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GENERAL NOTES

1. ALL EXTERIOR DOORS TO BE WEATHER STRIPPED.

2. ALL INTERIOR FINISHES, PAINT, WALL COVERING, WALL PANELING ETC. TO HAVE A MINIMUM FLAME SPREAD CLASSIFICATION OF 1 1 1 , AS PER TABLE 8-A, 8-B OF UBC 804 CODE, LATEST EDITION.

3. GUTTERS, DOWNSPOUTS AND FLASHING TO BE .027 GALVANIZED SHEET METAL.

4. ALL WORK SHALL CONFORM TO:
2022 CALIFORNIA RESIDENTIAL CODE
CALIFORNIA BUILDING CODE 2022 EDITION
CALIFORNIA MECHANICAL CODE 2022 EDITION
CALIFORNIA PLUMBING CODE 2022 EDITION
CALIFORNIA FIRE CODE 2022 EDITION
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CALIFORNIA GREEN BUILDING STANDARDS CODE 2022 EDITION
CALIFORNIA GREEN BUILDING STANDARDS CODE 2022 (CALGREEN)
SAN DIEGO BUILDING REGULATIONS 2022

ALL APPLICABLE REGULATIONS, ORDINANCES, OR SPECIAL PROVISIONS.

5. ONE WINDOW IN EACH SLEEPING ROOM SHALL PROVIDE A MIN OPERABLE AREA OF 5.7SF

6. 1.6 GAL MAX PER FLUSH AT TOILETS; 2.5 GPM MAX AT SHOWER HEAD; 2.2 GPM AT LAVITORY.

7. BATHROOM RECEPTACLE OUTLETS SHALL BE SUPPLIED BY AT EAST ONE 20AMP CIRUIT. SUCH CIRUITS SHALL HAVE NO OTHER OUTLETS.

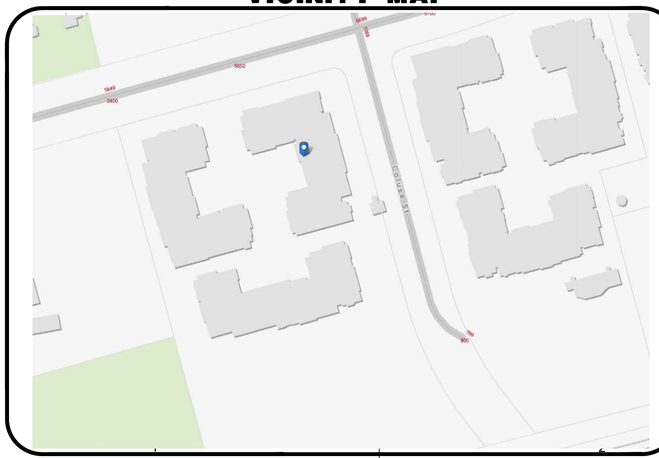
8. PROVIDE 5/8" TYPE 'X' GYP BOARD AT ALL WALLS , CEILING, POST & BEAM AT GARAGE - TAPE

PROJECT NOTES

NOTES
1) "DURING CONSTRUCTION, AT LEAST ONE EXTINGUISHER SHALL BE PROVIDED ON EACH FLOOR LEVEL AT EACH STAIRWAY, IN ALL STORAGE AND CONSTRUCTION SHEDS, IN LOCATIONS WHERE FLAMMABLE OR COMBUSTIBLE LIQUIDS ARE STORED OR USED, AND WHERE OTHER SPECIAL HAZARDS ARE PRESENT PER CFC SECTION 3315.1."
2) BUILDINGS UNDERGOING CONSTRUCTION, ALTERATION, OR DEMOLITION SHALL CONFORM TO CFC CHAPTER 33. WELDING, CUTTING, AND OTHER HOT WORK SHALL BE IN CONFORMANCE WITH CFC CHAPTER 35."
3) IN ACCORDANCE WITH CALIFORNIA BUILDING CODE 2021. THE EXIT DOORS SHALL BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT. EXIT DOORS SHALL NOT BE LOCKED, OR OTHERWISE RENDERED UNUSABLE. ALL LOCKING DEVISES SHALL BE OF AN APPROVED TYPE. EXCEPTION KEY-LOCKING DEVICES MAY BE USED ON THE MAIN EXIT ONLY IF A DURABLE SIGN ON OR ADJACENT TO THE FRONT DOOR STATING, "THIS DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS". THE SIGN SHALL BE IN LETTERS NOT LESS THAN ONE-INCH HIGH ON A CONTRASTING BACKGROUND. THE LOCKING DEVICE MUST BE OF A TYPE THAT WILL BE READILY DISTINGUISHABLE AS LOCKED. NO THUMB TURN LATCH OR KEYED CYLINDERS/DEADBOLTS ARE ALLOWED ON ANY OTHER DOORS UNLESS OPERATED BY A SINGLE ACTION WITH A LEVER ACTION.
4) A "KNOX-BOX" KEY SECURITY LOCK BOX IS REQUIRED FOR THIS PROJECT. FORMS FOR THIS BOX MAY BE OBTAINED FROM THE MONTEREY FIRE DEPARTMENT PRIOR TO FINAL OCCUPANCY SO THAT IT MAY BE INSTALLED IN TIME FOR FINAL INSPECTION OF THE COMPLEX. ALL BUILDINGS SHALL HAVE A PERMANENTLY POSTED ADDRESS, WHICH SHALL BE PLACED AT EACH DRIVEWAY ENTRANCE AND VISIBLE FROM BOTH DIRECTIONS OF TRAVEL ALONG THE ROAD. IN ALL CASES, THE ADDRESS SHALL BE POSTED AT THE BEGINNING OF CONSTRUCTION AND SHALL BE MAINTAINED THEREAFTER, AND THE ADDRESS SHALL BE VISIBLE AND LEGIBLE FROM THE ROAD ON WHICH THE ADDRESS IS LOCATED.
2. SIZE OF LETTERS, NUMBERS AND SYMBOLS FOR ADDRESSES SHALL BE A MINIMUM OF 3 INCH LETTER HEIGHT, 3/8 INCH STROKE, CONTRASTING WITH THE BACKGROUND COLOR OF THE SIGN. FIRE SPRINKLERS REQUIRED - THE RESIDENCE(S) SHALL BE PROTECTED WITH AUTOMATIC FIRE SPRINKLER SYSTEM(S). FIRE SPRINKLERS ARE REQUIRED IN ATTACHED GARAGES. INSTALLATION, APPROVAL, AND MAINTENANCE BE IN COMPLIANCE WITH APPLICABLE NATIONAL FIRE PROTECTION ASSOCIATION STANDARD 13D AND LOCAL AMENDMENTS, THE EDITION(S) OF WHICH SHALL BE DETERMINED BY THE ENFORCING JURISDICTION. PLANS FOR FIRE SPRINKLER SYSTEM(S) MUST BE SUBMITTED AND APPROVED PRIOR TO INSTALLATION. ROUGH-IN INSPECTIONS MUST BE COMPLETED PRIOR TO REQUESTING A FRAMING INSPECTION FROM THE BUILDING INSPECTION DEPARTMENT. FIRE ALARM FLOW SWITCH - SHALL BE WIRED TO THE KITCHEN REFRIGERATOR CIRCUIT. ANY DEVIATIONS REQUIRE APPROVAL FROM THE FIRE DEPARTMENT. ADDRESS NUMBERS TO BE POSTED - BEFORE CONSTRUCTION BEGINS, TEMPORARY OR PERMANENT ADDRESS NUMBERS SHALL BE POSTED. PERMANENT ADDRESS NUMBERS SHALL BE POSTED IN THE PROPERTY. ADDRESS NUMBERS (PERMANENT OR TEMPORARY) SHALL BE POSTED ON THE PROPERTY SO AS TO BE CLEARLY VISIBLE FROM THE ROAD. WHERE VISIBILITY CAN NOT BE PROVIDED, A POST OR SIGN BEARING THE ADDRESS NUMBERS SHALL BE SET ADJACENT TO THE DRIVEWAY OR ACCESS ROAD TO THE PROPERTY. ADDRESS NUMBERS POSTED SHALL BE "ARABIC" (1,2,3, ETC) NOT "ROMAN" (I,VI,X, ETC.) OR WRITTEN OUT IN WORDS. ADDRESS NUMBERS POSTED SHALL BE A MINIMUM NUMBER HEIGHT OF 3 INCHES, 3/8" INCH WIDE STROKE, AND CONTRASTING WITH THE BACKGROUND COLORS OF THE SIGN. NOTE: IF THE NUMBERS ARE NOT POSTED, BUILDING/FIRE INSPECTORS WILL NOT GRANT A FINAL INSPECTION. ROOFING CLASS "A" OR "B" REQUIRED - ROOF CONSTRUCTION SHALL BE CLASS "A" OR CLASS "B" IN BUILDUP, AS DEFINED BY UNIFORM BUILDING CODE STANDARD 15-2. THIS REQUIREMENT SHALL APPLY TO ALL NEW CONSTRUCTION AND WHEN 50 PERCENT OR MORE OF AN EXISTING ROOF IS REPLACED WITHIN A ONE-YEAR PERIOD. CLEAR VEGETATION - ALL FLAMMABLE VEGETATION OTHER COMBUSTIBLE GROWTH SHALL AT ALL TIMES MAINTAIN CLEAR DISTANCE OF NOT LESS THAN 30 FEET ON EACH SIDE FROM STRUCTURES OR BUILDINGS. THIS SHALL NOT APPLY TO SINGLE SPECIMENS OF TREES, ORNAMENTAL SHRUBBERY OR SIMILAR PLANTS USED AS GROUND COVERS, PROVIDED THAT THEY DO NOT FORM A MEANS OF RAPIDLY TRANSMITTING FIRE FROM THE NATIVE GROWTH TO AN STRUCTURE. ADDITIONAL FIRE PROTECTION OR FIREBREAK MAY BE REQUIRED WHEN, BECAUSE OF EXTRA HAZARDOUS CONDITIONS, A FIREBREAK OF ONLY 30 FEET AROUND SUCH STRUCTURE IS NOT SUFFICIENT TO PROVIDE REASONABLE FIRE SAFETY. ENVIRONMENTALLY SENSITIVE AREA MAY REQUIRE ALTERNATIVE FIRE PROTECTION, TO BE DETERMINED BY THE FIRE CHIEF AND DIRECTOR OF PLANNING AND BUILDING. THIS PROJECT REQUIRES FEET CLEARANCE. ACCESS DRIVEWAYS-GENERAL - ACCESS DRIVEWAYS SHALL BE ALL-WEATHER DRIVING SURFACE CAPABLE OF SUPPORTING FIRE APPARATUS (22 TONS) AND NOT LESS THAN 12 WIDE UNOBSTRUCTED WIDTH, A MINIMUM OF 13'0" OR 15'0" VERTICAL CLEARANCE, AND A MAXIMUM 15% GRADE. ON DRIVEWAYS AND ACCESS ROADS HAVING A SLOPE OF 8% OR MORE THE FINISH SURFACE SHALL BE A/C PAVING OR CONCRETE. EXCEPTION- WHEN BUILDING ARE PROTECTED BY AN APPROVED AUTOMATIC FIRE SPRINKLER SYSTEM, THE PROVISIONS OF THIS SECTION MAY BE MODIFIED, SUBJECT TO THE APPROVAL OF THE LOCAL JURISDICTION. DRIVEWAY TURN-OUT REQUIRED - DRIVEWAYS SHALL NOT BE LESS THAN 12 FEET WIDE UNOBSTRUCTED. ALL DRIVEWAYS EXCEEDING 150 FEET IN LENGTH, BUT LESS THAN 800 FEET IN LENGTH, SHALL PROVIDE A TURNOUT NEAR THE MIDPOINT OF THE DRIVEWAY. WHERE THE DRIVEWAY EXCEEDS 800 FEET, TURNOUTS SHALL BE PROVIDED AT NO GREATER THAN 400 FOOT INTERVALS. (SEE EXAMPLE 'A') ACCESS ROADWAYS-TURN AROUND REQUIRED - ALL DEAD-END ACCESS ROADS IN EXCESS OF 150 FEET IN LENGTH SHALL BE PROVIDED WITH APPROVED PROVISIONS FOR THE TURNING AROUND OF THE FIRE APPARATUS. (SEE EXAMPLE 'B') PRIVACY GATES - ELECTRIC GATES SHALL BE PROVIDED WITH A KEYED SWITCHED MEETING FIRE DEPARTMENT SPECIFICATIONS. MANUAL GATES SHALL BE PROVIDED WITH FIRE DEPARTMENT PADLOCKS MEETING FIRE DEPARTMENT SPECIFICATIONS. GATE ENTRANCES SHALL BE AT LEAST THE WIDTH OF THE TRAFFIC LANE, BUT IN CASE LESS THAN 12' WIDE. UNOBSTRUCTED VERTICAL CLEARANCE SHALL NOT BE LESS THAN 15'. BRIDGES - ALL NEW AND RECONSTRUCTED BRIDGES SHALL BE AT LEAST THE WIDTH OF THE EXISTING ROADBED AND BERMS BUT IN NO CASE LESS THAN 12 FEET WIDE. BRIDGE WIDTH ON ALL ROADS EXCEEDING TERTIARY STANDARDS SHALL NOT BE LESS THAN THE WIDTH OF TWO LANES WITH BERMS. ALL BRIDGES SHALL BE DESIGNED FOR HS 20-44 LOADING (STANDARD SPECIFICATION FOR HIGHWAY BRIDGES) AND HAVE GUARDRAILS. SETBACK FOR STRUCTURE DEFENSIBLE SPACE (30 FOOT) - ALL PARCELS 1 ACRE AND LARGER SHALL PROVIDE A MINIMUM 30-FOOT SETBACK FOR BUILDINGS AND ACCESSORY BUILDINGS FROM ALL PROPERTY LINES AND/OR THE CENTER OF THE ROAD. FOR PARCELS LESS THAN 1 ACRE, OR WHEN A 30 FOOT MINIMUM SETBACK CANNOT BE REACHED, ALTERNATE FUEL MODIFICATIONS STANDARDS MAY BE IMPOSED BY THE LOCAL FIRE JURISDICTION TO PROVIDE THE SAME PRACTICAL EFFECT MEASUREMENTS ALL MEASUREMENTS PROVIDED BY OWNER

CONDITIONS ADOPTED BY LOCAL GOVERNING AGENCIES.

VICINITY MAP



SYMBOLS

- WALL LINE — NUMBERS VERTICAL, LETTERS HORIZONTAL
- DOORS SYMBOL NUMBERS
- WINDOW TYPE-NUMBERS
- DETAIL — DETAIL IDENTIFICATION, SHEET WHERE DETAIL IS DRAWN
- SECTION — SECTION IDENTIFICATION, SHEET WHERE SECTION IS DRAWN
- ELEVATION — ELEVATION IDENTIFICATION, SHEET WHERE ELEVATION IS DRAWN
- ROOM IDENTIFICATION — ROOM NAME, NUMBER (OFFICE 001)
- REVISIONS-NUMBERS — CLOUD AROUND REVISION OPTIONAL
- MATCH LINE — (98) DESIGNATION IS THE SIDE CONSIDERED
- 100 WORK POINT — CONTROL OR DATUM POINT
- GRADE — NEW OR FINISHED GRADE AT EXTERIOR, FINISH FLOOR ELEVATION AT INTERIOR (EXISTING GRADE)
- * SECURITY IDENTIFICATION
- PROPERTY LINE
- CENTER LINE
- F.O.S FACE OF STUD OR FINISHED
- 0.00 FLOOR ELEVATION
- H-WALL HARDY WALL

MATERIALS

- EARTH
- SAND, MORTAR, PLASTER
- ROCK FILL
- CONCRETE
- BRICK
- CONCRETE BLOCK
- METAL
- WOOD, FINISH
- WOOD, FRAMING (THRU MEMBER)
- WOOD FRAMING (INTERRUPTED MEMBER)
- PLYWOOD
- GYPSUM BOARD (OMIT DOUBLE)
- INSULATION, BATT
- INSULATION RIGID
- CERAMIC TILE TILE PROFILE ONLY SHOWN

CONSULTANT DIRECTORY

PROJECT DIRECTORY

ENGINEER / ARCHITECT / DESIGNER:

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TITLE 24

TITILE 24 ENERGY COMPLIANCE STANDARD DOCUMENTATION: MANDATORY MEASURES CHECKLIST MAY NOT APPLY TO ALL PROJECTS.

1. MINIMUM R19 CEILING INSULATION.
2. LOOSE FILL INSULATION : MANUFACTURER'S LABELED R-VALUE.
3. MINIMUM R-13 WALL INSULATION IN FRAMED WALLS (DOES NOT APPLY TO EXTERIOR MASS WALLS.)
4. MINIMUM R-13 RAISED FLOOR INSULATION IN FRAMED FLOORS. MINIMUM R-8 IN CONCRETE RAISED FLOORS.
5. S LAB EDGE: WATER ABSORPTION RATE NO GREATER THAN 0.3%; WATER VAPOR TRANSMISSION RATE NO GREATER THAN 2.0 PERM/INCH.
6. INSULATION SPECIFIED OR INSTALLED MEETS CALIFORNIA ENERGY COMMISSION QUALITY STANDARDS.
7. FENESTRATION PRODUCTS, EXTERIOR DOORS AND INFILTRATION/ EXFILTRATION CONTROLS: -DOORS AND WINDOWS BETWEEN CONDITIONED AND UNCONDITIONED SPACES DESIGNED TO LIMIT AIR LEAKAGE. -MANUFACTURED FENESTRATION PRODUCTS HAVE LABEL WITH CERTIFIED U-VALUE, AND INFILTRATION CERTIFICATE. -EXTERIOR DOORS AND WINDOWS WEATHER STRIPPED; ALL JOINTS AND PENETRATIONS CAULKED AND SEALED.
8. VAPOR BARRIERS MANDATORY IN CLIMATE ZONES 14 AND 16 ONLY.
9. SPECIAL INFILTRATION BARRIER INSTALLED TO COMPLY WITH #151 MEETS COMMISSION QUALITY STANDARDS.
10. INSTALLATION OF FIREPLACES, DECORATIVE GAS APPLIANCES AND GAS LOGS: MASONRY AND FACTORY-BUILT FIREPLACES HAVE: -CLOSEABLE METAL OR GLASS DOOR -OUTSIDE AIR INTAKE WITH DAMPER CONTROL -FLUE DAMPER AND CONTROL NO CONTINUOUS BURNING GAS PILOTS ALLOWED
11. HVAC EQUIPEMENT, WATER HEATERS, SHOWERHEADS AND FAUCETS CERTIFIED BY COMMISSION.
12. SETBACK THERMOSTAT ON ALL APPLICABLE HEATING SYSTEMS.
13. PIPE AND TANK INSULATION: -INDIRECT HOT WATER TANKS (E.G. UNFIRED STORAGE TANKS, OR BACKUP SOLAR HOT WATER TANKS) HAVE INSULATION (R-12 OR GREATER) OR COMBINED INTERIOR/EXTERIOR INSULATION OF R-16 OR GREATER. -FIRST 5' OF PIPES CLOSEST TO WATER HEATER TANK, NON-RECIRCULATING SYSTEMS, INSULATED WITH R-4 OR GREATER. -ALL BURIED OR EXPOSED PIPING INSULATED IN RECIRCULATING SECTIONS OF HOT WATER SYSTEM. -COOLING SYSTEM PIPING BELOW 55 DEGREES F TO BE INSULATED. -PIPING INSULATED BETWEEN HEATING SOURCE AND HOT WATER TANK.
14. DUCTS CONSTRUCTED, INSTALLED AND SEALED TO COMPLY WITH UMC SECTIONS 1002 AND 1004; DUCTS INSULATED TO A MINIMUM INSTALLED VALUE OF R-4.2 OR DUCTS ENCLOSED ENTIRELY WITHIN CONDITIONED SPACE.
15. EXHAUST FAN SYSTEMS HAVE BACKDRAFT OR AUTOMATIC DAMPERS.
16. MECHANICAL VENTILATION SYSTEMS SERVING CONDITIONED SPACE HAVE EITHER AUTOMATIC OR READILY ACCESSIBLE MANUALLY OPERATED DOORS.
17. GAS FIRED CENTRAL FURNACE, POOL HEATER, SPA HEATER OR HOUSEHOLD COOKING APPLIANCE HAVE NO CONTINUOUSLY BURNING PILOT LIGHT. (EXCEPTION; NON-ELECTRICAL COOKING APPLIANCE WITH PILOT <150 BTU/HR.) 18. LIGHTING MEASURES: 40 LUMENS/WATT OR GREATER FOR GENERAL LIGHTING IN KITCHENS AND ROOMS WITH WATER CLOSETS; RECESSED CEILING FIXTURES IC (INSULATION COVER) APPROVED.

PROJECT DATA

PROJECT OWNER:	CHESTER HOWE
ADDRESS:	5605 FRIARS RD # 306, SAN DIEGO, CA 92110
YEAR BUILT:	1981
EMPLOYEE COUNT:	NA
OCCUPANCY GROUP (EXISTING):	GROUP B
OCCUPANCY GROUP (PROPOSED):	GROUP B
PROJECT DESCRIPTION:	CONDOMINIUM REMODEL
A.P.N.:	436611538
ZONING:	R-2
TYPE OF CONSTRUCTION (EXISTING):	SPRINKLERED
LOT NUMBER:	1
LEGAL DESCRIPTION:	US306PER DOC79-365511&UND INT IN LOT 1 TR 9084
ZONING ORDNANCE:	SAN DIEGO CITY

EXISTING AREA CALCULATIONS:

EXISTING LOT SIZE:	300,803 SQUARE FT.
EXISTING RESIDENCE TOTAL AREA:	854 SQ.FT.
EXISTING RESIDENCE AREA 1ST LEVEL:	854 SQ.FT.
EXISTING RESIDENCE AREA MAIN LEVEL	SQ.FT.
EXISTING GARAGE AREA SECOND LEVEL:	SQ.FT.
EXISTING DECKING:	SQ.FT.
EXISTING DECKING (COVERED):	SQ.FT.
EXISTING OUTBUILDINGS:	
EXISTING LANDSCAPING:	
EXISTING F.A.R.:	
LOT COVERAGE:	
LEVELS:	4

EXISTING WALL CALCULATIONS:

EXISTING EXTERIOR WALLS LENGTHS IN LINEAR FEET:

EXISTING CONCRETE CALCULATIONS:

CONCRETE DRIVEWAY:
CONCRETE WALKWAY:

PROPOSED AREA CALCULATIONS:

LOT 1	
PROPOSED AREA MAIN LEVEL JADU:	SQ.FT.
PROPOSED AREA FIRST LEVEL ADU:	SQ.FT.
LOT 2	SQ.FT.
PROPOSED AREA MAIN LEVEL RESIDENCE 1:	SQ.FT.
PROPOSED AREA FIRST LEVEL RESIDENCE 2:	SQ.FT.
PROPOSED AREA MAIN LEVEL ADU 1:	SQ.FT.
PROPOSED AREA FIRST LEVEL JADU 2:	SQ.FT.
PROPOSED 1ST FLOOR PORCH (UNDER 2ND FLOOR DECK):	% OF MAX FAR (IN SQ. FT.):
PROPOSED 2ND FLOOR DECKING:	.
PROPOSED FENCING:	
PROPOSED OUTBUILDINGS, LAUNDRY:	
PROPOSED F.A.R. MAX - FAR CALCULATION (IN SQ. FT.):	
PROPOSED LOT COVERAGE:	SQ.FT.
PROPOSED WALLS LENGTHS IN LINEAR FEET:	

PROPOSED WALL CALCULATIONS:

DEMO TWO WALLS	4'
INSTALL TWO WALLS	10'
DEMO PARTIAL WALL	1'-6"

PROPOSED SCOPE OF WORK TO INCLUDE:

1) ENLARGE CLOSET AND INSTALL NEW LIGHTING.
2) REMOVE PARTIAL KITCHEN WALL AND INSTALL NEW BREAKFAST BAR.
3) INSTALL NEW WASHER/DRYER COMBO (VENTLESS) WITH STANDARD 120V.

TOTAL AREA OF WORK:

KITCHEN	112.77 SQUARE FT., PERIMETER = 42'-5 15/16"10'
CLOSET	73.1076 SQUARE FT., PERIMETER = 34'-2 7/16"

ABBREVIATIONS

@ at
L angle
centerline
channel
number
d penny
⊥ perpendicular
PL plate
property line
round

ACC access
AP access panel
AC acoustical
ACPL acoustical plaster
ACT acoustical tile
ADR acrylic plastic
ADD addendum
ADH adhesive
ADJ adjacent
ADJT adjustable
AGG aggregate
A/C air conditioning
ALT alternate
AL aluminum
AB anchor bolt
ANOD anodized
APX approximate
ARCH architect(ural)
AD area drain
ASB asbestos
ASPH asphalt
AT asphalt tile
AUTO automatic

BSMT basement
BRG bearing
BPL bearing plate
BM bench mark
BETN between
BVL beveled
BIT bituminous
BLK block
BLKG blocking
BO board
BOT bottom
BRK brick
BLDG building
BUR built up roofing
BBD bulletin board

CAB cabinet
CPT carpet (ed)
CSMT casement
CI cast iron
CIPC cast-in-place concrete
CB catch basin
CK caulk(ing)
CLG ceiling
CEM cement
PCPL cement plaster (portland)
CER ceramic
CT ceramic tile
CHBD chalkboard
CHAM chamfer
CIR circle
CLR clear(ance)
CLS closure
COL column
COMB combination
COMPT compartment
COMPO compo(sition) (site)
CONC concrete
CMU concrete masonry unit
CONN connection
CONST construction
CONT continuous or continue
CONTR contractor)
CLL contract limit line
CJT control unit
CORR corrugated
CTF cut to fit
CTR counter
CFL counterflashing
CS countersink
CTSK countersunk screw
CRS course(s)

DPR damper
DP dampproofing
DL dead load
DEM demolish, demolition
DMT demountable
DEP depressed
DET detail
DIAG diagonal
DIA diameter
DIM dimension
DISP dispenser
DIV division
DR door
DH double hung
DTA dovetail anchor
DTS dovetail anchor slot
DS downspout
D drain
DRB drain board
DT drain tile
DWR drawer
DWG drawing
DF drinking fountain

EF each face
E east
ELEC electric(al)
EP electric panel board
EWC EWC electric water cooler
EL elevation
EMER emergency
ENCL enclose(ure)
EQ equal
EQPT equipment
EST estimate
EXCA excavate
EXH exhaust
EXGT existing
EB expansion bolt
EXPO exposed
EXT exterior

FB face brock
FOC face of concrete
FOF face of finish
FOM face of masonry
FOS face of study
FF factory fishish
FAS fasten, fastener
FN fence
FBD fiberboard
FGL fiberglass
FIN finish(ed)
FFE finished floor elevation
FFL finished floor line
FA fire alarm
FE fire extinguisher
FEC fire extinguisher cabinet
FHS fire hose station
FP fireproof

FRC fire-resistant coating
FRT fire retardant
FLG flashing
FHMS flathead machine screw
FLCO floor cleanout
FD floor drain
FLUR fluorescent
FJT flush joint
FTG footing
FND foundation
FR frame(d), (ing)
FRA fresh air
FS full size

FBO furnished by others
FUR furred(ing)
FUT future

GA gauge
GALV galvanized
GI galvanized iron
GP galvanized pipe
GSS galvanized steel sheet
GKT gasket (ed)
GC general contract(or)
GL glass, glazing
GB grab bar
GD grade, grading
GVL gravel

GPDW gypsum drywall

GPPL gypsum plaster

HW handhole
HBD hardboard
HDW hardware
HWD hardwood
HJT head joint
HDR header
HTG heating
HVAC heating/ventilating/air conditioning
HD heavy duty
HGT height
HX hexagonal
HC hollow core
HM hollow metal
HK hook(s)
HORIZ horizontal
HB hose bibb
HWH hot water heater

INCL include(d), (ing)
ID inside diameter
INT interior
INTM intermediate
INV invert
IPS iron pipe size

JT joint
JF joint filler
J joist

KCPL Keene's cement plaster
KPL kickplate
KIT kitchen
KO knockout

LBL label
LAB laboratory
LAD ladder
LB lag bolt
LAM laminate(d)
LAV lavatory
LH left hand
L length
LT light
LW lightweight
LWC lightweight concrete
LTL lintel
LL live load
LVR louver
LPT low point
MB machine bolt
MH manhole
MFR manufacture(r)
MAS masonry
MO masonry opening
MTL material(s)
MAX maximum
MECH mechanic(al)
MC medicine cabinet
MED medium

MET metal
MIN minimum
MIR mirror
MISC miscellaneous
MCD modular
MLD molding
MTD dount (ed), (ing)
MOV movable
MULL mullion

NAT natural
NR noise reduction
NRC noise reduction coefficient
NOM nominal
NIC not in contract
NTS not to scale

OBS obscure
CC on center(s)
OPG opening
OPP opposite
OPH opposite hand
OD outside diameter
OA overall
OH overhead

PNT paint (ed)
PNL panel
PB panic bar
PAR parellel
PK parking
PTN partition
PERF perforate(d)
PERI perimeter
PLAS plaster
PLAM plastic laminate
PL plate
PG plate glass
PWD plywood
PT point
PVC polyvinyl chloride
PSF pounds per square foot
PSI pounds per square inch
PCC precast concrete
PBF prefabricate(d)
PSC pre stressed concrete
QR quarry tile
RAD radius
REF reference
RLF reflect (ed), (ing)
REFR refrigerator
REG register
REINF reinforce (d), (ing)
RCP reinforced concrete pipe
REM remove
RESIL resilient
RET return
RA return air
REV revision(s), revise(d)
RH right hand
R riser
RD roof drain
RFH roof hatch
FRG roofing
RM room
RO rough opening
SFGL safety glass
SCH schedule
STG seating
SECT section
SFU save for future
SSK service sink

SHTH sheathing
SHT sheet
SIM similar
SKL skylight
SL sleeve
SC solid core
SD slope to drain
SP soundproof
SPEC specification (s)
SQ square

SST stainless steel
STD standard
STL steel
STOR storage
SD storm drain
STR structural
SUSP suspended
SYM symmetry(cal)
TKBD tackboard
TEL telephone
TV television
THK thick(ness)
TPTN toilet partition
T&G tongue and groove
TSL top of slab
TST top of steel
TW top of wall
T tread
TYP typical
TP toilet paper dispenser

UNF unfinished
UNO unless noted otherwise

VJ v-joint(ed)
VB vapor barrier
VAR varnish
VERT vertical
VG vertical grain
VAT vinyl asbestos tile
VIF verify in field

WC water closet
WP waterproofing
WR water repellent
WS water stop
WWF welded wire fabric
W width, wide
WIN window
WG wired glass
WM wire mesh
WO without
WD wood

APPROVED BY:

DATE:

_____

Firm Name and Address
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RESIDENTIAL COMMERICAL INDUSTRIAL
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License# 905815
SCAN ME

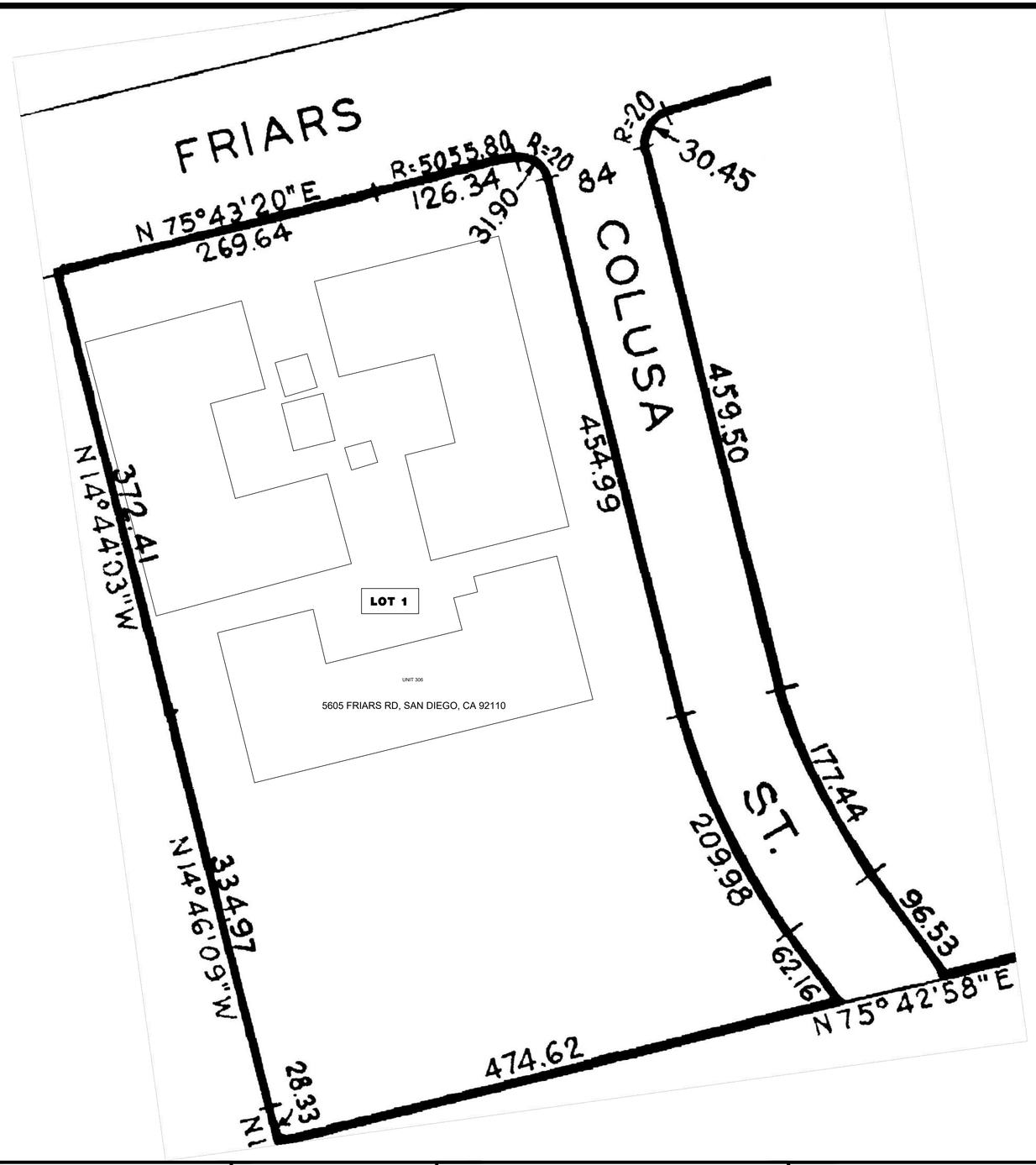
PROPOSED REMODEL FOR CHESTER HOWE
5605 FRIARS RD # 306, SAN DIEGO, CA 92110

Project Name and Address

SHEET TITLE
COVER SHEET

1	CLIENT REVIEW	6/21/2023
2	A.R.B.	
3	PLAN CHECK	
4	CORRECTIONS	
5	PERMIT	
6		
7		
No.	Revision/Issue	Date

Project 436611538
Date 06/2023
Scale
Sheet **CO**



BMP LEGEND

PDS 659 BROW DITCH

PDS 659 BERM

DIRECTION OF LOT DRAINAGE

MATERIALS & WASTE MANAGEMENT BMPs:

