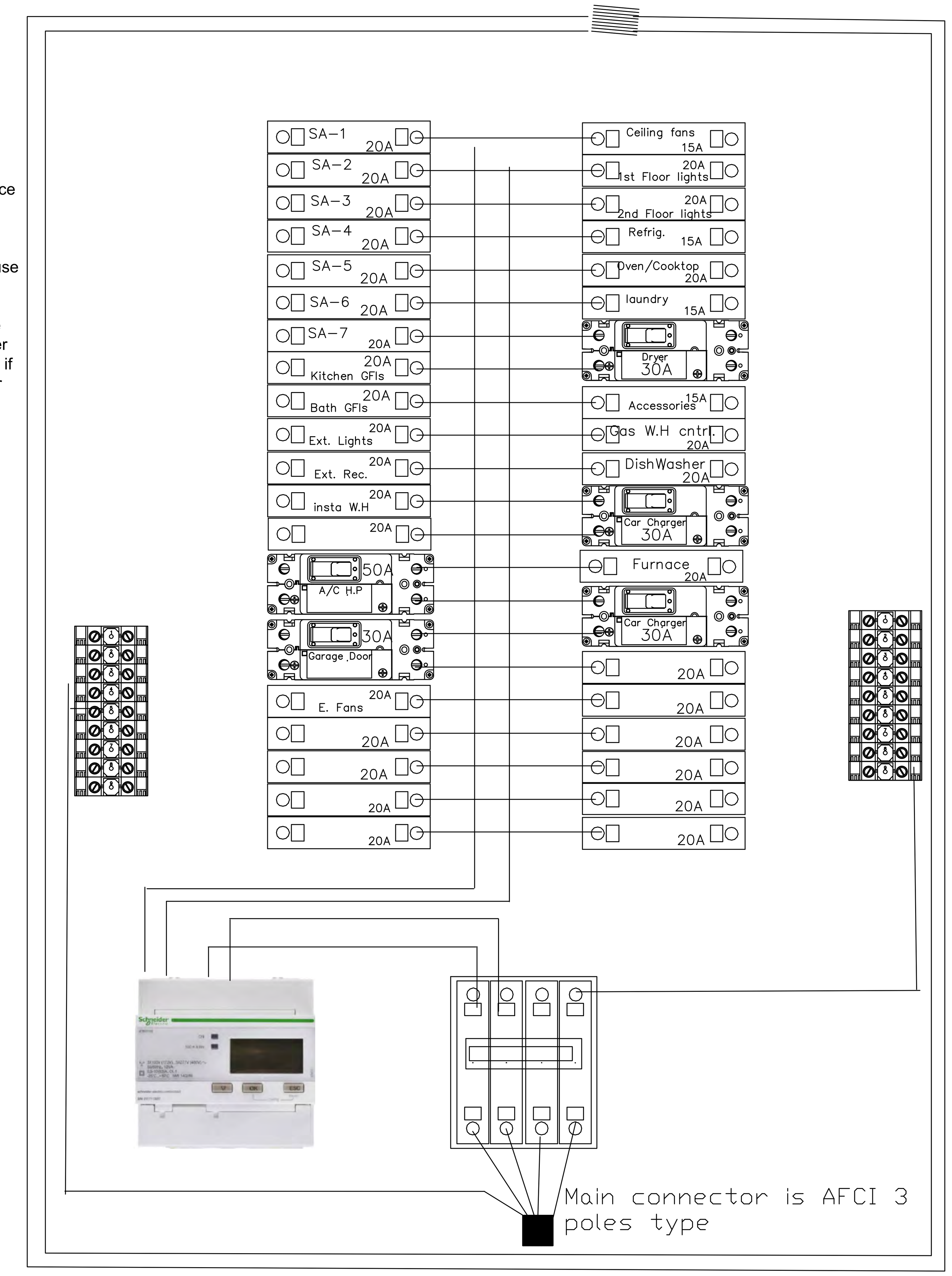
Service panel installation requirements
Required meter height - 36 to 75 inches above ground
Required clear space in front of service panel - 30 inches wide by 36 inches deep with a minimum headroom clearance of 6 feet-6 inches
Circuit breakers

The circuit breaker brand must be listed and approved for use as stated on the panel label
A multi-wire circuit (3-wire, 120/240 volt circuit) requires a handle-tie on the circuit breaker. This is common where the wiring serves both the garbage disposal and the dishwasher
Existing breakers must be replaced with GFCI or AFCI only if receptacles are being replaced OR wiring is being added or extended

AMPACITY REQD CALCS

LIGHTING		5.00	KVA	X	125	%	=	**6.3 KVA**
RECEPTAC	TOTAL	14.20	KVA					
	1ST	10.00	KVA	X	100	%	=	**10.0 KVA**
	REMAIN	4.20	KVA	X	50	%	=	**2.1 KVA**
MOTORS	TOTAL	5.00	KVA	X	100	%		
	LARGEST		KVA	X	125	%	=	**0.0 KVA**
	REMAIN	5.00	KVA	X	100	%	=	**5.0 KVA**
A/C		6.20	KVA	X	100	%	=	**6.2 KVA**
HEATING		25.40	KVA	X	100	%	=	**25.4 KVA**
NON-COINCIDENT LOAD			KVA	X	100	%	=	**0.0 KVA**
KITCHEN		5.00	KVA	X	65	%	=	**3.3 KVA**
MISCELLANEOUS		0.00	KVA	X	100	%	=	**0.0 KVA**
TOTAL							=	**58.2 KVA**

Schneider SEA9BN6M Acti 9 250A Three Phase
6 Way Meter Ready Distribution Board



DP-1 with Power meter

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Sheet :
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No.	Revision/Issue	Date

PANELBOARD SCHEDULE -DP-2

MAIN: 250A MCB | GR FLOOR | VOLTAGE: 208/120 | PHASE:3 | WIRE: 4 | MOUNTING: SURFACE | AIC: 22000

CKT #	BKR TYPE	TRIP POLE	DESCRIPTION	LOAD (KVA) LTG	REC	MTR	A/C	HTG	KIT	MISC	PHASE R	PHASE S	LOAD (KVA) LTG	REC	MTR	A/C	HTG	KIT	MISC	DESCRIPTION	TRIP POLE	BKR TYPE	CKT #
1		20/1	Small Appliances Bed room		1.80								0.08							Outdoor Lights	20/1		2
3		20/1	EF		0.10								0.22							Lights (Bed room)	20/1		4
5		20/1	GFI		0.54								0.20							ceiling fans	20/1		6
7		20/1	Small Appliances Kitchen						1.80				0.24							Lights (Kitchen and Living room)	20/1		8
9		20/1	Outdoor receptacles		1								0.10							counter top Lights	20/1		10
11		20/1	Dish washer		1.80													1.20		Laundry Machine	20/1		12
13			A/C Package #2				2.00														20/1		14
15		20/ 2														2.00				A/C Package #1			16
17		20/ 1	fire alarm sensors																		20/ 2		18
19		20 /1	Small Appliances living room		0.50												4.10			Water heater 1	30 / 2		20
21		20 /1	Refrig.		0.36																		22
23		30 /1	Oven/cooktop					1.80										3.80		Dryer Machine	20 /2		24
25		20 /1	IAQ Fan			0.20																	26

		LTG	REC	MTR	A/C	HTG	KIT	MISC
LIGHTING (KVA):	1	0	2	0	2	2	2	0
RECEPTACLES (KVA):	2							
MOTORS, Sump Pumps (KVA):	1							
A/C (KVA):	4							
HEATING (KVA):	6							
KITCHEN (KVA):	7							
MISCELLANEOUS (KVA):	0							

PHASE R	PHASE S	KVA
6	5	

LTG	REC	MTR	A/C	HTG	KIT	MISC	AMPS
1	0	1	2	4	5	0	

CONNECTED LOAD (KVA):	21
DEMAND LOAD (KVA):	19
CONNECTED LOAD (AMPS):	101
DEMAND LOAD (AMPS):	89
AMPACITY REQUIRED:	90

NOTES: PROVIDE FEED PROVIDE FEED THRU LUG KIT(S).
BREAKERS PROTECTING MULTI-WIRE BRANCH CIRCUITS SHALL BE FIELD-EQUIPPED WITH A MANUALLY OPERATED HANDLE-TIE DEVICE TO ENSURE THAT ALL UNGROUNDED CONDUCTORS ARE SIMULTANEOUSLY DISCONNECTED PER NEC 240.15.
BREAKER SELI OVERCURRENT PROTECTION DEVICE SELECTIONS BASED ON EATON CUTLER-HAMMER. EQUALS ALLOWED BY GE, SIEMENS, SQUARE D.
OVERCURRENT

AMPACITY REQD CALCS

LIGHTING	1	KVA	X	125	%	=	1 KVA	9 Amps
RECEPTA TOTAL	2	KVA						
1ST	10	KVA	X	100	%	=	2 KVA	17 Amps
REMAIN	0	KVA	X	50	%	=	0 KVA	0 Amps
MOTORS TOTAL	1	KVA	X	100	%			
LARGEST		KVA	X	125	%	=	0 KVA	0 Amps
REMAIN	1	KVA	X	100	%	=	1 KVA	10 Amps
A/C	4	KVA	X	100	%	=	4 KVA	33 Amps
HEATING	4	KVA	X	100	%	=	4 KVA	34 Amps
NON-COINCIDENT LOAD		KVA	X	100	%	=	0 KVA	0 Amps
KITCHEN	7	KVA	X	65	%	=	4 KVA	37 Amps
MISCELLANEOUS	0	KVA	X	100	%	=	0 KVA	0 Amps
TOTAL						=	17 KVA	140 Amps

Table 326.80 Ampacity of Type IGS Cable

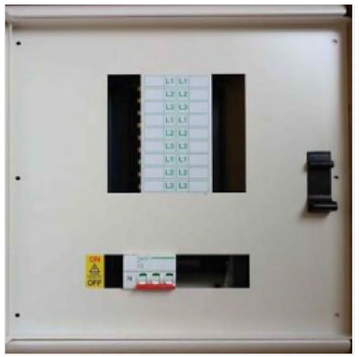
Size (kcmil)	Amperes	Size (kcmil)	Amperes
250	119	2500	376
500	168	3000	412
750	206	3250	429
1000	238	3500	445
1250	266	3750	461
1500	292	4000	476
1750	315	4250	491
2000	336	4500	505
2250	357	4750	519

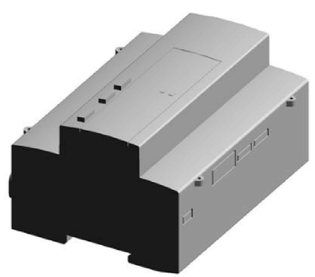
Conductor Size

AWG	CMA	Diameter (mm)	mm²	Size	Current Rating
#32	63	0.20	0.03	•	0.3A
#30	101	0.26	0.05	•	0.5A
#28	160	0.32	0.08	•	0.7A
#26	254	0.41	0.13	•	1.0A
#24	404	0.51	0.20	•	2.0A
#22	643	0.64	0.33	•	3.0A
#20	1,020	0.81	0.52	•	5.0A
#18	1,624	1.02	0.82	•	7.0A
#16	2,583	1.29	1.31	•	10.0A
#14	4,106	1.63	2.08	•	20.0A
#12	6,530	2.05	3.31	•	30.0A
#10	10,384	2.59	5.26	•	50.0A

DP-2 with Power meter

Schneider SEA9BN6M Acti 9 250A Three Phase 6 Way Meter Ready Distribution Board





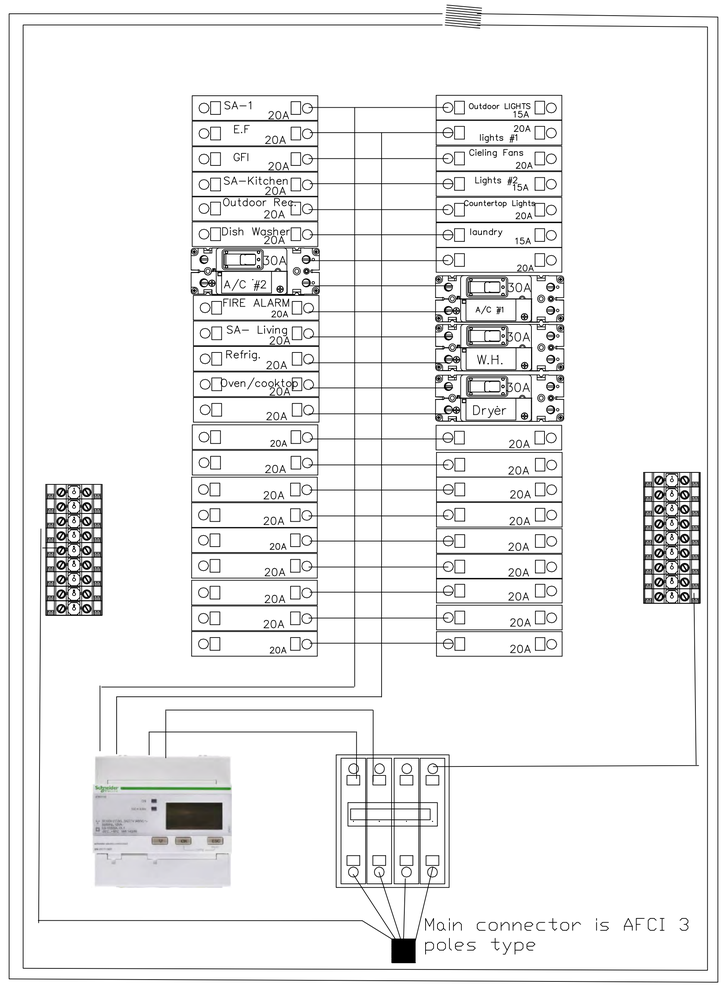
Acti9 iEM3100 Energy Meters
The iME3100 energy measurement counter is used to measure the active energy consumed by single-phase, three-phase or three-phase + neutral type electrical circuits.

Operating voltage: 3 x 100/173 Vac (50/60 Hz) → 3 x 277/480 Vac (50/60 Hz)
Imax: 63 A
IP40 front panel, IP20 casing
Overvoltage and measurement category III, degree of pollution 2
Electromagnetic environmental class: E2
Mechanical environmental class: M1
Operating temperature: -25 → + 55 °C

Desigr

NEC 700.2
multiple e
breakers.

If this pane
& AJ. Als
If this pane
COORDINA
applicable.
schedule.



DP-2 with Power meter

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DRAWING TITLE: DP-2 schedule and |Calculation

Sheet :

Page No. : E08

No.	Revision/Issue	Date

Luminaire parts list								
Index	Manufacturer	Luminaire type	Item number	Fitting	Luminous flux	Light loss factor	Connected load	Quantity
1	Verbatim	IN-0302-1-WH		1x52450	1890 lm	0.80	9w	104

#	Name	Parameter	Min	Max	Average	Min/average	Min/max
1	ADU BLDG	Perpendicular illuminance (Adaptive)	8.48 fc	64.3 fc	37.3 fc	0.227	0.132

#	Name	Parameter	Min	Max	Average	Min/average	Min/max
1	GARAGE	Perpendicular illuminance (Adaptive)	8.23 fc	38.8 fc	26.0 fc	0.317	0.212
2	Master Bath room	Perpendicular illuminance (Adaptive)	31.2 fc	56.2 fc	45.6 fc	0.685	0.556
3	Laundry	Perpendicular illuminance (Adaptive)	14.8 fc	35.5 fc	26.5 fc	0.558	0.417
4	Closet #1	Perpendicular illuminance (Adaptive)	11.4 fc	20.8 fc	16.5 fc	0.689	0.548
5	Master Bed room	Perpendicular illuminance (Adaptive)	7.69 fc	33.8 fc	23.2 fc	0.332	0.227
6	Closet #2	Perpendicular illuminance (Adaptive)	0.00 fc	0.000 fc	0.00 fc	/	/
7	Stairs	Perpendicular illuminance (Adaptive)	17.1 fc	42.0 fc	28.2 fc	0.607	0.408
8	Grand Room	Perpendicular illuminance (Adaptive)	9.55 fc	112 fc	50.6 fc	0.189	0.085
9	Bath room	Perpendicular illuminance (Adaptive)	26.0 fc	40.1 fc	33.8 fc	0.767	0.647
10	Mud room	Perpendicular illuminance (Adaptive)	41.8 fc	66.2 fc	56.1 fc	0.744	0.631

#	Name	Parameter	Min	Max	Average	Min/average	Min/max
1	ADU 2nd Floor	Perpendicular illuminance (Adaptive)	0.38 fc	17.4 fc	4.65 fc	0.082	0.022
2	Office	Perpendicular illuminance (Adaptive)	2.57 fc	9.47 fc	5.83 fc	0.441	0.272
3	Closet #1	Perpendicular illuminance (Adaptive)	3.30 fc	8.80 fc	6.08 fc	0.543	0.375
4	Bed room#2	Perpendicular illuminance (Adaptive)	2.34 fc	9.41 fc	6.41 fc	0.365	0.249
5	Bath Room #2	Perpendicular illuminance (Adaptive)	1.85 fc	9.55 fc	5.25 fc	0.353	0.194
6	Family Room	Perpendicular illuminance (Adaptive)	2.76 fc	13.4 fc	10.0 fc	0.275	0.206
7	closet#2	Perpendicular illuminance (Adaptive)	2.12 fc	8.71 fc	6.13 fc	0.346	0.243
8	Corridor	Perpendicular illuminance (Adaptive)	3.20 fc	9.74 fc	7.25 fc	0.441	0.328
9	Bath Room #3	Perpendicular illuminance (Adaptive)	3.68 fc	7.74 fc	6.42 fc	0.574	0.476
10	Bed Room #3	Perpendicular illuminance (Adaptive)	0.69 fc	6.35 fc	3.55 fc	0.194	0.108

GetInLight 5 Inch Flush Mount LED Ceiling Light with ETL Listed, Soft White 3000K, Matte White Finish, IN-0302-1-WH

Brand GetInLight
Part NumberIN-0302-1-WH
Item Weight 9.6 ounces
Product Dimensions 5.4 x 5.4 x 1 inches
Assembled Height 1.02 inches
Assembled Length 5.4 inches
Assembled Width 5.4 inches
Style Modern
Color 3000k(soft White)
ShapeCircular
Material Metal
Finish Matte White
Number of Lights 38
Included Components Wood Screws, Wire Nuts
Voltage 120 volts
Specific Uses Commercial/Residential
Fixture Features Dimmable
Shade Material Plastic
Light Direction Downlight
Power Source AC
Amperage Capacity 2.3 A
Switch Installation Type Embedded
Batteries Included?No
Batteries Required? No
Certification ETL Listed
Type of BulbLED
Luminous Flux 550.00
Wattage 9.00
Wattage 9 watts
Color Temperature 3000 Kelvin
Color Rendering Index (CRI) 90.00

Wall Sconce - 3 Lights - LED - Chrome and Aluminum

Product specifications

Type	Wall sconce
Warranty	1-year warranty
Bulb Type	Integrated LEDs
Style	Contemporary
Collection	Ledgo
Component	Metal
Finish	Chrome and aluminum
Thickness	3" (7.62 cm)
Width	3.5" (8.89 cm)
Length	19" (48.26 cm)
Wattage	3 x 5 W
Quantity per Box	Each

6pcs 5 W LED Candle Lights 500 lm E14 CA35 35 LED Beads SMD 2835 Decorative Warm White White 220-240 V 110-130 V / 6 pcs / RoHS

Quantity 6pcs
LED Beads Quantity 35
Light Color White, Warm White
Type LED Candle Lights
Features Decorative
Wattage (W)5
Initial Lumens (lm) 500
Certification CE, RoHS
Color Temperature (k) 3000 6000
Lifetime (H) >50000
Primary ApplicationGarage / Carport, Storage Room / Utility Room, Hallway / Stairwell, Bathroom, Bedroom, Living Room / Dining Room, Kitchen, Children's Room, Home / Office
Bulb Shape CA35
LED Type SMD 2835
Bulb Base E14
What's in the box LED

6-Light Candle-style Chandelier Ambient Light Painted Finishes Metal Candle Style 110-120V / 220-240V Bulb Not Included / E12 / E14

Specifications
Light Information

Type	Chandelier
Style	Retro
Features	Candle Style
Suggested Space Fit	Dining Room, Kitchen, Bedroom, Living Room, Hallway
Number of Tier(Tiers)	1
Suggested Room Size	10-15㎡
Power (W)	45
Dimensions	
Fixture Height (cm)	36
Fixture Width (cm)	61
Chain/Cord Length (cm)	32
Bulb Type	LED, Incandescent
Number of Bulb	6-Light
Wattage per Bulb (W)	45
Bulb Base	E12 / E14

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Date:

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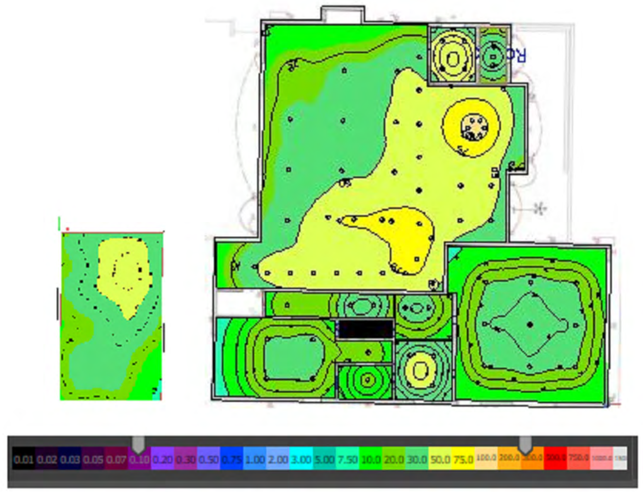
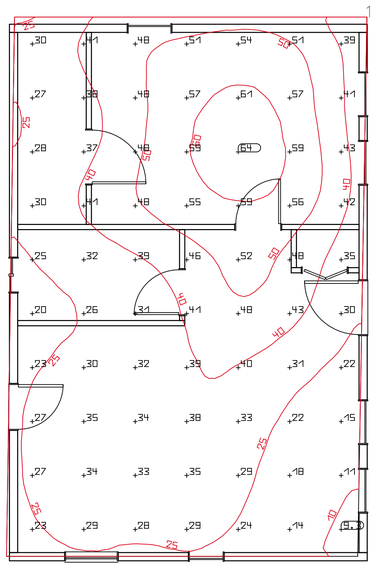
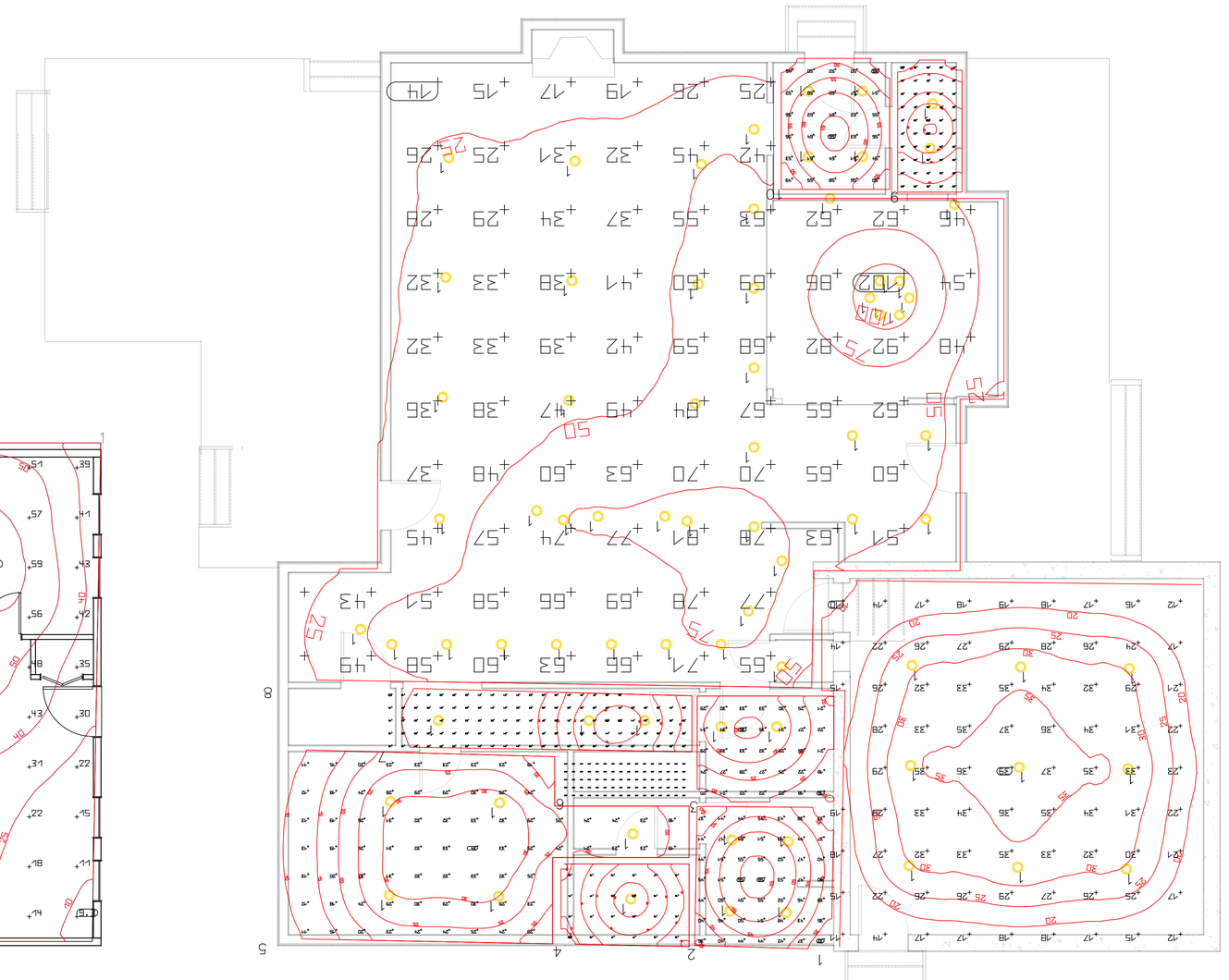
DRAWING TITLE: FC Level and Lights specifications

Sheet :

No.	Revision/Issue	Date







Photometric plan- first floor

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scale : 1 / 4" = 1'

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DRAWING TITLE: Photometric Plan 1st floor

Sheet :

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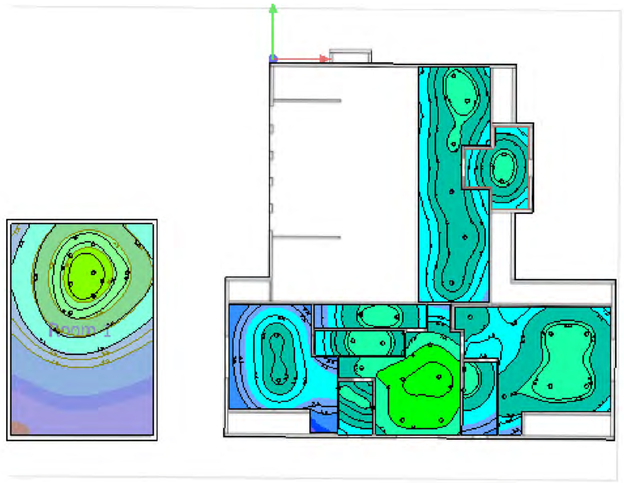
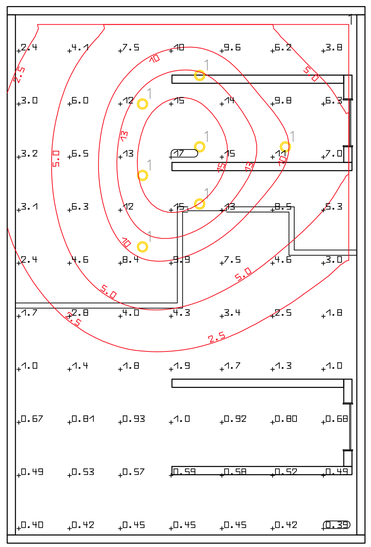
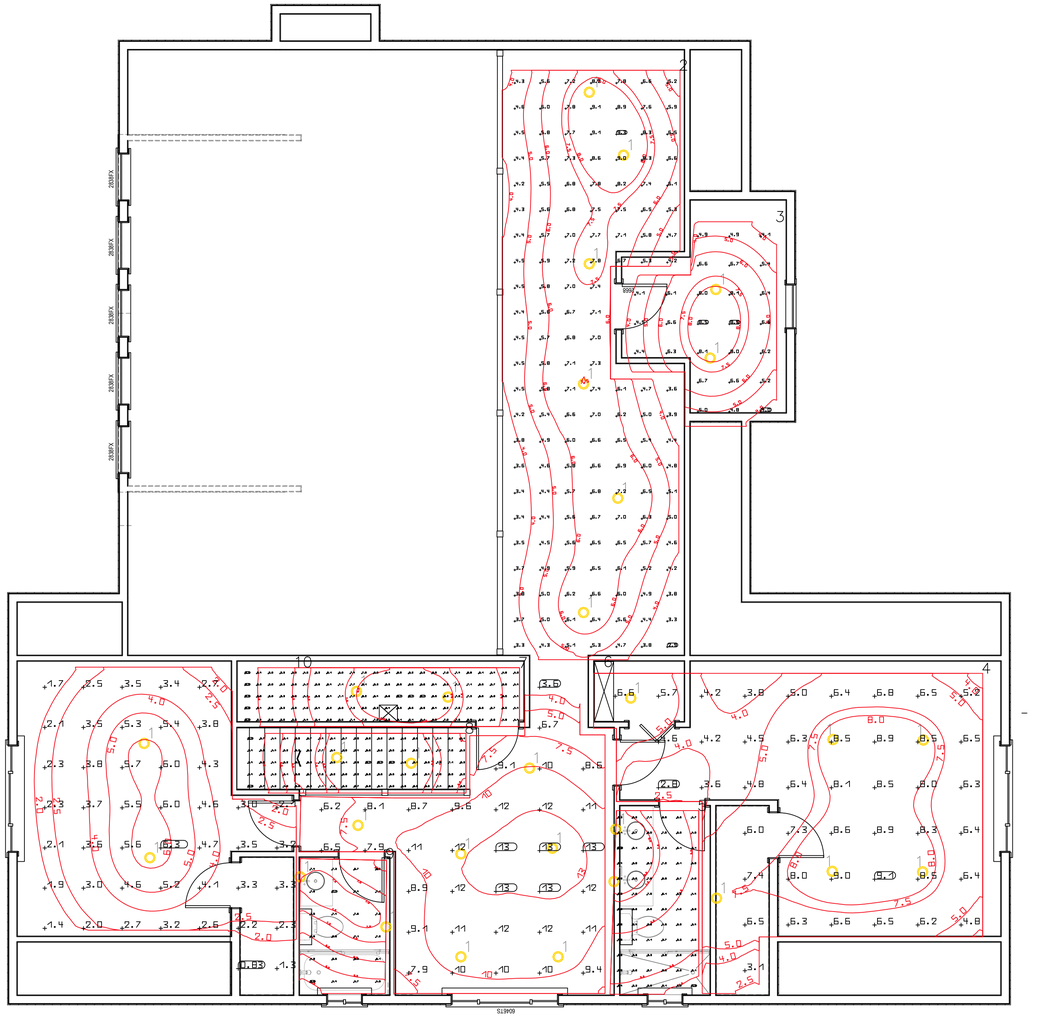
No.	Revision/Issue	Date







Photometric plan - second floor

---

scale : 1 / 4" = 1'

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DRAWING TITLE: Photometric Plan 2nd floor

Sheet :

Page No. : E11

No.	Revision/Issue	Date

BRK Electronics First Alert 4120B 120V AC/DC Hardwired with 9V Battery Backup Ionization Smoke Alarm (Upgraded to 9120B)

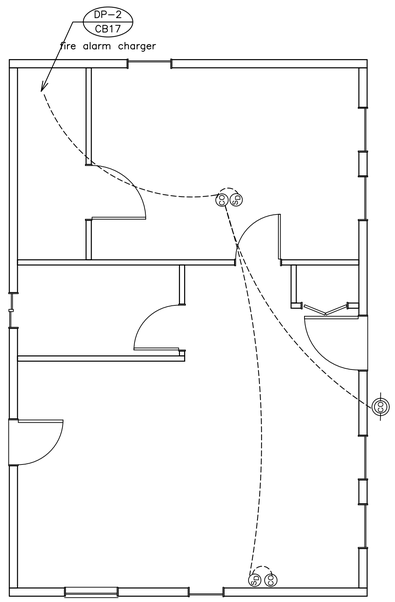
BRK 4120B Smoke Alarm AC Powered with Battery Back-up. Designed for the fastest possible installation! If AC power fails, the battery back-up keeps the smoke alarm working.

