GENERAL BID/CONSTRUCTION NOTES

1 THESE NOTES APPLY TO ALL DRAWINGS, UNLESS NOTED OTHERWISE. ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE DRAWINGS AND/OR GENERAL NOTES ARE TO BE BROUGHT TO THE ATTENTION OF THE OWNER AND THE ARCHITECT BEFORE PROCEEDING WITH ANY WORK SO INVOLVED. ALL NOTIFICATIONS SHALL BE IN WRITING USING RFI NUMBERING W/ DATE FOR CHRONOLOGICAL REFERENCING. ALL CHANGE ORDERS TO BE CROSS REFERENCED FROM RFI FOR ACCURATE LOG SHEET

2 THE CONSTRUCTION DOCUMENTS DESCRIBE QUALITY, QUANTITIES AND AESTHETICS THROUGHOUT THE ENTIRE PERIOD OF BID THROUGH CONSTRUCTION. PRIOR TO ORDERING MATERIALS OR PRODUCTS, THE GENERAL CONTRACTOR, HIS REPRESENTATIVES, SUBCONTRACTORS AND ALL ENTITIES ASSOCIATED WITH CONSTRUCTION MUST SUBMIT IN WRITING TO THE ARCHITECT FOR REVIEW AND APPROVAL ALL PROPOSED CHANGES TO THE DESIGN OR PRODUCTS THAT DIFFER FROM THAT SPECIFIED ON THE PLANS. ANY COMPLETED WORK OR PRODUCT SUBSTITUTIONS NOT AUTHORIZED IN ADVANCE BY THE ARCHITECT SHALL BE REJECTED AND REPLACED PER PLANS AT THE GENERAL CONTRACTOR'S EXPENSE. ANY PROPOSED CHANGES MUST BE APPROVED VIA THE CHANGE ORDER PROCESS AND SIGNED BY THE OWNER, ARCHITECT AND CONTRACTOR FOR APPROVAL, WHETHER INITIATED BY THE OWNER ONLY AS ARCHITECT MANDATES BEING THE CENTER OF COMMUNICATION FOR ALL ITEMS IMPACTED BY THE BUILDING APPEARANCE –NO EXCEPTIONS.

3 THE CONTRACTOR IS RESPONSIBLE FOR ALL INSTALLATIONS THROUGH UTILIZING ARCHITECT'S DRAWINGS AS INSTRUMENTS FOR INSTRUCTION, NOT THE PRODUCT ITSELF AS THE DRAWINGS DO NOT REPRESENT THE METHOD OF CONSTRUCTION. CONTRACTOR IS TO SUPERVISE AND DIRECT THE WORK UNDER HIS CONTRACT AND IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. THE THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE AND SAFETY OF WORKMEN DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE BUT NOT BE LIMITED TO, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. THE ARCHITECT SHALL NOT HAVE CONTROL OVER OR CHARGE OF FIELD SAFETY, ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR THEIR AGENTS AND ANY OTHER PERSONS PERFORMING PORTIONS OF THE WORK SINCE THESE ARE SOLELY THE CONTRACTOR'S RESPONSIBILITY INCLUDING TIME SCHEDULES AND TRADE SEQUENCE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

4 CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY & PROTECTION IN AND AROUND JOB SITE & OR ADJACENT PROPERTIES. CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS TO BE REMOVED, RELOCATED OR REMAIN INTACT AND HOW THE NEW CONSTRUCTION RELATES TO THE SITE CONDITION. THE CONTRACTOR SHALL EXAMINE THE JOB SITE. CONFIRM ALL UTILITY LOCATIONS, SIZES, PRESSURES, ETC.. AND PROTECT, RELOCATE, CONNECT OR REMOVE ALL NECESSARY FOR TOTAL PROJECT COMPLETION. VERIFY ALL DIMENSIONS AND SATISFY HIMSELF AS TO THE EXISTING CONDITIONS UNDER WHICH HE WILL BE OBLIGATED TO OPERATE. NOTIFY THE ARCHITECT OF ANY AND ALL DISCREPANCIES PRIOR TO COMMENCING WORK.

5 OBSERVATION VISITS TO THE SITE BY THE ARCHITECT OR STRUCTURAL ENGINEER FIELD REPRESENTATIVE SHALL NEITHER BE CONSTRUED AS INSPECTION NOR APPROVAL AS NOT AS INSPECTION AND DOES NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES. UNLESS NOTED OBSERVATION VISITS TO THE SITE BY FIELD REPRESENTATIVES OF THE ARCHITECT AND/OR HIS CONSULTANTS ARE NOT TO INCLUDE INSPECTIONS OF REQUIRED FOR SAME, WHICH ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. ANY SUPPORT SERVICES PERFORMED BY THE ARCHITECT AND/OR HIS CONSULTANTS DURING CONSTRUCTION ARE TO BE DISTINGUISHED FROM CONTINUOUS AND DETAILED INSPECTION SERVICES WHICH ARE FURNISHED BY OTHERS. THESE SUPPORT SERVICES PERFORMED BY THE ARCHITECT AND/OR HIS CONSULTANTS, WHETHER OF MATERIAL OR WORK, AND WHETHER PERFORMED PRIOR TO, DURING OR AFTER COMPLETION OF CONSTRUCTION ARE PERFORMED SOLELY FOR THE PURPOSE OF ASSISTING IN QUALITY CONTROL AND IN ACHIEVING GENERAL CONFORMANCE WITH DESIGN CONCEPT AND CONTRACT DRAWINGS AND SPECIFICATIONS AND THEREFORE, THEY DO NOT GUARANTEE CONTRACTOR'S PERFORMANCE.

6. THE ARCHITECT SHALL BE ENTITLED TO RELY UPON THE PROFESSIONAL CAPABILITY OF THE CONTRACTOR (AND HIS SUB-CONTRACTORS) FROM OWNERS' SELECTION TO ASSURE ALL IN FIELD IS HANDLED IN PROFESSIONAL MANNER. THE ARCHITECT WILL BE INSTRUMENTAL IN CLARIFYING DRAWING INTERPRETATIONS AND OTHER INQUIRIES DURING BID & CONSTRUCTION IN A TIMELY MANNER AS IS THE GENERAL CONTRACTOR TO FIELD VERIFY AND REPORT ANY DISCREPANCIES ON FIELD NOT ADDRESSED ON PLANS. ANYONE SUPPLYING LABOR AND MATERIALS TO THE PROJECT IS TO CAREFULLY EXAMINE ALL SUBSURFACES TO RECEIVE WORK. ANY CONDITIONS DETRIMENTAL TO WORK TO BE REPORTED IN WRITING TO ARCHITECT PRIOR TO BEGINNING WORK, NOTIFY THE ARCHITECT IF ANY CONDITIONS EXIST WHICH WILL PREVENT THE COMPLETION OF WORK IN A PROFESSIONAL AND SATISFACTORY MANNER AS WELL AS ANY AND ALL ADDITIONAL WORK TO BE PERFORMED BEFORE STARTING WORK. COMMENCEMENT OF WORK IMPLIES ACCEPTANCE OF SUBSURFACES WITH OWNER, ARCHITECT AND DEVELOPER FOR ENTIRE PROJECT SITE.

7. ALL CONTRACTORS AND SUBCONTRACTORS SHALL FAMILIARIZE THEMSELVES WITH THE CONTENTS OF ALL THE DRAWING AND ALL SPECIFICATION SECTIONS. ALL SYMBOLS AND ABBREVIATIONS USED ON THE DRAWINGS ARE CONSIDERED TO BE CONSTRUCTION STANDARDS. ALL DRAWINGS AND SPECIFICATIONS ARE CONSIDERED TO BE PART OF THE CONTRACT DOCUMENTS. IF CLARIFICATION IS REQUIRED THE CONTRACTOR SHALL NOTIFY THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK. REGARDLESS OF THEIR LICENSE CLASSIFICATION. NO REQUEST FOR CHANGE ORDER WILL BE CONSIDERED BASE UPON INFORMATION FOUND IN ONE AREA OF THE PLANS OR SPECIFICATIONS, AND NOT THE OTHER. INFORMATION FOUND IN ONE PART OF THE PLANS SHALL BE DEEMED TO BE IN ALL SECTIONS.

8 THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BUILDING BACKING SLEEVES, FRAMING FOR LIGHT FIXTURES, ELECTRICAL LIGHTS, A/C EQUIPMENT, DRAPERY, CEILING TRACKS, PLUMBING EQUIPMENT, COUNTERS, HANDRAILS, AND ALL OTHER ITEMS REQUIRING BACKING SUPPORT

9 ALL DIMENSIONS AND THE SITE CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE JOB SITE PRIOR ANY WORK EXECUTION AND FABRICATION OF MATERIALS TO REPORT AND NOTIFY TO THE ARCHITECT FOR SUCH CLARIFICATION IN WRITING. IF DISCREPANCIES ARE ENCOUNTERED, OR CONDITIONS DEVELOP NOT COVERED BY THE CONTRACT DOCUMENTS, ALL DIMENSIONS AND THE SITE CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE JOB SITE PRIOR TO WORK BY COMMUNICATING TO THE ARCHITECT SUCH FINDINGS DURING THE COURSE OF WORK. ACTUAL FIELD DIMENSION/CONDITIONS SHALL HAVE PRECEDENCE FROM PRINTED DIMENSIONS ON THESE DRAWINGS. REPORT TO ARCHITECT ANY DISCREPANCIES THAT INTERFERES WITH NEW WORK. DO NOT SCALE DRAWINGS. PRINTED DIMENSIONS HAVE PRECEDENCE OVER SCALED DRAWINGS AND LARGE SCALE OVER SMALL.

10 ARCHITECT SHALL BE NOTIFIED OF DESIGN CHANGES PRIOR TO EXECUTION OF WORK AND HAVE ACCESS BEFORE TRADE COVER-UPS FOR FIELD REVIEW. DISPUTES BETWEEN ARCHITECT, CONTRACTOR AND OWNER SHALL BE IN STRICT CONFORMANCE WITH LATEST AMERICAN INSTITUTE OF ARCHITECTURE EDITION, FORM A101 AND B101 (SIGNED OR UNSIGNED).

12 ARCHITECT DOES NOT PREPARE SHOP DRAWINGS AS EACH VENDOR SHALL SECURE THEIR OWN SHOP DRAWINGS INCLUDING DIFFERED PERMIT ITEMS. ALL SHOP DRAWINGS AND PRODUCT SUBMITTALS REVIEW FROM THE ARCHITECT'S OFFICE SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR COMPLIANCE WITH THE STRUCTURAL CONSTRUCTION DOCUMENT. SHOP DRAWING SUBMITTALS AND PRODUCT SUBMITTALS WILL BE REVIEWED FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AS INDICATED BY THE CONSTRUCTION DOCUMENT. QUANTITIES OR DIMENSIONS WILL NOT BE REVIEWED. PROCESSES, TECHNIQUES OF CONSTRUCTION, SAFETY PROCEDURES, OR COORDINATION OF THE WORK WITH THAT OF ANY OTHER TRADE WILL NOT BE REVIEWED. SHOULD ANY COMMENT BE RELATED TO THE ABOVE BE MADE BY ARCHITECT, SUCH COMMENT SHALL BE CONSIDERED ADVISORY ONLY, OFFERED AS A COURTESY TO FACILITATE WORK, AND IS NOT AN INDICATION THAT ALL SUCH INSTANCES, WHERE SUCH A COMMENT WOULD BE APPROPRIATE, IT HAS BEEN IDENTIFIED. CLIENT AGREES TO INDEMNIFY AND HOLD HARMLESS THE ARCHITECT FROM ANY AND ALL CLAIMS OR LIABILITIES ARISING FROM SUCH ERRORS OR NEGLIGENCE.

GENERAL AGENCY NOTES

DR-041-2019

1. FOR CONDITIONS OF APPROVAL, REFER TO SHEET A-1.1

2 ALL NEW CONSTRUCTION SHOWN ON THE PLANS SHALL CONFORM TO THE 2019 EDITION OF THE CALIFORNIA RESIDENTIAL CODE (CRC); CMC 2019 CALIFORNIA MECHANICAL CODE, CPC 2019 CALIFORNIA PLUMBING CODE; 2019 ENERGY CODE (T-24), CEC: 2019 CALIFORNIA ELECTRICAL CODE, 2019 CALIFORNIA GREEN AND CITY OF GARDEN GROVE MUNICIPAL CODE

3. ALL CONSTRUCTION AND INSTALLATION SHALL COMPLY WITH THE LATEST CONDITIONS (STATE/COUNTY/CITY) OF CODES AND ORDINANCES INCLUDING CAL OSHA AND FIRE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL CODE COMPLIANCE OF WORK OF EVERY TRADE AS WELL AS FAMILIARIZING HIMSELF WITH ALL EXISTING CONDITIONS TO BE REMOVED, RELOCATED OR REMAIN INTACT AND HOW THE NEW CONSTRUCTION RELATES TO THE SITE CONDITION.

4. DEFERRED SUBMITTALS (ITEMS REQ. SEPARATE PERMIT): FIRE SPRINKLERS, SOLAR PANELS, RETAINING WALLS, FENCE, UTILITY MAIN HOOKUPS FOR GAS, ELECTRIC, SEWER, IRRIGATION AND LANDSCAPING AS THESE ITEMS ARE ALL SEPARATELY SECURED IN THE PERMITTING PROCESS. THE GC SHALL PROPERLY SEQUENCE ALL DISCIPLINES OF DEFERRED ITEMS BY SECURING WITH LOCAL AGENCIES PRIOR TO START OF EXECUTION OF WORK. OTHER MISCELLANEOUS DEFERRED ITEMS FOR SEPARATE PERMITS MAY INCLUDE ITEMS REQUIRING SHOP DRAWINGS NOT MENTIONED ABOVE GENERATED FROM VENDORS/SUPPLIERS AS ALSO MAY NEED SEPARATELY SECURED/PERMITTED W/ CITY PRIOR TO FABRICATION OR INSTALLED WORK. 1

5. REFER TO PAGE A-1.3 FOR TYPICAL GREEN CODES

6. ALL HVAC INSPECTIONS TO BE HERS RATERS: SEE T-24 REQUIREMENTS FOR H.E.R.S. RATER REQUIREMENTS TO THIS PROJECT CONDITIONS TO MEET CODE PER SHT T-24-1 CF1R REPORT AND MEP-4 SHT INSTRUCTIONS

7. THE DISCHARGE OF POLLUTANTS TO ANY STORM DRAINAGE SYSTEM IS PROHIBITED. NO SOLID WASTE, PETROLEUM BYPRODUCTS, SOIL PARTICULATE, CONSTRUCTION WASTE MATERIALS, OR WASTEWATER GENERATED FROM CONSTRUCTION SITES OR BY CONSTRUCTION ACTIVITIES SHALL BE PLACED, CONVEYED OR DISCHARGED INTO THE STREET, GUTTER OR STORM DRAIN SYSTEM."

8. FOR THE ADU STRUCTURE, THE PROPERTY OWNER SHALL COMPLY WITH ALL PROVISIONS OF SECTION 9.08.020.050 OF TITLE 9 OF THE GARDEN GROVE MUNICIPAL CODE FOR ACCESSORY DWELLING UNIT AND PER STATE CODE SECTION 65852.2 AND SECTION 65852.2– SEE SHEET A1.1 FOR CODE EXPANSION

SHEET INDEX

NOTE: IF THIS SET IS NOT 24"X36" SIZE, IT IS NOT TO SCALE

city project reference number DR-041-2019 [#470150]

INCLUSION TO THE CONTRACT DOCUMENTS

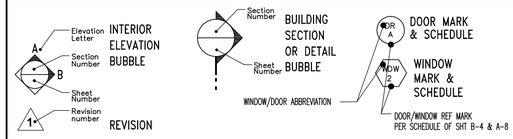
NOTE: REFER TO 8-1/2 X11 DOCS FOR, SOILS REPORT, GMPCI REPORT, STRUCTURAL CALCULATIONS AND DESIGN COLOR PAMPHLET BOOKLET FOR SPECS OF EXTERIOR MATERIALS & FINISHES: ALL SEPARATE ATTACHMENTS MAKES COMPLETE THE CONTRACT DOCUMENTS

DEFERRED SUBMITTALS & SHOP DRAWINGS

ALL DEFERRED SUBMITTAL DRAWINGS OR OTHERS SHOP DRAWINGS WILL REQUIRED VIA SEPARATE PERMIT –SEE NOTE #6 THIS PAGE FOR LIST OF ITEMS NOT LISTED ABOVE IN THESE DOCUMENTS

STANDARD SYMBOLS

NOTE: FOR MEP STANDARD SYMBOLS, SEE MEP SHT



ABBREVIATIONS

AB	ANCHOR BOLT	INT	INTERIOR
AC	ASPHALTIC CONCRETE	L	LONG (LENGTH)
ADJ	ADJUSTABLE	LAM	LAMINATE(D)
AFF	ABOVE FINISH FLOOR	LAV	LAVATORY
AL	ALUMINUM	LT	LIGHT
ANOD	ANODIZED	MAS	MASONRY
AP	ACCESS PANEL	MAX	MAXIMUM
ARCH	ARCHITECT	MB	MACHINE BOLT
BD	BOARD	MECH	MECHANIC(AL)
BEL	BELOW	MED	MEDIUM
BET	BETWEEN	MET	METAL
BLDG	BUILDING	MFR	MANUFACTURE(ER)
BLK(G)	BLOCK(ING)	MIN	MINIMUM
BM	BEAM	MISC	MISCELLANEOUS
B	BOTTOM	MO	MASONRY OPENING
BRG	BEARING	MTL	MATERIAL(S)
BS	BOTH SIDES	NAT	NATURAL
BUL	BULLETIN	(N)	NEW
BUR	BUILT UP ROOFING	NIC	NOT IN CONTRACT
CB	CATCH BASIN	NOM	NOMINAL
CEM	CEMENT	N	NORTH
CI	CAST IRON	NTS	NOT TO SCALE
CJ	CEILING JOIST	OC	ON CENTER(S)
CLG	CEILING	OD	OUTSIDE DIAMETER
CLR	CLEAR(ANCE	OPNG	OPENING
COL	COLUMN	OPP	OPPOSITE
CONC	CONCRETE	PLAS	PLASTER, PLASTIC
CONST	CONSTRUCTION	PLWOD	PLYWOOD
CONT	CONTINUOUS	PSF	POUNDS PER SF
CONTR	CONTRACT(OR)	PSI	POUNDS PER SI
D	DEEP (DEPTH)	PVC	POLYVINYL CHLORIDE
DIAG	DIAGONAL	R	RISER
DIAM	DIAMETER	(R)	REMODELED
DIM	DIMENSION	RAD	RADIUS
DN	DOWN	RD	ROOF DRAIN
DR	DOOR	REF	REFERENCE
DS	DOWNSPOUT	REFL	REFLECT(ED),
DTL	DETAIL	REINF	REINFORCE(D),
E	EAST	REQ	REQUIRE(D)
EA	EACH	REV	REVISION(S)
EL	ELEVATION	RM	ROOM
ELEC	ELECTRIC(AL)	RO	ROUGH OPENING
EMER	EMERGENCY	S	SOUTH
EQ	EQUAL	SC	SOLID CORE
EX	EXHAUST	SEC	SECTION
(E)	EXISTING	SF	SQUARE FOOT
EXP	EXPOSED	SHT	SHEET
EXT	EXTERIOR	SIM	SIMILAR
FD	FLOOR DRAIN	SPEC	SPECIFICATION(S)
FAU	FORCED AIR UNIT	SQ	SQUARE
FF	FINISH FLOOR	SYM	SYMMETRY(ICAL)
FIN	FINISH(ED)	T	TREAD, TOP
FJ	FLOOR JOIST	TEL	TELEPHONE
FOC	FACE OF CONCRETE	(T)	TEMPERED
FUR	FLOOR(ING)	T&G	TONGUE AND GROVE
FOF	FACE OF FINISH	THK	THICK(NESS)
FOM	FACE OF MASONRY	TOP	TOP OF PARAPET
FOS	FACE OF STUDS	TOS	TOP OF SLAB
FTG	FOOTING	TS	TOP OF STEEL
FV	FIELD VERIFY	TW	TOP OF WALL
GA	GAUGE	TYP	TYPICAL
GI	GALVANIZED IRON	UON	UNLESS OTHERWISE NOTED
GL	GLASS	VCT	VINYL COMPOSITION TILE
GLB	GLUE LAMINATED BEAM	VERT	VERTICAL
GYP	GYPSUM	VG	VERTICAL GRAIN
H	HIGH (HEIGHT)	VIN	VINYL
HB	HOSE BIBB	W	WEST, WIDTH,,
HC	HOLLOW CORE	WC	WATER CLOSET
HDR	HEADER	WD	WOOD
HDW	HARDWARE	WP	WATERPROOFING
HM	HOLLOW METAL	WR	WATER REPELLENT
HOR	HORIZONTAL	@	AT
HT	HEIGHT	O/	OVER
ID	INSIDE DIAMETER	O	ROUND
INCL	INCLUDE(D)	W/	WITH
		W/O	WITHOUT

PROJECT DATA

OWNER:
OWNER/SITE ADDRESS:
CONTACT: Henry Khuu
12322 Lampson Avenue
Garden Grove, CA 92840
(714) 722-8067 Email: HenryKhuu@gmail.com

PROPERTY ADDRESS
12322 Lampson Avenue, Garden Grove, CA 92840

LEGAL DESCRIPTION
PARCEL NUMBER: AP# 231-441-20, TRACT: 5760, LOT 4
INCLUSIVE OF MISCELLANEOUS MAPS, IN THE OFFICE OF THE COUNTY RECORDER MM 208/32-33 OF GARDEN GROVE, CA.

SITE/BUILDING DATA:

LOT SIZE: 24,958 sf or .57 acre (Includes entry easement)
PROPERTY ZONE: Residential Single Family (R-1-7)
BUILDING "A": R-3 OCCUPANCY SINGLE DETACHED FAMILY DWELLING VB SPRINKLERED 2 STORY ADDITION
BUILDING "B": R-3/U OCCUPANCY SINGLE DETACHED AUXILIARY DWELLING VB SPRINKLERED 1 STORY W/ ATTACHED GARAGE
BUILDING "C": EXISTING R-3 SINGLE DETACHED RESTROOM- 1 STORY (TO BE REMOVED PROIR TO END OF CONSTRUCTION)

LOT AREA CALCULATIONS:

1
BUILDING "A"		BUILDING "B" & GARAGE		REQUIRED DRIVEWAY PARKING
4,464 sf @ 1st floor footprint		715 sf @ garage footprint		600 sf
50 s.f. @ covered entry		1196 sf @ 1st floor footprint		
50 s.f. @ utility room		78 s.f. @ covered entry		
4,564 sf sub total	+	1,989 sf sub total	+	600 sf subotal total

Grand Total from above: 7,153 sf divide by 24,958 s.f. =28.7% (28.7 < 50% maxiumum allowable coverage)

BUILDING AREA CALCULATIONS

	BUILDING DEFINITION	EXISTING	REMOVED	NEW	TOTAL	REMODEL	* NOTES
MISCELLANEOUS	(E) BATHROOM BUILDING "C"	107.0	SEE NOTE #4	00.0	00.0	N/A	4
	(E) 2 CAR GARAGE (REMOVED)	490.0	490.0	N/A	00.0	N/A	1
	(E) 2 CAR CARPORT (REMOVED)	364.0	364.0	N/A	00.0	N/A	1
	(E) RECREATION BUILDING (REMOVED)	1,217.0	1,217.0	N/A	00.0	N/A	1
	(E) COVERED PATIO REC (REMOVED)	580.0	580.0	N/A	00.0	N/A	1
MAIN BUILDING "A"	(N) MAIN BUILDING: 1st LEVEL	N/A	N/A	4,464.0	4,464.0	N/A	5
	(N) MAIN BUILDING: 2nd LEVEL	N/A	N/A	1,888.0	1,888.0	N/A	6
	TOTAL LIVING AREA MAIN BLDG "A"	N/A	N/A	-	6,352.0	N/A	7
	(N) COVER COVERED ENTRY PORCH	N/A	N/A	52.0	52.0	N/A	3
	(N) UTILITY STORAGE COVER SPACE	N/A	N/A	24,0	24,0	N/A	3
BUILDING "B"	(N) GARAGE/LAUNDRY/GARDEN CLOS.	N/A	00.0	715.0	715.0	N/A	5
	(N) AUXILIARY DWELLING BUILDING "B"	N/A	00.0	1,196.0	1,196.0	N/A	2
	(N) COVER ENTRY PORCH "B"	N/A	00.0	78.0	—	N/A	3

*1 SUMMARY NOTE: REMOVED BUILDING PER DEMOLITION SITE PLAN
*2 SUMMARY NOTE: THE LISTED FOR BUILDING "B" OF AUXILIARY BUILDING INCLUDES TOTAL GROSS AREA OF STRUCTURE
*3 SUMMARY NOTE: ENTRY COVER OR UTILITY COVER AS SHOWN PER PLAN (OPEN TO OUTSIDE) 1
*4 SUMMARY NOTE: BUILDING "C" BATHROOM TEMPORARY CONSTRUCTION STAFF USE– SEE SHT A-1.3 FOR SEQUENCE INSTRUCTION
*5 SUMMARY NOTE: GARAGE W/ UTILITY STORAGE IS ATTACHED AND PART OF BUILDING "B" ANCILLARY DWELLING
*6 SUMMARY NOTE: STAIR WELL NOT INCLUSIVE (LESS 85 sf) AS ADDED INTO 1ST LEVEL ONLY
*7 SUMMARY NOTE: TOTAL SQUARE FEET OF DWELLING AREA (ADD 52 S.F FOR EXTERIOR UTILITY CLOSET AS NON-LIVING SPACE)

CONSTRUCTION HISTORY/DEMOLITION

Built in 1954 in a residential neighborhood of Garden Grove, this flag shape lot consists of an existing remote bathroom structure, plus an 2–car garage and a 2–car carport structure. The site also has an existing detached utility building w/ patio cover (Presently used as Hobby/Rec. room for owners private use) as all these structures shall be removed). While the existing bathroom (Building "C") structure will temporarily remain during construction, it too will be demolished thus all structures shall be removed for the grub/grade adjustments. (Refer to building data above for breakdown details of new, existing site demo notes for sequence)

PROPOSED WORK

The proposed work includes Building "A" structure (the main primary residence of an new 2 story structure) and a new 3 car garage structure with attached one–story Auxiliary Dwelling Unit known as building "B" (refer to building data above for breakdown details of new, existing and demo structures)

BATH ROOM COUNT FOR MAIN BUILDING "A" (BUILDING "B" STRUCTURE BATHROOMS EXCLUDED)

BEDROOMS: 5 TOTAL
FULL BATHROOMS: 5 TOTAL
1/2 BATHROOMS: 1 TOTAL

CONSULTANTS

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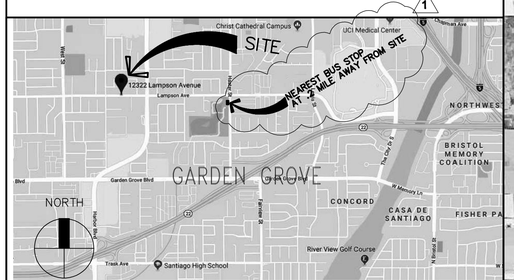
Ph 949–235–4847

QMPD BMP CONSULTANT
Grand Knight Engineering Inc.
24881 Alicia Pkwy E–243, Laguna Hills, CA 92653
Contact: June Reyno PH: 949.228.1570
email: engineering@grandknight.com

GENERAL CONTRACTOR TBD



VICINITY MAP NO SCALE

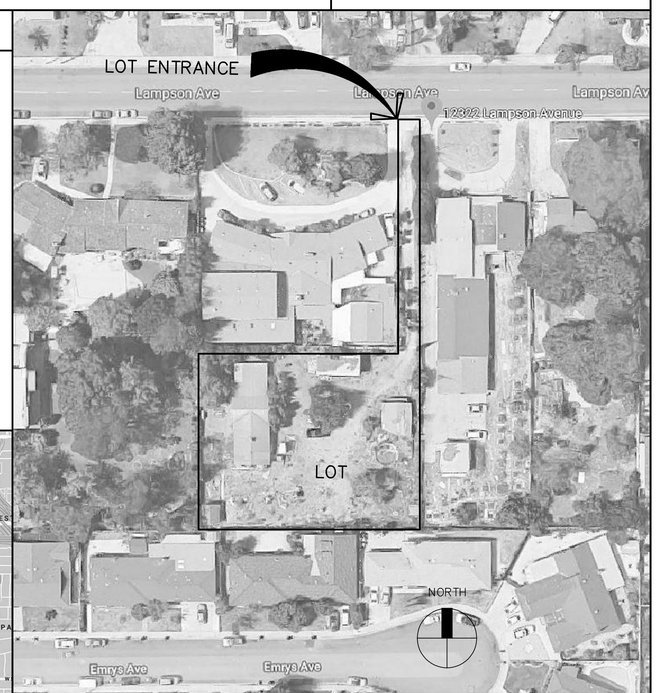


PHOTO AERIAL (AS BUILTS) NO SCALE

Contractor shall exercise the responsibility with architect in securing latest approved drwgs. prior to actually executing work

NO./REVISION/DATE
1 CITY 2nd submit 8–1–20

JOHN A. SALAT ARCHITECTS
22386 Woodgrove Road, Lake Forest, CA 92630
PH 949–235–4847 email: freeingwinds@earthlink.net
zenarchitect.com

architect

KHUU RESIDENCE
NEW RESIDENCE WITH ADU
COVER PAGE

OWNER/SITE ADDRESS:
CONTACT: Henry Khuu
12322 Lampson Avenue
Garden Grove, CA 92840
(714) 722–8067 Email : HenryKhuu@gmail.com

REGISTERED PROFESSIONAL ARCHITECT JOHN A. SALAT No. C–24445 EXP. 10–29–21 STATE OF CALIFORNIA

DRAWN JS
CHECKED JS
DATE SEE REVISION BOX ABOVE FOR DATE
SCALE AS NOTED ON PLANS
JOB NO.
SHEET A-1
1 OF (SEE INDEX) SHEETS

DIVISION 1 – GENERAL REQUIREMENTS

A. SECTION 1-A ARCHITECTURAL ADMINISTRATIVE NOTES

1. THIS IS A BUILDER'S SET OF DRAWINGS PREPARED TO A LEVEL OF COMPLETION SATISFACTORY FOR BUILDING PERMIT PURPOSES AT THE TIME OF THEIR PREPARATION, AND FOR CONSTRUCTION BY A KNOWLEDGEABLE AND EXPERIENCED BUILDER FAMILIAR WITH THIS TYPE OF WORK. SUCH DOCUMENTS WILL REQUIRE PREPARATION AND SUPPLEMENTAL DETAILS, PRODUCT SPECIFICATIONS, AND ELABORATION AND INTERPRETATION BY EXPERIENCED CONTRACTORS, SUB-CONTRACTORS AND OWNER'S INDEPENDENT CONSULTANTS.
2. RULES AND REGULATIONS: ALL WORK AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH THE LATEST FEDERAL, STATE, COUNTY, CITY OR GOVERNING AGENCIES UNIFORM CODES, RULES, REGULATION OR AMENDMENTS. NOTHING IN THESE DRAWINGS OR NOTES SHALL BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.
3. CONTRACTOR SHALL ONLY UTILIZE APPLICABLE NOTES TO THIS PAGE AS SOME ITEMS MAY NOT APPLY FROM THIS SECTION AS DRAWINGS WILL SUPERSEDE THIS SHEET WHEN IN CONFLICT.