- WM-1 MATERIAL DELIVERY & STORAGE
- WM-4 SPILL PREVENTION AND CONTROL
- WM-8 CONCRETE WASTE MANAGEMENT
- WM-5 SOLID WASTE MANAGEMENT
- WM-9 SANITARY WASTE MANAGEMENT
- WM-6 HAZARDOUS WASTE MANAGEMENT

TEMPORARY RUNOFF CONTROL BMPs:

- SS-2 PRESERVATION OF EXISTING VEGETATION
- SS-3 BONDED OR STABILIZED FIBER MATRIX (WINTER)
- SS-4 HYDROSEEDING (SUMMER)
- SS-6 / SS-8 STRAW OR WOOD MULCH
- SS-7 PHYSICAL STABILIZATION (WINTER)
- SS-10 ENERGY DISSIPATOR
- SC-1 SILT FENCE
- SC-2 SEDIMENT / DESILTING BASIN
- SC-5 FIBER ROLLS
- SC-6 / SC-8 GRAVEL OR SAND BAGS
- SC-7 STREET SWEEPING AND VACUUMING
- SC-10 STORM DRAIN INLET PROTECTION
- NS-2 DEWATERING FILTRATION
- TC-1 STABILIZED CONSTRUCTION ENTRANCE
- TC-2 CONSTRUCTION ROAD STABILIZATION
- TC-3 ENTRANCE / EXIT TIRE WASH

POST-CONSTRCUTION SITE DESIGN BMPs

- 4.3.1 MAINTAIN NATURAL DRAINAGE PATHWAYS AND HYDROLOGIC FEATURES
- 4.3.2 CONSERVE NATURAL AREAS, SOILS, AND VEGITATION
- 4.3.3 MINIMIZE IMPERVIOUS AREA
- 4.3.4 MINIMIZE SOIL COMPACTION
- 4.3.5 IMPERVIOUS AREA DISPERSION
- 4.3.6 RUNOFF COLLECTION
- 4.3.7 LANDSCAPING WITH NATIVE OR DROUGHT TOLERANT SPECIES
- 4.3.8 HARVESTING AND USING PRECIPITATION

POST CONSTRUCTION SOURCE CONTROL BMPs

- 4.2.1 PREVENTION OF ILLICIT DISCHARGES INTO THE MS4
- 4.2.2 STORM DRAIN STENCILING AND POSTING OF SIGNAGE
- 4.2.3 PROTECTED OUTDOOR MATERIALS STORAGE AREAS
- 4.2.4 PROTECT MATERIALS STORED IN OUTDOOR WORK AREAS
- 4.2.5 PROTECT TRASH STORAGE AREAS
- 4.2.6 ADDNL BMPs BASED ON POTENTIAL RUNOFF POLLUTANTS:
  - A ON-SITE STORM DRAIN INLETS
  - B INTERIOR FLOOR DRAINS & ELEVATOR SHAFT SUMPS
  - C INTERIOR PARKING GARAGES
  - D NEED FOR FUTURE INDOOR & STR. PEST CONTROL
  - E LANDSCAPE/OUTDOOR PESTICIDE USE
  - F POOLS, SPAS, PONDS, FOUNTAINS, & WATER FEATURES
  - G FOOD SERVICE
  - H TRASH OR REFUSE AREAS
  - I INDUSTRIAL PROCESSES
  - J OUTDOOR STORAGE OF EQUIP. OR MATERIALS
  - K VEHICLE AND EQUIPMENT CLEANING
  - L VEHICLE/EQUIPEMENT REPAIR AND MAINTENANCE
  - M FUEL DISPENSING AREAS
  - N LOADING DOCKS
  - O FIRE SPRINKLER TEST WATER
  - P MISCELLANEOUS DRAIN OR WASH WATER
  - Q PLAZAS, SIDEWALKS, DRIVEWAYS, AND PARKING LOTS

SHEET INDEX

GENERAL CODES

THIS PROJECT SHALL COMPLY WITH THE FOLLOWING BUILDING CODES AND ASSOCIATED COUNTY OF SAN DIEGO AMENDMENTS:

- -2019 CALIFORNIA RESIDENTIAL CODE
- -2019 CALIFORNIA BUILDING CODE
- -2019 CALIFORNIA GREEN BUILDING STANDARDS CODE
- -2019 CALIFORNIA ELECTRICAL CODE
- -2019 CALIFORNIA MECHANICAL CODE
- -2019 CALIFORNIA PLUMBING CODE
- -2019 CALIFORNIA FIRE CODE
- -2019 CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS

DESIGN BASIS

CONVENTIONAL LIGHT FRAME CONSTRUCTION

ROOF LIVE LOAD: 20 PSF
ULTIMATE WIND SPEED: 110 MPH
EXPOSURE CATEGORY: C
SITE CLASS: D
RISK CATEGORY: II
S_{DS}: 1.25
SEISMIC DESIGN CATEGORY: D_2
ALLOW SOIL VERTICAL BEARING PRESSURE: 1500 PSF
ALLOW SOIL LATERAL BEARING PRESSURE: 100 PSF/FT

ENERGY EFFICIENCY SPECIAL FEATURES

SPECIFY AS INDICATED IN CF1R FORM (TITLE 24):

-
-
-

ENERGY EFFICIENCY HERS VERIFICATION

SPECIFY AS INDICATED IN CF1R FORM (TITLE 24):

- DUCT SEALING (Y or N)
- REFRIGERANT CHARGE (Y or N)
- COOLING SYSTEM AIRFLOW (Y or N)
- COOLING SYSTEM UNIT FAN EFFICACY (Y or N)
- COOLING SYSTEM SEER AND/OR EER ABOVE MIN. (Y or N)
- WHOLE-BUILDING VENTILATION AIRFLOW (Y or N)
- BUILDING ENVELOPE AIR LEAKAGE (Y or N)
- QUALITY INSULATION INSTALLATION (Y or N)
- OTHER (SPECIFY BELOW)

PROPERLY COMPLETED AND SIGNED CERTIFICATES OF INSTALLATION (CF2R FORMS) SHALL BE PROVIDED TO THE INSPECTOR IN THE FIELD. FOR PROJECTS REQUIRING HERS VERIFICATION, THE CF2R FORMS SHALL BE REGISTERED WITH A CALIFORNIA-APPROVED HERS PROVIDER DATA REGISTRY." CF2R FORMS ARE AVAILABLE AT HTTP://WWW.SDCOUNTY.CA.GOV/PDS/BLDG/ENERGY-STDS.HTML. (CBEES 10-103)

PROPERLY COMPLETED CERTIFICATES OF VERIFICATION (CF3R FORMS) SHALL BE PROVIDED TO THE INSPECTOR IN THE FIELD FOR ITEMS REQUIRING HERS VERIFICATION. CF3R FORMS SHALL BE REGISTERED WITH A CALIFORNIA-APPROVED HERS PROVIDER DATA REGISTRY." CF3R FORMS ARE AVAILABLE AT HTTP://WWW.SDCOUNTY.CA.GOV/PDS/BLDG/ENERGY-STDS.HTML. (CBEES 10-103)

VICINITY MAP

OWNER INFORMATION

NAME: CHESTER HOWE

ADDRESS: 5605 FRIARS RD # 306, SAN DIEGO, CA 92110

PHONE: 1 (619) 992-3709

EMAIL: CHESTERHOWE@ZOHOMAIL.COM

CONTACT INFORMATION

NAME: CHESTER HOWE

ADDRESS: 5605 FRIARS RD # 306, SAN DIEGO, CA 92110

PHONE: 1 (619) 992-3709

EMAIL: CHESTERHOWE@ZOHOMAIL.COM

PARCEL INFORMATION

APN: 436-611-15-38

SITE ADDRESS: 5605 Friars Rd Unit 306 San Diego, CA 92110

PROPERTY CONNECTED TO THE ELECTRICAL GRID (Y or N)

PROPERTY SERVICED BY PROPANE (Y or (N)) IF YES, SHOW TANK ON PLOT PLAN

PROPERTY SERVICED BY NATURAL GAS ((Y)or N)

ENTIRE LOT IS FUEL MODIFIED (Y)or N) IF NO, DIMENSION 100' FUEL MODIFICATION ZONE

PERVIOUS AREA INFORMATION

PERVIOUS SURFACE AREA TABLE

SITE ID	PERVIOUS ITEM	DIMENSIONS	AREA (sf)	NOTES

PERVIOUS ELEMENT MANUFACTURER: _____
PERVIOUS ELEMENT SLOPE AND DIRECTION OF SLOPE: _____
MAINTENANCE PROGRAM: _____
PERVIOUS ELEMENT CROSS SECTION LOCATED IN SHEET: _____

CONSTRUCTED PERVIOUS SURFACES SHALL NOT BE SEALED

IMPERVIOUS AREA INFORMATION

IMPERVIOUS SURFACE AREA TABLE

SITE ID	IMPERVIOUS ITEM	DIMENSIONS	NEW OR REPLACED AREA (sf)	EXISTING AREA (sf)
1				
2				
3				
4				

LAND DISTURBANCE: _____**SF**

SHEET TITLE

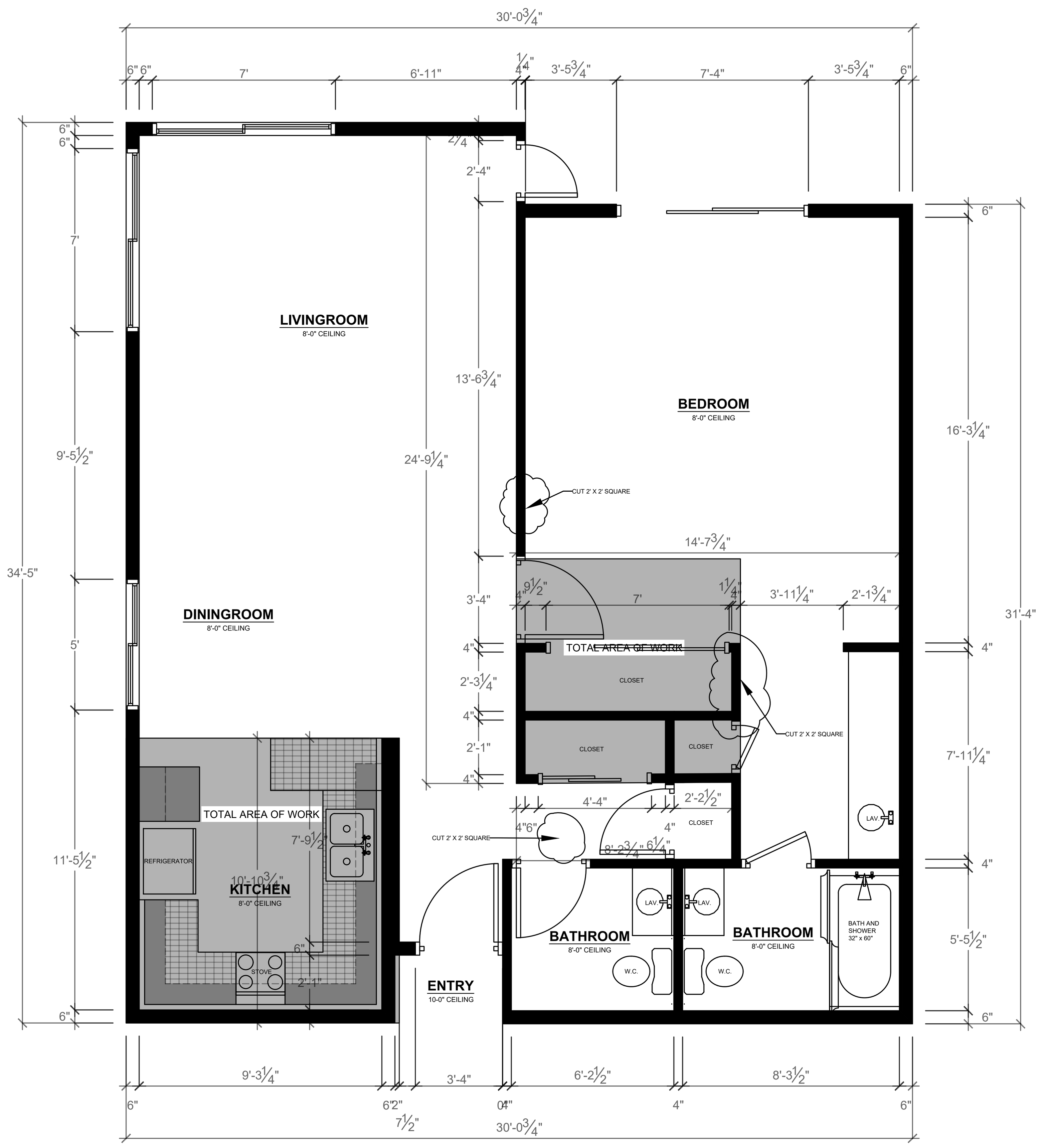
SITE PLAN

SHEET NUMBER

SP-1

FLOOR PLAN NOTES

OPTIONAL ROLL-IN SHOWER PLAN NOTES



EXISTING THIRD LEVEL-FLOOR/DIMENSION PLANS

GRAPHIC SCALE

REFERENCE NORTH

WINDOW SCHEDULE				
MARK	DIMENSION	TYPE	TEMPERED	NOTES
	6'-0" x 6'-0"	PICTURE		
	6'-0" x 6'-0"	PICTURE		
	6'-0" x 6'-0"	PICTURE		
	6'-0" x 6'-0"	PICTURE	Y	
	6'-0" x 6'-0"	PICTURE		
	6'-0" x 6'-0"	PICTURE		

EXTERIOR WINDOWS, EXTERIOR GLAZED DOORS, GLAZED OPENINGS WITHIN EXTERIOR DOORS, GLAZED OPENINGS WITHIN EXTERIOR GARAGE DOORS, AND EXTERIOR STRUCTURAL GLASS VENEER SHALL COMPLY WITH ONE OF THE FOLLOWING: (SELECT ONE)

A. MULTI-PANE GLAZING WITH A MINIMUM OF ONE TEMPERED PANE MEETING THE REQUIREMENTS OF SECTION 2406 SAFETY GLAZING, AND WHERE ANY GLAZING FRAMES MADE OF VINYL MATERIALS SHALL HAVE WELDED CORNERS, METAL REINFORCEMENT IN INTERLOCK AREA, AND BE CERTIFIED TO AAMA/WDMA/CSA 101/I.S.2/A40
B. MINIMUM 20-MIN FIRE-RESISTANCE-RATED.
C. MEET PERFORMANCE REQUIREMENTS OF SFM STANDARD 12-7A-2

DOOR SCHEDULE				
MARK	DIMENSION	TYPE	TEMPERED	NOTES
1	3'-0" x 6'-8"	STANDARD		1-3/8" SOLID CORE
2	3'-0" x 6'-8"	STANDARD		4FT CLOSET
		BI-FOLD		6FT CLOSET
		POCKET	Y	BATHROOM
		POCKET	Y	BATHROOM

EXTERIOR DOORS SHALL COMPLY WITH ONE OF THE FOLLOWING: (SELECT ONE)

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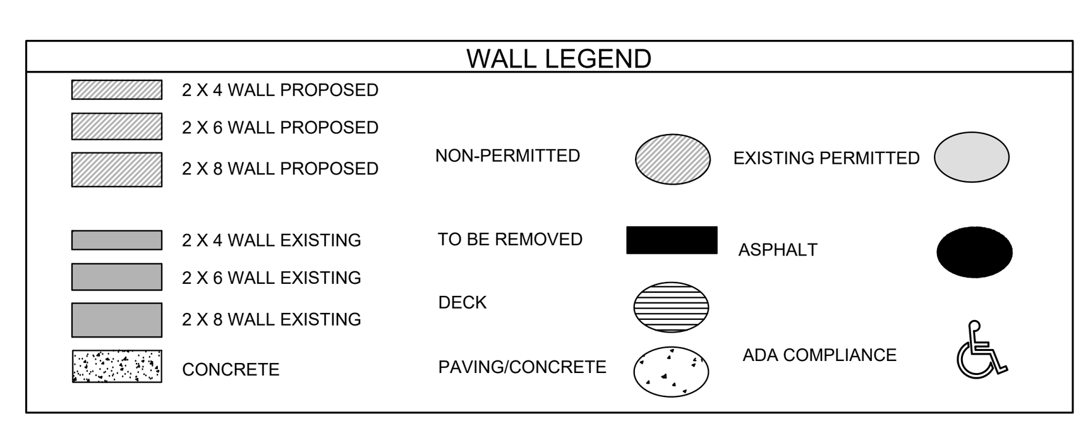
EXCEPTION: EXTERIOR PERIMETER OF RAISED PANEL MAY TAPER TO A TONGUE MINIMUM 3/8 INCHES THICK
C. MINIMUM 20-MIN FIRE RATED WHEN TESTED PER NFPA 252
D. MEET PERFORMANCE REQUIREMENTS OF SFM STANDARD 12-7A-1



Project Name and Address

PROPOSED REMODEL FOR CHESTER HOWE 5605 FRIARS RD # 306, SAN DIEGO, CA 92110

SHEET TITLE

EXISTING FLOOR PLAN

No.	Revision/Issue	Date
1	CLIENT REVIEW	6/21/2023
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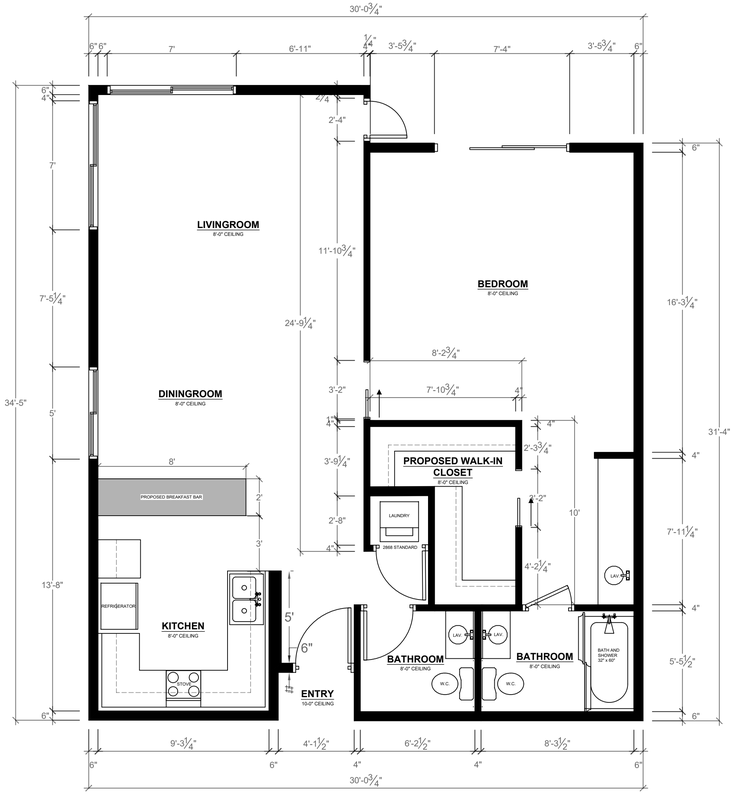
Date 06/2023

Scale

Sheet **A1.0**



DEMOLITION PLAN

GRAPHIC SCALE
SC: 3/8" = 1(IN FEET)

REFERENCE NORTH

WINDOW SCHEDULE

MARK	DIMENSION	TYPE	TEMPERED	NOTES
	6'-0" x 6'-0"	PICTURE		
	6'-0" x 6'-0"	PICTURE		
	6'-0" x 6'-0"	PICTURE		
	6'-0" x 6'-0"	PICTURE	Y	
	6'-0" x 6'-0"	PICTURE		
	6'-0" x 6'-0"	PICTURE		

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DOOR SCHEDULE

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WALL LEGEND

2 X 4 WALL PROPOSED			
2 X 6 WALL PROPOSED			
2 X 8 WALL PROPOSED	NON-PERMITTED	EXISTING PERMITTED	
2 X 4 WALL EXISTING	TO BE REMOVED	ASPHALT	
2 X 6 WALL EXISTING	DECK		
2 X 8 WALL EXISTING			
CONCRETE	PAVING/CONCRETE	ADA COMPLIANCE	

FLOOR PLAN NOTES

OPTIONAL ROLL-IN SHOWER PLAN NOTES

Project Name and Address

PROPOSED REMODEL FOR CHESTER HOWE
5605 FRIARS RD # 306, SAN DIEGO, CA 92110

SHEET TITLE
DEMOLITION FLOOR PLAN

No.	Revision/Issue	Date
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Project 436611538
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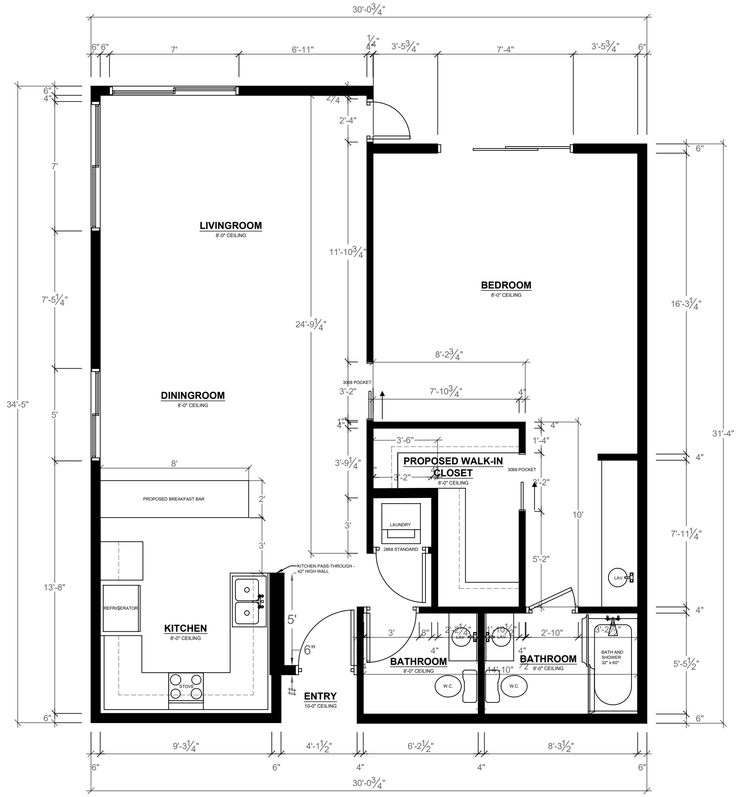

PROPOSED THIRD LEVEL UNIT #306-FLOOR/DIMENSION PLANS

GRAPHIC SCALE

SC: 3/8" = 1'(IN FEET)

REFERENCE NORTH

WINDOW SCHEDULE				
MARK	DIMENSION	TYPE	TEMPERED	NOTES
	6'-0" x 6'-0"	PICTURE		
	6'-0" x 6'-0"	PICTURE		
	6'-0" x 6'-0"	PICTURE		
	6'-0" x 6'-0"	PICTURE	Y	
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B. MINIMUM 20-MIN FIRE-RESISTANCE-RATED.
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2 X 6 WALL PROPOSED			
2 X 8 WALL PROPOSED		TO BE REMOVED	ASPHALT
2 X 4 WALL EXISTING		DECK	
2 X 6 WALL EXISTING		PAVING/CONCRETE	ADA COMPLIANCE
2 X 8 WALL EXISTING			
CONCRETE			

FLOOR PLAN NOTES

OPTIONAL ROLL-IN SHOWER PLAN NOTES

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FLOOR PLAN

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SCAN ME

Project 436611538

Date 06/2023

Scale

Sheet **A1.2**

GENERAL ELECTRICAL NOTES

#	DESCRIPTION
1	GENERAL CONTRACTOR SHALL VERIFY FIELD CONDITIONS BEFORE SUBMITTING BID.
2	ALL WORK SHALL BE DONE IN ACCORDANCE WITH 2019 NEC, AS AMENDED BY 2019 ELECTRICAL CODE, 2019 ENERGY CODE AND ANY ADDITIONAL STATE OR LOCAL CODES WHICH MAY APPLY.
3	GENERAL CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, CERTIFICATES, ETC. REQUIRED.
4	GENERAL CONTRACTOR SHALL OBTAIN AND PAY FOR BOTH ROUGH AND FINAL UNDER-WRITERS OR OTHER APPROVED INSPECTION AGENCY CERTIFICATES "ELECTRICAL INSPECTION". THESE CERTIFICATES SHALL BE PRESENTED WITH REQUEST FOR FINAL PAYMENT.
5	IT IS THE INTENT OF THESE PLANS TO PROVIDE A COMPLETE OPERATING ELECTRICAL SYSTEM. THIS CONTRACTOR SHALL FURNISH AND INSTALL ALL WIRING, EQUIPMENT, MATERIAL. ETC. REQUIRED, EXCEPT WHERE SPECIFICALLY NOTED AS BEING FURNISHED BY OTHERS. SHOULD THERE BE ANY QUESTIONS CONCERNING RESPONSIBILITY, THEY SHALL BE ADDRESSED TO ARCHITECT PRIOR TO BID. NO EXTRA CHARGES WILL BE ALLOWED.
6	ELECTRICAL SERVICE SHALL BE COORDINATED WITH THE EXISTING FIELD CONDITIONS.
7	CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS TO ALL CONTROLS, OWNER-SUPPLIED EQUIPMENT, MECHANICAL AND PLUMBING EQUIPMENT AS REQUIRED.
8	REFER TO ARCHITECTURAL DRAWINGS FOR ELEVATION DETAILS. ALL FIXTURE AND DEVICE LOCATIONS SHOWN ON ARCHITECTURAL DRAWINGS SUPERSEDE THOSE SHOWN ON ELECTRICAL PLANS.
9	CIRCUIT NUMBER ON THE DRAWINGS ARE FOR IDENTIFICATION ONLY AND DO NOT INDICATE THE POSITION ON THE PANEL BOARD. CONNECT THE CIRCUITS WITH THE LIGHTEST LOADS AND THE RECEPTACLE CIRCUITS NEAR THE TOP OF THE PANEL, AND THE MORE HEAVILY LOADED CIRCUITS NEAR THE BOTTOM. BALANCE ALL CIRCUITS EVENLY BETWEEN PHASE SO THAT FEEDER WIRES CARRY APPROXIMATELY EQUAL CURRENT. ALL PHASES MUST BE BALANCED WITHIN 10% OR LESS. G.C. SHALL REBALANCE IF NECESSARY.
10	BRANCH CIRCUIT CONDUCTOR INSULATION SHALL BE COLOR CODED AND SHALL BE 600 VOLT. TYPE THHN/THWN.
11	CABLES IN HIGH TEMPERATURE AREAS SHALL HAVE INSULATION TYPE SUITABLE FOR THE TEMPERATURE. CABLES USED IN SPACES FOR ENVIRONMENTAL AIR SHALL CONFORM WITH APPLICABLE N.E.C REQUIREMENTS.
12	ALL WIRING USED IN RETURN OR DISCHARGE AIR PLENUMS SHALL BE PLENUM RATED OR INSTALLED PER METHODS APPROVED BY THE LATEST EDITION OF THE N.E.C. FOR SUCH APPLICATION.
13	ALL WIRE AND CABLE CONDUCTORS SHALL BE COPPER WITH INSULATION RATED 600V. CONDUCTORS SIZED #10 AWG AND SMALLER SHALL BE SOLID OD STRANDED, AND CONDUCTORS SIZED LARGER THAN #10 AWG SHALL BE STRANDED WIRE.
14	BRANCH CIRCUITS FOR POWER AND LIGHTING SHALL NOT BE LESS THAN #12 AWG. OR AS NOTED. WIRES ARE TO BE SIZED FOR THE APPROPRIATE VOLTAGE DROPS. SEE WIRE SIZE SCHEDULE ON THIS SHEET.
15	ALL DATA CABLES SHALL BE CAT6, PLENUM RATED. TO BE PROVIDED BY OWNER SELECTED VENDOR. ELECTRICAL WORK SHALL BE TO PROVIDE OUTLET BOXES AND "RING AND STRING" FOR PULLING OF CABLES IN CONCEALED SPACES.
16	CONTROL WIRING SHALL NOT BE LESS THAN #14 AWG UNLESS OTHERWISE NOTED.
17	HOMERUNS SHOWN ARE SCHEMATIC. CONTRACTOR MAY ORIGINATE HOMERUNS FROM DIFFERENT LOCATIONS. ALL WIRE INCLUDING HOMERUNS SHALL BE DELINEATED ON AS-BUILT DRAWINGS.
18	ALL WIRING INSTALLED UNDER THIS CONTRACT SHALL BE TESTED FOR PROPER CONNECTIONS AND SHORT CIRCUITS PRIOR TO THE TURNING OVER OF WORK AS A COMPLETE UNIT.
19	PROVIDE ALL ELECTRICAL SYSTEM GROUNDING IN ACCORDANCE WITH N.E.C. REQUIREMENTS EVEN IF IT IS NOT SHOWN ON THE DRAWINGS. INCLUDE ADDITIONAL GROUNDING CONDUCTORS IN ALL RACEWAYS EVEN THOUGH THE DRAWINGS SHOW ONLY CIRCUIT AND/OR NEUTRALS CONDUCTORS. THE PLUMBING AND PIPING SYSTEM SHALL NOT BE USED AS A GROUND. ALL TRANSFORMER NEUTRALS SHALL BE GROUNDED TO BUILDING STEEL IN ACCORDANCE WITH NEC 250-70.
20	ALL CONDUITS PASSING THROUGH PARTITIONS ARE TO BE APPROPRIATELY SLEEVED AND SEALED.
21	FURNISH AND INSTALL ALL CONDUIT WITH PULL WIRES AS REQUIRED. ALL OUTLET BOXES SHALL BE STEEL, EXTRA DEEP WITH GROUNDING PIGTAILS. GROUNDING PUSH-CLIPS ARE NOT ACCEPTABLE.
22	ALL PENETRATIONS SHALL BE INSTALLED AND SEALED PER NATIONAL STATE AND LOCAL CODES
23	DO NOT MAKE ANY CHANGES OR SUBSTITUTIONS WITHOUT SPECIFIC WRITTEN APPROVAL FROM THE ARCHITECT OR ENGINEER.
24	GUARANTEE ALL WORK, MATERIAL AND EQUIPMENT FOR A PERIOD OF ONE YEAR FROM THE DATE OF APPROVAL AND FINAL ACCEPTANCE.
25	THIS DESIGN IS BASED ON INITIAL DESIGN DATA. GENERAL CONTRACTOR TO SUPPLY AND INSTALL FEEDERS, FUSES AND CIRCUIT BREAKERS TO MATCH THE NAMEPLATE RATING OF ALL EQUIPMENT. THIS SHALL BE INCLUDED IN THE INITIAL BID PROPOSAL AND NO EXTRAS SHALL BE ENTERTAINED.
26	LABEL ALL JUNCTION BOXES, OUTLETS, LIGHT SWITCH, ETC. WITH CIRCUIT NUMBER ON INTERIOR ON COVER PLATE. USE SELF-ADHESIVE "DYMO" LABEL 1/8" HIGH LETTERS.
27	GENERAL CONTRACTOR SHALL PROVIDE SEISMIC RESTRAINTS AND SUPPORTS FOR ALL FLOOR, WALL, AND CEILING MOUNTED ELECTRICAL EQUIPMENT TO RESIST EARTHQUAKE EFFECTS DETERMINED IN ACCORDANCE WITH THE BUILDING CODE.
28	THE G.C. SHALL PROVIDE ALL EQUIPMENT. MATERIALS AND LABOR TO COMPLETE ALL ELECTRICAL WORK IN A NEAT AND WORKMANLIKE MANNER AND IN ACCORDANCE WITH GOOD COMMERCIAL PRACTICE INCLUDING THE INSTALLATION OF ALL THE EQUIPMENT MATERIALS AND SYSTEMS AND THE FINAL CONNECTIONS TO THE OWNER'S EQUIPMENT AND FIXTURES AS REQUIRED BY THE OWNER. THE G.C. SHALL ALSO FURNISH TEMPORARY WIRING AND LIGHTING TO PROVIDE A MINIMUM OF 25 FC IN WORK AREAS FOR USE OF ALL THE TRADES DURING CONSTRUCTION AND THE INSTALLATION OF THE OWNERS FIXTURES. THE G.C. IS RESPONSIBLE TO REMOVE ALL TEMPORARY WIRING UPON COMPLETION OF CONSTRUCTION OF ALL TRADES.
29	THIS CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE AND INSTALL ALL SUPPLEMENTARY SUPPORT, INCLUDING SUPPORT STEEL AS REQUIRED TO HANG ALL EQUIPMENT AND LIGHTING FROM THE EXISTING STRUCTURE IN ACCORDANCE WITH THE ARCHITECTURAL/STRUCTURAL SUPPORT AND LOADING CRITERIA.
30	IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO PROVIDE FULLY DIMENSIONED COORDINATION DRAWINGS FOR ALL OF HIS RESPECTIVE WORK. THESE DRAWINGS MUST BE FULLY COORDINATED WITH ALL EXISTING CONDITIONS. ALL HVAC, PLUMBING, FIRE PROTECTION, ELECTRICAL, LIGHTING, STRUCTURAL AND ARCHITECTURAL SYSTEMS PRIOR TO PREPARING COMPOSITE MULTI DISCIPLINE COORDINATION DRAWINGS.
31	ALL DISCONNECTING MEANS AND EQUIPMENT INDICATED ON THE DRAWING SHALL BE IDENTIFIED BY NAMEPLATE IN COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE 110-22.
32	ALL WIRING FOR THE EMERGENCY LIGHTING AND EMERGENCY SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE ARTICLE 700.
33	THE WIRING METHODS AND MATERIALS INDICATED IN THE SPECIFICATIONS AND ON THE DRAWINGS SHALL BE INSTALLED AND CONNECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE ARTICLE 300.