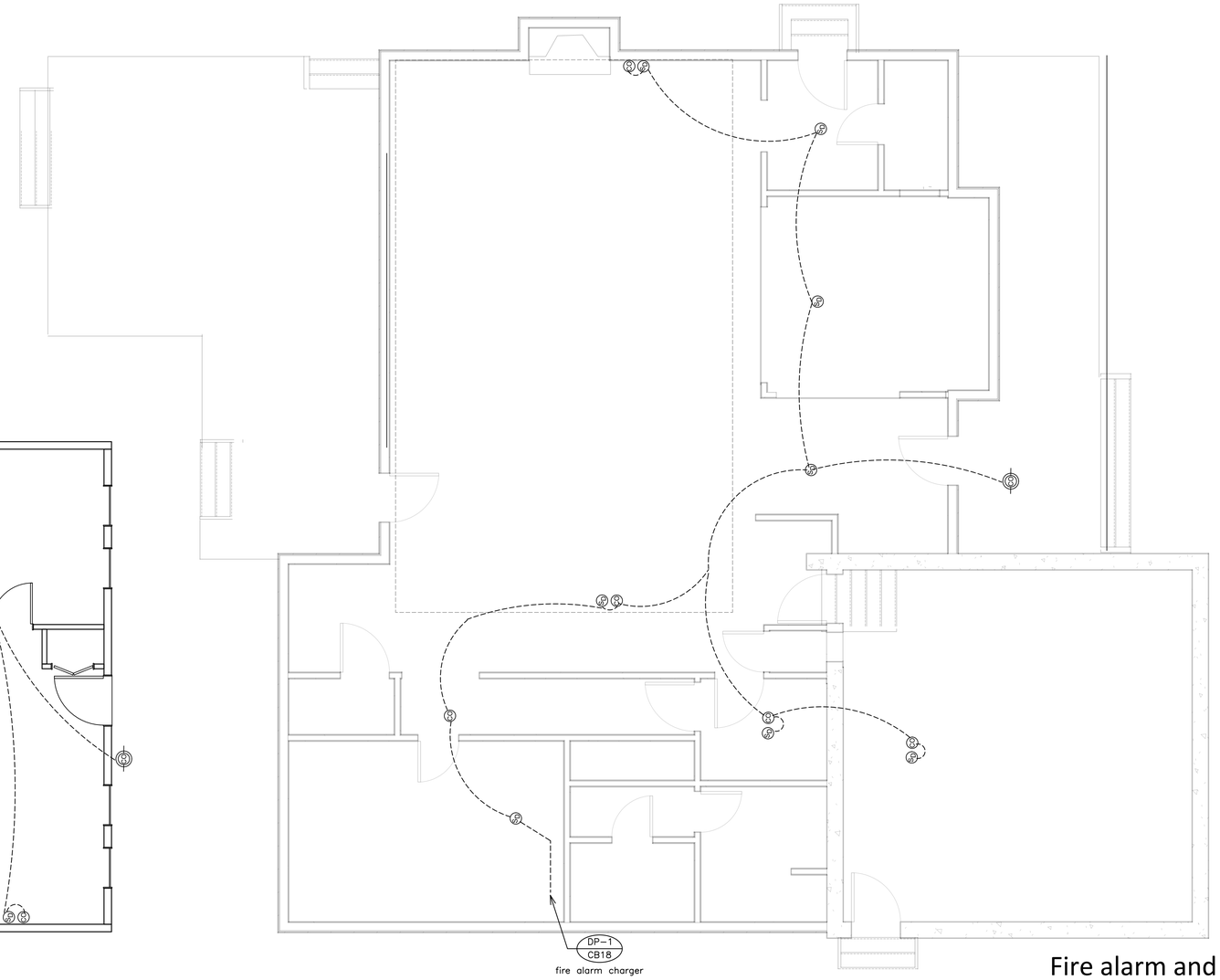
Ionization Sensor
Quick Plug-In Power Connector
Alarm Indication
Battery Drawer Lock
Mounting Bracket Lock
Swing-Open Battery Door
Battery Activation Tab
Battery Back-Up
AC Power Indicator
Low Battery Warning "Chirp"
Missing Battery Tab
9V Battery Included

Model # 4120B
Operating Voltage 120V AC 60Hz w/ 9V battery backup (4120B only)
Listing UL Listed to U.S. and Canadian safety standards

Kidde 120V Carbon Monoxide Alarm

	KD-2100646	KD-9000121
Power Source	120V AC, 9V Battery Backup	120V AC, 9V Battery Backup
Sensor	Electrochemical	Electrochemical
Audio Alarm	85dB at 10ft	85dB at 10ft
Temp. Range	40° F to 100° F	40° F to 100° F
Humidity Range	5% - 95% relative humidity	5% - 95% relative humidity
Size	5.75" Diameter x 1.8" Depth	5.75" Diameter x 1.8" Depth
Weight	1 lb	1 lb
Interconnect Up to 24 Kidde Devices		Up to 24 Kidde Devices





Fire alarm and sensors plan - First floor

---

scale : 1 / 4" = 1'

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DRAWING TITLE: Fire Alarm sensors 1st floor

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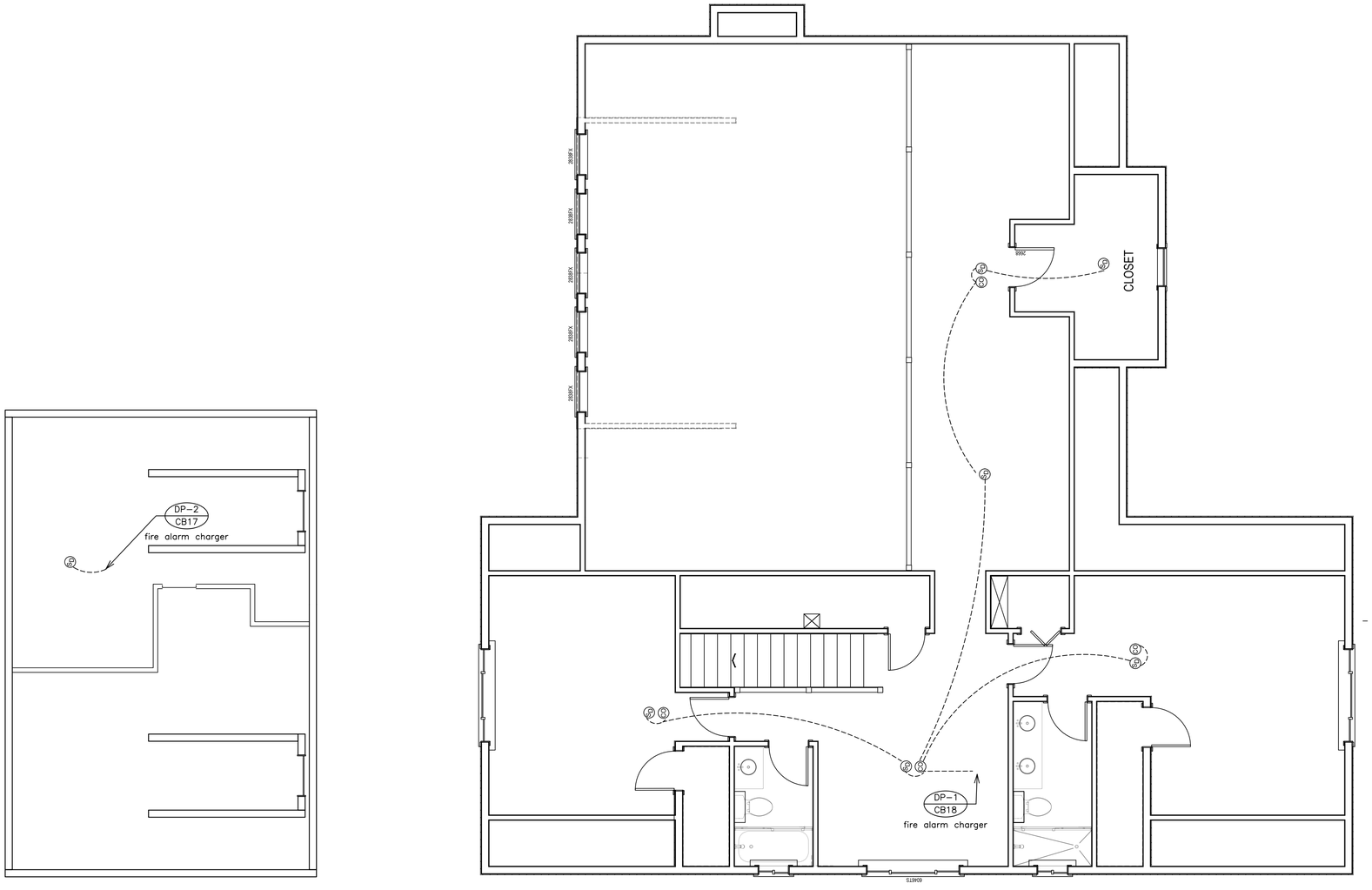
No.	Revision/Issue	Date



Fire alarm and sensors plan - second floor

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scale : 1 / 4" = 1'

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DRAWING TITLE: Fire Alarm sensors 2nd floor

Sheet :

Page No. : E13

No.	Revision/Issue	Date

CEC Notes:

CEC Section 250.50 Grounding Electrode System and Grounding Electrode Conductor
250.50 Grounding Electrode System. All grounding electrodes as described in 250.52(A)(1)
through (A)(7) that are present at each building or structure served shall be bonded together to
form the grounding electrode system. Where none of these grounding electrodes exist, one or
more of the grounding electrodes specified in 250.52(A)(4) through (A)(8) shall be installed and
used.
Exception: Concrete-encased electrodes of existing buildings or structures shall not be required to be part of the grounding electrode system where the steel reinforcing bars or
rods are not accessible for use without disturbing the concrete.
CEC Section 250.104 Bonding of Piping Systems and Exposed Structural Metal.
(A) Metal Water Piping. The metal water piping system shall be bonded as required in (A)(1),
(A)(2), or (A)(3) of this section. The bonding jumper(s) shall be installed in accordance with
250.64 (A), (B), and (E).
(1) General. Meter water piping system(s) installed in or attached to a building or structure shall be bonded to the service equipment enclosure, the grounded conductor at
the service, the grounding electrode conductor where of sufficient size, or to the one or more grounding electrodes used. The bonding jumper(s) shall be sized in accordance with Table 250.66 except as permitted in 250.104(A)(2) and (A)(3).

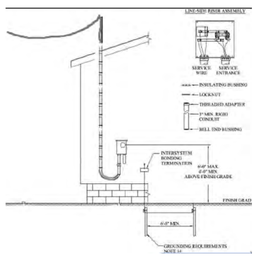
Grounding - Refer to California Electrical Code (CEC) Table 250.66 to size the conductor

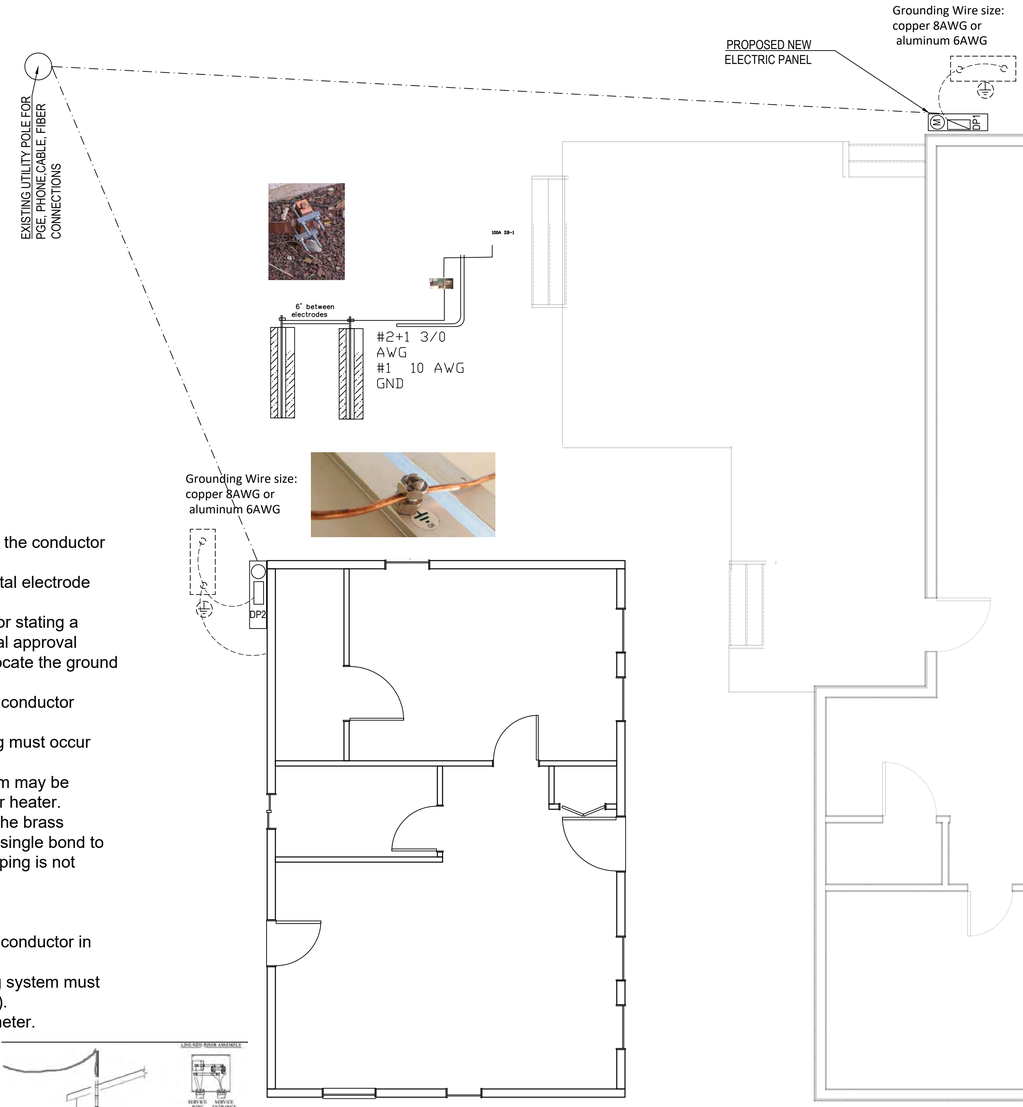
If the water piping system is the only grounding source, then a supplemental electrode must be installed.
If using only a single ground rod, a verification document from the contractor stating a resistance to earth of 25 ohms or less at the property is needed prior to final approval
A minimum 5/8" ground rod must be buried at least 8 feet in the ground. Locate the ground rod as close as practicable to the electric service
Bonding the water piping system - Refer to CEC Table 250.122 to size the conductor

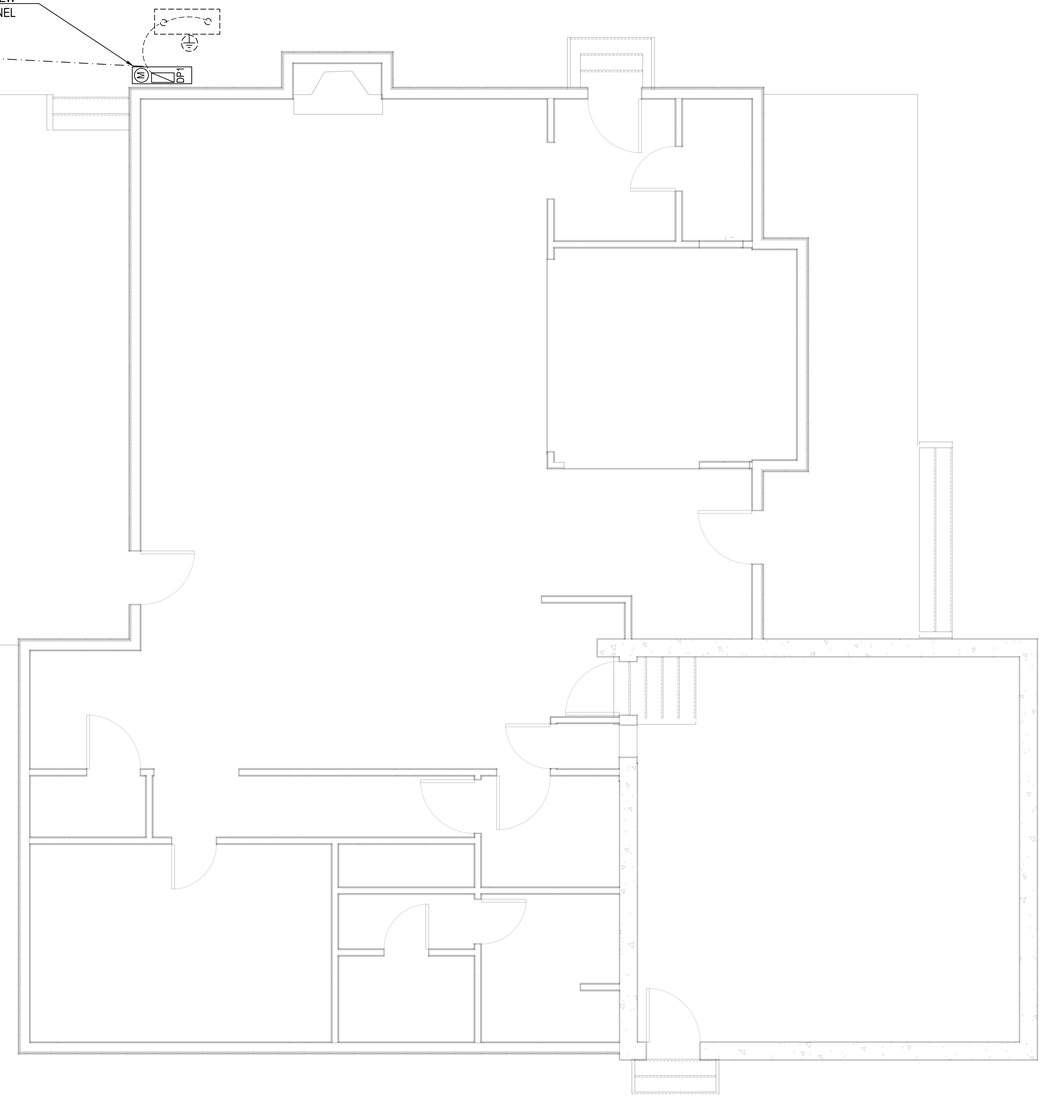
If the main water service piping to the house is metallic, accessible bonding must occur within 5 feet of where the water service enters the house.
If the main water service piping is non-metallic, the cold water piping system may be bonded at any accessible location. Piping is commonly bonded at the water heater.
The hot and cold water piping systems are effectively bonded together by the brass plumbing mixing valves at tubs and showers, etc. The San Jose accepts a single bond to the cold water piping only; an additional bonding jumper to the hot water piping is not required.
Bonding the gas piping system

If gas appliances are available, the gas piping is bonded via the grounding conductor in the branch circuit to the gas appliances
If the electrical system does not contain equipment grounds, the gas piping system must be bonded externally with a bonding jumper (same as water piping system).
Gas bonding shall only be connected to the house side of the PG&E gas meter.

2 ground rods must be at least 8 feet buried in the ground with minimum of 6 feet apart. When made of iron or steel, the ground rod must be a minimum 5/8" diameter. Listed stainless steel or nonferrous rods may be 1/2" in diameter.
Grounding electrode conductor shall be connected within 5 ft. from the point of entrance to a cold water pipe grounding electrode. (2007 CEC Section 250-30 Item 3)







Grounding Plan

scale : 1 / 4" = 1'

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Project Name and Address:

REMODLE AND ADJ SINGLE FAMILY HOUSE

1651 PARKSIDE AVE. SAN JOSE, CA 95125

Date:

Scale: 1/4" = 1'-00"

DRAWING TITLE: Lightening Protection and Ground System

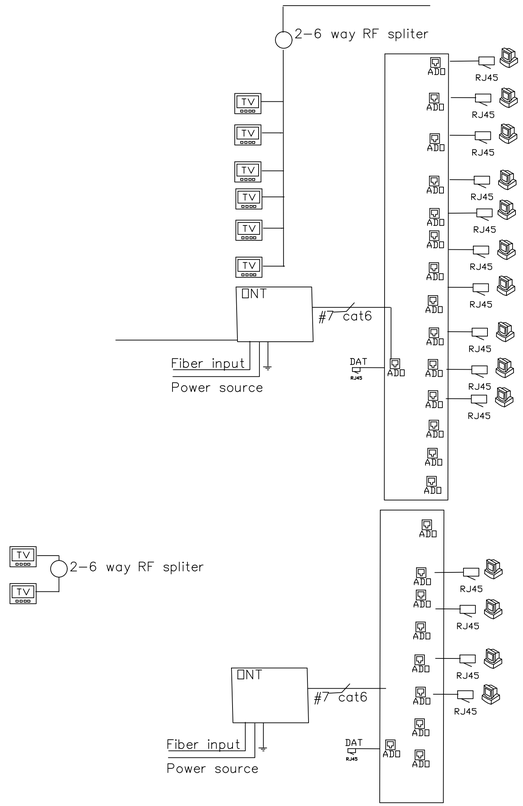
Sheet :

Page No. : E14

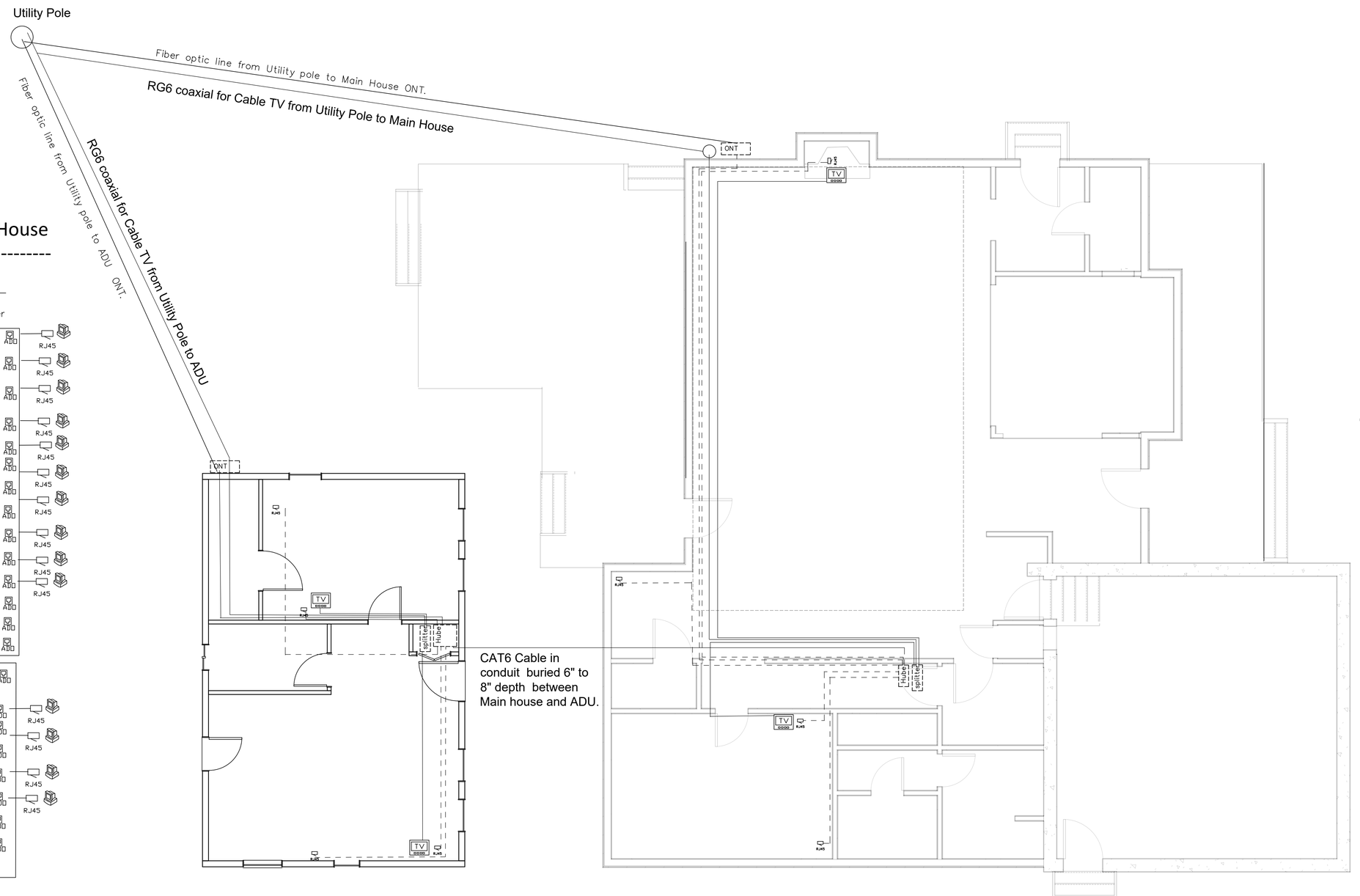
No.	Revision/Issue	Date

TV = TV location (rg6)
PH = phone location (cat6)
DAT = Data location (cat6)
NO = Network Office(3 cat6 /1 rg6)
NP = Network/Phone (2 cat6)
SP = speaker prewire location
SUB = Subwoofer Prewire location
DD = Distribution Device
ADO = Auxiliary Disconnect Outlet
FODB = Fiber Optic Distribution Box

Data, Phone and CATV SLD for Main House



Data, Phone and CATV SLD for ADU



Data, Phone and CATV plan- first floor

scale : 1 / 4" = 1'

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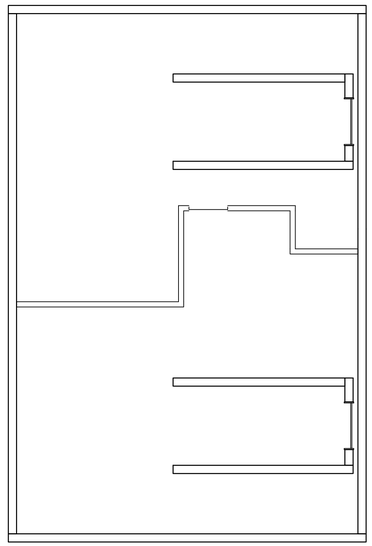
Scale: 1/4" = 1'-00"

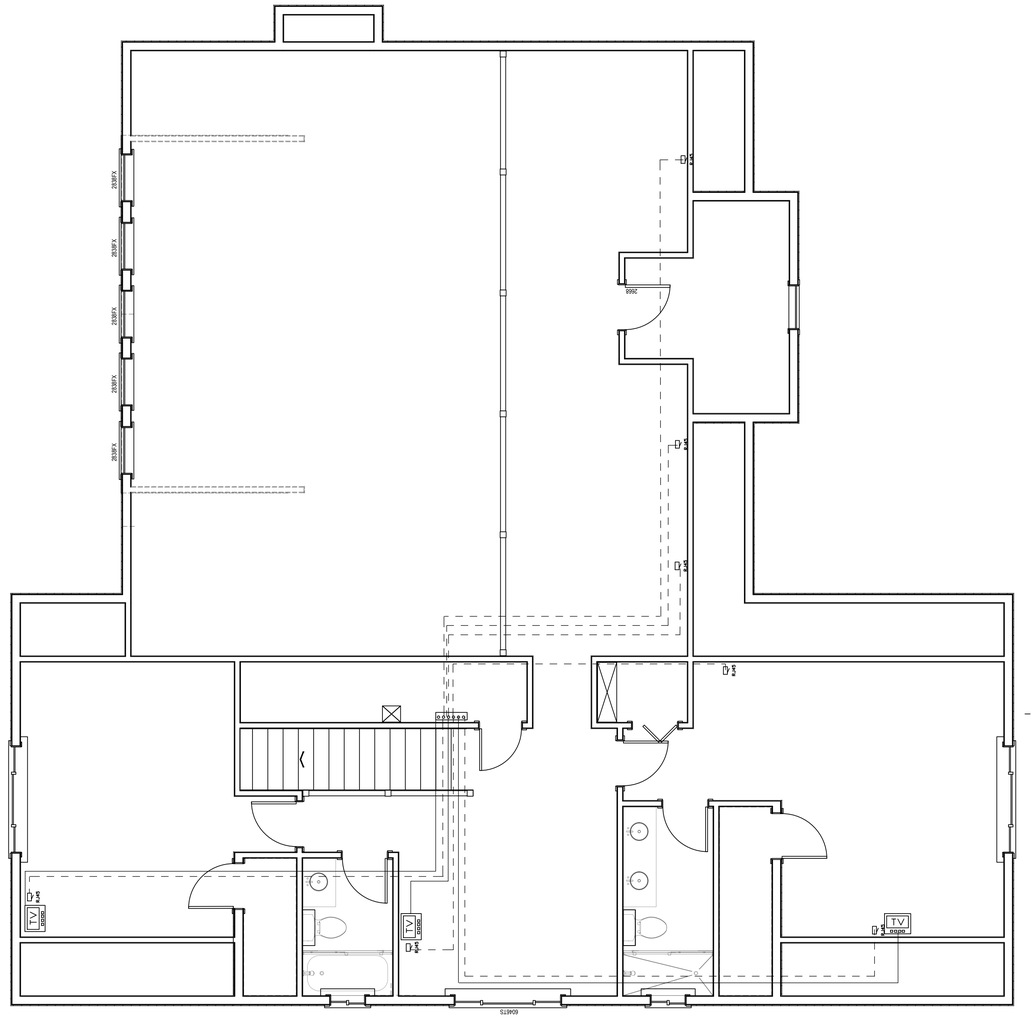
DRAWING TITLE: Data and CATV plan 1st floor

Sheet :

Page No. : E15

No.	Revision/Issue	Date





Data, Phone and CATV plan - second floor

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scale : 1 / 4" = 1'

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Date:

Scale: 1/4" = 1'-00"

DRAWING TITLE: Data and CATV plan 2nd floor

Sheet :

Page No. : E16

No.	Revision/Issue	Date

CALIFORNIA GENERAL REGULATIONS:

312.0 Protection of Piping, Materials, and Structures

312.1 General

Piping passing under or through walls shall be protected from breakage. Piping passing through or under cinders or other corrosive materials shall be protected from external corrosion in an approved manner. Approved provisions shall be made for expansion of hot water piping. Voids around piping passing through concrete floors on the ground shall be sealed.