B. SECTION 1-B ARCHITECTURAL GENERAL NOTES

1. BUILDING ADDRESS NUMBERS TO BE PROVIDED AT THE FRONT OF ALL BUILDINGS AND SHALL BE VISIBLE AND LEGIBLE FROM THE STREET

DIVISION 2 – SITE WORK

SECTION 2-A EARTHWORK:

SOIL REPORT: PERFORM ALL WORK IN THIS SECTION IN CONFORMANCE WITH WITH STRUCTURAL DRAWINGS AND SOILS REPORTS

DIVISION 3 – CONCRETE

SECTION 3-A CONCRETE WORK (CAST-IN-PLACE): SEE STRUCTURAL NOTES

SECTION 3-B REINFORCING STEEL: (SEE STRUCTURAL NOTES)

DIVISION 4 – MASONRY

SECTION 4-A BRICK MASONRY: (SEE STRUCTURAL NOTES)

SECTION 4-B CONCRETE UNIT MASONRY: (SEE STRUCTURAL NOTES)

DIVISION 5 – METALS

SECTION 5-A MISCELLANEOUS AND STRUCTURAL METALS: (SEE STRUCTURAL)

DIVISION 6 – WOODS & PLASTICS

1. SECTION 6-A ROUGH CARPENTRY: (SEE STRUCTURAL NOTES)
2. SECTION 6-B ROUGH CARPENTRY FIRE STOPPING: PROVIDE FIRESTOPS AT ALL CONCEALED LOCATIONS. PROVIDE FIREBLOCKING AT 10'-0" ABOVE FLOOR.
3. SECTION 6-C FINISH CARPENTRY: REFER TO PLANS

DIVISION 7 – THERMAL AND MOISTURE PROTECTION

A. SECTION 7-A SHEET METAL AND FLASHING:

1. STANDARDS:
   a. NATIONAL ROOFING CONTRACTORS ASSOCIATION (NRCA) "THE NRCA ROOFING AND WATERPROOFING MANUAL"
   b. SEALANT AND WATERPROOFERS INSTITUTE (SWI) AND WATERPROOFING CONTRACTORS ASSOCIATION.
2. MEASUREMENTS: VERIFY ALL DIMENSIONS SHOWN ON DRAWINGS BY TAKING FIELD MEASUREMENTS; PROPER FIT AND ATTACHMENT OF ALL PARTS IS REQUIRED.
3. STANDARDS: ALL WORK INCLUDED IN THIS SECTION SHALL BE PERFORMED IN ACCORDANCE WITH THE RECOMMENDATION CONTAINED IN THE LATEST EDITION OF THE "ARCHITECTURAL SHEET METAL MANUAL", PUBLISHED BY THE SHEET METAL AND AIR CONDITIONING CONTRACTOR'S NATIONAL ASSOCIATION. (SMACNA)
4. ZINC-COATED (GALVANIZED) STEEL: (CALLED 'GALVANIZED IRON' HEREINAFTER AND ON DRAWINGS) SHALL CONFORM TO FEDERAL SPEC. QQ- S775A, TYPE 1, CLASS 4: EITHER GALVANIZED OR BONDERIZED ASTM A- 93, COATING CLASS 1.50 OZ. PER SQ. FT. UNLESS OTHERWISE INDICATED, ALL METAL 26 GAUGE.
5. INSTALLATION: SHEET METAL FLASHING SHALL BE INSTALLED AT ALL LOCATIONS WHERE DIFFERENT MATERIALS INTERSECT SUCH AS ROOF TO WALL, ROOF TO ROOF, DECK/BALCONY/LANDING TO WALL, PENETRATIONS INTO WALLS. SHEET METAL FLASHING IS NOT LIMITED TO ABOVE MENTIONED ITEMS BUT SHALL ALSO INCLUDE ALL OTHER LOCATIONS RECOMMENDED IN THE 'ARCHITECTURAL SHEET METAL MANUAL'.
6. VALLEY FLASHING: 26 GAUGE GALVANIZED IRON, 18" WIDE FOR SHINGLES, 24" WIDE FOR SHAKES (1-1/2" HIGH) RAISED CENTER DIVERTER. THE CENTER OF ALL FLASHING FOR ALL THROUGH ROOF VENTS AND ALL ELECTRICAL SERVICE CONNECTIONS, SHALL NOT BE LESS THAN 16" FROM CENTER OF ANY VALLEY. SEE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS FOR MISSION TILE OR FLAT CONCRETE TILE.
7. WEATHER PROTECTION: A. DETAILS FOR WEATHER-RESISTIVE BARRIERS, FLASHING, COUNTER-FLASHING, ETC. PER CBC (1503)
8. DETAIL CORROSION-RESISTANT WEEP SCREED MINIMUM OF 4" ABOVE THE EARTH OR 2" ABOVE PAVED AREAS. (2512.1.2), SEE LASO DIVISION 9 FOR ADDITIONAL PLASTER WEATHERPROOFING INFORMATION

B. SECTION 7-B INSULATION:

1. INSULATION: SHALL BE PROVIDED AND INSTALLED PER TITLE 24, CALIFORNIA ADMINISTRATIVE CODE. PROVIDE THERMAL INSULATION IN ALL EXTERIOR STUD WALLS, EXTENDING FULL HEIGHT OF WALLS, FITTED TIGHTLY BETWEEN STUDS.
2. AFTER INSTALLING THE INSULATION, THE INSTALLER SHALL POST IN A CONSPICUOUS LOCATION IN THE BUILDING, AN INSULATION CERTIFICATE, SIGNED BY THE INSTALLER AND THE BUILDER, STATING THAT THE INSTALLATION CONFORMS WITH THE REQUIREMENTS OF TITLE 24, PART 2, CHAPTER 2-53 OF THE CALIFORNIA ADMINISTRATIVE CODE.
3. REFER TO DRAWINGS AND T-24 SHEETS 'R' RATINGS. FRAMING SHALL BE MINIMUM 2X ITS DEPTH TO FIT BATT INSULATION SO TO MAINTAIN 1' AIR GAP ABOVE. WHERE LESS THAN DEPTH FRAMING, PROVIDE COMPRESSED CEILING RIGID BOARD TO MAINTAIN THE 1" AIR GAP ABOVE. DWELLING UNITS SHALL RECEIVE A MINIMUM R-RATED BLANKET INSULATION AT ROOFS, R-RATING AT WALLS AND AT ALL FLOORS OVER UNHEATED SPACES UNLESS NOTED OTHERWISE
4. THE INSULATION SHALL CONFORM TO FLAME-SPREAD RATING AND SMOKE DENSITY REQUIREMENTS OF SECTION 2602 AND 707 OF THE LATEST UNIFORM BUILDING CODE. FOR RATTING

C. SECTION 7-C CAULKING & SEALANTS:

CODES AND STANDARDS:
- A. SEALANT AND WATERPROOFERS INSTITUTE (SWI).
- B. NATIONAL ROOFING CONTRACTORS ASSOCIATION (NRCA) "ROOFING AND WATERPROOFING MANUAL."

INSTALLATION: INSTALL PER MANUFACTURERS PRINTED INSTALLATION INSTRUCTIONS.

SEALANT LOCATIONS:
- A. NON-POROUS SURFACES SUCH AS GLASS, METAL, CERAMIC TILE AND PLASTIC.
- B. POROUS SURFACES SUCH AS BLOCK AND CONCRETE.
- C. LOCATIONS SUCH AS CERAMIC TILE, PLUMBING FIXTURES, AND OTHERS WHERE MILDEW RESISTANT SEALANT IS REQUIRED.
- D. LOCATION WHERE HIGH DEGREE OF MOVEMENT IS ANTICIPATED.
- E. JOINTS AND CRACKS AROUND WINDOWS, THRESHOLDS, DOOR FRAMES, WALL PENETRATIONS, CONNECTIONS AND OTHER JOINTS NECESSARY TO SEAL OFF BUILDING FROM OUTSIDE AIR AND MOISTURE.
- F. ALL JOINTS NECESSARY TO MAKE THE BUILDING WATERTIGHT AND TO PREVENT THE PASSAGE OF DIRT, DUST, WIND, AIR OR WATER.

D. SECTION 7-D BUILDING PAPER:

1 PROVIDE 15 LB FELT MIN: FEDERAL SPECIFICATION UU-B-790. INSTALL UNDER EXTERIOR SIDING AND TRIM AND CAREFULLY APPLY SO AS TO FORM A WATERTIGHT MEMBRANE. EACH COURSE OF PAPER SHALL OVERLAP THE COURSE BENEATH IT 6" MINIMUM. WHERE PAPER MEETS ANY OPENING THE PAPER SHALL BE CAREFULLY LAPPED OVER THE FRAME TO PREVENT THE PASSAGE OF WATER BEHIND THE FRAME. INSTALL SISALKRAFT PAPER AT EXTERIOR DOOR AND WINDOW FRAMES PER WINDOW & DOOR MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.

2. SEE DIVISION "9" FOR ADDITIONAL INFORMATION ON WEATHERPROOFING

E. SECTION 7-E ROOFING AND MEMBRANES:

1. SHINGLE ROOF
   SEE ROOF PLAN FOR FULL SPEC
2. FLAT DECKS; WALKING & ROOF DECKS
   THE TERM ELASTOMERIC OR LIQUID APPLY REFERS TO THIS SECTION
   a. WATERPROOF MEMBRANE DECK TOPPING, INVERTED MEMBRANES AND ASSOCIATED FLASHING MATERIALS SHALL BE APPLIED BY AN APPROVED APPLICATOR IN ACCORDANCE WITH MANUFACTURERS PRINTED INSTALLATION CONTACT MIKE PITCHER AT 310-886-9100 FOR FACTORY TRAINED APPLICATORS LIST
   b. ALL WATERPROOF MEMBRANE SURFACES SHALL SLOPE PER THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS

CONTUNED SECTION (FLAT DECKS; WALKING & ROOF DECKS)

c. WATER PROOFING FOR DECKS SHALL CONSIST OF "DEX-O-TEX" WEATHER WEAR DECK COVERING SYSTEM (562)-699-0543. ICC EVALUATION METHOD ESR-1757 FOR PLYWOOD SUBSTRATE APPLICATIONS.

d. FLOOD TEST DECK AFTER 1ST APPLIED MEMBRANE SYSTEMS BY DAMMING 2" OF WATER FOR A TOTAL OF 24 HOURS-PROTECT MEMBRANES AFTER TESTING FROM PUNCTURE UNTIL ALL SYSTEMS IN PLACE SO TO MAINTAIN WATER INTEGRITY TIGHTNESS OF ENTIRELY

e. GENERAL CONTRACTOR AND HIS SUBS ARE RESPONSIBLE FOR MEANS & METHODS FOR ENTIRE INTEGRITY TO WATERPROOF SYSTEM OF ROOF DECK, NOT THE ARCHITECT. ARCHITECT DOES NOT WARRANT OR GUARANTEE PREVENTION OF LEAKS OR DAMAGE/MOLD ASSOCIATED W/ WATER. CONTRACTOR IS FULLY RESPONSIBLE FOR CONSULTING W/ INDEPENDENT WATERPROOF SPECIALIST. SPECIFICATIONS OUTLINED IN THIS SECTION ARE IMPLIED FOR THE PURPOSE OF ENGINEERING WEIGHTS, NOT THE PRODUCT OR INSTALLATION ITSELF.

f. COLOR OF LIQUID MEMBRANE SHALL BE SELECTED BY OWNER PROVIDE COLOR CHIPS FOR OWNERS REVIEW. CONTRACTOR SHALL REVIEW MFGR WARRANTEE OPTION PACKAGES WITH OWNER PRIOR TO WORK

DIVISION 8 – DOORS & WINDOWS (ALSO REFER TO SCHEDULE)

A. SECTION 8-A DOORS & WINDOWS:

1. THE DOOR FROM GARAGE TO THE RESIDENCE TO BE SELF-CLOSING, TIGHT-FITTING, 1-3/8-INCH-THICK SOLID WOOD OR A 20-MINUTE RATED ASSEMBLY. (CBC 406.1.)
2. PROVIDE NATURAL VENTILATION IN BATHROOMS AND TOILET COMPARTMENTS THROUGH OPENABLE EXTERIOR WALL OPENINGS WITH AN AREA NOT LESS THAN 5% OF ROOM FLOOR AREA WITH A MINIMUM OF 1'-1/2 SQUARE FEET (OR MECHANICAL VENTILATION OF 5 AIR CHANGES PER HOUR). (SEC 1203.3) . PROVIDE NATURAL VENTILATION, IN HABITABLE ROOMS, WITH AN AREA OF NOT LESS THAN 5 SQUARE FEET). (CBC 1203.3)
3. NATURAL LIGHT: THE MINIMUM NET GLAZED AREA SHALL NOT BE LESS THAN 8 PERCENT OF THE FLOOR AREA OF THE ROOM SERVED. (CBC 1205.2) 1205.2.1 ADJOINING SPACES. FOR THE PURPOSE OF NATURAL LIGHTING, ANY ROOM IS PERMITTED TO BE CONSIDERED AS A PORTION OF AN ADJOINING ROOM WHERE ONE-HALF OF THE AREA OF THE COMMON WALL IS OPEN AND UNOBSTRUCTED AND PROVIDES AN OPENING OF NOT LESS THAN ONE-TENTH OF THE FLOOR AREA OF THE INTERIOR ROOM OR 25 SQUARE FEET WHICHEVER IS GREATER EXCEPTION: OPENINGS REQUIRED FOR NATURAL LIGHT SHALL BE PERMITTED TO OPEN INTO A THERMALLY ISOLATED SUNROOM ADDITION OR PATIO COVER WHERE THE COMMON WALL PROVIDES A GLAZED AREA OF NOT LESS THAN ONE-TENTH OF THE FLOOR AREA OF THE INTERIOR ROOM OR 20 SQUARE FEET, WHICHEVER IS GREATER. (CBC 1205.2)
4. REQUIRED WINDOW AREA FOR LIGHT SHALL BE NOT LESS THAN 8 PERCENT OF THE FLOOR AREA OF THE ROOM SERVED. (CBC 1205.2); THE MINIMUM OPENABLE AREA TO THE OUTDOORS SHALL BE 4 PERCENT OF THE FLOOR AREA BEING VENTILATED (CBC 1203.4.1).
5. EVERY SLEEPING ROOM AND ANY BASEMENT MUST HAVE AT LEAST ONE OPENABLE WINDOW OR DOOR APPROVED FOR EMERGENCY RESCUE WITH A MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET, EXCEPT THAT WINDOWS AT THE GRADE FLOOR SHALL HAVE A MINIMUM NET OPENING OF 5 SQUARE FEET. THE MINIMUM NET CLEAR OPENING HEIGHT DIMENSION SHALL BE 24". THE MINIMUM NET CLEAR OPENING WIDTH DIMENSION SHALL BE 20'. THE BOTTOM OF THE CLEAR OPENING SHALL BE NO MORE THAN 44" FROM THE FLOOR (CBC 1026.2 &3).
6. WINDOW WHERE THE OPENING OF THE SILL PORTION OF THE OPERABLE WINDOW IS LOCATED MORE THAN 72" ABOVE THE FINISHED GRADE OR SURFACE BELOW, THE LOWEST PART OF THE CLEAR OPENING OF THE WINDOW SHALL BE A MINIMUM OF 24" ABOVE THE FINISHED FLOOR SURFACE OF THE ROOM IN WHICH THE WINDOW IS LOCATED. GLAZING BETWEEN THE FLOOR AND A HEIGHT OF 24" SHALL BE FIXED OR HAVE OPENINGS SUCH THAT A 4" DIAMETER SPHERE MAY NOT PASS. (CBC 1405.12. 2)
7. DOORS THAT PROVIDE DIRECT ACCESS TO THE SWIMMING POOL SHALL BE PROVIDED WITH A BARRIER AND/OR DOOR ALARM(S) COMPLIANT WITH THE LOCAL POOL BARRIER ORDINANCE.
8. DOORS AND WINDOWS EXPOSED TO OUTSIDE AIR SHALL BE FULLY WEATHERSTRIPPED.
9. SLIDING GLASS DOORS (PATIO TYPE) TO HAVE A MINIMUM CATEGORY CLASSIFICATION OF II PER LATEST EDITION CBC STD, 24-2, TABLE 24-2A.
10. SECURITY REQUIREMENTS:
    A) PROVIDE PEEP HOLE OR VISION PANEL AT FRONT DOOR
    B) PROVIDE STEEL PLATE AT THE DEAD BOLT STRIKER AT ALL EXTERIOR DOORS
    C) WINDOWS SHALL CONFORM TO THE STANDARDS OF THE C.B.C.
11. PROVIDE A TIGHT-FITTING, SELF-CLOSING SOLID WOOD DOOR 1-3/8" THICK BETWEEN GARAGE AND RESIDENCE W/ 20 MINUTE FIRE-RESISTIVE DOOR.
12. STANDARDS: ALL DOORS SHALL COMPLY WITH THE REQUIREMENTS OF THE NATIONAL WOOD WINDOW AND DOOR ASSOCIATION, WOODWORK INSTITUTE OF CALIFORNIA AND TITLE 24; CALIFORNIA ADMINISTRATIVE CODE.

B. SECTION 8-B GLAZING

1. FOR ALL SAFETY GLAZING IN HAZARDOUS LOCATIONS, SEE PLANS OR DOOR AND WINDOW SCHEDULES. (SEC 2406.4) STANDARDS: TITLE 24, CALIFORNIA ADMINISTRATIVE CODE: SAFETY STANDARD FOR ARCHITECTURAL GLAZING. MATERIALS (16 CFR1201) ISSUED BY THE CONSUMER PRODUCT SAFETY COMMISSION.
2. SAFETY GLAZING OCCURANCE/CONDITIONS PER CBC 2406.1 & 2406.5
   a. GLAZING AT EXTERIOR DOORS OR WITHIN 40" OF ANY LOCKING MECHANISM SHALL BE FULLEY TEMPERED GLASS, OR RATED BURGLARY RESISTANT GLAZING (S.C.M.C. 15.28.120)
   b. GLAZING IN FIXED AND SLIDING PANELS OF SLIDING DOORS AND PANELS IN SWINGING DOORS.
   c. GLAZING IN DOORS ENCLOSURES INCLUDING ALL WINDOWS ADJACENT TO SUCH AMENITIES FOR HOT TUBS, BATHTUBS, SHOWERS, STEAM ROOMS, SAUNAS, SWIMMING POOLS, ETC WITHIN 5' VERTICAL STANDING SURFACE OR DRAIN INLET GLAZING WITHIN 2' VERTICAL EDGE OF CLOSED DOOR AND WITHIN 5' OF WALKING SURFACE
   d. GLAZING IN RAILING AND STAIR LANDING AREAS
   e. GLAZING IN WALLS AND FENCES USED AS THE BARRIER FOR SWIMMING POOLS AND SPAS OR GLAZING LESS THAN 18" ABOVE THE FLOOR
   f. OPERABLE WINDOWS LOCATED MORE THAN 6 FEET ABOVE FINISHED GRADE OR OTHER SURFACE BELOW, THE LOWEST PART OF THE CLEAR OPENING OF THE WINDOW SHALL BE MINIMUM 24 INCHES ABOVE THE FINISHED FLOOR SURFACE OF THE ROOM IN WHICH THE WINDOW IS LOCATED. (CBC 1405.12.2)
   g. GLAZING IN INGRESS AND EGRESS DOORS (INCLUDING WARDROBE DOORS) AND WITHIN 40" OF THE DOOR.
   h. GLAZING IN DOORS AND ENCLOSURES FOR BATHTUBS AND SHOWERS TO HAVE A MINIMUM CATEGORY CLASSIFICATION OF II PER CBC STD. 24-2, TABLE 24-2A & CBC 1134A.6
3. GLAZING MATERIAL FOR SKYLIGHTS IF GLASS SHALL COMPLY WITH CBC CHAPTER 24. IF PLASTIC, SPECIFY MANUFACTURER AND ICC REPORT NUMBER NOTED PER PLANS. SKYLIGHT (CBC 2405.4) CURB ASSEMBLY W/ MINIMUM 4 HIGH CURB.
4. GLAZING IN DOORS AND FIXED GLAZED PANELS OF MORE THAN NINE SQUARE FEET TO HAVE A MINIMUM CATEGORY CLASSIFICATION OF II PER LATEST EDITION UBC STD. 24-2, TABLE 24-2A.
5. GLAZING IN DOORS AND FIXED GLAZED PANELS OF NINE SQ. FT. OR LESS TO HAVE A MINIMUM CATEGORY CLASSIFICATION OF I PER CBC STD. 24-2, TABLE 24-2 A.
6. GLAZED WARDROBE DOORS TO MEET IMPACT TEST PER CBC STD. 24-2, PART II. LAMINATED GLASS MUST ALSO MEET THE TEST REQUIREMENTS OF LATEST EDITION CBC STD. 24-2, PART II.

DIVISION 9 – FINISHES

A. SECTION 9-A LATHING AND PLASTERING:

1. ALL WEATHER EXPOSED SURFACES SHALL HAVE A WEATHER-RESISTIVE BARRIER TO PROTECT THE INTERIOR WALL COVERING. SUCH BARRIER SHALL BE EQUAL TO THAT PROVIDED FOR IN UBC STANDARD 14-1 FOR KRAFT WATERPROOF BUILDING PAPER OR ASPHALT SATURATED RAG FELT, APPLIED HORIZONTALLY, WITH THE UPPER LAYER LAPPED 2 INCHES OVER THE LOWER LAYER, AND LAPPED 6 INCHES AT ALL VERTICAL JOINTS. (2019 CBC SECTION 1402.1)
2. PROVIDE ONE-HOUR FIRE-RESISTIVE CONSTRUCTION (5/8-INCH TYPE X GYPSUM WALLBOARD) ON THE GARAGE SIDE OF WALLS COMMON WITH THE RESIDENCE. WHEN THE GARAGE SUPPORTS A FLOOR ABOVE, THE CEILING, POSTS AND BEAMS IN THE GARAGE SHALL BE SIMILARLY PROTECTED. CBC 708, CBC 406.1.
3. VENEER: PROVIDE NOTES AND DETAILS OF VENEER ATTACHMENT FOR ADHERED VENEER, AND ANCHORED VENEER (1405). B. PROVIDE NON-COMBUSTIBLE SUPPORT FOR ANCHORED VENEER - LIMIT DEFLECTION AND DESIGN FOR REDUCED STRESSES.
4. COMBUSTIBLE EAVE OVERHANGS WITHIN 3 FEET OF PROPERTY LINE SHALL BE OF ONE-HOUR FIRE-RESISTIVE OR HEAVY TIMBER CONSTRUCTION CONFORMING TO CBC 602.4.5
5. COLOR OF PAINT OR PLASTER COLOR SHALL BE SELECTED BY OWNER --PROVIDE COLOR CHIPS FOR OWNERS REVIEW

A. CONTINUED SECTION (9-A LATHING AND PLASTERING):

6, RIB LATH: SHALL BE FLAT RIB, 1/8", 3.4 LBS. PER SQ. YARD, GALVANIZED. METAL LATH: SHALL BE STANDARD DIAMOND MESH, GALVANIZED WEIGHING THREE (3) POUNDS PER SQ. FT. WIRE MESH: 1-1/2" MESH, SEVENTEEN GAUGE, GALVANIZED FORE OR AFTER WEAVING, OR APPROVED EQUAL. EXTERIOR LATH: PROVIDE TWO LAYERS OF GRADE D PAPER OVER ALL WOOD BASE SHEATHING. (CBC 2510.6)LATHING MATERIALS AND THEIR APPLICATION AND PLASTER MATERIALS AND THEIR APPLICATION SHALL BE IN STRICT ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE "HANDBOOK OF RECOMMENDED NOTES FOR LATCHING, FURRING AND PLASTERING", OF THE NATIONAL FOUNDATION FOR LATHING AND PLASTERING INC. WATERPROOF PAPER: PLASTER KRAFT BUILDING PAPER, FEDERAL NOTES UU-B-790, OR EQUAL. (WHERE FOAM BOARD OCCURS, MFGR INSTRUCTIONS SUPERSEDE)

DIVISION 10 – SPECIALTIES

SECTION 10-A MISCELLANEOUS & SPECIALTIES:

INSTALLATION: ALL ITEMS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS AND ACCEPTED SHOP DRAWINGS. ADHESIVE INSTALLATION WILL NOT BE PERMITTED.

DIVISION 11 – EQUIPMENT

SECTION 11-A APPLIANCES AND SPECIAL EQUIPMENT:

MEASUREMENTS: VERIFY ALL DIMENSIONS SHOWN ON THE DRAWING BY TAKING FIELD MEASUREMENTS. PROPER FIT AND ATTACHMENT OF ALL PARTS IS REQUIRED.

DIVISION 12 – FURNISHINGS

NOT INCLUDED IN THESE NOTES.

DIVISION 13 – SPECIAL CONSTRUCTION

NOT INCLUDED IN THESE NOTES.

DIVISION 14 – CONVEYING EQUIPMENT

NOT INCLUDED IN THESE NOTES.

DIVISION 15 – MECHANICAL

A. SECTION 15-A GENERAL MECHANICAL NOTES

1. SEE SHEET EMP-1 FOR ADDITIONAL NOTES, PLANS AND DIAGRAM INFO. T-24 SHEET SHALL SUPERSEDE WHERE CONFLICTS MAY OCCUR
2. FOR PURPOSES OF CLARITY AND LEGIBILITY, THE DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC TO THE EXTENT THAT OFFSETS, BENDS, SPECIAL FITTINGS AND EXACT LOCATIONS ARE NOT INDICATED AS LOCATIONS TO BE GOVERNED BY STRUCTURAL. CONTRACTOR SHALL MAKE USE OF ALL DATA IN ALL OF THE CONTRACT DOCUMENTS, AND SHALL VERIFY THIS INFORMATION AT THE SITE. THE CONTRACTOR MAY NEED TO SUPPLY ADDITIONAL INFORMATION FOR CITY TO SECURE DEFERRED PERMIT ITEMS, NOT THE ARCHITECT.
3. MATERIALS AND EQUIPMENT SHALL BE NEW AND LISTED BY UNDERWRITER'S LABORATORIES, INC. (U.L.), AND BEAR THEIR LABEL WHEREVER STANDARDS HAVE BEEN ESTABLISHED AND THEIR LABEL SERVICE IS REGULARLY FURNISHED.
4. ENERGY REQUIREMENTS: PROVIDE ALL MATERIAL AND EQUIPMENT TO LOCAL ENERGY REQUIREMENTS., SEE T-24 SHEET
5. EQUIPMENT SPECIFIED BY MANUFACTURER'S NUMBER SHALL INCLUDE ALL ACCESSORIES, CONTROLS, ETC., LISTED IN THE CATALOG AS STANDARD WITH THE EQUIPMENT. OPTIONAL OR ADDITIONAL ACCESSORIES SHALL BE FURNISHED AS SPECIFIED.

B. SECTION 15-B VENTILATION/DUCTING

1. FLUES: PROVIDE FLUES, FRESH AIR INTAKE GRILL, ETC., FOR ALL WATER HEATERS AND GAS-FIRED HEATING EQUIPMENT REQUIRING FLUE VENTING AS NOTED ON PLANS.
2. ATTIC VENTS ARE 3 FT. ABOVE EAVE AND BALANCE ARE AT 2.5 PROVIDE ATTIC VENTILATION: 1/150 OF ATTIC AREA, OR 1/300 IF 50 EAVE (CBC 1203.2). BAFFLES ARE REQUIRED AT VENTS FOR INSULATION.
3. VENT DRYER TO OUTSIDE OF BUILDING (NOT TO UNDER FLOOR AREA). VENT LENGTH SHALL BE 14' MAXIMUM OR INCREASE VENT SIZE (CMC 504.3.2.2).
4. VENTING TERMINALS SHALL TERMINATE NOT LESS THAN 4 FEET BELOW OR 4 FEET HORIZONTALLY FROM, AND NOT LESS THAN 1 FOOT ABOVE A DOOR, AN OPEN-ABLE WINDOW OR GRAVITY AIR INLET INTO A BUILDING. (CMC SEC 806.6) VENTING SYSTEMS SHALL TERMINATE AT LEAST 3 FEET ABOVE AN OUTSIDE OR MAKEUP-AIR INLET LOCATED WITHIN 10 FEET AND AT LEAST 4 FEET FROM A PROPERTY LINE, EXCEPT A PUBLIC WAY.
5. PROVIDE MECHANICAL VENTILATION IN UTILITY ROOM LAUNDRY AND AS REQUIRED IN BATHROOMS, TO SUPPLY A MINIMUM OF 5 AIR CHANGES PER HOUR.
6. FUEL BURNING APPLIANCES: FUEL BURNING APPLIANCES SUCH AS WATER HEATERS AND FURNACES REQUIRE COMBUSTION AIR DUCTS AND EXHAUST VENTS THAT MUST EXTEND TO THE OUTSIDE. THOUGHT MUST BE GIVEN TO ROUTING. IT IS ADVISABLE TO LOCATE FUEL BURNING APPLIANCES ADJACENT TO AN OUTSIDE WALL FOR EASE IN PROVIDING COMBUSTION AIR. CONSULT THE 2019 CALIFORNIA MECHANICAL CODE AND 2019 CALIFORNIA ENERGY CODE.
7. CLOTHES DRYERS: VENT DRYER TO OUTSIDE OF BUILDING 4" DIAMETER. VENT LENGTH SHALL BE 14' MAXIMUM OR INCREASE VENT SIZE WITH 2 ELBOWS EQUIPPED WITH A BACK-DRAFT DAMPER. (CMC 504.3.2.2). ALL LAUNDRY FACILITIES THE FOLLOWING INFORMATION: WHEN A CLOSET IS DESIGNED FOR THE INSTALLATION OF A CLOTHES DRYER, A MINIMUM OPENING OF 100 SQUARE INCHES FOR MAKEUP AIR INSTALLED IN THE DOOR SHALL BE CLEARLY INDICATED ON THE PLANS OR BY OTHER APPROVED MEANS. (2001 CMC SECTION 504.3.2)
8. ROOMS CONTAINING BATHTUBS, SHOWERS, SPAS AND SIMILAR BATHING FIXTURES SHALL BE MECHANICALLY VENTILATED (CBC 1203.4.2.1). ROOMS CONTAINING A WATER CLOSET SHALL HAVE AN EXHAUST FAN WITH A MINIMUM RATING OF 50 CFM.
9. ALL DUCTS R-3/U-1 OCCUPANCY SEPARATION OF PENETRATING THE WALLS OR CEILINGS SEPARATING THE DWELLING UNIT FROM THE GARAGE SHALL BE CONSTRUCTED OF A MINIMUM 0.019-INCH SHEET STEEL AND SHALL HAVE NO OPENINGS INTO THE GARAGE.
10. FOUNDATION VENTILATION OF DECKS, BALCONIES, GARAGE, STAIRS OR ANY ENCLOSED SPACE: UNDER-FLOOR AREAS SHALL BE VENTILATED BY AN APPROVED MECHANICAL MEANS OR BY OPENINGS IN EXTERIOR FOUNDATION WALLS. SUCH OPENINGS SHALL HAVE A NET AREA OF NOT LESS THAN 1 SQUARE FOOT FOR EACH 150 SQUARE FEET OF UNDER-FLOOR AREA. OPENINGS SHALL BE LOCATED AS CLOSE TO CORNERS AS PRACTICAL AND SHALL PROVIDE CROSS VENTILATION. THE REQUIRED AREA OF SUCH OPENINGS SHALL BE APPROXIMATELY EQUALLY DISTRIBUTED ALONG THE LENGTH OF AT LEAST TWO OPPOSITE SIDES. THEY SHALL BE COVERED WITH CORROSION-RESISTANT WIRE MESH WITH MESH OPENINGS. FOR EACH 150 SQ. FT. OF UNDER FLOOR AREA. LOCATE 6" X 14" VENTS FT. A. 2.6 UNDER FLOOR VENTS: MM. 1.0 SQ. APPROXIMATELY 6' APART AROUND PERIMETER OF BUILDING. COVER OPENINGS WITH CORROSION RESISTANT WIRE MESH WITH AN OPENING SIZE OF TO ¼ INCHES (CBC 1203.3).

C. SECTION 15-C EQUIPMENT

1. APPLIANCES INSTALLED WITHIN A GARAGE ARE ENCLOSED IN A SEPARATE, APPROVED COMPARTMENT HAVING ACCESS ONLY FROM THE OUTSIDE OF THE GARAGE, SUCH APPLIANCES MAY BE INSTALLED AT FLOOR LEVEL. THE REQUIRED COMBUSTION AIR SHALL BE TAKEN FROM AND DISCHARGED TO THE EXTERIOR OF THE GARAGE. (CMC SECTION 308.0 PARA-3) HEAT-PRODUCING APPLIANCES IN GARAGE WILL BE PROTECTED FROM AUTOMOBILE DAMAGE APPLIANCES WHICH GENERATE A GLOW, SPARK, OR FLAME (SUCH AS WATER HEATER AND FURNACE) SHALL BE 510.1.) LOCATED A MINIMUM OF 18 INCHES ABOVE GARAGE FLOOR. (CMC SEC 308.0 PARA-2, CPC SECTION
2. F.A.U. GENERAL - PROVIDE COMBUSTION AIR AND CONDENSATE LINE TO OUTSIDE OR AN APPROVED DRAIN FOR COOLING COILS.
3. HVAC EQUIPMENT INSTALLED IN ATTIC SPACES ACCESSED BY A CATWALK SHALL BE LOCATED WITHIN 25 FEET OF THE ACCESS OPENING. PROVIDE AND SHOW A MINIMUM 24" WIDE CAT WALK FOR ACCESS TO ATTIC INSTALLED APPLIANCES. MINIMUM 30"X 30" UNOBSTRUCTED LEVEL WORKING SPACE IN FRONT OF THE FAU. (CMC SECTION 908.0).
4. A WARM AIR FURNACE SHALL NOT BE LOCATED IN A ROOM USED OR DESIGNED TO BE USED AS A BEDROOM, BATHROOM, AND CLOSET OR IN ANY ENCLOSED SPACE WITH ACCESS ONLY THROUGH SUCH ROOM OR SPACE. (CMC SEC 904.5)
5. FURNACE INSTALLED IN AN ATTIC SHALL COMPLY WITH THE FOLLOWING PER CMC SECTION 908: 106. COOLING UNITS LOCATED IN THE ATTIC SHALL HAVE A SECOND WATERTIGHT PAN INSTALLED BENEATH THE UNIT PER CMC SEC
6. A FURNACE SUSPENDED SHALL HAVE A CLEARANCE OF AT LEAST 6 INCHES ABOVE GRADE. IF EXCAVATED PROVIDE 6 INCHES BELOW AND 12 INCHES TO THE SIDE OF THE FURNACE 107.6. PROVIDE A PERMANENT ELECTRIC OUTLET AND LIGHTING FIXTURE CONTROLLED BY A SWITCH LOCATED AT THE ACCESS OPENING AT OR NEAR THE FURNACE. LOS. PROVIDE THE FOLLOWING REQUIREMENTS AT ALL FURNACE INSTALLATIONS: 108.2. THE COMBUSTION CHAMBER OF THE FURNACE SHALL BE 6" MM. FROM THE CLOSED DOOR. (CMC SEC 904.7) 109. THE TERMINATION POINT FOR EXHAUST DUCT DISCHARGING TO THE ATMOSPHERE SHALL NOT BE LESS THAN: 10 FEET FROM THE PROPERTY LINE; 3 FEET FROM EXTERIOR WALL OR ROOF; 10 FEET FROM OPENINGS INTO THE BUILDING; 10 FEET FROM THE ADJOINING GRADE.
7. FORCED AIR UNITS: CONSULT INSTALLATION DIRECTIONS FOR APPROPRIATE CLEARANCES. THE RETURN AIR INLET FOR BLOWER TYPE FURNACES MUST BE AT LEAST TEN FEET FROM THE DRAFT HOOD OF YOUR WATER HEATER OR OTHER FUEL BURNING APPLIANCE AND MUST NOT BE WHERE IT WILL PICK UP OBJECTIONABLE ODORS OR MOISTURE. FORCED AIR UNITS REQUIRE BULKY DUCTS AND PLENUMS. FORCED AIR UNITS ARE MUST COMPLY WITH TITLE 24 REQUIREMENTS REFERENCING THE 2019 CALIFORNIA ENERGY CODE, SEE T-24 SHEET

CONTINUE SECTION (15-C EQUIPMENT)

8. FURNACE INSTALLED IN UNDER-FLOOR SPACES SHALL COMPLY WITH THE FOLLOWING PER CMC SEC 909: 107.4. FURNACE SUPPORTED ON THE GROUND SHOULD REST ON A CONCRETE SLAB EXTENDING A MINIMUM OF 3 INCHES ABOVE GRADE
9. PROVIDE COMBUSTION AIR FOR ALL GAS FIRED APPLIANCES PER CMC CHAPTER 7. 13.7 FUEL BURNING WATER HEATER IS NOT ALLOWED IN BEDROOM OR BATHROOM UNLESS DIRECT VENT TYPE OR COMPLYING WITH CPC 505.1(1).
10. DISCHARGE POINTS FOR EXHAUST AIR SHALL BE A MINIMUM OF 3 FEET FROM ANY OPENING WHICH ALLOWS AIR ENTRY INTO OCCUPIED PORTIONS OF THE STRUCTURE. DUCTLESS FANS SHALL NOT BE USED IN BATHROOMS WHERE A TUB OR SHOWER IS LOCATED
11. FUEL-BURNING WATER HEATERS SHALL NOT BE INSTALLED IN BATHROOMS OR BEDROOMS OR IN A CLOSET WITH THE ONLY ACCESS THROUGH A BATHROOM OR BEDROOM. (CPC SEC 509.0); EXCEPT WATER HEATERS HAVING DIRECT VENT SYSTEMS.
12. THE FIRST PARAGRAPH OF SUBSECTION 504.2 OF THE SECTION 504 OF THE CALIFORNIA MECHANICAL CODE IS HEREBY AMENDED TO READ AS FOLLOWS: 504.2 DOMESTIC RANGE HOODS AND VENTS. KITCHEN RANGE HOODS SHALL BE INSTALLED FOR COOKING FACILITIES WITH AN APPROVED FORCED-DRAFT SYSTEM OF VENTILATION VENTED TO THE OUTSIDE OF THE BUILDING. DUCTS USED FOR DOMESTIC KITCHEN RANGE VENTILATION SHALL BE OF METAL, OR OTHER APPROVED MATERIAL, AND SHALL HAVE SMOOTH INTERIOR SURFACES. DUCTS FOR DOMESTIC RANGE HOODS SHALL ONLY SERVE COOKING APPLIANCES. (BALANCE OF THE SUBSECTION TO REMAIN UNCHANGED.)
13. INDOOR VENTILATION SHALL MEET THE MINIMUM BEST PRACTICES GUIDELINES BASED FROM ASHRAE 62.2 FOR BOTH LOCAL VENTILATION AND WHOLE-BUILDING VENTILATION REQUIREMENTS;EXHAUST FAN DUCTING SHALL MEET THE WHOLE-BUILDING EXHAUST VENTILATION SYSTEM AIRFLOW. UNITS SHALL HAVE SOUND RATING OF ONE OR LESS AT THE REQUIRED VENTILATION. WHOLE-BUILDING VENTALATION DUCTS SHALL MEET DUCT DESIGN REQUIREMENTS OF TABLE 7.1. -THE WHOLE-BUILDING FAN FANS IS TREATED TO PROVIDE AT LEAST THE MINIMUM VENTILATION RATE AT A MINIMUM STATIC PRESSURE OF 0.25" W.C THE METHOD.