GENERAL ELECTRICAL NOTES

#	DESCRIPTION
33	THE WIRING METHODS AND MATERIALS INDICATED IN THE SPECIFICATIONS AND ON THE DRAWINGS SHALL BE INSTALLED AND CONNECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE ARTICLE 300.
34	THE ELECTRICAL SERVICE AND DISTRIBUTION SYSTEM AS INDICATED ON THE RISER DIAGRAM AND MATERIALS INDICATED IN THE SPECIFICATIONS SHALL BE IN COMPLIANCE WITH THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE ARTICLE 230, SERVICES.
35	ALL OVER CURRENT PROTECTION SHALL BE IN COMPLIANCE WITH THE NATIONAL ELECTRIC CODE SECTION 240, OVERCURRENT PROTECTION.
36	ALL GROUNDING REQUIREMENTS OF THE COMPLETE ELECTRICAL DISTRIBUTION SYSTEM AND AS INDICATED IN THE SPECIFICATIONS SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE ARTICLE 250, GROUNDING AND BONDING.
37	PRIOR TO ANY REQUIRED CUTTING AND PATCHING OF CONCRETE FLOOR AND/OR CUTTING OF ROOF, CONTRACTOR SHALL COORDINATE WITH BUILDING ENGINEER.
38	FOR ALL LIGHTING FIXTURES MOUNTED IN HUNG CEILING THE GENERAL CONTRACTOR SHALL PROVIDE AND INSTALL INDIVIDUAL SUPPORT AT EACH CORNER OF RECESSED LIGHTING TROFFER CONNECTED TO BUILDING STEEL ABOVE ALL CONDUIT AND MC CABLE MOUNTED ABOVE HUNG CEILING SHALL BE INDIVIDUALLY SUPPORTED IN THE SAME FASHION AS PER NEC REQUIREMENTS.
39	DO NOT SCALE FROM THESE DRAWINGS.
40	PLANS ARE PREPARED WITH REQUIRED BRANCH CIRCUITS INDICATED BY CIRCUITS NUMBERS. PROVIDE AND INSTALL ALL CONDUITS. CONDUCTORS, BOXES, MISCELLANEOUS FITTINGS, ETC. FOR A COMPLETE AND OPERABLE SYSTEM (HOME RUN SHOWN). BRANCH CIRCUIT INSTALLATION SHALL COMPLY WITH SPECIFICATIONS AND N.E.C.
41	ELECTRICAL RECEPTACLE, SWITCH AND CONTROL HEIGHTS (CBC-1136A.1:). RECEPTACLE HEIGHTS: ELECTRICAL RECEPTACLE OUTLETS ON BRANCH CIRCUITS OF 30 AMPERES OR LESS AND COMMUNICATION SYSTEM RECEPTACLES SHALL BE LOCATED NO MORE THAN 48 INCHES (1219MM) MEASURED FROM THE TOP OF THE RECEPTACLE OUTLET BOX OR RECEPTACLE HOUSING NOR LESS THAN 15 INCHES (381MM) MEASURED FROM THE BOTTOM OF THE RECEPTACLE OUTLET BOX OR RECEPTACLE HOUSING TO THE LEVEL OF FINISHED FLOOR OR WORKING FLATFORM. IF THE REACH IS OVEN AN OBSTRUCTION (FOR EXAMPLE, A KITCHEN BASE CABINET) BETWEEN 20 AND 25 INCHES (508 AND 635MM) IN DEPTH, THE MAXIMUM HEIGHT MEASURED AT THE BOX IS REDUCED TO 44 INCHES (1118MM) FOR FORWARD APPROACH, OR 46 INCHES (1168MM) FOR SIDE APPROACH, PROVIDED THE OBSTRUCTION IS NO MORE THAN 24 INCHES (610MM) IN DEPTH. OBSTRUCTION SHALL NOT EXCEED MORE THAN 25 INCHES (635MM) FROM THE WALL BENEATH THE RECEPTACLE.
42	SWITCH AND CONTROL HEIGHTS: (CBC 1136A.2:) CONTROL OR SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF THE ROOM OR AREA TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES, ALARMS OR COOLING, HEATING AND VENTILATING EQUIPMENT SHALL BE LOCATED NO MORE THAN 48 INCHES (1219MM) MEASURED FROM THE TOP OF THE OUTLET BOX NOR LESS THAN 15 INCHES (381MM) MEASURED FROM THE BOTTOM OF THE OUTLET BOX TO THE LEVEL OF THE FINISHED FLOOR OR WORKING PLATFORM. IF THE REACH IS OVER A PHYSICAL BARRIER OR AN OBSTRUCTION (FOR EXAMPLE, A KITCHEN BASE CABINET) BETWEEN 20 AND 25 INCHES (508 AND 635MM) IN DEPTH, THE MAXIMUM HEIGHT IS REDUCED TO 44 INCHES (1118MM) FOR FORWARD APPROACH, OR 46 INCHES (1168MM) FOR SIDE APPROACH, PROVIDED THE OBSTRUCTION IS NO MORE THAN 24 INCHES (610MM) IN DEPTH. PHYSICAL BARRIERS OR OBSTRUCTIONS SHALL NOT EXTEND MORE THAN 25 INCHES (635MM) FROM THE WALL BENEATH A CONTROL.

ELECTRICAL LEGEND

	LED WALL FIXTURE (7W MAX BULB)		LED EXTERIOR WALL FIXTURE WITH MANUAL ON - AUTO OFF/MOTION DETECTOR & PHOTOCELL CONTROL
	DECORATIVE SURFACE CEILING FIXTURE		HARDWIRED SMOKE / Co DETECTOR INTERCONNECTED SO AN ALARM AT ONE IS AUDIBLE AT ALL
	RECESSED LED CEILING FIXTURE (7W MAX BULB)		HARDWIRED SMOKE DETECTOR INTERCONNECTED SO AN ALARM AT ONE IS AUDIBLE AT ALL
	CEILING MOUNTED JUNCTION BOX		200 AMP ELEC. METER AND SERV. PANEL. PROVIDE UFER GROUND ROD. MAIN ELECTRIC SERVICE SHALL BE UNDERGOUND.
	LED LIGHT/FAN COMBO. (SEE NOTES AT EXHAUST FAN SYMBOL BELOW)		AIR CONDITIONING COMPRESSOR/CONDENSER
	THERMOSTAT		CEILING MOUNTED LIGHT/FAN. WIRE SWITCH/LIGHT SEPERATELY. DIMMER SWITCH WIRED TO LIGHT. (MOUNTED ON JUNCTION BOX)
	PHONE JACK		
	TELEVISION CABLE OUTLET		
	120 VOLT DUPLEX OUTLET		
	UNDERCOUNTER/UNDER-SHELF 120 VOLT DUPLEX OUTLET		
	120 VOLT SINGLE FLOOR OUTLET		DEDICATED CIRCUIT (20 AMPS)
	120 VOLT CEILING OUTLET		PUSH BUTTON
	120 VOLT DUPLEX GROUND FAULT CIRCUIT INTERRUPT OUTLET		AUTO-OFF MOTION SENSOR SWITCH (SEE NOTES BELOW)
	240 VOLT OUTLET	$	SINGLE POLE SWITCH
		ϕ	DIMMER SWITCH
	UNDERCOUNTER OR SHELF 120 VOLT GROUND FAULT CIRCUIT INTERRUPT DUPLEX OUTLET	$3 / $4	SINGLE POLE 3-WAY SWITCH / SINGLE POLE 4-WAY SWITCH
W.P.	120 VOLT DUPLEX GROUND FAULT CIRCUIT INTERRUPT OUTLET WEATHERPROOF TYPE.	ϕ3 / ϕ4	3-WAY DIMMER SWITCH / 4-WAY DIMMER SWITCH
			240 VOLT NEMA 3R FUSED DISCONNECT FOR AIR CONDITIONING CONDENSER
	120 VOLT DUPLEX OUTLET (ARC FAULT INTERRUPT)		DOORBELL CHIMES
	1/2 HOT 120 VOLT DUPLEX OUTLET (ARC FAULT INTERRUPT)		EXHAUST FAN TO OUTSIDE AIR SHALL PROVIDE A MIN. OF 5-AIR CHANGES PER HOUR
	1/2 HOT 120V CONVENIENCE OUTLET		
	3 - WAY DIMMER SWITCH	GFIC	GROUND FAULT INTERRUPTED CIRCUIT
	SWITCHABLE RECEPTACLE		HIGH SPEED DATA LINE
	DIMMER SWITCH		FLOOR MOUNTED TEL. JACK
	SURFACE LIGHTING OUTLET (CEILING)		THERMOSTAT CONTROL
	SURFACE LIGHTING OUTLET (WALL)	R	DUPLEX OUTLET RECESSED INTO WALL
	DOWN LIGHTING FIXTURE		FLOOR MOUNTED OUTLET
	POWER TRACK AND HEADS		FLOOR MOUNTED OUTLET
	DOOR CHIME		DOORBELL
	EXHAUST FAN		WATERPROOF OUTLET(EXTERIOR)
	FAN/LIGHT COMBINATION		2' TWO LAMP (F40) DECORATIVE FLUORESCENT
H	HEAT LAMP		4' TWO LAMP (F40) FLUORESCENT FIXTURE
SD	SMOKE DETECTOR		6' TANDEM (2 EA. F40 4' LAMPS END TO END)
TV	TV OUTLET		8' TANDEM (2 EA. F40 4' LAMPS END TO END)
	PHONE OUTLET		LOW PROFILE UNDERCABINET FLUORESCENT FIXTURE

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
$	SINGLE POLE SWITCH AND BOX, WALL MOUNTED +44" AFF. LOWER CASE LETTER INDICATES CIRCUIT CONTROLLED BY SWITCH. WITH OCCUPANCY SENSOR
D	WALL MOUNTED DIMMER SWITCH, 0-10V DIMMING WITH ON-OFF SWITCH.
$LV	WALL MOUNTED 3 WAY ON, CENTER OFF LOW VOLTAGE SWITCH FOR LCP CONTROLLER LIGHTS.
	RECEPTACLE, DUPLEX 20A, 120V GRD, NEMA 5-20R +18"AFF U.O.N.(WP=WEATHERPROOF, GFCI=GROUND FAULT CIRCUIT INTERRUPTER)
D	DEDICATE RECEPTACLE, DUPLEX 20A, 120V GRD, NEMA 5-20R +18"AFF U.O.N. (WP=WEATHERPROOF, GFI=GROUND FAULT CIRCUIT INTERRUPTER)
USB	USB RECEPTACLE, DUPLEX 20A, 120V GRD, NEMA 5-20R +42"AFF U.O.N.
	RECEPTACLE, SINGLE, 20A, 120V GRD, NEMA 5-20R +18"AFF UON.
	RECEPTACLE, DOUBLE DUPLEX (2) 20A, 120V, GRD - NEMA (2) 5-20R +18"AFF U.O.N.
	RECEPTACLE DUPLEX 20A, 120V GRD NEMA 5-20R FLOOR MOUNTED.
	RECEPTACLE DOUBLE DUPLEX (2) 20A, 120V GRD, NEMA 5-20R UON. FLOOR MOUNTED.
	2 PORT VOICE/ DATA OUTLET, WALL MOUNT +18" AFF PROVIDE RING & STRING TO PULL CABLES THRU HOLLOW WALL. VOICE/ DATA WIRING BY TELECOM SYSTEM INSTALLER.
TV	TV OUTLET, WALL MOUNT +60" AFF PROVIDE RING & STRING TO PULL CABLES THRU HOLLOW WALL.
	COMBINATION 4-PLEX RECEPTACLE, NEMA 5-20R DOUBLE DUPLEX (1 DUPLEX AUTO CONTROLLED BY OCCUPANCY SENSOR PER T24, (1) DUPLEX UNCONTROLLED), & TYPE 6 VOICE/DATA OUTLET, FLOOR MOUNTED. PROVIDE MIN. 3/4" TEL/DATA CONDUIT WITH PULL WIRES.
	4-PLEX RECEPTACLE, NEMA 5-20R DOUBLE DUPLEX (1 DUPLEX AUTO CONTROLLED BY OCCUPANCY SENSOR PER T24, (1) DUPLEX UNCONTROLLED), +18"AFF, U.O.N. SEE NOTE 2.
	DUPLEX RECEPTACLE, NEMA 5-20R OCCUPANCY SENSOR CONTROLLED, +18"AFF. SEE NOTE 2.
GFCI	GFCI DUPLEX RECEPTACLE ABOVE COUNTER LEVEL, NEMA 5-20R.
GFCI	GFCI DUPLEX RECEPTACLE ABOVE COUNTER LEVEL, VACANCY SENSOR CONTROLLED, NEMA 5-20R.
	SPECIAL PURPOSE CONNECTION FOR ELECTRICAL EQUIPMENT. VERIFY CONNECTION TYPE AND WIRING REQUIREMENTS PRIOR TO ROUGH-IN.
EP	CLASS 1, DIVISION 1 RATED EXPLOSION-PROOF OUTLET. SEE ADDITIONAL NOTES ON SHEET E3.1.
	RECEPTACLE, 120V/240V, 3PH, 4W, GRD, RATING AS INDICATED IN PLANS.
	RECEPTACLE 20A, 480V, 3PH, 4W, GRD, NEMA L22-20R, +18"AFF UON.
	DUPLEX RECEPTACLE 20A, 120V, GND (5-20R U.O.N), SUSPENDED BY TYPE S.O. CORD WITH GRIPS AT EACH END.
	DOUBLE DUPLEX RECEPTACLE 20A, 120V, GND (5-20R U.O.N), SUSPENDED BY TYPE S.O. CORD WITH GRIPS AT EACH END.
	TWIST-LOCK RECEPTACLE 20, 250V, SINGLE PHASE (L6-20R U.O.N), SUSPENDED BY TYPE S.O. CORD WITH GRIPS AT EACH END.
OS	OCCUPANCY SENSOR LOW VOLTAGE CEILING MOUNTED FOR ROOM CONTROLLER.
OS	OCCUPANCY SENSOR LOW VOLTAGE WALL MOUNTED FOR ROOM CONTROLLER.
DS	CEILING MOUNTED DAYLIGHT SENSOR.
J	JUNCTION BOX CEILING MOUNTED, SIZE TO CODE, TAPE AND TAG WIRES.
J	JUNCTION BOX WALL MOUNTED, SIZE TO CODE, TAPE AND TAG WIRES.
	ELECTRICAL PANELBOARD, SURFACE OR FLUSH MOUNTED (277/480V).
	ELECTRICAL PANELBOARD, SURFACE OR FLUSH MOUNTED (120/208V).
	SPECIAL PURPOSE ELECTRICAL PANELBOARD, SURFACE OR FLUSH MOUNTED.
	TRANSFORMER - DRY TYPE.
	FUSED DISCONNECT SWITCH WITH DUAL ELEMENT FUSES. SWITCH AND FUSES RATING PER NAMEPLATE OF SERVED UNIT.
	NON-FUSED DISCONNECT SWITCH, RATING PER NAMEPLATE OF SERVED UNIT.
	MAGNETIC MOTOR STARTER, NEMA RATING AS REQUIRED PER SERVED UNIT.
P	WALL MOUNTED JUNCTION BOX FOR PRE-WIRED FURNITURE POWER SYSTEM CONNECTION. PROVIDE POWER WHIP WITH TERMINATION PLUG TO MATCH FURNITURE SYSTEM CONNECTOR. LOCATE BOX AS LOW AS POSSIBLE. FIELD COORDINATE FINAL LOCATION.
C	COMBINATION TELEPHONE AND DATA OUTLET, WALL MOUNTED AS LOW AS POSSIBLE FOR FLEXIBLE CONNECTION TO FURNITURE SYSTEM.
C P	FLOOR MOUNTED FURNITURE FEEDS W/POWER & TELE/DATA PORT CAPACITY FOR ELECTRIFIED DESKS PER CLIENT'S REQUIREMENTS.
C P	POWER POLES W/POWER & TELE/DATA PORT CAPACITY FOR ELECTRIFIED DESKS PER CLIENT'S REQUIREMENTS.
SD	Smoke Detector
C	Carbon Monoxide Detector
	LEGEND NOTES: 1. MOUNTING HEIGHT INDICATED ARE AFF TO CENTER OF PLATE. INCASE OF CONFLICT, GENERAL NOTES 41 & 42 SHALL PREVAIL. 2. NOT ALL SYMBOLS AND ABBREVIATIONS ARE NECESSARILY USED IN THIS PROJECT.

WIRE SCHEDULE AND NOTES

LOAD PER PH (KVA)	WIRE SIZE (AWG)	MAXIMUM LENGTH OF BRANCH CIRCUIT PER UTILIZATION VOLTAGE (120, 1PH, MAX V.D. 3%)	(240, 1PH, MAX V.D. 3%)	(240, 3PH, MAX V.D. 3%)	NOTES AND REMARKS
< 1.92	#12	56 FT	85 FT	98 FT	5
	#10	94 FT	141 FT	163 FT	5
	#8	144 FT	217 FT	250 FT	5
	#6	230 FT	345 FT	398 FT	5
< 1.44	#12	75 FT	113 FT	130 FT	5
	#10	125 FT	188 FT	217 FT	5
	#8	192 FT	289 FT	334 FT	5
	#6	306 FT	460 FT	531 FT	5
< 1.26	#12	86 FT	129 FT	149 FT	
	#10	143 FT	215 FT	248 FT	
	#8	220 FT	330 FT	381 FT	
< 1.08	#12	100 FT	150 FT	173 FT	
	#10	167 FT	250 FT	289 FT	
	#8	256 FT	385 FT	445 FT	
< 0.9	#12	120 FT	180 FT	240 FT	
	#10	200 FT	300 FT	347 FT	
<0.72	#12	150 FT	225 FT	260 FT	
	#10	250 FT	376 FT	434 FT	

#	NOTES
1	CONTRACTOR SHALL REFER TO THIS TABLE PRIOR TO START OF BRANCH CIRCUIT ROUGH-IN.
2	CONTRACTOR SHALL USE THE APPROPRIATE WIRE SIZE IN CONJUNCTION WITH THE LENGTH OF THE PROPOSED FIELD VERIFIED ROUTING OF BRANCH CIRCUIT WIRING (INCLUDING VERTICAL & LATERAL RUN, ROUTED PARALLEL/PERPENDICULAR TO THE BUILDING STRUCTURE).
3	SEE PANEL SCHEDULE FOR THE CORRESPONDING KVA LOAD PER PHASE OF A PARTICULAR BRANCH CIRCUIT.
4	RESISTANCE VALUES USED ARE FOR UNCOATED COPPER WIRES IN STEEL CONDUIT. 75 DEGREE C., OPERATING AT 60HZ.
5	THE VALUES IN "120V, 1PH" COLUMN IS TO BE USED FOR GENERAL PURPOSE RECEPTACLE LOADS.

ABBREVIATIONS AND TAGS

ABB.	DESCRIPTION	ABB.	DESCRIPTION
EWH	ELECTRIC WATER HEATER	SD	SMOKE DETECTOR
(E)	EXISTING TO REMAIN	TEL	TELEPHONE
EC	ELECTRICAL CONTRACTOR	TX	TRANSFORMER
ELV	ELECTRICAL VEHICLE CHARGER	TV	TELEVISION
FMT	FLEXIBLE METALLIC TUBING	UAC	UNDER ANOTHER CONTRACT
GC	GENERAL CONTRACTOR	UAS	UNDER ANOTHER SECTION
GFI	GROUND FAULT INTERUPTER	UON	UNLESS OTHERWISE NOTED
IG	ISOLATED GROUND	V.D.	VOLTAGE DROP
LL	LANDLORD	W	WIRE
LV	LOW VOLTAGE	WP	WEATHERPROOF
AC 1	MECHANICAL UNIT TAG. SEE MECHANICAL DRAWINGS FOR ADDITIONAL DESCRIPTION.	E-4 4	DETAIL TAG. REFER TO DETAIL 4 ON SHEET NUMBER E-4.

SHEET INDEX

NOTE: NOT ALL OF THE PAGES ARE NECESSARILY USED IN THIS WORK.

PLAN DESIGN NOTES

PLAN DESIGN NOTES
ALL INSTALLED LUMINAIRES SHALL BE HIGH-EFFICACY IN ACCORDANCE WITH ES TABLE 150.0-A.
IN BATHROOMS, GARAGES, LAUNDRY ROOMS, AND UTILITY ROOMS AT LEAST ONE LUMINAIRE SHALL BE CONTROLLED BY A VACANCY SENSOR.
DIMMERS OR VACANCY SENSORS SHALL CONTROL ALL LED STYLE LUMINAIRES. TWO EXCEPTIONS: FIXTURES INSTALLED IN HALLWAYS OR (CLOSETS UNDER 70 SQUARE FEET).
RECESSED CAN LIGHT HIGH EFFICIENCY FIXTURES SHALL BE IC LISTED, AIR-TIGHT LABELED, AND NOT BE EQUIPPED WITH A STANDARD MEDIUM BASE SCREW SHELL LAMP HOLDER. ES 150.0(K)
LIGHT SOURCES THAT ARE NOT MARKED "JAS-2016-E" SHALL NOT BE INSTALLED IN ENCLOSED LUMINAIRES. ES 150.0(K)
OUTDOOR LIGHTING FIXTURES THAT ARE ATTACHED TO A BUILDING ARE REQUIRED TO BE HIGH EFFICACY, BE MANUALLY ON/OFF SWITCH CONTROLLED AND HAVE BOTH MOTION SENSOR AND PHOTOCELL CONTROL. SEE ES 150.0(K) 3 FOR ADDITIONAL CONTROL OPTIONS.
ELECTRIC VEHICLE CHARGING: NOTE ON THE PLANS THAT ELECTRICAL VEHICLE SUPPLY EQUIPMENT (EVSE) ROUGH-IN ONLY IS REQUIRED IN ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOMES WITH ATTACHED GARAGES. THE EVSE ROUGH-IN CONSISTS OF A MINIMUM L" CONDUIT EXTENDING FROM THE MAIN PANEL TO A JUNCTION BOX WHERE THE EVSE RECEPTACLE BOX WILL BE PROVIDED. THE MAIN SERVICE PANEL MUST BE SIZED TO ACCOMMODATE A FUTURE 208/240 VOLT 40 AMPERE DEDICATED BRANCH CIRCUIT. CALIFORNIA GREEN CODE 4.106.4. CURRENTLY THERE IS NO PNL SCHEDULE AND OR LOAD CALCULATION PROVIDE TO CONFIRM COMPLIANCE.
MANDATORY (CBEES 150.0(K):
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HTTPS ://CACERTAPPLIANCES.ENERGY .CA .GOV /PAGES/ APPLIANCESEA RCH .ASPX
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EXCEPTION: CLOSETS LESS THAN 70 S.F.
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- OUTDOOR LIGHTING PERMANENTLY MOUNTED TO BUILDING SHALL BE CONTROLLED BY ONE OF THE FOLLOWING:
- PHOTOCONTROL AND MOTION SENSOR
- PHOTOCONTROL AND AUTOMATIC TIME-SWITCH CONTROL
- ASTRONOMICAL TIME CLOCK

PROVIDE TAMPER RESISTANT RECEPTACLES FOR ALL LOCATIONS IN DWELLING AS DESCRIBED IN CEC 210.52

ARC-FAULT PROTECTION FOR ALL OUTLETS (NOT JUST RECEPTACLES) LOCATED IN ROOMS DESCRIBED IN NEC 210.12(A): KITCHENS, LAUNDRY AREAS, FAMILY, LIVING, BEDROOMS, DINING, HALLS, ETC.

SPECIFIC PLAN NOTES

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1. ALL FINAL LOCATIONS OF LIGHTING FIXTURES, CONVENIENCE AND SPECIAL OUTLETS SHALL BE VERIFIED BY THE OWNER .

2. EXTERIOR LIGHTING AND OUTLET LOCATIONS SHALL BE COORDINATED BETWEEN OWNER AND CONTRACTOR ON SITE.

3. MAIN SERVICE ENTRY TO BE LOCATED AS SHOWN; ANY INTERIOR SUBPANEL LOCATION(S) SHALL BE COORDINATED BETWEEN OWNER AND CONTRACTOR.

4. MECHANICAL CONTRACTOR TO DESIGN LP FIRED HEATING SYSTEM WHICH SHALL BE LOCATED AS DIRECTED BY MECHANICAL CONTRACTOR. CONTRACTOR TO PROVIDE ELECTRICAL FEED AND LP SUPPLY TO FURNACE SYSTEM COMPONANTS AS DIRECTED BY HVAC CONTRACTOR.

5. ALL EXTERIOR OUTLETS TO BE WEATHERPROOF/GFIC; ALL GARAGE CIRCUITS TO BE GFIC; ALSO ALL BATHROOM CONVENIENCE OUTLETS AND OUTLETS WITHIN 6 FEET OF ANY SINK SHALL BE GFIC.

6. CONTRACTOR TO COORDINATE WITH OWNER FOR LOCATIONS OF HOSE BIBBS.

7. ELECTRICAL CONTRACTOR TO PROVIDE A LIGHT FIXTURE IN CRAWL SPACE AND ATTIC SPACE; SUPPLY A SWITCH AND LIGHT AT EACH SPACE; LOCATE NEAR ACCESS DOOR OF EACH SPACE.

8. CONTRACTOR TO INSURE THAT ALL LP CONNECTIONS TO TANK, HOUSE, AND APPLIANCES ARE PROTECTED FROM ANY POSSIBLE IMPACT OR MECHANICAL DAMAGE. EXTERIOR CONNECTIONS TO BE PROTECTED FROM SNOW BUILDUP OR OTHER POTENTIAL DAMAGE.

9. ALL LP APPLIANCES TO BE PROVIDED WITH GRAVITY DRAINS AND VENTING AS PER U.M.C., .U.B.C. AND ALL APPLICABLE LOCAL CODES.

10. LP WATER HEATER SHALL BE ANCHORED OR STRAPPED TO FRAMING MEMBERS TO PREVENT HORIZONTAL DISPLACEMENT.

11. PROVIDE MOTION DETECTOR LIGHT AT BASE OF GARAGE DOORS FOREMERGENCY SAFETY OPERATION.
12. MAINTAIN 36" CLEARANCE FROM BATH FANS TO WINDOW OPENINGS. BATHROOM RECEPTACLE OUTLETS SHALL BE SUPPLIED BY AT LEAST ONE 20-AMP CIRCUIT. SUCH CIRCUITS HAVE NO OTHER OUTLETS.

13. VENT CLOTHES DRYER TO THE EXTERIOR, 14' MAXIMUM LENGTH. - PROVIDE 4" DIAM. MINIMUM EXHAUST FAN TO OUTSIDE AIR AT LAUNDRY ALCOVES. SEC. 504.3.2 & 908.1, UMC.

14. MOUNT SMOKE DETECTORS @ CEILING AT LEAST 4" FROM A WALL OR ON THE WALL WITH THE TOP OF THE DETECTOR WITHIN 4"-12' OF T HE HIGHEST POINT.

16. ONE WINDOW IN EACH SLEEPING ROOM SHALL PROVIDE A MIN. OPERABLE AREA.

17. 1.6 GAL MAX PER FLUSH AT TOILETS; 2.5 GPM MAX AT SHOWER HEAD; 2.2 GPM AT 18. PROVIDE 5/8" TYPE 'X' GYP BOARD AT ALL WALLS , CEILING, POST & BEAM AT GARAGE - TAPE.