312.2 Installation

Piping in connection with a plumbing system shall be so installed that piping or connections will not be subject to undue strains or stresses, and provisions shall be made for expansion, contraction, and structural settlement. No plumbing piping shall be directly embedded in concrete or masonry. No structural member shall be seriously weakened or impaired by cutting, notching, or otherwise, as defined in the California Building Code or California Residential Code.

312.3 Building Sewer and Drainage Piping

No building sewer or other drainage piping or part thereof, constructed of materials other than those approved for use under or within a building, shall be installed under or within 2 feet (610 mm) of a building or structure, or less than 1 foot (305 mm) below the surface of the ground.

312.4 Corrosion, Erosion, and Mechanical Damage

Piping subject to corrosion, erosion, or mechanical damage shall be protected in an approved manner.

312.5 Protectively Coated Pipe

Protectively coated pipe or tubing shall be inspected and tested, and a visible void, damage, or imperfection to the pipe coating shall be repaired in an approved manner.

312.6 Freezing Protection

No water, soil, or waste pipe shall be installed or permitted outside of a building, in attics or crawl spaces, or in an exterior wall unless, where necessary, adequate provision is made to protect such pipe from freezing.

312.7 Fire–Resistant Construction

Piping penetrations of fire–resistance–rated walls, partitions, floors, floor/ceiling assemblies, roof/ceiling assemblies, or shaft enclosures shall be protected in accordance with the requirements of the California Building Code or California Residential Code.

312.8 Waterproofing of Openings Joints at the roof around pipes, ducts, or other appurtenances shall be made watertight by the use of lead, copper, galvanized iron, or other approved flashings or flashing material. Exterior wall openings shall be made watertight. Counterflashing shall not restrict the required internal cross–sectional area of the vent.

407.2.1 Maximum Flow Rate

The maximum flow rate for public lavatory faucets shall not exceed 0.5 gpm at 60 psi (1.9 L/m at 414 kPa).

407.2.1.1 Residential Lavatory Faucets [HCD 1]

The maximum flow rate of residential lavatory faucets shall not exceed 1.2 gallons (4.54 L) per minute at 60 psi. The minimum flow rate of residential lavatory faucets shall not be less than 0.8 gallons (3.03 L) per minute at 20 psi.

407.2.1.2 Lavatory Faucets in Common and Public Use Areas [HCD 1 & HCD 2]

The maximum flow rate of lavatory faucets, installed in common and public use areas (outside of dwellings or sleeping units) in residential buildings, shall not exceed 0.5 gallons (1.89 L) per minute at 60 psi.

RESIDENTIAL WATER & SEWER PIPES

BUILDING INSPECTION REQUIREMENTS
A plumbing permit is required to replace residential water supply piping (main water line from meter to the house), distribution pipes (plumbing within the building), and the sewer system within the building. Permits shall be obtained prior to removal or installation of the plumbing system.
Following is a listing of the general requirements for replacing water and sewer lines based on the 2016 California Plumbing Code, 2016 California Electrical Code, and 2016 California Energy Efficiency Standards. This brochure is intended to provide general information, contact the Building Inspection Division for additional information.
Sewer Line Replacement
•Material for sewer lines outside of the building (minimum 2'outside) can be cast iron, copper type DWV, or schedule 40 DWV ABS/PVC (when used in residential buildings, ABS/PVC is limited to twostory buildings; there is no limit on the number of stories for non–residential buildings). (CPC 701.1, CPC 701.2)
•Clean outs shall be installed at the exterior of the building, within 5'of an underfloor access, at the end of each branch over 5', at the upper terminal, at each aggregate horizontal change in direction exceeding 135o , and may be required at the property line by your sanitary district. (CPC 719, 707.4)
•Sewer line shall be 12"below grade minimum and have a minimum of ¼"per one foot slope. (CPC 708)
Main Water Supply Line Replacement (Outside the footprint of the building)
•Water supply pipes and fittings shall be PVC, copper (type L or M), malleable iron, galvanized steel, CPVC, or other approved material and shall be in accordance with NSF 61. (CPC 604)
•Underground water lines shall be buried a minimum of 12"below grade. (CPC 609)
•Non–metallic piping shall have a blue insulated 18–guage copper tracer wire adjacent to the piping. The tracer wire shall terminate above ground at each end of the non–metallic pipe. (CPC 604.10.1)
Water Distribution Pipe Replacement (Within and underneath of the building)
•Water distribution pipes shall be copper (Type L or M), malleable iron, galvanized steel, CPVC, PEX, or other approved material and shall be in accordance with NSF 61. (CPC 604)
•All domestic water piping in the following conditions/locations shall be insulated (CEES 150.0(j)2A, CPC 609.11):
The first 5'of cold water pipes from the storage tank (i.e. water heater tank).
All domestic hot water piping.
•All materials used in the water distribution system shall be of like materials, except valves and similar devices, unless otherwise approved by the Chief Building Official (CPC 604.1). Following are acceptable methods of joining dissimilar materials:
Joints from copper tubing to threaded pipe shall be made by the use of brass adapter fittings.
Dielectric unions shall be used at all point of connection where dissimilar metals are used. Listed clamps and bonding jumpers shall be installed at all such connections (CEC 250.68(B) and 250.104).
RESIDENTIAL WATER & SEWER PIPES
These requirements apply to building permits submitted on or after January 1, 2017.
When connecting plastic pipe to other types of piping, approved types of fittings and adapters designed for the specific transition shall be used.
•Non–removable backflow preventer, vacuum breaker or atmospheric breaker devices are required on all hose bibs. (CPC 603.5.7)
•If shear walls, braced wall panels, or firewalls are compromised or altered during the re–pipe, these areas are required to be inspected prior to covering.
Grounding and Bonding Requirements
If the existing main water service pipe was used as a grounding electrode, the grounding electrode conductor must be re–established to the replacing pipe. Grounding shall consist of a continuous grounding electrode conductor run from the panel to a ground rod (grounding electrode) and to the cold water pipe. Grounding of the electrical service at the main water line must be within the first 5'of water piping into the building. The underground water service shall not be used as the grounding electrode without supplemental electrode. [CEC 250.52 (A)(1) and 250.53 (D)(2), 250.68(C)]
Bonding of all metal piping within the building is required with water service replacements and for all re–pipes. Bonding shall consist of a continuous bond jumper installed at the water heater between the hot, cold, and gas lines, and continued to the main electrical service. (CEC250.4(A)(4))

All Outside piping shall be installed under or within 2 feet (610 mm) of a building or structure, or less than 1 foot (305 mm) below the surface of the ground.
according to CPC.609.11 Pipe Insulation,Insulation of domestic hot water piping shall be in accordance with Section 09.11.1 and Section 609.11.2. of CPC.
609.11.2 Pipe Insulation Wall Thickness. Hot water pipe insulation shall have a minimum wall thickness of
not less than the diameter of the pipe for a pipe up to 2 inches (50 mm) in diameter. Insulation wall thickness
shall be not less than 2 inches (51 mm) for a pipe of 2 inches (50 mm) or more in diameter.

ABBREVIATIONS :

ABBREV.	DESCRIPTION
CO.	CLEAN OUT
DN.	DOWN
FD	FLOOR DRAIN
FCO	FLOOR CLEAN OUT
F.F.L	FINISH FLOOR LEVEL
UG	UNDER GROUND
UT	UNDER TILE
WP	WASTE PIPE
VP	VENT PIPE
VS	VENT STACK
IC	INSPECTION CHAMBER

	Hot Water Pipe line (HWP)
	Cold Water Pipe line (CWP)
	Sewage and waste water line (SWP)
	Valve
	Piping fixtures (Tee, Elbow, ...)
F	Compact Water Filtration System
	Coupling Reducing

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1651 PARKSIDE AVE. SAN JOSE, CA 95125

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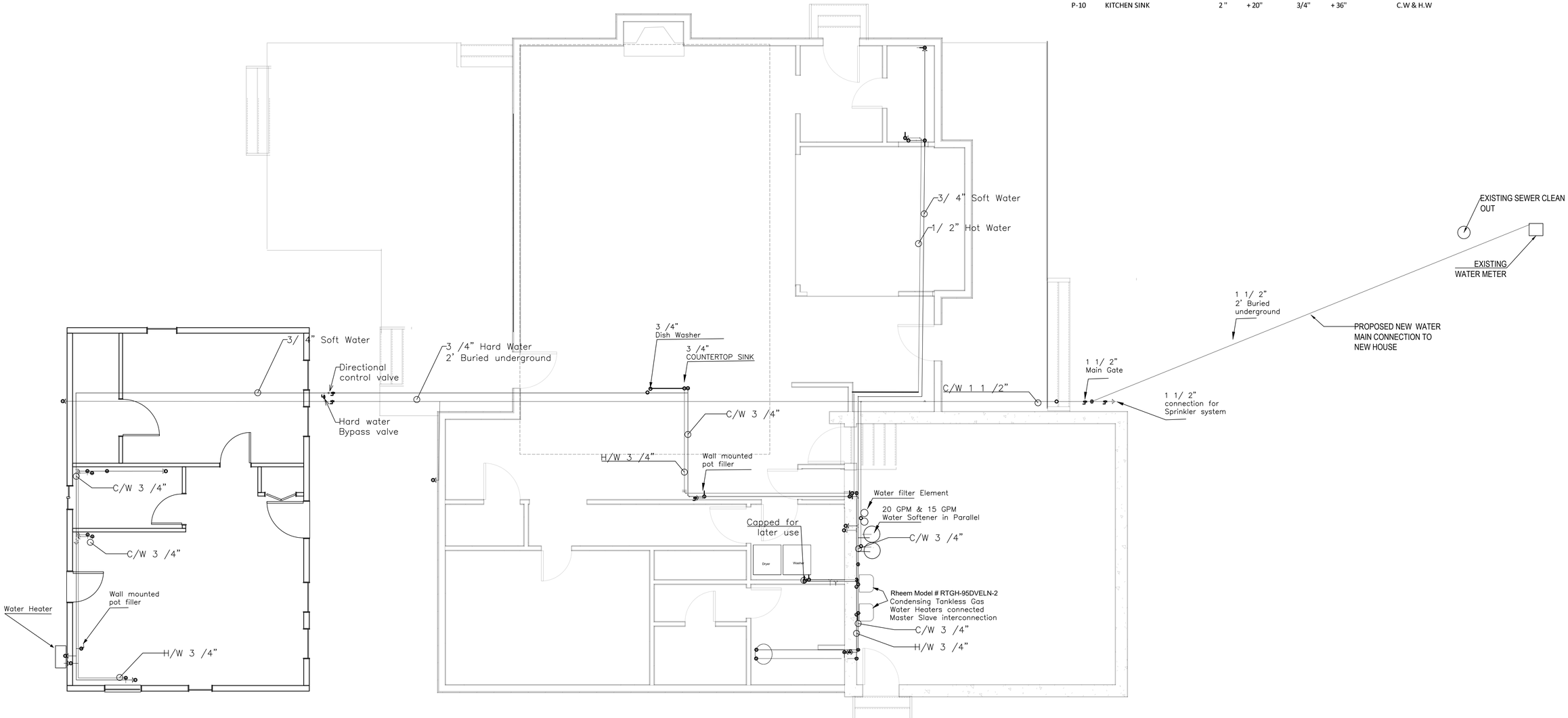
DRAWING TITLE:
Plumbing Codes and Legends

Sheet :

No.	Revision/Issue	Date

code	Item	Drain	elevation	supply	elevation	type
P-1	Hand Sink	2 "	+ 20"	3/4"	+ 36"	C.W & H.W
P-2	countertop sink	2 "	+ 20"	3/4"	+ 38"	C.W & H.W
P-3	Range			3/4"	+ 54"	C.W & H.W
P-4	Dishwasher	2 "	+ 6"	3/4"	+ 38"	C.W & H.W
P-5	Laundry	2 "	+ 6"	3/4"	+ 38"	C.W & H.W
P-6	Water Heater			3/4"	+ 72"	C.W & H.W
P-7	Bath tube	3/4"	+ 2"	1/2"	+ 24"	C.W & H.W
P-8	water Closet with Flush Tank	4 "	+ 1"	3/8"	+ 20"	C.W
P-10	KITCHEN SINK	2 "	+ 20"	3/4"	+ 36"	C.W & H.W



Water Piping Plan Schematic- first floor

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scale : 1 / 4" = 1'

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lumbing schematic 1st floor

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Date:

Scale: 1/4" = 1'-00"

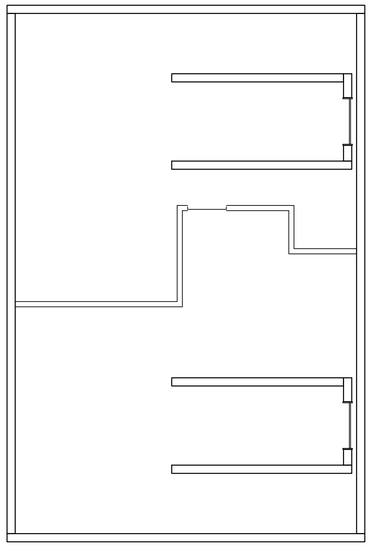
DRAWING TITLE: Water Piping plans

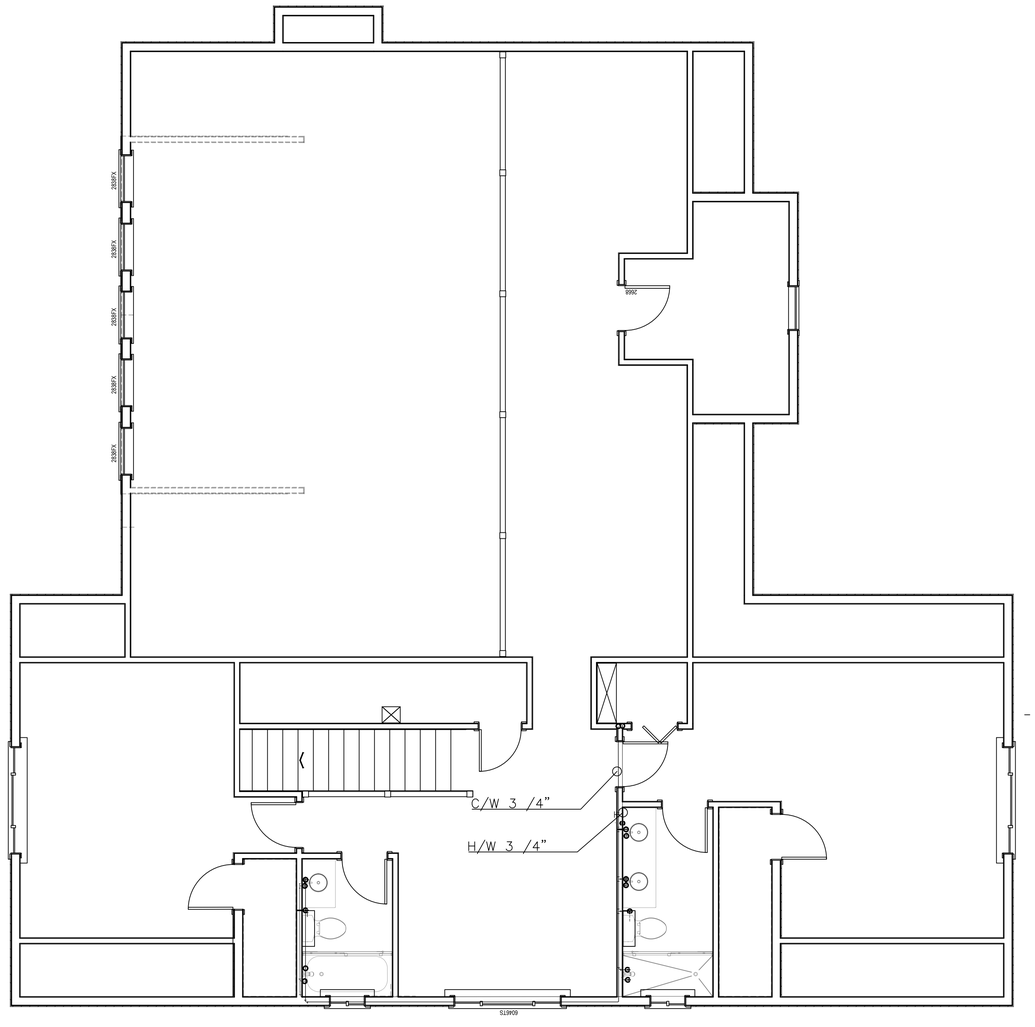
Sheet :

Page No. : P01

No.	Revision/Issue	Date

code	Item	Drain	elevation	supply	elevation	type
P-1	Hand Sink	2 "	+ 20"	3/4"	+ 36"	C.W & H.W
P-2	countertop sink	2 "	+ 20"	3/4"	+ 38"	C.W & H.W
P-3	Range			3/4"	+ 54"	C.W & H.W
P-4	Dishwasher	2 "	+ 6"	3/4"	+ 38"	C.W & H.W
P-5	Laundry	2 "	+ 6"	3/4"	+ 38"	C.W & H.W
P-6	Water Heater			3/4"	+ 72"	C.W & H.W
P-7	Bath tube	3/4"	+ 2"	1/2"	+ 24"	C.W & H.W
P-8	water Closet with Flush Tank	4 "	+ 1"	3/8"	+ 20"	C.W
P-10	KITCHEN SINK	2 "	+ 20"	3/4"	+ 36"	C.W & H.W





Water Piping Plan Schematic- 2nd floor

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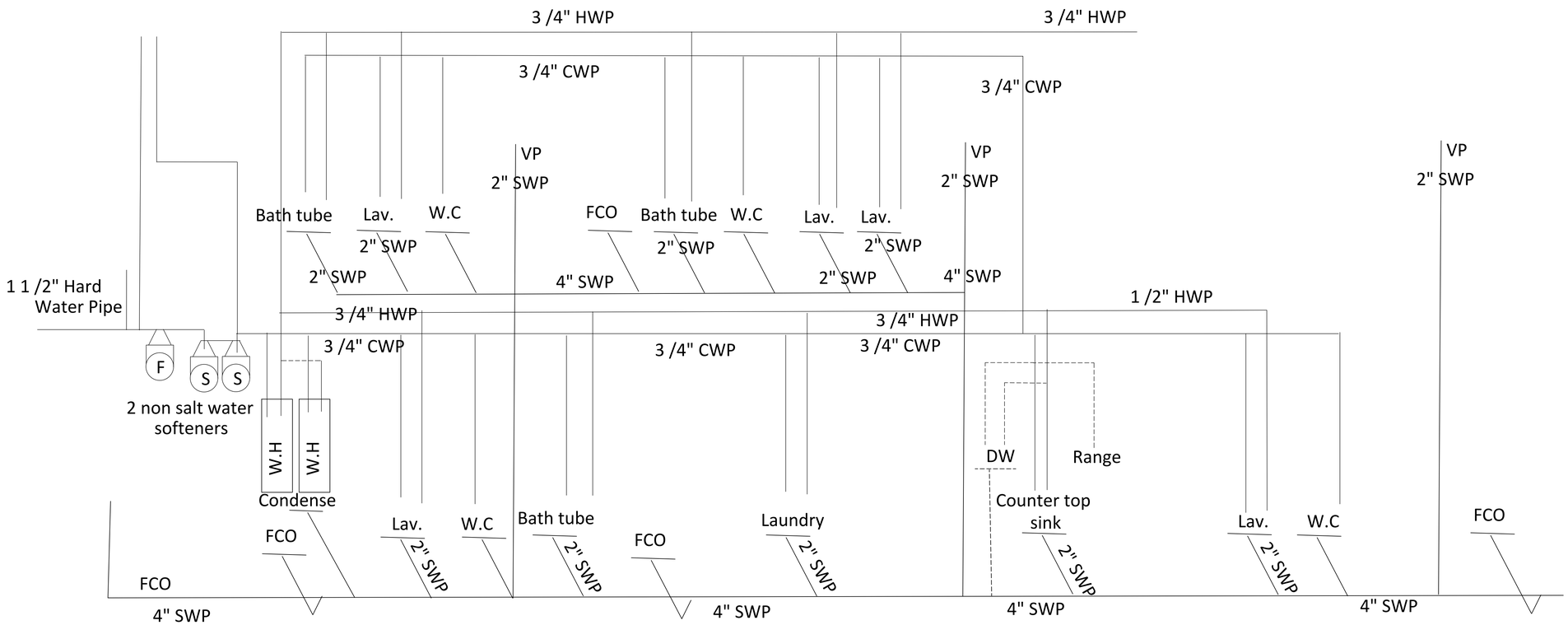
Scale: 1/4" = 1'-00"

DRAWING TITLE: Plumbing Schematic 2nd floor

Sheet :

Page No. : P02

No.	Revision/Issue	Date



Main House Water Piping SLD

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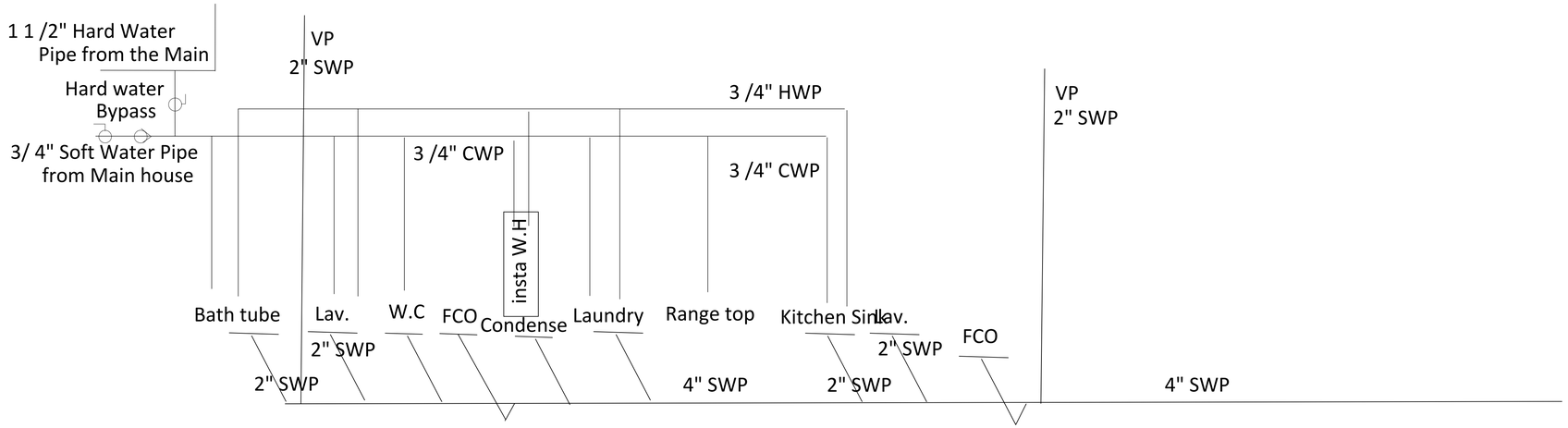
DRAWING TITLE:

Plumbing SLD - Main House

Sheet :

No.	Revision/Issue	Date



ADU Water Piping SLD

Plumbing SLD – ADU

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Scale:

DRAWING TITLE:
Piping SLD and standards

Sheet : 18 of 20

Page No. : P03

No.	Revision/Issue	Date

PLUMBING ROUGH-IN SCHEDULE

code	Item	Drain	elevation	supply	elevation	type
P-1	Hand Sink	2 "	+ 20"	3/4"	+ 36"	C.W & H.W
P-2	countertop sink	2 "	+ 20"	3/4"	+ 38"	C.W & H.W
P-3	Range			3/4"	+ 54"	C.W & H.W
P-4	Dishwasher	2 "	+ 6"	3/4"	+ 38"	C.W & H.W
P-5	Laundry	2 "	+ 6"	3/4"	+ 38"	C.W & H.W
P-6	Water Heater			3/4"	+ 72"	C.W & H.W
P-7	Bath tube	3/4"	+ 2"	1/2"	+ 24"	C.W & H.W
P-8	water Closet with Flush Tank	4 "	+ 1"	3/8"	+ 20"	C.W
P-9	Floor Drain	4 "				Waste
P-10	KITCHEN SINK	2 "	+ 20"	3/4"	+ 36"	C.W & H.W

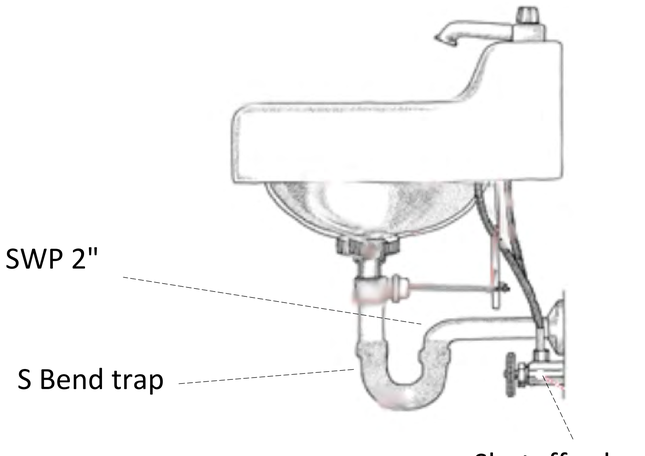
Maximum Drainage Fixture Units - Stacks and Horizontal Fixture Branches

Maximum Drainage Fixture Units *(DFU)*					
Pipe Size		Horizontal fixture branch	Stacks less than three stories in height	Stacks more than three stories high	
NPS *(inches)*	DN *(mm)*			Total for stack	Total for one story
1 1/2[0)]	40	3	4	8	2
2[0)]	50	6	10	24	6
2 1/2[0)]	65	12	20	42	9
3	80	20[1)]	48[1)]	72[2)]	20[1)]
4	100	160	240	500	90
5	125	360	540	1100	200
6	150	620	960	1900	350

0) No water closet permitted

1) Maximum two water closets

2) Maximum six water closets



ABBREVIATIONS :

ABBREV.	DESCRIPTION
CO.	CLEAN OUT
DN.	DOWN
FD	FLOOR DRAIN
FCO	FLOOR CLEAN OUT
F.F.L	FINISH FLOOR LEVEL
UG	UNDER GROUND
UT	UNDER TILE
WP	WASTE PIPE
VP	VENT PIPE
VS	VENT STACK
IC	INSPECTION CHAMBER

Drainage capacities from fixture and their systems (DFU):

Individual Appliance, Appurtenance or Fixture	Minimum Size	Drainage Fixture Unit Values *(DFU)*	
	(inch)	Private Installations	Public Installations
Bar sink	1 1/2	1	1
Bathroom (water closet, lavatory, bidet and tub or shower)	3	6	-
Bathtub	1 1/2	2	2
Bidet	1 1/4	1	
Bidet	1 1/2	2	
Clothes Washer	2	3	3
Dishwasher, domestic	1 1/2	2	2
Drinking fountain	1 1/4	0.5	0.5
Floor drain	2	2	2
Shower	2	2	2
Laundry tub	1 1/2	2	2
Lavatory	1 1/4	1	1
Bar sink	1 1/2	1	
Kitchen sink, domestic	1 1/2	2	2
Laundry sink	1 1/2	2	2
Service or mop basin	2		3
Urinal	2	2	2
Water closet with gravity tank	3	3	4
Water closet with flushometer tank	3	3	4

Water Supply Fixture Units (WSFU):

Individual Fixtures	Minimum Fixture Branch Pipe Size	Water Supply Fixture Units *WSFU*	
	(inch)	Private Installations	Public Installations
Bathtub	1/2	4	4
Bathtub with 3/4" fill valve	3/4	10	10
Bidet	1/2	1	
Dishwasher, domestic	1/2	1.5	1.5
Drinking fountain	1/2	0.5	0.5
Hose Bibb	1/2	2.5	2.5
Lavatory	1/2	1	1
Bar sink	1/2	1	2
Clinic fauce sink	1/2	3	
Kitchen sink, domestic	1/2	1.5	1.5
Laundry sink	1/2	1.5	1.5
Service or mop basin	1/2	1.5	3
Washup basin	1/2	2	
Shower head	1/2	2	2
Urinal with flush tank	1/2	2	2
Wash fountain	3/4	4	
Water closet with gravity tank	1/2	2.5	2.5
Water closet with flushometer tank	1/2	2.5	2.5
Water cooler	1/2	0.5	0.5

Maximum Drainage Fixture Units - Building Drains and Building Drain Branches from Stacks