    THIS PROJECT SUPPORTS THE ENCLOSED T-24 SHEET USING PERFORMANCE METHOD PER SHEET EMP-1 AND EMP-2 WITH ONE CENTRAL FAN UNIT SPECIFEID PER DRAWINGS AND NOTE 20A BELOW.
14. USING T-24 SHEET GUIDELINES, THE EQUIPMENT LIST FOR THIS PROJECT AS FOLLOWS:
    A. EXHAUST FANS
    AS NOTED PER PLANS
    B. HVAC EQUIPMENT
    PER T-24 FOR BTU SIZE – 3 ZONES SYSTEM AS NOTED PER PLANS

D. SECTION 15-D FIREPLACE

1. ALL FIREPLACES: A. FACTORY-BUILT FIREPLACES, CHIMNEYS AND ALL OF THEIR COMPONENTS SHALL BE LISTED AND INSTALLED IN ACCORDANCE WITH THEIR LISTING AND MANUFACTURER'S INSTALLATION INSTRUCTIONS. (CRC R1004.1)
2. B. FACTORY BUILT WOOD BURNING FIREPLACES SHALL BE QUALIFIED AT THE U.S. EPA'S VOLUNTARY FIREPLACE PROGRAM PHASE 2 EMISSIONS LEVEL.
3. C. DECORATIVE SHROUDS SHALL NOT BE INSTALLED AT THE TERMINATION OF FACTORY-BUILT CHIMNEYS EXCEPT WHERE SUCH SHROUDS ARE LISTED AND LABELED FOR USE WITH THE SPECIFIC FACTORY-BUILT CHIMNEY SYSTEM AND ARE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. (CRC R1005.2 & CMC 802.5.2.4)

   D. HORIZONTAL OPENINGS ARE NOT ALLOWED, FOR EXHAUST VENTS, IN WALLS CLOSER THAN 3 FEET TO A PROPERTY LINE. (TABLES R302.1(1)&(2)). HORIZONTAL VENT CAPS SHALL BE 2 FEET CLEAR FROM PROPERTY LINES. E. EXHAUST OPENINGS SHALL NOT BE DIRECTED ONTO WALKWAYS. (R303.5.2)

   SOLID FUEL BURNING FIREPLACE: A. PROVIDE A PERMANENTLY ANCHORED GASEOUS FUEL BURNING PAN TO THE FIREBOX OF A SOLID FUEL BURNING FIREPLACE. SOLID FUEL BURNING FIREPLACE MUST COMPLY WITH THE CALIFORNIA ENERGY STANDARDS MANDATORY MEASURES. C. CHIMNEY SHALL EXTEND AT LEAST 2 FT. HIGHER THAN ANY PORTION OF THE BUILDING WITHIN 10 FT., BUT SHALL NOT BE LESS THAN 3 FT. ABOVE THE HIGHEST POINT WHERE THE CHIMNEY PASSES THROUGH THE ROOF. (CRC R1003.9) D. LIQUID FUELED FIREPLACES ARE NOT ALLOWED FOR INTERIOR USE.

   DIRECT VENT GAS APPLIANCE FIREPLACE: A. DIRECT VENT SEALED-COMBUSTION GAS APPLIANCE FIREPLACE MUST COMPLY WITH THE CAL GREEN CODE REQUIREMENTS AND MUST COMPLY WITH ANSI Z21.50. (CAL GREEN 4.503.1)

DIVISION 15 – PLUMBING

A. SECTION 15-A GENERAL PLUMBING NOTES:

1. FOR PURPOSES OF CLARITY AND LEGIBILITY, THE DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC TO THE EXTENT THAT OFFSETS, BENDS, SPECIAL FITTINGS AND EXACT LOCATIONS ARE NOT INDICATED AS LOCATIONS TO BE GOVERNED BY STRUCTURAL. CONTRACTOR SHALL MAKE USE OF ALL DATA IN ALL OF THE CONTRACT DOCUMENTS, AND SHALL VERIFY THIS INFORMATION AT THE SITE. THE CONTRACTOR MAY NEED TO SUPPLY ADDITIONAL INFORMATION FOR CITY T0 SECURE DEFERRED PERMIT ITEMS, NOT THE ARCHITECT. CAULK ALL JOINTS WHERE PLUMBING FIXTURES PENETRATE WALLS OR FLOORS.
2. FIXTURES SPECIFIED BY MANUFACTURER'S NUMBER SHALL INCLUDE ALL ACCESSORIES, CONTROLS, ETC., LISTED IN THE CATALOG AS STANDARD WITH THE EQUIPMENT. OPTIONAL OR ADDITIONAL ACCESSORIES SHALL BE FURNISHED AS SPECIFIED ON DRAWINGS.
3. WASTE AND VENT SYSTEM: ALL SOIL, WASTE AND VENT PIPING SHALL BE APPROVED ABS PER LOCAL CODE UNLESS NOTED OTHERWISE. ALL PIPING SHALL BE SIZED AS REQUIRED BY SUBJECT GOVERNING AGENCY. CLEANOUT LOCATIONS SHALL BE LOCATED IN LEAST VISIBLE AREAS. DOMESTIC WATER PIPING SYSTEM: ALL WATER SUPPLY LINES SHALL BE COPPER. TYPE "L" BELOW SLAB AND TYPE M ABOVE SLAB. NO FITTINGS SHALL OCCUR BELOW SLAB. COPPER TO STEEL CONNECTIONS: ALL COPPER PIPE CONNECTIONS TO FERROUS PIPING SHALL BE MADE WITH DIELECTRIC COUPLINGS OR ISOLATION FLANGES. GALVANIZED PIPE SHALL NOT BE USED FOR PLUMBING PURPOSES.
4. FOR ADDITIONAL PLUMBING NOTES, SEE SHT EMP-1 PLAN

B. SECTION 15-B PLUMBING SPECS:

1. WATER OUTLETS WITH HOSE ATTACHMENTS AND HOSE BIBBS MUST HAVE APPROVED NON REMOVABLE TYPE BACKFLOW PREVENTION DEVICES INSTALLED. CPC SECTION 603.4.7).
2. PROVIDE MINIMUM OF 1/4" PER FOOT SLOPE FOR HORIZONTAL DRAINAGE PIPE. CPC SECTION 718.
3. NO VENT FROM INDIRECT WASTE PIPING SHALL COMBINE WITH ANY SEWER CONNECTED VENT, BUT SHALL EXTEND SEPARATELY TO OUTSIDE AIR. CPC SECTION 718.
4. CLOTHES WASHER STANDPIPE RECEPTOR SHALL EXTEND BETWEEN 18 AND 30 INCHES ABOVE ITS TRAP. THE TRAP SHALL BE BETWEEN 6 AND 10 INCHES ABOVE THE FLOOR. CPC SECTION 804.
5. WATER HEATER TO BE PROVIDED WITH A TEMPERATURE AND PRESSURE RELIEF VALVE HAVING A FULL SIZED DRAIN OR GALVANIZED STEEL OR HARD DRAWN COPPER PIPE TO THE OUTSIDE OF THE BUILDING WITH THE END OF THE PIPE NOT MORE THAN TWO FEET OR LESS THAN 6" ABOVE GRADE POINTING DOWNWARD WITH THE TERMINAL END BEING UNTHREADED. (UPC 608)
6. CLEAN OUTS SHALL BE PLACED INSIDE THE BUILDING NEAR THE CONNECTION BETWEEN THE BUILDING DRAIN AND THE BUILDING SEWER OR INSTALLED OUTSIDE THE BUILDING AT THE LOWER END OF THE BUILDING DRAIN AND EXTENDED TO GRADE.
7. NO GAS PIPING SHALL BE INSTALLED IN OR ON THE GROUND UNDER ANY BUILDING OR STRUCTURE. ALL EXPOSED GAS PIPING SHALL BE KEPT AT LEAST 6" ABOVE GRADE OR STRUCTURE. (CPC 1211)
8. PROVIDE BONDING FROM COLD TO HOT WATER PIPING TO COMPLY WITH NEC SECTION 250-80.
9. NO DOMESTIC DISHWASHER SHALL BE CONNECTED TO A DRAINAGE SYSTEM OR FOOD WASTE DISPOSAL WITHOUT THE USE OF AN APPROVED DISHWASHER AIRGAP FITTING. CPC SECTION 807.4
10. PROVIDE SOLID WASTE CONNECTORS IN LIEU OF ACCESS PANELS. (CPC 405)
11. PROVIDE PRESSURE RELIEF VALVE WITH DRAIN TO OUTSIDE FOR WATER HEATER (CPC 608.5). PROVIDE "EARTHQUAKE" STRAPPING (ONE AT 1/3 FROM THE TOP AND ONE AT 1/3 FROM THE BOTTOM OF THE WATER HEATER).(CPC 508.2)
12. PROVIDE 1.6 GALLON MAX. ULTRA LOW FLUSH WATER CLOSET. TOILETS: REQUIRE 4" SOILS WASTE LINE.
13. PROVIDE DEVICES TO ABSORB HIGH PRESSURES RESULTING FROM THE QUICK CLOSING OF THE QUICK-ACTING VALVES FROM THE WASHER AND DISHWASHER, ETC. (CPC)
14. VENTING FOR ISLAND FIXTURES (VEGETABLE SINK) SHALL BE DESIGNED PER SECTION 909
15. AT BATHTUBS AND TUB/SHOWER COMBINATIONS, CONTROL VALVES SHALL BE PRESSURE BALANCED OR MIXING. VALVES SHALL BE THERMOSTATICALLY CONTROLLED PER THE CPC SEC 410.7. 18.
16. ALL CONDENSATION LINES SHALL DISCHARGE INTO A PLUMBING FIXTURE PER SEC 310.1 OF THE CPC.

B. CONTINUED SECTION (15-B PLUMBING SPECS):

17. TOILETS: PLAN A SPACE AT LEAST 30" WIDE FOR THE TOILET. THE SPACE MUST BE DEEP ENOUGH TO ALLOW 24" OF CLEAR SPACE IN FRONT OF THE FIXTURE. CONSULT SECTION 407.6 OF THE CALIFORNIA PLUMBING CODE.
18. TUBS: BATHTUBS OR WHIRLPOOL BATHS REQUIRE ACCESS PANEL TO THE TRAP, OVERFLOW OR PUMP.
19. MAXIMUM FLOW RATE STANDARDS SHALL BE SET TO THE MINIMUM AS FOLLOWS:

FLOW RATES

WATER CLOSET	1.6	LAUNDRY FAUCETS	2.2
SHOWER HEAD	2.5	SINK FAUCET	2.5

20. PROVIDE MINIMUM SHOWER AREA - 1024-SQ. INCHES, CAPABLE OF ENCOMPASSING A 30" CIRCLE. (414.7 CPC) SEE PLANS FOR SIZE.
21. WATER CLOSETS SHALL BE AN ULTRA LOW FLUSH TYPE WITH 1.6 GALLONS MAXIMUM PER FLUSH. (402.2 CPC). CONTROL VALVE FOR SHOWER OR TUB-SHOWER SHALL BE OF THE PRESSURE BALANCE OR THERMOSTATIC MIXING VALVE TYPE. (418 CPC). PROVIDE AN ACTIVE 1.A.P.M.O. RESEARCH REPORT OR APPROVED LISTING FOR THE 'SPA' TUB. SPECIFY ON THE PLANS, THE MAXIMUM FLOW RATE STANDARDS SET BY THE CALIFORNIA ENERGY COMMISSION.
23. PROVIDE AND SHOW THE REQUIRED MINIMUM 50%" HOSE BIBS LOCATED AT THE FRONT AND BACK OF THE DWELLING UNIT. CBC 610.8 AMENDMENTS.
24. THE WATER HEATER SHALL HAVE THE FOLLOWING: PER CPC CHAPTER 5: COMBUSTION AIR, VENTING, DRAIN, PAN AND LINE SHALL BE PROVIDED. WATER HEATER BURNER TO BE AT 18" ABOVE GARAGE FLOOR. WATER HEATERS SHALL BE ANCHORED OR STRAPPED W/ 16 GAUGE TO THE STRUCTURE. PROVIDE 1 STRAP AT TOP AND BOTTOM WITH 3/8" LAG BOLT AT EACH END.
25. WATER HEATERS INSTALLED IN ATTIC SPACES OR FLOOR CEILING! FLOOR SUBFLOOR ASSEMBLIES WHERE DAMAGE MAY RESULT FROM A LEAKING HEATER, A WATERTIGHT PAN OF CORROSION RESISTANT MATERIALS SHALL BE INSTALLED BENEATH THE WATER HEATER WITH A DRAIN TO AN APPROVED A MINIMUM LOCATION. CRC 508.4
26. WATER HEATERS LOCATED IN A BEDROOM OR BATHROOM ARE REQUIRED TO BE INSTALLED IN A DEDICATED CLOSET WITH A LISTED, GASKETED DOOR ASSEMBLY AND A SELF CLOSING DEVICE. ALL COMBUSTION AIR SHALL BE OBTAINED FROM THE OUTSIDE. CPC 505.1
27. TANKLESS WATER HEATERS ARE NOT DIRECT REPLACEMENTS FOR CONVENTIONAL TANK TYPE WATER HEATERS. PROVIDE GAS SIZING AND COMPLETE GAS LOAD CALCULATIONS FOR THE TANKLESS INSTALLATION. TANKLESS WATER HEATERS LOCATED WITHIN HABITABLE SPACE REQUIRE THE MANUFACTURER'S SPECIFICATIONS DETAILING THE COMBUSTION AIR SUPPLY AND VENTING. PROVIDE THE SPECIFICATION CUT SHEET.
28. WATER CLOSET SHALL BE LOCATED IN A SPACE NOT LESS THAN 30" IN WIDTH, WITH 24" MIN. CLEARANCE IN FRONT (CPC 407.6).
29. SHOWER COMPARTMENTS AND WALLS ABOVE BATHTUBS WITH SHOWER HEADS INSTALLED SHALL BE FINISHED WITH A SMOOTH, NONABSORBENT SURFACE TO A HEIGHT OF NOT LESS THAN 70" ABOVE THE DRAIN OUTLET. (CBC 1210.3)
30. WATER HEATER/DRYER/FURNACE IN GARAGE WILL BE PROTECTED FROM AUTOMOBILE DAMAGE (BY ELEVATING THE APPLIANCES OR INSTALLING VEHICLE BARRIERS AS WHEEL BLOCKS ARE NOT SUFFICIENT). IF LOCATED IN GARAGE. PROVIDE A 3" DIAMETER STEEL PIPE X 36" EMBEDDED IN CONCRETE SLAB FOR PROTECTION OF WATER HEATER. (CPC SEC 510.3, CMC SEC 308.0 CPC 508.14(2). HEAT ELEMENTS OF APPLIANCES WHICH CREATE A GLOW, SPARK, OR FLAME SHALL BE LOCATED A MINIMUM OF 18" ABOVE GARAGE FLOOR. CMC 308.1
31. ROOMS CONTAINING BATHTUBS, SHOWERS, SPAS, AND SIMILAR BATHING FIXTURES SHALL BE MECHANICALLY VENTILATED (CBC 1203.4.2.1)
32. FUEL-BURNING WATER HEATERS SHALL NOT BE INSTALLED IN BATHROOMS OR BEDROOMS OR IN A CLOSET WITH THE ONLY ACCESS THROUGH A BATHROOM OR BEDROOM. (CPC SEC 509.0); EXCEPT WATER HEATERS HAVING DIRECT VENT SYSTEMS.
33. SPRINKLER SYSTEM: AWARDED FIRE SPRINKLER CONTRACTOR TO SECURE SEPARATE PERMIT FOR FIRE SPRINKLER SYSTEM PER NOTE #5 OF "CVR" SHT
34. WHIRLPOOL BATH. A REMOVABLE PANEL OF SUFFICIENT DIMENSION SHALL BE PROVIDED TO ACCESS THE PUMP. 116.2. THE CIRCULATION PUMP SHALL BE LOCATED ABOVE THE CROWN WEIR OF THE TRAP. 116.3. THE PUMP AND CIRCULATION PIPING SHALL BE SELF-DRAINING TO MINIMIZE WATER RETENTION IN ACCORDANCE WITH STANDARDS REFERENCED IN CPC TABLE 14-I. SUCTION FITTINGS ON WHIRLPOOL BATHS SHALL COMPLY WITH THE LISTED STANDARDS. (CPC SEC 415.0-415.4). A 12 X 12 ACCESS PANEL OR UTILITY SPACE SO ARRANGED WITHOUT OBSTRUCTIONS SO AS TO MAKE CONCEALED SLIP-JOINT CONNECTIONS ACCESSIBLE FOR FIELD INSPECTION AND REPAIR. (CPC SEC 405.2)

C. SECTION 15-C PLUMBING CODE SECTION 15.20.020:

CHAPTER 15.20 PLUMBING CODE 15.20.020 AMENDMENTS, ADDITIONS AND DELETION. A. SUBSECTION 604.1 OF SECTION 604.0 OF THE CALIFORNIA PLUMBING CODE IS HEREBY AMENDED BY ADDING A SENTENCE TO END OF THE SECOND PARAGRAPH TO READ AS FOLLOWS:

- A. FERROUS MATERIALS ARE PROHIBITED FOR WATER PIPE AND FITTINGS WHEN INSTALLED IN THE GROUND UNLESS A SOILS ANALYSIS IS PROVIDED TO SHOW THAT SOIL CONDITIONS WILL NOT BE DAMAGING TO THE PIPING MATERIAL. (BALANCE OF THE SECTION TO REMAIN UNCHANGED)
- B. SUBSECTION 604.2 OF SECTION 604.0 OF THE CALIFORNIA PLUMBING CODE IS HEREBY AMENDED TO READ IN ITS ENTIRETY AS FOLLOWS: 604.2 COPPER TUBE FOR WATER PIPING SHALL HAVE A WEIGHT OF NOT LESS THAN TYPE K. EXCEPTION. TYPE L COPPER TUBING MAY BE USED FOR WATER PIPING WHEN PIPING IS UNDERGROUND AND NOT WITHIN THE FOOTPRINT OF THE BUILDING FOUNDATION AND TYPE M COPPER TUBING MAY BE USED FOR WATER PIPING WHEN PIPING IS ABOVEGROUND IN, OR ON, A BUILDING.
- C. SUBSECTION 609.3.2 OF SECTION 609.0 OF THE CALIFORNIA PLUMBING CODE IS HEREBY AMENDED TO READ IN ITS ENTIRETY AS FOLLOWS: 609.3.2 COPPER WATER PIPING INSTALLED UNDER CONCRETE FLOOR SLABS WITHIN A BUILDING OR STRUCTURE SHALL BE COPPER TUBE TYPE "K" AND SHALL BE INSTALLED WITHOUT JOINTS WHERE POSSIBLE. WHERE JOINTS ARE PERMITTED, THEY SHALL BE BRAZED AND FITTING SHALL BE WROUGHT COPPER. SUCH COPPER TUBING SHALL BE PLACED IN A SAND BED A MINIMUM OF THREE INCH DEPTH (3"), AND PROPERLY PROTECTED PENETRATION CONCRETE AND SIMILAR MATERIALS.
- D. SUBSECTION 610.8 OF SECTION 610.0 OF THE CALIFORNIA PLUMBING CODE IS HEREBY AMENDED BY DELETING THE LAST PARAGRAPH AND REPLACING IT WITH THE FOLLOWING: NO BUILDING SUPPLY PIPE SHALL BE LESS THAN ONE INCH (1") IN DIAMETER UNLESS A DESIGN OR CALCULATIONS ARE SUBMITTED AND APPROVED BY ADMINISTRATIVE AUTHORITY. EACH MAIN BUILDING SHALL HAVE A MINIMUM OF TWO THREE-QUARTER-INCH (3/4") HOSE BIBS; ONE LOCATED READILY ACCESSIBLE TO THE FRONT YARD AND ONE TO THE BACK YARD.
- E. E. A NEW SUBSECTION 701.1.6 IS HEREBY ADDED TO SECTION 701.1 OF THE CALIFORNIA PLUMBING CODE TO READ AS FOLLOWS: CAST IRON SHALL NOT BE USED FOR DRAINAGE AND WASTE IPING WHEN INSTALLED IN THE GROUND UNLESS A SOILS ANALYSIS 701.1.6 IS PROVIDED TO SHOW THAT SOIL CONDITIONS WILL NOT BE DAMAGING TO THE PIPING MATERIAL.
- F. SUBSECTION 1209.5.1.1 OF SECTION 1209 OF CALIFORNIA PLUMBING CODE IS HEREBY AMENDED BY ADDING THE FOLLOWING SENTENCES TO THE END OF THE PARAGRAPH: APPROVED PE PIPE AND FITTINGS SHALL BE USED IN EXTERIOR BURIED GAS PIPING SYSTEMS. FERROUS GAS PIPING IS NOT PERMITTED TO BE INSTALLED UNDERGROUND UNLESS A SOILS ANALYSIS IS PROVIDED TO SHOW THAT SOIL CONDITIONS WILL NOT BE DAMAGING TO THE PIPING MATERIAL.

DIVISION 16 – ELECTRICAL

A. SECTION 16-A GENERAL ELECTRICAL NOTES:

1. FOR PURPOSES OF CLARITY AND LEGIBILITY, THE DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC TO THE EXTENT THAT ROUTES FOR WIRING FOR EXACT LOCATIONS ARE NOT INDICATED FOR ELECTRICAL SYSTEM, THE WIRING, LOCATIONS OF OUTLETS TO BE GOVERNED BY STRUCTURAL CONDITIONS AND OBSTRUCTIONS. WIRING FOR EQUIPMENT REQUIRING MAINTENANCE AND INSPECTION TO BE READILY ACCESSIBLE.. CONTRACTOR SHALL MAKE USE OF ALL DATA IN ALL OF THE CONTRACT DOCUMENTS, AND SHALL VERIFY THIS INFORMATION AT THE SITE. THE CONTRACTOR MAY NEED TO SUPPLY ADDITIONAL INFORMATION FOR CITY OR POSSIBLY PROVIDE ADDITIONAL LINE DRAWINGS OR PANEL SCHEDULES FOR ELECTRICAL SERVICE NECESSARY T0 SECURE DEFERRED PERMIT ITEMS, NOT THE ARCHITECT. MAIN SERVICE PANEL ELECTRICAL LOAD CALCULATIONS SHALL CONFORM TO NEC 220.
2. FIXTURES SPECIFIED BY MANUFACTURER'S NUMBER SHALL INCLUDE ALL ACCESSORIES, CONTROLS, ETC., LISTED IN THE CATALOG AS STANDARD WITH THE EQUIPMENT. OPTIONAL OR ADDITIONAL ACCESSORIES SHALL BE FURNISHED AS SPECIFIED ON DRAWINGS. VERIFY FOR 110 OR 220 POWER OUTLETS FOR MAJOR APPLIANCES. THE APPLIANCE CIRCUITS SHALL BE SEPARATE 20 AMP WITH # 12 AWG COPPER CONDUCTORS.
3. U.L. LABELING: ALL ELECTRICAL EQUIPMENT, BREAKERS AND TIME CLOCK CONTROLS SHALL BE PROPERLY LABELED. ELECTRICAL SERVICE: PROVIDE PANEL SIZE PER NOTES ON PLANS.
4. ALL ELECTRICAL WORK SHALL COMPLY WITH STATE CALIFORNIA ENERGY REGULATIONS. SEE SHEET EMP-1 FOR ADDITIONAL NOTES, PLANS AND DIAGRAM INFO. T-24 SHEET SHALL SUPERSEDE WHERE CONFLICTS MAY OCCUR

B. SECTION 16-B ELECTRICAL LIGHTING

LIGHTING AND SWITCHING TO BE 2005 CEES (1-24) COMPLIANT.

1. PROVIDE AT LEAST ONE WALL SWITCH-CONTROLLED LIGHTING OUTLET (FIXTURE) INSTALLED IN EVERY HABITABLE ROOM, IN BATHROOMS ADJACENT TO EACH BASIN LOCATION, HALLWAYS, STAIRWAYS, ATTACHED GARAGES, AND DETACHED GARAGES WITH ELECTRIC POWER, AND AT OUTDOOR ENTRANCES OR EXITS. A 1/2 HOT SWITCHED RECEPTACLE IS NOT APPROVED FOR THE PRIMARY LIGHTING REQUIREMENT. (2019 CEC) DO NOT INSTALL RECEPTACLE OUTLETS FACE UP IN THE WORKING SPACE OR ANY COUNTERTOPS.
2. STAIRWAYS WITHIN DWELLING UNITS AND EXTERIOR STAIRWAYS SERVING A DWELLING UNIT SHALL HAVE AN ILLUMINATION LEVEL ON TREAD RUNS OF NOT LESS THAN 1 FOOT-CANDLE. (CBC 1205.4)
3. RESIDENTIAL LIGHTING SHALL COMPLY WITH SECTION 150(K) HIGH EFFICACY= 40 LUMENS PER WATT 2005 CEES. KITCHEN LIGHTING SHALL SHALL HAVE 50% OF LIGHTING OF HIGH EFFICACY LUMINARIES. (BASED ON WORKSHEET WS-5R. 50 WATTAGE) MAIN LIGHTING FIXTURES INSTALLED IN THE KITCHEN AND BATHROOMS SHALL BE FLUORESCENT OR APPROVED EQUAL, AND ACTIVATED BY THE FIRST SWITCH IN THE ROOM ON A SEPARATE CIRCUIT FROM THE OTHER NON-EFFICAY LIGHTING SYSTEMS. ALL RECESSED CAN LIGHTING TO BE PIN TYPE FLUORESCENT CONNECTIONS (SCREW-IN NON-ACCEPTABLE). EFFICACY LAMPS SHALL PROVIDE THE FOLLOWING EFFICACY: LAMP POWER HIGH- LESS THAN 15 WATTS TO PROVIDE 40 LUMEN/WATT LAMP EFFICACY; LAMP POWER 15 TO 40 WATTS TO PROVIDE 50 LUMEN/WATT EFFICACY; LAMP POWER MORE THAN 40 WATTS TO PROVIDE 60 LUMEN/WATT EFFICACY. BALLAST WATTAGE IS NOT INCLUDED WHEN DETERMINING LAMP EFFICACY.
4. INCANDESCENT LIGHTING FIXTURES RECESSED INTO INSULATED CEILINGS MUST BE APPROVED FOR ZERO-CLEARANCE INSULATION COVER (I.C.) BY U.L. OR OTHER TESTING LAB RECOGNIZED BY I.C.B.O. W/ A.T. RATED (AIR TIGHT)AND SHALL BE SEALED AND/OR GASKETED BETWEEN CEILING AND HOUSING SECTION 150 (K)4..
5. GENERAL RESIDENTIAL LIGHTING SHALL BE HIGH EFFICACY LUMINARIES OR CONTROLLED BY A DIMMER SWITCH CERTIFIED TO COMPLY WITH SEC.119(D)
6. BATHROOMS, GARAGES, LAUNDRY ROOMS, AND UTILITY ROOMS SHALL BE HIGH EFFICACY LUMINARIES OR CONTROLLED BY AN OCCUPANCY SENSOR CERTIFIED TO COMPLY WITH SEC. 119(D)
7. PERMANENTLY INSTALLED LUMINAIRES LOCATED OTHER THAN IN KITCHENS, BATHROOMS, GARAGE, LAUNDRY ROOMS AND UTILITY ROOMS SHALL BE HIGH EFFICACY LUMINAIRES (EXCEPT CLOSETS LESS THAN 70 SQ. FT.): OR ARE CONTROLLED BY A DIMMER SWITCH OR ARE CONTROLLED BY AN OCCUPANT SENSOR THAT COMPLIES WITH SECTION 119(D) THAT DOES NOT TURN ON AUTOMATICALLY OR HAVE AN ALWAYS ON OPTION. (150(K)4). LUMINAIRES PROVIDING OUTDOOR LIGHTING AND PERMANENTLY MOUNTED TO A RESIDENTIAL BUILDING OR TO OTHER BUILDINGS ON THE SAME LOT SHALL BE HIGH EFFICACY LUMINAIRES OR ARE CONTROLLED BY OCCUPANT SENSORS WITH INTEGRAL PHOTO CONTROL CERTIFIED TO COMPLY WITH SECTION 119(D). (150(K)6)
8. OUTDOOR LIGHTING ATTACHED TO THE BUILDING SHALL BE HIGH EFFICACY LUMINARIES OR CONTROLLED BY A MOTION SENSOR WITH INTEGRAL PHOTO-CONTROL CERTIFIED TO COMPLY WITH SEC.119(D
9. ARTIFICIAL LIGHT SHALL BE PROVIDED THAT IS ADEQUATE TO PROVIDE AN AVERAGE ILLUMINATION OF 10 FOOT-CANDLES OVER THE AREA OF THE ROOM AT A HEIGHT OF 30" ABOVE THE FLOOR. (CBC 1205.3

C. SECTION 16-C ELECTRICAL POWER/GROUNDING

1. (FOR NEW METER-VERIFY LOCATION WITH UTILITY COMPANY)
   PROVIDE UFER OR OTHER APPROVED GROUND PER CEC 250.50.. GROUNDING AT SERVICE ENTRANCE TO COMPLY WITH NEC 250-81 OR 250-83. SYSTEM GROUNDING: PROVIDE ACCESSIBLE JUNCTION BOX AND WIRING FOR GROUNDING MAIN ELECTRICAL SERVICE TO REINFORCING BARS IN CONCRETE FOOTING. PROVIDE AS REQUIRED IN ARTICLE 250-81 (c) NEC. BOND TO 10' MINIMUM METAL COLD WATER PIPE LOCATED IN GROUND AND 20' x #4 REBAR UFER. BOND ALL METAL GAS AND WATER PIPES TO GROUND. ALL GROUND CLAMPS MUST BE ACCESSIBLE AND OF AN APPROVED TYPE (CEC 250.104).
2. PROVIDE A MINIMUM OF (2) OR MORE 120 AMP SMALL APPLIANCE CIRCUITS FOR THE KITCHEN COUNTER TOPS. SUCH CIRCUIT SHALL HAVE NO OTHER OUTLETS. LOADS SHALL BE BALANCED. THE KITCHEN AND DINING AREA, A RECEPTACLE SHALL BE PROVIDED FOR EACH COUNTER SPACE WIDER THAN 12" SO THAT NO POINT IS MORE THAN 24" FROM AN OUTLET. CEC 210.52.0.1 AT ISLAND AND PENINSULAR COUNTER SPACE PROVIDE AT LEAST ONE RECEPTACLE OUTLET. ALL KITCHEN COUNTERTOP OUTLETS SHALL CONFORM TO ARTICLE 210-52 (C).
3. IN ALL HABITABLE ROOMS PROVIDE RECEPTACLE OUTLETS SUCH THAT NO POINT ALONG THE FLOOR LINE IN ANY WALL SPACE IS MORE THAN 6-FT. FROM AN OUTLET. WALL SPACE INCLUDES ANY SPACE 2-FT. (610MM) OR WIDER, FIXED PANELS IN EXTERIOR WALLS, FIXED ROOM DIVIDERS (EX. FREE-STANDING BAR-TYPE COUNTERS, RAILINGS, ETC.). (2 10-52(A) CEC)
4. PROVIDE MINIMALLY AT LEAST ONE OUTSIDE WEATHERPROOF 120-VOLT RECEPTACLE AT FRONT AND BACK OF DWELLING UNIT., SEE PLANS FOR ADDITIONAL LOCATIONS. CEC 210.52.E. (CEC ARTICLE 406.8 (B)(I))
5. PROVIDE G.F.C.I. PROTECTION TO ALL 120 VOLT, 15 AND 20 AMP RECEPTACLES INSTALLED OUTDOORS, IN BATHROOMS, IN BASEMENT, AT COUNTER TOP SURFACE, AND GARAGES. EXCEPTION: SINGLE OUTLET RECEPTACLES IN GARAGES UTILIZED FOR A FIXED OR STATIONARY APPLIANCE. (CEC 21 0-8(A))
6. PROVIDE A.F.C.L. PROTECTION FOR CIRCUITS. PROTECTED BY AN ARC-FAULT CIRCUIT INTERRUPTER LISTED TO PROVIDE PROTECTION OF THE ENTIRE BRANCH CIRCUIT. (CEC SEC 210.12)
7. CONDUIT PIPING LOCATED WITHIN PLANTING AREAS SHALL BE PLACED A MINIMUM OF 18" BELOW FINISH GRADES.
8. PROVIDE LEAST ONE RECEPTACLE IN GARAGE OR BASEMENT ADDITION TO ANY RECEPTACLE PROVIDED FOR STATIONARY APPLIANCES. (CEC 210-52(G)), SEE PLANS FOR ADDITIONAL LOCATIONS.
9. PROVIDE RECEPTACLE IN HALL WAYS OVER 10 FEET IN LENGTH. CEC210.52.5.H, SEE PLANS FOR ADDITIONAL LOCATIONS.
10. PROVIDE AT LEAST ONE GFOI PROTECTED RECEPTACLE OUTLET IN BATHROOM WITHIN 36 INCHES OF THE OUTSIDE EDGE OF EACH BASIN COMPLYING WITH THE FOLLOWING CODE MINIMUMS .THE OUTLET SHALL BE LOCATED ON A WALL THAT IS ADJACENT TO THE BASIN LOCATION. (CEC ARTICLE 210.52(D))
11. PROVIDE REQUIRED WORK LIGHT, SWITCH, AND RECEPTACLE OUTLET IN ATTICS WHEN APPLIANCES ARE LOCATED IN THE ATTIC SPACES. HERE NM CABLE (ROMEX) IS RUN ACROSS THE TOP OF CEILING JOISTS AND/OR WHERE THE ATTIC IS NOT ACCESSIBLE BY PERMANENT STAIRS OR LADDERS, PROTECTION WITHIN 6" OF THE NEAREST EDGE OF THE SCUTTLE HOLE OR ATTIC ENTRANCE SHALL BE PROVIDED. (E.C. 320-14).
12. PROVIDE A MINIMUM OF (1) 20-AMP CIRCUIT FOR BATHROOM(S) OUTLET. THIS CIRCUIT SHALL HAVE NO OTHER OUTLETS. IT MAY SERVE MORE THAN ONE BATH ROOM" CEC 210.11,0.3
13. HEIGHTS: INSTALL RECEPTACLES AT 1'-0" TO CENTER ABOVE FINISH FLOOR UNLESS OTHERWISE NOTED. INSTALL LIGHT SWITCHES AT 3'-8" TO CENTER ABOVE FINISH FLOOR UNLESS OTHERWISE NOTED.
14. PROVIDE A MEANS OF DISCONNECT (E.G. TOGGLE SWITCH) ADJACENT TO AND IN SIGHT FROM THE EQUIPMENT SERVED. (CMC SEC 309)
15. NEW HVAC INSTALLATIONS REQUIRE 13 SEER RATING MINIMUM PER 2005 BUILDING ENERGY STANDARDS.(CEES), SEE T-24 SHEET FOR DEMAND
16. PROVIDE A MINIMUM OF(1) 20-AMP LAUNDRY BRANCH CIRCUIT. THIS CIRCUIT SHALL HAVE NO OTHER OUTLETS" CEC 210.11.0.2
17. WORKING SPACE AT THE FRONT OF ELECTRICAL EQUIPMENT SHALL HAVE: A MINIMUM DEPTH OF 36 INCHES, WIDTH OF 30 INCHES, AND HEIGHT OF 6 FEET 6 INCHES. (CEC ARTICLE 110.26 ITEMS 1,2, AND 3) DO NOT INSTALL ELECTRICAL PANELS LARGER THAN 100 SQ. IN. IN FIRE WALLS
18. OUTLET BOXES ON OPPOSITE SIDES OF RATED WALLS 2. (WALL SEPARATING GARAGE FROM DWELLING) SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF 24 INCHES.