UTILITY PLAN NOTES

LIGHTING PLAN NOTES

SOLAR READY KEY NOTES

Project Name and Address

PROPOSED REMODEL FOR CHESTER HOWE 5605 FRIARS RD # 306, SAN DIEGO, CA 92110

SHEET TITLE

ELECTRICAL COVER

No.	Revision/Issue	Date
1	CLIENT REVIEW	6/21/2023
2	A.R.B.	
3	PLAN CHECK	
4	CORRECTIONS	
5	PERMIT	
6		
7		

Firm Name and Address

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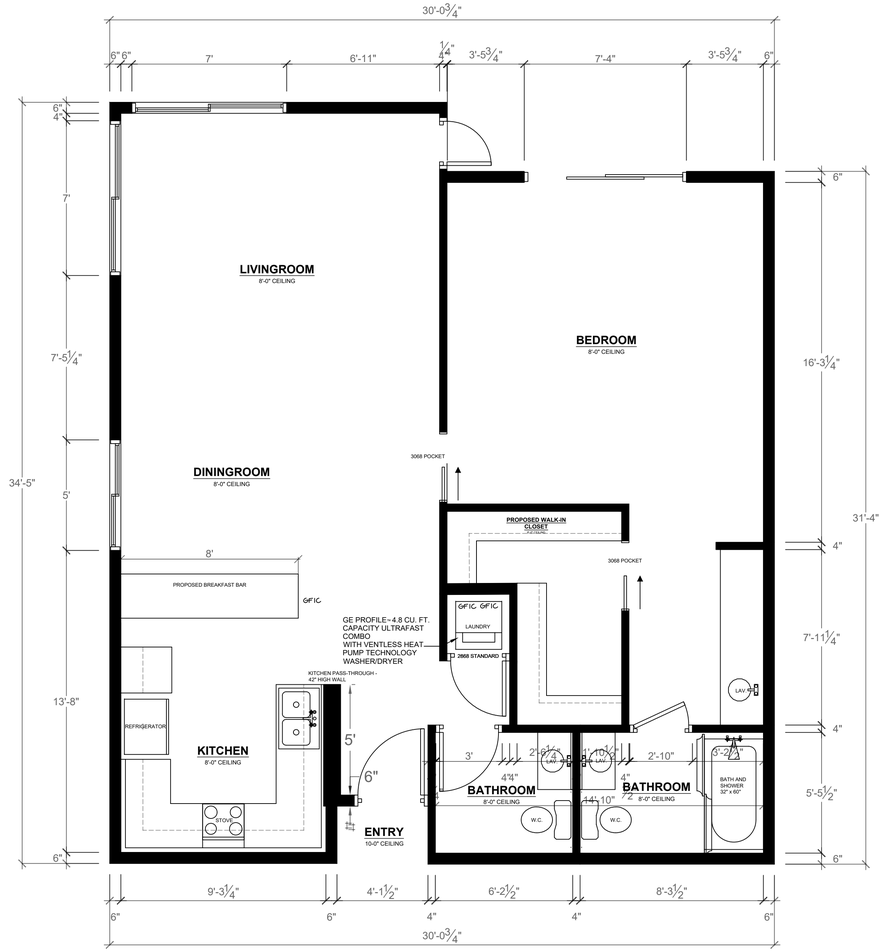
Project 436611538	Sheet A2
Date 06/2023	
Scale	



THIRD LEVEL UNIT #306 - ELECTRICAL PLAN

GRAPHIC SCALE
SC 3/8" = 1(IN FEET)

REFERENCE NORTH

ELECTRICAL LEGEND

LED WALL FIXTURE (7W MAX BULB)	LED EXTERIOR WALL FIXTURE WITH INTEGRAL ON/OFF AUTO OFF/MOTION DETECTOR & PHOTOCELL CONTROL	120 VOLT CEILING OUTLET	PUSH BUTTON	SURFACE LIGHTING OUTLET (CEILING)	THERMOSTAT CONTROL
DECORATIVE SURFACE CEILING FIXTURE		120 VOLT DUPLEX GROUND FAULT CIRCUIT INTERRUPT OUTLET	AUTO-OFF MOTION SENSOR SWITCH (SEE NOTES BELOW)	SURFACE LIGHTING OUTLET (WALL)	DUPLEX OUTLET RECESSED INTO WALL
RECESSED LED CEILING FIXTURE (7W MAX BULB)	HARDWIRED SMOKE / Co DETECTOR INTERCONNECTED SO AN ALARM AT ONE IS AUDIBLE AT ALL	240 VOLT OUTLET	SINGLE POLE SWITCH	DOWN LIGHTING FIXTURE	FLOOR MOUNTED OUTLET
CEILING MOUNTED JUNCTION BOX	HARDWIRED SMOKE DETECTOR INTERCONNECTED SO AN ALARM AT ONE IS AUDIBLE AT ALL	UNDERCOUNTER OR SHELF 120 VOLT GROUND FAULT CIRCUIT INTERRUPT DUPLEX OUTLET	DIMMER SWITCH	POWER TRACK AND HEADS	FLOOR MOUNTED OUTLET
LED LIGHT/FAN COMBO. (SEE NOTES AT EXHAUST FAN SYMBOL BELOW)	200 AMP ELEC. METER AND SERV. PANEL. PROVIDE UFER GROUND ROD. MAIN ELECTRIC SERVICE SHALL BE UNDERGROUND.	120 VOLT DUPLEX GROUND FAULT CIRCUIT INTERRUPT OUTLET - WEATHERPROOF TYPE.	SINGLE POLE 3-WAY SWITCH / SINGLE POLE 4-WAY SWITCH	DOOR CHIME	DOORBELL
THERMOSTAT		120 VOLT DUPLEX OUTLET (ARC FAULT INTERRUPT)	3-WAY DIMMER SWITCH / 4-WAY DIMMER SWITCH	EXHAUST FAN	WATERPROOF OUTLET(EXTERIOR)
PHONE JACK	AIR CONDITIONING COMPRESSOR/CONDENSER	1/2 HOT 120 VOLT DUPLEX OUTLET (ARC FAULT INTERRUPT)	240 VOLT NEMA 3R FUSED DISCONNECT FOR AIR CONDITIONING CONDENSER	FAN/LIGHT COMBINATION	5' TWO LAMP (F40) DECORATIVE FLUORESCENT
TELEVISION CABLE OUTLET	CEILING MOUNTED LIGHT/FAN. WIRE SWITCH/LIGHT SEPERATELY. DIMMER SWITCH WIRED TO LIGHT. (MOUNTED ON JUNCTION BOX)	1/2 HOT 120V CONVENIENCE OUTLET	DOORBELL CHIMES	HEAT LAMP	4' TWO LAMP (F40) FLUORESCENT FIXTURE
120 VOLT DUPLEX OUTLET		3 - WAY DIMMER SWITCH	EXHAUST FAN TO OUTSIDE AIR SHALL PROVIDE A MIN. OF 5-AIR CHANGES PER HOUR	SMOKE DETECTOR/CARBON MONOXIDE DESTECTOR	8' TANDEM (2 EA. F40 4' LAMPS END TO END)
UNDERCOUNTER/UNDER-SHELF 120 VOLT DUPLEX OUTLET		SWITCHABLE RECEPTACLE	GROUND FAULT INTERRUPTED CIRCUIT	TV OUTLET	8' TANDEM (2 EA. F40 4' LAMPS END TO END)
120 VOLT SINGLE FLOOR OUTLET	DEDICATED CIRCUIT (20 AMPS)	DIMMER SWITCH	HIGH SPEED DATA LINE	PHONE OUTLET	LOW PROFILE UNDERCABINET FLUORESCENT FIXTURE
			FLOOR MOUNTED TEL. JACK		

UTILITY PLAN NOTES

1. LOCAL EXHAUST FANS TO EXTERIOR TO PROVIDE MINIMUM 50 CFM INTERMITTENT OR 20 CFM CONTINUOUS VENTILATION.
2. SMOKE DETECTORS TO BE INTERCONNECTED PER CRC R314.4 AND HARD-WIRED WITH BATTERY BACK-UP PER CRC R314.6
3. CARBON MONOXIDE ALARMS TO BE INTERCONNECTED PER CRC R315 HARD-WIRED WITH BATTERY BACK-UP PER CRC R315.5
4. 4" Ø DRYER VENT WITH MAXIMUM 14 FOOT COMBINED HORIZONTAL A VERTICAL LENGTH WITH TWO 90 DEGREE ELBOWS.
5. A MECHANICAL EXHAUST VENTILATION SYSTEM, SUPPLY VENTILATIO SYSTEM, OR COMBINATION THEREOF SHALL BE INSTALLED FOR EACH DWELLING UNIT TO PROVIDE WHOLE-BUILDING VENTILATION WITH OUTDOOR AIR IN COMPLIANCE WITH ASHRAE STANDARD 62.2 AS ADO BY THE CALIFORNIA ENERGY COMMISSION.
6. AN INTERMITTENTLY OR CONTINUOUSLY OPERATING LOCAL MECHAN EXHAUST VENTILATION SYSTEM SHALL BE INSTALLED IN EACH BATHR WITH A BATHTUB, SHOWER, OR SIMILAR MOISTURE SOURCE AND IN E KITCHEN IN COMPLIANCE WITH ASHRAE STANDARD 62.2 AS ADOPTED THE CALIFORNIA ENERGY COMMISSION. INTERMITTENT LOCAL EXHAU VENTILATION AIRFLOW RATES SHALL BE 50 CFM IN BATHROOMS AND CFM IN KITCHENS. CONTINUOUS LOCAL EXHAUST VENTILATION AIRFL RATES SHALL BE 20 CFM IN BATHROOMS AND 5 AIR CHANGES PER HO KITCHENS BASED ON KITCHEN VOLUME.
7. WATER HEATER OR FURNACE SHALL BE A DIRECT-VENT APPLIANCE L GASKETED SELF CLOSING DOOR REQUIRED FOR GAS FAU.
8. GE PROFILE™ 4.8 CU. FT. CAPACITY ULTRAFAST COMBO WITH VENTLE HEAT PUMP TECHNOLOGY WASHER/DRYER.
9. DRYER VENTS SHALL BE EQUIPPED WITH BACK-DRAFT DAMPERS PER SECTION 504.1.1 CMC."
10. 1/4" PER FOOT SLOPE FOR WASTE PIPE PER SECTION 708 CPC.
11. "BUILDING DRAIN AND VENT PIPING MATERIALS SHALL COMPLY WITH SECTIONS 701.0 AND 903.0 OF THE CALIFORNIA PLUMBING CODE."
12. ALL SANITARY SYSTEM MATERIALS SHALL BE LISTED BY AN APPROVE LISTING AGENCY."
13. DOMESTIC HOT WATER PIPING SHALL BE INSULATED PER SECTION 60 CPC.
14. ELECTRIC HIGH EFFICIENT CLOTHES DRYER.

LIGHTING PLAN NOTES

1. ALL LUMINAIRES SHALL BE HIGH-EFFICACY IN ACCORDANCE WITH CBEES TABLE 150.0-A
2. ALL LED LUMINAIRES AND LAMPS SHALL BE MARKED "JA8-2016" AND LISTED IN THE CALIFORNIA ENERGY COMMISSION DATABASE AT HTTPS://CACERTAPPLIANCES. ENERGY.CA.GOV/PAGES/ APPLIANCESEARCH.ASPX
3. ALL RECESSED DOWNLIGHT AND ENCLOSED LUMINAIRES SHALL BE MARKED "JA8-2016-E" AND LISTED IN THE CALIFORNIA ENERGY COMMISSION DATABSE AT HTTPS://CACERTAPPLIANCES.ENERGY.CA.GOV/PAGES/ APPLIANCESEARCH.ASPX
4. RECESSED DOWNLIGHT LUMINAIRES IN CEILINGS SHALL NOT BE SCREW-BASED
5. BATHROOMS, GARAGES, LAUNDRY ROOMS, AND UTILITY ROOMS: AT LEAST ONE LUMINAIRE IN EACH SPACE SHALL BE CONTROLLED BY A VACANCY SENSOR
6. ALL LUMINAIRES REQUIRING "JA8-2016" OR "JA8-2016-E" MARKING SHALL BE CONTROLLED BY A DIMMER OR VACANCY SENSOR EXCEPTION : CLOSETS LESS THAN 70 S.F. & HALLWAYS
7. OUTDOOR LIGHTING PERMANENTLY MOUNTED TO BUILDINGS SHALL BE CONTROLLED BY ONE OF THE FOLLOWING: - PHOTOCONTROL AND MOTION SENSOR - PHOTOCONTROL AND AUTOMATIC TIME-SWITCH CONTROL - ASTRONOMICAL TIME CLOCK - ENERGY MANAGEMENT CONTROL SYSTEM PER CBEES 150.0(K)3AIIIC
8. ALL SHOWN RECEPTACLES TO BE NEW.
9. LIGHTING IN HABITABLE SPACES, INCLUDING BUT NOT LIMITED TO LIVING ROOMS, DINING ROOMS, KITCHENS AND BEDROOMS, SHALL HAVE READILY ACCESSIBLE WALL-MOUNTED DIMMING CONTROLS THAT ALLOW THE LIGHTING TO BE MANUALLY ADJUSTED UP AND DOWN. (2022 CENC 160.5(A)2.F.)
10. IN BATHROOMS, GARAGES, LAUNDRY ROOMS, UTILITY ROOMS AND WALK-IN CLOSETS, AT LEAST ONE INSTALLED LUMINAIRE SHALL BECONTROLLED BY AN OCCUPANCY OR VACANCY SENSOR PROVIDING AUTOMATIC-OFF FUNCTIONALITY. (2022 CENC 160.5(A)2.E.I.)
11. ALL LUMINAIRES INSTALLED IN RESIDENTIAL KITCHENS, BATHROOMS, GARAGES, LAUNDRY AND UTILITY ROOMS SHALL BE HIGH EFFICACY TYPE.

SOLAR READY KEY NOTES

Project Name and Address

PROPOSED REMODEL FOR
CHESTER HOWE
5605 FRIARS RD # 306,
SAN DIEGO, CA 92110

SHEET TITLE

ELECTRICAL PLAN

No.	Revision/Issue	Date
1	CLIENT REVIEW	6/21/2023
2	AJUL	
3	PLAN CHECK	
4	CORRECTIONS	
5	PERMIT	
6		
7		

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SCAN ME

Project Name and Address

Project 436611538

Date 06/2023

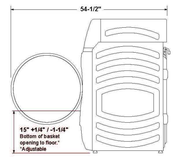
Scale

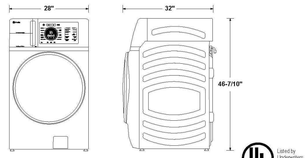
Sheet **A2.1**

PFQ97HSPVDS

GE Profile™ 4.8 cu. ft. Capacity UltraFast Combo with Ventless Heat Pump Technology Washer/Dryer

DIMENSIONS AND INSTALLATION INFORMATION (IN INCHES)





ELECTRIC RATING
120V | 11.0A, 60Hz

INSTALLATION INFORMATION: For complete information, see installation instructions packed with your Combo.

CIRCUIT REQUIREMENTS: An individual, properly grounded branch circuit, protected by a 15-amp circuit breaker or a time-delay fuse, is required.

NOTE: Combo wall outlet must be located within 36" of service cord entry and accessible when combo is mounted in position.

INCLUDED POWER CORD LENGTH - Up to 66"

INCLUDED DRAIN HOSE LENGTH - Up to 60"

Listed by Underwriters Laboratories

For answers to your Monogram, GE Café™, GE Profile™ or GE Appliances product questions, visit our website at geappliances.com or call GE Answer Center® Service, 800.626.2000.

Specification Created 1/23

PFQ97HSPVDS

GE Profile™ 4.8 cu. ft. Capacity UltraFast Combo with Ventless Heat Pump Technology Washer/Dryer

ALCOVE OR CLOSET INSTALLATION:
-Approved for closet installation. Closet doors must be louvered or otherwise ventilated and have at least 60 square inches (387.1 cm2) of open area.

-No Venting Required.

-Minimum clearances between Combo cabinet and adjacent walls or other surfaces are: 0" all sides and top.*

MINIMUM CLEARANCE OTHER THAN ALCOVE OR CLOSET INSTALLATIONS:
-Minimum clearances to combustible surfaces 0" all sides and top.*

WEIGHT
-Carton weight 323 lbs
-Product weight 302 lbs

*For improved performance, a 1/2" clearance is suggested on each side.

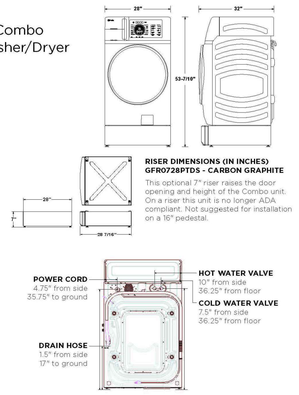
ACCESSORIES

Fill Hoses	WH41X10207 (sold separately)
Optional Riser	GFR0728PTDS (sold separately)
Sink Unicoupler Hook-up	WH41X27468 (sold separately)
Drain Hose Extension Kit- Approx. 44"	WH49X316 (sold separately)
Universal low profile washer floor tray	PM7X2 (sold separately)
Touch-Up-Paint - 0.6 OZ.	WR97X27706 (sold separately)

WARRANTY

Labor Warranty	Limited 1-year entire appliance
Parts Warranty	Limited 1-year entire appliance Limited 5-year sealed system Limited 10-year motor

For answers to your Monogram, GE Café™, GE Profile™ or GE Appliances product questions, visit our website at geappliances.com or call GE Answer Center® Service, 800.626.2000.



Specification Created 1/23

PFQ97HSPVDS

GE Profile™ 4.8 cu. ft. Capacity UltraFast Combo with Ventless Heat Pump Technology Washer/Dryer

FEATURES AND BENEFITS

2-in-1 Washer/Dryer - Wash & Dry a large load of laundry in about 2 hours without the hassle of transferring clothes from the washer to the dryer.*

High-Airflow Ventless Drying System - Recirculated high-speed filtered airflow lets you gently dry activewear, denim and other delicate items so you don't have to hang dry.

Easy Installation & Space-Saving Solutions - Rethink your laundry space and location with a 120V, all-in-one Ventless Combo design that takes up half the space of two separate units.

Greater Energy Savings -** 50% more energy efficient drying** with Ventless Heat Pump.

Adaptive SmartDispense™ Technology - Save time and effort with an intelligent dispenser that holds enough detergent and softener for up to 32 loads. Plus, scan the barcode on the detergent or softener bottle with the SmartHQ™ app and the washer will dispense the right amount based on the type of product used.

Microban® Antimicrobial Technology - Provides antimicrobial protection on the gasket, dispenser, and draining system, to help prevent odors and ensuring your Combo stays fresh and clean load after load.

Smart Features Powered by SmartHQ™- When connected to the SmartHQ™ app, the Combo allows you to select detergents, download specialty cycles, receive cycle status notifications, and initiate updates.

Large Wash Capacity - Large, 4.8-cu.-ft. capacity lets you clean large sized loads, even clean a king-size comforter.

Limited Warranty - Rest assured knowing your unit is backed by a 10-year limited warranty on the motor and a 5-year limited warranty on the sealed drying system.

EZ Access Lint Filter System - An exclusive, easy-to-reach lint filter system allows you to remove lint and micro particles, ensuring your Combo operates at the highest levels of efficiency.

Sanitize with Oxi - Remove 99% of bacteria with a dedicated cycle that uses an Oxi additive to boost your detergent's cleaning power, while keeping fabrics looking and feeling their best.

Eco Cool™ Cycle - Save energy with a specially designed cold-water wash and efficient Dry cycle that delivers comparable cleaning performance to the normal warm water wash cycle.

* Based on completing the Normal Wash + Dry cycle with Eco Dry on using a 10-lb. DOE or Mixed Load in about 2 hours. See Use & Care Manual for details.

** Efficiency rating as compared to the requirements for ENERGY STAR qualification for standard electric dryers.

ADA COMPLIANT

Specification Created 1/23

PROPOSED THIRD LEVEL UNIT #306-MECHANICAL PLAN

GRAPHIC SCALE
3/8" = 1'-0 (HALF)

REFERENCE NORTH

UTILITY PLAN NOTES

1. LOCAL EXHAUST FANS TO EXTERIOR TO PROVIDE MINIMUM 50 CFM INTERMITTENT OR 20 CFM CONTINUOUS VENTILATION.
2. SMOKE DETECTORS TO BE INTERCONNECTED PER CRC R314.4 AND HARD-WIRED WITH BATTERY BACK-UP PER CRC R314.6
3. CARBON MONOXIDE ALARMS TO BE INTERCONNECTED PER CRC R315.7 AND HARD-WIRED WITH BATTERY BACK-UP PER CRC R315.5
4. 4" Ø DRYER VENT WITH MAXIMUM 14 FOOT COMBINED HORIZONTAL AND VERTICAL LENGTH WITH TWO 90 DEGREE ELBOWS.
5. A MECHANICAL EXHAUST VENTILATION SYSTEM, SUPPLY VENTILATION SYSTEM, OR COMBINATION THEREOF SHALL BE INSTALLED FOR EACH DWELLING UNIT TO PROVIDE WHOLE-BUILDING VENTILATION WITH OUTDOOR AIR IN COMPLIANCE WITH ASHRAE STANDARD 62.2 AS ADOPTED BY THE CALIFORNIA ENERGY COMMISSION.
6. AN INTERMITTENTLY OR CONTINUOUSLY OPERATING LOCAL MECHANICAL EXHAUST VENTILATION SYSTEM SHALL BE INSTALLED IN EACH BATHROOM WITH A BATHTUB, SHOWER, OR SIMILAR MOISTURE SOURCE AND IN EACH KITCHEN IN COMPLIANCE WITH ASHRAE STANDARD 62.2 AS ADOPTED BY THE CALIFORNIA ENERGY COMMISSION. INTERMITTENT LOCAL EXHAUST VENTILATION AIRFLOW RATES SHALL BE 50 CFM IN BATHROOMS AND 100 CFM IN KITCHENS. CONTINUOUS LOCAL EXHAUST VENTILATION AIRFLOW RATES SHALL BE 20 CFM IN BATHROOMS AND 5 AIR CHANGES PER HOUR IN KITCHENS BASED ON KITCHEN VOLUME.
7. WATER HEATER OR FURNACE SHALL BE A DIRECT-VENT APPLIANCE LISTED GASKETED SELF CLOSING DOOR REQUIRED FOR GAS FAU.
8. GE PROFILE™ 4.8 CU. FT. CAPACITY ULTRAFAST COMBO WITH VENTLESS HEAT PUMP TECHNOLOGY WASHER/DRYER.
9. DRYER VENTS SHALL BE EQUIPPED WITH BACK-DRAFT DAMPERS PER SECTION 504.1.1 CMC.*
10. 1/4" PER FOOT SLOPE FOR WASTE PIPE PER SECTION 708 CPC.
11. "BUILDING DRAIN AND VENT PIPING MATERIALS SHALL COMPLY WITH SECTIONS 701.0 AND 903.0 OF THE CALIFORNIA PLUMBING CODE."
12. ALL SANITARY SYSTEM MATERIALS SHALL BE LISTED BY AN APPROVED LISTING AGENCY."
13. DOMESTIC HOT WATER PIPING SHALL BE INSULATED PER SECTION 609.12.2 CPC.
14. ELECTRIC HIGH EFFICIENT CLOTHES DRYER.

Project Name and Address

PROPOSED REMODEL FOR CHESTER HOWE
5605 FRIARS RD # 306, SAN DIEGO, CA 92110

SHEET TITLE
MECHANICAL

No.	Revision/Issue	Date
4	CLIENT REVIEW	6/21/2023
3	A.R.B.	
2	PLAN CHECK	
1	CORRECTIONS	
A	PERMIT	

Firm Name and Address

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Website: www.advanceddevelopment.net
License# 905815

SCAN ME

Project	Sheet
436611538	M1.0
Date: 06/2023	
Scale:	

A. General

Applicable codes. All projects shall comply with the *2019 California Building Code* (CBC) *and/or California Residential Code* (CRC)*, 2019 California Green Building Standards Code* (CalGreen), *2019 California Electrical Code* (CEC), 2019 *California Mechanical Code* (CMC), 2019 *California Plumbing Code* (CPC), 2019 *California Fire Code* (CFC), 2019 *California Building Energy Efficiency Standards* (CBEES), and all County of San Diego amendments.

A. Electrical, Plumbing, and Mechanical

1. **Exterior lighting.** All projects shall comply with the County of San Diego lighting ordinance.
2. **GFCI outlets.** Ground Fault Circuit Interrupter (GFCI) outlets are required in bathrooms, at kitchen countertops, at laundry and wet bar sinks, in garages, in crawlspaces, in unfinished basements, and outdoors. (CEC 210.8)
3. **AFCI outlets.** Electrical circuits in bedrooms, living rooms, dining rooms, dens, closets, hallways, or similar rooms must be protected by Arc Fault Circuit Interrupters (AFCI). (CEC 210.12)
4. **Luminaire requirements.** Installed luminaires shall meet the efficacy and fixture requirements of CBEES 150.0(k).
5. **Smoke detectors in building remodels**. Smoke detectors are required in each existing sleeping room, outside each separate sleeping area in the immediate vicinity of sleeping rooms, and on each story of a dwelling including basements. Battery-operated detectors are acceptable in existing areas with no construction taking place and in alterations not resulting in removal of interior wall or ceiling finishes and without access via an attic, crawl space, or basement. (CRC R314.3)
6. **Carbon monoxide detectors in building remodels**. Carbon monoxide detectors are required outside each separate sleeping area in the immediate vicinity of sleeping rooms and on each story of a dwelling including basements. Battery-operated detectors are acceptable in existing areas with no construction taking place and in alterations not resulting in removal of interior wall or ceiling finishes and without access via an attic, crawl space, or basement. (CRC R315.3)
7. **Water heater seismic strapping.** Minimum two 3/4-inch-by-24-gauge straps required around water heaters, with 1/4-inch-by-3-inch lag bolts attached directly to framing. Straps shall be at points within upper third and lower third of water heater vertical dimension. Lower connection shall occur minimum 4 inches above controls. (CPC 507.2)
8. **Gas appliances in garages.** Water heaters and heating/cooling equipment capable of igniting flammable vapors shall be placed on minimum 18-inch-high platform unless listing report number provided showing ignition-resistant appliance. (CPC 507.13 and CMC 305.1)
9. **Impact protection of appliances.** Water heaters and heating/cooling equipment subject to vehicular impact shall be protected by bollards or an equivalent measure. (CPC 507.13.1 and CMC 305.11)
10. **Water closet clearance.** Minimum 30-inch-wide by 24-inch-deep clearance required at front of water closets. (CPC 402.5)
11. **Shower size.** Shower compartments shall have minimum area of 1024 square inches and be able to encompass a 30-inch-diameter circle. Shower doors shall have a minimum 22-inch unobstructed width. (CPC 408.5 and CPC 408.6)
12. **Fireplace appliances.** Fireplaces with gas appliances are required to have the flue damper permanently fixed in the open position and fireplaces with LPG appliances are to have no 'pit' or 'sump' configurations. (CMC 303.7.1)
13. **Chimney clearance.** Minimum 2-foot chimney clearance required above building within 10-foot horizontally of chimney. The chimney shall extend minimum 3 feet above highest point where chimney passes through roof. (CRC R1003.9)

C. Mechanical Ventilation and Indoor Air Quality (ASHRAE 62.2-2010)

1. **Transfer air.** Ventilation air shall be provided directly from the outdoors and not as transfer air from adjacent dwelling units or other spaces, such as garages, unconditioned crawlspaces, or unconditioned attics. (CBEES 150.0(o))
2. **Instructions and labeling.** Ventilation system controls shall be labeled and the home owner shall be provided with instructions on how to operate the system. (CBEES 150.0(o))
3. **Combustion and solid-fuel burning appliances.** Combustion appliances shall be properly vented and air systems shall be designed to prevent back drafting. (CBEES 150.0(o))
4. **Garages.** The wall and openings between occupiable spaces and the garage shall be sealed. HVAC systems that include air handlers or return ducts located in garages shall have total air leakage of no more than 6% of total fan flow when measured at 0.1 in. w.c. using California Title 24 or equivalents. (CBEES 150.0(o))
5. **Minimum filtration.** Mechanical systems supplying air to occupiable space through ductwork shall be provided with a filter having a minimum efficiency of MERV 6 or better. (CBEES 150.0(o))
6. **Air inlets.** Air inlets (not exhaust) shall be located away from known contaminants. (CBEES 150.0(o))
7. **Air moving equipment.** Air moving equipment used to meet either the whole-building ventilation requirement or the local ventilation exhaust requirement shall be rated in terms of airflow and sound. (CBEES 150.0(o))
   - **a.** All continuously operating fans shall be rated at a maximum of 1.0 sone.
   - **b.** Intermittently operated whole-building ventilation fans shall be rated at a maximum of 1.0 sone.
   - **c.** Intermittently operated local exhaust fans shall be rated at maximum of 3.0 sone.
   - **d.** Remotely located air-moving equipment (mounted outside of habitable spaces) need not meet sound requirements if at least 4 feet of ductwork between fan and intake grill.

D. Foundation and Underfloor

1. **Foundation reinforcement.** Continuous footings and stem walls shall be provided with a minimum two longitudinal No. 4 bars, one at the top and one at the bottom of the footing. (CRC R403.1.3.3)
2. **Shear wall foundation support.** Shear walls shall be supported by continuous foundations. (CRC 403.1.2)
3. **Concrete slabs-on-grade.** Slabs-on-grade shall be minimum 3-1/2-inches thick. (CRC R506.1)
4. **Vapor retarder.** A 6-mil polyethylene or approved vapor retarder with joints lapped minimum 6 inches shall be placed between a concrete slab-on-grade and the base course or subgrade. (CRC 506.2.3)
5. **Anchor bolts and sills.** Foundation plates or sills shall be bolted or anchored to the foundation or foundation wall per the following (CRC R403.1.6 and CRC R602.11.1):
   - **a.** Minimum 1/2-inch-diameter steel bolts
   - **b.** Bolts embedded at least 7 inches into concrete or masonry
   - **c.** Bolts spaced maximum 6 feet on center
   - **d.** Minimum two bolts per plate/sill piece with one bolt located maximum 12 inches and minimum 7 bolt diameters from each end of each sill plate/piece
   - **e.** Minimum 3-inch by 3-inch by 0.299-inch steel plate washer between sill and nut on each bolt
6. **Hold-downs.** All hold-downs must be tied in place prior to foundation inspection.
7. **Protection of wood against decay**. Naturally durable or preservative-treated wood shall be provided in the following locations (CRC R317.1):
   - **a.** All wood in contact with ground, embedded in concrete in direct contact with ground, or embedded in concrete exposed to weather
   - **b.** Wood joists within 18 inches and wood girders within 12 inches of the exposed ground in crawl spaces shall be of naturally durable or preservative-treated wood
   - **c.** Wood framing members that rest on concrete or masonry exterior foundation walls and are less than 8 inches from exposed earth shall be of naturally durable or preservative-treated wood
   - **d.** Wood framing, sheathing, and siding on the exterior of the building and having clearance less than 6 inches from the exposed ground or less than 2 inches vertically from concrete steps, porch slabs, patio slabs, and similar horizontal surface exposed to weather
   - **e.** Sills and sleepers on concrete or masonry slab in direct contact with ground unless separated from such slab by impervious moisture barrier

D. Foundation and Underfloor (Continued)

   - **f.** Ends of wood girders entering masonry or concrete walls with clearances less than 1/2 inch on tops, sides, and ends
   - **g.** Wood structural members supporting moisture-permeable floors or roofs exposed to weather, such as concrete or masonry slabs, unless separated from such floors or roofs by an impervious moisture barrier
   - **h.** Wood furring strips or other wood framing members attached directly to interior of exterior concrete or masonry walls below grade except where vapor retarder applied between wall and furring strips or framing members

8. **Underfloor ventilation.** Underfloor areas shall have ventilation openings through foundation walls or exterior walls, with minimum net area of ventilation openings of 1 square foot for each 150 square feet of underfloor area. On such ventilating opening shall be within 3 feet of each corner of the building. (CRC R408.1)
9. **Underfloor access.** Underfloor areas shall be provided with a minimum 18-inch by 24-inch access opening. (CRC R408.4)

E. Wood Framing

1. **Fastener requirements.** The number, size, and spacing of fasteners connecting wood members/elements shall not be less than that set forth in CRC Table R602.3(1). (CRC R502.9, CRC R602.3, and CRC R802.2)
2. **Stud size, height, and spacing.** The size, height, and spacing of studs shall be in accordance with CRC Table R602.3(5). (CRC R602.3.1)
3. **Sill plate.** Studs shall have full bearing on nominal 2-inch thick or larger sill plate with width at least equal to stud width. (CRC R602.3.4)
4. **Bearing studs.** Where joists, trusses, or rafters are spaced more than 16 inches on center and the bearing studs below are spaced 24 inches on center, such members shall bear within 5 inches of the studs beneath. (CRC R602.3.3)
5. **Drilling and notching of studs.** Any stud in an exterior wall or bearing partition may be cut or notched to a depth not exceeding 25% of its width. Studs in nonbearing partitions may be notched to a depth not to exceed 40% of a single stud width. Any stud may be bored or drilled, provided the diameter of the resulting hole is no more than 60% of the stud width, the edge of the hole is no more than 5/8 inch to the edge of the stud, and the hole is not located in the same section as a cut or notch. Studs located in exterior wall or bearing partitions drilled over 40% and up to 60% shall also be doubled with no more than two successive studs bored. (CRC R602.6)
6. **Top plate.** Wood stud walls shall be capped with a double top plate installed to provide overlapping at corners and at intersections with other partitions. End joints in double top plates shall be offset at least 24 inches. Joints in plates need not occur over studs. Plates shall be minimum nominal 2 inches thick and have width at least equal to width of studs. (CRC R602.3.2)
7. **Top plate splices.** Top plate lap splices shall be face-nailed with minimum 8 16d nails on each side of splice. (CRC R602.10.8.1)
8. **Drilling and notching of top plate.** When piping or ductwork is placed in or partly in an exterior wall or interior load-bearing wall, necessitating cutting, drilling, or notching of the top plate by more than 50% of its width, a galvanized metal tie not less than 0.054-inch thick and 1-1/2-inches wide shall be fastened across and to the plate at each side of the opening with not less than 8 10d nails having a minimum length of 1-1/2 inches at each side or equivalent. The metal tie must extend minimum 6 inches past the opening. (CRC R602.6.1)
9. **Cripple walls.** Foundation cripple walls shall be framed of studs not less in size than the studding above. Cripple walls more than 4 feet in height shall have studs sized as required for an additional story. Cripple walls with stud height less than 14 inches shall be sheathed on at least one side with a wood structural panel fastened to both the top and bottom plates in accordance with Table R602.3(1), or the cripple walls shall be constructed of solid blocking. Cripple walls shall be supported on continuous foundations. (CRC R602.9)
10. **Wall bracing.** Buildings shall be braced in accordance with the methods allowed per CRC R602.10.2, CRC R602.10.4, and/or CRC R602.10.5.
11. **Braced wall line spacing.** Spacing between braced wall lines shall not exceed 20 feet or alternate provisions of CRC R602.10.1.3.
12. **Shear wall cumulative length.** The cumulative length of shear walls within each braced wall line shall meet the provisions of CRC Table R602.10.3(1) for wind loads and CRC Table R602.10.3(2) for seismic loads. (CRC R602.10.1.1)
13. **Shear wall spacing.** Shear walls shall be located not more than 25 feet on center. (CRC R602.10.2.2)
14. **Shear wall offset.** Shear walls may be offset out-of-plan not more than 4 feet from the designated braced wall line and not more than 8 feet from any other offset wall considered part of the same braced wall line. (CRC R602.10.1.2)
15. **Shear wall location.** Shear walls shall be located at the ends of each braced wall line or meet the alternate provisions of CRC R602.10.2.2.
16. **Individual shear wall length.** Shear walls shall meet minimum length requirements of CRC R602.10.6.5.1.
17. **Cripple wall bracing.** Cripple walls shall be braced per CRC R602.10.11.
18. **Shear wall and diaphragm nailing.** All shear walls, roof diaphragms, and floor diaphragms shall be nailed to supporting construction per CRC Table R602.3(1). (CRC R604.3)
19. **Shear wall joints.** All vertical joints in shear wall sheathing shall occur over, and be fastened to, common studs. Horizontal joints in shear walls shall occur over, and be fastened to, minimum 1-1/2-inch-thick blocking. (CRC R602.10.10)
20. **Framing over openings.** Headers, double joists, or trusses of adequate size to transfer loads to vertical members shall be provided over window and door openings in load-bearing walls and partitions. (CBC 2304.3.2)
21. **Joists under bearing partitions.** Joists under parallel bearing partitions shall be of adequate size to support the load. Double joists, sized to adequately support the load, that are separated to permit the installation of piping or vents shall be full-depth solid-blocked with minimum 2-inch nominal lumber spaced at maximum 4 feet on center. Bearing partitions perpendicular to joists shall not be offset from supporting girders, walls, or partitions more than the joist depth unless such joists are of sufficient size to carry the additional load. (CRC R502.4)
22. **Joists above or below shear walls.** Where joists are perpendicular to a shear wall above or below, a rim joist, band joist, or blocking shall be provided along the entire length of the shear wall. Where joists are parallel to a shear wall above or below, a rim joist, end joist, or other parallel framing shall be provided directly above and/or below the shear wall. Where a parallel framing member cannot be located directly above and/or below the shear wall, full-depth blocking at 16-inch spacing shall be provided between the parallel framing members to each side of the shear wall. (CRC R602.10.8)
23. **Floor member bearing.** The ends of each floor joist, beam, or girder shall have minimum 1-1/2 inches of bearing on wood or metal and minimum 3 inches of bearing on masonry or concrete except where supported on a 1-inch-by-4-inch ribbon strip and nailed to the adjoining stud or by the use of approved joist hangers. (CRC R502.6)
24. **Floor joist lap.** Floor joists framing opposite sides over a bearing support shall lap minimum 3 inches and shall be nailed together within minimum 3 10d face nails. A wood or metal splice with strength equal to or greater than that provided by the lap is permitted. (CRC R502.6.1)
25. **Floor joist-to-girder support.** Floor joists framing into the side of a wood girder shall be supported by approved framing anchors or on ledger strips minimum nominal 2 inches by 2 inches. (CRC R502.6.2)
26. **Floor joist lateral restraint.** Floor joists shall be supported laterally at ends and each intermediate support by minimum 2-inch full-depth blocking, by attachment to full-depth header, band joist, or rim joist, to an adjoining stud, or shall be otherwise provided with lateral support to prevent rotation. (CRC R502.7)
27. **Floor joist bridging.** Floor joists exceeding nominal 2 inches by 12 inches shall be supported laterally by solid blocking, diagonal bridging (wood or metal), or a continuous 1-inch-by-3-inch strip nailed across the bottom of joists perpendicular to joists at maximum 8-foot intervals. (CRC R502.7.1)
28. **Framing of floor openings.** Openings in floor framing shall be framed with a header and trimmer joists. When the header joist span does not exceed 4 feet, the header joist may be a single member the same size as the floor joist. Single trimmer joists may be used to carry a single header joist located within 3 feet of the trimmer joist bearing. When the header joist span exceeds 4 feet, the trimmer joists and header joist shall be doubled and of sufficient cross section to support the floor joists framing into the header. Approved hangers shall be used for the header-joist-to-trimmer-joist connections when the header joist span exceeds 6 feet. Tail joists over 12 feet long shall be supported at the header by framing anchors or on ledger strips minimum 2 inches by 2 inches. (CRC R502.10)