Maximum Drainage Fixture Units *(DFU)*			
Pipe Size		Slope *(in/ft (cm/m))*	
NPS *(inches)*	DN *(mm)*	*1/4 (2.1)*	*1/2 (4.2)*
2[0)]	50	21	26
2 1/2[0)]	65	24	31
3	80	42[1)]	50[1)]
4	100	216	250
5	125	480	575
6	150	840	1000

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REMODLE AND ADJ SINGLE FAMILY HOUSE

1651 PARKSIDE AVE. SAN JOSE, CA 95125

Date:

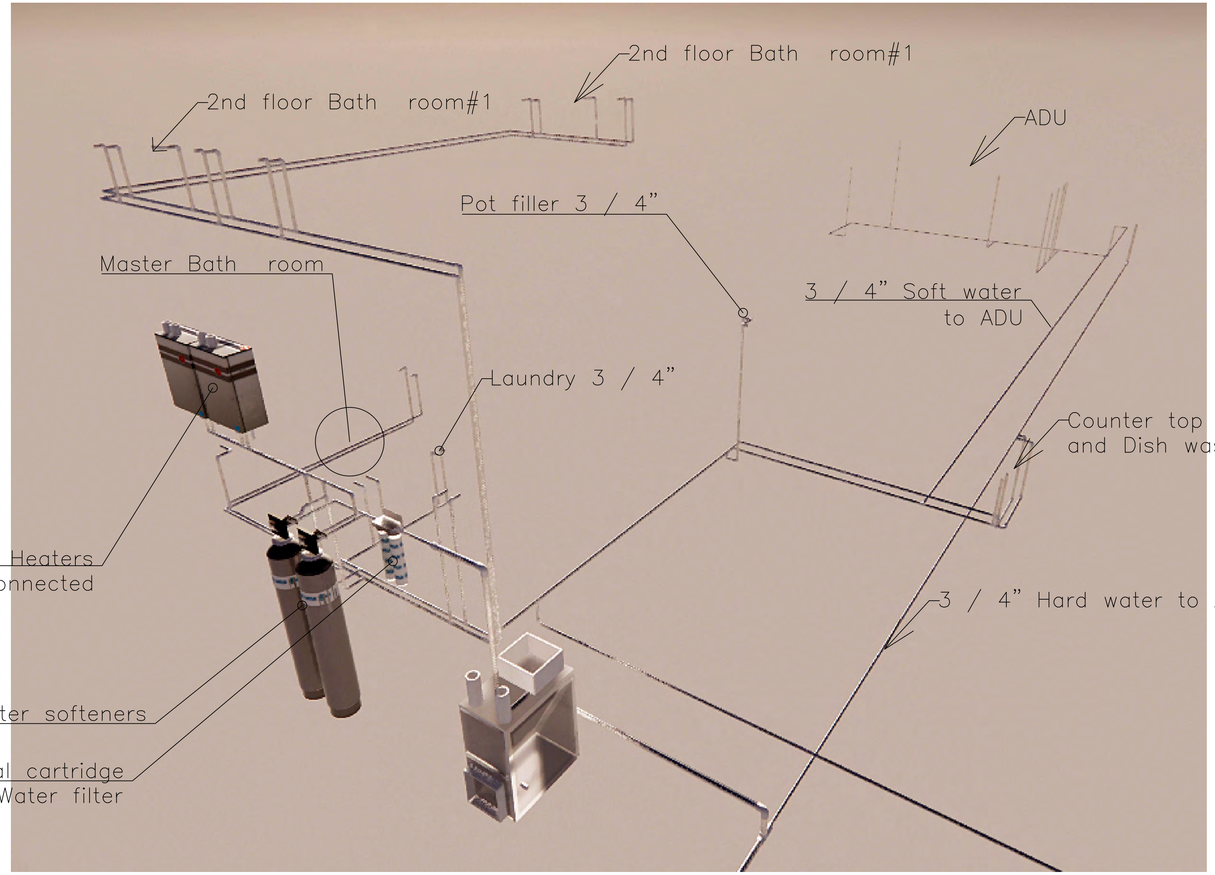
Scale: 1/4" = 1'-00"

DRAWING TITLE: Main House Rough-in

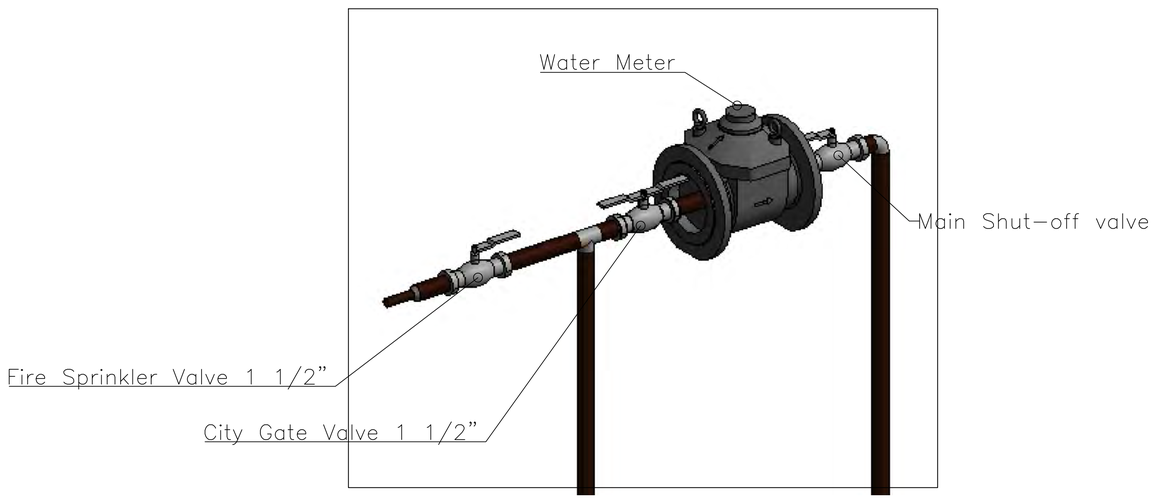
Sheet :

Page No. : P05

No.	Revision/Issue	Date



Water-Softener connection



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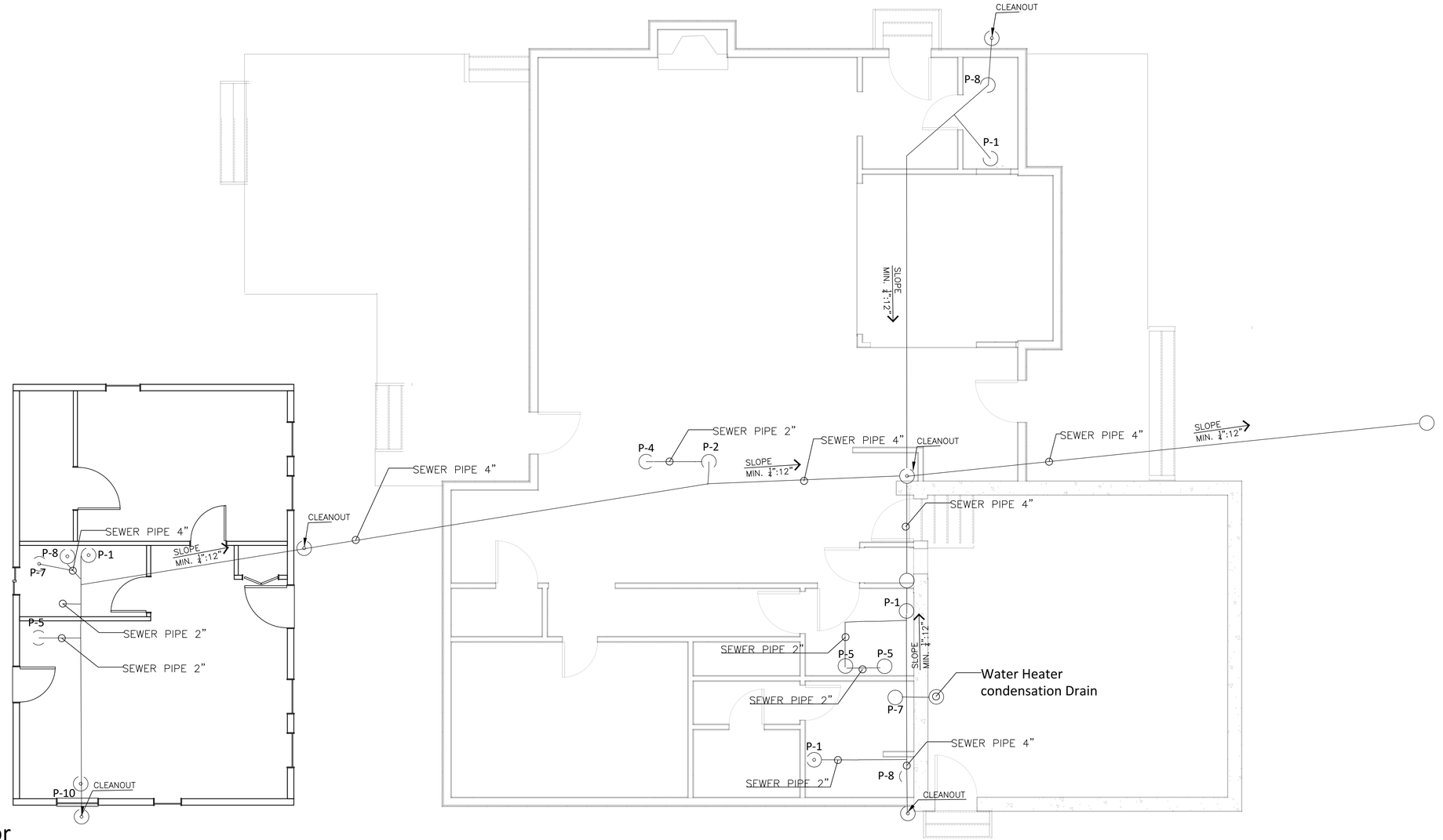
DRAWING TITLE:

Water Softner and Meter Connection

Sheet :

No.	Revision/Issue	Date

code	Item	Drain	elevation	supply	elevation	type
P-1	Hand Sink	2 "	+ 20"	3/4"	+ 36"	C.W & H.W
P-2	countertop sink	2 "	+ 20"	3/4"	+ 38"	C.W & H.W
P-3	Range			3/4"	+ 54"	C.W & H.W
P-4	Dishwasher	2 "	+ 6"	3/4"	+ 38"	C.W & H.W
P-5	Laundry and Dryer	2 "	+ 6"	3/4"	+ 38"	C.W & H.W
P-6	Water Heater			3/4"	+ 72"	C.W & H.W
P-7	Bath tube	3/4"	+ 2"	1/2"	+ 24"	C.W & H.W
P-8	water Closet with Flush Tank	4 "	+ 1"	3/8"	+ 20"	C.W
P-10	KITCHEN SINK	2 "	+ 20"	3/4"	+ 36"	C.W & H.W



Waste Water Piping Plan - first floor

---

scale : 1 / 4" = 1'

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Scale:

DRAWING TITLE:

Waste Water Plan 1st floor

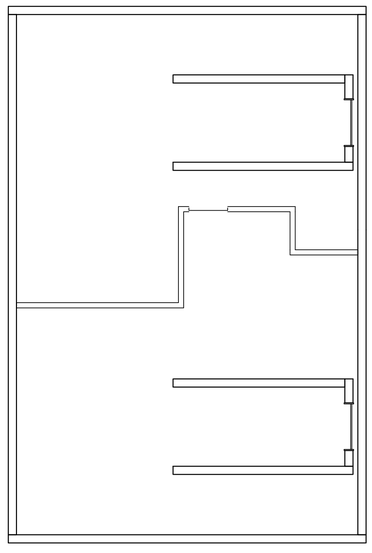
Sheet :

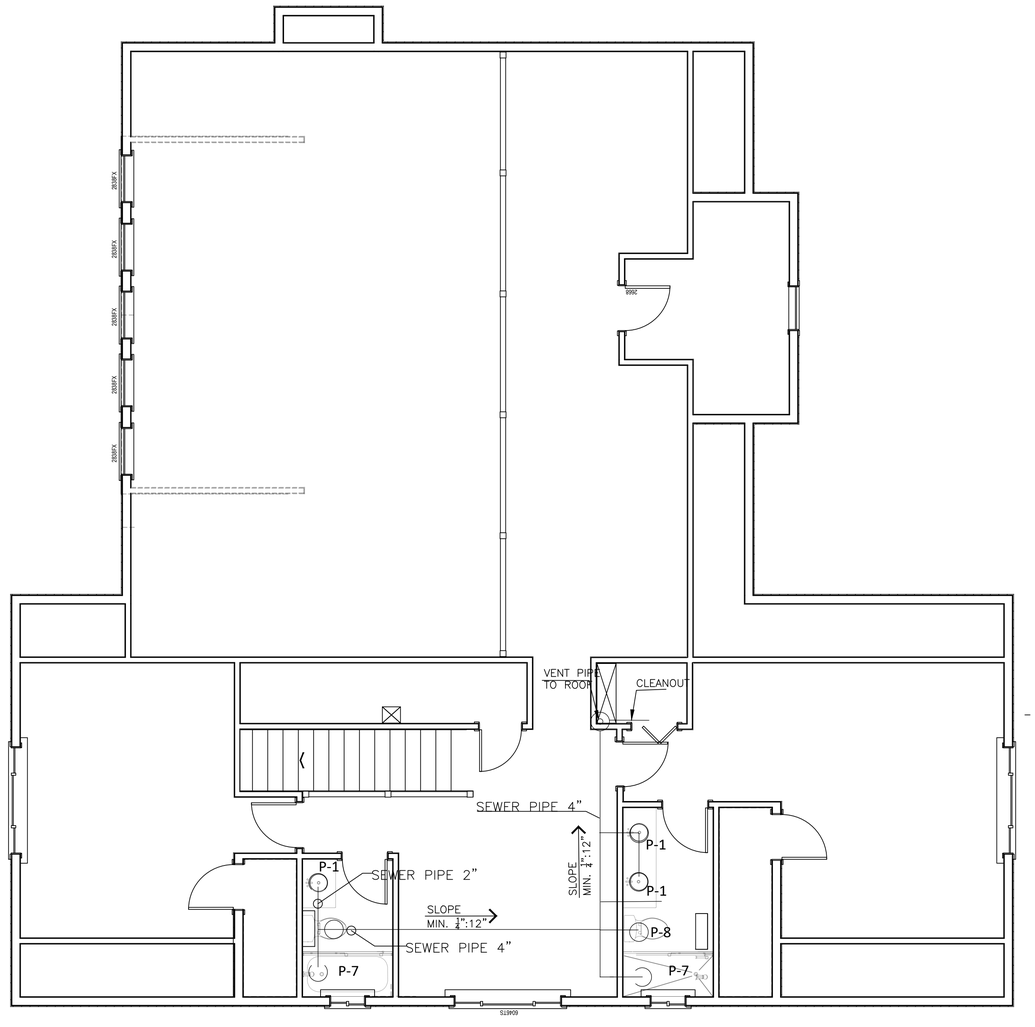
Page No. :

P07

No.	Revision/Issue	Date

code	Item	Drain	elevation	supply	elevation	type
P-1	Hand Sink	2 "	+ 20"	3/4"	+ 36"	C.W & H.W
P-2	countertop sink	2 "	+ 20"	3/4"	+ 38"	C.W & H.W
P-3	Range			3/4"	+ 54"	C.W & H.W
P-4	Dishwasher	2 "	+ 6"	3/4"	+ 38"	C.W & H.W
P-5	Laundry	2 "	+ 6"	3/4"	+ 38"	C.W & H.W
P-6	Water Heater			3/4"	+ 72"	C.W & H.W
P-7	Bath tube	3/4"	+ 2"	1/2"	+ 24"	C.W & H.W
P-8	water Closet with Flush Tank	4 "	+ 1"	3/8"	+ 20"	C.W
P-10	KITCHEN SINK	2 "	+ 20"	3/4"	+ 36"	C.W & H.W





Waste Water Piping Plan - 2nd floor

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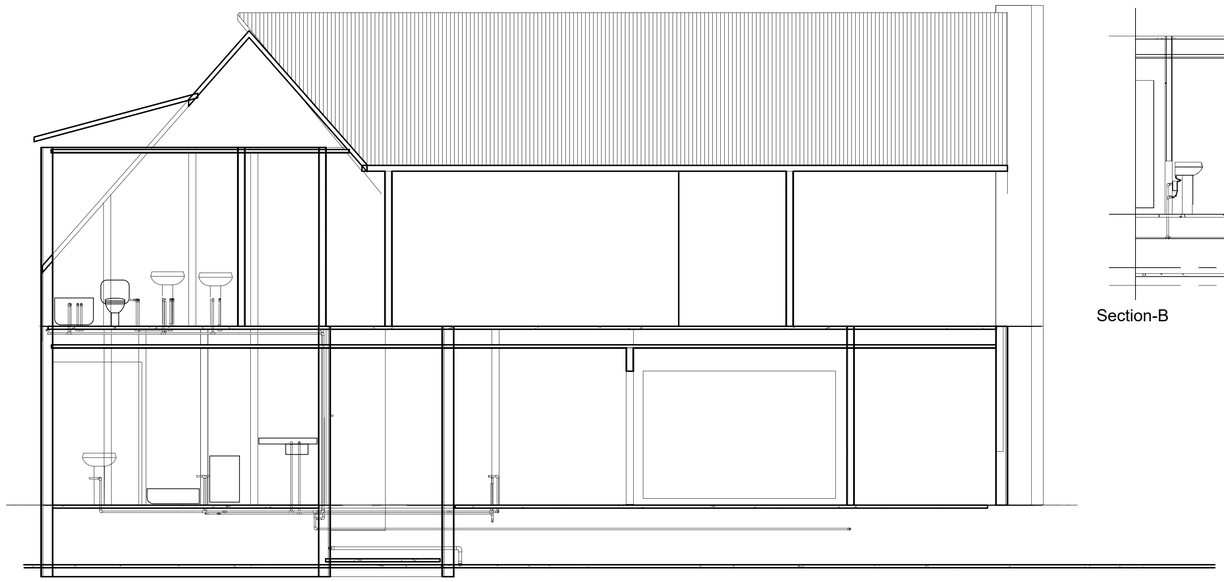
DRAWING TITLE: Waste Water Plan 2nd floor

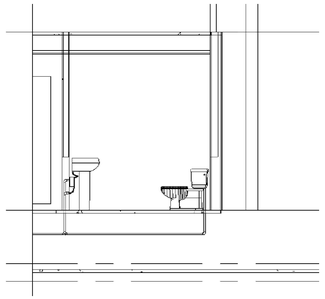
Sheet :

Page No. : P08

No.	Revision/Issue	Date



Section-A



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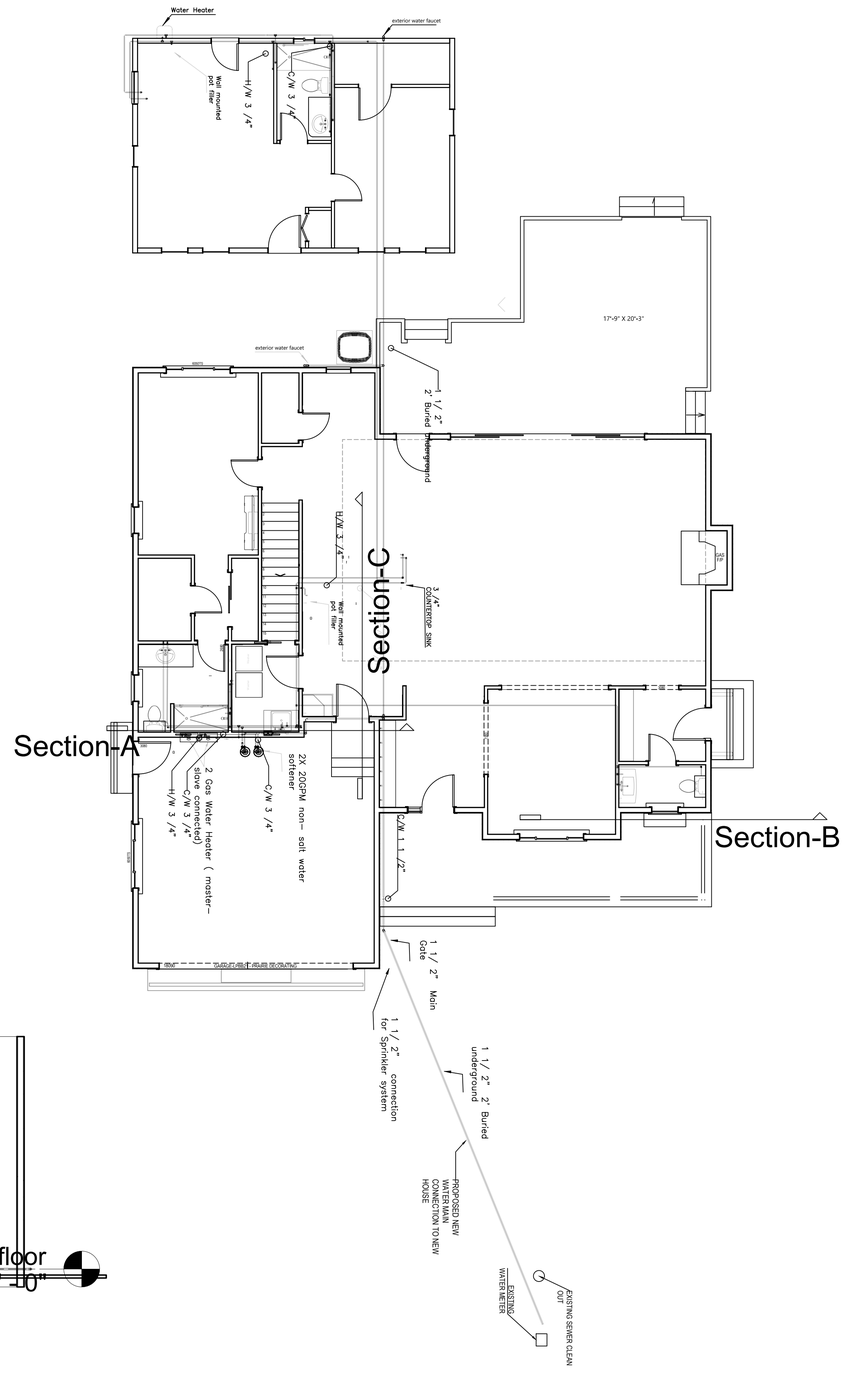

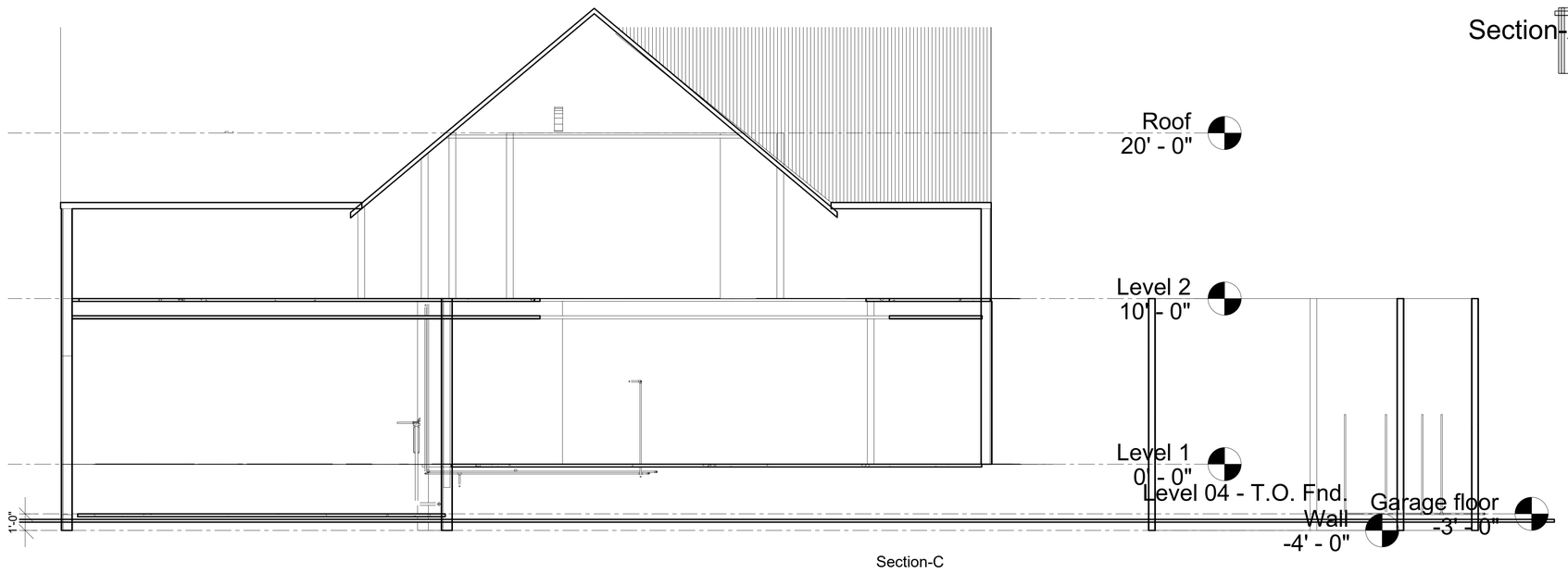

Section-C

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Date:

Scale:

DRAWING TITLE:

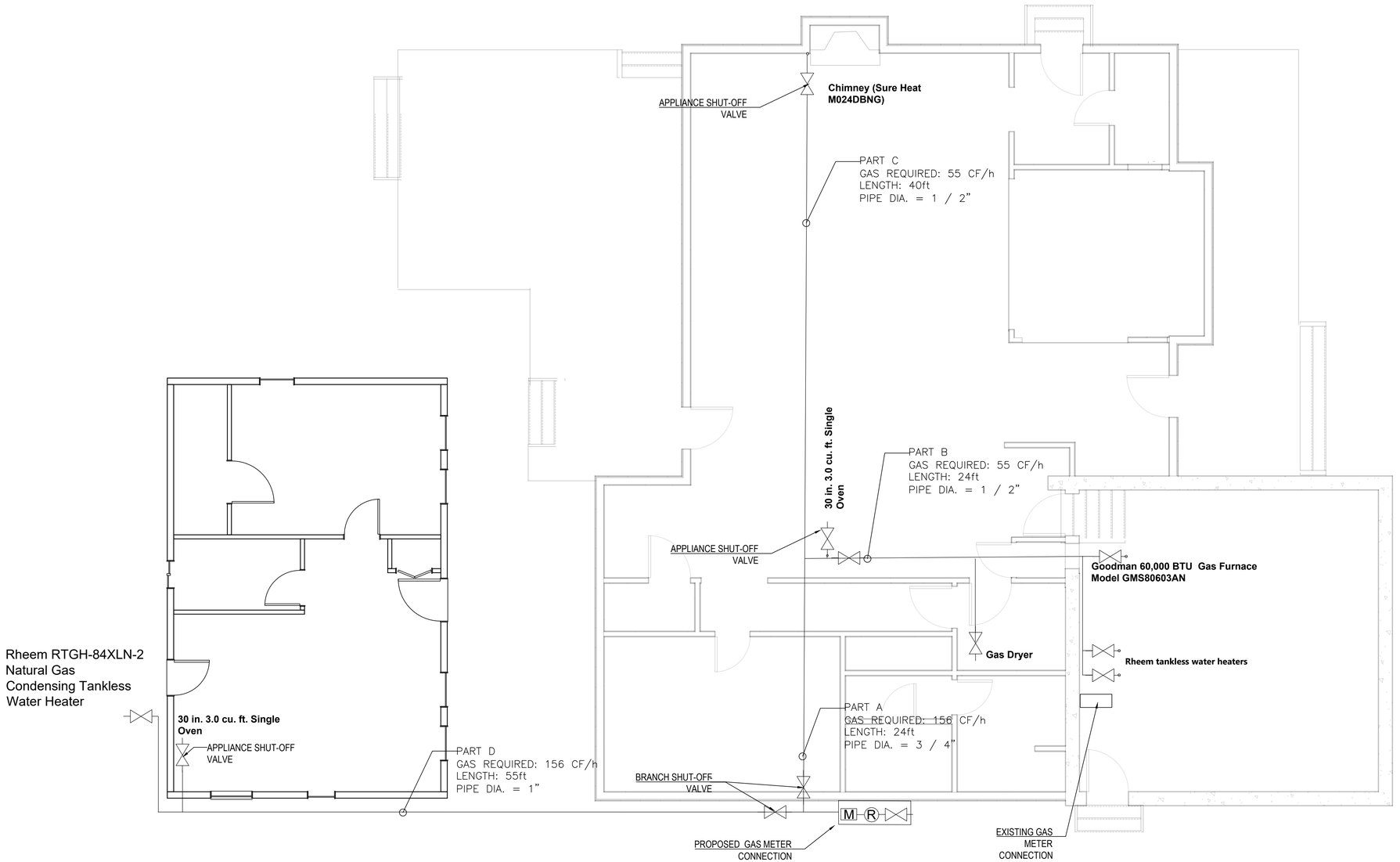
Sectional Views

Sheet :

Page No. :

P09

No.	Revision/Issue	Date



Natural Gas Piping Plan

scale : 1 / 4" = 1'

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REMODLE AND ADU SINGLE FAMILY HOUSE

Natural Gas Piping Plan

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Piping SLD and standards

Sheet :

No.	Revision/Issue	Date

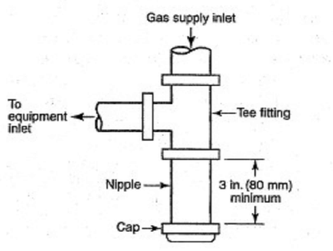
NATURAL GAS PIPE SIZES REGARDING TO TABLE 1216.2(1) SCHEDULE 40 METALLIC PIPE(NFPA 54

ADU	KITCHEN RANGE	171500	156	13	3 / 4"
			0		
PART	APPLIANCES	BTU/h	GAS REQUIRED	LENGTH	PIPE SIZE
A	FURNACE+ KITCHEN RANGE+ CHIMNEY+ W.H+ Dryer	531500	484	24	1 1/2"
B	FURNACE+W.H+ Dryer	299000	272	24	1"

GAS PIPE SUPPORT	
Size of Pipe	**Pipe Support Distance**
1/2" Tubing	4 feet
1/2" Steel Pipe 5/8" or 3/4"	6 feet
3/4" to 1" Steel Pipe	8 feet
1-1/4" or larger (Horizontal)	10 feet
1-1/4" or larger (Vertical)	Every Floor

GAS PIPE ALLOWABLE MATERIALS		
Pipe Material	**Indoor Installation**	**Outdoor, Above Ground Installation**
Galvanized Wrought Iron	Yes	Yes
Galvanized Steel	Yes	Yes
Black Steel	Yes	No
Corrugated Stainless Steel Tubing	Yes	Yes

Sediment Trap (CPC 1212.8)
A sediment traps is required at each water heater, boiler, and furnace, downstream of the appliance shut-off valve and as close to inlet of the equipment as practical.