D. SECTION 16-D ELECTRICAL SMOKE ALARMS

1. SMOKE ALARMS SHALL SOUND AN ALARM AUDIBLE IN ALL SLEEPING AREAS. (SEC 3 10.9.1.4). PROVIDE SMOKE DETECTORS IN EACH HALLWAY LEADING TO SLEEPING ROOMS, IN EACH SLEEPING ROOM OF NEW AND EXISTING CONSTRUCTION, ON TOP OF STAIRWAY, AND IN EACH STORY AND IN THE BASEMENT. DETECTORS SHALL BE INTERCONNECTED TO SOUND AT THE SAME TIME. CBC907.1.10.3. FOR EXISTING BUILDINGS SMOKE ALARMS MAY BE BATTERY OPERATED AND SHALL BE INSTALLED IN LOCATIONS AS SPECIFIED ABOVE. (SEC 310.9.1.2 & 310.9.1). IN NEW CONSTRUCTION, SMOKE DETECTORS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING AND BE EQUIPPED WITH A BATTERY BACK-UP. (907.2.10.2)

E. SECTION 16-E ELECTRICAL WIRING (CODE SECTION OF CHAPTER 3)

1. SUBDIVISION (B) OF SECTION 310.2 OF ARTICLE 310 OF CHAPTER 3 OF THE CALIFORNIA ELECTRICAL CODE IS HEREBY AMENDED TO ADD A SECOND AND THIRD PARAGRAPH SHALL BE AS FOLLOWS: COPPER WIRE SHALL BE THE MATERIAL USED WHEN PLANS OR INSTALLATIONS REQUIRE NO. 6 OR SMALLER WIRING. ALUMINUM WIRE MAY ONLY BE PERMITTED ON AN INDIVIDUAL CASE-BY-CASE BASIS BY THE BUILDING OFFICIAL. ANY SUCH APPROVAL SHALL BE BASED UPON FINDINGS SHOWING THAT ALL OF THE FOLLOWING CONDITIONS EXIST:
   A. WIRE SIZE SHALL NOT BE LESS THAN NO. 6
   B. CONTINUOUS INSPECTION OF EACH CONNECTION BY A QUALIFIED INSPECTOR APPROVED BY THE BUILDING OFFICIAL IN ADVANCE.
   C. INSTALLATION OF ANTIOXIDE COMPOUND/MATERIAL AT EACH CONNECTION.
   D. USE OF ELECTRICAL EQUIPMENT LISTED FOR ALUMINUM WIRING.
   E. THE INSTALLER SHALL NOTIFY THE BUILDING OWNER IN WRITING THAT ALUMINUM WIRING WAS USED. THE NOTIFICATION SHALL SPECIFY EXACT LOCATIONS OF WIRE AND ITS PURPOSES. CERTIFICATE OF OCCUPANCY WILL NOT BE ISSUED UNTIL A COPY OF THE NOTIFICATION LETTER IS SUBMITTED TO THE BUILDING OFFICIAL FOR A REVIEW AND APPROVAL.
2. TABLE NO. 310.5 OF 3 OF SECTION 310.5 OF ARTICLE 310 OF CHAPTER THE CALIFORNIA ELECTRICAL CODE IS HEREBY AMENDED BY ADDING A NOTE AS FOLLOWS: *NOTE. USE OF ALUMINUM CONDUCTORS REQUIRES PRIOR APPROVAL FROM BUILDING OFFICIAL. SEE SECTION 3 10.2(B) CONDUCTOR MATERIAL.

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Contractor shall exercise the responsibility with architect in securing latest approved drwgs. prior to actually executing work

REVISIONS NO.
REVISED 5-9-20

JOHN A. SALAT ARCHITECTS
22386 Woodgrove Road, Lake Forest, CA 92630
PH 949-235-4847 email: freeingwinds@earthlink.net
zenarchitect.com

architect

KHUU RESIDENCE
NEW RESIDENCE WITH ADU
GENERAL SPEC NOTES

OWNER/SITE ADDRESS:
CONTACT: Henry Khuu
12322 Lampson Avenue
Garden Grove, CA 92840
(714) 722-8067 Email : HenryKhuu@gmail.com

JOHN A. SALAT
NO. C-24445
EXP 10-29-21

DRAWN
JS
CHECKED
JS
DATE
SEE REVISION BOX ABOVE FOR DATE
SCALE
AS NOTED ON PLANS
JOB NO.
SHEET
GN-1
1 OF (SEE INDEX) SHEETS

AUXILIARY DWELLING UNIT (ADU) STATE/CITY CONDITIONS

CITY OF GARDEN GROVE
COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT
11222 ACACIA PARKWAY
GARDEN GROVE, CA 92840
PLANNING DIVISION (714) 741-5312 | BUILDING DIVISION (714) 741-5307
www.ci.garden-grove.ca.us

PLANS ARE SUBJECT TO THE FOLLOWING REQUIREMENTS:

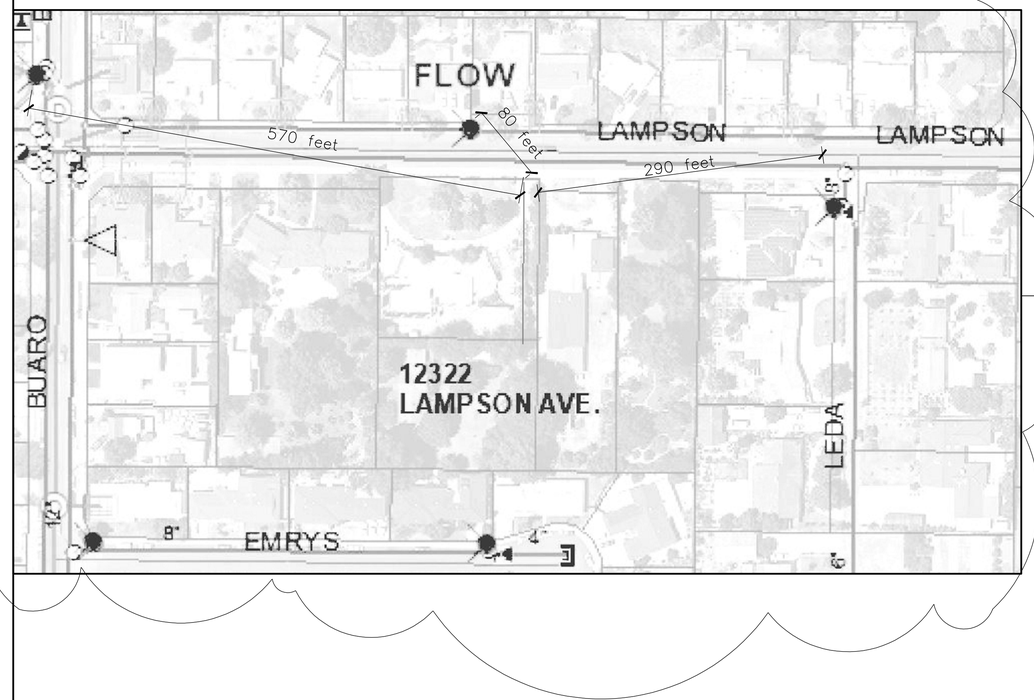
☑ All ADUs shall comply with California Government Code § 65852.2	☐ All JADUs shall comply with California Government Code § 65852.22 N/A

ADU NOTES

The property owner shall comply with all provisions of Section 9.08.020.050 of Title 9 of the Garden Grove Municipal Code for Accessory Dwelling Units, including:

- There ***shall be no*** short-term rental of either the primary residence, ADU, and/or JADU.
- The ADU and/or JADU ***shall*** be served by the same water, sewer, and other utility connections serving the primary unit, and no separate utility meters will be permitted.
- There ***shall be no*** separate address for JADUs.
- The ADU and/or JADU ***shall not*** require fire sprinklers unless fire sprinklers are required for the primary residence.

1 EXISTING FIRE HYDRANT LOCATOR DIAGRAM FOR OCFA REFERENCE



CONDITIONS OF APPROVAL

GARDEN GROVE

CITY OF GARDEN GROVE

August 23, 2019

John A. Salat
22386 Woodgrove Road
Lake Forest, CA 92630

SUBJECT: APPROVAL OF DIRECTOR'S REVIEW NO. DR-041-2019 FOR PROPERTY LOCATED AT 12322 LAMPSON AVENUE, ASSESSOR'S PARCEL NO: 231-441-20

Dear Mr. Salat,

The purpose of this letter is to inform you that your request has been approved to allow the construction of a fifth full bathroom and a one-half bathroom in a single-family home addition with five (5) bedrooms, and five and one-half (5 ½) bathrooms (including the approved fifth and one-half bathroom). By allowing the construction of five and one-half (5 ½) bathrooms, the maximum number of bathrooms per number of bedrooms exceeds the code requirement of a maximum of four (4) bathrooms.

The property is a 24,958 square foot lot, located on the south side of Lampson Avenue, east of Buaro Street. The property has a General Plan Land Use Designation of Low Density Residential, and is zoned R-1-7 (Single-Family Residential). The property is located in an area that is improved with single-family residences. The subject property has access via a 15'-0" wide easement across 12312 Lampson Avenue, the property directly to the north.

A Director's Review is required in order to construct additional bathrooms beyond the code requirements of four (4) bathrooms. The Community and Economic Development Department has determined that the request is a minor deviation, and will comply with the City of Garden Grove Municipal Code 9.08, Single-Family Residential Development Standards of the R-1 zone.

PROJECT DESCRIPTION

The property is currently improved with a 1,217 square foot single-family residence, a detached garage, and detached accessory structures. The applicant is proposing to re-use the existing residence, and incorporate the structure into a two-story, 6,345 square foot, single-family dwelling. The expanded dwelling will consist of: a foyer/entry-hall, recreation room, living room, library, kitchen, laundry, one (1) bedroom, one (1) full bathroom, and a one-half (1/2) bathroom on the first floor, and four (4) bedrooms, and

four (4) bathrooms on the second floor. The applicant also proposes a detached three-car garage, and an Accessory Dwelling Unit (ADU).

Based on the number of bedrooms per dwelling unit, 5 bedrooms in the primary unit, the City's Municipal Code allows a maximum of four (4) bathrooms, with at least 50% of the bathrooms servicing public areas. The applicant is requesting a fifth full bathroom and a one-half bathroom that are conditionally approved as a full bathroom, and one-half bathroom respectively. The one-half bathroom will service the public and communal areas of the first floor. The full bathroom will service the second floor.

CONDITIONS OF APPROVAL

The approval decision is based on the fact that the project complies with the General Plan and development standards for a single-family dwelling located in the R-1 (Single-Family Residential) zone, which include setbacks, parking, and landscaping pursuant to Title 9 of the Municipal Code. Also, the project will not adversely affect the health, peace, comfort, or welfare of the persons residing or working in the adjoining properties.

The decision to allow the fifth full bathroom and a one-half bathroom is subject to the following conditions of approval:

Water Division

1. New water service installations 2" and smaller, shall be installed by the City of Garden Grove at owner's/developer's expense. Installation shall be scheduled upon payment of applicable fees, unless otherwise noted. Fire services and larger water services 3" and larger, shall be installed by developer's/owner's contractor per City Standards.
2. Water meters shall be located within the City right-of-way, on Lampson Avenue. Fire services and large water services 3" and larger, shall be installed by contractor with Class A or C-34 license, per City water standards and inspected by approved Public Works inspection.
3. All new water connections shall be taken off the 6" AC water main on the north side of Lampson St.
4. If a separate irrigation meter is proposed, landscape system shall have a Reduced Pressure Principle Device (RPPD) device for backflow prevention. Installation shall be per City Standards and shall be tested by a certified backflow device tester immediately after installation. Cross-connection inspector shall be notified for inspection after the installation is completed. Owner shall have RPPD device tested once a year thereafter by a certified backflow device tester and the test results to be submitted to Public Works, Water Services Division. Property owner must open a water account upon installation of RPPD device.
5. It shall be the responsibility of owner/developer to abandon any existing private water well(s) per Orange County Health Department requirements.

Abandonment(s) shall be inspected by Orange County Health Department inspector after permits have been obtained.

6. A composite utility site plan shall be part of the water plan approval.
7. If required, fire service shall have above-ground backflow device with a double check valve assembly. Device shall be tested immediately after installation and once a year thereafter by a certified backflow device tester and the results to be submitted to Public Works, Water Services Division. Device shall be on private property and is the responsibility of the property owner. The above-ground assembly shall be screened from public view as required by the Planning Services Division.
8. Water meters and boxes shall be installed by City forces upon payment of applicable fees and after new water system (including water services) pass all bacteriological and pressure tests.
9. Location and number of fire hydrants shall be as required by Water Services Division and the Fire Department.

Sewer Division

10. Owner shall install new sewer lateral with clean out at right-of-way line. Lateral in public right-of-way shall be 4" min. dia., extra strength VCP with wedgelock joints.
11. Contractor shall abandon any existing unused sewer lateral(s) at street right-of-way on the property owner's side. The sewer pipe shall be capped with an expansion sewer plug and encased in concrete. Only one sewer connection per lot is allowed.

Building and Safety Division

12. The applicant shall prepare a soils/geotechnical report for this project that includes an evaluation of the effects of liquefaction and recommended mitigation measures.
13. The subject property is located in Flood Zone "A," a FEMA-designated 100-year flood zone. Given the extent of the proposed construction on the property, the proposed development will constitute a substantial improvement. As with any substantial improvement in the flood zone, the applicant shall comply with the Flood Area Development Requirements required by the Building and Safety Division.

Fire Department

14. The applicant shall install automatic fire sprinklers in both the primary unit and the accessory dwelling unit (ADU) per the California Fire Code.

Community and Economic Development Department

15. The applicant shall comply with all City regulations pertaining to the single-family (R-1) zone.
16. The single-family home shall not exceed a total of five (5) full bathrooms, and a one-half bathroom. At least 50% of the bathrooms provided within the home shall be accessed solely from a public area such as a hallway, living room, family room, or a laundry room, and not directly from a sleeping room. As shown on the submitted floor plan, there shall be: two and a half (2 ½) public bathrooms, and three (3) private bathrooms.
17. To comply with Municipal Code Section 9.08.040.030.C.1, for second floor privacy provisions, visual intrusion mitigation measures shall be provided to the fullest extent possible, such as the use of: high windows, wing walls, view obstructing window treatments, and window alignments.

This action can be appealed during a seven (7) day appeal period. Therefore, this decision will not become final until August 23, 2019. If you have any questions, please contact Priit Kaskla, Assistant Planner, at priitk@ggcity.org or (714) 741-5303.

Sincerely,

Lisa Kim
Community and Economic Development Director

By: Priit Kaskla
Assistant Planner

CALGREEN - RESIDENTIAL MINIMUM REQUIREMENTS

Scope

1. 2019 California Green Building Standards Code (CG) is applicable to all new residential buildings, including but not limited to, dwellings, apartment houses, condominiums, hotels, and other types of dwellings containing sleeping accommodations with or without common toilets or cooking facilities regulated by the Department of Housing and Community Development (HCD-1). (NBMC 15.11.010, CG Section 101.3.1).
2. 2019 California Green Building Standards Code (CG) is applicable 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. (301.1.1)

Energy Efficiency

3. New one and two family dwellings and townhouses with attached private garages shall install a listed nominal 1 inch inside diameter raceway to accommodate a dedicated 208/240 volt branch circuit. (4.106.4.1)
   a. The raceway shall originate at the main service or subpanel and terminate into a listed cabinet, box, or enclosure in close proximity to the proposed location of an EV charger.
   b. The service panel or subpanel shall provide capacity to install a minimum 40 ampere dedicated branch circuit and space reserved for installation of a branch circuit overcurrent protective device.
   c. The service panel or subpanel circuit directory shall identify the overcurrent protective devices space reserved for future EV charging as "EV CAPABLE."
   d. The raceway termination location shall be permanently and visibly marked as "EV CAPABLE."

Material Conservation and Resources Efficiency

4. 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 other similar method. (4.406.1)
5. Utilize one of the city's approved franchise hauler to recycle and/or salvage a minimum of 65% of the nonhazardous construction and demolition waste. (4.408.1, 4.408.3)

Water Efficiency and Conservation

6. New residential developments with an aggregate landscape area equal to or greater than 500 square feet shall comply with City's water efficient landscape ordinance. (4.304.1, NBMC 14.17)
7. Plumbing fixtures and fittings shall comply with the following (4.303.1):

FIXTURE TYPE	MAXIMUM FLOW RATE
Single Showerheads	1.8 gpm @ 80 psi
Multiple Showerheads	Combine flow rate of 2.0 gpm @80 psi
Residential Lavatory Faucets	1.2 gpm @ 60 psi[2] maximum
Common and Public use Lavatory Faucets	0.5 gpm @60 psi
Kitchen Faucets	1.8 gpm @ 60 psi
Metering Faucets	0.25 gallons per cycle maximum
Water Closets	1.28 gallons/flush[1]
Wall Mounted Urinal	0.125 gallons/flush
All Other Types of Urinal	0.5 gallons/flush

1. Includes single and dual flush water closets with an effective flush rate of 1.28 gallons or less when tested per ASME A122.19.233.2 for single flush and ASME A112.19.14 for dual flush toilets.
2. Lavatory faucets shall not have a flow rate less than 0.8 gpm at 20 psi.

Environmental Quality

8. Moisture content of building materials used in wall and floor framing is checked before enclosure according to one of the following (4.505.3):
   a. 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.
   b. 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 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.
9. Aerosol paints and coatings shall meet the Product-weighted MIR Limits for ROC in Section 94522(a)(2) and other toxic requirements in Sections 94522(e)(1) and (f)(1) of the California Code of Regulations, Title 17, commencing with Section 94520. (4.504.2.3)
10. Carpet and carpet systems shall be compliant with of the following (4.504.3):
    a. Carpet and Rug Institute's Green Label Plus Program.
    b. California Department of Public Health Specification 01350.
    c. NSF/ANSI 140 at the Gold level.
    d. Scientific Certifications Systems Indoor Advantage™ Gold
11. Minimum 80% of floor area receiving resilient flooring shall comply with one of the following (4.504.4):
    a. VOC emission limits defined in the Collaborative for High Performance Schools (CHPS) High Performance Product Database.
    b. Products certified under UL GREENGUARD Gold.
    c. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program.
    d. California Department of Public Health Specification 01350.
12. Adhesives, sealants and caulks shall be compliant with volatile organic compound (VOC) limits set forth in Table 4.504.1 or Table 4.504.2. (4.504.2.1)

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 adhesive	100
Rubber floor adhesives	60
Subfloor adhesives	50
Ceramic tile adhesives	65
VCT and asphalt tile adhesives	50
Drywall and panel adhesives	50
Cove base adhesives	50
Multipurpose construction adhesives	70
Structural glazing adhesives	100
Single-ply roof membrane adhesives	250
Other adhesives not specifically 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 and 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 VOC content specified in table, see South Coast Air Quality Management District Rule 1168.

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 Nonporous Porous	 250 775
Modified bituminous	500
Marine deck	760
Other	750

13. Paints, stains, and other coatings shall be compliant with VOC and other toxic compound limits set forth in Table 4.504.3. (4.504.2.2)

VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS[2,3] (Grams of VOC per Liter of Coating, Less Water and Less Exempt Compounds)	
COATING CATEGORY	**VOC LIMIT**
Flat coatings	50
Nonflat 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, and undercoaters	100
Reactive penetrating sealers	350
Recycled coatings	250
Roof coatings	50
Rust preventative coatings	250
Shellacs Clear Opaque	 730 550
Specialty primers, sealers and undercoaters	100
Stains	250
Stone consolidants	450
Swimming pool coatings	340
Traffic marking coatings	100
Tub and 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 and including 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, February 1, 2008. More information is available from the Air Resources Board.

14. Particleboard, medium density fiberboard (MDF) and hardwood plywood used in interior or exterior of the building shall comply with low formaldehyde emission standards as set forth in Table 4.504.5 below (4.504.5):

FORMALDEHYDE LIMITS[1] (Maximum formaldehyde Emissions in Parts per Million)	
PRODUCT	**LIMIT**
Hardwood plywood veneer core	0.05
Hardwood plywood composite core	0.05
Particleboard	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 California Air Resources Board, Air Toxics Control Measure for Composite Wood as tested in accordance with ASTM E 1333-96(2002). For additional information, see *California Code of Regulations*, Title 17, Sections 93120 through 93120.12
2. Thin medium density fiberboard has a maximum thickness of 5/16 inch (8 mm).

15. All duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal or other methods acceptable to the building inspector to reduce the amount of water, dust and debris, which may enter the system until final startup of the HVAC equipment. (4.504.1)
16. Bathroom exhaust fans shall be ENERGY STAR compliant and be ducted to terminate outside the building. Unless functioning as a component of whole house ventilation system, fans must be controlled by a humidity control capable of adjustment between a relative humidity rage of less than or equal to 50% to maximum 80%. (4.506.1)
17. Duct systems are sized, designed and equipment is selected using the following methods (4.507.2):
    a. Establish heat loss and heat gain values according to ANSI/ACCA 2 Manual J-2011 (Residential Load Calculation), ASHRAE handbooks or equivalent design methods.
    b. Size duct systems according to ANSI/ACCA 1 Manual D-2014 (Residential Duct Systems), ASHRAE handbooks or other equivalent design software or methods.
    c. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S-2014 (Residential Equipment Selection) or other equivalent design software or methods

Installer and Special Inspector Qualifications

18. HVAC system installers shall be trained and certified or work under direct supervision of trained and certified installers in the proper installation of HVAC systems. (702.1)
19. HVAC special inspectors must be qualified and able to demonstrate competence in the discipline they are inspecting. (702.2)

Documentations

20. An operation and maintenance manual, CD, web-based reference or other approved media shall be provided by the builder to the building occupant or owner at the final inspection. It shall include operation and maintenance instruction of the equipment and appliances. (4.410.1)
21. Documentation shall be provided to verify that finish materials used comply with VOC limits as set forth in Tables 4.504.1, 4.504.2, & 4.504.3. (4.504.2.4)
22. Documentation shall be provided to verify that composite wood products used comply with formaldehyde limits as set forth in Tables 4.504.5. (4.504.5.1)
23. Documentation which shows compliance with CAL Green code including construction documents, plans, specifications, builder or installer certification, and inspection reports and verification shall be available at the final inspection. (703.1)
24. CAL Green Documentation Compliance Certification form (City form) is required to be submitted to the Building Inspector prior to final building inspection. (Section 703.1)

NOTE: FOR BUILDING DEPT & GC USE AS MANY ITEMS MAY NOT APPLY TO THIS PROJECT

Contractor shall exercise the responsibility with architect in securing latest approved drwgs. prior to actually executing work

REVISIONS NO.

REVISED 5-9-20

JOHN A. SALAT ARCHITECTS
22386 Woodgrove Road, Lake Forest, CA 92630
PH 949-235-4847 email: freedrwings@earthlink.net
z e n a r c h i t e c t . c o m

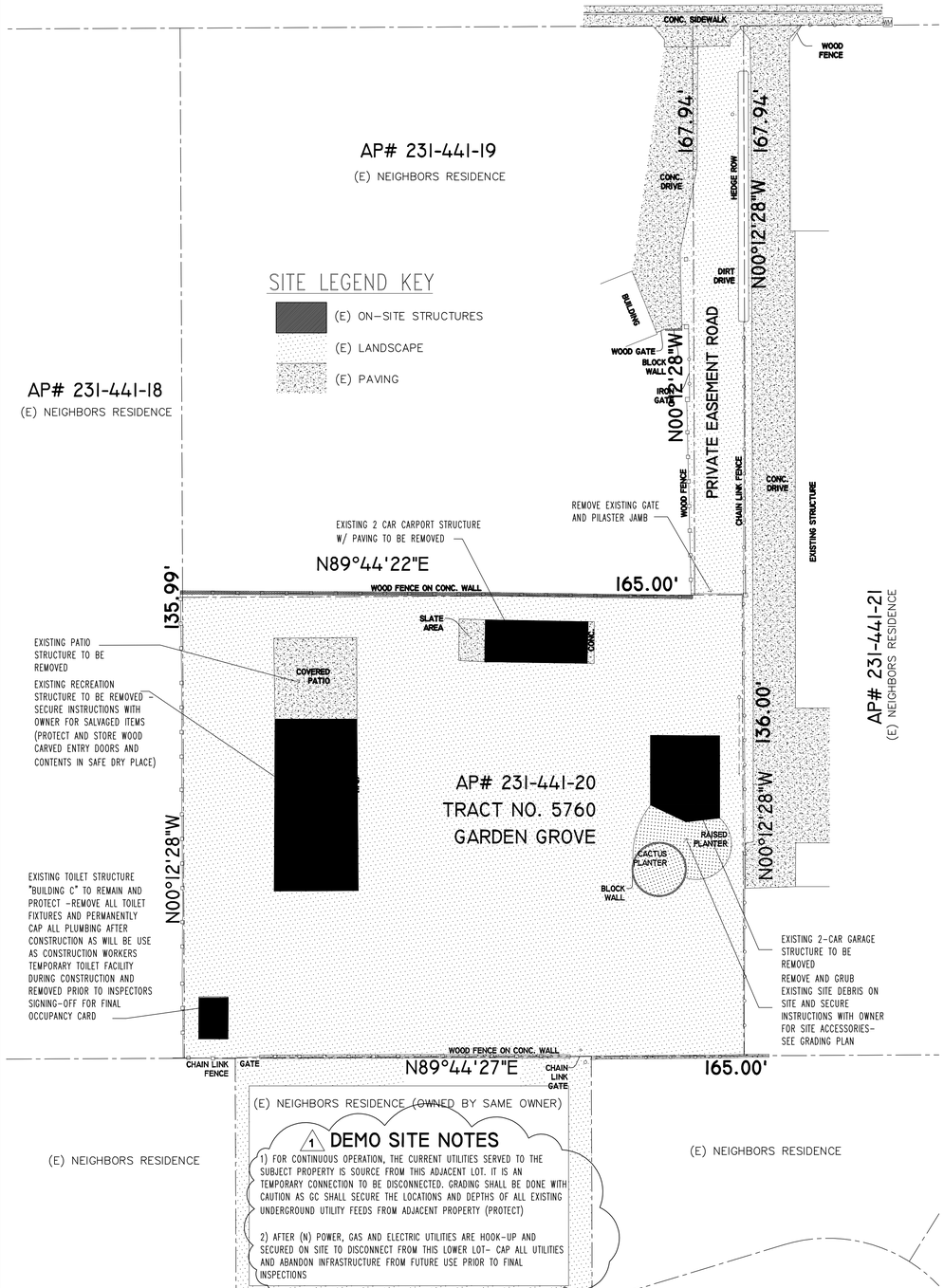
architect

KHUU RESIDENCE
NEW RESIDENCE WITH ADU

OWNER/SITE ADDRESS:
CONTACT: Henry Khuu
12322 Lampson Avenue
Garden Grove, CA 92840
(714) 722-8067 Email : HenryKhuu@gmail.com

REGISTERED PROFESSIONAL ENGINEER
JOHN A. SALAT
NO. C-24445
EXP. 10-29-21
STATE OF CALIFORNIA

DRAWN
JS
CHECKED
JS
DATE
SEE REVISION BOX ABOVE FOR DATE
SCALE
AS NOTED ON PLANS
JOB NO.
SHEET
A-1.2
1 OF (SEE INDEX) SHEETS

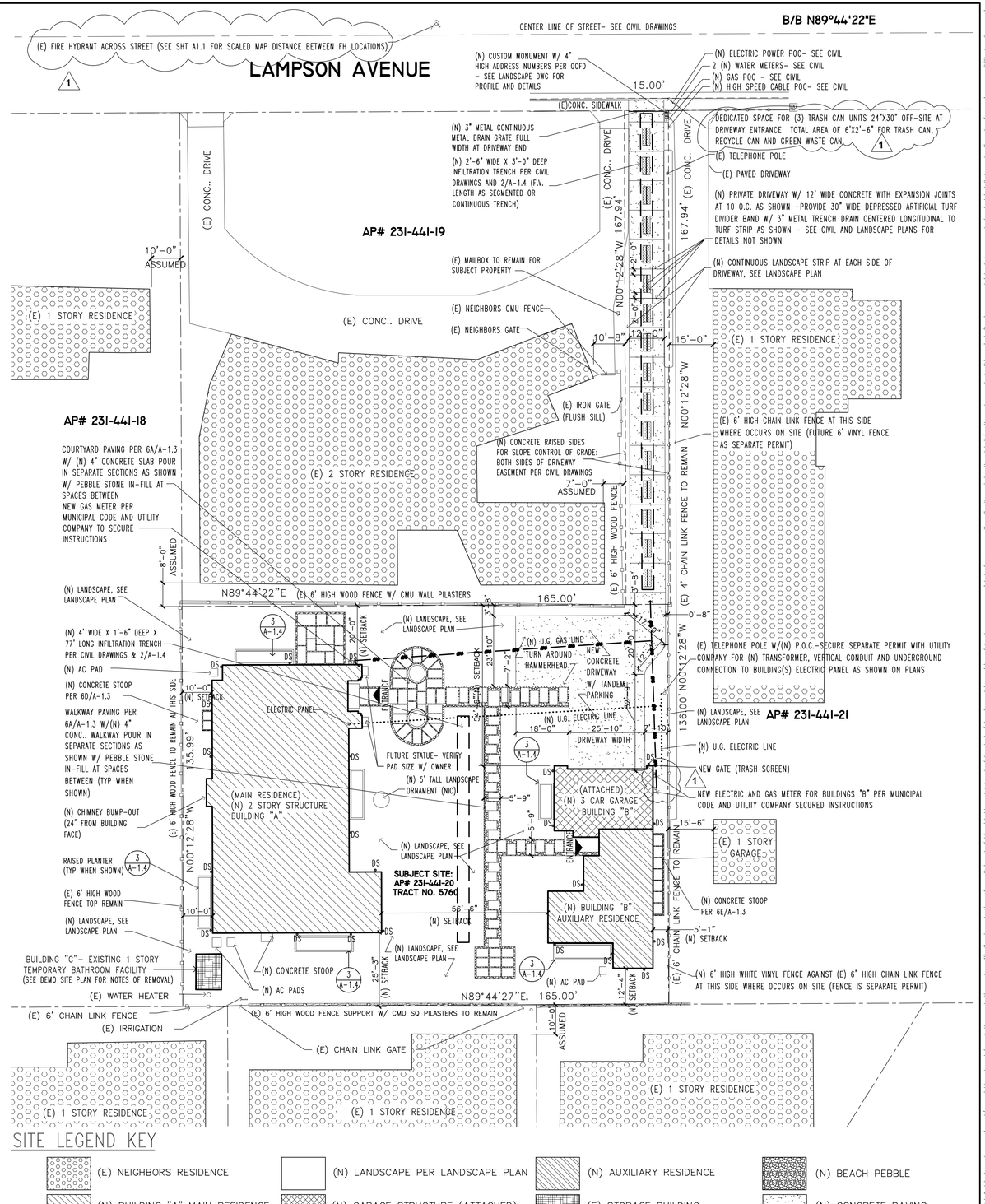


DEMOLITION SITE PLAN

SCALE: 1" = 20'

REFER TO CIVIL DRAWINGS FOR TOPO AND GRADING PLAN

TRUE NORTH



SITE LEGEND KEY

(E) NEIGHBORS RESIDENCE
(N) BUILDING "A" MAIN RESIDENCE
(N) LANDSCAPE PER LANDSCAPE PLAN
(N) GARAGE STRUCTURE (ATTACHED)
(N) AUXILIARY RESIDENCE
(E) STORAGE BUILDING
(N) BEACH PEBBLE
(N) CONCRETE PAVING