E. Wood Framing (Continued)

29. **Girders.** Girders for single-story construction or girders supporting loads from a single floor shall not be less than 4 inches by 6 inches for spans 6 feet or less, provided that girders are spaced not more than 8 feet on center. Other girders shall be designed to support the loads specified in the CBC. Girder end joints shall occur over supports. When a girder is spliced over a support, an adequate tie shall be provided. The ends of beams or girders supported on masonry or concrete shall not have less than 3 inches of bearing. (CBC 2308.7)
30. **Ridges, hips, and valleys**. Rafters shall be framed to a ridge board or to each other with a gusset plate as a tie. Ridge boards shall be minimum 1-inch nominal thickness and not less in depth than the cut end of the rafter. At all valley and hips, there shall be a valley or hip rafter not less than 2-inch nominal thickness and not less in depth than the cut end of the rafter. Hip and valley rafters shall be supported at the ridge by a brace to a bearing partition or be designed to carry and distribute the specific load at that point. Where the roof pitch is less than 3:12 slope (25% gradient), structural members that support rafters and ceilings joists, such as ridges, hips, and valleys, shall be designed as beams. (CRC R802.3)
31. **Ceiling joist and rafter connections.** Ceiling joists and rafters shall be nailed to each other per CRC Table R802.5.1(9), and the rafter shall be nailed to the wall top plate per CRC Table R602.3(1). Ceiling joists shall be continuous or securely joined per CRC Table R802.5.1(9) where they meet over interior partitions and are nailed to adjacent rafters to provide a continuous tie across the building when such joists are parallel to rafters. Where ceiling joists are not connected to the rafters at the wall top plate, joists connected higher in the attic shall be installed as rafter ties, or rafter ties shall be installed to provide a continuous tie. Where ceiling joists are not parallel to rafters, rafter ties shall be installed. Rafter ties shall be minimum 2 inches by 4 inches nominal, installed per CRC Table R802.5.1(9), or connections of equivalent capacities shall be provided. Where ceilings joists or rafter ties are not provided, the ridge formed by these rafters shall be supported by a wall or engineer-designed girder. (CRC R802.3.1)
32. **Ceiling joists lapped.** Ends of ceiling joists shall be lapped minimum 3 inches or butted over bearing partitions or beams and toenailed to the bearing element. Where ceiling joists provide resistance to rafter thrust, lapped joists shall be nailed together per CRC Table R602.3(1) and butted joists shall be tied together in a manner to resist such thrust. (CRC R802.3.2)
33. **Collar ties.** Collar ties or ridge straps to resist wind uplift shall be connected in the upper third of the attic space. Collar ties shall be a minimum 1 inch by 4 inches nominal and spaced at maximum 4 feet on center. (CRC R802.3.1)
34. **Purlins.** Purlins installed to reduce the span of rafters shall be sized not less than the required size of the rafters they support. Purlins shall be continuous and shall be supported by 2-inch-by-4-inch nominal braces installed to bearing walls at a minimum 45-degree slope from horizontal. The braces shall be spaced maximum 4 feet on center with a maximum 8-foot unbraced length. (CRC R802.5.1)
35. **Roof/ceiling member bearing.** The ends of each rafter or ceiling joist shall have not less than 1-1/2 inches of bearing on wood or metal and not less than 3 inches of bearing on masonry or concrete. (CRC R802.6)
36. **Roof/ceiling member lateral support.** Roof framing members and ceiling joists with a nominal depth-to-thickness ratio exceeding 5:1 shall be provided with lateral support at points of bearing to prevent rotation. (CRC R802.8)
37. **Roof/ceiling bridging.** Rafters and ceiling joists with a nominal depth-to-thickness ratio exceeding 6:1 shall be supported laterally by solid blocking, diagonal bridging (wood or metal), or a continuous 1-inch-by-3-inch wood strip nailed across the rafters or ceiling joists at maximum 8-foot intervals. (CRC R802.8.1)
38. **Framing of roof/ceiling openings.** Openings in roof and ceiling framing shall be framed with a header and trimmer joists. When the header joist span does not exceed 4 feet, the header joist may be a single member the same size as the ceiling joist or rafter. Single trimmer joists may be used to carry a single header joist located within 3 feet of the trimmer joist bearing. When the header joist span exceeds 4 feet, the trimmer joists and header joist shall be doubled and of sufficient cross section to support the ceiling joists or rafters framing into the header. Approved hangers shall be used for the header-joist-to-trimmer-joist connections when the header joist span exceeds 6 feet. Tail joists over 12 feet long shall be supported at the header by framing anchors or on ledger strips minimum 2 inches by 2 inches. (CRC R502.10)
39. **Roof framing above shear walls.** Rafters or roof trusses shall be connected to top plates of shear walls with blocking between the rafters or trusses. (CRC R602.10.8)
40. **Roof diaphragm under fill framing.** Roof plywood shall be continuous under California fill framing.
41. **Roof diaphragm at ridges.** Minimum 2-inch nominal blocking required for roof diaphragm nailing at ridges.
42. **Blocking of roof trusses.** Minimum 2-inch nominal blocking required between trusses at ridge lines and at points of bearing at exterior walls.
43. **Truss clearance**. Minimum 1/2-inch clearance required between top plates of interior non-bearing partitions and bottom chords of trusses.
44. **Drilling, cutting, and notching of roof/floor framing.** Notches in solid lumber joists, rafters, blocking, and beams shall not exceed one-sixth the member depth, shall be not longer than one-third the member depth, and shall not be located in the middle one-third of the span. Notches at member ends shall not exceed one-fourth the member depth. The tension side of members 4 inches or greater in nominal thickness shall not be notched except at member ends. The diameter of holes bored or cut into members shall not exceed one-third the member depth. Holes shall not be closer than 2 inches to the top or bottom of the member or to any other hole located in the member. Where the member is also notched, the hole shall not be closer than 2 inches to the notch. (CRC R502.8.1)
45. **Exterior landings, decks, balconies, and stairs.** Such elements shall be positively anchored to the primary structure to resist both vertical and lateral forces or shall be designed to be self-supporting. Attachment shall not be accomplished by use of toenails or nails subject to withdrawal. (CRC R311.3)
46. **Fireblocking.** Fireblocking shall be provided in the following locations (CRC R302.11 and CRC R1003.19):
   - **a.** In concealed spaces of stud walls and partitions, including furred spaces, and parallel rows of studs or staggered studs, as follows:
   - **i.** Vertically at the ceiling and floor levels
   - **ii.** Horizontally at intervals not exceeding 10 feet
   - **b.** At all interconnections between concealed vertical and horizontal spaces such as occur at soffits, drop ceilings, and cove ceilings
   - **c.** In concealed spaces between stair stringers at the top and bottom of the run
   - **d.** At openings around vents, pipes, ducts, cables and wires at ceiling and floor level, with an approved material to resist the free passage of flame and products of combustion
   - **e.** At chimneys and fireplaces per item E.49
   - **f.** Cornices of a two-family dwelling at the line of dwelling-unit separation
47. **Fireblocking materials.** Except as otherwise specified in items E.48 and E.49, fireblocking shall consist of the following materials with the integrity maintained (CRC R302.11.1):
   - **a.** Two-inch nominal lumber
   - **b.** Two thicknesses of one-inch nominal lumber with broken lap joints
   - **c.** One thickness of 23/32-inch wood structural panel with joints backed by 23/32-inch wood structural panel
   - **d.** One thickness of 3/4-inch particleboard with joints backed by 3/4-inch particleboard
   - **e.** 1/2-inch gypsum board
   - **f.** 1/4-inch cement-based millboard
   - **g.** Batts or blankets of mineral or glass fiber of other approved materials installed in such a manner as to be securely retained in place. Batts or blankets of mineral or glass fiber or other approved non-rigid materials shall be permitted for compliance with the 10-foot horizontal fireblocking in walls constructed using parallel rows of studs or staggered studs. Unfaced fiberglass batt insulation used as fireblocking shall fill the entire cross-section of the wall cavity to a minimum height of 16 inches measured vertically. When piping, conduit, or similar obstructions are encountered, the insulation shall be packed tightly around the obstruction. Loose-fill insulation material shall not be used as a fireblock unless specifically tested in the form and manner intended for use to demonstrate its ability to remain in place and to retard the spread of fire and hot gases.
48. **Fireblocking at openings around vents, pipes, ducts, cables, and wires at ceiling and floor level.** Such openings shall be fireblocked with an approved material to resist the free passage of flame and products of combustion. (CRC R302.11)

E. Wood Framing (Continued)

49. **Fireblocking of chimneys and fireplaces.** All spaces between chimneys and floors and ceilings through which chimneys pass shall be fireblocked with noncombustible material securely fastened in place. The fireblocking of spaces between chimneys and wood joists, beams, or headers shall be self-supporting or be placed on strips of metal or metal lath laid across the spaces between combustible material and the chimney. (CRC R1003.19)
50. **Draftstopping.** In combustible construction where there is usable space both above and below the concealed space of a floor/ceiling assembly, draftstops shall be installed so that the area of the concealed space does not exceed 1000 square feet. Draftstopping shall divide the concealed space into approximately equal areas. Where the assembly is enclosed by a floor membrane above and a ceiling membrane below, draftstopping shall be provided in floor/ceiling assemblies under the following circumstances (CRC R302.12):
   - **a.** Ceiling is suspended under the floor framing
   - **b.** Floor framing is constructed of truss-type open-web or perforated members
51. **Draftstopping materials.** Draftstopping shall not be less than 1/2-inch gypsum board, 3/8-inch wood structural panels, or other approved materials adequately supported. Draftstopping shall be installed parallel to the floor framing members unless otherwise approved by the building official. The integrity of draftstops shall be maintained. (CRC R302.12.1)
52. **Combustible insulation clearance.** Combustible insulation shall be separated minimum 3 inches from recessed luminaires, fan motors, and other heat-producing devices. (CRC R302.14)

F. General Material Specifications

1. **Lumber.** All joists, rafters, beams, and posts 2-inches to 4-inches thick shall be No. 2 grade Douglas Fir-Larch or better. All posts and beams 5 inches and thicker shall be No. 1 grade Douglas Fir-Larch or better. Studs not more than 8 feet long shall be stud-grade Douglas Fir-Larch or better when supporting not more than one floor, roof, and ceiling. Studs longer than 8 feet shall be No. 2 grade Douglas Fir-Larch or better.
2. **Concrete.** Concrete shall have a minimum compressive strength of 2,500 psi at 28 days and shall consist of 1 part cement, 3 parts sand, 4 parts 1-inch maximum size rock, and not more than 7-1/2 gallons of water per sack of cement. (CRC R402.2)
3. **Mortar.** Mortar used in construction of masonry walls, foundation walls, and retaining walls shall conform to ASTM C 270 and shall consist of 1 part portland cement, 2-1/4 to 3 parts sand, and 1/4 to 1/2 part hydrated lime. (CBC 2103.2)
4. **Grout.** Grout shall conform to ASTM C 476 and shall consist of 1 part portland cement, 1/10 part hydrated lime, 2-1/4 to 3 parts sand, and 1 to 2 parts gravel. Grout shall attain a minimum compressive strength of 2,000 psi at 28 days. (CBC 2103.3)
5. **Masonry.** Masonry units shall comply with ASTM C 90 for load-bearing concrete masonry units. (CBC 2103.1)
6. **Reinforcing steel.** Reinforcing steel used in construction of reinforced masonry or concrete structures shall be deformed and comply with ASTM A 615. (CBC 2103.4)
7. **Structural steel.** Steel used as structural shapes such as wide-flange sections, channels, plates, and angles shall comply with ASTM A36. Pipe columns shall comply with ASTM A53. Structural tubes shall comply with ASTM A500, Grade B.
8. **Fasteners for preservative-treated wood.** Fasteners for preservative-treated and fire-retardant-treated wood - including nuts and washers -- shall be of hot dipped zinc-coated galvanized steel, stainless steel, silicon bronze, or copper. (CRC R317.3.1)

   Exception: 1/2-inch diameter or greater steel bolts

   Exception: Fasteners other than nails and timber rivets may be of mechanically deposited zinc-coated steel with coating weights in accordance with ASTM B 695, Class 55 minimum

   Exception: Plain carbon steel fasteners acceptable in SBX/DOT and zinc borate preservative-treated wood in an interior, dry environment
9. **Fasteners for fire-retardant-treated wood.** Fasteners for fire-retardant-treated wood used in exterior applications or wet or damp locations shall be of hot dipped zinc-coated galvanized steel, stainless steel, silicon bronze, or copper. (CRC R317.3.3)

G. Roofing and Weatherproofing

1. **Roof covering.** All roof covering shall be installed per applicable requirements of CBC 1507. Roof coverings shall be at least Class A rated in accordance with ASTM E 108 or UL 790, which shall include coverings of slate, clay or concrete roof tile, exposed concrete roof deck, ferrous or copper shingles or sheets. (County Building Code 92.1.1505.1)
2. **Roof flashing.** Flashing shall be installed at wall and roof intersections, at gutters, wherever there is a change in roof slope or direction, and around roof openings. Where flashing is of metal, the metal shall be corrosion-resistant with a thickness of not less than 0.019 inch (No. 26 galvanized sheet). (CRC R903.2.1)
3. **Crickets and saddles.** A cricket or saddle shall be installed on the ridge side of any chimney or penetration more than 30 inches wide as measured perpendicular to the slope. Cricket or saddle covering shall be sheet metal or the same material as the roof covering. (CRC R903.2.2)
4. **Water-resistive barrier.** A minimum of one layer of No. 15 asphalt felt shall be attached to studs or sheathing of all exterior walls. Such felt or material shall be applied horizontally, with the upper layer lapped over the lower layer minimum 2 inches. Where joints occur, felt shall be lapped minimum 6 inches. The felt shall be continuous to the top of walls and terminated at penetrations and building appendages in a manner to maintain a weather-resistant exterior wall envelope. (CRC R703.2)
5. **Wall flashing.** Approved corrosion-resistant flashing shall be applied shingle fashion at the following locations to prevent entry of water into the wall cavity or penetration of water to the building structural framing components (CRC R703.8):
   - **a.** Exterior door and window openings, extending to the surface of the exterior wall finish or to the water-resistive barrier for subsequent drainage
   - **b.** At the intersection of chimneys or other masonry construction with frame or stucco walls, with projecting lips on both sides under stucco copings
   - **c.** Under and at the ends of masonry, wood, or metal copings and sills
   - **d.** Continuously above all projecting wood trim
   - **e.** Where exterior porches, decks, or stairs attach to a wall or floor assembly of wood-frame construction
   - **f.** At wall and roof intersections
   - **g.** At built-in gutters
6. **Dampproofing.** Dampproofing materials for foundation walls enclosing usable space below grade shall be installed on the exterior surface of the wall, and shall extend from the top of the footing to finished grade. (CRC R406.1)
7. **Weep screed.** A minimum 0.019-inch (No. 26 galvanized sheet gage), corrosion-resistant weep screed or plastic weep screed with a minimum vertical attachment flange of 3-1/2 inches shall be provided at or below the foundation plate line on exterior stud walls in accordance with ASTM C 92. The weep screed shall be placed a minimum 4 inches above the earth or 2 inches above paved areas and shall be of a type allowing trapped water to drain to the exterior of the building. (CRC R703.7.2.1)

H. Grading and soils

1. **Grading permit**. Grading permit required if volume of earth moved exceeds 200 cubic yards or if any cuts or fills exceed 8 feet in height/depth. (County Grading Ordinance 202)
2. **Compaction report.** Compaction report required for fill material 12 inches or more in depth. (CBC 1803.5.8)

I. Green Building Standards Code (CALGreen) Requirements

1. **Applicability**. CalGreen residential mandatory measures shall apply to every newly constructed building or structure and within any addition or alteration increasing a building's conditioned area, volume, or size. (CalGreen 101.3, CalGreen 301.1.1)

   Exception: All residential buildings undergoing permitted alterations, additions, or improvements shall replace noncompliant plumbing fixtures with water-conserving plumbing fixtures per CalGreen 301.1.1 and CalGreen 4.303.1

I. (CALGreen) Requirements (Continued)

2. **Water conserving plumbing fixtures and fittings.** Plumbing fixtures and fittings shall comply with the following per CalGreen 4.303.1:
   - **a.** Water closets: Maximum 1.28 gallons per flush
   - **b.** Urinals: Maximum 0.5 gallons per flush
   - **c.** Single showerheads: Maximum flow rate of 2.0 gallons per minute at 80 psi
   - **d.** Multiple showerheads serving one shower: Maximum combined flow rate of 2.0 gallons per minute at 80 psi
   - **e.** Lavatory faucets: Maximum flow rate of 1.2 gallons per minute at 60 psi, minimum flow rate of 0.8 gallons per minute at 20 psi
   - **f.** Kitchen faucets: Maximum flow rate of 1.8 gallons per minute at 60 psi

   Exception: Temporary increase allowed to maximum 2.2 gallons per minute at 60 psi if faucet defaults back to maximum 1.8 gallons per minute at 60 psi
3. **Irrigation controllers.** Automatic irrigation system controllers for landscaping shall comply with the following (CalGreen 4.304.1):
   - **a.** Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change.
   - **b.** Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor which connects or communicates with the controller(s). Soil moisture-based controllers are not required to have rain sensor input.
4. **Joints and openings.** Openings in the building envelope separating conditioned space from unconditioned space needed to accommodate utility and other penetrations must be sealed in compliance with the *California Energy Code*. (CALGreen 4.406.1)

   Exception: Annular spaces around pipes, electric cables, conduits or other openings in plates at exterior walls shall be protected against the passage of rodents by closing such opening with cement mortar, concrete masonry or a similar method acceptable to the enforcing agency.
5. **Construction waste reduction, disposal, and recycling.** Reduce and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition debris. (CALGreen 4.408.1)

   Exception: Excavated soil and land-clearing debris.

   Exception: Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably close to the jobsite

   The County of San Diego, Department of Public Works, Construction & Demolition (C&D) Facilities Guide is online at:
   http://www.sdcounty.ca.gov/dpw/recycling/Files/Construction_Guide_SJ8_Pgs_1-27.pdf.
6. **Construction waste management plan.** A construction waste management plan shall be prepared and available on site during construction. Documentation demonstrating compliance with the plan shall be accessible during construction for the enforcing agency. (CALGreen 4.408.2) The plan:
   - a. Identify the construction and demolition waste materials to be diverted from disposal by recycling, reuse on the project or salvage for future use or sale
   - b. Specify if construction and demolition waste materials will be sorted on-site (source-separated) or bulk mixed (single stream)
   - c. Identify diversion facilities where the construction and demolition waste materials will be taken
   - d. Identify construction methods employed to reduce the amount of construction and demolition waste generated
   - e. Specify that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both
7. **Operation and maintenance manual.** Prior to final inspection, a manual, compact disc, web-based reference, or other acceptable media which includes all of the following shall be placed in the building (CALGreen 4.410.1):
   - **a.** Directions to owner or occupant that manual shall remain with the building throughout the life cycle of the structure.
   - **b.** Operation and maintenance instructions for the following:
   - **i.** Equipment and appliances, including water-saving devices and systems, HVAC system, photovoltaic systems, water-heating systems and other major appliances and equipment.
   - **ii.** Roof and yard drainage, including gutters and downspouts.
   - **iii.** Space conditioning systems, including condensers and air filters.
   - **iv.** Landscape irrigation systems.
   - **v.** Water reuse systems.
   - **c.** Information from local utility, water, and waste recovery providers on methods to further reduce resource consumption, including recycle programs and locations.
   - **d.** Public transportation and/or carpool options available in the area.
   - **e.** Educational material on the positive impacts of an interior relative humidity between 30-60 percent and what methods an occupant may use to maintain the relative humidity level in that range.
   - **f.** Information about water-conserving landscape and irrigation design and controllers which conserve water.
   - **g.** Instructions for maintaining gutters and downspouts and the importance of diverting water at least 5 feet away from the foundation.
   - **h.** Information on required routine maintenance measures, including, but not limited to, caulking, painting, grading around the building, etc.
   - **i.** Information about state solar energy and incentive programs available.
   - **j.** A copy of all special inspection verifications required by the enforcing agency or code.
8. **Covering of duct openings and protection of mechanical equipment during construction.** At the time of rough installation or during storage on the construction site and until final startup of the heating and cooling equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheetmetal or other methods acceptable to the enforcing agency to reduce the amount of dust or debris which may collect in the system. (CALGreen 4.504.1)
9. **Adhesives, sealants, caulks, paints, and coatings pollutant control.** Adhesives (including carpet adhesives), sealants, caulks, paints, and coatings shall comply with VOC limits per CALGreen 4.504.2. Verification of compliance shall be provided at the request of the enforcing agency. (CALGreen 4.504.2.1)
10. **Carpet systems.** All carpet installed in the building interior shall meet the testing and product requirements of one of the following (CALGreen 4.504.3):
   - **a.** Carpet and Rug Institute's Green Label Plus Program (all carpet cushion must meet the requirements of this program).
   - **b.** California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350).
   - **c.** NSF/ANSI 140 at the Gold level.
   - **d.** Scientific Certifications Systems Indoor Advantage™ Gold.
11. **Resilient flooring systems.** At least 80 percent of the floor area receiving resilient flooring shall comply with one of or more of the following (CALGreen 4.504.4):
   - a. VOC emission limits defined in the Collaborative for High Performance Schools (CHPS) High Performance Products Database
   - b. Products compliant with CHPS criteria certified under the Greenguard Children & Schools program
   - c. Certification under the Resilient Floor Covering Institute (RFCI) FloorScore program
   - d. Meet the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.1, February 2010 (also known as Specification 01350)
12. **Composite wood products.** Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the building shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure for Composite Wood (17 CCR 93120 et seq.) by or before the dates specified in those sections, as shown in CalGreen Table 4.504.5. The following limits are in parts per million (CALGreen 4.504.5):
   - a. Hardwood plywood veneer core 0.05
   - b. Hardwood plywood composite core 0.05
   - c. Particle board 0.09
   - d. Medium-density fiberboard (MDF) 0.11
   - e. Thin MDF (5/16 inch or less) 0.13

I. (CALGreen) Requirements (Continued)

13. **Moisture content of building materials.** Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed when the framing members exceed 19 percent moisture content. Moisture content shall be verified in compliance with the following (CALGreen 4.505.3):
   - **a.** Moisture content shall be determined with either a probe-type or contact-type moisture meter.
   - **b.** Moisture readings shall be taken at a point 2 feet to 4 feet from the grade stamped end of each piece to be verified.
   - **c.** At least three random moisture readings shall be performed on wall and floor framing with documentation acceptable to the enforcing agency provided at the time of approval to enclose the wall and floor framing.

   Insulation products which are visibly wet or have high moisture content shall be replaced or allowed to dry prior to enclosure in wall or floor cavities. Wet-applied insulation products shall follow the manufacturers' drying recommendations prior to enclosure.
14. **B**athrooms with a bathtub and/or shower shall be mechanically ventilated per the following (CalGreen 4.506.1):
   - **a.** Fans shall be ENERGY STAR compliant and ducted to terminate outside building
   - **b.** Unless functioning as a component of a whole-house ventilation system, fans shall have humidity controls capable of adjustment - manually or automatically -- between a relative humidity range of 50% to 80%.
15. **Heating and air-conditioning system design.** Heating and air-conditioning systems shall be sized, designed, and have their equipment selected using the following methods (CALGreen 4.507.2):
   - **a.** The heat loss and heat gain is established according to ANSI/ACCA 2 Manual J, ASHRAE handbooks, or other equivalent design software or methods.
   - **b.** Duct systems are sized according to ANSI/ACCA 1 Manual D 2009, ASHRAE handbooks, or other equivalent design software or methods.
   - **c.** Select heating and cooling equipment according to ACCA 36-S Manual S or other equivalent design software or methods

TABLE R602.3(1)
FASTENER SCHEDULE FOR STRUCTURAL MEMBERS

TABLE R602.3(1)
FASTENING SCHEDULE

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a, b, c]	SPACING AND LOCATION
	Roof		
1	Blocking between ceiling joists or rafters to top plate	4-8d box (2½" × 0.113") or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Toe nail
2	Ceiling joists to top plate	4-8d box (2½" × 0.113"); or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Per joist, toe nail
3	Ceiling joist not attached to parallel rafter, laps over partitions [see Sections R802.3.1, R802.3.2 and Table R802.5.1(9)]	4-10d box (3" × 0.128"); or 3-16d common (3½" × 0.162"); or 4-3" × 0.131" nails	Face nail
4	Ceiling joist attached to parallel rafter (heel joint) [see Sections R802.3.1 and R802.3.2 and Table R802.5.1(9)]	Table R802.5.1(9)	Face nail
5	Collar tie to rafter, face nail or 1¼" × 20 ga. ridge strap to rafter	4-10d box (3" × 0.128"); or 3-10d common (3" × 0.148"); or 4-3" × 0.131" nails	Face nail each rafter
6	Rafter or roof truss to plate	3-16d box nails (3½" × 0.135"); or 3-10d common nails (3" × 0.148"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	2 toe nails on one side and 1 toe nail on opposite side of each rafter or truss[i]
7	Roof rafters to ridge, valley or hip rafters or roof rafter to minimum 2" ridge beam	4-16d (3½" × 0.135"); or 3-10d common (3½" × 0.148"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	Toe nail
		3-16d box 3½" × 0.135"); or 2-16d common (3½" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	End nail
	Wall		
8	Stud to stud (not at braced wall panels)	16d common (3½" × 0.162")	24" o.c. face nail
		10d box (3" × 0.128"); or 3" × 0.131" nails	16" o.c. face nail
9	Stud to stud and abutting studs at intersecting wall corners (at braced wall panels)	16d box (3½" × 0.135"); or 3" × 0.131" nails	12" o.c. face nail
		16d common (3½" × 0.162")	16" o.c. face nail
10	Built-up header (2" to 2" header with ½" spacer)	16d common (3½" × 0.162")	16" o.c. each edge face nail
		16d box (3½" × 0.135")	12" o.c. each edge face nail
11	Continuous header to stud	5-8d box (2½" × 0.113"); or 4-8d common (2½" × 0.131"); or 4-10d box (3" × 0.128")	Toe nail
12	Top plate to top plate	16d common (3½" × 0.162")	16" o.c. face nail
		10d box (3" × 0.128"); or 3" × 0.131" nails	12" o.c. face nail
13	Double top plate splice for SDCs A-D₂ with seismic braced wall line spacing < 25'	8-16d common (3½" × 0.162"); or 12-16d box (3½" × 0.135"); or 12-10d box (3" × 0.128"); or 12-3" × 0.131" nails	Face nail on each side of end joint (minimum 24" lap splice length each side of end joint)
	Double top plate splice SDCs D₀, D₁, or D₂; and braced wall line spacing ≥ 25'	12-16d (3½" × 0.135")	
14	Bottom plate to joist, rim joist, band joist or blocking (not at braced wall panels)	16d common (3½" × 0.162")	16" o.c. face nail
		16d box (3½" × 0.135"); or 3" × 0.131" nails	12" o.c. face nail
15	Bottom plate to joist, rim joist, band joist or blocking (at braced wall panel)	3-16d box (3½" × 0.135"); or 2-16d common (3½" × 0.162"); or 4-3" × 0.131" nails	3 each 16" o.c. face nail 2 each 16" o.c. face nail 4 each 16" o.c. face nail
16	Top or bottom plate to stud	4-8d box (2½" × 0.113"); or 3-16d box (3½" × 0.135"); or 4-8d common (2½" × 0.131"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	Toe nail
		3-16d box (3½" × 0.135"); or 2-16d common (3½" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	End nail
17	Top plates, laps at corners and intersections	3-10d box (3" × 0.128"); or 2-16d common (3½" × 0.162"); or 3-3" × 0.131" nails	Face nail
18	1" brace to each stud and plate	3-8d box (2½" × 0.113"); or 2-8d common (2½" × 0.131"); or 2-10d box (3" × 0.128"); or 2 staples 1¾"	Face nail
19	1" × 6" sheathing to each bearing	3-8d box (2½" × 0.113"); or 2-8d common (2½" × 0.131"); or 2-10d box (3" × 0.128"); or 2 staples, 1" crown, 16 ga., 1¾" long	Face nail
20	1" × 8" and wider sheathing to each bearing	3-8d box (2½" × 0.113"); or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 3 staples, 1" crown, 16 ga., 1¾" long	Face nail
		Wider than 1" × 8": 4-8d box (2½" × 0.113"); or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 4 staples, 1" crown, 16 ga., 1¾" long	
	Floor		
21	Joist to sill, top plate or girder	4-8d box (2½" × 0.113"); or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Toe nail
22	Rim joist, band joist or blocking to sill or top plate (roof applications also)	8d box (2½" × 0.113")	4" o.c. toe nail
		8d common (2½" × 0.131"); or 10d box (3" × 0.128"); or 3" × 0.131" nails	6" o.c. toe nail
23	1" × 6" subfloor or less to each joist	3-8d box (2½" × 0.113"); or 2-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 2 staples, 1" crown, 16 ga., 1¾" long	Face nail

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a, b, c]	SPACING AND LOCATION
	Floor		
24	2" subfloor to joist or girder	3-16d box (3½" × 0.135"); or 2-16d common (3½" × 0.162")	Blind and face nail
25	2" planks (plank & beam—floor & roof)	3-16d box (3½" × 0.135"); or 2-16d common (3½" × 0.162")	At each bearing, face nail
26	Band or rim joist to joist	3-16d common (3½" × 0.162"); 4-10 box (3" × 0.128"), or 4-3" × 0.131" nails; or 4-3" × 14 ga. staples, 7/16" crown	End nail
27	Built-up girders and beams, 2-inch lumber layers	20d common (4" × 0.192"); or	Nail each layer as follows: 32" o.c. at top and bottom and staggered.
		10d box (3" × 0.128"); or 3" × 0.131" nails	24" o.c. face nail at top and bottom staggered on opposite sides
		And: 2-20d common (4" × 0.192"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Face nail at ends and at each splice
28	Ledger strip supporting joists or rafters	4-16d box (3½" × 0.135"); or 3-16d common (3½" × 0.162"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	At each joist or rafter, face nail
29	Bridging to joist	2-10d (3" × 0.128")	Each end, toe nail

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a, b, c]	SPACING OF FASTENERS: Edges (inches)[h]	SPACING OF FASTENERS: Intermediate supports[c, e] (inches)
	Wood structural panels, subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing [see Table R602.3(3) for wood structural panel exterior wall sheathing to wall framing]			
30	3/8" – 1/2"	6d common (2" × 0.113") nail (subfloor, wall)[j]; 8d common (2½" × 0.131") nail (roof)	6	12[f]
31	19/32" – 1"	8d common nail (2½" × 0.131")	6	12[f]
32	1⅛" – 1¼"	10d common (3" × 0.148") nail; or 8d (2½" × 0.131") deformed nail	6	12
	Other wall sheathing[g]			
33	½" structural cellulosic fiberboard sheathing	1½" galvanized roofing nail, 7/16" head diameter, or 1" crown staple 16 ga., 1¼" long	3	6
34	25/32" structural cellulosic fiberboard sheathing	1¾" galvanized roofing nail, 7/16" head diameter, or 1" crown staple 16 ga., 1½" long	3	6
35	½" gypsum sheathing[d]	1½" galvanized roofing nail; staple galvanized, 1½" long; 1¼" screws, Type W or S	7	7
36	5/8" gypsum sheathing[d]	1¾" galvanized roofing nail; staple galvanized, 1⅝" long; 1⅝" screws, Type W or S	7	7
	Wood structural panels, combination subfloor underlayment to framing			
37	¾" and less	6d deformed (2" × 0.120") nail; or 8d common (2½" × 0.131") nail	6	12
38	7/8" – 1"	8d common (2½" × 0.131") nail; or 8d deformed (2½" × 0.120") nail	6	12
39	1⅛" – 1¼"	10d common (3" × 0.148") nail; or 8d deformed (2½" × 0.120") nail	6	12

TABLE R602.3(1)—continued
FASTENING SCHEDULE

a. Nails are smooth-common, box or deformed shanks except where otherwise stated. Nails used for framing and sheathing connections shall have minimum average bending yield strengths as shown: 80 ksi for shank diameter of 0.192 inch (20d common nail), 90 ksi for shank diameters larger than 0.142 inch but not larger than 0.177 inch, and 100 ksi for shank diameters of 0.142 inch or less.
b. Staples are 16 gage wire and have a minimum 7/16-inch on diameter crown width.
c. Nails shall be spaced at not more than 6 inches on center at all supports where spans are 48 inches or greater.
d. Four-foot by 8-foot or 4-foot by 9-foot panels shall be applied vertically.
e. Spacing of fasteners not included in this table shall be based on Table R602.3(2).
f. Where the ultimate design wind speed is 130 mph or less, nails for attaching wood structural panel roof sheathing to gable end wall framing shall be spaced 6 inches on center. Where the ultimate design wind speed is greater than 130 mph, nails for attaching panel roof sheathing to intermediate supports shall be spaced 6 inches on center for minimum 48-inch distance from ridges, eaves and gable end walls; and 4 inches on center to gable end wall framing.
g. Gypsum sheathing shall conform to ASTM C1396 and shall be installed in accordance with GA 253. Fiberboard sheathing shall conform to ASTM C208.
h. Spacing of fasteners on floor sheathing panel edges applies to panel edges supported by framing members and required blocking and at floor perimeters only. Spacing of fasteners on roof sheathing panel edges applies to panel edges supported by framing members and required blocking. Blocking of roof or floor sheathing panel edges perpendicular to the framing members need not be provided except as required by other provisions of this code. Floor perimeter shall be supported by framing members or solid blocking.
i. Where a rafter is fastened to an adjacent parallel ceiling joist in accordance with this schedule, provide two toe nails on one side of the rafter and toe nails from the ceiling joist to top plate in accordance with this schedule. The toe nail on the opposite side of the rafter shall not be required.