Building Permit Review
Two inspections are required; a rough plumbing and a final.
The rough plumbing inspection should be scheduled when the new gas lines are installed, before walls are covered, and before the connection is made to the gas service. A pressure test inspection will be done and all testing equipment is to be provided by the permittee. (CPC 1213.3)
The final inspection should be scheduled after all the work has been completed.
Building Permit Application Requirements
A completed Building Permit Application.

Gas Meter Clearance Distances from Building Features	
Building Feature	***Minimum* Clearance Distance to Gas Meter or Regulator Vent**
Gas meter location	Front wall (front presumed facing public access), or within 3 feet of side wall (see corner clearances)
Regulator relief vent distance from any outside building corner	12 inches. With this specification met, there are no clearance distance requirements for building features located around the corner from the gas meter. If the regulator relief vent is less than 12" from any outside corner, then the minimum clearances specified in this table must be maintained. Measure as a direct, straight line from the nearest meter set or component to the nearest edge of the building feature "as if using a string"
Gas meter clearances to finish grade (soil surface)	
Bottom of gas meter to finish grade	6 inches
Bottom of gas line shut-off to finish grade	8 inches
Fuel line connection location (at meter top) to finish grade	32 inches to 46 inches depending on gas meter model & meter type (size or capacity)
Landscape features (e.g. shrubs or fences)	3 feet clear to front of meter 2 feet clear to either side of meter
Minimum soil depth or cover over residential gas service line	18 inches - residential 24 inches - commercial 24 inches - snow country
Maximum soil depth or cover over gas service line	36 inches Depth includes 4 inches of bedding sand under gas line & 6 inches of sand shading over the gas line, & typical excavation trench width of 12 inches.
Gas meter regulator vent clearance distances to building features	
Gas meter regulator vent clearance distance to windows, attic vent, crawl space vent, soffit vent	3 feet in any direction horizontally or vertically to the feature 1 foot to a feature located below
Gas meter regulator vent clearance to electrical devices such as switches, electrical receptacles, power disconnects	3 feet in any direction to the feature
Gas meter regulator vent clearance to building doors or garage doors	3 feet in any direction horizontally or vertically to the feature 1 foot to a feature located below
Gas Meter Clearances to Other Building Features	
Gas meter clearance distance to air conditioner or heat pump (pad mounted) compressor/condenser unit	Three Feet in any direction
Gas meter clearance distance to electrical generator or electrical transformer	
Gas meter clearance distance to open flame barbeque or cooker or to an incinerator or other open flame device	
Gas meter clearance distance to telephone, cable or other communications connection box or terminal	Two Feet in any direction
Gas meter clearance distance to water spigot (hose bibb)	

SEMI-RIGID COPPER TUBING [NFPA 54: TABLE 6.3(f)][2, 3]

							GAS:	UNDILUTED PROPANE		
							INLET PRESSURE:	11.0 in. w.c.		
							PRESSURE DROP:	0.5 in. w.c.		
							SPECIFIC GRAVITY:	1.50		
INTENDED USE: TUBE SIZING BETWEEN SINGLE OR SECOND STAGE (LOW PRESSURE) REGULATOR AND APPLIANCE										
		TUBE SIZE (inch)								
NOMINAL:	K & L:	¼	⅜	½	⅝	¾	1	1¼	1½	2
	ACR:	⅜	½	¾	½	⅞	1⅛	1⅜	–	–
OUTSIDE:		0.375	0.500	0.625	0.750	0.875	1.125	1.375	1.625	2.125
INSIDE:	[1]	0.305	0.402	0.527	0.652	0.745	0.995	1.245	1.481	1.959
LENGTH (feet)		CAPACITY IN THOUSANDS OF BTU PER HOUR								
10		45	93	188	329	467	997	1800	2830	5890
20		31	64	129	226	321	685	1230	1950	4050
30		25	51	104	182	258	550	991	1560	3250
40		21	44	89	155	220	471	848	1340	2780
50		19	39	79	138	195	417	752	1180	2470

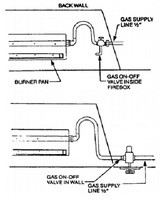
30 in. 3.0 cu. ft. Single Oven Italian Gas Range with True Convection, 5 Burners, LP Gas

Details

Appliance Type	Gas Range	Cooktop Surface Type	Recessed
Burner Grate Material	Cast Iron	Fuel Type	Gas
Burner No.1 BTU	15500	Ignition Type	Continuous Spark
Burner No.2 BTU	10500	Included	Installation Kit,Propane (LP) Conversion Kit
Burner No.3 BTU	10500	Number of Burners	5
Burner No.4 BTU	7000	Number of Oven Racks	2
Burner No.5 BTU	7000	Number of Rack Positions	5
Capacity of Oven (cu. ft.)	3.0	Oven Cleaning Options	Manual Clean
Color of Cooktop	Stainless Steel	Oven Features	Broiler,Built-In Clock,Built-In Timer,Convection Oven,Hidden Bake Element,Interior Light,LP Convertible,On Indicator Light,Oven Window,Temperature Control,Warming

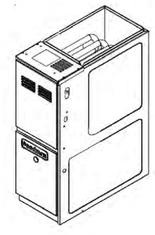
Sure Heat MO24DBNG Sure Heat Mountain Oak Dual Burner Vented Gas Log Set, 24-Inch, Natural Gas

60,000 BTU's with 12-percent efficiency fireplace with minimum measurements of 32" front width, 15" depth and 24" back

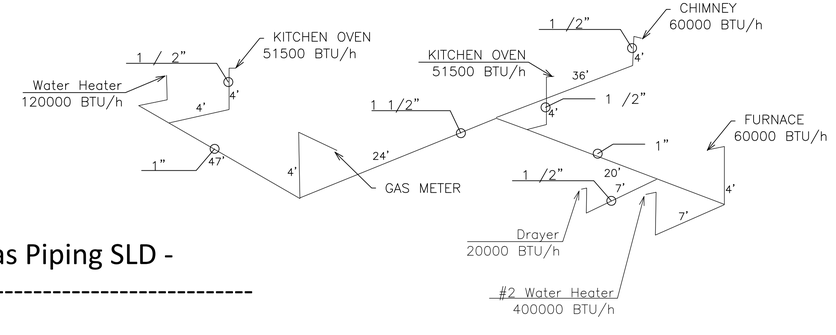


Goodman 60,000 BTU 80% AFUE Upflow/Horizontal Gas Furnace Model GMS80603AN

	GMS8 0403A*B	GMS8 0603A*B	GMS8 0604B*B	GMS8 0804B*B	GMS8 0805C*B	GMS8 1005C*B	GMS8 1205D*B	GMS8 1405DNC
Heating Capacity								
Input	40,000	60,000	60,000	80,000	80,000	100,000	120,000	140,000
Natural Gas Output	32,000	48,000	48,000	64,000	64,000	80,000	96,000	112,000
LP Gas Output	32,000	48,000	48,000	64,000	64,000	80,000	96,000	96,000
AFUE [1]	80	80	80	80	80	80	80	80
Available AC @ 0.5" ESP	3	3	4	4	5	5	5	5
Temperature Rise Range (°F)	25 - 55	20 - 50	20 - 50	35 - 65	35 - 65	35 - 65	40 - 70	40 - 70
Circulator Blower								
Size (D x W)	10" x 6"	10" x 6"	10" x 8"	10" x 8"	10" x 10"	10" x 10"	11" x 10"	11" x 10"
Horsepower @1075 RPM	½	¾	½	½	½	½	¾	¾
Speed	4	4	4	4	4	4	4	4
Vent Diameter [2]	4"	4"	4"	4"	4"	4"	4"	4"
No. of Burners	2	3	3	4	4	5	6	6
Electrical Data								
Min. Circuit Ampacity [4]	4.8	4.8	8.8	8.8	8.8	8.8	14.7	14.7
Max. Overcurrent Device (amps) [4]	15	15	15	15	15	15	15	15



Gas/Electric Connection: Left or Right
Airflow Direction: Upflow/Horizontal
Circulator Blower: 1/3 HP
Igniter: 110 Volt Silicon Nitride
Vent: 4-inch Diameter
Electrical: 115 VAC, 60 Hz, single phase, 8.1 amps
Shipping Weight: 130 lbs
Dimensions (W x D x H): 14" x 28-3/4" x 33-3/8"



Natural Gas Piping SLD -

Natural Gas Piping SLD - specifications and details

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1651 PARKSIDE AVE. SAN JOSE, CA 95125

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Scale:

DRAWING TITLE:
Natural Gas SLD and Equip. Details

Sheet :

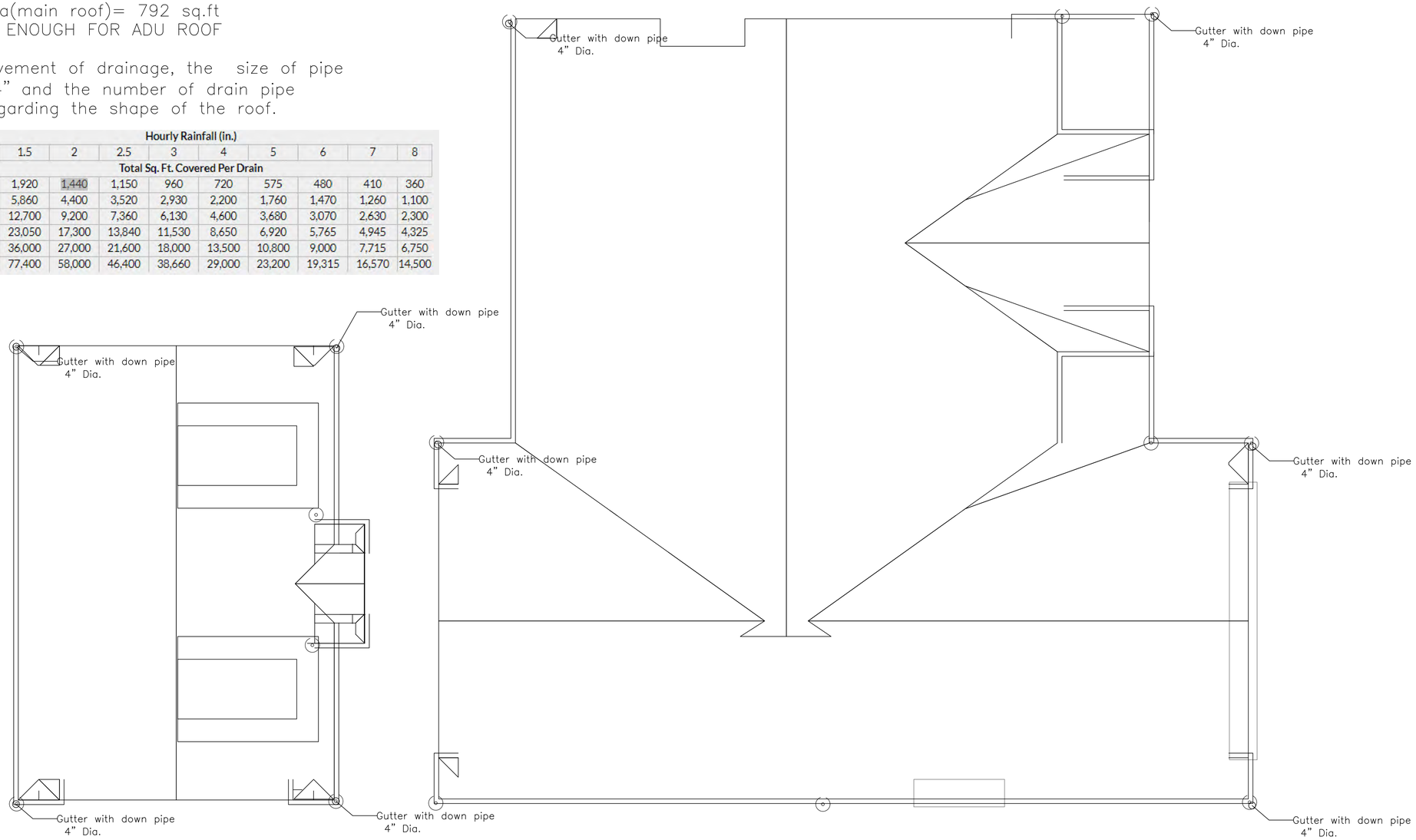
No.	Revision/Issue	Date

Total roof area(main roof)= 3029 sq.ft
Rainfall rate = 2.1
pipe size required : 2”

sq. ft. covered per drain= 1150
TWO DRAIN IS REQUIRED FOR MAIN ROOF
Total roof area(main roof)= 792 sq.ft
ONE DRAIN IS ENOUGH FOR ADU ROOF

****For improvement of drainage, the size of pipe upgraded to 4” and the number of drain pipe determined regarding the shape of the roof.

	Hourly Rainfall (in.)									
Leader / Pipe Size (in.)	1	1.5	2	2.5	3	4	5	6	7	8
	Total Sq. Ft. Covered Per Drain									
2	2,880	1,920	1,440	1,150	960	720	575	480	410	360
3	8,800	5,860	4,400	3,520	2,930	2,200	1,760	1,470	1,260	1,100
4	18,400	12,700	9,200	7,360	6,130	4,600	3,680	3,070	2,630	2,300
5	34,600	23,050	17,300	13,840	11,530	8,650	6,920	5,765	4,945	4,325
6	54,000	36,000	27,000	21,600	18,000	13,500	10,800	9,000	7,715	6,750
8	116,000	77,400	58,000	46,400	38,660	29,000	23,200	19,315	16,570	14,500



Roof Drainage plan

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scale : 1 / 4" = 1'

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DRAWING TITLE:

Roof Drainage Plan and calculation

Sheet :

No.	Revision/Issue	Date

SHEAR WALL SCHEDULE 2016 C.B.C.

S.W. TYPE	SHEAR PANEL DESCRIPTION	ALLOWABLE SHEAR (PLF)	SILL BOLT'G @ FOUNDATION	TOP PL. TO BLK'G.	SILL NAILING UPPER STORIES
△1	7/8" STUCCO OVER PAPER BACKED LATH W/ 16 GA STAPLES AT 6" O.C. AT TOP & BOTTOM PLATES, EDGE OF SHEAR WALL AND ON FIELD (CBC TABLE 2306.4.5) SEE NOTE 3 BELOW.	180 *180	5/8" @ 48" O.C. 5/8" @ 24" O.C.	A35 @ 16" A35 @ 16"	16d @ 8" O.C. 16d @ 4" O.C.
△2	15/32" APA RATED PLYWOOD SHT'G. STRUCT I WITH 8d COMMON NAILS @ 6" O.C. AT EDGES & 12" O.C. FIELD (TABLE 2306.4.1 CBC) SEE NOTES 1,2,8,9, AND 10 BELOW.	280 *560	5/8" @ 32" O.C. 5/8" @ 16" O.C.	A35 @ 16" A35 @ 8"	16d @ 6" O.C. 16d @ 3" O.C.
△3	15/32" APA RATED PLYWOOD SHT'G. STRUCT I WITH 8d COMMON NAILES @ 4" O.C. AT EDGES & 12" O.C. FIELD (TABLE 2306.4.1. CBC) SEE NOTES 1,2,4,5,8,9, AND 10 BELOW.	430 *860	5/8" @ 24" O.C. 5/8" @ 14" O.C.	A35 @ 8" LTP4 @ 6"	16d @ 4" O.C. 16d @ 2" O.C.
△4	15/32" APA RATED PLYWOOD SHT'G STRUCT I WITH 8d COMMON NAILS @ 3" O.C. AT EDGES & 12" O.C. FIELD (TABLE 2306.4.1. CBC) SEE NOTES 1,2,4,5,8,9, AND 10 BELOW.	550 *1100	5/8" @ 20" O.C. 3/4" @ 16" O.C.	A35 @ 8" LTP4 @ 6"	16d @ 3" O.C. 1/4"Ø X 3-1/2" LAG SC. @ 2" O.C.
△5	15/32" APA RATED PLYWOOD SHT'G. STRUCT I WITH 8d COMMON NAILS @ 2" O.C. AT EDGES & 12" O.C. FIELD (TABLE 2306.4.1. CBC) SEE NOTES 1,2,4,5,8,9, AND 10 BELOW.	730 *1460	5/8" @ 16" O.C. 3/4" @ 16" O.C.	A35 @ 8" LTP4 @ 6"	16d @ 2-1/2" O.C. 1/4" Ø X 3-1/2" LAG SC. @ 2" O.C.
△6	15/32" APA RATED STRUCT. I SHT'G. WITH 10d COMMON NAILS @ 2" O.C. AT EDGES & 12" O.C. FIELD OVER 3 X STUDS (TABLE 2306.4.1 CBC) SEE NOTES 1,4,5,8,9, AND 10 BELOW.	870 *1740	3/4" @ 16" O.C. 3/4" @ 8" O.C.	A35 @ 6" LTP4 @ 4-1/2"	#12 X 3-1/2" WD. SC. @ 2" O.C. 1/4" Ø X 3-1/2" LAG SC. @ 1-1/2" O.C.

NOTES:

1. ALL EDGES OF PLYWOOD SHEAR WALLS MUST BE BLOCKED WITH 2X SOLID BLOCKING.

2. * DESIGNATES SILL BOLTING OR NAILING WHERE SHEAR WALL PANELS ARE TO BE APPLIED TO BOTH SIDES OF WALL.

3. PAPER BACKED SELF-FURRING EXPANDED METAL OR WOVEN WIRE LATH AND PORTLAND CEMENT PLASTER.

4. FRAMING AT ADJOINING PANEL EDGES SHALL BE 3-INCH NOMINAL OR WIDER AND NAILS SHALL BE STAGGERED. (USE 3X SILL PLATE @ FOUND., FOR SHEAR LOADS LESS THAN 350 PLF 2X SILL PLATE MAY BE USED.)

5. WHERE PANELS ARE APPLIED ON BOTH FACES OF A WALL AND NAILS SPACING IS LESS THAN 6" O.C. ON EITHER SIDE. PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS OR FRAMING SHALL BE 3" NOMINAL OR THICKER & NAILS ON EACH SIDE SHALL BE STAGGERED. (USE 3 X SILL PLATE @ FOUND.)

6. ALL CONTINUOUS EXTERIOR AND INTERIOR SHEAR/BEARING WALL FOOTINGS TO HAVE 5/8"Ø A.B.'S @ 48" O.C. WITH 3" X 3" X 1/4" PLATE WASHERS U.N.O.

MINIMUM OF TWO BOLTS PER EACH PIECE OF SILL PLATE AT 4" TO 12" CLEARANCE TO THE END AND 7" MINIMUM EMBEDMENT.(FOR TWO POUR SYSTEM,BOLTS SHALL BE EMBEDDED 4 INCH MIN. INTO FIRST POUR.)

(SEE NOTE 12 FOR A.B. LENGTH.)

7. ALL INTERIOR NON-BEARING FTGS TO HAVE 3/16" Ø SHOT PINS AT 32" O.C., I.E., HILTI SHOT PINS (ICC ESR-1663).

8. USE APA RATED PLYWOOD SHEATHING. OR O.S.B. PANEL. ALL PLYWOOD SHALL BE DOUGLAS FIR. 4-PLY MIN. OTHER SPECIES MAY REQUIRE CHANGES.

9. USE 3 X 3 X 1/4 PLATE WASHERS WITH 5/8"Ø A.B. AT ALL SHEAR WALLS. USE 3 X 3 X 5/16 PLATE WASHERS WITH 3/4"Ø A.B. AT ALL SHEAR WALLS.

10. AT EXISTING FOOTINGS, USE THREADED RODS W/ SIMPSON "SET-XP" EPOXY 7" MIN. EMB. W/MIN. EDGE DIST. OF 1-7/8" (ICC ESR-2508) (SPECIAL INSPECTION REQ'D.)

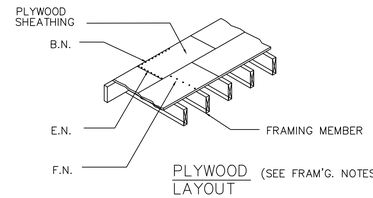
11. ALL ANCHOR BOLTS SHALL CONFORM TO ASTM A-307 U.N.O.

12. ANCHOR BOLT SPEC.:

	BOLT LENGTH	
	SINGLE POUR	DOUBLE POUR
2X SILL	12"	16"
3X SILL	14"	18"

SHEAR WALL SCHEDULE

01



PLYWOOD LAYOUT (SEE FRAM'G. NOTES)

NAILING: (EXCEPT WHERE NOTED OTHERWISE)

	ROOF NAIL'G	FLOOR NAIL'G
B.N. = BOUNDARY NAILING	8d @ 6" O.C.	10d @ 6" O.C.
E.N. = EDGE NAILING	8d @ 6" O.C.	10d @ 6" O.C.
F.N. = FIELD NAILING	8d @ 12" O.C.	10d @ 10" O.C.

NOTES:

1. NAILS SHALL BE GALV. COMMON(HOT-DIPPED OR TUMBLED), PLACED NOT LESS THAN 3/8" FROM PANEL EDGES AND SHALL BE FIRMLY DRIVEN.

2. NO UNBLOCKED PIECE LESS THAN 12" SHALL BE USED.

3. WOOD STRUCTURAL PANELS SHALL COMPLY WITH 2016 CBC STANDARD AND SHALL BE APA RATED EXPOSURE I.

4. WOOD STRUCTURAL PANELS, WHEN USED, SHALL COMPLY WITH THE REQUIREMENTS FOR THEIR TYPE IN DOC PSI-95 OR PS2-92.

5. ALL PANELS SHALL BE IDENTIFIED BY TRADE MARK OF AN APPROVED TESTING & GRADING AGENCIES, APA, TECO OR PITTSBURG.

PLYWOOD DIAPHRAGM

02

CONNECTION: (TABLE 2304.9.1)

1.	JOISTS TO SILL OR GURDER, TOE NAIL	3 – 8d
2.	BRIDGING TO JOISTS, TOE NAIL EA. END	2 – 8d
3.	1X6 SUBFLR. OR LESS TO EA. JST., FACE NAIL	2 – 8d
4.	WIDER THAN 1X6 SUBFLR. TO EA. JST., FACE NAIL	3 – 8d
5.	2" SUBFLR. TO JST. OR GURDER, BUND & FACE NAIL	2 – 16d
6.	SILL PLATE TO JST. OR BLK'G., FACE NAIL	16d @ 16" O.C.
7.	TOP PLATE TO STUD, END NAIL	2 – 16 d
8.	RAFT. BLK'G TO TOP PLATE, FACE OR TOE NAIL	16d @ 8" O.C.
9.	STUD TO SILL PLATE, TOE NAIL	4 – 8d
10.	DOUBLE STUDS, FACE NAIL	16d @ 24" O.C.
11.	DOUBLE TOP PLATES, FACE NAIL	16d @ 16" O.C.
12.	TOP PLATES LAPS & INTERSECTIONS, FACE NAIL	2 – 16d
13.	CONTINUOUS HEADER, TWO PIECES	16d @ 16" O.C. ALONG EA. SIDE
14.	CEILING JOISTS TO PLATE, TOE NAIL	3 – 8d
15.	CONTINUOUS HEADER TO STUD, TOE NAIL	4 – 8d
16.	CEILING JOISTS, LAPS O/ PARTITIONS, FACE NAIL	3 – 16d
17.	CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	3 – 16d
18.	RAFTER TO TOP PLATE, TOE NAIL	3 – 8d
19.	1" BRACE TO EA. STUD & PLATE, FACE NAIL	2 – 8d
20.	1X8 SHT'G. OR LESS TO EA. BEARING WALL FACE NAIL	2 – 8d
21.	WIDER THAN 1X8 SHT'G. TO EA. BEARING WALL FACE NAIL	3 - 8d
22.	BUILT–UP CORNER STUDS	16d @ 24" O.C.
23.	BUILT–UP GRADERS & BEAMS	20d @ 32" O.C. @ TOP & BOT. & STAGG. 2 – 20d @ END & @ EA. SPLICE
24.	2" PLANKS	2 – 16d @ EA. BRG.
25.	PARTICLE BD. – WALL SHTG. (TO FRMG.)	8d
26.	PLYWOOD –	
	SUBFLR. RF. & WALL SHTG. (TO FRMG.):	
	1/2" & LESS	8d
	5/8" – 3/4"	8d
	7/8" – 1"	8d
	1 1/8" – 1 1/4"	10d
	COMBINATION SUBFLR. / UNDERLAYMENT (TO FRMG.):	
	3/4" & LESS	8d
	7/8" – 1"	8d
	1 1/8" – 1 1/4"	10d
	FIBERBD. SHTG.:	
	1/2"	NO. 11 GA. 6d, NO. 16 GA.
	25/32"	NO. 11 GA. 6d, NO. 18 GA.

NOTE:

1. ALL NAILS SHALL BE COMMON WIRE NAILS. WHERE DRIVING OF NAILS CAUSES SPLITTING HOLES FOR THE NAILS SHALL BE SUB DRILLED.

2. FASTENERS IN PRESERVATIVE–TREATED WOOD SHALL BE OF HOT–DIPPED ZINC–COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER.(CBC 2304.9.5)

NAILING SCHEDULE

03

DESIGN DATA:

APPLICABLE DESIGN LOADS: PER ASCI/SEI 7–10
FLOOR LIVE LOAD: 40 PSF
ROOF LIVE LOAD: 20 PSF
BASIC WIND SPEED: 110 MPH
STRUCTURAL CATEGORY: II
ALL PRESSURES SHOWN ARE BASED ON ASD DESIGN,

FLOOR DEAD LOAD: 15PSF
ROOF DEAD LOAD: 12PSF
EXPOSURE: D
SEISMIC DESIGN CATEGORY = D

GENERAL NOTES:

1. CONTRACTOR TO ASSUME FULL RESPONSIBILITY FOR ABIDING TO ALL APPLICABLE CALIFORNIA BUILDING CODES, LOCAL CITY ORDINANCES, ZONING REQUIREMENTS, AND LICENSING/PERMIT REQUIREMENTS. CONTRACTOR IS FULLY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES INCLUDING WITHOUT LIMITATION TO DEMOLITION, EXCAVATION AND ERECTION PROCEDURES.

2. THE CONTRACTOR SHALL EXAMINE THE CONSTRICTION DOCUMENTS AND NOTIFY THE PROJECT ENGINEER & ARCHITECT OF ANY DISCREPANCIES, ERRORS, OR OMISSIONS SHE/HE MAY FIND BEFORE PROCEEDING WITH THE WORK.

3. NOTIFY THE PROJECT ENGINEER OF ANY DESIGN CHANGES PROPOSED BY OWNER OR THE CONTRACTOR DURING THE COURSE OF CONSTRUCTION. SUCH CHANGES AFFECTING ROOM ADDITION DESIGN MAY ALSO AFFECT STRUCTURAL DESIGN.

4. ANY SUBCONTRACTOR WHICH AGREES TO CONSTRUCT THE PROJECT PURSUANT TO THESE PLANS FULLY ASSUMES THE RISK OF ALL ERRORS AND OMISSIONS WHICH SHOULD HAVE BEEN DETECTED BY A CAREFUL REVIEW BY A KNOWLEDGEABLE LICENSED CONTRACTOR, THAT WHICH FOR ANY REASON WERE NOT RESOLVED DURING THE BIDDING OR NEGOTIATION PROCESS. FURTHER, THE CONTRACTOR SHALL CAREFULLY REVIEW THESE PLANS AS THE WORK PROGRESSES IN ORDER TO IDENTIFY ANY SIGNIFICANT ERRORS AND OMISSIONS AND TO ASCERTAIN ALL NECESSARY INFORMATION BEFORE PROCEEDING WITH THE AFFECTED WORK, AND ASSUMES THE RISK OF ANY AND ALL LOSS, INCLUDING DELAY, WHICH MAY BE CAUSED OR CONTRIBUTED TO BY THE FAILURE TO ASCERTAIN CORRECT OR NECESSARY INFORMATION IN A TIMELY MANNER.

5. ALL TRADES SHALL, AT ALL TIMES, KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY THEIR WORK, AND AT THE COMPLETION OF THE WORK SHALL REMOVE ALL RUBBISH FROM AND ABOUT THE JOBSITE AND ALL THEIR TOOLS, SCAFFOLDING AND SURPLUS MATERIALS, AND SHALL LEAVE THE JOB BROOM CLEAN, INCLUDING REMOVING ALL LABELS, STICKERS, PAINT SMEARS, ETC.., FROM LIGHTING FIXTURES, PLUMBING FIXTURES, GLASS SURFACES, FINISH HARDWARE, CABINETS, COUNTER TOPS, ETC.

6. EXCEPT WHERE MORE STRINGENT REQUIREMENTS ARE NOTED OR SHOWN ON THE PLANS, WORKMANSHIP & MATERIALS SHALL CONFORM, TO THE LATEST EDITION OF THE C.B.C. OR LOCAL CODE.

7. THE PLANS SHALL BE REVIEWED FOR DIMENSIONAL & EXISTING SITE CONFORMANCE WITH THE PLANS BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE ARCHITECT & ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES.

8. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS IN THE FIELD; AND ALL QUESTIONS AS TO DIMENSIONS AND FIELD CONDITIONS SHALL BE RESOLVED BEFORE THE AFFECTED WORK PROCEEDS. NO DIMENSIONS SHALL BE OBTAINED BY SCALING THESE PLANS.

9. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR DIMENSIONS AND CONDITIONS OF THE JOB.

10. THE PRECISE DIMENSIONS AND LOCATIONS OF ALL DOOR, WINDOW AND ROOF OPENINGS SHALL BE DETERMINED FROM DRAWINGS AND OTHER FLOOR, WALL OPENING REQUIRED BY MECHANICAL OR ELECTRICAL SHALL BE VERIFIED FROM SHOP DRAWINGS, EQUIPMENT DATA SHEETS, ETC. AS REQUIRED.