SITE NOTES

1) DEFERRED SITE SUBMITTALS SHALL BE LANDSCAPE, IRRIGATION, FENCES, AND ELECTRIC POWER: SEE COVER PAGE FOR INSTRUCTIONS TO SECURE THESE SEPARATE PERMITS
2) SEE CIVIL SHTS FOR NOTES AND PARTS NOT SHOWN INCLUDING, SLOPES, GRADES, STORM AREA DRAINS, SEWER, PAVING SPECS AND OTHER MISCELLANEOUS SITE INFRASTRUCTURE

PROPOSED SITE PLAN

NOTE: FOR SITE DATA, SEE SHT-A-1 FOR BREAKDOWN TO AREA S.F. RATIOS

SCALE: 1" = 20'

NOTE: FOR SITE UTILITIES OF WATER, SEWER, FIRE, IRRIGATION AND POWER, REFER TO SHT A1.1 "CONDITIONS OF APPROVAL" W/ CIVIL SHEETS

TRUE NORTH

Contractor shall exercise the responsibility with architect in securing latest approved drwgs. prior to actually executing work

REVISIONS NO.
1 CITY 2nd submit 8-1-20

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zenarchitect.com

architect

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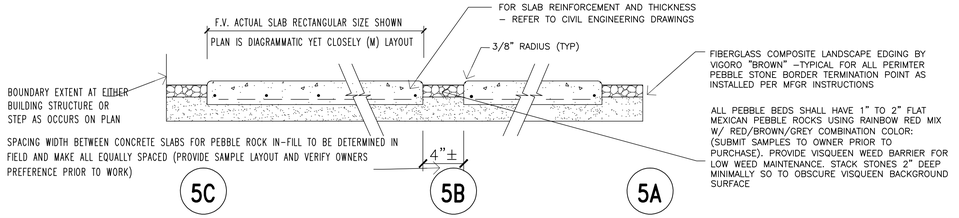
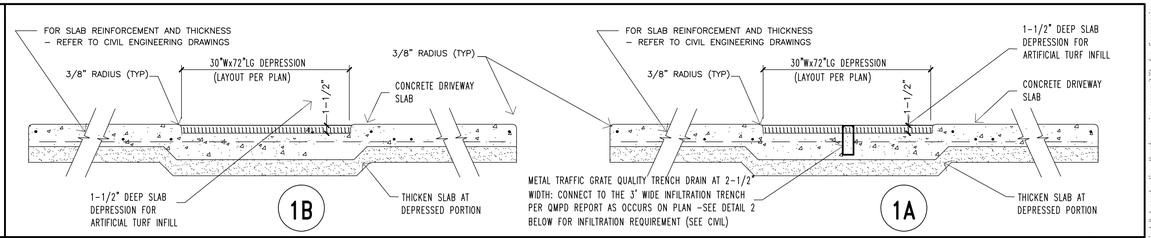
1 OF (SEE INDEX) SHEETS



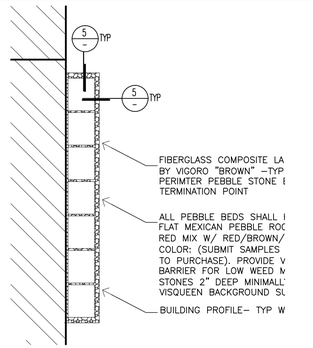
SIDEWALK DETAIL (END/MIDDLE/BORDER)

NO SCALE | 5

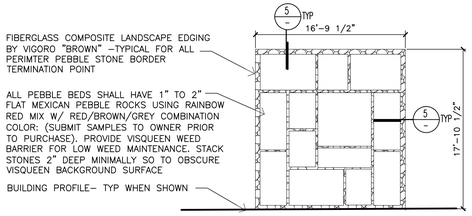


DRIVEWAY DECORATIVE DETAIL (NO TRENCH) DRIVEWAY DECORATIVE TRENCH DETAIL

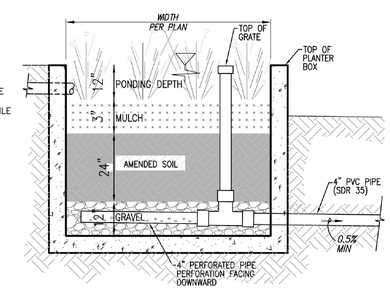
NO SCALE | 1



TYPICAL LANDING LAYOUT 6E



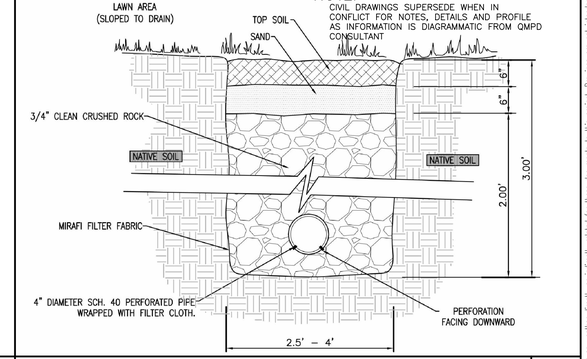
FLATWORK LAYOUT 6C



(NOTE: SEE ALSO DET. 3/A–1.3 & 4/ST–1 FOR DISCIPLINE OVERLAPS NOT SHOWN)

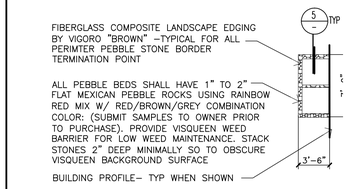
BIOFILTRATION BOX

NO SCALE | 4

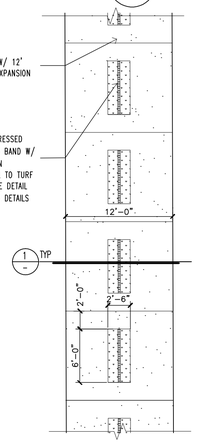


BIOFILTRATION TRENCH

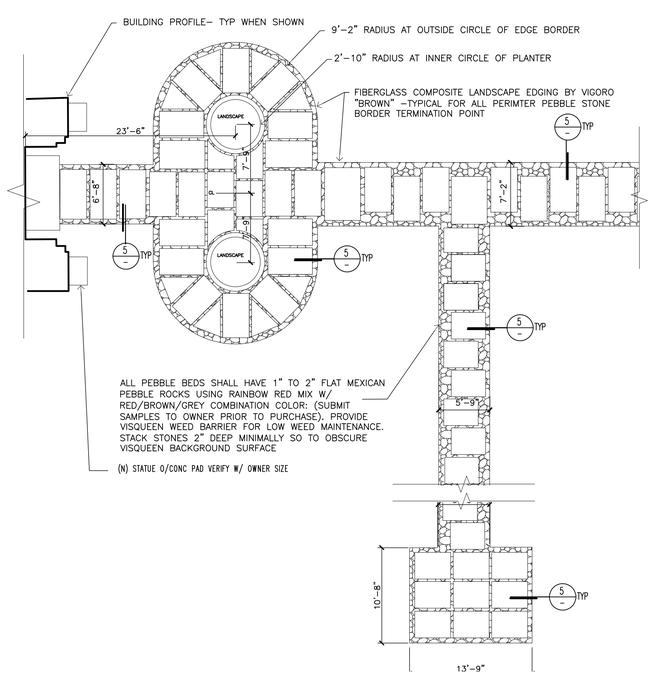
NO SCALE | 2



TYPICAL LANDING LAYOUT 6D



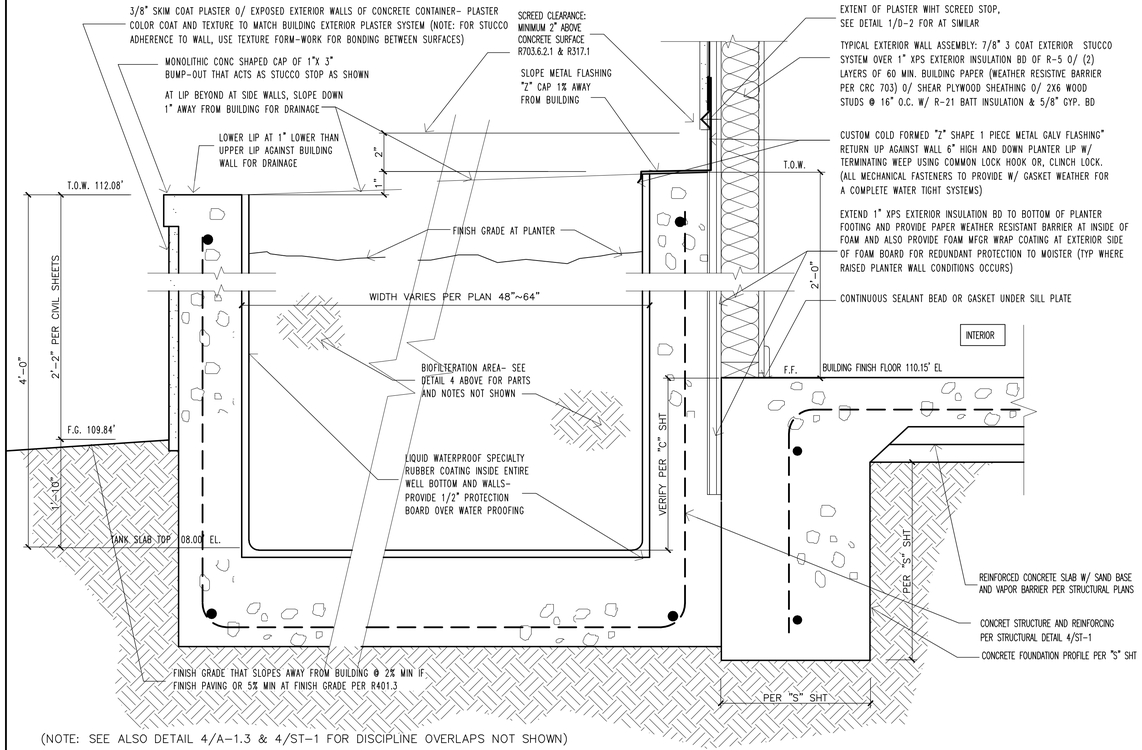
DRIVEWAY LAYOUT 6B



WALKWAY LAYOUT 6A

WALKWAY LAYOUT PATTERN (FLAT–WORK)

SCALE: 1/8" = 1'6"



(NOTE: SEE ALSO DETAIL 4/A–1.3 & 4/ST–1 FOR DISCIPLINE OVERLAPS NOT SHOWN)

RAISED PLANTER AT BUILDING (BIOFILTRATION BOX)

NO SCALE | 3

MISCELLANEOUS SITE DETAILS

NO SCALE

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REVISIONS NO.

REVISED 5-9-20

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JOB NO.
SHEET

A-1.4

1 OF (SEE INDEX) SHEETS

PRECISE GRADING PLAN

12322 LAMPSON AVENUE, GARDEN GROVE, CALIFORNIA

STANDARD GRADING GENERAL NOTES

48 HOUR ADVANCE NOTICE IS REQUIRED PRIOR TO THE START OF ANY WORK (714) 741-5887

1. ALL WORK SHALL CONFORM TO THE CITY OF GARDEN GROVE LATEST ORDINANCE NO.2835 STANDARD PLANS AND SPECIFICATIONS, THE 2019 STANDARD SPECIFICATIONS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, THE CITY OF GARDEN GROVE ORDINANCE NO. 2590 THE 2019 CALIFORNIA BUILDING CODE, CALIFORNIA GREEN BUILDINGS STANDARD CODE, AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK) 2018 EDITION.
2. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND NOTIFY THE CITY OF GARDEN GROVE WATER DEPARTMENT AND ALL OTHER UTILITY COMPANIES A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL PHASES OF CONSTRUCTION WITH THE VARIOUS UTILITY COMPANIES INVOLVED.
3. SUBMITTAL DOCUMENT REQUIREMENTS SHALL AT A MINIMUM, CONFORM TO ALL REQUIREMENTS OF SECTIONS 107 AND 110 OF THE CALIFORNIA BUILDING CODE, INCLUDING THE FOLLOWING:
   A. GRADING PLAN WITH SITE PLAN SHOWING TO SCALE THE SIZE AND LOCATION OF NEW CONSTRUCTION AND EXISTING STRUCTURES ON THE SITE AND ADJACENT TO THE SITE A MINIMUM OF THIRTY FEET (30') FROM THE PROPERTY BOUNDARY;
   B. HORIZONTAL AND VERTICAL DISTANCES AND ELEVATIONS IN RELATION TO THE PROPERTY LOT LINES AND NEAREST CITY BENCHMARKS FOR TOPOGRAPHIC CONTROL. (TEMPORARY BENCH MARKS SHALL NOT BE USED FOR TOPOGRAPHIC CONTROL);
   C. EXISTING STREET GRADES AND PROPOSED DESIGN GRADES FOR ALL PROJECT FRONTAGES AND ADJACENT ACCESS IMPROVEMENTS.
   D. ALL SITE/GRADING PLANS SHALL BE BASED UPON AN ACCURATE BOUNDARY LINE SURVEY WITH MONUMENT AND HORIZONTAL/VERTICAL CONTROL DISPOSITION SHOWN ON THE PLANS;(SECTION 107.2.5 CALIFORNIA BUILDING CODE);
   E. DEMOLITION WORK FOR IMPROVEMENTS TO BE REMOVED AND/OR PROTECTED IN PLACE;
   F. ANY PHASING OF IMPROVEMENTS AS ALLOWED BY THE CITY.
4. THE CONTRACTOR SHALL OBTAIN A SEPARATE PERMIT FOR ALL WORK WITHIN THE STREET RIGHT-OF-WAY. TEMPORARY A.C. PAVING SHALL BE PLACED WHERE SIDEWALK REMOVALS EXTEND LONGER THAN (24) TWENTY-FOUR HOURS AS DIRECTED BY THE CITY INSPECTOR.
5. DUST SHALL BE CONTROLLED BY WATERING AND IF FULL CONFORMANCE WITH THE REQUIREMENTS OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT GUIDELINES.
6. SANITARY FACILITIES SHALL BE MAINTAINED ON SITE. FACILITIES SHALL BE LOCATED SUCH THAT SPILLS SHALL BE CONTAINED AND AT NO TIME ENTER A PUBLIC OR PRIVATE STORM DRAIN.
7. PRIOR TO THE POURING OF ANY FOUNDATION MATERIALS, THE PAD ELEVATION AND THE BUILDING CORNERS MUST BE VERIFIED IN WRITING TO THE BUILDING SECTION BY THE REGISTERED CIVIL ENGINEER OR THE LICENSED LAND SURVEYOR IN CONFORMANCE WITH SECTION 1612 OF THE CALIFORNIA BUILDING CODE.
8. NO FILL SHALL BE PLACED UNTIL THE BUILDING OFFICIAL AND THE SOILS ENGINEER APPROVE PREPARATION OF GROUND.
9. FILLS SHALL BE COMPACTED THROUGHOUT TO 90% DENSITY AS DETERMINED BY A.S.T.M. D1557, A.S.T.M. D1556 (SAND CONE), AND/OR A.S.T.M. D2922, (NUCLEAR). SAND CONE METHOD MUST REPRESENT NO MORE THAN 20% OF TESTING. DRIVE TUBE TESTING IS NOT PERMITTED.
10. FILL SLOPES SHALL BE NO STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL AND SHALL HAVE NOT LESS THAN 90% COMPACTION OUT TO THE FINISH SURFACE.
11. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE UTILITIES OF EVERY NATURE WHETHER SHOWN HEREON OR NOT AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR TOTAL COST OF REPAIR OR REPLACEMENT OF SAID UTILITIES DAMAGED BY OPERATIONS.
12. IN ACCORDANCE WITH SPECIFICATIONS AND CODES REFERENCED IN PARAGRAPH 1; CONSTRUCTION DOCUMENTS AND A SCHEDULE FOR DEMOLITION SHALL BE SUBMITTED WHERE REQUIRED BY THE CITY ENGINEERING DIVISION AND OR BUILDING SERVICES DIVISION. WHERE SUCH INFORMATION IS REQUIRED, NO WORK SHALL BE DONE UNTIL SUCH CONSTRUCTION DOCUMENTS OR SCHEDULE, OR BOTH, ARE APPROVED.
13. THE CONTRACTOR SHALL MAKE PROVISIONS TO HAVE ALL EXISTING ON-SITE SEWER, WATER, GAS, ELECTRIC, IRRIGATION OR TELEPHONE LINES REMOVED, ABANDONED, OR RELOCATED IF THEY ARE INTERFERING WITH THE PROPOSED CONSTRUCTION.
14. THE CONTRACTOR SHALL REMOVE, CAP, AND ABANDON ALL EXISTING ON-SITE WATER WELLS, CESSPOOLS, OR SEPTIC TANKS ENCOUNTERED DURING GRADING IN ACCORDANCE WITH THE LATEST EDITION OF THE UNIFORM PLUMBING CODE, THE DEPARTMENT OF HEALTH AND THE CITY MUNICIPAL CODE.
15. ANY BROKEN OR DAMAGED IMPROVEMENTS ON ADJACENT PRIVATE PROPERTY OR PUBLIC RIGHT_ OF_ WAY SHALL BE REPLACED OR REPAIRED IN KIND AS DIRECTED BY THE CITY ENGINEER.
16. TEMPORARY TRAFFIC CONTROL AND PEDESTRIAN ACCESS AND PROTECTION DURING CONSTRUCTION SHALL CONFORM TO THE DEPARTMENT OF PUBLIC WORKS AND DEVELOPMENT'S LATEST "PUBLIC CONVENIENCE AND TRAFFIC CONTROL SPECIFICATION" SHEET, AND THE "WATCH MANUAL" AS PUBLISHED BY THE APWA, CHAPTER 33 OF THE CALIFORNIA BUILDING CODE AND THE REQUIREMENTS OF THE CITY ENGINEER.
17. ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED, RELOCATED, OR REMOVED TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER.
18. THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER PRIOR TO THE REMOVAL, PARTIAL REMOVAL OR TRIMMING OF TREES OVERHANGING OR LYING PARTIALLY OR FULLY WITHIN EXISTING RIGHT-OF-WAY.
19. THE SOILS REPORT PREPARED BY PETER & ASSOCIATES, INC. , DATED JULY 8, 2019 , AND ALL RECOMMENDATIONS CONTAINED THEREIN, SHALL BE MADE A PART OF THESE PLANS. SOILS REPORTS AND TESTING SHALL BE DONE BY A CIVIL OR GEOTECHNICAL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA.
20. PRIOR TO THE IMPORTATION OF ANY SOIL MATERIAL TO THIS SITE, AN INVESTIGATION SHALL BE MADE AND A REPORT FILED WITH THE BUILDING OFFICIAL. USE OF THE SOIL WILL NOT BE PERMITTED IF IT IS DETERMINED BY THE TEST RESULTS THAT THE EXPANSION INDEX IS IN EXCESS OF TWENTY (20). AN "R" VALUE TEST SHALL ALSO BE PERFORMED ON IMPORT SOIL AND RESULTS SUBMITTED TO THE GRADING ENGINEER. IMPORT SOIL SHALL BE CLEAN AND FREE OF ANY DEBRIS. FAILURE TO CONFORM TO THESE REQUIREMENTS SHALL BE CAUSE FOR REMOVAL AND REPLACEMENT OF SAID SOIL.
21. STATEMENT OF QUANTITIES – INCLUDING ALL REMEDIAL GRADING AS RECOMMENDED IN THE SOILS REPORT;
    - ❑CUT ____1414____ CUBIC YARDS (GROSS)
    - ❑FILL ____2078____ CUBIC YARDS (GROSS)
22. ALL EARTHWORK AND OTHER QUANTITIES ARE ESTIMATED FOR BONDING AND PLAN CHECK FEE PURPOSES ONLY -- NOT FOR BIDDING PURPOSES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE ACCURACY OF THE ESTIMATE.
23. WATER METER AND SERVICE TO BE INSTALLED BY CITY FORCES UPON PAYMENT OF APPLICABLE FEES.

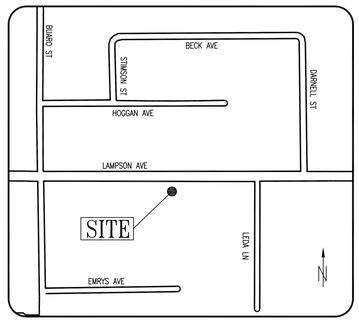
BASE FLOOD ELEVATION NOTE:

BEFORE FOUNDATION IS POIURED AND BEFORE A FOUNDATION INSPECTION IS REQUESTED, AN ELEVATION CERTIFICATE SHALL BE PROVIDED TO THE GARDEN GROVE BUILDING INSPECTOR, VERIFYING THE FINISH FLOOR OF THE PROPOSED STRUCTURE IS 1 FOOT ABOVE THE BASE FLOOD ELEVATION (BFE). ELEVATION CERTIFICATES SHALL BE PROVIDED FOR THE LOWEST FLOOR (INCLUDING BASEMENTS) OF EACH BUILDING FOUNDATION AS REQUIRED IN SECTION 1612.5 OF THE CALIFORNIA BUILDING CODE.

PRIOR TO FINAL OF THE STRUCTURE, THE ELEVATION OF THE LOWEST FLOOR SHALL BE CERTIFIED BY A REGISTERED ENGINEER OR SURVEYOR, AND VERIFIED BY THE CITY OF GARDEN GROVE BUILDING INSPECTOR TO BE PROPERLY ELEVATED. THE CERTIFICATE SHALL BE PROVIDED TO THE FLOODPLAIN ADMINISTRATOR FOR PLACEMENT IN PROJECT FILES OF THE CITY OF GARDEN GROVE.

LEGEND

BOB	BOTTOM OF BRICK	G	GRATE
EOB	EDGE OF BRICK	HP	HIGH POINT
BQ	BARBECUE	HS	HORSE SHOE PIT
BW	BOTTOM WALL OR BACK SIDEWALK	INV	INVERT
	BRICK	LN	LINE (BUILDING)
	ROCK WALL	LSA	NATURAL GROUND/LANDSCAPE
	BUILDING LINE	MIN.	MINIMUM
	CONCRETE	PA	PLANTER AREA
CHLK	CHAIN LINK FENCE	PCL	PARCEL
	DRAIN	PLSTR	PILASTER
DS	DOWNSPOUT	S.B.	SET BACK
DR	DRIVEWAY	SL	STREET LIGHT
E	ELECTRICAL BOX	TC	TOP OF CURB
(XX.XX)	EXISTING SPOT ELEVATION	TCX	CURB WING
FF	FINISH FLOOR		TILE
FG	FINISH GRADE	TOS	TOP OF STEPS
FGRT	FINISH GRATE	TS	TOP OF SLOPE
FS	FINISH SURFACE	TW	TOP OF WALL
FH	FIRE HYDRANT	TOB	TOP OF BRICK
FL	FLOW LINE		WALL-MASONRY
FNC	FENCE	WI	WATER IRRIGATION
GM	GAS METER	WM	WATER METER
PP	POWER POLE	WS	WATER SPIGOT
B/B	BASIS OF BEARING	WV	WATER VALVE
	GRASS		WOOD FENCE(WD)
GRND	GROUND		CHAIN LINK FENCE(CHLK)



VICINITY MAP
N.T.S.

UTILITY OWNERS

UTILITY	CONTACT PERSON	PHONE NO.
GARDEN GROVE SEWER DIVISION	BRENT HAYES	(714) 741-5976
GARDEN GROVE WATER DIVISION	CARINA DAN	(714) 741-5345
GARDEN GROVE TRAFFIC DIVISION	DAI VU	(714) 741-5189
SOUTHERN CALIFORNIA EDISON CO.	JODIE REYES	(714) 973-5406
THE GAS CO.	DON J. AMADOR	(714) 634-3039
AT&T	ROBERT FLEISER	(714) 237-6165
TIME WARNER COMMUNICATIONS	CURTIS VASQUEZ	(714) 719-7880
O.C SANITATION DISTRICT	RICH LEON	(714) 593-7880
VERIZON	MIKE MADRID	(714) 345-6720

LEGAL DESCRIPTION:

PER PRELIMINARY TITLE REPORT(CHICAGO TITLE COMPANY) ORDER NO. 58601600782-PS:

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF GARDEN GROVE, COUNTY OF ORANGE, STATE OF CALIFORNIA AND IS DESCRIBED AS FOLLOWS:

PARCEL 1: A.P.N. 231-441-10

LOT 4 OF TRACT NO. 5760, IN THE CITY OF GARDEN GROVE, COUNTY OF ORANGE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 208, PAGES 37 AND 38 OF MISCELLANEOUS MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

PARCEL 2: A.P.N. 231-441-20

THE SOUTHERLY 136 FEET TO THE EASTERLY 165 FEET OF THE WESTERLY 495 FEET OF THE NORTH HALF OF THE NORTHWEST QUARTER OF THE NORTHWESTER OF THE SOUTHWEST QUARTER OF SECTION 34, TOWNSHIP 4 SOUTH, RANGE 10 WEST, IN THE RANCHO LAS BOLSAS, AS SHOWN ON A MAP THEREOF RECORDED IN BOOK 51, PAGE 7 ET SEQ., MISCELLANEOUS MAPS RECORDS OF SAID ORANGE COUNTY.

PARCEL 3:

AN EASEMENT FOR INGRESS AND EGRESS OVER THE EASTERLY 15.00 FEET OF THE WESTERLY 495.99 FEET OF THE NORTH HALF OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 34, TOWNSHIP 4 SOUTH, RANGE 10 WEST, IN RANCHO LAS BOLSAS, AS SHOWN ON A MAP THEREOF RECORDED IN BOOK 51, PAGE 10, MISCELLANEOUS MAPS, RECORDS OF SAID ORANGE COUNTY.

OCSBM DESCRIPTION:

DESCRIBED BY ORANGE COUNTY SURVEY 2002 FOUND 3 3\4" OCS ALUMINUM BENCHMARK DISK STAMPED "1F-161-1992", SET IN THE SOUTHEASTERLY CORNER OF A 4 FT. BY 10 FT. CONCRETE CATCH BASIN. MONUMENT IS LOCATED IN THE NORTHEASTERLY CORNER OF THE INTERSECTION OF LAMPSON AVENUE AND HARBOR BOULEVARD, 92 FT. EASTERLY OF THE CENTERLINE OF HARBOR BOULEVARD AND 25 FT. NORTHERLY OF THE CENTERLINE OF LAMPSON AVENUE. MONUMENT IS SET LEVEL WITH THE SIDEWALK.

OCSBM 1F-161-92
ELEVATION = 111.988
YEAR LEVELED: 2010
NAVD 88/DATUM

OWNER INFORMATION

OWNER: MR. HENRY KHUU
12322 LAMPSON AVENUE
GARDEN GROVE, CA 92840
(714) 722-8067
EMAIL: HENRYKHUU@GMAIL.COM

INDEX TO DRAWINGS

BASE FLOOD ELEVATION(BFE):

ZONE A: THE CITY OF GARDEN GROVE HAS NOT DETERMINED BASE FLOOD ELEVATION (BFE).
ELEVATION AT TOP OF CURB AT STREET: 108.33
BFE = 1.0' (+) 108.33 = 109.33
FINISH FLOOR ELEVATION = 1.0' (+) 109.33 = 110.33 USE 110.50 FOR FINISH FLOOR ELEVATIONS

ESTIMATED EARTH QUANTITIES

(CONTRACTOR OF RECORD TO VERIFY EARTH QUANTITIES)

	CUT		FILL	
RAW CUT:	0	CY	RAW FILL:	476 CY
OVERX:	1,414	CY	OVERX. FILL:	1,414 CY
			SHRINKAGE(10%):	188 CY
TOTAL:	1,414	CY	TOTAL:	2,078 CY
			TOTAL(IMPORT):	664 CY(+/-)
			TOTAL(EXPORT):	0 CY

SOIL ENGINEER REVIEW

SOILS AND GEOLOGIST CERTIFICATION

THIS GRADING PLAN HAS BEEN REVIEWED BY THE UNDERSIGNED AND FOUND TO BE IN CONFORMANCE WITH THE RECOMMENDATIONS AS OUTLINED IN THE FOLLOWING GEOTECHNICAL REPORT FOR THIS PROJECT AND ALL ADDENDUM REPORTS.

REGISTERED PROFESSIONAL ENGINEER LAN N. PHAM No. 686 Exp. 3/31/21 GEOTECHNICAL STATE OF CALIFORNIA

"SOIL REPORT FOR PROPOSED NEW DETACHED ADU, ADDITION AND REMODEL TO EXISTING HOUSE, 12322 LAMPSON AVENUE, GARDEN GROVE, CA 92840"

DATED: JULY 8, 2019 *JOB NUMBER:* 19G19106

FIRM NAME: PETER AND ASSOCIATES, INC.

GEOTECHNICAL ENGINEER: LAN N. PHAM *DATE:* 11/02/20

24. PRIOR TO PLACEMENT OF PARKING LOT STRUCTURAL SECTION, DEVELOPER SHALL COMPACT SUB-GRADE TO 90% MIN. RELATIVE COMPACTION. AGGREGATE BASE SHALL BE CLASS II 3/4" COMPACTED TO 90% RELATIVE COMPACTION. THE DEVELOPER'S GEOTECHNICAL ENGINEER SHALL SUBMIT COMPACTION TESTS TO THE CITY PER ASTM D1557 (METHOD C FOR AGGREGATE BASE). ASPHALT CONCRETE SHALL BE CLASS C2 DENSE MEDIUM ASPHALT CONCRETE MIX PER TABLE 203-6.4.3(A) (THE "GREENBOOK" 2018 EDITION CONFORMING TO PAGE 70-10.)
25. THE CONTRACTOR SHALL INSTALL AND MAINTAIN A SIX (6) FOOT HIGH CHAIN LINK FENCE TO SECURE THE PROJECT PERIMETER. THE FENCE SHALL BE REMOVED UPON CONSTRUCTION OF PERMANENT PERIMETER FENCING AND/OR COMPLETION OF THE PROJECT.
26. CONCRETE FORM ELEVATIONS FOR CURB AND DRAINAGE GUTTERS ARE TO BE VERIFIED FOR PLAN GRADE BY A LICENSED SURVEYOR PRIOR TO CONCRETE POUR. ANY DEVIATIONS FROM THESE APPROVED PLANS SHALL REQUIRE APPROVAL BY THE CITY ENGINEER OR CORRECTED PRIOR TO PLACEMENT OF CONCRETE BY SUBMITTAL OF A REQUEST FOR REVISION TO THE APPROVED PLAN.
27. UPON COMPLETION OF ALL WORK, THE REGISTERED CIVIL ENGINEER OF RECORD SHALL CERTIFY IN WRITING THAT THE PROJECT IS IN COMPLIANCE WITH THE LINES, GRADES, AND ELEVATIONS ON THE APPROVED GRADING PLAN. IF THE BUILDING IS IN A FLOOD ZONE HAZARD AREA, THE CIVIL ENGINEER SHALL SUPPLY ADDITIONAL CERTIFICATIONS VERIFYING THAT THE LOWEST FINISH FLOOR ELEVATION(S) COMPLY WITH THE FEMA FLOOD HAZARD ELEVATIONS AS REQUIRED UNDER 1612A OF THE CALIFORNIA BUILDING CODE. (CERTIFICATION FORMS SHALL BE OBTAINED FROM THE CITY AND WET-SIGNED BY THE ENGINEER OF RECORD).
28. ALL CONCRETE FOR CURBS, GUTTERS, AND SIDEWALKS SHALL BE 2500 PSI AT 28 DAYS. CATCH BASINS AND TRUCK WELLS SHALL BE 3000 PSI AT 28 DAYS.
29. PROVIDE THE FOLLOWING SIGNING AND STRIPING. EACH PARKING SPACE RESERVED FOR PERSONS WITH PHYSICAL DISABILITIES SHALL BE IDENTIFIED BY A REFLECTORIZED SIGN PERMANENTLY POSTED IMMEDIATELY ADJACENT TO AND VISIBLE FROM EACH STALL OR SPACE, CONSISTING OF A PROFILE VIEW OF A WHEELCHAIR WITH OCCUPANT IN WHITE ON A DARK BLUE BACKGROUND. THE SIGN SHALL NOT BE SMALLER THAN 70 SQUARE INCHES IN AREA AND WHEN IN THE PATH OF TRAVEL, SHALL BE POSTED AT A MINIMUM HEIGHT OF 80 INCHES FROM THE BOTTOM OF THE SIGN TO THE PARKING SPACE FINISHED GRADE. SIGNS MAY ALSO BE CENTERED ON THE WALL AT THE INTERIOR END OF THE PARKING SPACE AT A MINIMUM HEIGHT OF 36 INCHES FROM THE PARKING SPACE FINISHED GRADE, GROUND OR SIDEWALK. PARKING STALL LAYOUT SHALL CONFORM TO TITLE 24 2019 CALIFORNIA BUILDING CODE, CHAPTERS 11A AND 11B, AND THE DEPARTMENT OF JUSTICE STANDARDS, LATEST EDITION.
30. AN ADDITIONAL SIGN SHALL ALSO BE POSTED, IN A CONSPICUOUS PLACE, AT EACH ENTRANCE TO OFF-STREET PARKING FACILITIES, OR IMMEDIATELY ADJACENT TO AND VISIBLE FROM EACH STALL OR SPACE. THE SIGN SHALL BE NOT LESS THAN 17 INCHES X 22 INCHES IN SIZE WITH LETTERING NOT LESS THAN 1 INCH IN HEIGHT, WHICH CLEARLY AND CONSPICUOUSLY STATES THE FOLLOWING:
31. "UNAUTHORIZED VEHICLES PARKED IN DESIGNATED HANDICAPPED SPACES NOT DISPLAYING DISTINGUISHING PLACARDS OR LICENSE PLATES ISSUED FOR PHYSICALLY DISABLED PERSONS MAY BE TOWED AWAY AT OWNER'S EXPENSE. TOWED VEHICLE MAY BE RECLAIMED BY TELEPHONING (714) 741-5704