THESE ARE MINIMUM REQUIREMENTS AND SHALL NOT SUPERSEDE MORE RESTRICTIVE SPECIFICATIONS ON THE PLANS OR AS REQUIRED BY APPLICABLE CODE.

Project Name and Address

PROPOSED REMODEL FOR CHESTER HOWE
5605 FRIARS RD # 306, SAN DIEGO, CA 92110

SHEET TITLE

STRUCTURAL COVER SHEET

No.	Revision/Issue	Date
1	CLIENT REVIEW	6/21/2023
2	A.R.B.	
3	PLAN CHECK	
4	CORRECTIONS	
5	PERMIT	
6		
7		

Firm Name and Address

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SCAN ME

Project: 436611538

Date: 06/2023

Scale:

Sheet: **SCO**

GENERAL NOTES AND SPECIFICATIONS

WOOD

1. WOOD FRAMING GENERAL:
- PROVIDE DOUBLE JOISTS UNDER AND PARALLEL TO ALL BEARINGS PARTITIONS.
- ALL BOLT HOLES SHALL DE DRILLED 1/32" TO 1/16" OVERSIZED.
- 2x12 JOISTS SHALL BE BLOCKED AT THE SUPPORTS AND AT 8 FEET o.c. (AND RAFTERS GREATER THAN 10" DEPTHS AT THE SUPPORTS AND AT 10 FEET O.C.) WITH SOLID 2x BLOCKING 2" SHALLOWER THAN JOISTS OR APPROVED METAL CROSS BRIDGING.
- WOOD FRAMING MEMBERS: DOUGLAS FIR–LARCH N°2 UNLESS OTHERWISE MARKED ON THE PLANS.
- RAFTER TIES SPACED AT 4 FEET (MAX.) ON CENTER ARE REQUIRED IMMEDIATELY ABOVE CEILING JOISTS WHICH ARE NOT PARALLEL TO THE RAFTERS.

NAILING SCHEDULE TABLE

JOIST TO SILL OR GIRDER, TOENAIL	3–8d
BRIDGING TO JOIST, TOENAIL EACH END	2–8d
1"x6" SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL	2–8d
WIDER THAN 1"x6" SUBFLOOR TO EACH JOIST, FACE NAIL	3–8d
2" SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	2–16d
SOLE PLATE TO JOIST OR BLOCKING, TYPICAL FACE NAIL	16d @16" o.c.
SOLE PLATE TO JOIST OR BLOCKING, AT BRACED WALL PANELS	3–16d per 16"
TOP PLATE TO STUD, END NAIL	2–16d
STUD TO SOLE PLATE	4–8d, TOENAIL OR 2–16d, END NAIL
DOUBLE STUDS FACE NAIL	16d @24"o.c.
DOUBLED TOP PLATES, TYPICAL FACE NAIL	16d @16"o.c.
DOUBLE TOP PLATES, LAP SPLICE	8–16d
BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOENAIL	3–8d
RIM JOIST TO TOP PLATE, TOENAIL	8d @6" o.c.
TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	2–16d
CONTINUOUS HEADER, TWO PIECES	16d @ o.c. along each edge
CEILING JOISTS TO PLATE, TOENAIL	3–8d
CONTINUOUS HEADER TO STUD, TOENAIL	4–8d
CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	3–16d
CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	3–16d
RAFTER TO PLATE, TOENAIL	3–8d
1"x BRACE TO EACH STUD AND PLATE, FACE NAIL	2–8d
1"x8" SHEATHING OR LESS TO EACH BEARING, FACE NAIL	2–8d
WIDER THAN 1"x8" SHEATHINGS TO EACH BEARING, FACE NAIL	3–8d
BUILT IT–UP CORNER STUDS	16d @24" o.c.
BUILT–UP GIRDER & BEAMS 20d @32" o.c. AT TOP & BOTTOM &STAGGERED	2–20d @ ENDS
2"x PLANKS	2–16d@ EACH BEARING

WOOD SHEAR AND DIAPHRAGMS:

- COMMON NAILS SHALL BE USED FOR ALL DIAPHRAGMS AND SHEAR WALL NAILING.
- ROOF SHEATHING: 1/2" THICK PLYWOOD CDX WITH INDEX 32/16. 8d NAILS @ 6" o.c. AT PANELS EDGES, AND 8d NAILS @ 12" o.c. AT PANEL FIELD. ALLOW 1/8" SPACING AT PANEL EDGES, UNLESS OTHERWISE RECOMMENDED BY THE PANEL MANUFACTURER.
- FLOOR SHEATHING: 3/4" THICK PLYWOOD CDX WITH INDEX 32/16.USE 10d COMMON NAILS AT 6" o.c. AND @ PANEL EDGES AND 10"o.c. IN THE FIELD. ALLOW 1/8" SPACING AT PANEL EDGES, UNLESS OTHERWISE RECOMMENDED BY THE PANEL MANUFACTURER.
- PLYWOOD DIAPHRAGMS: PRODUCT STANDARD PS 1–95, DOUGLAS FIR–LARCH. WATERPROOFING: STUCCO OVER PLYWOOD SHEAR WALL WILL BE WATERPROOFED WITH A MINIMUM OF TWO 15# (GRADE D) UNDERLAYMENTS.
- ROOF DIAPHRAGM NAILING TO BE INSPECTED BEFORE COVERING. FACE GRAIN OF PLYWOOD SHALL BE PERPENDICULAR TO SUPPORTS. FLOOR SHALL HAVE TONGUE AND GROOVE OR BLOCKED PANELS EDGES. PLYWOOD SPANS SHALL CONFORM WITH TABLE 2304.7.

WOOD CONSTRUCTION

1. STRUCTURAL LUMBER SHALL BE GRADE–MARKED DOUGLAS FIR–LARCH

RAFTERS	2 TO 4 WIDE UP TO 6 DEEP	No. 2
	2 TO 4 WIDE, 8" OR LARGER	No. 2
JOISTS	2 TO 4 WIDE, 6 AND DEEPER	No. 2
BEAMS, PURLINS	OVER 4 WIDE	No. 1
SUB–PURLINS	2 TO 4 WIDE, 4 DEEP	No. 1
LEDGERS		No. 2
STUDS	2x4 OR 3x4	No. 2
STUDS	2x6	No. 2
POSTS		No. 2
SILLS, PLATES AND BLOCKING		No. 2

2. SILLS OR PLATES BEARING ON CONCRETE OR MASONRY WHICH IS WITHIN 48" OF EARTH SHALL BE PRESSURE TREATED, OR EQUAL, WOOD SILL PLATES SHALL BE BOLTED TO THE FOUNDATION WITH 5/8" DIAMETER x 10" BOLTS 4'–0" o.c. 12" MIN. FROM ENDS, OR 2 BOLTS MIN. PER PIECE. WHERE DIFFERENT SIZES AND/OR SPACING ARE REQUIRED, THEY SHALL GOVERN. INSTALL WITH 3"x3"x1/4" (OR 2"x2"x3/16") PLATE WASHER AT EACH ANCHOR BOLT.
3. PARALLAM BEAMS MUST BE FABRICATED IN A LADBS LICENSED SHOP.
4. JOISTS SHALL BE BLOCKED AT SUPPORTS AND BRIDGED OR BLOCKED AT INTERVALS OF 8 FT WHERE JOISTS ARE 2x12 OR DEEPER.
5. JOISTS UNDER NON–BEARING PARTITIONS SHALL BE DOUBLED, EXCEPT AS NOTED.
6. LAGBOLTS (& SCREWS) SHALL BE PRE–DRILLED TO SHANK DIAMETER AND FULL DEPTH AND SCREWED (NOT DRIVEN) INTO PLACE.
7. CUT WASHERS SHALL BE PLACED UNDER HEADS AND NUTS OF ALL BOLTS AND UNDER HEADS OF LAGBOLTS. ONE CUT WASHER SHALL BE USED FOR BOLTS CONNECTING WOOD LEDGERS TO CONCRETE OR MASONRY WALLS.
8. ALL HARDWARE USED FOR WOOD CONNECTION SHALL BE SIMPSON STRONG–TIE PRODUCTS. INSTALL PER MANUFACTURERS RECOMMENDATIONS. ALTERNATE PRODUCTS WILL ONLY BE PERMITTED IF WRITTEN APPROVAL AND ACCEPTANCE IS OBTAINED BY ENGINEER.
9. ALL LUMBER SHALL HAVE A MOISTURE CONTENT NOT TO EXCEED 19% AT THE TIME OF FABRICATION OR CONSTRUCTION.
10. PROVIDE LEAD HOLE 40%–70% OF THREADED SHANK DIA. AND FULL DIA. FOR SMOOTH SHANK PORTION.
11. PLACE 2" FIREBLOCKING IN STUD WALLS AT CEILING AND FLOOR LEVELS, AT EACH 10" HEIGHT OF STUDS, AND BETWEEN STAIR STRINGERS AT SUPPORTS.
12. ALL DIAPHRAGMS AND SHEAR NAILING SHALL UTILIZE COMMON NAILS OR GALVANIZED BOX.

PARAMETERS DESIGN CBC 2019

WIND DESIGN

1. BASIC WIND SPEED (3–SECOND GUST), MILES PER HOUR = 95
2. WIND IMPORTANCE FACTOR, I=1.0 AND OCCUPANCY CATEGORY = II
3. WIND EXPOSURE CATEGORY: C (CASE 1)
4. THE APPLICABLE INTERNAL PRESSURE COEFFICIENT =0.18

SEISMIC DESIGN

1. SEISMIC IMPORTANCE FACTOR, I=1.0 , AND OCCUPANCY CATEGORY = II
2. MAPPED SPECTRA RESPONSE ACCELERATIONS, Ss=170.10%g AND S1=63.80%g
3. SITE CLASS = D
4. SPECTRA RESPONSE COEFFICIENTS, S_{DS}=1.134g AND S_{D1}=0.638g
5. SEISMIC DESIGN CATEGORY=D
6. BASIC SEISMIC–FORCE–RESISTING SYSTEM(S)=BEARING WALL SYSTEM DESIGN
7. BASE SHEAR = 36841 LBS
8. TOTAL ADDITION BUILDING WEIGHT = 162439 LBS
9. SEISMIC RESPONSE COEFFICIENT(S), Cs=0.174
10. RESPONSE MODIFICATION FACTOR(s), R =6.5
11. ANALYSIS PROCEDURE USED : EQUIVALENT LATERAL FORCE PROCEDURE
12. REDUNDANCY FACTOR USED: 1.3
13. THE DESIGN LOAD BEARING VALUE OF SOILS = 1500 PSF.

BASIS OF DESIGN

- ROOF DEAD LOAD = 15 PSF
- CEILING DEAD LOAD = 7 PSF
- FLOOR DEAD LOAD = 15 PSF
- EXT. WALL DEAD LOAD = 11 PSF
- INT. WALL DEAD LOAD = 8 PSF
- ROOF LIVE LOAD = 20 PSF
- CEILING LIVE LOAD = 10 PSF
- FLOOR LIVE LOAD = 40 PSF

CONCRETE NOTES

CONCRETE FOUNDATION, FLOOR SLABS,

ALL CONCRETE SHALL ATTAIN THE FOLLOWING MINIMUM STRENGTHS AT 28 DAYS: FOOTINGS AND SLAB–ON–GRADE = 2500 PSI

- BAR SPLICES IN CONCRETE SHALL BE LAP 40 BAR DIAMETERS MINIMUM, AND MAY BE WIRED TOGETHER, UNLESS OTHERWISE NOTED ON PLANS.

RESEARCH REPORT

ICC-ES REPORT

HDU	ESR–2330
CC COLUMN CAP	ESR–2604
SHOT PINS	ESR–1799
U HANGER	ESR–2549
FRAMING CLIPS	ESR–2606
PARALLAM	ESR–1387

STRUCTURAL OBSERVATION/ SIGNIFICANT CONSTRUCTION STAGES
(Only Checked items are required)

Firm or Individual to be responsible for the "Structural Observation":
Registered Engineer: ☐ ☐
California Registration Number:

CONSTRUCTION STAGE	Construction Type	Elements/Connections to be observed
Foundation	☒ Footing, Stem Walls, Piers	Rebar Size & Placement
	☐ Mat Foundation	
	☐ Caisson, Pile, Grade beams	
	☐ Stepping/Retaining	
	☐ Foundation, Hillside Special	
	☐ Anchors	
	☐ Others:	
Wall	☐ Concrete	
	☐ Masonry	
	☒ Wood	Shear Wall, Framing Connections
	☐ Others:	
Frame	☐ Steel Moment Frame	
	☐ Steel Braced Frame	
	☐ Concrete Moment Frame	
	☐ Masonry Moment Frame	
	☐ Others:	
Diaphragm	☐ Concrete	
	☐ Steel Deck	
	☒ Wood	Plywood Sheathing & Roof Nailing
	☐ Others:	
Others		

DECLARATION BY OWNER OR OWNER'S REPRESENTATIVE

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

Signature

Date

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

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

Signature

Date License No.

ADDITIONAL NOTES

- CONTRACTORS RESPONSIBLE FOR THE CONSTRUCTION OF A WIND OR SEISMIC FORCE RESISTING SYSTEM/COMPONENT LISTED IN THE "STATEMENT OF SPECIAL INSPECTION" SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE LADBS INSPECTORS AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON SUCH SYSTEM OR COMPONENT PER SEC. 1709.1.
- IF ADVERSE SOIL CONDITIONS ARE ENCOUNTERED, A SOILS INVESTIGATION REPORT MAY BE REQUIRED.
- PERIODIC SPECIAL INSPECTION IS REQUIRED FOR WOOD SHEAR WALLS, SHEAR PANELS, AND DIAPHRAGMS, INCLUDING NAILING, BOLTING, ANCHORING, AND OTHER FASTENING COMPONENTS OF THE SEISMIC FORCE RESISTING SYSTEM. SPECIAL INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED WHERE THE FASTENER SPACING OF THE SHEATHING IS 4 INCHES ON CENTER OR LESS.
- FOUNDATION SILLS SHALL BE NATURALLY DURABLE OR PRESERVATIVE–TREATED WOOD.
- FIELD WELDING TO BE DONE BY WELDERS CERTIFIED BY THE LADBS FOR STRUCTURAL STEEL. CONTINUOUS INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED.
- SHOP WELDS MUST BE PERFORMED IN A LADBS LICENSED FABRICATOR'S SHOP.
- LADBS LICENSED FABRICATOR IS REQUIRED FOR STRUCTURAL STEEL.
- PROVIDE LEAD HOLE 40%–70% OF THREADED SHANK DIA. AND FULL DIA. FOR SMOOTH SHANK PORTION.
- A COPY OF THE CALIFORNIA RESEARCH REPORT AND/OR CONDITIONS OF LISTING SHALL BE MADE AVAILABLE AT THE JOB SITE.
- HOLD–DOWN CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE APPROVED PLATE WASHERS; AND HOLD–DOWNS SHALL BE FINGER TIGHT AND ½ WRENCH TURN JUST PRIOR TO COVERING THE WALL FRAMING. CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE STEEL PLATE WASHERS IN ACCORDANCE WITH TABLE 2305.5 OF THE CALIFORNIA BUILDING CODE.
- ROOF DIAPHRAGM NAILING TO BE INSPECTED BEFORE COVERING. FACE GRAIN OF PLYWOOD SHALL BE PERPENDICULAR TO SUPPORTS. FLOOR SHALL HAVE TONGUE AND GROOVE OR BLOCKED PANEL EDGES. PLYWOOD SPANS SHALL CONFORM WITH TABLE 2304.7.
- ALL DIAPHRAGM AND SHEAR WALL NAILING SHALL UTILIZE COMMON NAILS OR GALVANIZED BOX.
- ALL BOLT HOLES SHALL BE DRILLED 1/32" TO 1/16" OVERSIZED.
- HOLD–DOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION.

GENERAL NOTES FOR STRUCTURAL OBSERVATION:

1. STRUCTURAL OBSERVATION IS REQUIRED FOR THE STRUCTURAL SYSTEM IN ACCORDANCE WITH THE INFORMATION BULLETIN NO. P/BC 2002–024 STRUCTURAL OBSERVATION IS THE VISUAL OBSERVATION AT THE CONSTRUCTION SITE OF THE ELEMENTS AND CONNECTIONS OF THE STRUCTURAL SYSTEM AT SIGNIFICANT CONSTRUCTION STAGES AND THE COMPLETE STRUCTURE FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS. STRUCTURAL OBSERVATION DOES NOT WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED OF THE BUILDING INSPECTOR OR THE DEPUTY INSPECTOR.
2. THE OWNER SHALL EMPLOY A STATE OF CALIFORNIA REGISTERED CIVIL OR STRUCTURAL ENGINEER OR LICENSED ARCHITECT TO PERFORM THE STRUCTURAL OBSERVATION. THE DEPARTMENT OF BUILDING AND RECOMMENDS THE USE OF THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THE (LADBS) SAFETY STRUCTURAL DESIGN WHO ARE INDEPENDENT OF THE CONTRACTOR.
3. THE STRUCTURAL OBSERVER SHALL PROVIDE EVIDENCE OF EMPLOYMENT BY THE OWNER OR THE OWNER'S REPRESENTATIVE. A LETTER FROM THE OWNER, THE OWNER'S REPRESENTATIVE, OR A COPY OF THE AGREEMENT FOR SERVICES SHALL BE SENT TO THE BUILDING INSPECTOR BEFORE THE FIRST SITE VISIT.
4. THE OWNER OR OWNER'S REPRESENTATIVE SHALL COORDINATE AND CALL FOR A MEETING BETWEEN THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL DESIGN, STRUCTURAL OBSERVER, CONTRACTOR, AFFECTED SUBCONTRACTORS AND DEPUTY INSPECTORS. THE PURPOSE OF THE MEETING SHALL BE TO IDENTIFY THE MAJOR STRUCTURAL ELEMENTS AND CONNECTIONS THAT AFFECT THE VERTICAL AND LATERAL LOAD SYSTEMS OF THE STRUCTURE AND TO REVIEW SCHEDULING OF THE REQUIRED OBSERVATIONS. A RECORD OF THE MEETING SHALL BE INCLUDED IN THE FIRST OBSERVATION REPORT SUBMITTED TO THE BUILDING INSPECTOR.
5. THE STRUCTURAL OBSERVER SHALL PERFORM SITE VISITS AT THOSE STEPS IN THE PROGRESS OF THE WORK THAT ALLOW FOR CORRECTION OF DEFICIENCIES WITHOUT SUBSTANTIAL EFFORT OR UNCOVERING OF THE WORK INVOLVED. AT A MINIMUM, THE LISTED SIGNIFICANT CONSTRUCTION STAGES ON THE FOLLOWING STRUCTURAL OBSERVATION/SIGNIFICANT CONSTRUCTION STAGES TABLE REQUIRE A SITE VISIT AND AN OBSERVATION REPORT FROM THE STRUCTURAL OBSERVER.
6. THE STRUCTURAL OBSERVER SHALL PREPARE A REPORT OF THE STRUCTURAL OBSERVATION REPORT FORM IN/FORM.08 (PART 1) FOR EACH SIGNIFICANT STAGE OF CONSTRUCTION OBSERVED. THE ORIGINAL OF THE STRUCTURAL OBSERVATION REPORT SHALL BE SENT TO THE BUILDING INSPECTOR'S OFFICE AND SHALL BE SIGNED AND SEALED (WET STAMP) BY THE RESPONSIBLE STRUCTURAL OBSERVER. ONE COPY OF THE OBSERVATION REPORT SHALL BE ATTACHED TO THE APPROVED PLANS. THE COPY ATTACHED TO THE PLANS SHALL BE SIGNED AND SEALED (WET STAMP) BY THE RESPONSIBLE STRUCTURAL OBSERVER OR THEIR DESIGNEE. COPIES OF THE REPORT SHALL ALSO BE GIVEN TO THE OWNER, CONTRACTOR, AND DEPUTY INSPECTOR. ANY DEFICIENCY NOTED ON THE OBSERVATION REPORT WILL BECOME THE RESPONSIBILITY OF THE STRUCTURAL ENGINEER OF RECORD TO VERIFY ITS COMPLETION BY HIM (HER), OR BY A REGISTERED DEPUTY INSPECTOR AT THE DISCRETION OF THE STRUCTURAL OBSERVER.
7. A FINAL OBSERVATION REPORT AND THAT OF THE REGISTERED DEPUTY INSPECTOR MUST BE SUBMITTED WHICH SHOWS THAT ALL OBSERVED DEFICIENCIES WERE RESOLVED AND STRUCTURAL SYSTEM GENERALLY CONFORMS WITH THE APPROVED PLANS AND SPECIFICATIONS. THE DEPARTMENT OF BUILDING AND SAFETY WILL NOT ACCEPT THE STRUCTURAL WORK WITHOUT THIS FINAL OBSERVATION REPORT AND THAT OF THE REGISTERED DEPUTY INSPECTOR (WHEN PROVIDED) AND THE CORRECTION OF SPECIFIC DEFICIENCIES NOTED DURING NORMAL BUILDING INSPECTION.
8. THE STRUCTURAL OBSERVER SHALL PROVIDE THE ORIGINAL STAMPED AND SIGNED STRUCTURAL DEPARTMENT OF BUILDING AND SAFETY BUILDING THE COUNTY OF LOS ANGELES OBSERVATION REPORT TO INSPECTOR.
9. WHEN THE OWNER ELECTS TO CHANGE THE STRUCTURAL OBSERVER OF RECORD, THE OWNER SHALL:
   A) NOTIFY THE BUILDING INSPECTOR IN WRITING BEFORE THE NEXT INSPECTION BY SUBMITTING COMPLETED "STRUCTURAL OBSERVATION PROGRAM AND DESIGNATION OF THE STRUCTURAL OBSERVER" FORM IN/FORM.08 (PART 2)
   B) CALL AN ADDITIONAL RECONSTRUCTION MEETING.
   C) FURNISH THE REPLACEMENT STRUCTURAL OBSERVER WITH A COPY OF ALL PREVIOUS OBSERVATION REPORTS. THE REPLACEMENT STRUCTURAL OBSERVER SHALL APPROVE THE CORRECTION OF THE ORIGINAL OBSERVED DEFICIENCIES UNLESS OTHERWISE APPROVED BY PLAN CHECK SUPERVISION. THE POLICY OF THE DEPARTMENT SHALL BE TO CORRECT ANY PROPERTY NOTED DEFICIENCIES WITHOUT CONSIDERATION OF THEIR SOURCE.
10. THE ENGINEER OR ARCHITECT OF RECORD SHALL DEVELOP ALL CHANGES RELATING TO THE STRUCTURAL SYSTEMS. THE BUILDING DEPARTMENT SHALL REVIEW AND APPROVE ALL CHANGES T6 THE APPROVED PLANS AND SPECIFICATIONS.

PROPOSED REMODEL FOR
CHESTER HOWE
5605 FRIARS RD # 306,
SAN DIEGO, CA 92110

Project Name and Address

SHEET TITLE
STRUCTURAL

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1	CLIENT REVIEW	6/21/2023
2	A.R.B.	
3	PLAN CHECK	
4	CORRECTIONS	
5	PERMIT	
6		
7		

Firm Name and Address

ADVANCED DEVELOPMENT
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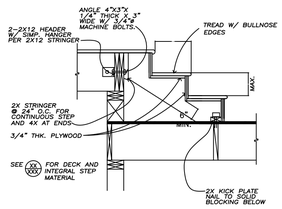
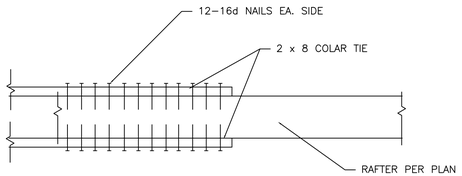
SCAN ME

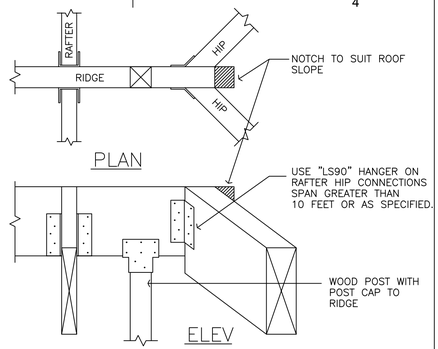
Project 436611538
Date 06/2023
Scale
Sheet **S1.1**



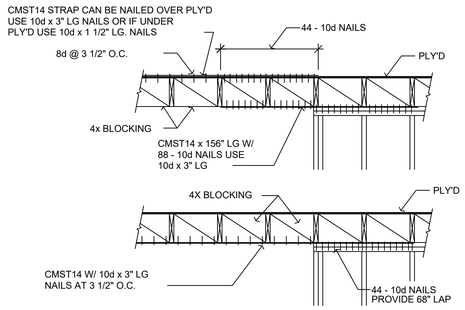
1 STEP DETAIL
1"=1'-0"



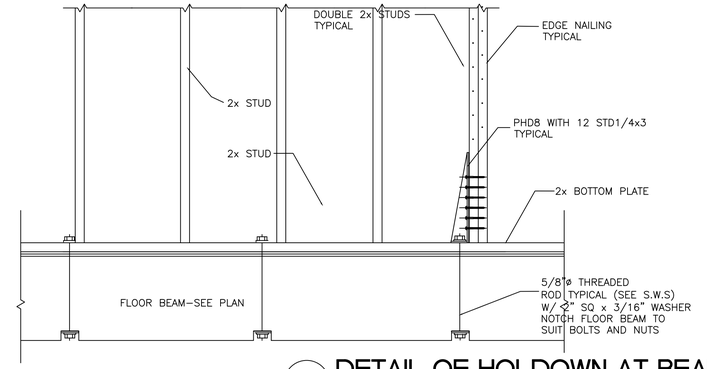
9 DETAIL OF COLAR TIE AT ROOF
1"=1'-0"



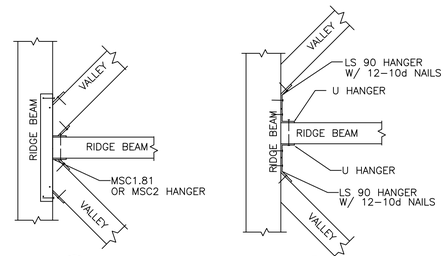
5 CONN. OF RIDGE TO HIPS
1"=1'-0"



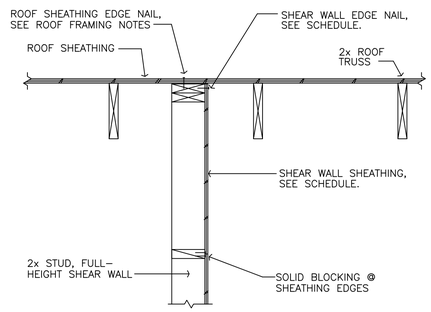
11 CMST14 DRAG TIE STRAP
1/2"=1'-0"



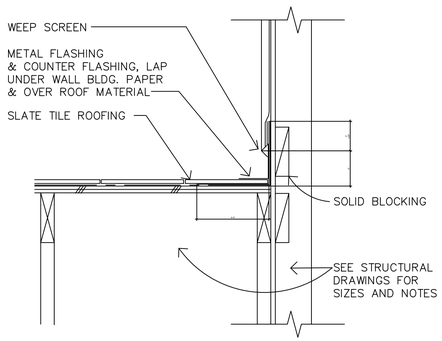
2 DETAIL OF HOLDOWN AT BEAM
1"=1'-0"



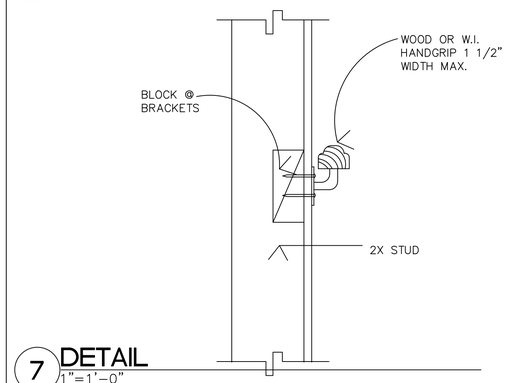
6 CONN. OF R.B.'S AND V.B.'S AT ROOF
1"=1'-0"



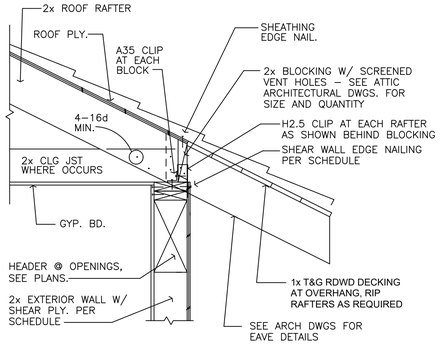
12 INT. SHEAR WALL AT ROOF
1"=1'-0"



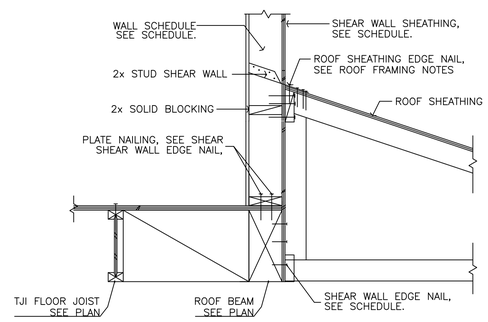
3 DETAIL
1"=1'-0"



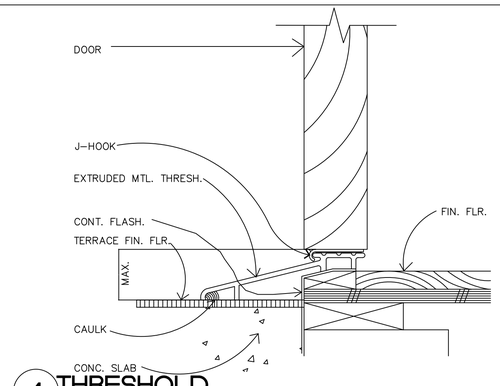
7 DETAIL
1"=1'-0"