11. ITEMS IDENTIFIED BY TRADE NAMES MAY BE SUBSTITUTED BY APPROVED EQUALS.

12. NOTES & DETAILS ON DRAWINGS SHALL PRECEDE THESE GENERAL NOTES.

13. PROVIDE ANY SHORING & OR BRACING PRIOR TO REMOVING EXISTING WALLS, BEAMS, OR SUPPORTS FOR CONSTRUCTION. REMOVE SHORING ONLY WHEN NEW SUPPORTS ARE IN PLACE AND SECURED.

14. PROVIDE RED HEADS INTO EXISTING CONCRETE AT ALL SHEAR WALLS PER MFG. SPECIFICATIONS. SEE SHEAR WALL SCHEDULE FOR SIZE AND SPACING.

15. PROVIDE SIMPSON ST-6224 BETWEEN NEW WALLS AND EXISTING WALLS AT THE DOUBLE TOP PLATE.

16. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON DRAWINGS AND PROTECT THEM FROM DAMAGE

17. DO NOT CUT POST TENSION SLABS. CONTRACTOR TO DETERMINE EXISTING CONDITIONS PRIOR TO START OF CONSTRUCTION.

18. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS FOR FOOTING, BEAMS AND JOISTS, SIZES, LOCATIONS, ETC., AND SHALL NOTIFY THE ARCHITECT & ENGINEER OF ANY DISCREPANCIES.

19. DOWEL NEW INTO EXISTING SLABS W/ #4 REBAR @ 24" O.C. AND FOOTINGS W/ DOWELS TO MATCH NEW REINF. SIZE/ LOCATION.

ENGINEERING NOTES

1. CONCRETE SLABS ON GRADE HAVE NOT BEEN DESIGNED BY THE STRUCTURAL ENGINEER.

2. THE VIBRATIONAL EFFECTS OF MECHANICAL EQUIPMENT HAVE NOT BEEN CONSIDERED BY THE STRUCTURAL ENGINEER.

3. THE DESIGN, ADEQUACY AND SAFETY OF ERECTION, BRACING SHORING, TEMPORARY SUPPORTS ETC., IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR, AND HAS NOT BEEN CONSIDERED BY THE STRUCTURAL ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING THE ENTIRE COURSE OF CONSTRUCTION. THE ENGINEER SHALL NOT BE HELD RESPONSIBLE FOR FIELD INSPECTION/OBSERVATION OF THE ABOVE ITEMS.

4. ALLOWABLE SOILS PRESSURE TO BE A MINIMUM OF 1500 PSF UNLESS A SOILS REPORT IS PROVIDED. SOILS IN THE BUILDING AREA & 5 FEET BEYOND SHALL BE COMPACTED TO A MINIMUM OF 90% RELATIVE COMPACTION PER 2016-C.B.C.

REFER TO SOIL REPORT BY: ____________

JOB NUMBER: ________ DATED: ________

STRUCTURAL SYMBOLS

△ INDICATES SHEAR WALL. SEE FOUNDATION, FRAMING PLAN AND SHEAR WALL SCHEDULE FOR TYPE, SILL BOLTING, SHTG., ETC. NOTE: FOR SILL BOLTING AT EXISTING FOOTINGS, USE 5/8" Ø THREADED RODS W/ SIMPSON "SET-XP" EPOXY 7" MIN. EMB. PER ICC ESR-2508 THE SAME SIZE & SPACING AS CALLED FOR ON PLANS

☒ INDICATES POST (BELOW BEAM)

MIN. POST SIZE/TYPE AS FOLLOWS U.N.O.:

BEAM SIZE	POST SIZE
4 X 12 & SMALLER	2-2X4 W/16d NAILS @ 12" O.C.
4 X 14 & LARGER	4X4
6 X 10 & SMALLER	4X6
6 X 12 & LARGER	6X6 SEE HOLDDOWN DETAILS AND TYPICAL WALL

FRAMING FOR FURTHER POST SIZE REQUIREMENTS. POSTS ARE TO CONTINUE DOWN TO FOUNDATION.

FOUNDATION NOTES

GENERAL

1. SOIL BENEATH FOOTINGS AND SLABS SHALL BE COMPACTED PER 2016 C.B.C. (90%) RELATIVE COMPACTION MINIMUM.

2. CONTINUOUS FOOTINGS AND GRADE BEAMS SHALL BE EXCAVATED TO THE DEPTH SHOWN ON THE DRAWINGS BELOW UNDISTURBED SOIL OR COMPACTED EARTH. PROVIDE 1-#4 HORIZONTAL BARS ON TOP AND BOTTOM U.N.O. ON FOUND. PLAN.

3. ALLOWABLE SOIL BEARING PRESSURE IS ASSUMED TO BE 1500. PSF IF NO SOILS REPORT IS PROVIDED.

4. SLAB ON GRADE: 4 INCH. NET CONCRETE SLAB WITH #3 BARS @ 18" O.C. EACH @ CENTER OF SLAB OVER 2 INCH. OF SAND OVER 6 MIL. VISQUEEN OVER 2" SAND BED OVER COMPACTED SOIL. U.N.O.

5. NO TRENCHES OR EXCAVATIONS FIVE FEET IN DEPTH OR GREATER INTO WHICH A PERSON SHALL BE REQUIRED TO DESCEND SHALL BE MADE WITHOUT PROPER PERMIT.

6. THE MINIMUM BOLTING FOR SILL PLATES TO FOUNDATION SHALL BE AS FOLLOWS: 5/8" DIAMETER ANCHOR BOLTS WITH 7" MIN EMBEDMENT IN CONCRETE WITH SPACING NO GREATER THAN 4 FEET O.C. NOR FURTHER THAN 12" FROM CORNERS (MIN 2 BOLTS PER PIECE). SEE THE FOUNDATION PLAN & SHEAR WALL SCHEDULE FOR FURTHER BOLTING REQUIREMENTS.(FOR TWO POUR SYSTEMS,BOLTS SHALL BE EMBEDDED 4 INCH MIN. INTO FIRST POUR.)

7. PIPES OR DUCTS THAT EXCEED ONE THIRD THE SLAB OR CONC. WALL THICKNESS SHALL NOT BE PLACED IN STRUCTURAL CONC. UNLESS SPECIFICALLY DETAILED. SEE MECHANICAL AND/OR ELECTRICAL DRAWINGS FOR LOCATION OF SLEEVES, ACCESSORIES, ETC.

8. PIPES MAY PASS THRU STRUCTURAL CONC. IN SLEEVES, BUT SHALL NOT BE EMBEDDED THEREIN.

9. PROVIDE 3/4" CAMBERS AT ALL EXPOSED CORNERS.

10. SEE ARCHITECTURAL PLANS FOR MOLDS, GROOVES, ORNAMENTS, CLIPS OR GROUNDS REQUIRED TO BE CAST IN CONCRETE, AND FOR LOCATION OF FLOOR FINISHES AND SLAB DEPRESSIONS.

11. LOCATION OF POUR JOINTS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER.

CONCRETE

1. UNLESS OTHERWISE NOTED ON PLANS, CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI IN 28 DAYS.

2. FINE & COURSE AGGREGATE SHALL CONFORM TO A.S.T.M. C-33, USE 3000 P.S.I. CONC. @ GRADE BEAMS. CEMENT SHALL CONFORM TO A.S.T.M. C-150 (STANDARD BRAND PORTLAND CEMENT) TYPE II (USE TYPE V CEMENT IF NOTED IN SOILS REPORT)

3. CONCRETE SHALL BE MACHINE-MIXED USING A MAXIMUM OF '7' GALLONS OF WATER PER SACK OF CEMENT. READY MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C-94 MIXED AT A RATE OF 5 SACKS OF CEMENT PER CUBIC YARD. MAXIMUM SLUMP SHALL BE 4 INCH AS MEASURED BY THE ASTM "STANDARD METHOD OF TESTING FOR SLUMP OF PORTLAND CEMENT CONCRETE.

4. DRY PACK SHALL CONSIST OF 1 PART CEMENT, 4 PARTS SAND. BASED ON DRY LOOSE VOLUMES AND NOT LESS THAN 1/4 PART, NOR MORE THAN 1/2 PART, LINE PUTTY OR DRY HYDRATED LIME. DRY PACK SHALL OBTAIN A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS.

5. ADDING CALCIUM CHLORIDE TO CONCRETE OR GROUT IS NOT PERMITTED.

6. CONC. SHALL BE KEPT MOIST FOR 10 DAYS FOR PROPER CURING.

REQUIREMENTS FOR CONCRETE EXPOSED TO SULFATE-CONTAINING SOLUTIONS (ACI 4.3)

SULFATE EXPOSURE	CEMENT TYPE	WATER-CEMENT RATIO	COMPRESSIVE STRENGTH
NEGLIGIBLE	NOT REGULATED	-	2500 psi
MODERATE	I, II	0.50	4000 psi
SEVERE	V	0.45	4500 psi
VERY SEVERE	V	0.45	4500 psi

CONCRETE BLOCK MASONRY

1. CONCRETE BLOCK SHALL CONFORM TO A.S.T.M. C-90 MED. WT. GRADE N UNITS, WITH MIN. COMP. STRENGTH OF 1500 PSI. ALL CMU BLOCKS SHALL BE LAID UP IN RUNNING OR COMMON BOND CONFIGURATION.

2. MORTAR SHALL CONFORM TO ASTM C-270, TYPE S, WITH MINIMUM COMPRESSIVE STRENGTH OF 2000. PSI AT 28 DAYS.

MIX: 1 PART PORTLAND CEMENT.
1/2 PART LIME PUTTY.
4 PARTS SAND.
} BY VOLUME

3. GROUT SHALL CONFORM TO ASTM C-476, WITH MINIMUM COMPRESIVE STRENGTH OF 2000. PSI AT 28 DAYS.

MIX: 1 PART PORTLAND CEMENT.
3 PARTS SAND
2 PARTS PEA GRAVEL
} BY VOLUME

WATER SUFFICIENT TO ALLOW GROUT TO FLOW INTO ALL JOINTS.

4. CELLS SHALL BE IN VERTICAL ALIGNMENT TO PROVIDE A MIN. UNOBSTRUCTED CORE OF 3" X 3". DOWELS FROM FOOTINGS SHALL BE SET TO ALIGN WITH CORE REINFORCING.

5. ALL CELLS BELOW FINISHED GRADE AND ALL CELLS WITH REINFORCING, ANCHORS OR INSERTS SHALL BE FILLED SOLID WITH GROUT.

6. CONCRETE SURFACES SHALL BE CLEANED OF ALL LAITANCE PRIOR TO SETTING OF BLOCKS.

7. PROVIDE VERTICAL CONSTRUCTION JOINTS AT 40 FT. O.C.

8. MINIMUM LAP FOR ALL STEEL IS 40 BAR DIAMETER, OR 24 INCHES, WHICHEVER IS GREATER.

9. IF WORK IS STOPPED FOR ONE HOUR OR LONGER, PROVIDE HORIZONTAL CONSTRUCTION JOINTS BY STOPPING GROUT 1-1/2 INCH BELOW THE TOP OF THE BLOCK.

10. CLEANOUT OPENINGS MUST BE PROVIDED IN CMU WALLS WHICH ARE TO BE HIGH LIFT GROUTED. (OVER 4 FEET).AT BOTTOM COURSE.
IN SOLID GROUTED WALLS CLEANOUTS MUST BE PROVIDED AT NO MORE THAN 32 INCHES ON CENTER.FOR PARTIALLY GROUTED WALLS CLEANOUTS SHALL BE PROVIDED NO MORE THAN 48 INCHES O.C. WHEN CLEANOUTS ARE REQUIRED, THEY SHALL BE SEALED AFTER INSPECTION AND BEFORE GROUTING.

REINFORCING STEEL

1. REINFORCING STEEL, #3 AND #4 GRADE 40, #5 AND LARGER GRADE 60 PER A.S.T.M. A615.

2. LOW HYDROGEN WELDING RODS SHALL BE USED FOR ALL WELDING OF REINFORCING BARS.

3. BARS NOTED AS "CONT" TYPICAL WALL REINFORCING AND VERTICAL COLUMN REINFORCING SHALL HAVE A MINIMUM SPLICE OF 50 BAR DIAMETERS LAP IN MASONRY OR 40 BAR DIAMETERS MINIMUM IN CONCRETE.

4. REINFORCING SHALL BE SPLICED ONLY AS SHOWN OR NOTED. OTHER SPLICES SHALL BE APPROVED BY THE STRUCTURAL ENGINEER.

5. SPLICES IN ADJACENT HORIZONTAL WALL REINFORCING BARS SHALL BE STAGGERED 4 FEET UNLESS OTHERWISE NOTED.

6. PROVIDE DOWELS IN FOOTINGS AND/OR GRADE BEAMS THE SAME SIZE AND NUMBER AS VERTICAL WALL OR COLUMN REINFORCING. DOWELS SHALL HAVE A MINIMUM PROJECTION EQUAL TO STANDARD LAP SPLICE UNLESS OTHERWISE NOTED.

7. ALL REINFORCING, ANCHOR BOLTS, AND OTHER INSERTS SHALL BE SECURED IN PLACE PRIOR TO PLACEMENT OF CONCRETE OR GROUTING OF MASONRY.

8. PROVIDE THE FOLLOWING MINIMUM PROTECTIVE COVERING OF CONCRETE:

BELOW GRADE (UNFORMED)	3" CLEAR
BELOW GRADE (FORMED)	2" CLEAR
WALLS	1" CLEAR
COLUMNS	1.5" CLEAR
BEAMS AND GIRDERS	1.5" CLEAR
STRUCTURAL SLAB (ABOVE GRADE)	3/4" CLEAR

9. #5 OR LARGER REINFORCING BARS SHALL NOT BE RE-BENT WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER.

GRADING NOTES

1. A GRADING PERMIT SHALL BE OBTAINED PRIOR TO ANY GRADING.

2. ALL FILL ONE FOOT & GREATER SHALL BE CERTIFIED AND TESTED AS TO RELATIVE COMPACTION PER U.B.C.

3. ALL FILL SHALL BE COMPACTED IN ACCORDANCE WITH ASTM D-1557, TO MAXIMUM OF 90% DENSITY.

4. ALL UTILITY TRENCH BACKFILLS SHALL BE IN ACCORDANCE WITH THE SOILS ENGINEER'S RECOMMENDATIONS.

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL CONFORM TO ASTM A36,(Fy=36.KSI) FOR PLATES AND TO ASTM A992,(Fy=50.KSI) FOR W-SHAPE STEEL SECTIONS.

2. CORTEN STEEL SHALL CONFORM TO ASTM A588, Fy=50. KSI.

3. STAINLESS STEEL SHALL CONFORM TO ASTM A276 TYPE 304-HOT ROLLED, Fy=18. KSI.

4. FABRICATION, ERECTION & PAINTING SHALL COMPLY WITH THE AISC SPECS. CHAPTER M. (THIRTEENTH EDITION).

5. ALL BOLTS FOR STEEL MEMBERS SHALL CONFORM TO ASTM A325 OR A490, UNLESS OTHERWISE NOTED.

6. HIGH TENSILE BOLTS WHERE INDICATED ON THE PLANS OR DETAILS SHALL BE THE FRICTION TYPE AND THERE SHALL BE NO PAINT, OIL, LAQUER, OR GALVANIZING BETWEEN THE CONTACT SURFACES. HIGH TENSILE BOLTS SHALL CONFORM TO ASTM A325 OR A490.

7. HIGH STRENGTH BOLTS SHALL HAVE LOAD INDICATOR WASHERS TO SERVE AS A DIRECT TENSION INDICATOR INSTALLATION FOR HIGH STRENGTH BOLTS SHALL REQUIRE INSPECTION BY A DEPUTY INSPECTOR.

8. ANCHOR RODS SHALL BE ASTM F-1554 GRD. 55 KSI U.N.O. ALL ANCHOR RODS SHALL BE. HEADED RODS.ANCHOR ROD WASHER SHALL BE ASTM A436. NUTS SHALL BE ASTM A563.

9. PIPE COLUMNS SHALL CONFORM TO ASTM A-53 GRADE B.

10. STEEL TUBE SHAPED MEMBERS SHALL CONFORM TO ASTM A-501 OR OR A-500 GRADE B.

11. WHERE FINISH IS ATTACHED TO STRUCTURAL STEEL, PROVIDE HOLES FOR 1/2" WELDED STUDS AT 4 FEET O.C. FOR THE ATTACHMENT OF NAILERS. SEE ARCHITECTURAL DRAWINGS FOR FINISHES.

12. OPEN WEB JOISTS SHALL COMPLY WITH THE STANDARDS OR "THE STEEL JOIST INSTITUTE".

13. STEEL STUDS, JOIST, TRACKS & BRIDGING:
ASTM A-570 GRADE "E" Fy = 50 KSI 12, 14 & 16 GA.
ASTM A-570 GRADE "C" Fy = 33 KSI 18 & 20 GA.

14. SPECIAL INSPECTION OF HIGH-STRENGTH A325 AND A490 BOLTS SHALL BE IN ACCORDANCE WITH APPROVED NATIONALLY RECOGNIZED STANDARDS AND REQUIREMENT OF SECTION 1701.

15. SHOP DRAWINGS SHALL BE PROVIDED TO ENGINEER OR ARCHITECT OF RECORD FOR REVIEW PRIOR TO FABRICATION.

STRUCT. STEEL WELDING

1. WELDING SHALL BE DONE BY THE ELECTRIC SHIELDED ARC PROCESS W/E70-XX ELECTRODES AND SHALL COMPLY WITH A.W.S. SPECIFICATIONS FOR WELDING AND FABRICATION.

2. WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS WHO ARE APPROVED BY THE LOCAL AUTHORITY USING ARC PROCESS WITH E70XX ELECTRODES.

3. ALL FIELD WELDS SHALL HAVE CONTINUOUS INSPECTION PER CBC (1701) UNLESS OTHERWISE NOTED.

4. ALL BUTT WELDS SHALL BE FULL PENETRATION U.N.O.

5. A CERTIFICATE OF FABRICATION FROM THE SHOP PERFORMING WELDING OR A REPORT FROM THE SPECIAL INSPECTOR MUST BE FURNISHED TO THE JOB INSPECTOR PRIOR TO FRAMING APPROVAL.

6. WELDED, FULLY RESTRAINED CONNECTION BETWEEN MEMBERS OF ORDINARY MOMENT FRAMES OR SPECIAL MOMENT-RESISTING FRAMES SHALL HAVE SPECIAL CONTINUOUS INSPECTION AND CONNECTION TESTED BY NONDESTRUCTIVE METHODS PER SECTION 1703.

7. FIELD WELDING OF REINFOCING STEEL SHALL BE DONE BY WELDERS SPECIFICALLY CERTIFIED FOR REINFORCING STEEL WELDING .BEFORE WELDING,THE "CARBON EQUIVALENT" (CE) OF STEEL SHALL BE DETERMINED. IF THE (CE) OF STEEL IS MORE THAN 0.75% , THEY SHALL NOT BE WELDED.

FRAMING NOTES

1. FRAMING SHALL COMPLY WITH CHAPTER 23 OF THE 2016 CBC

FRAMING-GENERAL

1. USE SIMPSON U-HANGERS ON ALL JOIST/BEAM/BEAM CONNECTIONS UNLESS NOTED ON PLANS.

2. ALL POSTS SHALL HAVE SIMPSON "PC" CONNECTORS AT TOP AND SIMPSON "BC" OR "BCO" CONNECTORS AT BASES UNLESS OTHERWISE NOTED ON PLANS.

3. ALL CONNECTING HARDWARE, JOIST HANGERS, TIE STRAPS, ETC., SHALL BE SIMPSON "STRONG TIE" UNLESS OTHERWISE NOTED OR SHOWN ON PLANS.

4. FRAMING @ CHIMNEY ENCLOSURE SHALL BE 2x6 STUDS BALLOON FRAMED W/APPROVED STRAPS TO ROOF AND FLOOR DIAPHRAGMS.

FRAMING - WALL

1. SIZE, SPACING & HEIGHT LIMITS FOR WOOD STUDS ARE AS FOLLOWS (UNLESS OTHERWISE NOTED ON PLANS):

2X4 @ 16" OC (BEARING WALL) SUPPORTING A MAXIMUM OF ONE FLOOR AND ONE ROOF SHALL HAVE A MAXIMUM HEIGHT OF 10 FEET
2X4 @ 16" OC (NON-BEARING WALL) SHALL HAVE A MAXIMUM HEIGHT OF 14 FEET

2X6 @ 16" OC (BEARING WALL) SUPPORTING A MAXIMUM OF TWO FLOORS AND A ROOF SHALL HAVE A MAXIMUM HEIGHT OF 10 FEET
2X6 @ 16" OC (NON-BEARING WALL) MAXIMUM HEIGHT IS 20 FEET

2. RAKE WALLS ADJACENT TO SLOPED CEILINGS SHALL BE BALLOON FRAMED. DOUBLE TOP PLATES SHALL ALWAYS BE SUPPORTED BY A ROOF OR CEILING DIAPHRAGM.

3. SHEAR WALL PANELS MUST BE CONTINUOUS TO THE TOP PLATE AT ROOF FRAMING. SHEATHING SHALL HAVE ALL EDGES BLOCKED & THE APPROPRIATE SHEAR TRANSFER THRU CEILING OR SOFFIT FRAMING.

4. BORING AND NOTCHING OF WALL STUDS SHALL BE PER CBC (2308.9)

NOTCHING MAXIMUM:	25% OF WIDTH OF STUDS ON BEARING WALLS 40% OF WIDTH OF STUDS ON NON-BEARING WALLS BORING
MAXIMUM:	40% OF WIDTH OF STUDS ON BEARING WALLS 60% OF WIDTH OF STUDS ON NON-BEARING WALLS

NOTE: A MIN. 5/8" CLEARANCE FROM EDGE OF STUD TO HOLE SHALL BE PROVIDED.

5. DOUBLE 2X TOP PLATE SHALL BE LAPPED 48" AT ALL SPLICES AND SHALL OVERLAP AT CORNERS.

6. WALL BRACING SHALL BE PROVIDED PER CBC (2308.9.3)

7. HARDY FRAMES INSTALLATION PER MFR. SPECIFICATION (ICC ESR-2089)

8. STRONG WALL INSTALLATION PER MFR. SPECIFICATION (ICC-ESR-1267)

FRAMING - FLOOR

1. FLOOR SHEATHING (MIN) 5/8" STRUCTURAL I T & G PLYWOOD PANEL INDEX NO. 32/16 WITH EXTERIOR GLUE. USE 10d COMMON NAILS AT 6" OC AT ALL EDGES, BOUNDARIES, AND 10" O.C. FIELD. NO BLOCKING IS REQUIRED UNLESS NOTED ON PLAN. ALL EDGES BLOCKED AT DECKS.

2. PROVIDE DOUBLE FLOOR JOISTS UNDER ALL PARALLEL NON- BEARING PARTITIONS.

3. PROVIDE CONTINUOUS BLOCKING BETWEEN FLOOR JOISTS UNDER BEARING WALLS WHICH ARE PERPENDICULAR TO JOISTS.

4. FRAMING AROUND OPENINGS: TRIMMER AND HEADER JOISTS SHALL BE DOUBLED AND SUPPORTED BY HANGERS PER (CBC 2320.12.5).

FRAMING - ROOF

1. ROOF SHEATHING (MIN) 15/32" STRUC. I PLYWOOD SHEATHING PANEL INDEX NO. 32/16 WITH EXTERIOR GLUE. USE 8d COMMON NAILS AT 6" OC AT ALL EDGES, BOUNDARIES, AND 12" OC FIELD. NO BLOCKING IS REQUIRED UNLESS NOTED ON PLAN.

2. FRAMING AROUND OPENINGS: TRIMMER AND HEADER JOISTS SHALL BE DOUBLED AND SUPPORTED BY HANGERS PER CODE

FRAMING - CEILING (PER TABLE 2308.10.2)

1. CEILING JOISTS SHALL BE 2X6 @ 16" O.C. (MAX SPAN= 17'-8")

2. CEILING JOISTS SHALL BE 2X8 @ 16" O.C. (MAX SPAN= 23'-0")

FRAMING - JOISTS/RAFTERS

1. BORING AND NOTCHING OF JOISTS SHALL BE AS FOLLOWS: (CBC 2308.10) 2016 EDITION

BORING- MAX DIA OF HOLE SHALL NOT EXCEED 1/3 OF DRESSED DEPTH OF JOIST WITH A MINIMUM EDGE CLEARANCE OF TWO INCHES.

NOTCHING- MAX NOTCH AT ENDS SHALL NOT EXCEED 1/4 OF DEPTH. NO NOTCHING IS ALLOWED IN THE CENTER THIRD OF THE JOIST SPAN. MAX NOTCH IN TOP OR BOTTTOM OF THE JOIST SHALL NOT EXCEED 1/6 OF THE JOIST DEPTH.

2. WHERE THREE OR MORE (MULTI JOISTS) ARE USED, THE JOISTS SHALL BE BOLTED TOGETHER WITH 1/2" DIA. MACHINE BOLTS W/ WASHERS AT 24" OC STAGGERED. BOLTS SHALL BE RETIGHTENED PRIOR TO APPLYING FINISH MATERIALS.

3. JOISTS/RAFTERS SHALL LAP AT SPLICES A MIN. OF 4 INCHES WITH 3-16d NAILS OR USE SIMPSON ST 2115 @ 48 INCHES O.C.

4. CROSS BRIDGING OR 2X BLDG. SHALL BE PROVIDED @ 8'-0" O.C. MAX. FOR ALL JOISTS AND RAFTERS MORE THAN 8" IN DEPTH.

5. 2X SOLID BLOCKING SHALL BE PLACED BETWEEN JOISTS OR RAFTERS AT ALL SUPPORTS.

DRAINAGE NOTES

1. MINIMUM GRADIENTS ARE AS FOLLOWS: EARTH= 2%, PAVING= .5%

2. POSITIVE DRAINAGE AWAY FROM STRUCTURES SHALL BE AS FOLLOWS:

2% MIN. TO 21% MAX
SWALES TO BE 3 FEET MIN. AWAY FROM STRUCTURES.

FRAMING-BOLTING

1. ALL BOLTS BEARING ON WOOD SHALL HAVE WASHERS UNDER HEAD OR NUT. SEE S.W. SCHEDULE.

2. ALL BOLTS SHALL BE RETIGHTENED, PRIOR TO APPLICATION OF PLYWOOD, PLASTER, ETC.

3. HOLES FOR BOLTS SHALL BE BORED 1/32" TO 1/16" LARGER THAN NOMINAL BOLT DIAMETER.

4. FASTENERS IN PRESSURE-TREATED AND FIRE-RETARDANT,TREATED WOOD SHALL BE OF HOT-DIPPED,ZINC-COATED GALVANIZED STEEL,STAINLESS STEEL,SILICON BRONZE OR COPPER.

LUMBER

1. ALL LUMBER SHALL BE DOUGLAS FIR-LARCH OR THE FOLLOWING GRADES UNLESS OTHERWISE NOTED (MAX MOISTURE CONTENT SHALL NOT EXCEED 19% & GRADED IN ACCORDANCE WITH THE (WEST COAST LUMBERMAN'S ASSOCIATION.)

REPETITIVE USE MEMBERS

STUDS & PLATES NO. 2

JOISTS & RAFTERS:

2X4 TO 4X4 INCLUSIVE N0. 2
2X6 TO 3X16 INCLUSIVE NO. 2

SINGLE USE MEMBERS

BEAMS:
4X N0. 2
6X OR LARGER N0. 1

POSTS & MULLION:
4X4 & SMALLER N0. 2
4X6 & LARGER N0. 2
6X6 & LARGER N0. 1

BLOCKING, FURRING, ETC. N0. 3
DECKING & SHEATHING
2X, 3X, 4X CONST. GRADE

2. ALL WOOD BEARING ON CONCRETE OR MASONRY IF LESS THAN 4 FEET FROM GRADE SHALL BE PRESSURE TREATED DOUG. FIR.

3. GLUED-LAMINATED WOOD BEAMS SHALL BE DOUGLAS FIR COMB. 24F-V4 (*) DF/DF (Fb=2400 PSI, Fv=165 PSI, E=180,000 PSI) INDUSTRIAL APPEARANCE WITH EXTERIOR GLUE UNLESS OTHERWISE NOTED ON PLANS. A CERTIFICATE OF INSPECTION FOR EACH GLU-LAM BEAM FROM AN APPROVED TESTING AGENCY TO BE SUBMITTED AND APPROVED BY THE BUILDING DEPT. PRIOR TO ERECTION. (*) USE V8 FOR CANT. BEAMS AND V4 FOR SIMPLE SPANS BEAMS]

4. SHOP DRAWING SHALL BE PROVIDED TO ENGINEER OR ARCHITECT OF RECORD FOR REVIEW PRIOR TO FABRICATION.

5. ALL STRUCTURAL PLYWOOD SHALL BE IN ACCORDANCE WITH (PS 1-95)

6. PARALLAM PSL PER TRUS JOIST MACMILLAN (ICC ESR-1387) (Fb= 2900 PSI, Fv=290 PSI, E= 2,000,000 PSI)
7. TJI JOISTS INSTALLATION PER MANUFACTURE SPECIFICATION (ICC ES ESR-1153 AND ICC ES ESR-1387)

SPECIAL INSPECTION (PER CBC SECTION 1704,1706 & 1707)

1. SPECIAL INSPECTION BY A REGISTERED DEPUTY BUILDING INSPECTOR, APPROVED BY THE ARCHITECT AND THE CHECKING AGENCY, SHALL BE REQUIRED FOR THE FOLLOWING TYPES OF WORK. SEE PROJECT SPECIFICATIONS FOR SPECIFIC REQUIREMENTS. SPECIAL INSPECTIONS SHALL NOT BE REQUIRED WHEN THE WORK IS DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED BY THE BUILDING OFFICIAL TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION.