    *VERIFY NUMBER WITH POLICE DEPARTMENT PRIOR TO FABRICATION OF SIGNS.
    IN ADDITION TO THE ABOVE-REQUIRED SIGNS, THE SURFACE OF EACH PARKING SPACE SHALL HAVE A SURFACE IDENTIFICATION OF EITHER OF THE FOLLOWING:
    - A. OUTLINE THE STALL IN BLUE AND PROVIDE A PROFILE VIEW OF A WHEELCHAIR WITH OCCUPANT IN WHITE (OR OTHER CONTRASTING COLOR).
    - B. PROVIDE A 36 INCHES X 36 INCHES PROFILE VIEW OF A WHEELCHAIR IN WHITE OR ON A BLUE BACKGROUND. SYMBOL SHALL BE LOCATED SUCH THAT IT IS VISIBLE TO A TRAFFIC ENFORCEMENT OFFICER WHEN THE VEHICLE IS PARKED.
    - C. CALL COMPACT PARKING STALLS SHALL BE INDIVIDUALLY STRIPED AND MARKED ON THE PARKING SPACE SURFACE. ALL PARKING STALLS SHALL BE HAIRPIN STRIPED. ALL CURBS NOT ASSOCIATED WITH A PARKING STALL SHALL BE PAINTED RED.
33. ALL CURB RAMPS SHALL HAVE A GROOVED BORDER 12 INCHES WIDE, AT THE LEVEL SURFACE OR LANDING OF THE SIDEWALK ALONG THE TOP OF THE RISE AND EACH SIDE APPROXIMATELY SPACED 3/4 INCHES ON CENTER OF THE GROOVES. ALL CURB RAMPS CONSTRUCTED BETWEEN THE FACE OF THE CURB AND THE STREET RIGHT OF WAY SHALL HAVE A GROOVED BORDER AT THE LEVEL SURFACE OR LANDING OF THE SIDEWALK. RAMPS SHALL BE SHOWN ON THESE APPROVED PLANS AND IN CONFORMANCE WITH TITLE 24, 2019 CALIFORNIA BUILDING CODE, CHAPTER 11A AND 11B, AND THE DEPARTMENT OF JUSTICE STANDARDS, LATEST EDITION.
34. FOR EXTERIOR WALKWAYS AND PATHS OF TRAVEL, OBJECTS PROJECTING FROM WALLS (FOR EXAMPLE, TELEPHONES) WITH THEIR LEADING EDGES BETWEEN 27 INCHES AND 80 INCHES ABOVE THE FINISHED FLOOR SHALL PROTRUDE NO MORE THAN 4 INCHES INTO WALKS, HALLS, CORRIDORS, PASSAGEWAYS OR AISLES. OBJECTS MOUNTED WITH THEIR LEADING EDGES AT OR BELOW 27 INCHES ABOVE THE FINISHED FLOOR MAY NOT PROTRUDE ANY AMOUNT.
35. FREESTANDING OBJECTS MOUNTED ON POSTS OR PYLONS MAY OVERHANG 12 INCHES MAXIMUM FROM 27 INCHES TO 80 INCHES ABOVE THE GROUND OR FINISHED FLOOR. PROTRUDING OBJECTS SHALL NOT REDUCE THE CLEAR WIDTH OF AN ACCESSIBLE ROUTE OR MANEUVERING SPACE. ANY OBSTRUCTION OVERHANGING A PEDESTRIAN WAY SHALL BE A MINIMUM OF 80 INCHES ABOVE THE WALKING SURFACE AS MEASURED TO THE BOTTOM OF THE OBSTRUCTION.
36. WALKS, HALLS, CORRIDORS, PASSAGEWAYS, AISLES OR OTHER CIRCULATION SPACES SHALL HAVE 80 INCHES MINIMUM CLEAR HEADROOM. ABRUPT CHANGES IN LEVEL, EXCEPT BETWEEN A WALK OR SIDEWALK AND AN ADJACENT STREET OR DRIVEWAY, EXCEEDING 4 INCHES IN A VERTICAL DIMENSION, SUCH AS AT PLANTERS OR FOUNTAINS LOCATED IN OR ADJACENT TO WALKS, SIDEWALKS, OR OTHER PEDESTRIAN WAYS SHALL BE IDENTIFIED BY CURBS PROJECTING AT LEAST 6 INCHES IN HEIGHT ABOVE THE WALK OR SIDEWALK SURFACE TO WARN THE BLIND OF A POTENTIAL DROP-OFF.
37. WHEN A GUARDRAIL OR HANDRAIL IS PROVIDED, NO CURB IS REQUIRED WHEN A GUIDE RAIL IS PROVIDED CENTERED 3 INCHES PLUS OR MINUS ONE INCH ABOVE THE SURFACE OF THE WALK OR SIDEWALK. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF TITLE 24, 2019 CALIFORNIA BUILDING CODE, CHAPTER 11A AND 11B AND THE DEPARTMENT OF JUSTICE STANDARDS, LATEST EDITION.
38. ALL HANDICAP PARKING STALLS SHALL CONFORM TO THE DETAIL(S) SHOWN ON THE PLANS, AND TITLE 24, 2019 CALIFORNIA BUILDING CODE CHAPTER 11A AND 11B, AND THE DEPARTMENT OF JUSTICE STANDARDS, LATEST EDITION.
39. DRAINAGE SHALL BE CHECKED BY FLOODING OF PAVED AREAS AND CONCRETE GUTTERS. ANY CONCRETE AREAS HOLDING WATER SHALL BE REMOVED AND REPLACED. ANY PAVEMENT AREAS HOLDING WATER SHALL BE REMOVED AND REPLACED OR GROUND TO A UNIFORM DEPTH OF 1" AND CAPPED TO THE SATISFACTION OF THE CITY ENGINEER.
40. LANDSCAPE TREATMENT AND GROUND CONTOURING AS PER THE APPROVED LANDSCAPE PLAN, INCLUDING LIGHTING STANDARDS, SHALL BE SHOWN ON THE GRADING PLAN. LOCATION OF TREES SHALL ALSO BE SHOWN.
41. THE DEVELOPER SHALL SWEEP ALL STREETS IN THE AREA OF THE CONSTRUCTION SITE ON A DAILY BASIS AS REQUIRED BY THE CITY ENGINEER. WASHING DOWN OF ANY STREET SHALL NOT BE PERMITTED UNLESS SPECIFICALLY APPROVED BY THE CITY ENGINEER AFTER ALL DEBRIS AND SILT HAVE BEEN REMOVED. FAILURE TO COMPLY WITH THIS SECTION SHALL BE CAUSE FOR IMMEDIATE SUSPENSION OF ALL WORK ON THE DEVELOPMENT AS WELL AS SUSPENSION OF ALL PERMITS APPROVED TO DATE.
42. ALL WORK SHALL BE IN CONFORMANCE WITH THE LATEST NPDES PERMIT AND CITY OF GARDEN GROVE LOCAL IMPLEMENTATION PLAN (LIP) AND ADOPTED LOW IMPACT DEVELOPMENT (LID) REQUIREMENTS. COPIES OF APPROVED EROSION CONTROL PLANS AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) WHERE REQUIRED, SHALL BE AT THE CONSTRUCTION SITE AT ALL TIMES AND MADE AVAILABLE UPON REQUEST FOR REVIEW AND IMPLEMENTATION.
43. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL IMPORTED AND EXPORTED SOIL IS FREE OF THE RED IMPORTED FIRE ANT (RIFA).
44. ALL ON-SITE CATCH BASINS SHALL BE STENCILED NOTIFYING THE PUBLIC THAT NO DUMPING IS PERMITTED AND THAT ALL FLOWS DRAIN TO THE OCEAN. THE CONTRACTOR SHALL OBTAIN THE LATEST STENCIL FROM THE CITY STREETS DIVISION~714.741.5278.

811 Know what's below. Call before you dig.

REGISTERED PROFESSIONAL ENGINEER STEPHEN B. PETER No. 38623 Exp. 3/31/21 CIVIL STATE OF CALIFORNIA

PLANS PREPARED BY:
PETER and ASSOCIATES ENGINEERS GEOLOGISTS & SURVEYORS, INC.
WWW.PETERASSOC.COM
1519 CALLE VALLE, SAN CLEMENTE, CA. 92672
Tel: (949) 492-3735 Fax: (949) 492-1891

DESIGNED BY:	DRAWN BY:	CHECKED BY:
SP	SP	SP

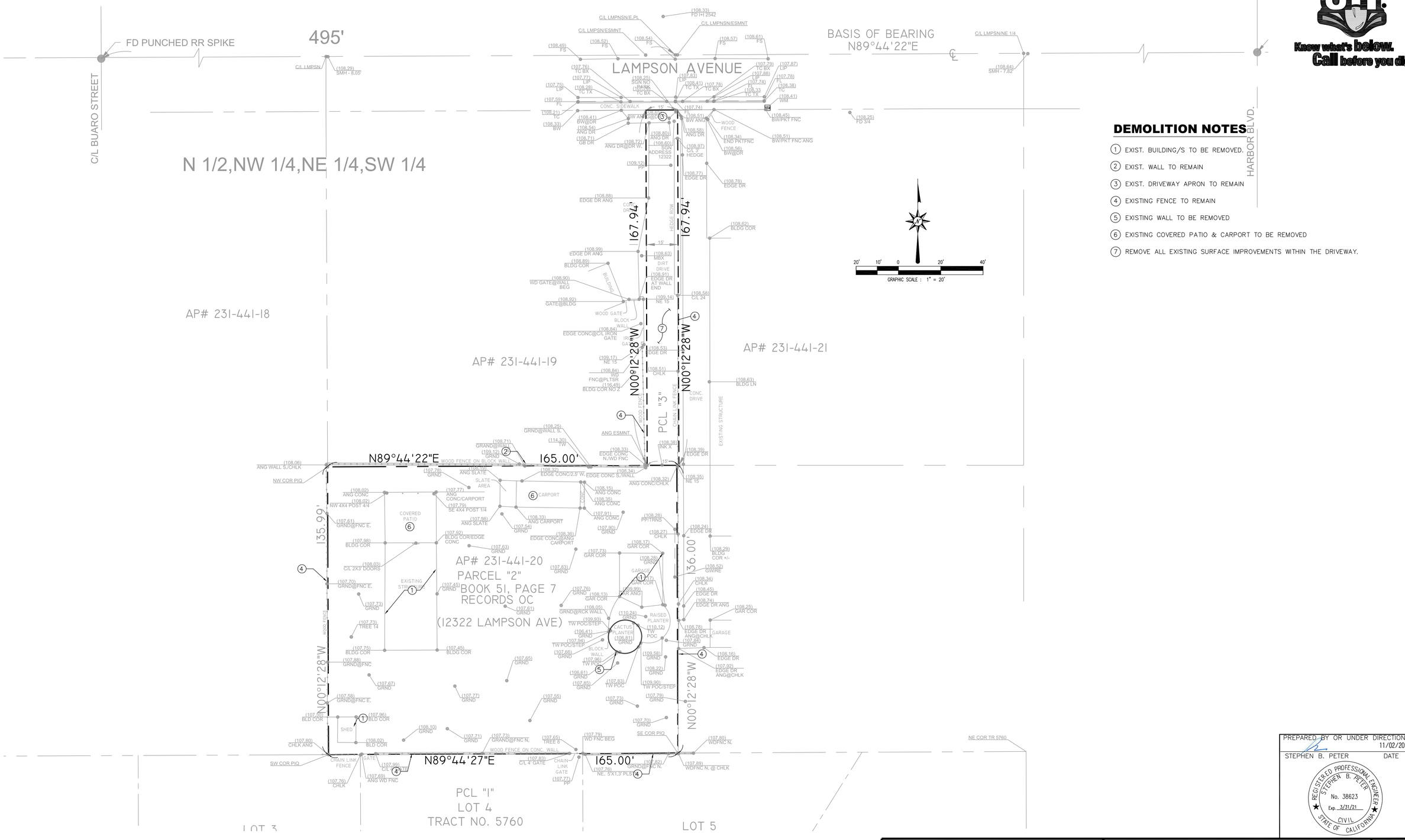
APPROVED BY:
11/02/20
DATE: R.C.E. NO. 38623

PROJECT NO.: 19E19153
PLAN AND PROFILE FOR STREET IMPROVEMENTS TRACT 1923
SHEET 8 OF 8
REFERENCE PLANS FOR THESE IMPROVEMENTS

DATE	BY	DESCRIPTION	APP'D
		REVISIONS	

TITLE SHEET-PRECISE GRADING PLAN
12322 LAMPSON AVENUE,
GARDEN GROVE, CA 92840

G-1426
PROJECT NO: 19E19153
DATE: 11-02-2020
DRAWING NUMBER
C-1
SHEET 1 OF 11



DEMOLITION NOTES

1. EXIST. BUILDING/S TO BE REMOVED.
2. EXIST. WALL TO REMAIN
3. EXIST. DRIVEWAY APRON TO REMAIN
4. EXISTING FENCE TO REMAIN
5. EXISTING WALL TO BE REMOVED
6. EXISTING COVERED PATIO & CARPORT TO BE REMOVED
7. REMOVE ALL EXISTING SURFACE IMPROVEMENTS WITHIN THE DRIVEWAY.

811. Know what's below. Call before you dig.

PREPARED BY OR UNDER DIRECTION OF:
STEPHEN B. PETER — DATE 11/02/20

REGISTERED PROFESSIONAL ENGINEER
STEPHEN B. PETER
No. 38623
Exp. 3/31/21
CIVIL
STATE OF CALIFORNIA

BY	REVISION	DESCRIPTION	APPROVED	DATE

SCALE: PER PLAN
ACAD FILE NO. 19E19153
PROJECT NO. 19E19153

DESIGNED: S.P. | DRAWN: S.P. | CHECKED: S.P.

STEPHEN PETER, PE — 11/02/20 DATE

BENCH MARK:
OCSBM: 1F-161-92
ELEVATION = 111.988
YEAR LEVELLED: 2010
NAVD: 88/DATUM

A.P. NUMBER:
231-441-20
PARCEL 2
BOOK 51, PAGE 7: RECORD OC

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DEMOLITION PLAN

FOR
12322 LAMPSON AVENUE
GARDEN GROVE, CALIFORNIA 92840

G-1426

C-2

PLOT DATE: 11-02-2020

SEE SHEET C-3B/MATCH LINE

Know what's **below.**
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QUANTITIES		CONSTRUCTION NOTES:
NOTE: CONTRACTOR OR RECORD TO VERIFY QUANTITIES		
	①	PROTECT EXISTING IMPROVEMENT IN PLACE; DRIVEWAY APRON AND (EX) PERIMETER FENCES/WALLS WHERE OCCUR.
	②	PROTECT EXISTING UTILITIES IN PLACE.
3,921 (+/-) SQ. FT.	③	CONSTRUCT NEW CONCRETE DRIVEWAY 5–INCH THICK WITH #3 REBAR AT 18–INCH CENTERS, BOTH DIRECTIONS WITH 4–INCH THICK LAYER OF CRUSHED ROCK, RAVEL OR CLEAN SAND. SEE ARCHITECT'S PLAN FOR DECORATIVE BANDS/CONTROL JOINTS.
	④	SEE LANDSCAPE PLANS.
1,775(+/-) SQ. FT.	⑤	CONSTRUCT 4"CONC. WALKWAY WITH 2–INCH THICK LAYER OF CRUSHED ROCK, GRAVEL OR CLEAN SAND ALONG WITH #3 REBAR AT 12–INCH CENTERS BOTH DIRECTIONS. POUR IN SEPARATE SECTIONS AS SHOWN W/ PEBBLE STONE IN–FILL AT SPACES BETWEEN–SEE ARCHITECT PLANS.
6,408(+/-) SQ. FT.	⑥	NEW BUILDING(INTERIOR) SLABS–ON–GRADE, SHOULD BE A MINIMUM 4–INCHES THICK, BE REINFORCED WITH #3 REBAR AT 18–IN CENTERS, EACH WAY, PLACED AT MID–HEIGHT OF THE SLAB. IN ADDITION, SLABS SHOULD BE UNDERLAIN BY A 4–INCH THICK LAYER OF CLEAN SAND. SLABS SHOULD ALSO BE UNDERLAIN BY A 10–MIL POLYETHYLENE MOISTURE BARRIER (SUCH AS VISQUEEN)[OR A MOISTURE BARRIER/CAPILLARY BRAK/VAPOR RTARDER IN ACCORDANCE WITH CAL GREEN CODE, WHICHEVER IS MORE STRINGENT] TO BE PLACED SANDWICHED WITHIN THE CLEAN SAND LAYER. THE MOISTURE BARRIER SHOULD BE PROPERLY LAPPED AND SEALED AT JOINTS AND AROUND ANY BREAKS SUCH AS OPENINGS FOR UTILITY CONDUITS.
	⑦	CONSTRUCT NEW CONCRETE STOOP PER ARCHITECT'S PLAN.
143 (+/-) SQ. FT.	⑧	CONSTRUCT NEW CONCRETE PADS, MINIMUM 4–INCH THICK WITH #3 REBAR AT 18"–CENTERS, BOTH DIRECTIONS WITH 2–INCH ROCK, GRAVEL OR CLEAN SAND LAYER UNDER THE CONCRETE SLAB.
(24)	⑨	INSTALL 12"(X")12" NDS 1280(GREEN) ATRIUM INLETS WITH ADAPTORS.
645 L.F.	⑩	INSTALL 4–INCH PVC SCH 40 OR ABS SDR 35 NON–PERFORMATED DRAINAGE PIPES.
(1)	⑪	INSTALL 12"(X)12" NDS 1212 (GREEN) FLAT INLETS WITH ADAPTORS.
(2)	⑫	IINSTALL NDS 12"(X)12" TRAFFIC GRATE. MINIMUM DISTANCE BETWEEN EXTERIOR FINISH GRADE AND BOTTOM OF TREATED SILL PLATE SHALL BE AS FOLLOWS: (A) 1" TO 3" FOR CONCRETE FINISH (B) 8" FOR SOIL
723 (+/-) L.F.	⑬	CONSTRUCT 3'–FOOT HIGH GARDEN RETAINING WALL PER DETAIL "A" OF SHEET C–8.
	⑭	NEW GAS LINE; SEE ARCH. PLANS.
	⑮	NEW ELECTRICAL LINE; SEE ARCH. PLANS.
215 (+/-) L.F.	⑯	CONSTRUCT NEW 6–FT. HIGH WHITE VINYL FENCE AGAINST EXISTING 4' AND 6' HIGH CHAIN LINK FENCE. SEPARATE PERMIT IS REQUIRED. SEE ARCHITECT SITE PLAN.
	⑰	(EX) POWER POLE WITH NEW POINT OF CONNECTION. SECURE SEPARATE PERMIT WITH UTILITY COMPANY FOR NEW TRANSFORMER, VERTICAL CONDUIT TO MAIN HOUSE PANEL AS SHOWN ON ARCHITECT'S SITE PLAN.
	⑱	SPLIT SUB PANEL BOX LOCATION ROUTED FROM BUILDING B MAIN UTILITY BUSS. SEE ARCHITECT PLANS FOR DETAILS.
	⑲	NEW ELECTRICAL BUS SERVING AS MAIN PANEL FOR BOTH BUILDINGS–SEE MAIN BUILDING FOR ELECTRICAL SUB PANEL DISTRIBUTION.
	⑳	GRADE TO MATCH EXISTING NEIGHBORS FINISH SURFACES.
	㉑	PLANTER BOX PER WQMP SITE PLAN DETAILS, SEE SHEET C–9.
	㉒	INFILTRATION TRENCH PER WQMP SITE PLAN DETAILS, SEE SHEET C–9.
285 (+/-) L.F.	㉓	INFILTRATION DRAINAGE PIPE AT INLET TO INFILTRATION TRENCH TO BE: 4–INCH PVC SCH 40 OR ABS SDR 35(PERFORATED) WITH HOLES DOWN. PLACE FILTER FABRIC AND ONE CUBIC FOOT OF $\frac{3}{4}$–INCH CRUSHED ROCK AROUND PIPE; LENGTH OF INLET DRAINAGE PIPE – MINIMUM 10 FEET.
40 SQ. FT.	㉔	CONCRETE TRASH PAD 4'X10'

DETAIL⑫
FF FF
1"-3" 8"
CONC. EARTH

PREPARED BY OR UNDER DIRECTION OF:
11/02/20
STEPHEN B. PETER
DATE

REGISTERED PROFESSIONAL ENGINEER
STEPHEN B. PETER
No. 38623
Exp. 3/31/21
CIVIL
STATE OF CALIFORNIA

BY	REVISION	DESCRIPTION	APPROVED	DATE

SCALE: PER PLAN
ACAD FILE NO. 19E19153
PROJECT NO. 19E19153
DESIGNED: S.P.
DRAWN: S.P.
CHECKED: S.P.
11/02/20
DATE
STEPHEN PETER, PE

BENCH MARK:
OCSBM: 1F-161-92
ELEVATION = 111.988
YEAR LEVELLED: 2010
NAVD: 88/DATUM

A.P. NUMBER:
231-441-20
PARCEL 2
BOOK 51, PAGE 7: RECORD OC

PLANS PREPARED BY:
PETER and ASSOCIATES ENGINEERS GEOLOGISTS & SURVEYORS, INC.
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1519 CALLE VALLE, SAN CLEMENTE, CA. 92672
Tel: (949) 492-3735 Fax: (949) 492-1891

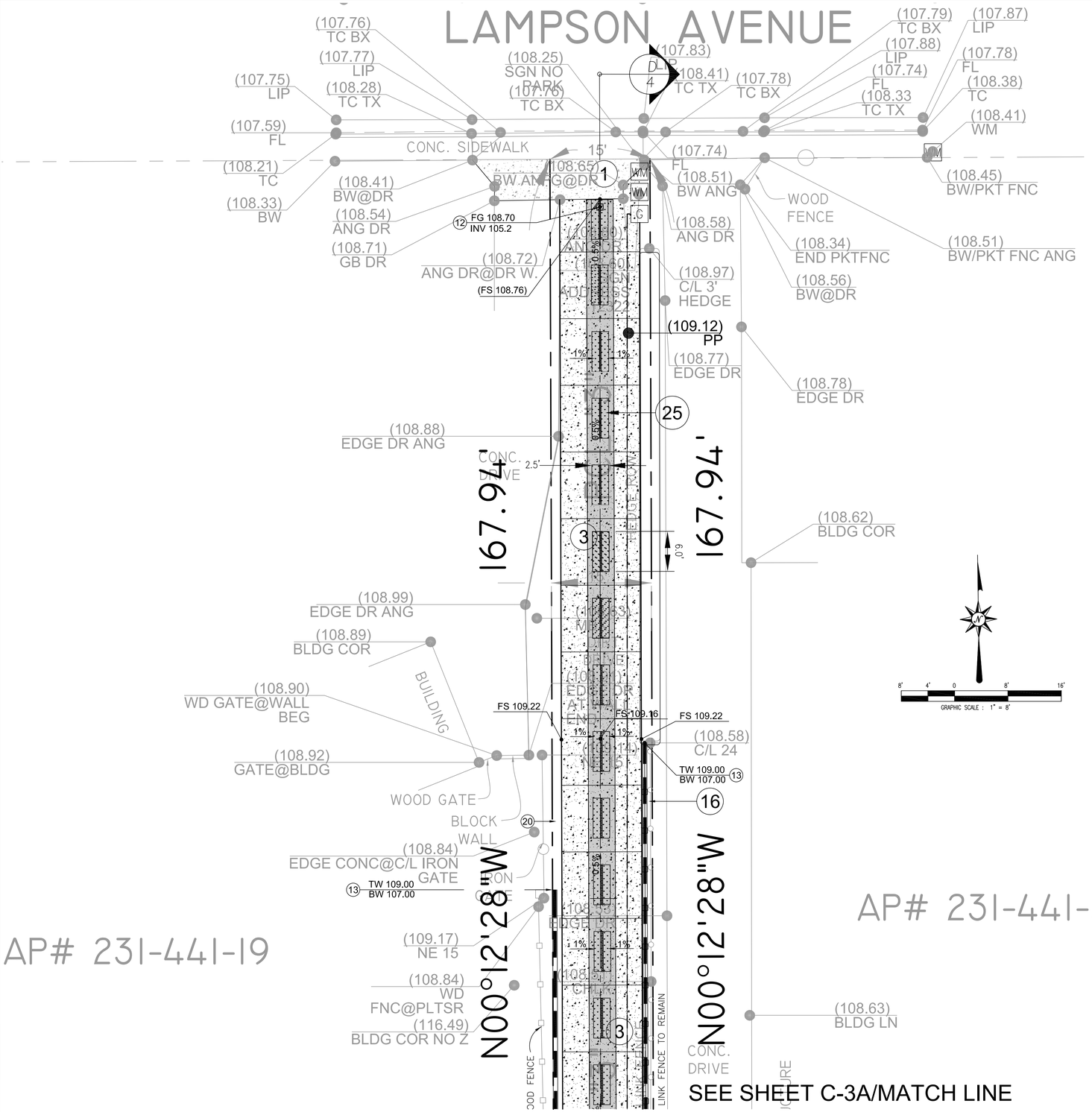
PRECISE GRADING PLAN

FOR
12322 LAMPSON AVENUE
GARDEN GROVE, CALIFORNIA 92840

G-1426

C-3A

PLOT DATE:11-02-2020



811 Know what's below. Call before you dig.

QUANTITIES CONSTRUCTION NOTES:

NOTE: CONTRACTOR OR RECORD TO VERIFY QUANTITIES

	1	PROTECT EXISTING IMPROVEMENT IN PLACE; DRIVEWAY APRON AND (EX) PERIMETER FENCES/WALLS WHERE OCCUR.
	2	PROTECT EXISTING UTILITIES IN PLACE.
3,921 (+/-) SQ. FT.	3	CONSTRUCT NEW CONCRETE DRIVEWAY 5-INCH THICK WITH #3 REBAR AT 18-INCH CENTERS, BOTH DIRECTIONS WITH 4-INCH THICK LAYER OF CRUSHED ROCK, RAVEL OR CLEAN SAND. SEE ARCHITECT'S PLAN FOR DECORATIVE BANDS/CONTROL JOINTS.
	4	SEE LANDSCAPE PLANS.
1,775(+/-) SQ. FT.	5	CONSTRUCT 4"CONC. WALKWAY WITH 2-INCH THICK LAYER OF CRUSHED ROCK, GRAVEL OR CLEAN SAND ALONG WITH #3 REBAR AT 12-INCH CENTERS BOTH DIRECTIONS. POUR IN SEPARATE SECTIONS AS SHOWN W/ PEBBLE STONE IN-FILL AT SPACES BETWEEN-SEE ARCHITECT PLANS.
	6	NEW BUILDING/S SEE ARCHITECT PLANS.
	7	CONSTRUCT NEW CONCRETE STOOP PER ARCHITECT'S PLAN.
119 (+/-) SQ. FT.	8	CONSTRUCT NEW CONCRETE PADS, MINIMUM 4-INCH THICK WITH #3 REBAR AT 18"-CENTERS, BOTH DIRECTIONS WITH 2-INCH ROCK, GRAVEL OR CLEAN SAND LAYER UNDER THE CONCRETE SLAB.
(24)	9	INSTALL 12"(X")12" NDS 1280(GREEN) ATRIUM INLETS WITH ADAPTORS.
645 L.F.	10	INSTALL 4-INCH PVC SCH 40 OR ABS SDR 35 NON-PERFORMATED DRAINAGE PIPES.
(1)	11	INSTALL 12"(X)12" NDS 1212 (GREEN) FLAT INLETS WITH ADAPTORS.
(2)	12	IINSTALL NDS 12"(X)12" TRAFFIC GRATE.
		MINIMUM DISTANCE BETWEEN EXTERIOR FINISH GRADE AND BOTTOM OF TREATED SILL PLATE SHALL BE AS FOLLOWS: (A) 1" TO 3" FOR CONCRETE FINISH (B) 8" FOR SOIL
723 (+/-) L.F.	13	CONSTRUCT 3'-FOOT HIGH GARDEN RETAINING WALL PER DETAIL "A" OF SHEET C-8.
	14	NEW GAS LINE; SEE ARCH. PLANS.
	15	NEW ELECTRICAL LINES; SEE ARCH. PLANS.
215 (+/-) L.F.	16	CONSTRUCT NEW 6-FT. HIGH WHITE VINYL FENCE AGAINST EXISTING 4' AND 6' HIGH CHAIN LINK FENCE. SEPARATE PERMIT IS REQUIRED. SEE ARCHITECT SITE PLAN.
	17	(EX) POWER POLE WITH NEW POINT OF CONNECTION. SECURE SEPARATE PERMIT WITH UTILITY COMPANY FOR NEW TRANSFORMER, VERTICAL CONDUIT TO MAIN HOUSE PANEL AS SHOWN ON ARCHITECT'S SITE PLAN.
	18	SPLIT SUB PANEL BOX LOCATION ROUTED FROM BUILDING B MAIN UTILITY BUSS. SEE ARCHITECT PLANS FOR DETAILS.
	19	NEW ELECTRICAL BUS SERVING AS MAIN PANEL FOR BOTH BUILDINGS-SEE MAIN BUILDING FOR ELECTRICAL SUB PANEL DISTRIBUTION.
	20	GRADE TO MATCH EXISTING NEIGHBORS FINISH SURFACES.
	21	PLANTER BOX PER WQMP, SEE SHEET C-9.
	22	INFILTRATION TRENCH PER WQMP, SEE SHEET C-9.
285 (+/-) L.F.	23	INFILTRATION DRAINAGE PIPE AT INLET TO INFILTRATION TRENCH TO BE: 4-INCH PVC SCH 40 OR ABS SDR 35(PERFORATED) WITH HOLES DOWN. PLACE FILTER FABRIC AND ONE CUBIC FOOT OF ¾-INCH CRUSHED ROCK AROUND PIPE; LENGTH OF INLET DRAINAGE PIPE – MINIMUM 10 FEET.
	24	CONCRETE TRASH PAD 4' X 10'.
	25	INFILTRATION TRENCH/DRIVEWAY PER WQMP, SEE SHEET C-9.

PREPARED BY OR UNDER DIRECTION OF:
STEPHEN B. PETER — DATE 11/02/20

REGISTERED PROFESSIONAL ENGINEER — STEPHEN B. PETER — No. 38623 — Exp. 3/31/21 — CIVIL — STATE OF CALIFORNIA

BY	REVISION	DESCRIPTION	APPROVED	DATE

SCALE: PER PLAN
ACAD FILE NO. 19E19153
PROJECT NO. 19E19153

DESIGNED: S.P. | DRAWN: S.P. | CHECKED: S.P.
STEPHEN PETER, PE — 11/02/20 DATE

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231-441-20
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BOOK 51, PAGE 7: RECORD OC

PLANS PREPARED BY:
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PRECISE GRADING PLAN

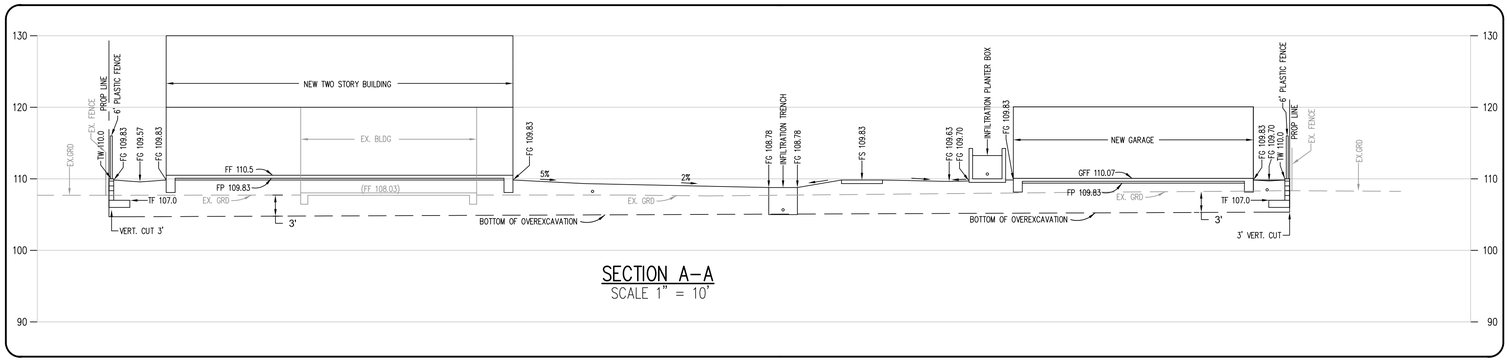
FOR
12322 LAMPSON AVENUE
GARDEN GROVE, CALIFORNIA 92840

G-1426

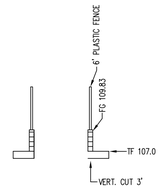
C-3B

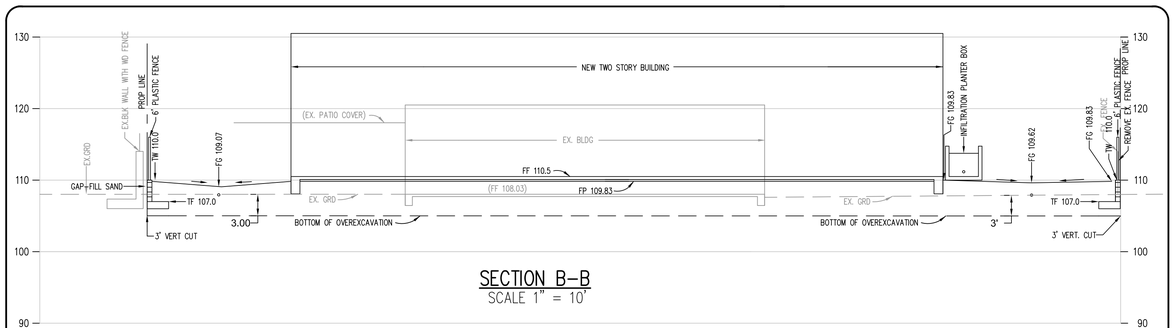
PLOT DATE: 11-02-2020

811.
Know what's below.
Call before you dig.

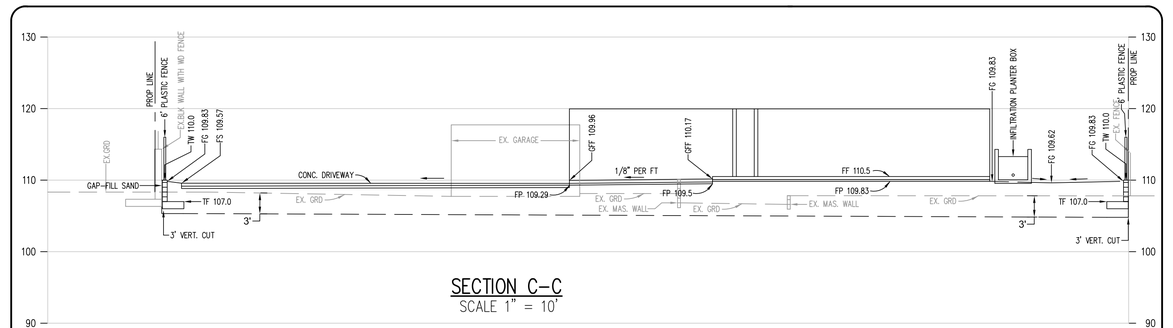


SECTION A-A
SCALE 1" = 10'