9 TYPICAL EAVES
1"=1'-0"



13 LEDGER AT EXTERIOR WALL
1"=1'-0"



4 THRESHOLD
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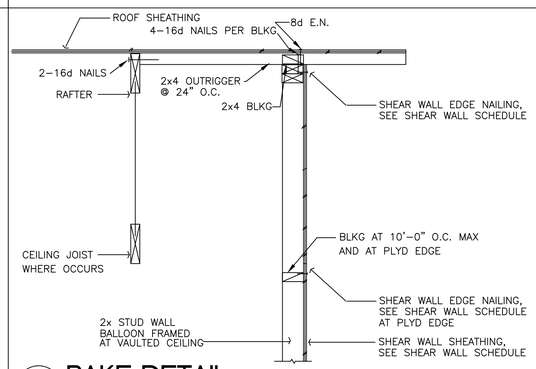
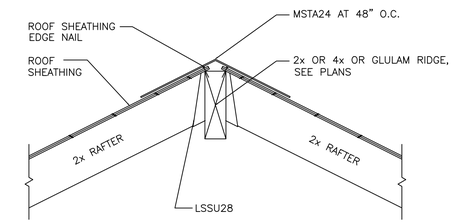


8 RAKE DETAIL
1"=1'-0"



10 TYP. RIDGE BOARD
1"=1'-0"

14
1"=1'-0"

PROPOSED REMODEL FOR
CHESTER HOWE
5605 FRIARS RD # 306,
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Project Name and Address

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1	CLIENT REVIEW	6/21/2023
2	A.H.J.	
3	PLAN CHECK	
4	CORRECTIONS	
5	PERMIT	
6		
7		

Firm Name and Address

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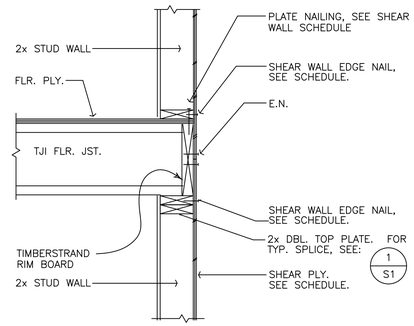
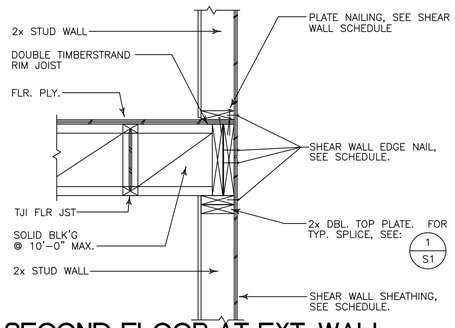
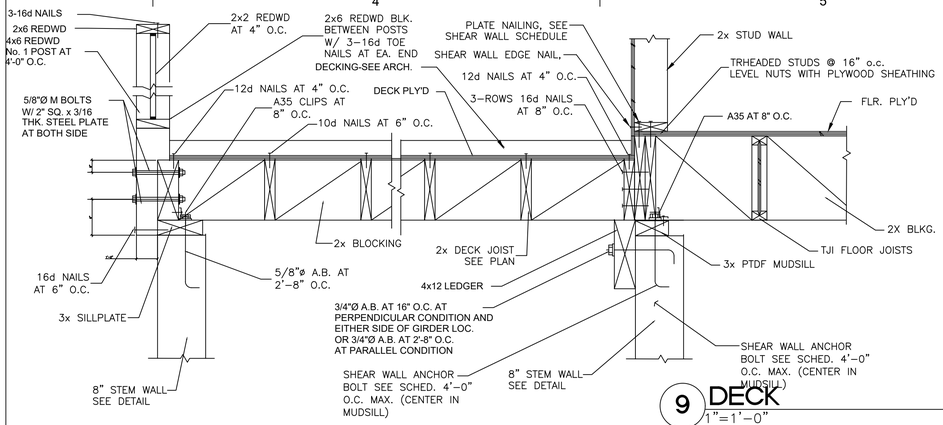
Project 436611538
Date 06/2023
Scale
Sheet S1.2



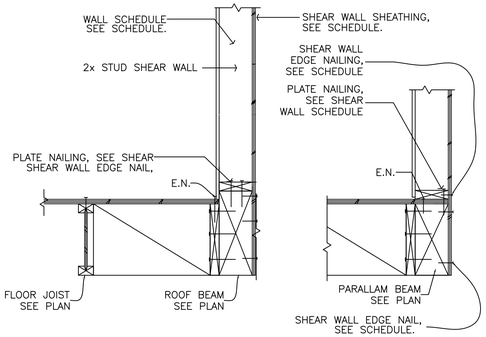
1 SECOND FLOOR AT EXT. WALL
1"=1'-0"



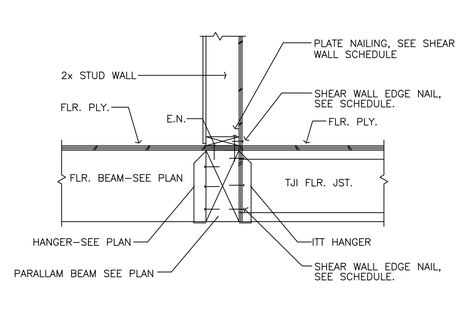
5 SECOND FLOOR AT EXT. WALL
1"=1'-0"



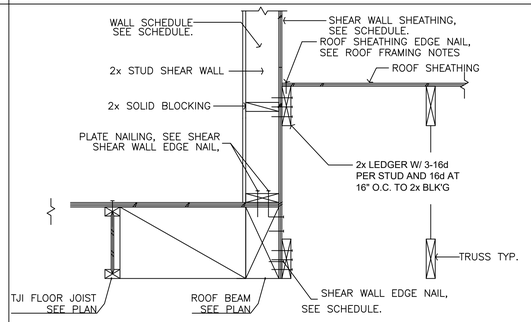
9 DECK
1"=1'-0"



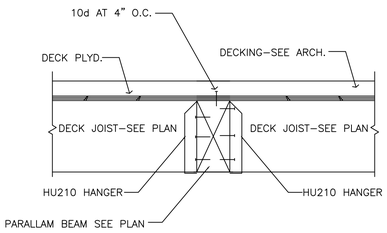
2 FLOOR AT BEAMS
1"=1'-0"



6 FLOOR AT INT. WALL
1"=1'-0"

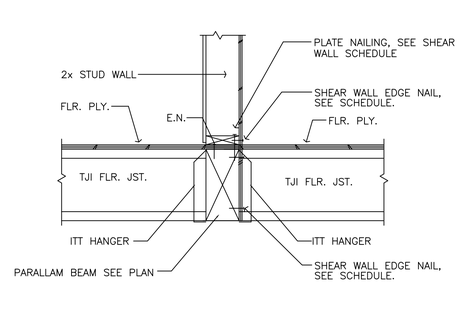


6 LEDGER AT EXTERIOR WALL
1"=1'-0"

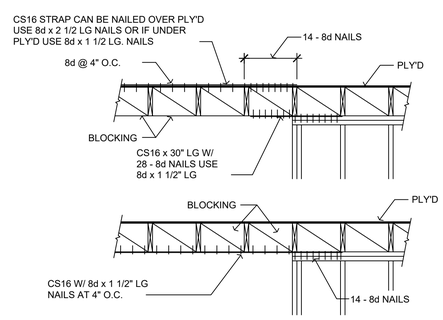


10 DECK JOIST AT BEAM
1"=1'-0"

3 FLOOR BEAM @ EXTERIOR WALL
1"=1'-0"

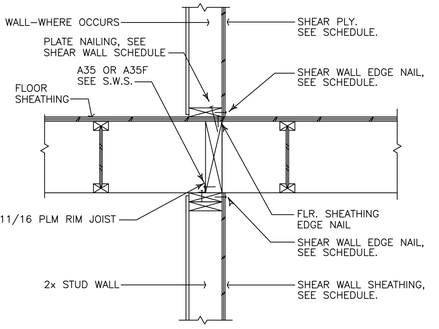


7 FLOOR AT BEAM
1"=1'-0"

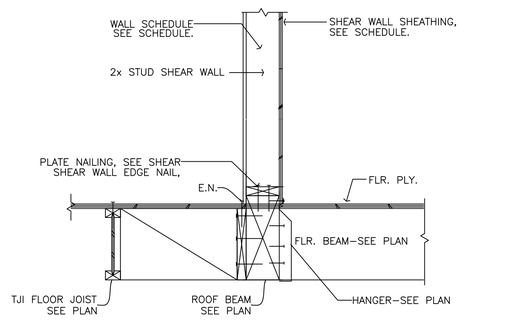


OPTION

7 CS16 ROOF STRAP
1"=1'-0"

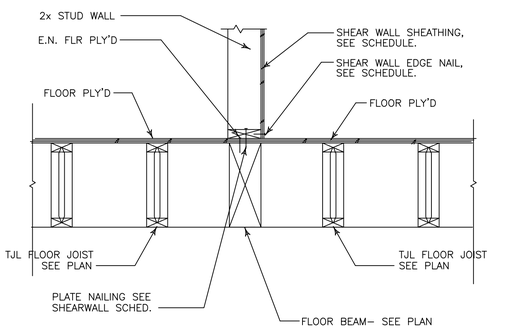


11 FLOOR AT INT. WALL
1"=1'-0"

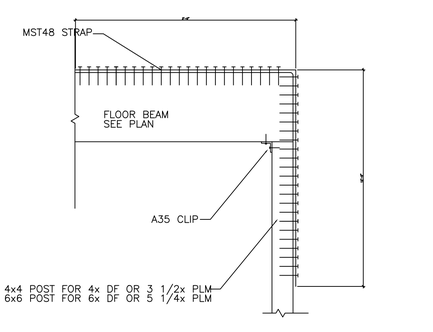


4 FLOOR AT BEAM
1"=1'-0"

8 FLOOR AT BEAM
1"=1'-0"



8 CONN. OF FLR JOISTS AND FLR BM.
1"=1'-0"



12 CONN. OF FLOOR BEAM TO POST
1"=1'-0"

PROPOSED REMODEL FOR CHESTER HOWE
5605 FRIARS RD # 306, SAN DIEGO, CA 92110

Project Name and Address

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7		

Firm Name and Address
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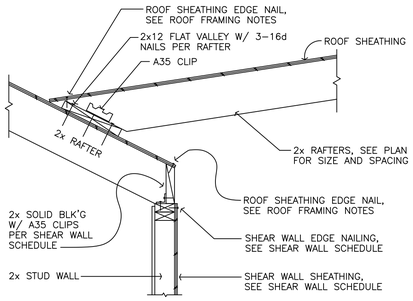
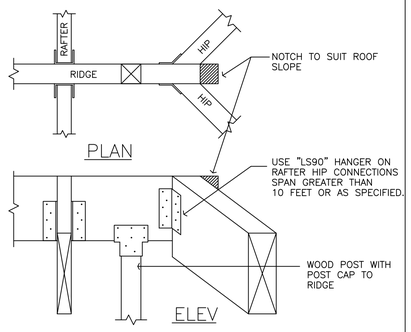
SCAN ME

Project 436611538
Date 06/2023
Scale
Sheet **S1.3**

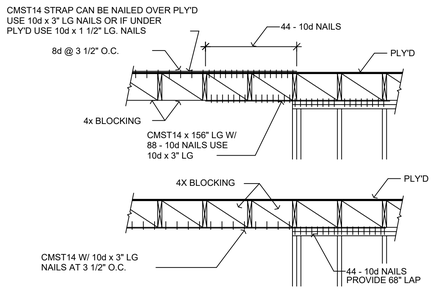


1 CALIFORNIA FRAMING
1"=1'–0"

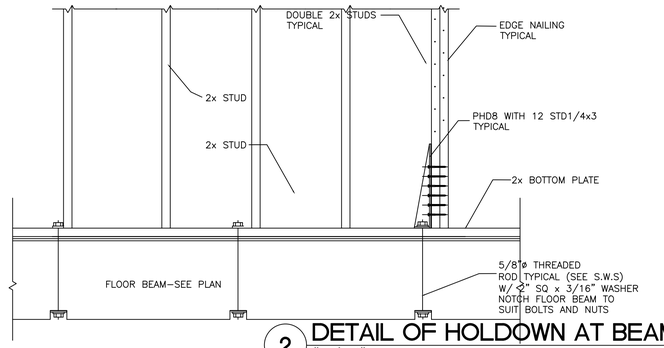
6 1"=1'–0"



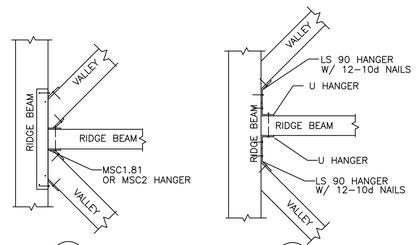
9 CONN. OF RIDGE TO HIPS
1"=1'–0"



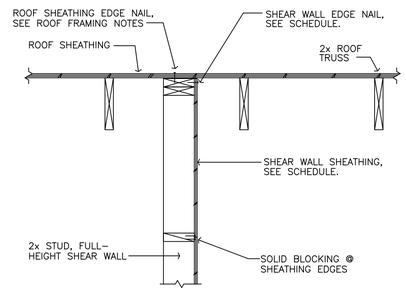
13 CMST14 DRAG TIE STRAP
1 1/2"=1'–0"



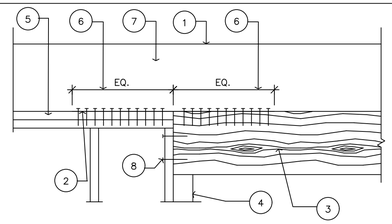
2 DETAIL OF HOLDOWN AT BEAM
1"=1'–0"



10 CONN. OF R.B.'S AND V.B.'S AT ROOF
1"=1'–0"

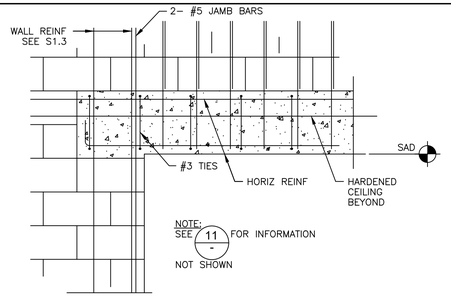


14 INT. SHEAR WALL AT ROOF
1"=1'–0"

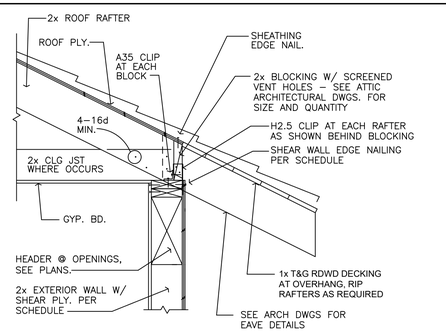


1. SIMILAR CONDITION (FLUSH BEAM). TO PLATE TO BOTT OF BEAM, CONN.
2. SIMP. ST6236 STEEL STRAP W/ 20–16d NAILS AT EA. END.
3. BEAM OR DBL R/R, SEE PLAN.
4. POST, SEE PLAN
5. DBL TOP PLATE
6. EQUAL
7. CONT. JOIST OR BLKG. SEE FRAMING PLAN
8. E.N.

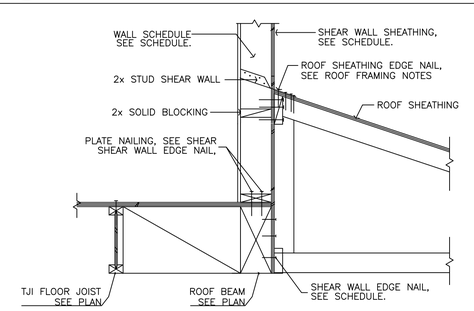
3 DRAG DETAIL
1"=1'–0"



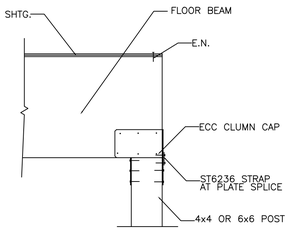
7 DETAIL
1"=1'–0"



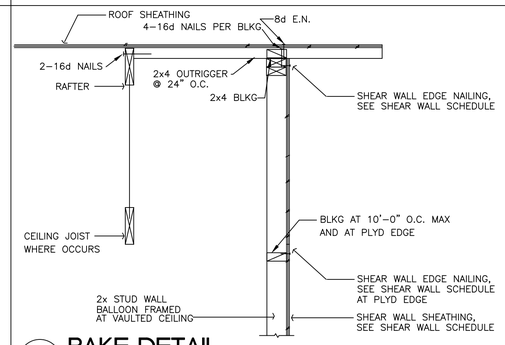
11 TYPICAL EAVES
1"=1'–0"



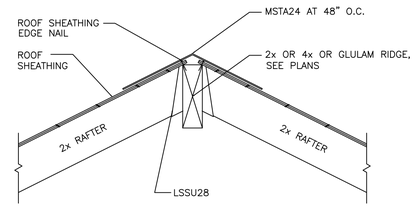
15 LEDGER AT EXTERIOR WALL
1"=1'–0"



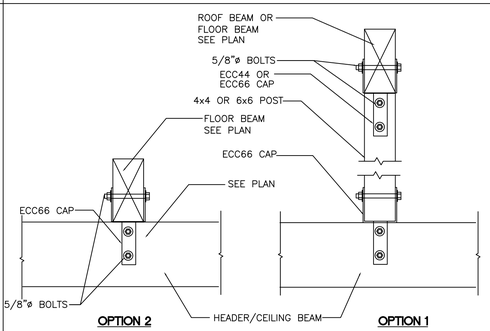
4 CONN. OF BEAM TO POST
1"=1'–0"



8 RAKE DETAIL
1"=1'–0"



12 TYP. RIDGE BOARD
1"=1'–0"



16 CONN. OF BEAM TO BEAM
1"=1'–0"

PROPOSED REMODEL FOR CHESTER HOWE
5605 FRIARS RD # 306, SAN DIEGO, CA 92110

Project Name and Address

SHEET TITLE
STRUCTURAL

No.	Revision/Issue	Date
1	CLIENT REVIEW	6/21/2023
2	A.R.B.	
3	PLAN CHECK	
4	CORRECTIONS	
5	PERMIT	
6		
7		

Plan Name and Address
ADVANCED DEVELOPMENT
RESIDENTIAL COMMERICAL INDUSTRIAL
License# 905815
7877 Girard Av Suite 106
La Jolla, CA 92037
(858) 367-9083
EMAIL: info@advanceddevelopment.net
WEBSITE: www.advanceddevelopment.net
SCAN ME

Project 436611538
Date 06/2023
Scale
Sheet **S1.4**

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
RESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2023)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

CHAPTER 3
GREEN BUILDING
SECTION 301 GENERAL

301.1 SCOPE. Buildings shall be designed to include the green building measures specified as mandatory in the application checklists contained in this code. Voluntary green building measures are also included in the application checklists and may be included in the design and construction of structures covered by this code, but are not required unless adopted by a city, county, or city and county as specified in Section 101.7.

301.1.1 Additions and alterations. [HCD] The mandatory provisions of Chapter 4 shall be applied to additions or alterations of existing residential buildings where the addition or alteration increases the building's conditioned area, volume, or size. The requirements shall apply only to and/or within the specific area of the addition or alteration.

The mandatory provision of Section 4.106.4.2 may apply to additions or alterations of existing parking facilities or the addition of new parking facilities serving existing multifamily buildings. See Section 4.106.4.3 for application.

Note: Repairs including, but not limited to, resurfacing, restriping and repairing or maintaining existing lighting fixtures are not considered alterations for the purpose of this section.

Note: On and after January 1, 2014, residential buildings undergoing permitted alterations, additions, or improvements shall replace noncompliant plumbing fixtures with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy or final permit approval by the local building department. See Civil Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates.

301.2 LOW-RISE AND HIGH-RISE RESIDENTIAL BUILDINGS. [HCD] The provisions of individual sections of CALGreen may apply to either low-rise residential buildings high-rise residential buildings, or both. Individual sections will be designated by banners to indicate where the section applies specifically to low-rise only (LR) or high-rise only (HR). When the section applies to both low-rise and high-rise buildings, no banner will be used.

SECTION 302 MIXED OCCUPANCY BUILDINGS

302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.

Exceptions:
1. [HCD] Accessory structures and accessory occupancies serving residential buildings shall comply with Chapter 4 and Appendix A4, as applicable.
2. [HCD] For purposes of *CALG*reen, live/work units, complying with Section 419 of the *California Building Code*, shall not be considered mixed occupancies. Live/Work units shall comply with Chapter 4 and Appendix A4, as applicable.

DIVISION 4.1 PLANNING AND DESIGN

ABBREVIATION DEFINITIONS:

HCD	Department of Housing and Community Development
BSC	California Building Standards Commission
DSA-SS	Division of the State Architect, Structural Safety
OSHPD	Office of Statewide Health Planning and Development
LR	Low Rise
HR	High Rise
AA	Additions and Alterations
N	New

CHAPTER 4
RESIDENTIAL MANDATORY MEASURES

SECTION 4.102 DEFINITIONS

4.102.1 DEFINITIONS
The following terms are defined in Chapter 2 *(and are included here for reference)*

FRENCH DRAIN. A trench, hole or other depressed area loosely filled with rock, gravel, fragments of brick or similar pervious material used to collect or channel drainage or runoff water.

WATTLES. Wattles are used to reduce sediment in runoff. Wattles are often constructed of natural plant materials such as hay, straw or similar material shaped in the form of tubes and placed on a downflow slope. Wattles are also used for perimeter and inlet controls.

4.106 SITE DEVELOPMENT

4.106.1 GENERAL. Preservation and use of available natural resources shall be accomplished through evaluation and careful planning to minimize negative effects on the site and adjacent areas. Preservation of slopes, management of storm water drainage and erosion controls shall comply with this section.

4.106.2 STORM WATER DRAINAGE AND RETENTION DURING CONSTRUCTION. Projects which disturb less than one acre of soil and are not part of a larger common plan of development which in total disturbs one acre or more, shall manage storm water drainage during construction. In order to manage storm water drainage during construction, one or more of the following measures shall be implemented to prevent flooding of adjacent property, prevent erosion and retain soil runoff on the site.

1. Retention basins of sufficient size shall be utilized to retain storm water on the site.
2. Where storm water is conveyed to a public drainage system, collection point, gutter or similar disposal method, water shall be filtered by use of a barrier system, wattle or other method approved by the enforcing agency.
3. Compliance with a lawfully enacted storm water management ordinance.

Note: Refer to the State Water Resources Control Board for projects which disturb one acre or more of soil, or are part of a larger common plan of development which in total disturbs one acre or more of soil.

(Website: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html)

4.106.3 GRADING AND PAVING. Construction plans shall indicate how the site grading or drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:

1. Swales
2. Water collection and disposal systems
3. French drains
4. Water retention gardens
5. Other water measures which keep surface water away from buildings and aid in groundwater recharge.

Exception: Additions and alterations not altering the drainage path.

4.106.4 Electric vehicle (EV) charging for new construction. New construction shall comply with Sections 4.106.4.1 or 4.106.4.2 to facilitate future installation and use of EV chargers. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the *California Electrical Code*, Article 625.

Exceptions:
1. On a case-by-case basis, where the local enforcing agency has determined EV charging and infrastructure are not feasible based upon one or more of the following conditions:
   1.1 Where there is no local utility power supply or the local utility is unable to supply adequate power.
   1.2 Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 4.106.4, may adversely impact the construction cost of the project.
2. Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities.

4.106.4.1 New one- and two-family dwellings and townhouses with attached private garages. For each dwelling unit, install a listed raceway to accommodate a dedicated 208/240-volt branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or other enclosure in close proximity to the proposed location of an EV charger. Raceways are required to be continuous at enclosed, inaccessible or concealed areas and spaces. The service panel and/or subpanel shall provide capacity to install a 40-ampere 208/240-volt minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.

Exemption: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the proposed location of an EV charger at the time of original construction in accordance with the *California Electrical Code*.

4.106.4.1.1 Identification. The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE".

4.106.4.2 New multifamily dwellings, hotels and motels and new residential parking facilities.
When parking is provided, parking spaces for new multifamily dwellings, hotels and motels shall meet the requirements of Sections 4.106.4.2.1 and 4.106.4.2.2. Calculations for spaces shall be rounded up to the nearest whole number. A parking space served by electric vehicle supply equipment or designed as a future EV charging space shall count as at least one standard automobile parking space only for the purpose of complying with any applicable minimum parking space requirements established by a local jurisdiction. See Vehicle Code Section 22511.2 for further details.

4.106.4.2.1Multifamily development projects with less than 20 dwelling units; and hotels and motels with less than 20 sleeping units or guest rooms.
The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to this section.

1.EV Capable. Ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at a minimum of 40 amperes.

The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code.

Exceptions:

1.When EV chargers (Level 2 EVSE) are installed in a number equal to or greater than the required number of EV capable spaces.

2.When EV chargers (Level 2 EVSE) are installed in a number less than the required number of EV capable spaces, the number of EV capable spaces required may be reduced by a number equal to the number of EV chargers installed.

Notes:

a.Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.

b.There is no requirement for EV spaces to be constructed or available until receptacles for EV charging or EV chargers are installed for use.

2.EV Ready. Twenty-five (25) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per dwelling unit when more than one parking space is provided for use by a single dwelling unit.

Exception: Areas of parking facilities served by parking lifts.

4.106.4.2.2 Multifamily development projects with 20 or more dwelling units, hotels and motels with 20 or more sleeping units or guest rooms.
The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to this section.

1.EV Capable. Ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at a minimum of 40 amperes.

The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code.

Exception: When EV chargers (Level 2 EVSE) are installed in a number greater than five (5) percent of parking spaces required by Section 4.106.4.2.2, Item 3, the number of EV capable spaces required may be reduced by a number equal to the number of EV chargers installed over the five (5) percent required.

Notes:

a.Construction documents shall show locations of future EV spaces.

b.There is no requirement for EV spaces to be constructed or available until receptacles for EV charging or EV chargers are installed for use.

2.EV Ready. Twenty-five (25) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per dwelling unit when more than one parking space is provided for use by a single dwelling unit.

Exception: Areas of parking facilities served by parking lifts.

3.EV Chargers. Five (5) percent of the total number of parking spaces shall be equipped with Level 2 EVSE. Where common use parking is provided, at least one EV charger shall be located in the common use parking area and shall be available for use by all residents or guests.

When low power Level 2 EV charging receptacles or Level 2 EVSE are installed beyond the minimum required, an automatic load management system (ALMS) may be used to reduce the maximum required electrical capacity to each space served by the ALMS. The electrical system and any on-site distribution transformers shall have sufficient capacity to deliver at least 3.3 kW simultaneously to each EV charging station (EVCS) served by the ALMS. The branch circuit shall have a minimum capacity of 40 amperes, and installed EVSE shall have a capacity of not less than 30 amperes. ALMS shall not be used to reduce the minimum required electrical capacity to the required EV capable spaces.

4.106.4.2.2.1 Electric vehicle charging stations (EVCS).
Electric vehicle charging stations required by Section 4.106.4.2.2, Item 3, shall comply with Section 4.106.4.2.2.1.

Exception: Electric vehicle charging stations serving public accommodations, public housing, motels and hotels shall not be required to comply with this section. See California Building Code, Chapter 11B, for applicable requirements.

4.106.4.2.2.1.1 Location.
EVCS shall comply with at least one of the following options:

1.The charging space shall be located adjacent to an accessible parking space meeting the requirements of the California Building Code, Chapter 11A, to allow use of the EV charger from the accessible parking space.

2.The charging space shall be located on an accessible route, as defined in the California Building Code, Chapter 2, to the building.

Exception: Electric vehicle charging stations designed and constructed in compliance with the California Building Code, Chapter 11B, are not required to comply with Section 4.106.4.2.2.1.1 and Section 4.106.4.2.2.1.2, Item 3.

4.106.4.2.2.1.2 Electric vehicle charging stations (EVCS) dimensions.
The charging spaces shall be designed to comply with the following:

1.The minimum length of each EV space shall be 18 feet (5486 mm).

2.The minimum width of each EV space shall be 9 feet (2743 mm).

3.One in every 25 charging spaces, but not less than one, shall also have an 8-foot (2438 mm) wide minimum aisle. A 5-foot (1524 mm) wide minimum aisle shall be permitted provided the minimum width of the EV space is 12 feet (3658 mm).

a.Surface slope for this EV space and the aisle shall not exceed 1 unit vertical in 48 units horizontal (2.083 percent slope) in any direction.

4.106.4.2.2.1.3 Accessible EV spaces.
In addition to the requirements in Sections 4.106.4.2.2.1.1 and 4.106.4.2.2.1.2, all EVSE, when installed, shall comply with the accessibility provisions for EV chargers in the California Building Code, Chapter 11B. EV ready spaces and EVCS in multifamily developments shall comply with California Building Code, Chapter 11A, Section 1109A.

4.106.4.2.3 EV space requirements.
1.Single EV space required. Install a listed raceway capable of accommodating a 208/240-volt dedicated branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or enclosure in close proximity to the location or the proposed location of the EV space. Construction documents shall identify the raceway termination point, receptacle or charger location, as applicable. The service panel and/ or subpanel shall have a 40-ampere minimum dedicated branch circuit, including branch circuit overcurrent protective device installed, or space(s) reserved to permit installation of a branch circuit overcurrent protective device.

Exception: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the location or the proposed location of the EV space, at the time of original construction in accordance with the California Electrical Code.

2.Multiple EV spaces required. Construction documents shall indicate the raceway termination point and the location of installed or future EV spaces, receptacles or EV chargers. Construction documents shall also provide information on amperage of installed or future receptacles or EVSE, raceway method(s), wiring schematics and electrical load calculations. Plan design shall be based upon a 40-ampere minimum branch circuit. Required raceways and related components that are planned to be installed underground, enclosed, inaccessible or in concealed areas and spaces shall be installed at the time of original construction.

Exception: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the location or the proposed location of the EV space at the time of original construction in accordance with the California Electrical Code.

4.106.4.2.4 Identification.
The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code.

4.106.4.2.5 Electric Vehicle Ready Space Signage.
Electric vehicle ready spaces shall be identified by signage or pavement markings, in compliance with Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s).

4.106.4.3 Electric vehicle charging for additions and alterations of parking facilities serving existing multifamily buildings.
When new parking facilities are added, or electrical systems or lighting of existing parking facilities are added or altered and the work requires a building permit, ten (10) percent of the total number of parking spaces added or altered shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE.

Notes:

1.Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.

2.There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.

DIVISION 4.2 ENERGY EFFICIENCY

4.201 GENERAL

4.201.1 SCOPE. For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory standards.

DIVISION 4.3 WATER EFFICIENCY AND CONSERVATION

4.303 INDOOR WATER USE

4.303.1 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the sections 4.303.1.1, 4.303.1.2, 4.303.1.3, and 4.303.4.4.

Note: All noncompliant plumbing fixtures in any residential real property shall be replaced with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy, or final permit approval by the local building department. See Civil Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates.

4.303.1.1 Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-type Toilets.

Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.

4.303.1.2 Urinals. The effective flush volume of wall mounted urinals shall not exceed 0.125 gallons per flush. The effective flush volume of all other urinals shall not exceed 0.5 gallons per flush.

4.303.1.3 Showerheads.

4.303.1.3.1 Single Showerhead. Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.

4.303.1.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to only allow one shower outlet to be in operation at a time.

Note: A hand-held shower shall be considered a showerhead.

4.303.1.4 Faucets.

4.303.1.4.1 Residential Lavatory Faucets. The maximum flow rate of residential lavatory faucets shall not exceed 1.2 gallons per minute at 60 psi. The minimum flow rate of residential lavatory faucets shall not be less than 0.8 gallons per minute at 20 psi.

4.303.1.4.2 Lavatory Faucets in Common and Public Use Areas. 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 per minute at 60 psi.

4.303.1.4.3 Metering Faucets. Metering faucets when installed in residential buildings shall not deliver more than 0.2 gallons per cycle.

4.303.1.4.4 Kitchen Faucets. The maximum flow rate of kitchen faucets shall not exceed 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.

Note: Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.

4.303.1.4.5 Pre-rinse spray valves.
When installed, shall meet the requirements in the *California Code of Regulations*, Title 20 (Appliance Efficiency Regulations). Sections 1605.1 (h)(4) Table H-2, Section 1605.3 (h)(4)(A), and Section 1607 (d)(7) and shall be equipped with an integral automatic shutoff.

FOR REFERENCE ONLY: The following table and code section have been reprinted from the *California Code of Regulations*, Title 20 (Appliance Efficiency Regulations),Section 1605.1 (h)(4) and Section 1605.3 (h)(4)(A).

TABLE H-2

STANDARDS FOR COMMERCIAL PRE-RINSE SPRAY VALVES MANUFACTURED ON OR AFTER JANUARY 28, 2019

PRODUCT CLASS [spray force in ounce force (ozf)]	MAXIMUM FLOW RATE (gpm)
Product Class 1 (≤ 5.0 ozf)	1.00
Product Class 2 (> 5.0 ozf and ≤ 8.0 ozf)	1.20
Product Class 3 (> 8.0 ozf)	1.28

Title 20 Section 1605.3 (h)(4)(A): Commercial prerinse spray values manufactured on or after January 1, 2006, shall have a minimum spray force of not less than 4.0 ounces-force (ozf)[113 grams-force(gf)]

4.303.2 Submeters for multifamily buildings and dwelling units in mixed-used residential/commercial buildings.
Submeters shall be installed to measure water usage of individual rental dwelling units in accordance with the *California Plumbing Code*.