ITEMS REQUIRE SPECIAL INSPECTION AS MARKED:

VERIFICATION & INSPECTION	CONTINUOUS	PERIODIC
1. STRUCTURAL EPOXY BOLTING.	☒	
2. WELDING.	☐	
2a: FIELD WELDING OF MOMENT RESISTING STEEL FRAMES.	☐	
2b: STRUCTURAL STEEL OR REINFORCING	☐	
2c: STEEL DECKING.	☐	
2d: SHEAR CONNECTORES.	☐	
3. PLACEMENT OF REINFORCING STEEL IN CMU WALL.	☐	
4. HIGH STRENGTH BOLTING	☐	
5. EXPANSION TYPE ANCHOR BOLTS.	☐	
6. HIGH STRENGTH BOLTING		☐
7. CONCRETE WHERE CONCRETE STRENGTH OF 3000 PSI OR GREATER IS SPECIFIED.		☐
8. DIAPHRAGM CONNECTION TO STEEL SUPPORT MEMBERS.		☐
10. WOOD SHEAR WALLS AND WOOD DIAPHRAGMS NAILING.		☐
11. WOOD STRUCTURAL PANEL SHEATHING.		☐
12. NOMINAL SIZE OF FRAMING MEMBERS AT PANEL EDGES.		☐
13. NAIL OR STAPLE DIAMETER AND LENGTH.		☐
14. COMPACTED FILL		☐
15. FOUNDATION -ANCHOR BOLT AND HOLD DOWN.		☒
16. INSPECTION OF LATERAL FORCE RESISTING ELEMENTS.		☐

"CONTRACTOR RESPONSIBILITY:

EACH CONTRACTOR OR SUB-CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF THE WIND AND/OR SEISMIC RESISTING SYSTEM THAT IS LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK REQUIRING SPECIAL INSPECTION.
THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN THE FOLLOWING:
1) ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS;
2) ACKNOWLEDGMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS APPROVED BY THE BUILDING OFFICIAL;
3) PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR'S ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING AND THE DISTRIBUTION OF THE REPORTS; AND
3) PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR'S ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING AND THE DISTRIBUTION OF THE REPORTS; AND
4) IDENTIFICATION AND QUALIFICATIONS OF THE PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITION(S) IN THE ORGANIZATION."

ABBREVIATIONS:

A.B.	ANCHOR BOLT
ABV.	ABOVE
BAR	REINF. BAR
BD	BOARD
BLKG.	BLOCKING
BLW.	BELOW
BM	BEAM
B.N.	BOUNDARY NAIL
B.W.	BOTH WAYS
CONT.FTG.	CONTINUOUS FOOTING
C.J.	CEILING JOIST
COL.	COLUMN
CONC.	CONCRETE
CONT.	CONTINUOUS
CLG.	CEILING
DP	DEEP
DBL	DOUBLE
D.F.	DOUGLAS FIR
DIA.	DIAMETER
DO	DITTO
(E)	EXISTING
E.W.	EACH WAY
E.J.	EXPANSION JOINT
E.N.	EDGE NAIL
EQ	EQUAL
FB	FLOOR BEAM
F.G.	FINISH GRADE
F.J.	FLOOR JOIST
FL	FLUSH
FMG.	FRAMING
F.N.	FIELD NAIL
F.O.C.	FACE OF CONCRETE
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUDS
F.P.	FULL PENETRATION
FTG	FOOTING
GA.	GAUGE
GALV.	GALVANIZED
GLB	GLUE-LAMINATED BEAM
GRD. BM.	GRADE BEAM
GWB	GYPSUM WALLBOARD
H	HIGH
HDR.	HEADER
HGT.	HEIGHT
HNGR.	HANGER
HORIZ.	HORIZONTAL
K.P.	KING POST
L	LENGTH
LT. WT.	LIGHT WEIGHT
LVL	LAMINATED VENEER LUMBER
MAS.	MASONRY
M.B.	MACHINE BOLT
MLB	MICRO=LAM BEAM
(N)	NEW
N.G.	NATURAL GRADE
O.C.	ON CENTER
P.A.	POST ABOVE
PSL	PARALLAM PSL BEAM
PLWD	PLYWOOD
P.T.	PRESSURE TREATED
R.B.	RIDGE BEAM
REINF.	REINFORCING
REQ'D.	REQUIRED
RF	ROOF
R.R.	ROOF RAFTER
SIM.	SIMILAR
T.R.	THREADED ROD
TYP.	TYPICAL

THESE DRAWINGS AND SPECIFICATIONS AS INSTRUMENT OF SERVICE ARE PROVIDED FOR THE OWNER OR THE BUILDER, WHEN COMBINED WITH OTHER PLANS AND SPECIFICATIONS TO OBTAIN BUILDING PERMIT ONLY FOR THIS PROJECT. THEY ARE NOT INTENDED TO, NOR DO THEY, DETAIL ALL CONDITIONS, IDENTIFY ALL MATERIALS REQUIRED TO COMPLETE THE PROJECT. THE BUILDER ASSUMES RESPONSIBILITY TO SELECT ALL MATERIAL AND ALL SUB-CONTRACTORS AND INSTALLERS AND TO PROVIDE ENOUGH INFORMATION ABOVE AND BEYOND THESE DRAWINGS, TO COMPLETE THE PROJECT IN CONFORMANCE WITH ALL GOVERNING AGENCIES.

GENERAL NOTES

04

05

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GENERAL NOTES

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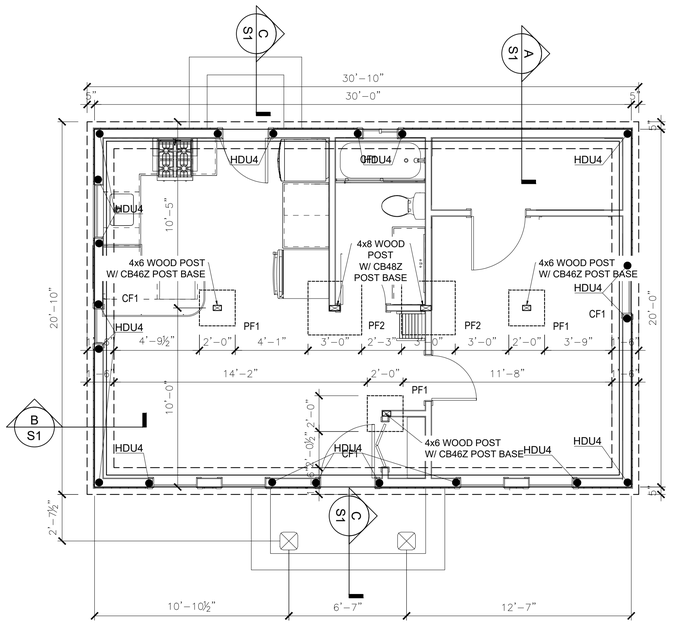
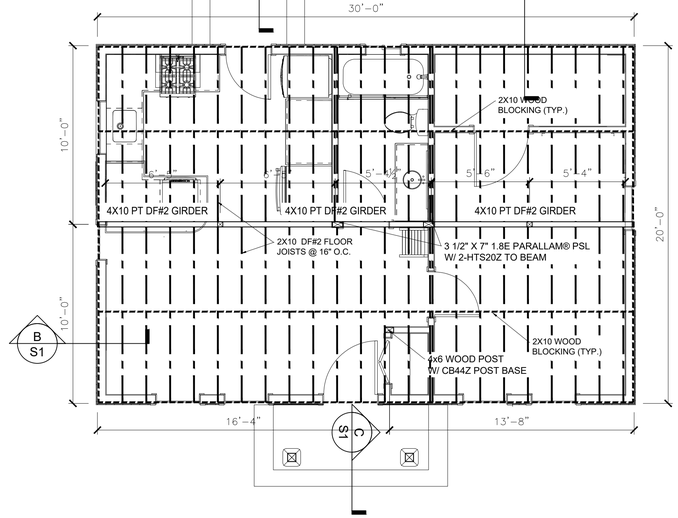


1 FOUNDATION PLAN

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



1 1ST FLOOR FRAMING PLAN

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

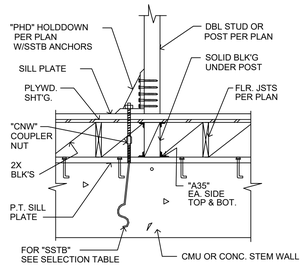
FOOTING SCHEDULE			
TYPE	WIDTH	DEPTH	REBAR
CF-1	2'-0"	2'-0"	2 #4 TOP & BOTTOM

PAD FOOTING SCHEDULE			
TYPE	WIDTH	DEPTH	REBAR
PF-1	2'-0"	24"	2 #4 EACH WAY
PF-2	3'-0"	24"	3 #4 EACH WAY

FOUNDATION SHOULD BE PRESSURE TREATED, OR FOUNDATION GRADE REDWOOD

"HOLD-DOWN CONNECTORS BOLT INTO WOOD FRAMING REQUIRE APPROVED PLATE WASHERS"

"HOLD-DOWN SHOULD BE RE-TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING.



GENERAL HOLDOWN NOTES (APPLIES TO ALL HOLDOWNS)

A. EVERY HOLDOWN INDICATED ON THIS SCHEDULE MAY NOT NECESSARILY BE USED. SEE PLAN FOR SPECIFIC HOLDOWN TYPES USED.

B. IF HOLDOWNS ARE MISINSTALLED OR NEED TO BE RETROFITTED INTO EXISTING CONCRETE, USE "SIMPSON: S.E.T.,X.P. EPOXY - THE SYSTEM WITH THRO ROD DIAMETER, EMBEDMENT INTO FIRST POUR FOOTING, AND MIN. DISTANCE AWAY FROM CORNER PER SCHEDULE - SEE DETAIL 12/ SN3. PROVIDE SPECIAL INSPECTION BY BLDG. DEPT. APPROVED INSPECTOR FOR ALL EPOXY ANCHOR INSTALLATIONS.

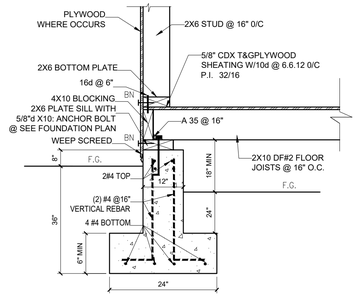
C. MULTIPLE 2x HOLDOWN POSTS SPECIFIED ON SCHEDULE SHALL BE STICH NAILED w/ 16d STAGGERED THROUGH ENTIRE LENGTH OF THE POSTS. STICH NAILING SPACING SHALL BE THE SAME SPACING AS EDGE NAIL SPACING SPECIFIED ON SHEAR WALL SCHEDULE. ALL BOLT TYPE FOUNDATION HOLDOWNS MUST BE FASTENED TO THE WIDE FACE OF THE POST/STUDS.

H O L D O W N S C H E D U L E

SIMPSON TYPE	HOLDOWN POST	POST FASTENERS	HOLDOWN ANCHORS: BOLT DIAMETER	HOLDOWN ANCHORS: HONOZTUTHC SSTB TYPE	HOLDOWN ANCHORS: TWO-POUR SSTB TYPE	BOLT TYPE MINIMUM EMBEDMENT	EPOXY RETROFITT: MIN. EMBED.	EPOXY RETROFITT: DIST. FROM CORNER	MIN STEM WIDTH 11	KEYNOTES
(2) CS16	(2) 2x STUDS	(26) 8d COMMON @ EA. STRAP	N / A	N / A	N / A	N / A	N / A	N / A	N / A	7 , 9
STHD 14 / STHD14RJ	(2) 2x STUDS	(3 8) 10d COMMON	N / A	N / A	N / A	N / A	USE PHD5 IF MISINSTALLED		6"	3 , 6 , 11
HDU4	(2) 2x STUDS	(6) SDS 1/4 x 2-1/2 WOOD SCREWS	5 / 8" Ø	SSTB16	SSTB16	16 - 5 / 8"	5"	5"	6"	1 , 5
HDU5	(2) 2x STUDS	(14) SDS 1/4x2-1/2 WOOD SCREWS	5 / 8" Ø	SSTB20	SSTB24	20 - 5 / 8"	5"	5"	8"	1 , 5
HDU4	(2) 2x STUDS	(10) SDS 1/4x2-1/2 WOOD SCREWS	5 / 8" Ø	SSTB20	SSTB24	20 - 5 / 8"	5"	5"	6"	1 , 5
HDU11	(2) 6x6 POST	(30) SDS 1/4x2-1/2 WOOD SCREWS	1" Ø	SB1 x 30	N / A	24"	8"	–	–	1 , 5

KEYNOTES:

1. EITHER "BOLT TYPE" OR SSTB ANCHORS MAY BE USED. "BOLT TYPE" IS DEFINED AS: THREADED ROD OR BOLT w / DBL NUT & WASHER ASSEMBLY. "L" BOLT, OR " J" BOLT. SEE DET. 3 / SN3 IN CONJUNCTION WITH THE SCHEDULE ABOVE FOR ANCHORAGE REQUIREMENTS. AT "TWO POUR" FOUNDATIONS, THE DIFFERENCE BETWEEN THE FIRST POUR AND TOP OF CONCRETE (SLAB THICKNESS) SURROUNDING THE HOLDOWN ANCHOR SHALL NOT EXCEED 4" WHERE "SIMPSON" SSTB OR "USP" STB TYPE ANCHORS ARE USED. SEE DET. 15 / SD1 FOR HOLDOWN POST CONNECTION AND OTHER REQUIREMENTS.
2. "SIMPSON" N16 FASTENERS (16 d "SHORTS") OR "SIMPSON" SS16D FASTENERS MAY BE USED IN LIEU OF 16d COMMONS.
3. 16d SINKERS (0.148" DIA.) MAY BE USED IN LIEU OF 10d COMMON NAILS
4. 5 /8" Ø SSTB MAY BE SUBSTITUTED FOR 3 /4" Ø THREADED ROD ANCHOR BOLT PROVIDED A DOUBLE WASHER IS INSTALLED BELOW NUT.
5. SEE THE MOST RECENT "SIMPSON" (CATALOG EDITION FOR WOOD SCREW FASTENER INFORMATION.
6. THE FOLLOWING HOLDOWN SUBSTITUTIONS MAY BE USED AT CONTRACTOR DISCRETION: HTT5 FOR STHD10 OR LSTHD10, HTT5 FOR STHD14 OR LSTHD14. HTT5 FOR HDU4 OR HDU5
7. FLOOR-FLOOR STRAP TYPE HOLDOWN (NOT TO BE INSTALLED IN CONCRETE), PROVIDE LONGER STRAP AS NEEDED TO EXTEND TO SIDE GRAIN OF FASTENING MEMBER (END GRAIN NAILING NOT ALLOWED). LENGTH OF STRAP IS TO BE SUFFICIENT TO ACCOMODATE 1 / 2 OF THE NUMBER OF FASTENERS PER SCHEDULE IN TO THE FASTENING MEMBERS AT EACH END OF THE STRAP (# OF FASTENERS SPECIFIED ON SCHEDULE IS THE TOTAL REQUIRED FOR EACH STRAP.)
8. HDC ANCHOR BOLT IS TO ALIGN DIRECTLY UNDER HOLDOWN POST SEE SIMPSON CATALOG FOR MORE INFORMATION
9. A SINGLE "SIMPSON" CS16 OR "USP" RS150 STRAP SHALL BE ATTACHED TO A MINIMUM OF ONE 2x OR GREATER HOLDOWN POST. FOR DOUBLE CS16 OR RS150 STRAP, EACH STRAP SHALL ATTACH TO SINGLE 2x OR GREATER AND STRAPS SHALL NOT BE STACKED.
10. "MIN. STEM WIDTH" IS THE MINIMUM THICKNESS OF CONCRETE STEM WALL OR CURB WHERE THE HOLDOWN ANCHOR IS INSTALLED. ANCHOR.
11. INDICATES STRAP TYPE FOUNDATION HOLDOWN - SEE DET. 3 / SN3. 6" STEM WIDTH @ STHD10 & STHD14 HOLDOWNS IS ALLOWED. PROVIDED THAT A #4 HAIRPIN IS INSTALLED PER 3 / SN3.



SECTION A - A

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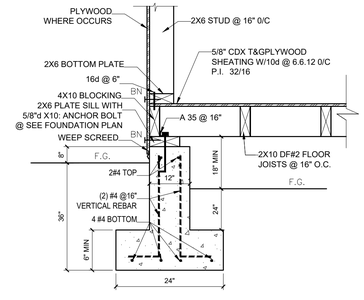

SECTION B - B

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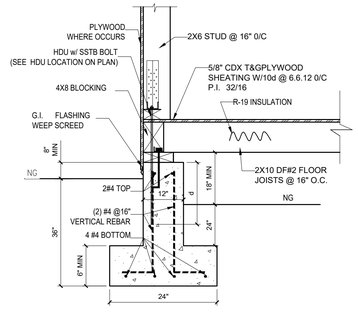
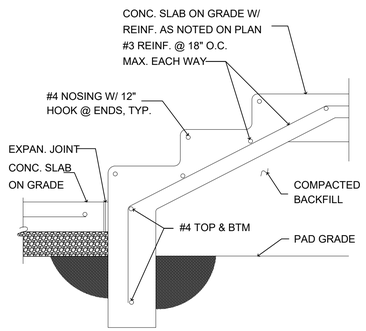


SECTION A-A (HOLDOWN)

NTS



SECTION C

CONCRETE STAIRWAY ON GRADE

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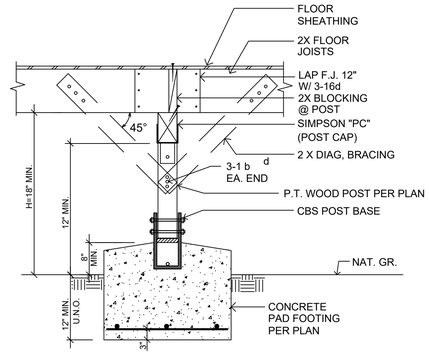

FOOTING PAD

SCALE: NTS

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FOUNDATION AND FRAMING PLAN

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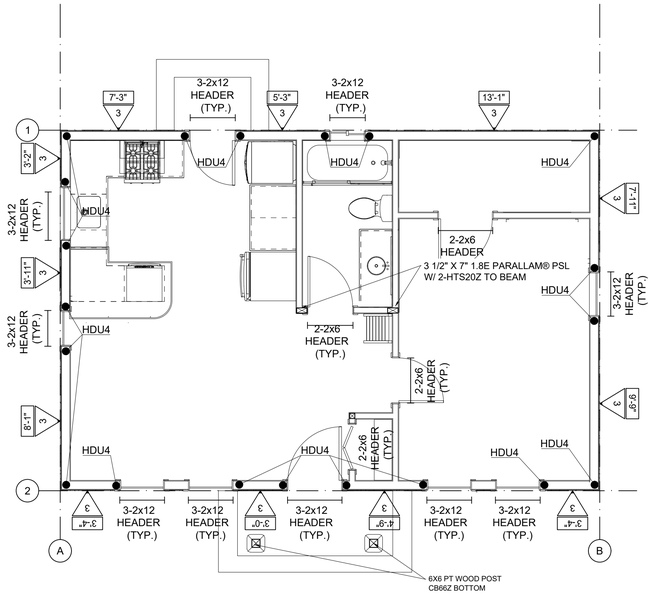
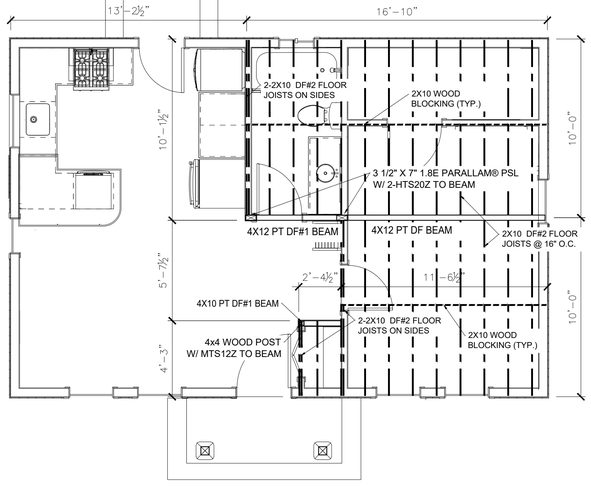


1 FIRST FLOOR SHEAR-WALLS PLAN

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



2 LOFT FRAMING PLAN

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

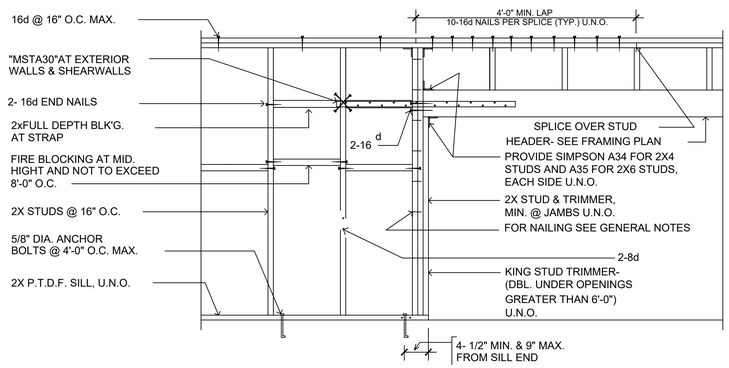
NOTES:

1. "MINIMUM MEMBER THICKNESS @ PANEL SEAM" REFERS TO FRAMING MEMBERS, INCLUDING PLATE AND BLOCKING, WHICH RECEIVE EDGE NAILING FROM ADJACENT PANELS.
2. 3x PLATES: USE 3x PLATES 5/8" DIAMETER ANCHOR BOLTS & 3"x3"x0.229" PLATE WASHERS AT ALL SHEAR WALL LOCATION
3. LTP4 FRAMING CLIPS: LTP4 CLIPS MAY BE USED IN PLACE OF A35 CLIPS SHOWN IN SCHEDULE WERE LOCATION OF RIM OR BLOCKS ABOVE DOUBLE TOP PLATE ALLOWS. USE ONE LTP4 FOR EACH A35 CLIP.

SHEAR WALL SYMBOL

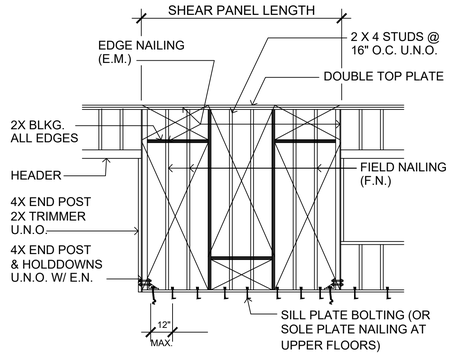
SHEAR WALL LENGTH — 5'-7"

SHEAR WALL TYPE — 1



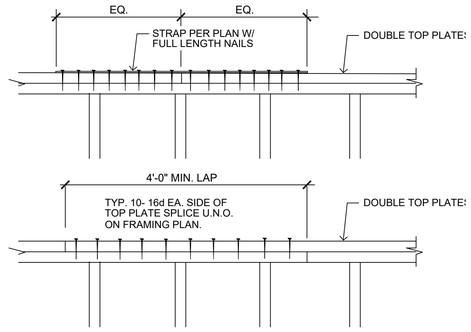
3 TYP. WOOD STUD WALL FRAMING

SCALE: 1"=1'-0"



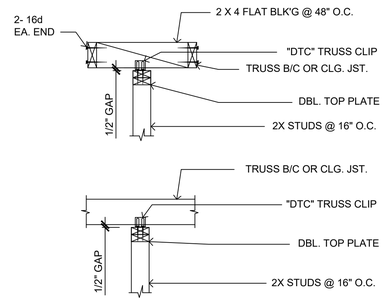
4 TYP. SHEAR WALL LAYOUT

SCALE: 1"=1'-0"



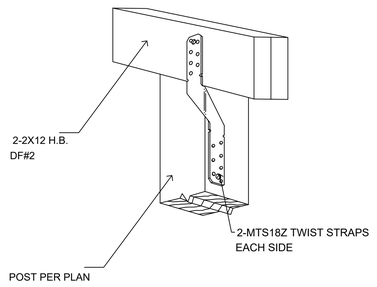
5 TYPICAL PLATE SPLICE DET.

SCALE: 1"=1'-0"



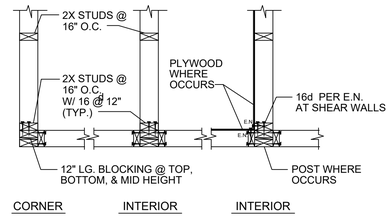
6 TYP. DET. @ NON BEARING WALLS

SCALE: 1"=1'-0"



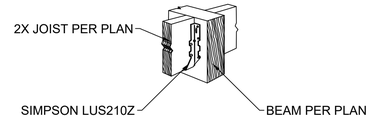
7 COLUMN TO HIP BEAM CONNECTION

SCALE: 1"=1'-0"



8 TYPICAL STUD WALL INTERSECTION

SCALE: 1"=1'-0"



9 JOIST AND BEAM CONNECTION DETAIL

SCALE: 1"=1'-0"

PixelArch ltd.
US Office:
4525 Carpinteria Ave # 636, Carpinteria CA 93014
Canada Office
3313 Plateau Blvd. Coquitlam BC V3E 3B8
+1 909 939 2585 info@pixelarchltd.com
www.pixelarchltd.com

Project Name and Address:

REMODEL AND ADU ADDITION FOR
CUONG NGUYEN
1651 PARKSIDE AVE. SAN JOSE, CA 95125

Date:

Scale:

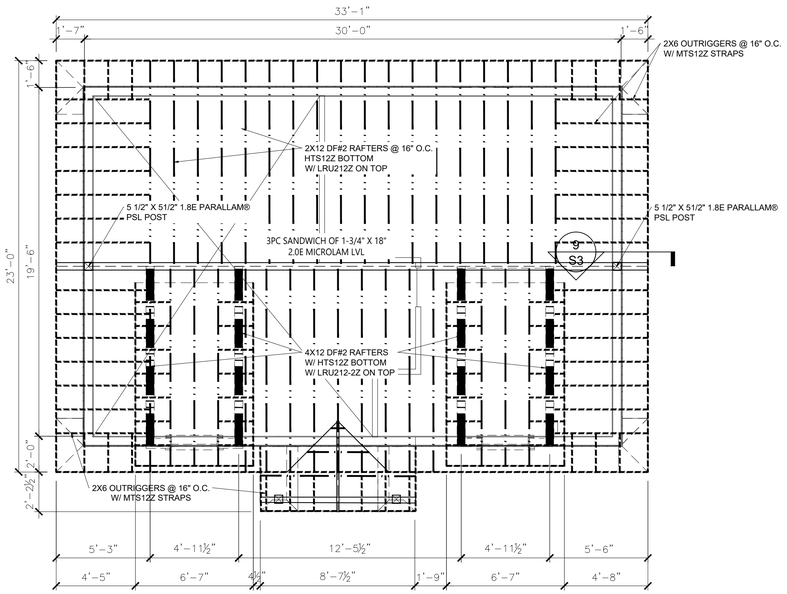
DRAWING TITLE:
SHEAR-WALLS & MEZZANINE PLANS

Sheet :

Page No. :

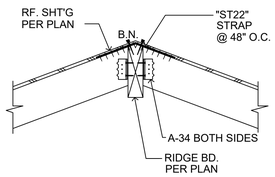
S.002

No.	Revision/Issue	Date
1		
2		
3		
4		



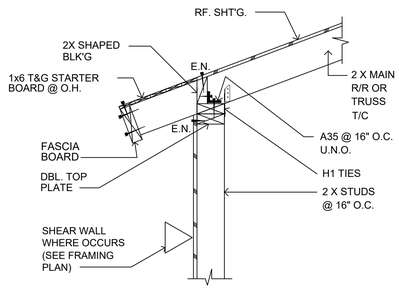
1 ROOF FRAMING PLAN

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



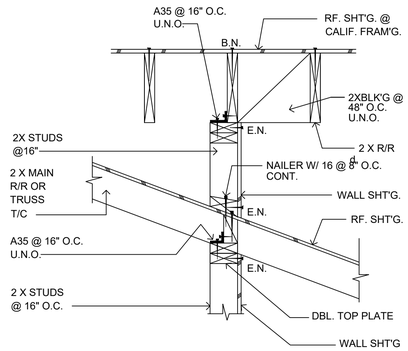
2 TYP. RIDGE CONNECTION

SCALE: 1"=1'-0"



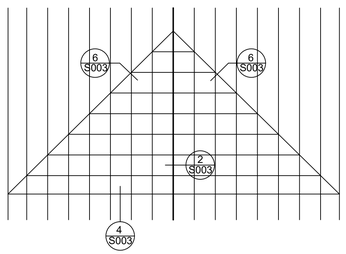
3 SHEAR TRANSFER

SCALE: 1"=1'-0"



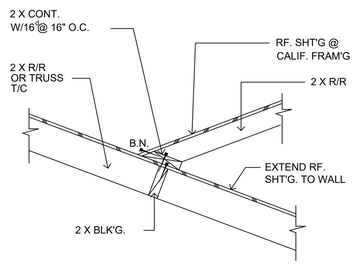
4 CALIF. FRAM'G (PLAN VIEW)

SCALE: 1"=1'-0"



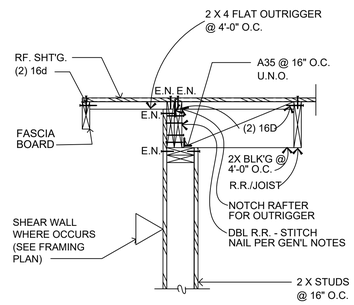
5 CALIF. FRAM'G (PLAN VIEW)

SCALE: 1"=1'-0"



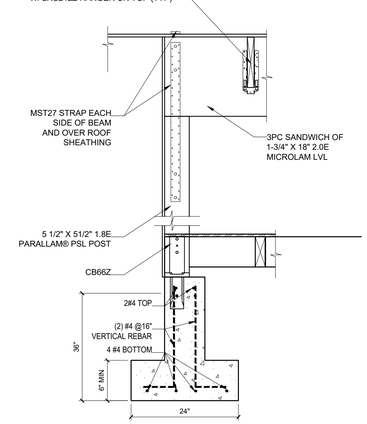
6 CALIF. FRAM'G (PLAN VIEW)

SCALE: 1"=1'-0"



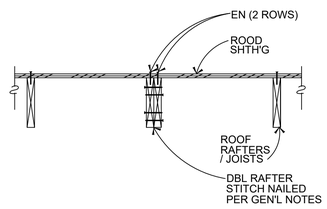
7 ROOF FRAMING @ RAKE WALL

SCALE: 1"=1'-0"



9 RIDGE BEAM TO POST DETAIL

SCALE: 3/4"=1'-0"



8 ROOF DIAPHRAGM NAILING

SCALE: 1"=1'-0"

PixelArch ltd.