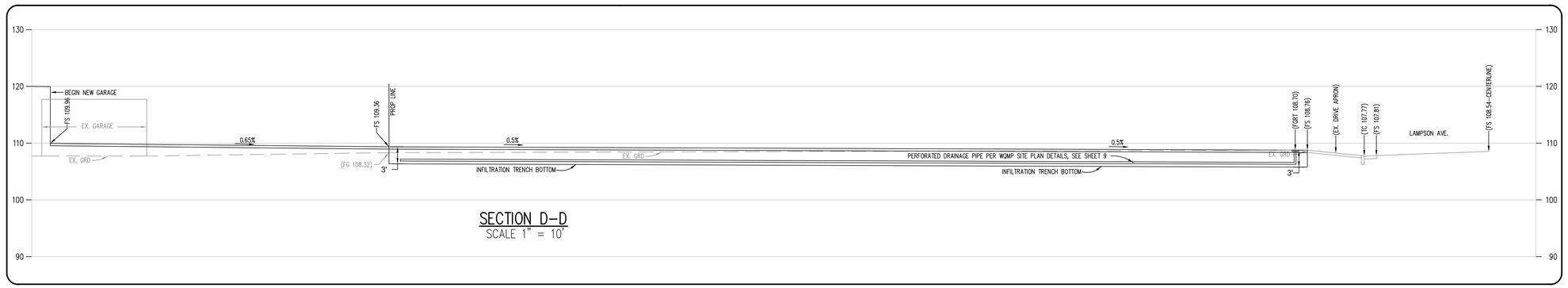




SECTION B-B
SCALE 1" = 10'



SECTION C-C
SCALE 1" = 10'



SECTION D-D
SCALE 1" = 10'

PREPARED BY OR UNDER DIRECTION OF:
11/02/20
STEPHEN B. PETER DATE

REGISTERED PROFESSIONAL ENGINEER
STEPHEN B. PETER
No. 38623
Exp. 3/31/21
CIVIL
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BENCH MARK:
OCSBM: 1F-161-92
ELEVATION = 111.988
YEAR LEVELLED: 2010
NAVD: 88/DATUM

A.P. NUMBER:
231-441-20
PARCEL 2
BOOK 51, PAGE 7: RECORD OC

PLANS PREPARED BY:
PETER and ASSOCIATES ENGINEERS GEOLOGISTS & SURVEYORS, INC.
WWW.PETERASSOC.COM
1519 CALLE VALLE, SAN CLEMENTE, CA. 92672
Tel: (949) 492-3735 Fax: (949) 492-1891

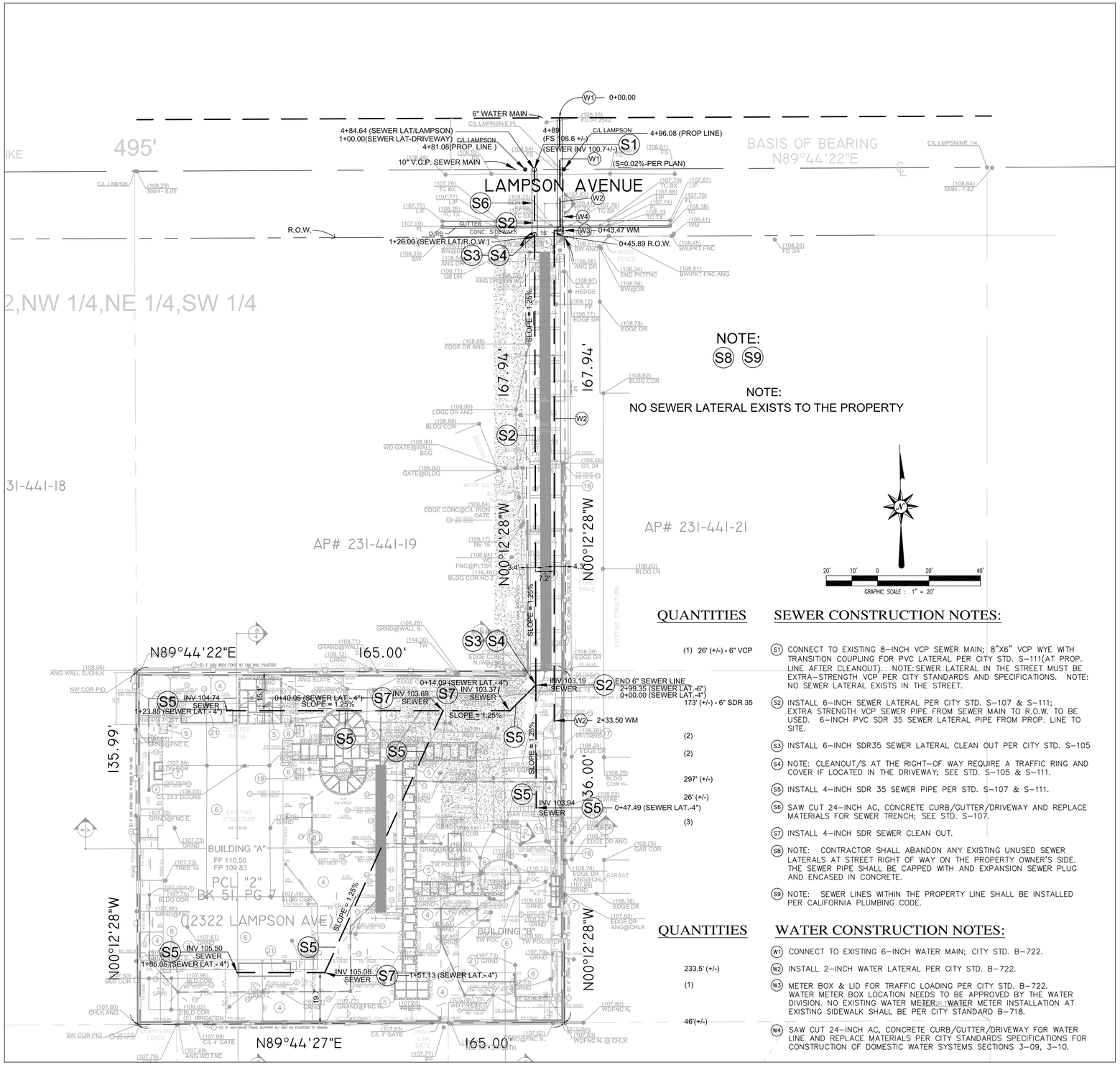
SECTIONS

FOR
12322 LAMPSON AVENUE
GARDEN GROVE, CALIFORNIA 92840

G-1426

C-4

PLOT DATE:11-02-2020



QUANTITIES

SEWER CONSTRUCTION NOTES:

(1) 26' (+/-) - 6" VCP	Ⓢ1 CONNECT TO EXISTING 8–INCH VCP SEWER MAIN; 8"X6" VCP WYE WITH TRANSITION COUPLING FOR PVC LATERAL PER CITY STD. S–111(AT PROP. LINE AFTER CLEANOUT). NOTE: SEWER LATERAL IN THE STREET MUST BE EXTRA–STRENGTH VCP PER CITY STANDARDS AND SPECIFICATIONS. NOTE: NO SEWER LATERAL EXISTS IN THE STREET.
173' (+/-) - 6" SDR 35	Ⓢ2 INSTALL 6–INCH SEWER LATERAL PER CITY STD. S–107 & S–111; EXTRA STRENGTH VCP SEWER PIPE FROM SEWER MAIN TO R.O.W. TO BE USED. 6–INCH PVC SDR 35 SEWER LATERAL PIPE FROM PROP. LINE TO SITE.
(2)	Ⓢ3 INSTALL 6–INCH SDR35 SEWER LATERAL CLEAN OUT PER CITY STD. S–105
(2)	Ⓢ4 NOTE: CLEANOUT/S AT THE RIGHT–OF WAY REQUIRE A TRAFFIC RING AND COVER IF LOCATED IN THE DRIVEWAY; SEE STD. S–105 & S–111.
297' (+/-)	Ⓢ5 INSTALL 4–INCH SDR 35 SEWER PIPE PER STD. S–107 & S–111.
26' (+/-)	Ⓢ6 SAW CUT 24–INCH AC, CONCRETE CURB/GUTTER/DRIVEWAY AND REPLACE MATERIALS FOR SEWER TRENCH; SEE STD. S–107.
(3)	Ⓢ7 INSTALL 4–INCH SDR SEWER CLEAN OUT.
	Ⓢ8 NOTE: CONTRACTOR SHALL ABANDON ANY EXISTING UNUSED SEWER LATERALS AT STREET RIGHT OF WAY ON THE PROPERTY OWNER'S SIDE. THE SEWER PIPE SHALL BE CAPPED WITH AND EXPANSION SEWER PLUG AND ENCASED IN CONCRETE.
	Ⓢ9 NOTE: SEWER LINES WITHIN THE PROPERTY LINE SHALL BE INSTALLED PER CALIFORNIA PLUMBING CODE.

QUANTITIES

WATER CONSTRUCTION NOTES:

	Ⓦ1 CONNECT TO EXISTING 6–INCH WATER MAIN; CITY STD. B–722.
233.5' (+/-)	Ⓦ2 INSTALL 2–INCH WATER LATERAL PER CITY STD. B–722.
(1)	Ⓦ3 METER BOX & LID FOR TRAFFIC LOADING PER CITY STD. B–722. WATER METER BOX LOCATION NEEDS TO BE APPROVED BY THE WATER DIVISION. NO EXISTING WATER METER. WATER METER INSTALLATION AT EXISTING SIDEWALK SHALL BE PER CITY STANDARD B–718.
46'(+/-)	Ⓦ4 SAW CUT 24–INCH AC, CONCRETE CURB/GUTTER/DRIVEWAY FOR WATER LINE AND REPLACE MATERIALS PER CITY STANDARDS SPECIFICATIONS FOR CONSTRUCTION OF DOMESTIC WATER SYSTEMS SECTIONS 3–09, 3–10.

GARDEN GROVE SANITARY DISTRICT
GENERAL NOTES

1. All main line sewer construction shall comply with the latest Standard Specifications and Standard Plans of the Garden Grove Sanitary District.
2. The contractor shall secure a construction permit from the Garden Grove Sanitary District prior to the start of any construction and the District shall be notified (714) 741-5395 at least two (2) working days prior to starting work.
3. Standard Plans and Specifications of the Garden Grove Sanitary District are available at the District Office, City Hall, Garden Grove, California.
4. Sewer stationing does not necessarily coincide with street improvement stationing.
5. All pipe, pipe joints and pipe fittings to be extra strength V.C.P. meeting all Federal Specifications SSP-3616 with wedge lock joints meeting A.S.T.M. Spec. D-425. "No Hub" pipe with band seals is generally not permitted. If "No Hub" pipe is allowed it must be installed with a joint seal with an additional stainless steel band to support the center of the joint. District Inspector must approve installation prior to backfill.
6. The use of Portland cement in joints is prohibited.
7. Manholes shall be eccentric cone type, as shown on Standard Plans of the Garden Grove Sanitary District. Manhole covers shall be 6" + below sub-grade and brought to grade when paving is complete.
8. All manholes shall have an 8" stub (min.) each way.
9. House lateral are shown approximate only and the exact location of wyes and laterals shall be determined in the field at the time construction except in cases where grade requires field control.
10. Final air testing from pipeline leakage shall be made in the presence of the District Inspector after the District Engineer and the City Engineering Division have accepted backfill.
11. Sewer pipes shall be balled in the presence of the District Inspector after final testing and manhole covers have been brought to grade upon completion of paving. Detailed videotape shall be made of the sewer after testing and cleaning and a copy provided to the Sanitary District.
12. The Engineer shall set top of curb stakes at house connections.
13. The Contractor shall obtain a "City Right of Way Excavation" permit for work done in streets.
14. Permit issuance is subject to payment of all necessary fees, and where applicable, granting the necessary easements to the Garden Grove Sanitary District and completion of the annexation process.
15. The Engineer signing these plans shall be responsible for determining the correct locations and elevations of existing sewer facilities shown herein prior to construction. All elevations shown shall be on the latest datum of the Orange County Surveyor.
16. The sewer construction shall start at the connection of existing sewer facility and proceed upgrade.
17. Prior to final acceptance, the Engineer signing the plans shall provide an "as-built plan" in autocad format including house lateral as required by the Sanitary District.
18. Manholes left below grade shall be marked with a 4" x 4" redwood post painted white.
19. The location of existing or proposed utilities is the responsibility of the Engineer signing the plans. The District assumes no obligation for the existence or accuracy of any utilities.
20. A grease trap is required per the California Plumbing Code for all establishments that serve or prepare food.

H\rj\sewernotes 2001
Rev (12/15/01

NOTICE: 24 HOUR ADVANCE NOTICE IS REQUIRED PRIOR TO START OF ANY WORK (714) 741-5887.

811
Know what's **below.**
Call before you dig.

PREPARED BY OR UNDER DIRECTION OF:

STEPHEN B. PETER DATE

No. 38623
Exp. 3/31/21

BY	REVISION	DESCRIPTION	APPROVED	DATE

SCALE: PER PLAN	DESIGNED: S.P.	DRAWN: S.P.	CHECKED: S.P.
ACAD FILE NO. 19E19153			DATE
PROJECT NO. 19E19153	STEPHEN PETER, PE		

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SEWER / WATER PLAN

FOR
12322 LAMPSON AVENUE
GARDEN GROVE, CALIFORNIA 92840

G–1426

C - 5

PLOT DATE: 11–02–2020

GARDEN GROVE
P.O. Box 3070
Garden Grove CA 92842
(714) 741-5395
(714) 638-9906 (F)

GENERAL WATER NOTES

1. ALL WATER FACILITIES AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE PUBLIC WORKS DEPARTMENT OF THE CITY OF GARDEN GROVE.
2. THE CONTRACTOR SHALL NOTIFY THE WATER SERVICES INSPECTOR AT (714) 719-1284 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION FOR WATERLINE INSPECTION.
3. ALL WATER MAINS SHALL BE AWWA C-900, D14 CLASS 305 PVC PIPE, UNLESS OTHERWISE INDICATED ON THE PLANS.
4. ALL WATER MAINS IN PRIMARY AND SECONDARY STREETS SHALL BE INSTALLED AT 42" COVER BELOW FINISHED SURFACE AND AT 36" COVER IN ALL COLLECTOR AND INTERIOR STREETS.
5. ALL WATER MAINS, VALVES, AND FITTINGS SHALL HAVE TYTON OR GRIP-TITE JOINTS EXCEPT AS OTHERWISE NOTED.
6. FIRE HYDRANTS SHALL BE INSTALLED AT BCR'S OR LOT LINES UNLESS OTHERWISE INDICATED ON THE PLANS.
7. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN SEVEN FEET OF DRIVEWAYS TOP OF "X." AND OTHER REQUIRED CLEARANCES PER THE STANDARD PLANS B-701, B-702, AND B-703.
8. NO TAPS TO EXISTING CITY WATER MAINS SHALL BE MADE WITHOUT THE PRESENCE OF AN AUTHORIZED CITY WATER INSPECTOR. IF ANY SUCH TAPS ARE MADE, THEY WILL BE EXCAVATED AND ANY ADJUSTMENTS AS WELL AS ALL COSTS OF EXCAVATION AND RE-SURFACING SHALL BE BORNE BY THE CONTRACTOR. CONTACT WATER SERVICES INSPECTOR AT (714) 719-1284, 48 HOURS PRIOR TO INSTALLATION.
9. ALL WATER METERS, METER BOXES, AND RESIDENTIAL FIRE SPRINKLER CONNECTIONS CAN BE PURCHASED FROM THE WATER SERVICES INSPECTOR AT CITY HALL.

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revised 6/20/18

10. TRENCH BACKFILL SHALL BE COMPACTED TO 95% RELATIVE DENSITY IN THE UPPER 6" AND 90% RELATIVE DENSITY BELOW 30", AS DETERMINED BY THE FIVE-LAYER METHOD (CALIFORNIA 216).
11. ALL SANITARY SEWER FACILITIES SHALL MAINTAIN 10 FEET HORIZONTAL SEPARATION FROM POTABLE WATER SUPPLY FACILITIES. ALL PERPENDICULAR CROSSING OF THE SEWER SHALL MAINTAIN A VERTICAL SEPARATION OF THREE FEET BELOW THE WATER MAIN OR SHALL BE CONSTRUCTED OF CAST IRON PIPE WITH PRESSURE TIGHT JOINTS. ALL EXCEPTIONS TO THE ABOVE MUST BE APPROVED BY THE DIRECTOR OF THE PUBLIC WORKS DEPARTMENT.
12. TUNNELING OF CURB AND GUTTER, SIDEWALKS, CROSS-GUTTERS AND OTHER STRUCTURES WILL NOT BE PERMITTED WITHOUT REPLACEMENT OF THE STRUCTURE. CONCRETE REPLACEMENT SHALL BE TWO FEET BEYOND THE EDGE OF THE TRENCH, UNLESS THE DISTANCE IS LESS THAN FIVE FEET TO AN EXPANSION JOINT OR CRACK.
13. CONSTRUCTION WATER MAY BE TAKEN ONLY AT LOCATIONS APPROVED BY THE WATER SERVICES DIVISION. A CONSTRUCTION METER WITH CHECK VALVE MUST BE INSTALLED AT THESE LOCATIONS BY THE CITY AT CONTRACTOR'S EXPENSE. THE CHECK VALVE TO BE TESTED BY A CERTIFIED BACKFLOW TESTER PRIOR TO CONSTRUCITON METER BEING TURNED ON. VALVE SHALL BE OPERATED WHEN TAKING CONSTRUCTION WATER WITH FIRE HYDRANT REMAINING OPEN DURING THE DAY. DEVELOPERS WILL BE CHARGED FOR CONSTRUCTION WATER ON AS AS-USED BASIS.
14. A MINIMUM OF 15 FEET CLEARANCE SHALL BE MAINTAINED BETWEEN THE WATER MAIN AND ANY BUILDING PAD, UNLESS OTHERWISE INDICATED HEREON OR APPROVED BY THE DIRECTOR OF PUBLIC WORKS DEPARTMENT.
15. ALL ON-SITE UNDERGROUND UTILITY LINES SHALL BE 5' CLEAR OF ALL PARALLEL WATER FACILITIES WITH ADDITIONAL CLEARANCE AT HYDRANT AND BEND LOCATIONS. A MINIMUM OF 6" VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN THE WATER FACILITIES AND ALL UTILITIES.
16. AN INDIVIDUAL SHUT-OFF VALVE SHALL BE PROVIDED AT EACH UNIT.
17. CONTRACTOR SHALL BE RESPONSIBLE FOR BRINGING VALVE CANS TO GRADE AFTER FINAL PAVEMENT IS PLACED PER CITY STANDARDS B-752 AND B-753.
18. ALL WATERLINES SHALL BE REQUIRED TO PASS PRESSURE, LEAKAGE, AND BACTERIOLOGICAL TESTS PER CITY STANDARDS PRIOR TO ACCEPTANCE. A TEMPORARY CONNECTION WILL BE REQUIRED TO FACILITATE THIS TESTIN
19. DISINFECTION OF ALL WATERLINES SHALL BE BY LIQUID CHLORINATION ONLY. METHOD FOR PRESSURE/LEAKAGE TESTING AND CHLORINATING NEW WATERLINE SHALL BE PROPOSED BY THE CONTRACTOR AND APPROVED BY THE WATER QUALITY INSPECTOR AND THE WATER SERVICES INSPECTOR.
20. ALL WATERLINE TIE-INS SHALL BE MADE IN THE PRESENCE OF AN AUTHORIZED CITY WATER INSPECTOR. ALL CONNECTING PARTS SHALL BE SWABBED WITH A 5% NFS APPROVED CHLORINE SOLUTION.

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21. ALL GATE VALVES SHALL BE AN RESILIENT WEDGE (RW) TYPE, EPOXY LINED AND COATED AS APPROVED BY THE WATER SERVICES INSPECTOR.
22. THE LOCATION OF UTILITIES SHOWN HEREON IS APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF UTILITIES IN THE FIELD PRIOR TO CONSTRUCTION AND TO COORDINATE ALL PHASES OF CONSTRUCTION WITH THE VARIOUS UTILITY COMPANIES INVOLVED.
23. EXISTING UTILITIES SHALL BE PROTECTED IN PLACE BY THE CONTRACTOR, UNLESS OTHERWISE NOTED.
24. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL THE REQUIRED VERTICAL BENDS NECESSARY TO MAINTAIN 6" MINIMUM VERTICAL CLEARANCE FROM EXISTING UTILITIES.
25. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA) AT 811 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION WORK.
26. EXCAVATED SECTIONS OF A.C. PIPE TO BE DISPOSED OF PROPERLY PER SCAQMD RULE 1403.
27. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL WATER LINES IN PLACE, AND SHALL BEAR ANY EXPENSES FOR REPAIRS OR APPROVED RELOCATIONS TO SAID FACILITIES.
28. NO MECHANICAL EXCAVATION WITHIN TWO FEET (LATERALLY) OF A WATER MAIN WILL BE ALLOWED.
29. WATER SERVICE MUST BE MAINTAINED TO ALL CUSTOMERS WITHIN THE CONSTRUCTION AREA AT ALL TIMES. IF THE PRIMARY SOURCE OF WATER IS INTERRUPTED, A TEMPORARY SECONDARY SOURCE SHALL BE SUPPLIED BY THE CONTRACTOR APPROVED BY THE CITY WATER DEPARTMENT. ANY EXPENDITURES INCIDENTAL THERETO SHALL BE BORNE BY THE CONTRACTOR.
30. ANY REQUIRED BACKFLOW DEVICES SHALL BE APPROVED PRIOR TO INSTALLATION. THE DEVELOPER SHALL HAVE A CERTIFIED CROSS CONNECTION SPECIALIST TEST THE DEVICE AND PROVIDE THE CITY WITH WRITTEN TEST AND RESULTS AND CERTIFICATION. CONTACT THE WATER QUALITY DIVISION AT 714-741-5395.
31. FIRE HYDRANTS MUST BE OPERATIONAL PRIOR TO FOUNDATION POUR. CALL FIRE DEPARTMENT AT 714-741-5600 TO HAVE FIRE HYDRANTS APPROVED PRIOR TO CALLING FOR FOUNDATION INSPECTION.

genwatnt.docx (3)
revised 6/20/18

811. Know what's below. Call before you dig.

3' High Masonry Wall with 6-Ft Plastic Fence
12322 Lampson Avenue, Garden Grove
JN 19E19153
Level Backfill, EFP = 60 pcf, PP=100pcf
Wall HT: 3'; Retained Soil Ht: 2'-10"

Project Name/Number : 19e19153_3 ft
Title WALL 1 (DETAIL A – SHEET C-8
Dsgnr: STEPHEN PETER,
Description....
3-FT HIGH WALL with 6' Plastic Fence
Page : 1
Date: 8 AUG 2020

This Wall in File: x:\peter associates\company projects\projects 2019\civil engineering--2019\19e191

RetainPro (c) 1987-2019, Build 11.20.03.31
License : KW-06058101
License To : PETER AND ASSOCIATES

Cantilevered Retaining Wall

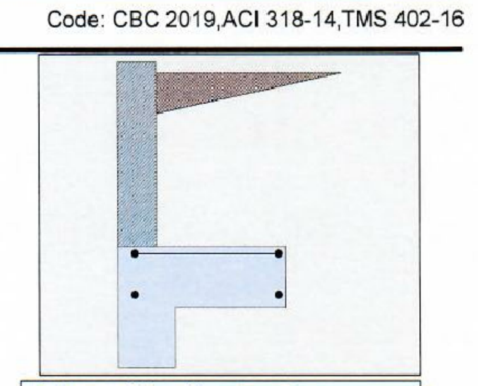
Code: CBC 2019,ACI 318-14,TMS 402-16

Criteria

Retained Height	=	2.83 ft
Wall height above soil	=	0.17 ft
Slope Behind Wall	=	0.00
Height of Soil over Toe	=	12.00 in
Water height over heel	=	0.0 ft

Soil Data

Allow Soil Bearing	=	1,500.0 psf
Equivalent Fluid Pressure Method		
Active Heel Pressure	=	60.0 psf/ft
	=	
Passive Pressure	=	100.0 psf/ft
Soil Density, Heel	=	120.00 pcf
Soil Density, Toe	=	120.00 pcf
Footing||Soil Friction	=	0.250
Soil height to ignore for passive pressure	=	12.00 in



Surcharge Loads

Surcharge Over Heel	=	0.0 psf
Used To Resist Sliding & Overturning		
Surcharge Over Toe	=	0.0
Used for Sliding & Overturning		

Axial Load Applied to Stem

Axial Dead Load	=	0.0 lbs
Axial Live Load	=	0.0 lbs
Axial Load Eccentricity	=	0.0 in

Lateral Load Applied to Stem

Lateral Load	=	1.0 #/ft
...Height to Top	=	0.00 ft
...Height to Bottom	=	0.00 ft
Load Type	=	Wind (W) (Service Level)
Wind on Exposed Stem (Service Level)	=	50.0 psf

Adjacent Footing Load

Adjacent Footing Load	=	0.0 lbs
Footing Width	=	0.00 ft
Eccentricity	=	0.00 in
Wall to Ftg CL Dist	=	0.00 ft
Footing Type		Line Load
Base Above/Below Soil at Back of Wall	=	0.0 ft
Poisson's Ratio	=	0.300

Design Summary

Wall Stability Ratios		
Overturning	=	3.63 OK
Sliding	=	1.78 OK
Total Bearing Load	=	1,586 lbs
...resultant ecc.	=	5.66 in
Soil Pressure @ Toe	=	1,071 psf OK
Soil Pressure @ Heel	=	16 psf OK
Allowable	=	1,500 psf
Soil Pressure Less Than Allowable		
ACI Factored @ Toe	=	1,499 psf
ACI Factored @ Heel	=	23 psf
Footing Shear @ Toe	=	0.0 psi OK
Footing Shear @ Heel	=	0.1 psi OK
Allowable	=	75.0 psi
Sliding Calcs		
Lateral Sliding Force	=	448.6 lbs
less 100% Passive Force	= -	400.0 lbs
less 100% Friction Force	= -	396.4 lbs
Added Force Req'd	=	0.0 lbs OK
....for 1.5 Stability	=	0.0 lbs OK

Vertical component of active lateral soil pressure IS NOT considered in the calculation of soil bearing

Load Factors

Building Code	CBC 2019,ACI
Dead Load	1.200
Live Load	1.600
Earth, H	1.600
Wind, W	1.000
Seismic, E	1.000

Stem Construction

		Bottom
		Stem OK
Design Height Above Ftg	ft =	0.00
Wall Material Above "Ht"	=	Masonry
Design Method	=	ASD
Thickness	=	8.00
Rebar Size	=	# 4
Rebar Spacing	=	24.00
Rebar Placed at	=	Center
Design Data		
fb/FB + fa/Fa	=	0.441
Total Force @ Section		
Service Level	lbs =	248.8
Strength Level	lbs =	
Moment....Actual		
Service Level	ft-# =	251.4
Strength Level	ft-# =	
Moment.....Allowable	=	569.8
Shear.....Actual		
Service Level	psi =	2.7
Strength Level	psi =	
Shear.....Allowable	psi =	44.3
Anet (Masonry)	in2 =	91.50
Rebar Depth 'd'	in =	3.75
Masonry Data		
f'm	psi =	1,500
Fs	psi =	20,000
Solid Grouting	=	Yes
Modular Ratio 'n'	=	21.48
Wall Weight	psf =	78.0
Short Term Factor	=	1.000
Equiv. Solid Thick.	in =	7.60
Masonry Block Type	=	Medium Weight
Masonry Design Method	=	ASD
Concrete Data		
f'c	psi =	
Fy	psi =	

3' High Masonry Wall with 6-Ft Plastic Fence
12322 Lampson Avenue, Garden Grove
JN 19E19153
Level Backfill, EFP = 60 pcf, PP=100pcf
Wall HT: 3'; Retained Soil Ht: 2'-10"

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License : KW-06058101
License To : PETER AND ASSOCIATES

Cantilevered Retaining Wall

Code: CBC 2019,ACI 318-14,TMS 402-16

Footing Data

Toe Width	=	0.00 ft
Heel Width	=	2.92
Total Footing Width	=	2.92
Footing Thickness	=	12.00 in
Key Width	=	12.00 in
Key Depth	=	12.00 in
Key Distance from Toe	=	0.00 ft
f'c = 2,500 psi	Fy =	60,000 psi
Footing Concrete Density	=	150.00 pcf
Min. As %	=	0.0018
Cover @ Top 1.50	@ Btm.=	3.00 in

Footing Design Results

		Toe	Heel
Factored Pressure	=	1,499	23 psf
Mu' : Upward	=	0	1,019 ft-#
Mu' : Downward	=	0	1,707 ft-#
Mu: Design	=	0	688 ft-#
Actual 1-Way Shear	=	0.00	0.09 psi
Allow 1-Way Shear	=	0.00	75.00 psi
Toe Reinforcing	=	# 4 @ 9.00 in	
Heel Reinforcing	=	# 4 @ 9.00 in	
Key Reinforcing	=	None Spec'd	
Footing Torsion, Tu	=		0.00 ft-lbs
Footing Allow. Torsion, phi Tu	=		0.00 ft-lbs

If torsion exceeds allowable, provide supplemental design for footing torsion.

Other Acceptable Sizes & Spacings
Toe: phiMn = phi'5'lambda'sqrt(fc)'Sm
Heel: #4@ 9.25 in, #5@ 14.35 in, #6@ 20.37 in, #7@ 27.77 in, #8@ 36.57 in, #9@ 46
Key: phiMn = phi'5'lambda'sqrt(fc)'Sm

Min footing T&S reinf Area 0.76 in2
Min footing T&S reinf Area per foot 0.26 in2 /ft

If one layer of horizontal bars:	If two layers of horizontal bars:
#4@ 9.26 in	#4@ 18.52 in
#5@ 14.35 in	#5@ 28.70 in
#6@ 20.37 in	#6@ 40.74 in

Summary of Overturning & Resisting Forces & Moments

.....OVERTURNING.....

Item		Force lbs	Distance ft	Moment ft-#
HL Act Pres (ab water tbl)		440.1	1.28	561.8
HL Act Pres (be water tbl)				
Hydrostatic Force				
Buoyant Force	=			
Surcharge over Heel	=			
Surcharge Over Toe	=			
Adjacent Footing Load	=			
Added Lateral Load	=		1.00	
Load @ Stem Above Soil	=	8.5	3.92	33.3
	=			
Total	=	448.6	**O.T.M.** =	595.1

Resisting/Overturning Ratio = **3.63**
Vertical Loads used for Soil Pressure = 1,585.6 lbs

.....RESISTING.....

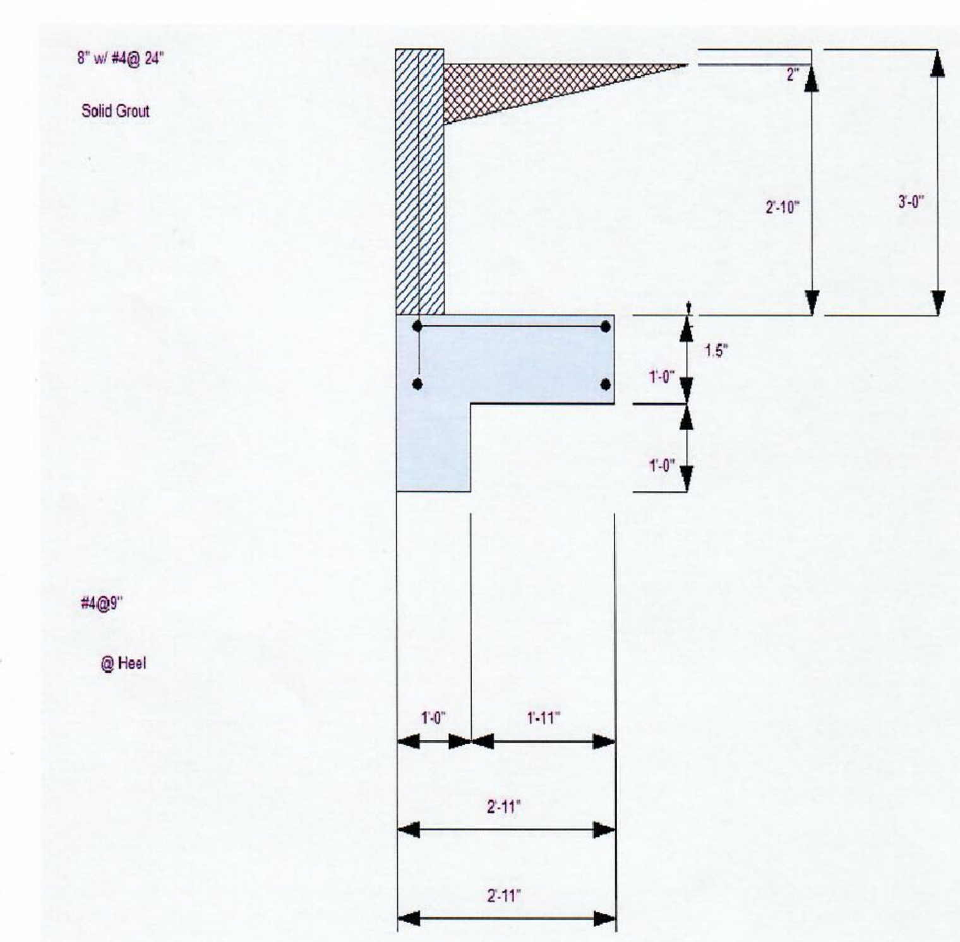
		Force lbs	Distance ft	Moment ft-#
Soil Over HL (ab. water tbl)		764.1	1.79	1,369.0
Soil Over HL (bel. water tbl)			1.79	1,369.0
Watre Table				
Sloped Soil Over Heel	=			
Surcharge Over Heel	=			
Adjacent Footing Load	=			
Axial Dead Load on Stem	=			
* Axial Live Load on Stem	=			
Soil Over Toe	=			
Surcharge Over Toe	=			
Stem Weight(s)	=	234.0	0.33	78.0
Earth @ Stem Transitions	=			
Footing Weight	=	437.5	1.46	638.0
Key Weight	=	150.0	0.50	75.0
Vert. Component	=			
Total	=	1,585.6 lbs	**R.M.=**	2,160.0

* Axial live load NOT included in total displayed, or used for overturning resistance, but is included for soil pressure calculation.

Vertical component of active lateral soil pressure IS NOT considered in the calculation of Sliding Resistance.

Vertical component of active lateral soil pressure IS NOT considered in the calculation of Overturning Resistance.