4.303.3 Standards for plumbing fixtures and fittings. Plumbing fixtures and fittings shall be installed in accordance with the *California Plumbing Code*, and shall meet the applicable standards referenced in Table 1701.1 of the *California Plumbing Code*.

NOTE:
THIS TABLE COMPILES THE DATA IN SECTION 4.303.1, AND IS INCLUDED AS A CONVENIENCE FOR THE USER.

TABLE - MAXIMUM FIXTURE WATER USE

FIXTURE TYPE	FLOW RATE
SHOWER HEADS (RESIDENTIAL)	1.8 GMP @ 80 PSI
LAVATORY FAUCETS (RESIDENTIAL)	MAX. 1.2 GPM @ 60 PSI MIN. 0.8 GPM @ 20 PSI
LAVATORY FAUCETS IN COMMON & PUBLIC USE AREAS	0.5 GPM @ 60 PSI
KITCHEN FAUCETS	1.8 GPM @ 60 PSI
METERING FAUCETS	0.2 GAL/CYCLE
WATER CLOSET	1.28 GAL/FLUSH
URINALS	0.125 GAL/FLUSH

4.304 OUTDOOR WATER USE

4.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. Residential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent.

NOTES:

1. The Model Water Efficient Landscape Ordinance (MWELO) is located in the *California Code Regulations*, Title 23, Chapter 2.7, Division 2. MWELO and supporting documents, including water budget calculator, are available at: https://www.water.ca.gov/

DIVISION 4.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

4.406 ENHANCED DURABILITY AND REDUCED MAINTENANCE

4.406.1 RODENT PROOFING. Annular spaces around pipes, electric cables, conduits or other openings in sole/bottom plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or a similar method acceptable to the enforcing agency.

4.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

4.408.1 CONSTRUCTION WASTE MANAGEMENT. Recycle and/or salvage for reuse a minimum of 65 percent of the non-hazardous construction and demolition waste in accordance with either Section 4.408.2, 4.408.3 or 4.408.4, or meet a more stringent local construction and demolition waste management ordinance.

Exceptions:

1. Excavated soil and land-clearing debris.
2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably close to the jobsite.
3. The enforcing agency may make exceptions to the requirements of this section when isolated jobsites are located in areas beyond the haul boundaries of the diversion facility.

4.408.2 CONSTRUCTION WASTE MANAGEMENT PLAN. Submit a construction waste management plan in conformance with Items 1 through 5. The construction waste management plan shall be updated as necessary and shall be available during construction for examination by the enforcing agency.

1. Identify the construction and demolition waste materials to be diverted from disposal by recycling, reuse on the project or salvage for future use or sale.
2. Specify if construction and demolition waste materials will be sorted on-site (source separated) or bulk mixed (single stream).
3. Identify diversion facilities where the construction and demolition waste material collected will be taken.
4. Identify construction methods employed to reduce the amount of construction and demolition waste generated.
5. Specify that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.

4.408.3 WASTE MANAGEMENT COMPANY. Utilize a waste management company, approved by the enforcing agency, which can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with Section 4.408.1.

Note: The owner or contractor may make the determination if the construction and demolition waste materials will be diverted by a waste management company.

4.408.4 WASTE STREAM REDUCTION ALTERNATIVE [LR]. Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 3.4 lbs./sq.ft. of the building area shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1

4.408.4.1 WASTE STREAM REDUCTION ALTERNATIVE. Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 2 pounds per square foot of the building area, shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1

4.408.5 DOCUMENTATION. Documentation shall be provided to the enforcing agency which demonstrates compliance with Section 4.408.2, items 1 through 5, Section 4.408.3 or Section 4.408.4..

Notes:

1. Sample forms found in "A Guide to the California Green Building Standards Code (Residential)" located at www.hcd.ca.gov/CALGreen.html may be used to assist in documenting compliance with this section.
2. Mixed construction and demolition debris (C & D) processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle).

4.410 BUILDING MAINTENANCE AND OPERATION

4.410.1 OPERATION AND MAINTENANCE MANUAL. At the time of final inspection, a manual, compact disc, web-based reference or other media acceptable to the enforcing agency which includes all of the following shall be placed in the building:

1. Directions to the owner or occupant that the manual shall remain with the building throughout the life cycle of the structure.
2. Operation and maintenance instructions for the following:
   a. Equipment and appliances, including water-saving devices and systems, HVAC systems, photovoltaic systems, electric vehicle chargers, water-heating systems and other major appliances and equipment.
   b. Roof and yard drainage, including gutters and downspouts.
   c. Space conditioning systems, including condensers and air filters.
   d. Landscape irrigation systems.
   e. Water reuse systems.
3. Information from local utility, water and waste recovery providers on methods to further reduce resource consumption, including recycle programs and locations.
4. Public transportation and/or carpool options available in the area.
5. Educational material on the positive impacts of an interior relative humidity between 30-60 percent and what methods an occupant may use to maintain the relative humidity level in that range.
6. Information about water-conserving landscape and irrigation design and controllers which conserve water.
7. Instructions for maintaining gutters and downspouts and the importance of diverting water at least 5 feet away from the foundation.
8. Information on required routine maintenance measures, including, but not limited to, caulking, painting, grading around the building, etc.
9. Information about state solar energy and incentive programs available.
10. A copy of all special inspections verifications required by the enforcing agency or this code.
11. Information from the Department of Forestry and Fire Protection on maintenance of defensible space around residential structures.
12. Information and/or drawings identifying the location of grab bar reinforcements.

4.410.2 RECYCLING BY OCCUPANTS. Where 5 or more multifamily dwelling units are constructed on a building site, provide readily accessible area(s) that serves all buildings on the site and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waster, and metals, or meet a lawfully enacted local recycling ordinance, if more restrictive.

Exception: Rural jurisdictions that meet and apply for the exemption in Public Resources Code Section 42649.82 (a)(2)(A) et seq. are note required to comply with the organic waste portion of this section.

DIVISION 4.5 ENVIRONMENTAL QUALITY

SECTION 4.501 GENERAL

4.501.1 Scope
The provisions of this chapter shall outline means of reducing the quality of air contaminants that are odorous, irritating and/or harmful to the comfort and well being of a building's installers, occupants and neighbors.

SECTION 4.502 DEFINITIONS

5.102.1 DEFINITIONS
The following terms are defined in Chapter 2 *(and are included here for reference)*

AGRIFIBER PRODUCTS. Agrifiber products include wheatboard, strawboard, panel substrates and door cores, not including furniture, fixtures and equipment (FF&E) not considered base building elements.

COMPOSITE WOOD PRODUCTS. Composite wood products include hardwood plywood, particleboard and medium density fiberboard. "Composite wood products" does not include hardboard, structural plywood, structural panels, structural composite lumber, oriented strand board, glued laminated timber, prefabricated wood I-joists or finger-jointed lumber, all as specified in California Code of regulations (CCR), title 17, Section 93120.1.

DIRECT-VENT APPLIANCE. A fuel-burning appliance with a sealed combustion system that draws all air for combustion from the outside atmosphere and discharges all flue gases to the outside atmosphere.

PROPOSED REMODEL FOR
CHESTER HOWE
5605 FRIARS RD # 306,
SAN DIEGO, CA 92110

Project Name and Address

SHEET TITLE
CAL-GREEN

No.	Revision/Issue	Date
1	CLIENT REVIEW	6/21/2023
2	AJUL	
3	PLAN CHECK	
4	CORRECTIONS	
5	PERMIT	
6		
7		

Firm Name and Address
ADVANCED DEVELOPMENT
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SCAN ME
License# 905815

Project 436611538
Date 06/2023
Scale
Sheet CG1.0

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
RESIDENTIAL MANDATORY MEASURES, SHEET 2 (January 2023)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a compound to the "Base Reactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to hundredths of a gram (g O³g ROC).
Note: MIR values for individual compounds and hydrocarbon solvents are specified in CCR, Title 17, Sections 94700 and 94701.

MOISTURE CONTENT. The weight of the water in wood expressed in percentage of the weight of the oven-dry wood.

PRODUCT-WEIGHTED MIR (PWMIR). The sum of all weighted-MIR for all ingredients in a product subject to this article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of product (excluding container and packaging).
Note: PWMIR is calculated according to equations found in CCR, Title 17, Section 94521 (a).

REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to ozone formation in the troposphere.

VOC. A volatile organic compound (VOC) broadly defined as a chemical compound based on carbon chains or rings with vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a).

4.503 FIREPLACES
4.503.1 GENERAL. Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits. Woodstoves, pellet stoves and fireplaces shall also comply with applicable local ordinances.

4.504 POLLUTANT CONTROL
4.504.1 COVERING OF DUCT OPENINGS & PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION. At the time of rough installation, during storage on the construction site and until final startup of the heating, cooling and ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal or other methods acceptable to the enforcing agency to reduce the amount of water, dust or debris which may enter the system.

4.504.2 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with this section.

4.504.2.1 Adhesives, Sealants and Caulks. Adhesives, sealant and caulks used on the project shall meet the requirements of the following standards unless more stringent local or regional air pollution or air quality management district rules apply:

1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable or SCAQMD Rule 1168 VOC limits, as shown in Table 4.504.1 or 4.504.2, as applicable. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and trichloroethylene), except for aerosol products, as specified in Subsection 2 below.
2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than 1 pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of *California Code of Regulations*, Title 17, commencing with section 94507.

4.504.2.2 Paints and Coatings. Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Suggested Control Measure, as shown in Table 4.504.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 4.504.3 shall be determined by classifying the coating as a Flat, Nonflat or Nonflat-High Gloss coating, based on its gloss, as defined in subsections 4.21, 4.36, and 4.37 of the 2007 California Air Resources Board, Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in Table 4.504.3 shall apply.

4.504.2.3 Aerosol Paints and Coatings. Aerosol paints and coatings shall meet the Product-weighted MIR Limits for ROC in Section 94522(a)(2) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(e)(1) and (f)(1) of *California Code of Regulations*, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation 8, Rule 49.

4.504.2.4 Verification. Verification of compliance with this section shall be provided at the request of the enforcing agency. Documentation may include, but is not limited to, the following:

1. Manufacturer's product specification.
2. Field verification of on-site product containers.

TABLE 4.504.1 - ADHESIVE VOC LIMIT[1,2]
(Less Water and Less Exempt Compounds in Grams per Liter)

ARCHITECTURAL APPLICATIONS	VOC LIMIT
INDOOR CARPET ADHESIVES	50
CARPET PAD ADHESIVES	50
OUTDOOR CARPET ADHESIVES	150
WOOD FLOORING ADHESIVES	100
RUBBER FLOOR ADHESIVES	60
SUBFLOOR ADHESIVES	50
CERAMIC TILE ADHESIVES	65
VCT & ASPHALT TILE ADHESIVES	50
DRYWALL & PANEL ADHESIVES	50
COVE BASE ADHESIVES	50
MULTIPURPOSE CONSTRUCTION ADHESIVE	70
STRUCTURAL GLAZING ADHESIVES	100
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250
OTHER ADHESIVES NOT LISTED	50
SPECIALTY APPLICATIONS	
PVC WELDING	510
CPVC WELDING	490
ABS WELDING	325
PLASTIC CEMENT WELDING	250
ADHESIVE PRIMER FOR PLASTIC	550
CONTACT ADHESIVE	80
SPECIAL PURPOSE CONTACT ADHESIVE	250
STRUCTURAL WOOD MEMBER ADHESIVE	140
TOP & TRIM ADHESIVE	250
SUBSTRATE SPECIFIC APPLICATIONS	
METAL TO METAL	30
PLASTIC FOAMS	50
POROUS MATERIAL (EXCEPT WOOD)	50
WOOD	30
FIBERGLASS	80

1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.

2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

TABLE 4.504.2 - SEALANT VOC LIMIT
(Less Water and Less Exempt Compounds in Grams per Liter)

SEALANTS	VOC LIMIT
ARCHITECTURAL	250
MARINE DECK	760
NONMEMBRANE ROOF	300
ROADWAY	250
SINGLE-PLY ROOF MEMBRANE	450
OTHER	420
SEALANT PRIMERS	
ARCHITECTURAL	
NON-POROUS	250
POROUS	775
MODIFIED BITUMINOUS	500
MARINE DECK	760
OTHER	750

TABLE 4.504.3 - VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS[2,3]
GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT COMPOUNDS

COATING CATEGORY	VOC LIMIT
FLAT COATINGS	50
NON-FLAT COATINGS	100
NONFLAT-HIGH GLOSS COATINGS	150
SPECIALTY COATINGS	
ALUMINUM ROOF COATINGS	400
BASEMENT SPECIALTY COATINGS	400
BITUMINOUS ROOF COATINGS	50
BITUMINOUS ROOF PRIMERS	350
BOND BREAKERS	350
CONCRETE CURING COMPOUNDS	350
CONCRETE/MASONRY SEALERS	100
DRIVEWAY SEALERS	50
DRY FOG COATINGS	150
FAUX FINISHING COATINGS	350
FIRE RESISTIVE COATINGS	350
FLOOR COATINGS	100
FORM-RELEASE COMPOUNDS	250
GRAPHIC ARTS COATINGS (SIGN PAINTS)	500
HIGH TEMPERATURE COATINGS	420
INDUSTRIAL MAINTENANCE COATINGS	250
LOW SOLIDS COATINGS[1]	120
MAGNESITE CEMENT COATINGS	450
MASTIC TEXTURE COATINGS	100
METALLIC PIGMENTED COATINGS	500
MULTICOLOR COATINGS	250
PRETREATMENT WASH PRIMERS	420
PRIMERS, SEALERS, & UNDERCOATERS	100
REACTIVE PENETRATING SEALERS	350
RECYCLED COATINGS	250
ROOF COATINGS	50
RUST PREVENTATIVE COATINGS	250
SHELLACS	
CLEAR	730
OPAQUE	550
SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100
STAINS	250
STONE CONSOLIDANTS	450
SWIMMING POOL COATINGS	340
TRAFFIC MARKING COATINGS	100
TUB & TILE REFINISH COATINGS	420
WATERPROOFING MEMBRANES	250
WOOD COATINGS	275
WOOD PRESERVATIVES	350
ZINC-RICH PRIMERS	340

1. GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & EXEMPT COMPOUNDS

2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE.

3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.

TABLE 4.504.5 - FORMALDEHYDE LIMITS[1]
MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION

PRODUCT	CURRENT LIMIT
HARDWOOD PLYWOOD VENEER CORE	0.05
HARDWOOD PLYWOOD COMPOSITE CORE	0.05
PARTICLE BOARD	0.09
MEDIUM DENSITY FIBERBOARD	0.11
THIN MEDIUM DENSITY FIBERBOARD[2]	0.13

1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIF. AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIF. CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12.

2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16" (8 MM).

DIVISION 4.5 ENVIRONMENTAL QUALITY (continued)
4.504.3 CARPET SYSTEMS. All carpet installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350)

See California Department of Public Health's website for certification programs and testing labs.

https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

4.504.3.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350)

See California Department of Public Health's website for certification programs and testing labs.

https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

4.504.3.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 4.504.1.

4.504.4 RESILIENT FLOORING SYSTEMS. Where resilient flooring is installed , at least 80% of floor area receiving resilient flooring shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350)

See California Department of Public Health's website for certification programs and testing labs.

hhttps://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

4.504.5 COMPOSITE WOOD PRODUCTS. Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure for Composite Wood (17 CCR 93120 et seq.), by or before the dates specified in those sections, as shown in Table 4.504.5

4.504.5.1 Documentation. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:

1. Product certifications and specifications.
2. Chain of custody certifications.
3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.).
4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269, European 636 3S standards, and Canadian CSA 0121, CSA 0151, CSA 0153 and CSA 0325 standards.
5. Other methods acceptable to the enforcing agency.

4.505 INTERIOR MOISTURE CONTROL
4.505.1 General. Buildings shall meet or exceed the provisions of the *California Building Standards Code*.

4.505.2 CONCRETE SLAB FOUNDATIONS. Concrete slab foundations required to have a vapor retarder by California Building Code, Chapter 19, or concrete slab-on-ground floors required to have a vapor retarder by the California Residential Code, Chapter 5, shall also comply with this section.

4.505.2.1 Capillary break. A capillary break shall be installed in compliance with at least one of the following:

1. A 4-inch (101.6 mm) thick base of 1/2 inch (12.7mm) or larger clean aggregate shall be provided with a vapor barrier in direct contact with concrete and a concrete mix design, which will address bleeding, shrinkage, and curling, shall be used. For additional information, see American Concrete Institute, ACI 302.2R-06.
2. Other equivalent methods approved by the enforcing agency.
3. A slab design specified by a licensed design professional.

4.505.3 MOISTURE CONTENT OF BUILDING MATERIALS. Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed when the framing members exceed 19 percent moisture content. Moisture content shall be verified in compliance with the following:

1. Moisture content shall be determined with either a probe-type or contact-type moisture meter.Equivalent moisture verification methods may be approved by the enforcing agency and shall satisfy requirements found in Section 101.8 of this code.
2. Moisture readings shall be taken at a point 2 feet (610 mm) to 4 feet (1219 mm) from the grade stamped end of each piece verified.
3. At least three random moisture readings shall be performed on wall and floor framing with documentation acceptable to the enforcing agency provided at the time of approval to enclose the wall and floor framing.

Insulation products which are visibly wet or have a high moisture content shall be replaced or allowed to dry prior to enclosure in wall or floor cavities. Wet-applied insulation products shall follow the manufacturers' drying recommendations prior to enclosure.

4.506 INDOOR AIR QUALITY AND EXHAUST
4.506.1 Bathroom exhaust fans. Each bathroom shall be mechanically ventilated and shall comply with the following:

1. Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building.
2. Unless functioning as a component of a whole house ventilation system, fans must be controlled by a humidity control.
   a. Humidity controls shall be capable of adjustment between a relative humidity range less than or equal to 50% to a maximum of 80%. A humidity control may utilize manual or automatic means of adjustment.
   b. A humidity control may be a separate component to the exhaust fan and is not required to be integral (i.e., built-in)

Notes:

1. For the purposes of this section, a bathroom is a room which contains a bathtub, shower or tub/shower combination.
2. Lighting integral to bathroom exhaust fans shall comply with the *California Energy Code*.

4.507 ENVIRONMENTAL COMFORT
4.507.2 HEATING AND AIR-CONDITIONING SYSTEM DESIGN. Heating and air conditioning systems shall be sized, designed and have their equipment selected using the following methods:

1. The heat loss and heat gain is established according to ANSI/ACCA 2 Manual J - 2011 (Residential Load Calculation), ASHRAE handbooks or other equivalent design software or methods.
2. Duct systems are sized according to ANSI/ACCA 1 Manual D - 2014 (Residential Duct Systems), ASHRAE handbooks or other equivalent design software or methods.
3. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S - 2014 (Residential Equipment Selection), or other equivalent design software or methods.

Exception: Use of alternate design temperatures necessary to ensure the system functions are acceptable.

CHAPTER 7
INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

702 QUALIFICATIONS
702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program. Uncertified persons may perform HVAC installations when under the direct supervision and responsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems. Examples of acceptable HVAC training and certification programs include but are not limited to the following:

1. State certified apprenticeship programs.
2. Public utility training programs.
3. Training programs sponsored by trade, labor or statewide energy consulting or verification organizations.
4. Programs sponsored by manufacturing organizations.
5. Other programs acceptable to the enforcing agency.

702.2 SPECIAL INSPECTION [HCD]. When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be considered by the enforcing agency when evaluating the qualifications of a special inspector:

1. Certification by a national or regional green building program or standard publisher.
2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building performance contractors, and home energy auditors.
3. Successful completion of a third party apprentice training program in the appropriate trade.
4. Other programs acceptable to the enforcing agency.

Notes:
1. Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.
2. HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate homes in California according to the Home Energy Rating System (HERS).

[BSC] When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition, the special inspector shall have a certification from a recognized state, national or international association, as determined by the local agency. The area of certification shall be closely related to the primary job function, as determined by the local agency.

Note: Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.

703 VERIFICATIONS
703.1 DOCUMENTATION. Documentation used to show compliance with this code shall include but is not limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in the appropriate section or identified applicable checklist.

PROPOSED REMODEL FOR
CHESTER HOWE
5605 FRIARS RD # 306,
SAN DIEGO, CA 92110

Project Name and Address

SHEET TITLE
CAL-GREEN

No.	Revision/Issue	Date
1	CLIENT REVIEW	6/21/2023
2	A.R.B.	
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7		

Firm Name and Address
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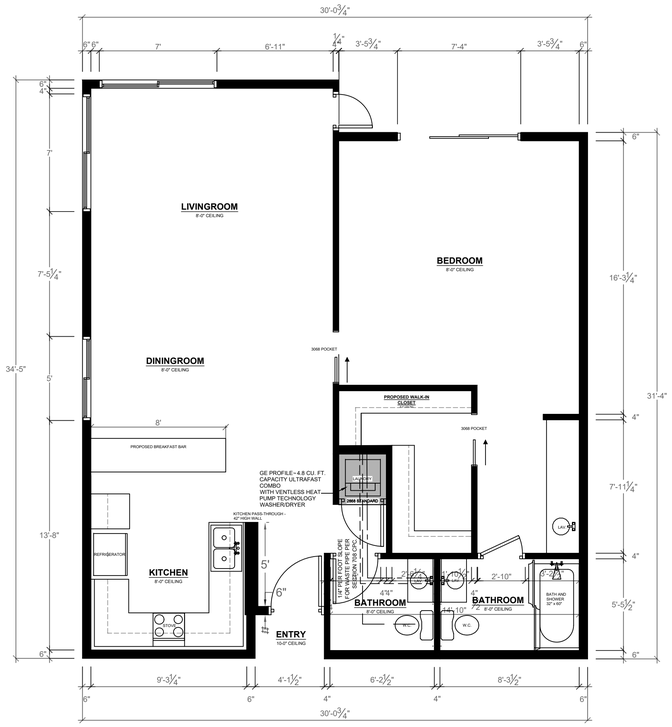
SCAN ME

Project 436611538
Date 06/2023
Scale
Sheet CG1.1



PROPOSED THIRD LEVEL UNIT #306-PLUMBING PLAN

GRAPHIC SCALE

REFERENCE NORTH

UTILITY PLAN NOTES

1. LOCAL EXHAUST FANS TO EXTERIOR TO PROVIDE MINIMUM 50 CFM INTERMITTENT OR 20 CFM CONTINUOUS VENTILATION.
2. SMOKE DETECTORS TO BE INTERCONNECTED PER CRC R314.4 AND HARD-WIRED WITH BATTERY BACK-UP PER CRC R314.6
3. CARBON MONOXIDE ALARMS TO BE INTERCONNECTED PER CRC R315.7 AND HARD-WIRED WITH BATTERY BACK-UP PER CRC R315.5
4. 4" Ø DRYER VENT WITH MAXIMUM 14 FOOT COMBINED HORIZONTAL AND VERTICAL LENGTH WITH TWO 90 DEGREE ELBOWS.
5. A MECHANICAL EXHAUST VENTILATION SYSTEM, SUPPLY VENTILATION SYSTEM, OR COMBINATION THEREOF SHALL BE INSTALLED FOR EACH DWELLING UNIT TO PROVIDE WHOLE-BUILDING VENTILATION WITH OUTDOOR AIR IN COMPLIANCE WITH ASHRAE STANDARD 62.2 AS ADOPTED BY THE CALIFORNIA ENERGY COMMISSION.
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7. WATER HEATER OR FURNACE SHALL BE A DIRECT-VENT APPLIANCE LISTED GASKETED SELF CLOSING DOOR REQUIRED FOR GAS FAU.
8. GE PROFILE™ 4.8 CU. FT. CAPACITY ULTRAFAST COMBO WITH VENTLESS HEAT PUMP TECHNOLOGY WASHER/DRYER.
9. DRYER VENTS SHALL BE EQUIPPED WITH BACK-DRAFT DAMPERS PER SECTION 504.1.1 CMC."
10. 1/4" PER FOOT SLOPE FOR WASTE PIPE PER SECTION 708 CPC.
11. "BUILDING DRAIN AND VENT PIPING MATERIALS SHALL COMPLY WITH SECTIONS 701.0 AND 903.0 OF THE CALIFORNIA PLUMBING CODE."
12. ALL SANITARY SYSTEM MATERIALS SHALL BE LISTED BY AN APPROVED LISTING AGENCY."
13. DOMESTIC HOT WATER PIPING SHALL BE INSULATED PER SECTION 609.12.2 CPC.
14. ELECTRIC HIGH EFFICIENT CLOTHES DRYER.

PLUMBING SYMBOLS LEGEND

——— – ———	COLD WATER (CW)
– – – –W– – – –	COLD WATER (CW) – BELOW SLAB/GRADE
——— – – ———	HOT WATER (HW)
——— LPG ———	LIQUID PETRO. GAS
——— D ———	CONDENSATE LINE
——— ——— ———	PLUMBING VENT (V)
——— ———	SANITARY WASTE (SAN) – BELOW SLAB/GRADE
———o ——o	PIPE TURNING UP/DOWN
———⋈———	GATE VALVE
⬡ **	FIXTURE IDENTIFICATION
**	PLAN NOTE
AFF/AFG	ABOVE FINISHED FLOOR/GRADE
———⊙	VALVE IN RISE
DCOTG	DOUBLE CLEANOUT TO GRADE

VTR	VENT THRU ROOF
PC	PLUMBING CONTRACTOR
CO	CLEANOUT
WCO	WALL CLEANOUT
FFCO/FGCO	FLUSH FLOOR/GRADE CLEANOUT
BV	BALL VALVE
AS	ANGLE STOP
HD	HUB DRAIN
FD	FLOOR DRAIN
RI	ROUGH-IN
OC	ON CENTERS
FPC	FIRE PROTECTION CONTRACTOR
MC	MECHANICAL CONTRACTOR
EC	ELECTRICAL CONTRACTOR
BFP	BACKFLOW PREVENTER

Project Name and Address

PROPOSED REMODEL FOR CHESTER HOWE 5605 FRIARS RD # 306, SAN DIEGO, CA 92110

SHEET TITLE

PLUMBING

No.	Revision/Issue	Date
1	CLIENT REVIEW	6/21/2023
2	A.R.B.	
3	PLAN CHECK	
4	CORRECTIONS	
5	PERMIT	
6		
7		

Firm Name and Address

ADVANCED DEVELOPMENT
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WEBSITE: WWW.ADVANCEDDEVELOPMENT.NET
SCAN ME

Project 436611538

Date 06/2023

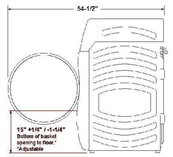
Scale

Sheet **P1.0**

PFQ97HSPVDS

GE Profile™ 4.8 cu. ft. Capacity UltraFast Combo with Ventless Heat Pump Technology Washer/Dryer

DIMENSIONS AND INSTALLATION INFORMATION (IN INCHES)



ELECTRIC RATING
120V | 10A, 60Hz

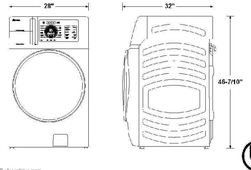
INSTALLATION INFORMATION: For complete information, see installation instructions packed with your Combo.

CIRCUIT REQUIREMENTS: An individual, properly grounded branch circuit, protected by a 15-amp circuit breaker or a time-delay fuse, is required.

NOTE: Combo wall outlet must be located within 36" of service cord entry and accessible when combo is mounted in position.

INCLUDED POWER CORD LENGTH - Up to 65"

INCLUDED DRAIN HOSE LENGTH - Up to 60"



GE APPLIANCES

For answers to your Monogram, GE Café™, GE Profile™ or GE Appliances product questions, visit our website at geappliances.com or call GE Answer Center® Service, 800.626.2000.

Specification Drawn 1/23

PFQ97HSPVDS

GE Profile™ 4.8 cu. ft. Capacity UltraFast Combo with Ventless Heat Pump Technology Washer/Dryer

ALCOVE OR CLOSET INSTALLATION:
-Approved for closet installation. Closet doors must be louvered or otherwise ventilated and have a least 60 square inches (387 cm2) of open area

-No Venting Required.

-Minimum clearances between Combo cabinet and adjacent walls or other surfaces are: 0" at sides and top.*

MINIMUM CLEARANCE OTHER THAN ALCOVE OR CLOSET INSTALLATIONS:
-Minimum clearances to combustible surfaces 0" all sides and top.*

WEIGHT
-Carton weight 323 lbs
-Product weight 302 lbs

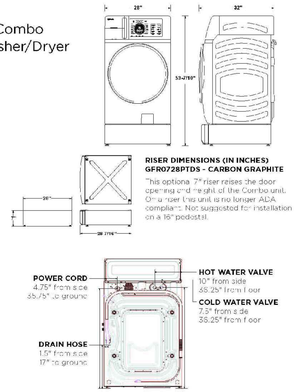
*For improved performance, 1"/25.4 mm clearance is suggested on each side.

ACCESSORIES

Fill Hoses	WH41X10207 (sold separately)
Optional Riser	GFR0728PTDS (sold separately)
Sink Unicoupler Hook-up	WH41X27460 (sold separately)
Drain Hose Extension Kit- Approx. 4-4"	WH49X316 (sold separately)
Universal low profile washer floor tray	FH7X3 (sold separately)
Touch-Up Paint - 0.6 OZ	WR97X2770 (sold separately)

WARRANTY

Labor Warranty	Limited 1 year entire appliance
Parts Warranty	Limited 1-year entire appliance Limited 5-year sealed system Limited 10-year motor



"This optional 7" riser raises the door opening and height of the Combo unit. Combo with this unit is no longer ADA compliant. Not suggested for installation on a 16" pedestal.

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Specification Drawn 1/23

PFQ97HSPVDS

GE Profile™ 4.8 cu. ft. Capacity UltraFast Combo with Ventless Heat Pump Technology Washer/Dryer

FEATURES AND BENEFITS

2-in-1 Washer/Dryer - Wash & Dry a large load of laundry in about 2 hours without the hassle of transferring clothes from the washer to the dryer.*

High-Airflow Ventless Drying System - Recirculated high-speed filtered airflow lets you gently dry activewear, denim and other delicate items so you don't have to hang dry.

Easy Installation & Space-Saving Solutions - Rethink your laundry space and location with a 120V, all-in-one Ventless Combo design that takes up half the space of two separate units.

Greater Energy Savings -** 50% more energy efficient drying** with Ventless Heat Pump.

Adaptive SmartDispense™ Technology - Save time and effort with an intelligent dispenser that holds enough detergent and softener for up to 32 loads. Plus, scan the barcode on the detergent or softener bottle with the SmartHQ™ app and the washer will dispense the right amount based on the type of product used.

Microban® Antimicrobial Technology - Provides antimicrobial protection on the gasket, dispenser, and drawing system, to help prevent odors and ensuring your Combo stays fresh and clean load after load.

Smart Features Powered by SmartHQ™ - When connected to the SmartHQ™ app, the Combo allows you to select detergents, download specialty cycles, receive cycle status notifications, and initiate updates.

Large Wash Capacity - Large, 4.8-cu.-ft. capacity lets you clean large sized loads, even clean a king-size comforter.

Limited Warranty - Rest assured knowing your unit is backed by a 10-year limited warranty on the motor and a 5-year limited warranty on the sealed drying system.

EZ Access Lint Filter System - An exclusive, easy-to-reach lint filter system allows you to remove lint and micro particles, ensuring your Combo operates at the highest levels of efficiency.

Sanitize with Oxi - Remove 99% of bacteria with a dedicated cycle that uses an Oxi additive to boost your detergent's cleaning power, while keeping fabrics looking and feeling their best.

Eco Cool™ Cycle - Save energy with a specially designed cold-water wash and efficient Dry cycle that delivers comparable cleaning performance to the normal warm water wash cycle.

ADA COMPLIANT

GE APPLIANCES

* Based on completing the Normal Wash + Dry cycle with Eco Dry on using a 10-lb. DOE or Mixed Load in about 2 hours. See Use & Care Manual for details.

** Efficiency rating as compared to the requirements for ENERGY STAR qualification for standard electric dryers.

Specification Created 1/23

UTILITY PLAN NOTES

1. LOCAL EXHAUST FANS TO EXTERIOR TO PROVIDE MINIMUM 50 CFM INTERMITTENT OR 20 CFM CONTINUOUS VENTILATION.
2. SMOKE DETECTORS TO BE INTERCONNECTED PER CRC R314.4 AND HARD-WIRED WITH BATTERY BACK-UP PER CRC R314.6
3. CARBON MONOXIDE ALARMS TO BE INTERCONNECTED PER CRC R315.7 AND HARD-WIRED WITH BATTERY BACK-UP PER CRC R315.5
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PROPOSED THIRD LEVEL UNIT #306-MECHANICAL PLAN

GRAPHIC SCALE — REFERENCE NORTH

Project Name and Address

PROPOSED REMODEL FOR CHESTER HOWE
5605 FRIARS RD # 306, SAN DIEGO, CA 92110

SHEET TITLE
MECHANICAL

No.	Revision/Issue	Date
1	CLIENT REVIEW	6/21/2023
2	A.R.B.	
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SCAN ME

Project 436611538
Date 06/2023
Scale
Sheet **M1.0**