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www.pixelarchltd.com

Project Name and Address:

REMODEL AND ADU ADDITION FOR
CUONG NGUYEN
1651 PARKSIDE AVE. SAN JOSE, CA 95125

Date:

Scale:

DRAWING TITLE:
ROOF FRAMING PLAN

Sheet :

Page No. :

S.003

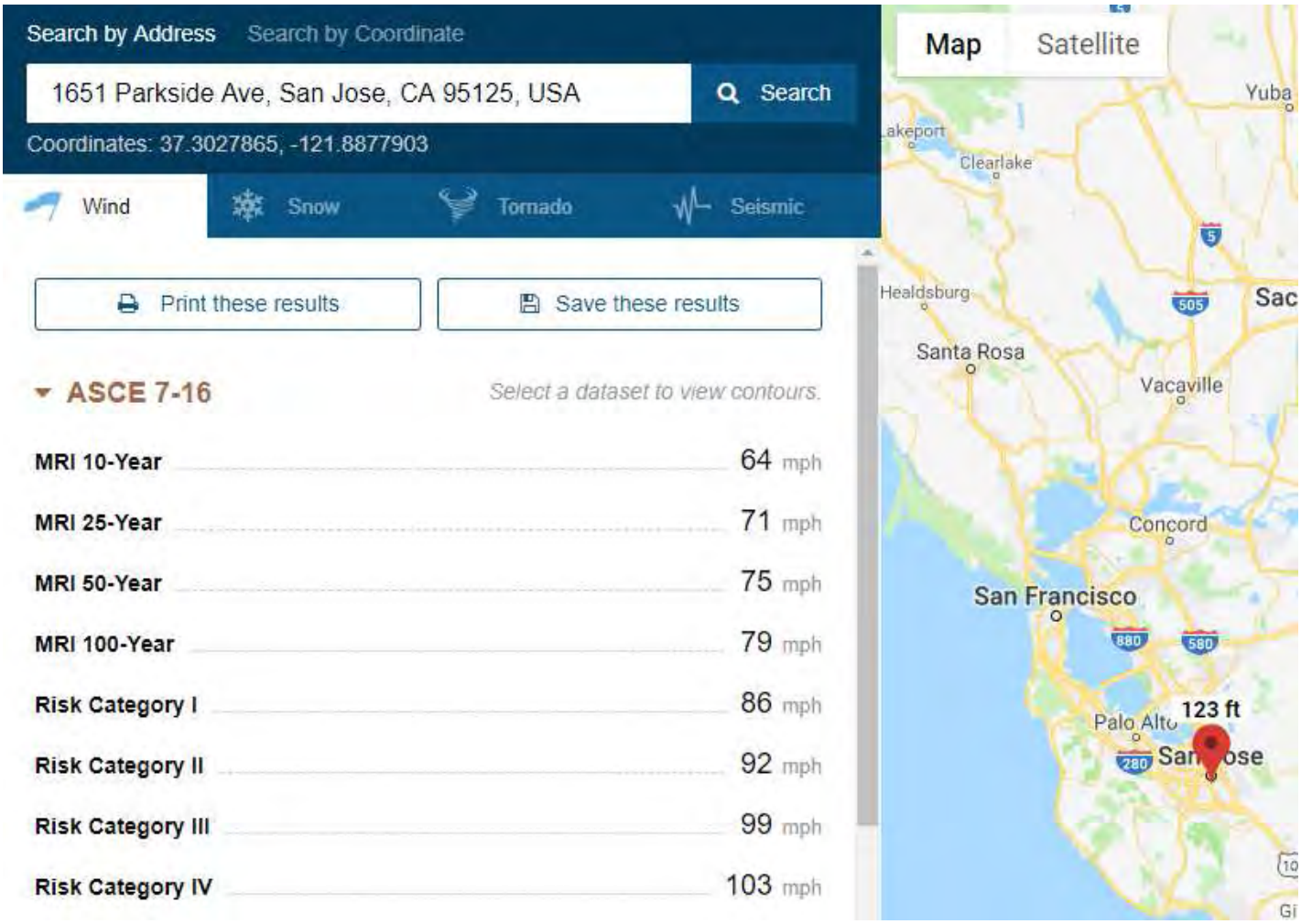
No.	Revision/Issue	Date
1		
2		
3		
4		

DESIGN CODE:

1. 2016 CBC

DESIGN LOADS:

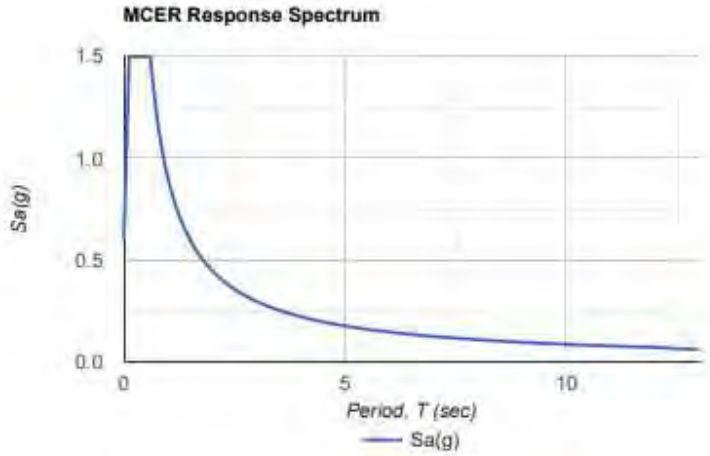
1. Floor live load: 40 psf
2. Floor dead load: 15 psf
3. Roof dead load: 12 psf
4. Roof live load: 20 psf
5. Wind load : 10 psf roof 24psf wall
6. Ceiling dead load: 5 psf
6. Ex Wall DD = 12psf
7. In. Wall DD = 8psf
8. Concrete 145pcf

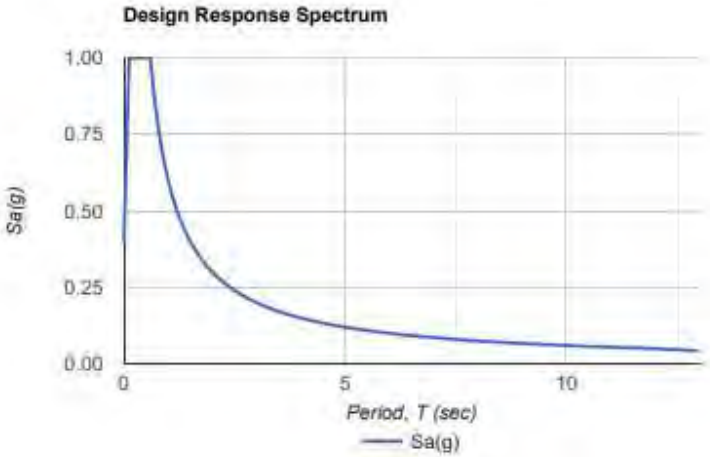


Date	5/9/2019, 6:40:53 PM
Design Code Reference Document	ASCE7-10
Risk Category	II
Site Class	D - Stiff Soil

Type	Value	Description
S_S	1.5	MCE_R ground motion. (for 0.2 second period)
S_1	0.6	MCE_R ground motion. (for 1.0s period)
S_{MS}	1.5	Site-modified spectral acceleration value
S_{M1}	0.9	Site-modified spectral acceleration value
S_{DS}	1	Numeric seismic design value at 0.2 second SA
S_{D1}	0.6	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	D	Seismic design category
F_a	1	Site amplification factor at 0.2 second
F_v	1.5	Site amplification factor at 1.0 second
PGA	0.5	MCE_G peak ground acceleration
F_{PGA}	1	Site amplification factor at PGA
PGA_M	0.5	Site modified peak ground acceleration
T_L	12	Long-period transition period in seconds
SsRT	2.129	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	1.887	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	1.5	Factored deterministic acceleration value. (0.2 second)
S1RT	0.747	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.7	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
S1D	0.6	Factored deterministic acceleration value. (1.0 second)
PGAd	0.5	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	1.126	Mapped value of the risk coefficient at short periods
C_{R1}	1.068	Mapped value of the risk coefficient at a period of 1 s





DETERMINATION OFF HOUSE FLOOR JOIST

FORTE MEMBER REPORT *Level, Floor: Joist* **PASSED**

1 piece(s) 2 x 8 Douglas Fir-Larch No. 2 @ 16" OC

Overall Length: 10' 9"

All locations are measured from the outside face of left support (or left cantilever end).All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	415 @ 10' 6 1/2"	2109 (2.25")	Passed (20%)	–	1.0 D + 1.0 L (All Spans)
Shear (lbs)	352 @ 1' 3/4"	1305	Passed (27%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	1034 @ 5' 5 1/2"	1360	Passed (76%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.168 @ 5' 5 1/2"	0.254	Passed (L/725)	–	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.252 @ 5' 5 1/2"	0.508	Passed (L/484)	–	1.0 D + 1.0 L (All Spans)
TJ-Pro™ Rating	N/A	N/A	--	–	--

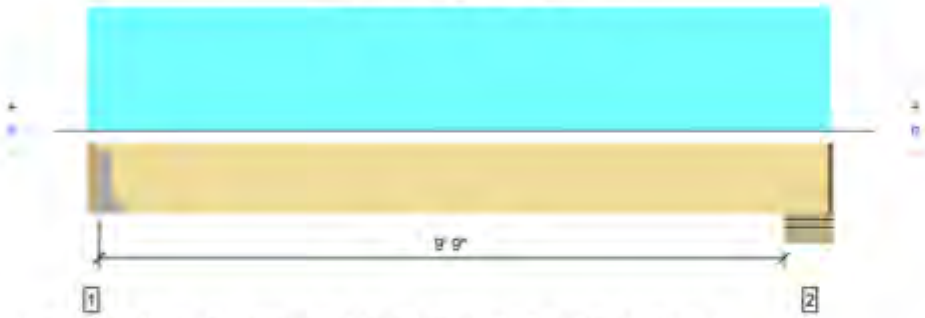
System : Floor
Member Type : Joist
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

DETERMINATION OFF MEZZANINE FLOOR JOIST

FORTE MEMBER REPORT *Level, Floor: Joist* **PASSED**

1 piece(s) 2 x 8 Douglas Fir-Larch No. 2 @ 16" OC

Overall Length: 11' 2 1/2"



All locations are measured from the outside face of left support (or left cantilever end).All dimensions are horizontal.

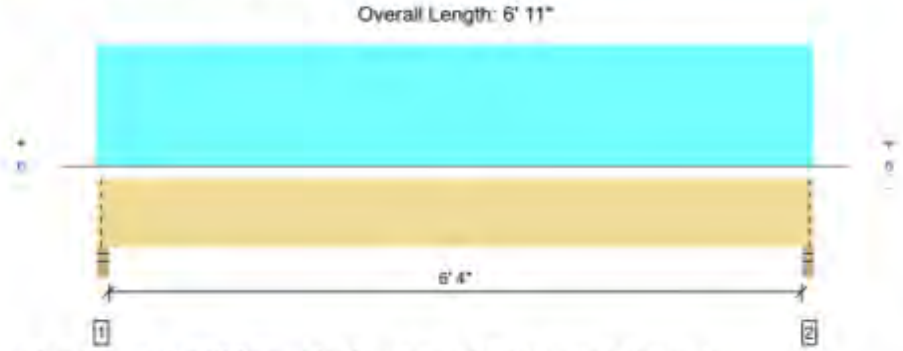
Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	295 @ 3 1/2"	1406 (1.50")	Passed (21%)	–	1.0 D + 1.0 L (All Spans)
Shear (lbs)	259 @ 10 3/4"	1305	Passed (20%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	725 @ 5' 2 1/2"	1360	Passed (53%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.110 @ 5' 2 1/2"	0.246	Passed (L/999+)	–	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.166 @ 5' 2 1/2"	0.492	Passed (L/713)	–	1.0 D + 1.0 L (All Spans)
TJ-Pro™ Rating	N/A	N/A	--	–	--

System : Floor
Member Type : Joist
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

DETERMINATION OFF HOUSE FLOOR BEAM

FORTE MEMBER REPORT *Level, Floor: Drop Beam* **PASSED**

1 piece(s) 4 x 10 Douglas Fir-Larch No. 2



All locations are measured from the outside face of left support (or left cantilever end).All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	2103 @ 2"	5206 (3.50")	Passed (40%)	–	1.0 D + 1.0 L (All Spans)
Shear (lbs)	1457 @ 1' 3/4"	3885	Passed (38%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	3295 @ 3' 5 1/2"	4492	Passed (73%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.046 @ 3' 5 1/2"	0.219	Passed (L/999+)	–	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.070 @ 3' 5 1/2"	0.329	Passed (L/999+)	–	1.0 D + 1.0 L (All Spans)

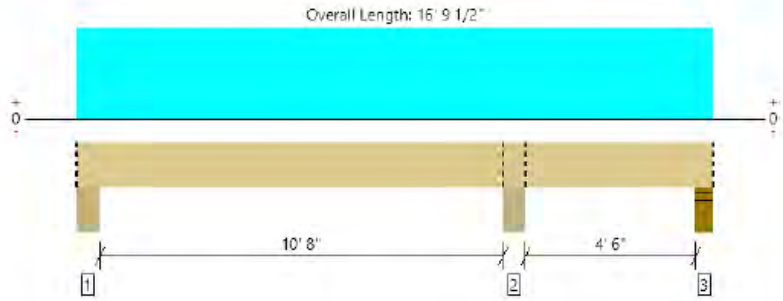
System : Floor
Member Type : Drop Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

DETERMINATION OFF MEZZANINE FLOOR BEAM

FORTE WEB MEMBER REPORT **PASSED**

Level, Floor: Drop Beam

2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	5805 @ 11' 6 1/2"	18375 (7.00")	Passed (32%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	2813 @ 10' 5 3/4"	6151	Passed (46%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	-5892 @ 11' 6 1/2"	11204	Passed (53%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.147 @ 5' 6 7/16"	0.369	Passed (L/908)	--	1.0 D + 1.0 L (Alt Spans)
Total Load Defl. (in)	0.243 @ 5' 6 1/8"	0.554	Passed (L/546)	--	1.0 D + 1.0 L (Alt Spans)

System : Floor
Member Type : Drop Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Top Edge Bracing (Lu): Top compression edge must be braced at 16' 10" o/c unless detailed otherwise.
- Bottom Edge Bracing (Lu): Bottom compression edge must be braced at 16' 10" o/c unless detailed otherwise.
- -557 lbs uplift at support located at 16' 5 1/2". Strapping or other restraint may be required.

DETERMINATION OF RIDGE BEAM

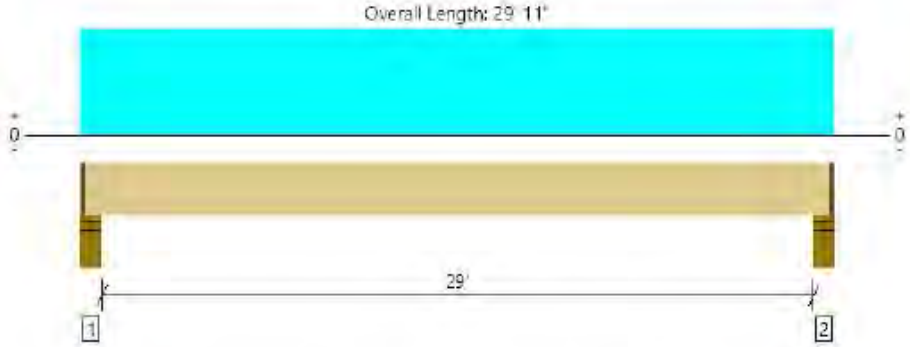
FORTE WEB

MEMBER REPORT

PASSED

Level, Roof: Flush Beam

3 piece(s) 1 3/4" x 18" 2.0E Microllam® LVL



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	6351 @ 4"	13945 (4.25")	Passed (46%)	--	1.0 D + 1.0 Lr (All Spans)
Shear (lbs)	5558 @ 1' 11 1/2"	22444	Passed (25%)	1.25	1.0 D + 1.0 Lr (All Spans)
Moment (Ft-lbs)	45726 @ 14' 11 1/2"	72662	Passed (63%)	1.25	1.0 D + 1.0 Lr (All Spans)
Live Load Defl. (in)	0.672 @ 14' 11 1/2"	0.975	Passed (L/523)	--	1.0 D + 1.0 Lr (All Spans)
Total Load Defl. (in)	1.436 @ 14' 11 1/2"	1.462	Passed (L/244)	--	1.0 D + 1.0 Lr (All Spans)

System : Roof
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD
Member Pitch : 0/12

- Deflection criteria: LL (L/360) and TL (L/240).
- Top Edge Bracing (Lu): Top compression edge must be braced at 7' 10" o/c unless detailed otherwise.
- Bottom Edge Bracing (Lu): Bottom compression edge must be braced at 29' 9" o/c unless detailed otherwise.

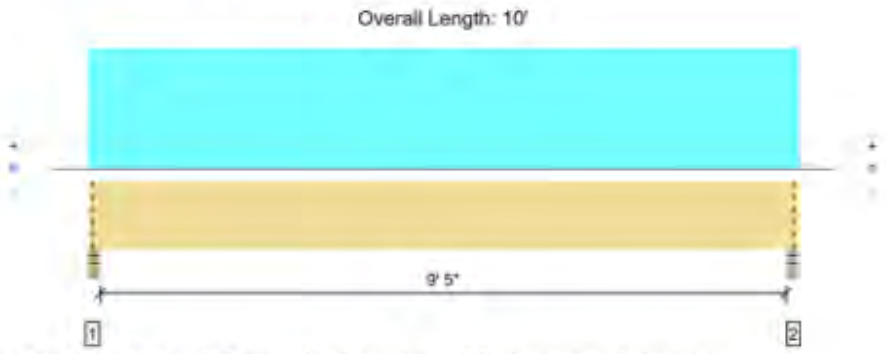
DETERMINATION OF DORMER BEAM

FORTE

MEMBER REPORT *Level, Roof: Drop Beam*

PASSED

1 piece(s) 4 x 10 Douglas Fir-Larch No. 2



All locations are measured from the outside face of left support (or left cantilever end).All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	871 @ 2"	5206 (3.50")	Passed (17%)	-	1.0 D + 1.0 Lr (All Spans)
Shear (lbs)	686 @ 1' 3/4"	4856	Passed (14%)	1.25	1.0 D + 1.0 Lr (All Spans)
Moment (Ft-lbs)	2035 @ 5'	5615	Passed (36%)	1.25	1.0 D + 1.0 Lr (All Spans)
Live Load Defl. (in)	0.035 @ 5'	0.322	Passed (L/999+)	-	1.0 D + 1.0 Lr (All Spans)
Total Load Defl. (in)	0.093 @ 5'	0.483	Passed (L/999+)	-	1.0 D + 1.0 Lr (All Spans)

System : Roof
Member Type : Drop Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD
Member Pitch: 0/12

DETERMINATION OF WOOD POST

FORTE

MEMBER REPORT *Level, Free Standing Post*

1 piece(s) 3 1/2" x 7" 1.8E Parallam® PSL

PASSED

Post Height: 10'

Design Results	Actual	Allowed	Result	LDF	Load: Combination [Load Group]
Slenderness	34	50	Passed (69%)	--	--
Compression (lbs)	9474	15387	Passed (62%)	1.60	1.0 D + 0.45 W + 0.75 L + 0.75 Lr [1]
Base Bearing (lbs)	9474	793800	Passed (1%)	--	1.0 D + 0.45 W + 0.75 L + 0.75 Lr [1]
Bending/Compression	0.66	1	Passed (66%)	1.00	1.0 D + 1.0 L [1]

- Axial load eccentricity for this design is 1/6 of applicable member side dimension.
- Applicable calculations are based on NDS.

Supports	Type	Material
Base	Plate	Steel

Max Unbraced Length	Comments
Full Member Length	No bracing assumed.

Member Type : Free Standing Post
Building Code : IBC 2015
Design Methodology : ASD

Drawing is Conceptual

Vertical Load	Dead (0.90)	Floor Live (1.00)	Roof Live (non-snow: 1.25)	Wind (1.60)	Comments
1 - Point (lb)	20	80	0	0	
2 - Point (lb)	720	1383	0	0	Linked from: Floor: Drop Beam, Support 1
3 - Point (lb)	1444	3380	0	0	Linked from: Floor: Drop Beam, Support 2
4 - Point (lb)	1678	0	1949	1150/-70	Linked from: Roof: Flush Beam, Support 3

DETERMINATION OF FOOTING BELLOW COLUMN

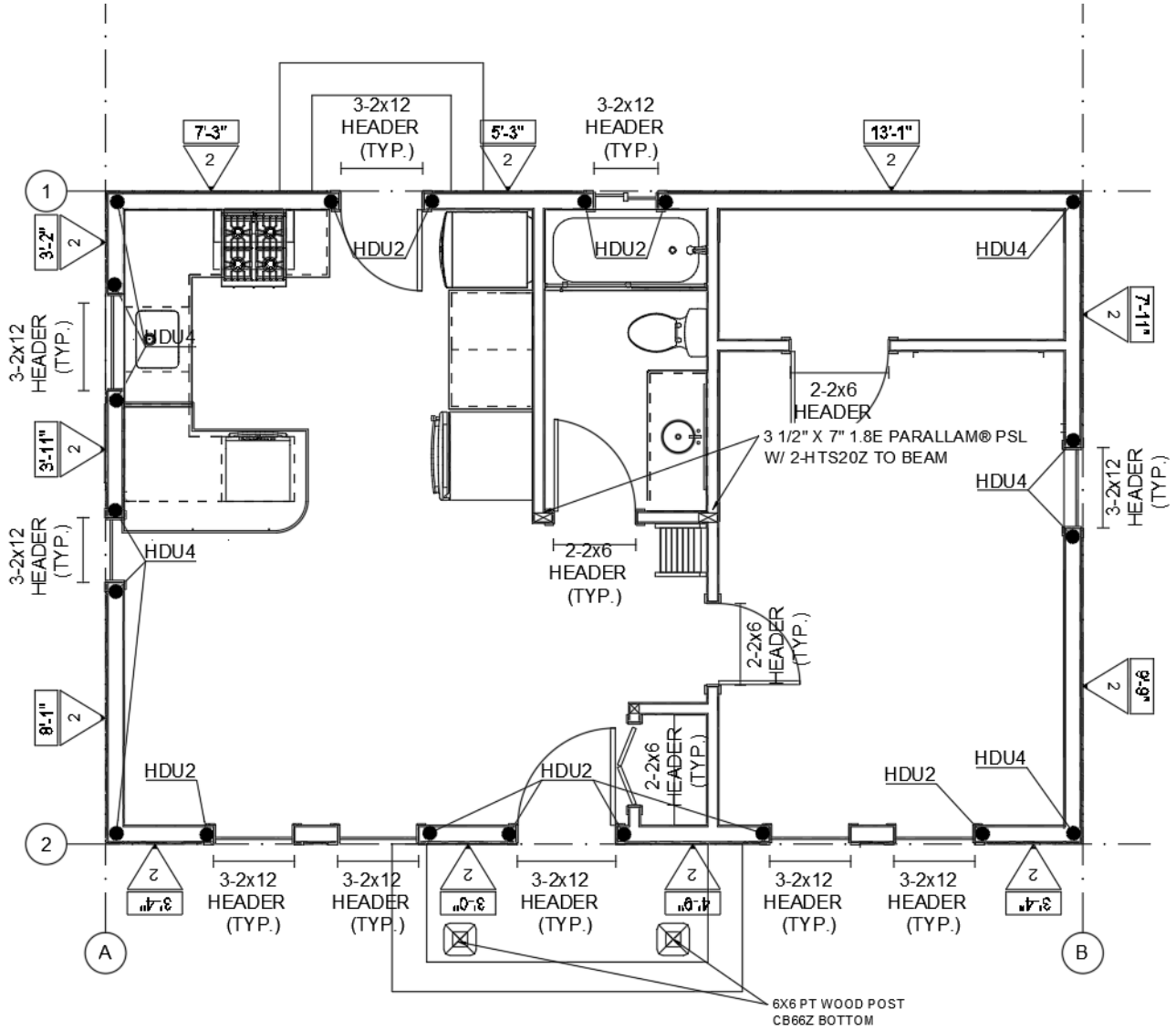
COLUMN REACTION – 11,804

11804/1500=7,86 SF < 9 SF

We use footing 3x3x12"H.

DETERMINATION OF FOOTING BELLOW WALL

Lateral Analysis



Wind loads analysis

	Type of plywood Table 4.3A						Anchor capacity					
	6.0		4.0		3.0		HDU2 SDS2.5	HDU4 SDS2.5	HDU5 SDS2.5	HDU8 SDS2.5	HDU11 SDS2.5	HDU
15/32 8d 1-3/8	730.0		1065.0		1370.0		3075.0	4565.0	5645.0	6765.0	9535.0	1077
	365.0		532.5		685.0					6970.0	11175.0	1439
15/32 10d 1-1/2	870.0		1290.0		1680.0					7870.0		1444
	435.0		645.0		840.0							
19/32 10d 1-1/2	950.0		1430.0		1860.0							
	475.0		715.0		930.0							

Ground Floor
Axe 1

Wall wind Load	24.0	PSF																	
Roof wind load	16.7	PSF																	
	b		h																
Wall area	14.0	x	9.0	/	1.0	=	126.0	SQ.FT.											
Roof area	0.0	x	0.0	/	2.0	=	0.0	SQ.FT.											
Shear wall length	25.0	ft																	

Wind pressure per line foot =	(	126.0	x	24.0	+	0.0	x	16.7	)/	25.0	=	**121.0**	<	**520**					

Anchor bolt calculation																			
Wall height	8.0																		
Roof height/2	0.0																		
Uplift F=(	126.0	x	24.0	x	8.0	+	0.0	x	16.7	x(	8.0	+	0.0	)/	25.0	=	**9**		

We use HDU2 ANCHOR

Axe 2

Wall wind Load	24.0	PSF																	
Roof wind load	16.7	PSF																	
	b		h																
Wall area	14.0	x	9.0	/	1.0	=	126.0	SQ.FT.											
Roof area	10.0	x	0.0	/	1.0	=	0.0	SQ.FT.											
Shear wall length	14.0	ft																	

Wind pressure per line foot =	(	126.0	x	24.0	+	0.0	x	16.7	)/	14.0	=	**216.0**	<	**520**					

Anchor bolt calculation																			
Wall height	8.0																		
Roof height/2	0.0																		
Uplift F=(	126.0	x	24.0	x	8.0	+	0.0	x	16.7	x(	8.0	+	0.0	)/	14.0	=	**17**		

We use HDU2 ANCHOR

Axe A

Wall wind Load	24.0		PSF																
Roof wind load	16.7		PSF																
	b		h																
Wall area						=	151.0	SQ.FT.											
Roof area				/	2.0	=	161.0	SQ.FT.											
Shear wall length	15.0	ft																	

Wind pressure per line foot

=	(	151.0	x	24.0	+	161.0	x	16.7	)/	15.0	=	**420.8**	<	**520**

Anchor bolt calculation	
Wall height	8.0
Roof height/2	5.0

Uplift F=(	151.0	x	24.0	x	8.0	+	161.0	x	16.7	x(	8.0	+	5.0	))/	15.0	=	42

We use HDU4 ANCHOR

Axe B

Wall wind Load	24.0		PSF						
Roof wind load	16.7		PSF						
	b		h						
Wall area				/	1.0	=	151.0	SQ.FT.	
Roof area				/	1.0	=	161.0	SQ.FT.	
Shear wall length	17.0	ft							

Wind pressure per line foot

=	(	151.0	x	24.0	+	161.0	x	16.7	)/	17.0	=	**371.3**	<	**520**

Anchor bolt calculation	
Wall height	8.0
Roof height/2	5.0

Uplift F=(	151.0	x	24.0	x	8.0	+	161.0	x	16.7	x(	8.0	+	5.0	))/	17.0	=	37

We use HDU4 ANCHOR

SEISMIC ANALYSIS

FORCE DISTRIBUTION

ROOF			
	ROOF WEIGHT	20	PSF
	PARTITION WEIGHT	5	PSF
	W TOTAL	25	PSF
2ND FLOOR			
	FLOOR WEIGHT	15	PSF
	PARTITION WEIGHT	5	PSF
	W TOTAL	25	PSF
	HEIGHT:	10	FT

2013 CBC / 2012 IBC, SEC. 1613; ASCE 7-10, SEC. 12.8

$V = 0.7 \times (C_s \times W) \times \rho$ R: 6.5 I: 1 SDC: D

$C_s = S_{ds}/(R/I)$ S1: 0.6 Sds: 1 Sd1: 0.6

Occ. Site

Cs= **0.1538** Cat: II Class: D

Check Constraints

Cs min = 0.044 * I * S_{DS}

Cs max = S_{D1} / T (R / I)

Cs min = **0.044**

For S_{D1}: $S_{D1} = 2/3 * S_{M1}$

ASCE 7-02 Eq. 9.4.1.2.5-2

$S_{M1} = Fv * S_1$ S_1 [a] = 0.6 S_{M1} = 1

ASCE 7-02 Eq. 9.4.1.2.4-2 Fv [a] = 1.5

S_{D1} = **0.600**

For T: $T = Cu * Ta$ Cu = 1.7 [a]

$Ta = C_T * hn^{3/4}$ C_T = 0.02 [a]

hn = 9

Ta = 0.104

T = **0.177**

Cs max = **0.5225**

Cs FINAL = **0.1538**

V = 0.7 x (Cs x W) x ρ = **0.14** **V=** **7**

wt ht wt*ht % F	WT	HT	WT*HT	%	F	V TOTAL

ROOF		25	9	225	1	4.69	4.69

HOLD DOWN CAPACITIES SHEAR WALL CAPACITIES

HDU2	HDU4	HDU5	HDU8	HDU11	HDU14	
2307	3425	4254	5904	7152	10835	lbs

SHEAR WALL DESIGN

TYPE 1	TYPE 2	TYPE 3	TYPE 4	
	280	430		lbs/ft
		860*		

SHEAR WALL DESIGN

Shear Line Level

	LENGTH	TRIBUTARY AREA	F FLR (SQ.xV)	F ADD	F TOTAL	V/FT	WALL	T/C	DL/FLR	T NET WALL DL	HDU
Line A	FT	SQ.FT	LBS	LBS	LBS	PLF	TYPE	LBS			
1ST	15.00	380.00	1782.20		1782.20	118.81	2	1188.13	80.00	588	HDU2
										WIND	HDU4
Line B											
1ST	17.00	380.00	1782.20		1782.20	104.84	2	1048.35	80.00	368	HDU2
										WIND	HDU4
Line 1											
1ST	25.00	380.00	1782.20		1782.20	71.29	2	712.88	80.00	-287	HDU2
Line 2											
1ST	14.00	380.00	1782.20		1782.20	127.30	2	1273.00	80.00	713	HDU2