REFERENCE ONLY



SEE C-8; 3 FT HIGH PERIMETER WALL

PREPARED BY OR UNDER DIRECTION OF:
STEPHEN B. PETER 11/02/20 DATE

REGISTERED PROFESSIONAL ENGINEER STEPHEN B. PETER No. 38623 Exp. 3/31/21 CIVIL STATE OF CALIFORNIA

BY	REVISION	DESCRIPTION	APPROVED	DATE

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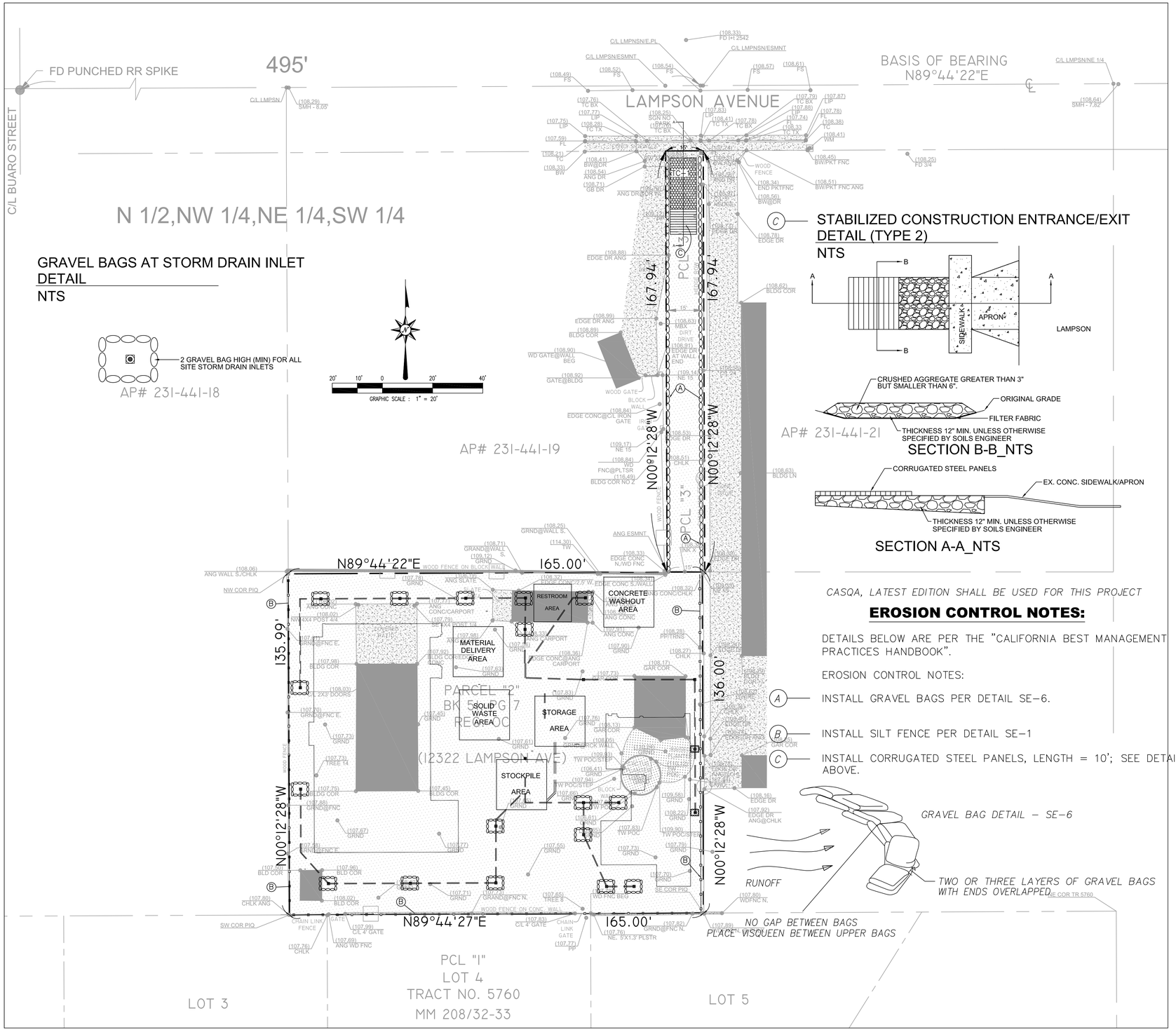
WATER NOTES
3-FT RET.WALL CALCS.
FOR
12322 LAMPSON AVENUE
GARDEN GROVE, CALIFORNIA 92840

G-1426

C - 6

PLOT DATE: 11-02-2020



CASQA, LATEST EDITION SHALL BE USED FOR THIS PROJECT

EROSION CONTROL NOTES:

DETAILS BELOW ARE PER THE "CALIFORNIA BEST MANAGEMENT PRACTICES HANDBOOK".

EROSION CONTROL NOTES:

A — INSTALL GRAVEL BAGS PER DETAIL SE-6.

B — INSTALL SILT FENCE PER DETAIL SE-1

C — INSTALL CORRUGATED STEEL PANELS, LENGTH = 10'; SEE DETAIL ABOVE.

EROSION CONTROL, SEDIMENT CONTROL AND WATER QUALITY NOTES:

1. IN CASE OF EMERGENCY, CALL TUAN NGUYEN AT: (714) 724-2937 DURING BUSINESS HOURS, AND ALL OTHER TIMES.
2. A STAND-BY CREW FOR EMERGENCY WORK SHALL BE AVAILABLE AT ALL TIMES. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
3. THE CIVIL ENGINEER OR OTHER RESPONSIBLE INDIVIDUAL SHALL SUBMIT PLANS FOR REVIEW BY THE CITY ENGINEER DETAILING THE PLACING OF EROSION CONTROL FACILITIES TO PROTECT AREAS SUBJECT TO STORM DAMAGE. ALL DEVICES MUST BE IN PLACE AND WORKING AT ALL TIMES. FAILURE TO PROVIDE THESE DEVICES WILL BE CAUSE TO REVOKE PERMITS OR APPROVALS BY THE CITY ENGINEER AND/OR BUILDING OFFICIAL.
4. DEVICES SHALL NOT BE MOVED OR MODIFIED WITHOUT THE APPROVAL OF THE CITY INSPECTOR.
5. EXCEPT AS OTHERWISE APPROVED BY THE CITY INSPECTOR, REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY OR ON WEEKENDS WHEN THE 5 DAY RAIN PROBABILITY FORECAST EXCEEDS 40%.
6. THE PLACEMENT OF ADDITIONAL DEVICES TO REDUCE EROSION DAMAGE WITHIN THE SITE IS LEFT TO THE DISCRETION OF THE FIELD ENGINEER.
7. DESILTING BASINS MAY NOT BE REMOVED OR MADE INOPERABLE WITHOUT PRIOR APPROVAL OF THE CITY INSPECTOR.
8. EROSION CONTROL DEVICES SHALL BE MODIFIED AS NEEDED AS THE PROJECT PROGRESSES, AND PLANS OF THESE CHANGES SUBMITTED FOR APPROVAL AS REQUIRED.
9. INSURE THAT ALL EXISTING DRAINAGE COURSES AND CULVERTS ARE MAINTAINED IN WORKING CONDITION AND FREE OF SILT AND DEBRIS.
10. SEDIMENT FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING STRUCTURAL CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE.
11. ALL LOOSE SOILS AND DEBRIS WHICH MAY CREATE A POTENTIAL HAZARD TO OFFSITE PROPERTY SHALL BE REMOVED FROM THE SITE AS DIRECTED BY THE INSPECTOR.
12. AFTER A RAINSTORM, ALL SILT AND DEBRIS SHALL BE REMOVED FROM CHECK BERMS AND DESILTING BASINS AND BASINS PUMPED DRY.
13. STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TRACKING, OR WIND.
14. APPROPRIATE BMPS FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS OR RESIDUES SHALL BE IMPLEMENTED TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTY VIA WIND OR RUNOFF.
15. RUNOFF FROM EQUIPMENT AND VEHICLE WASHING SHALL BE CONTAINED AT CONSTRUCTION SITES UNLESS TREATED TO REMOVE SEDIMENT AND OTHER POLLUTANTS.
16. ALL CONSTRUCTION CONTRACTOR AND SUBCONTRACTOR PERSONNEL ARE TO BE MADE AWARE OF THE REQUIRED BEST MANAGEMENT PRACTICES AND GOOD HOUSEKEEPING MEASURES FOR THE PROJECT SITE AND ANY ASSOCIATED CONSTRUCTION STAGING AREAS.
17. AT THE END OF EACH DAY OF CONSTRUCTION ACTIVITY ALL CONSTRUCTION DEBRIS AND WASTE MATERIALS SHALL BE COLLECTED AND PROPERLY DISPOSED IN TRASH OR RECYCLE BINS.
18. FILL SLOPES AT THE SITE PERIMETER MUST DRAIN AWAY FROM THE TOP OF SLOPE AT THE CONCLUSION OF EACH WORKING DAY.
19. A GUARD SHALL BE POSTED ON THE SITE WHENEVER THE DEPTH OF WATER IN ANY DEVICE EXCEEDS TWO (2) FEET.
20. CONSTRUCTION SITES SHALL BE MAINTAINED IN SUCH A CONDITION THAT AN ANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. DISCHARGES OF MATERIAL OTHER THAN STORMWATER ARE ALLOWED ONLY WHEN NECESSARY FOR PERFORMANCE AND COMPLETION OF CONSTRUCTION PRACTICES AND WHERE THEY DO NOT: CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD; CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION OR NUISANCE; OR CONTAIN A HAZARDOUS SUBSTANCE IN A QUANTITY REPORTABLE UNDER FEDERAL REGULATIONS 40 CFR PARTS 117 AND 302. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, GLUES, LIME, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS, ASBESTOS FIBERS, PAINT FLAKES, OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS, AND HYDRAULIC, RADIATOR, OR BATTERY FLUIDS; CONCRETE, DETERGENT, OR FLOATABLE WASTES; WASTES FROM ANY ENGINE/EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING; AND SUPERCHLORINATED POTABLE WATER LINE FLUSHINGS.
21. DURING CONSTRUCTION, DISPOSAL OF SUCH MATERIALS SHOULD OCCUR IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON-SITE PHYSICALLY SEPARATED FROM POTENTIAL STORMWATER RUNOFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
22. DEWATERING OF CONTAMINATED GROUNDWATER, OR DISCHARGING CONTAMINATED SOILS VIA SURFACE EROSION IS PROHIBITED. DEWATERING OF NON-CONTAMINATED GROUNDWATER REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FROM THE RESPECTIVE STATE REGIONAL WATER QUALITY CONTROL BOARD.
23. TAKE NECESSARY PRECAUTIONS TO INSURE THAT ADJACENT PROPERTY NOT SUFFER DAMAGE DUE TO DEBRIS, MUD, OR INUNDATION CAUSED BY GRADING ACTIVITIES WITHIN THE PERMITTED AREA.
24. PLACE EROSION PROTECTION AROUND ALL OUTLETS OF DOWNDRAINS THAT ARE NOT FULLY CONNECTED TO THE ULTIMATE DRAINAGE DEVICE.
25. PLACE EROSION PROTECTION AROUND ALL ULTIMATE INLETS WHILE THE POSSIBILITY OF SILTATION EXISTS PRIOR TO ULTIMATE SLOPE PLANTING BECOMING EFFECTIVE.
26. RESTORE ALL VEGETATION AND PLANTING ON THE EXISTING SLOPE TO ORIGINAL CONDITION.

811 Know what's below. Call before you dig.

CONTACT INFORMATION

MR. HENRY KHUU
12322 LAMPSON
GARDEN GROVE, CA 92840
(714) 722-8067
EMAIL: HENRYKHUU@GMAIL.COM

PREPARED BY OR UNDER DIRECTION OF:
STEPHEN B. PETER — DATE 11/02/20

REGISTERED PROFESSIONAL ENGINEER — STEPHEN B. PETER — No. 38623 — Exp. 3/31/21 — CIVIL — STATE OF CALIFORNIA

BY	REVISION	DESCRIPTION	APPROVED	DATE

SCALE: PER PLAN
ACAD FILE NO. 19E19153
PROJECT NO. 19E19153

DESIGNED: S.P. | DRAWN: S.P. | CHECKED: S.P.

STEPHEN PETER, PE — 11/02/20 DATE

BENCH MARK:
OCSBM: 1F-161-92
ELEVATION = 111.988
YEAR LEVELLED: 2010
NAVD: 88/DATUM

A.P. NUMBER:
231-441-20
PARCEL 2
BOOK 51, PAGE 7: RECORD OC

PLANS PREPARED BY:
PETER and ASSOCIATES ENGINEERS GEOLOGISTS & SURVEYORS, INC.
WWW.PETERASSOC.COM
1519 CALLE VALLE, SAN CLEMENTE, CA. 92672
Tel: (949) 492-3735 Fax: (949) 492-1891

BMP & EROSION CONTROL PLAN

FOR
12322 LAMPSON AVENUE
GARDEN GROVE, CALIFORNIA 92840

G-1426

C - 7

PLOT DATE:11-02-2020

GENERAL NOTES: NEW WALLS

1. THE FOLLOWING NOTES AND TYPICAL DETAILS APPLY TO ALL DRAWINGS UNLESS NOTED OTHERWISE.

2. ALL CONSTRUCTION AND WORKMANSHIP SHALL CONFORM TO THE 2019 CALIFORNIA BUILDING CODE.

3. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK.

4. THE CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. UNLESS OTHERWISE SHOWN, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY FIELD REPRESENTATIVES OF THE ENGINEER SHALL NOT INCLUDE INSPECTIONS OF THE PROTECTIVE MEASURES OR THE CONSTRUCTION PROCEDURES REQUIRED FOR SAME. ANY SUPPORT SERVICES PERFORMED BY THE ENGINEER DURING CONSTRUCTION SHALL BE DISTINGUISHED FROM CONTINUOUS AND DETAILED INSPECTION SERVICES, WHICH ARE FURNISHED BY OTHERS. THESE SUPPORT SERVICES PERFORMED BY THE ENGINEER, WHETHER OF MATERIAL OR WORK, AND WHETHER PERFORMED PRIOR TO, DURING OR AFTER COMPLETION OF CONSTRUCTION ARE PERFORMED SOLELY FOR THE PURPOSE OF ASSISTING IN QUALITY CONTROL AND IN ACHIEVING CONFORMANCE WITH CONTRACT DRAWINGS AND SPECIFICATIONS, BUT THEY DO NOT GUARANTEE CONTRACTOR'S PERFORMANCE AND SHALL NOT BE CONSTRUED AS SUPERVISIONS OF CONSTRUCTION.

5. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER THESE GENERAL NOTES.

6. ALL CEMENT, AGGREGATE, REINFORCING STEEL, STRUCTURAL STEEL, ETC. SHALL BE FROM TESTED STOCK. COPIES OF TEST REPORTS SHALL BE FURNISHED THE ENGINEER BY REQUEST.

7. SEE SPECIFICATIONS FOR ADDITIONAL TEST AND/OR INSPECTION REQUIREMENTS.

8. CONTINUOUS INSPECTION IS NECESSARY FOR CONCRETE WHEN THE DESIGN STRENGTH IS 4,500 PSI.

9. ALL EXISTING FILL SOIL AND DISTURBED NATURAL SOILS ARE TO BE EXCAVATED AND REPLACED WITH PROPERLY COMPACTED FILL. ALL FILLING, BACKFILLING, RECOMPATION, ETC., IS TO BE ACCOMPLISHED ONLY UNDER THE SUPERVISION OF A SOILS ENGINEER.

10. ALL EXCAVATIONS ARE TO BE INSPECTED AND APPROVED BY A SOILS ENGINEER PRIOR TO THE PLACEMENT OF ANY FILL OR REINFORCING STEEL. PRE-MOISTEN EXCAVATIONS PRIOR TO PLACING CONCRETE.

11. FOOTINGS ARE TO BE CARRIED A MINIMUM OF DESIGNED DETAIL AND INTO APPROVED MATERIAL.

12. DESIGN BEARING PRESSURE IS 1500 PSF WITH A 33% INCREASE FOR SEISMIC OR WIND LOADING OR AS PER SOIL REPORT. DESIGN BEARING PRESSURE IS 1,500 PSF.

13. DESIGN PASSIVE LATERAL BEARING PRESSURE IS 100 PSF/FT WITH A 33% INCREASE FOR SEISMIC OR WIND LOADING AND/ OR PER SOIL REPORT.

14. DESIGN COEFFICIENT OF FRICTION IS 025.

15. ALL EXCAVATION, GRADING, COMPACTION, ETC. SHALL BE ACCOMPLISHED AND PERFORMED IN ACCORDANCE WITH THE APPROVED SOILS REPORT AS PREPARED BY PETER & ASSOCIATES. THE SOILS REPORT IS HEREBY MADE A PART OF THESE DRAWINGS AND THE RECOMMENDATIONS CONTAINED THEREIN ARE TO BE FOLLOWED AND CONSIDERED AS MINIMUMS UNLESS MORE STRINGENT REQUIREMENTS ARE NOTED OR DETAILED IN THE DRAWINGS OR SPECIFICATIONS.

16. AGGREGATES FOR CONCRETE SHALL BE NATURAL SAND AND ROCK CONFORMING TO ASTM C33.

17. CONCRETE NOT IN CONTACT WITH SOIL SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS WITH A 0.45 MAXIMUM WATER/CEMENTITIOUS MATERIALS RATIO (BY WEIGHT). CEMENT SHALL BE PORTLAND CEMENT CONFORMING TO ASTM C-150, TYPE V.

18. CONCRETE IN CONTACT WITH SOIL SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS WITH A 0.45 MAXIMUM WATER/CEMENTITIOUS MATERIALS RATIO (BY WEIGHT). CEMENT SHALL BE PORTLAND CEMENT CONFORMING TO ASTM C-150, TYPE V, AND MAXIMUM SLUMP OF 5" UNLESS GEOTECHNICAL ENGINEER OR BUILDING DEPARTMENT DETERMINES THAT SOIL SULFATE EXPOSURE IS NEGLIGIBLE PER CBC TABLE 19-A-4.

19. LAP ALL BARS IN CONCRETE A MINIMUM OF 36 BAR DIAMS. (2'-0" MINIMUM) AT ALL SPLICES AND LAP ALL BARS IN MASONRY A MINIMUM OF 48 BAR DIAMS. (2'-6" MINIMUM) AT ALL SPLICES UNLESS NOTED OTHERWISE.

20. SPLICES OF HORIZONTAL REBAR IN WALLS AND FOOTINGS SHALL BE STAGGERED.

21. DOWELS FOR WALLS SHALL BE SAME SIZE AND SPACING AS THE WALL REINFORCEMENT AND SHALL LAP WITH THE WALL REBAR AS NOTED ABOVE UNLESS NOTED OTHERWISE.

22. MINIMUM CONCRETE COVERAGE: THE FOLLOWING MINIMUM CLEAR DISTANCES BETWEEN REINFORCING STEEL AND FACE OF CONCRETE SHALL BE MAINTAINED UNLESS NOTED OTHERWISE:

SLABS ON EARTH: CENTER OF SLAB
CONCRETE BELOW GRADE, FORMED: 2"
CONCRETE BELOW GRADE, UNFORMED (POURED AGAINST EARTH): 3"

23. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.

24. ANCHOR BOLTS, DOWELS, INSERTS, ETC. SHALL BE SECURELY TIED IN PLACE PRIOR TO THE POURING OF ANY CONCRETE OR GROUT.

25. ALL CONCRETE BLOCK SHALL CONFORM TO ASTM C90, GRADE N-11 WITH A MINIMUM COMPRESSIVE STRENGTH OF 1500 PSI.

26. ALL MASONRY SHALL BE REINFORCED GROUTED MASONRY. GROUT SOLID ALL CELLS.

27. ALL REINFORCEMENT, BOLTS, ETC. IN MASONRY SHALL HAVE A MINIMUM GROUT COVERAGE OF ¼".

28. MORTAR SHALL CONFORM TO ASTM C270, TYPE 'S' AND ATTAIN A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 1800 PSI AND MIXED IN THE PROPORTIONS OF 1 PART PORTLAND CEMENT TO ½ PART LIME PUTTY TO 3 PARTS OF SAND. NO PLASTIC CEMENT PERMITTED.

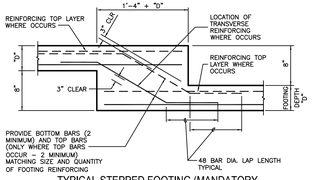
29. GROUT SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS AND SHALL BE MIXED IN PROPORTIONS OF 1 PART PORTLAND CEMENT TO 1/10 PART LIME PUTTY TO 2 TO 3 PARTS SAND TO A MAXIMUM OF 2 PARTS GRAVEL.

30. RELATIVELY NON- EXPANSIVE FILL SHOULD BE USED IN BACKFILL BEHIND WALLS. ALL RETAINING WALLS SHALL BE ADEQUATELY SHORED DURING THE BACKFILL OPERATION.

31. AGGREGATES FOR MORTAR AND GROUT SHALL BE NATURAL SAND AND ROCK CONFORMING TO ASTM C-144 AND C-404.

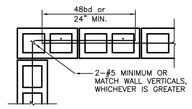
SPECIAL NOTE: THE PLANS FOR THIS PROJECT SHALL COMPLY WITH THE 2016 CALIFORNIA BUILDING CODE AND THE CITY ORDINANCES.

SOIL DESIGN PARAMETERS(PETER & ASSOC. SOIL REPORT):
E.F.P. = 60 PCF-SITE SOILS (FOR HYDROSTATIC LOAD PRESSURE W/O DRAINAGE PIPE)
SOIL BEARING PRESSURE = 1,500 PSF
SOIL WEIGHT = 120 PCF
PASSIVE PRESSURE = 100 PSF/F
SLIDING FRICTION= 0.25

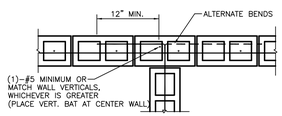


TYPICAL STEPPED FOOTING (MANDATORY AT FOOTING SLOPES GREATER THAN 10%)

TYPICAL STEPPED FOOTING | A



CORNER (SINGLE CURTAIN)



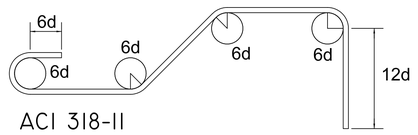
INTERSECTION (SINGLE CURTAIN)

TYPICAL WALL INTERSECTION | C

1. ALL SPECIAL INSPECTION AND TESTS SHALL BE PER LICENSED DEPUTY INSPECTOR.
2. SPECIAL INSPECTOR SHALL PROVIDE WRITTEN REPORTS TO ENGINEER OF RECORD, CONTRACTOR AND CITY AND COPIES SHALL BE AVAILABLE AT JOB SITE.
3. SPECIAL DEPUTY INSPECTOR SHALL CONFORM TO SECTION 1704 OF THE 2016 CBC.
4. SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING ITEMS:
   A. SUBGRADE/BOTTOM OF FOOTING - GEOTECHNICAL ENGINEER
   B. BACKFILL TESTED TO 90% OF MAX. DENSITY - GEOTECHNICAL ENGINEER
   C. DRAINAGE BEHIND WALL - GEOTECHICAL ENGINEER
   D. MASONRY WALL FOOTING IF F'c >2,500 psi - SPECIAL DEPUTY INSPECTOR(SI)
   E. MASONRY STEM STEEL - SPECIAL DEPUTY INSPECTOR
   F. LOCATION OF REINFORCEMENT(STEM STEEL/FOOTING STEEL)-(SI)
   G. SIZE AND LOCATION OF STEM STEEL/FOOTING STEEL-(SI)
   H. MASONRY GROUT, CONSTRUCTION OF MORTAR JOINTS - (SI)
   I. ANY OTHER REQUIRED SPECIAL INSPECTION PER CURRENT CODES.

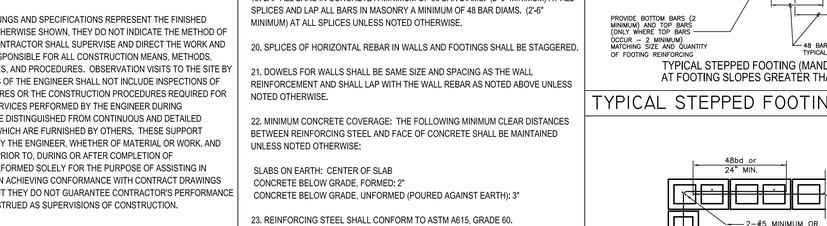
SPECIAL INSPECTION NOTES | D

BAR SIZE	MINIMUM DIAMETER
No. 3 to No. 8	6d(bar)
No.9, No.10,No.11	8d(bar)
No.14 and No.18	10d(bar)



ACI 318-11

MINIMUM DIAMETERS OF BEND | H



1. NEW MASONRY WALL
2. CMU WALL CONTROL JOINT
3. MASONRY WALL CONCRETE FOOTING
4. ~~PACKER ROD, JOINT FILLER AND SEALANT ENTIRE LENGTH OF JOINT~~
6. ~~ADDITIONAL (1) #4 VERT. BAR EACH SIDE OF JOINT~~
6. TOP REBAR CONTINUOUS/CHORD PER WALL SECTION
7. CONTROL JOINT FILLER
8. #4 HOR. BAR(SPLILCE)

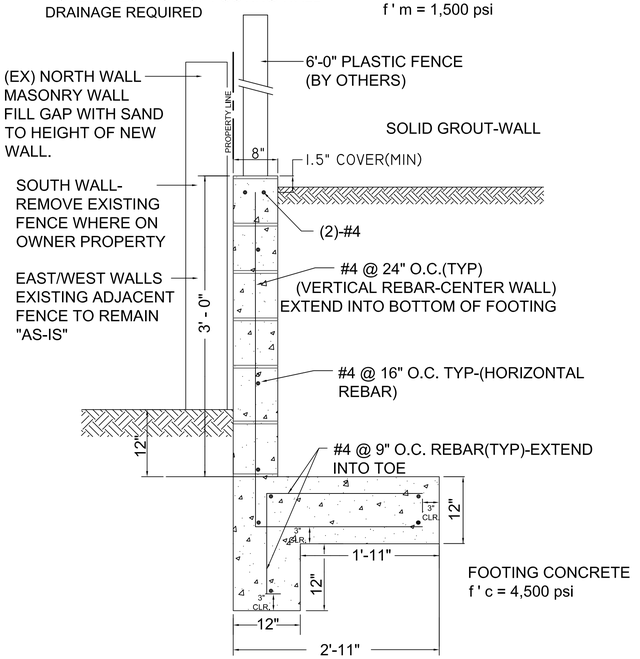
TYPICAL CMU WALL CONTROL JOINT DETAIL | E

DETAIL "A"

3' HIGH PERIMETER MASONRY RETAINING WALL

NOTE: BACKFILL WITH ON-SITE SOILS
NOTE: NO BOTTOM OF FOOTING WALL DRAINAGE REQUIRED

MASONRY CONCRETE WALL
DIMENSION = 8"x8"x16"
f ' m = 1,500 psi



NOTE: RET. WALL DESIGN TO RESIST HYDROSTATIC LOADING NO DRAINAGE BEHIND WALL IS REQUIRED.

PREPARED BY OR UNDER DIRECTION OF:
STEPHEN B. PETER — DATE 11/02/20

REGISTERED PROFESSIONAL ENGINEER — STEPHEN B. PETER — No. 38623 — Exp. 3/31/21 — CIVIL — STATE OF CALIFORNIA

Know what's below. Call before you dig. 811.

BY	REVISION	DESCRIPTION	APPROVED	DATE

SCALE: PER PLAN
ACAD FILE NO. 19E19153
PROJECT NO. 19E19153

DESIGNED:	DRAWN:	CHECKED:
S.P.	S.P.	S.P.

STEPHEN PETER, PE — 11/02/20 DATE

BENCH MARK:
OCSBM: 1F-161-92
ELEVATION = 111.988
YEAR LEVELLED: 2010
NAVD: 88/DATUM

A.P. NUMBER:
231-441-20
PARCEL 2
BOOK 51, PAGE 7: RECORD OC

PLANS PREPARED BY:
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1519 CALLE VALLE, SAN CLEMENTE, CA. 92672
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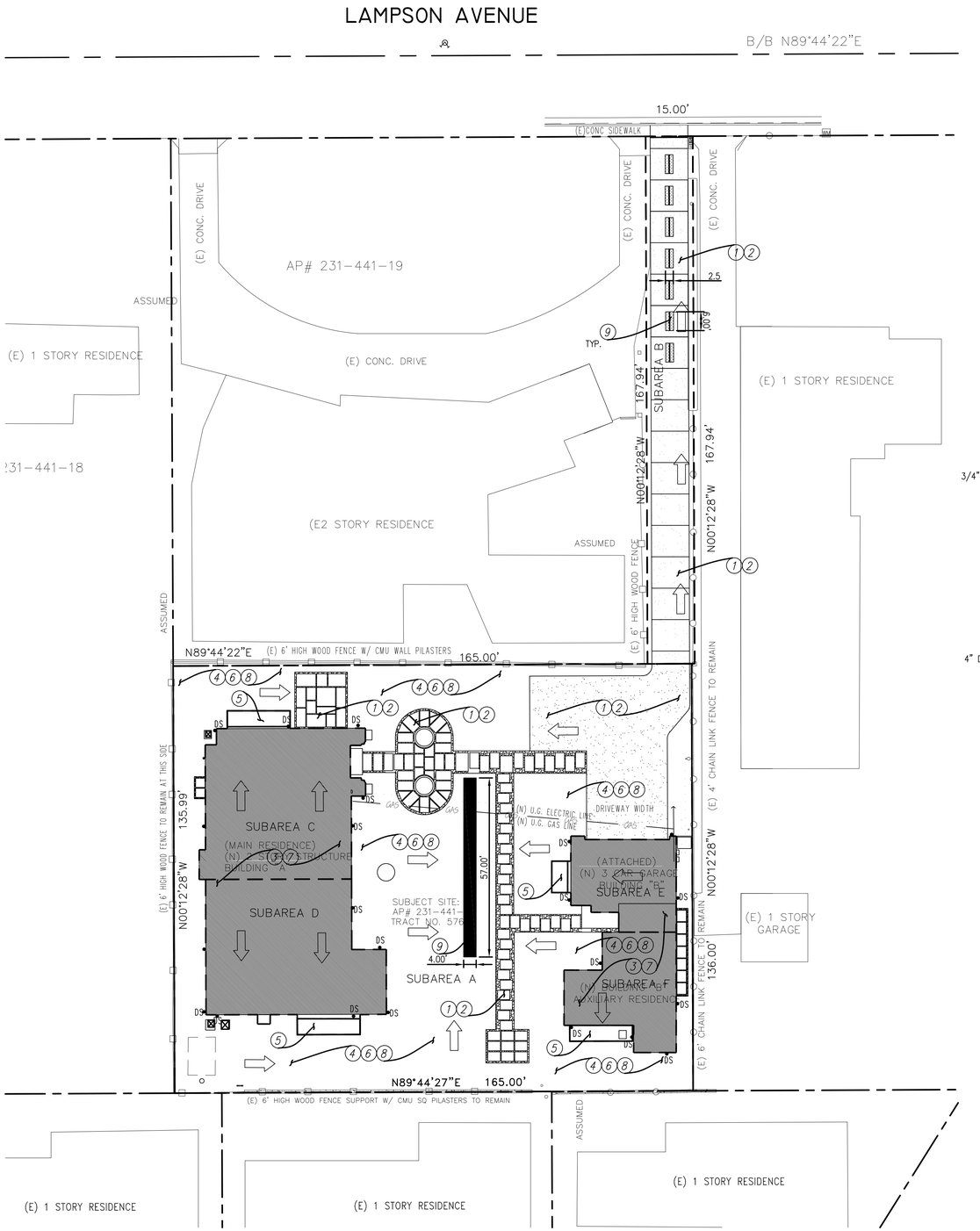
3-FT HIGH PERIMETER RETAINING WALL DETAIL & NOTES

FOR
12322 LAMPSON AVENUE
GARDEN GROVE, CALIFORNIA 92840

G-1426

C-8

PLOT DATE:11-02-2020



BMP'S

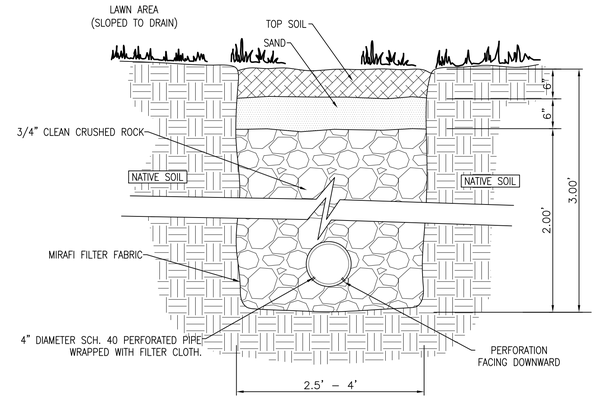
ROUTINE NON-STRUCTURAL BMP

1. STREET SWEEPING
2. COMMON AREA LITTER CONTROL
3. BUILDING & GROUNDS MAINTENANCE
4. LANDSCAPE MAINTENANCE

STRUCTURAL BMP

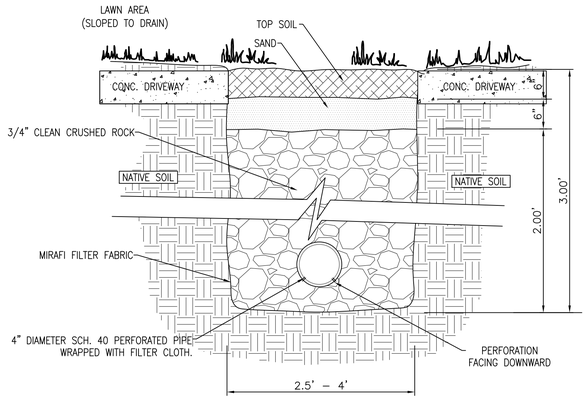
5. PLANTER BOX
6. SITE DESIGN & LANDSCAPING
7. ROOF RUNOFF CONTROL
8. EFFICIENT IRRIGATION
9. INFILTRATION TRENCH

LAND USE: RESIDENTIAL
LAND COVER: POOR GRASS COVER



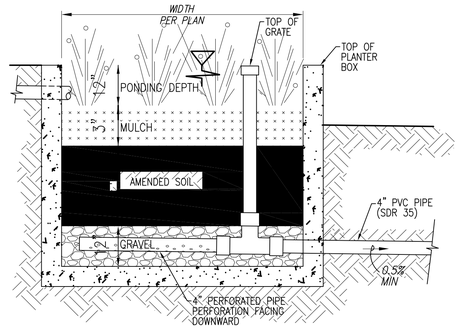
INFILTRATION TRENCH DETAIL

N.T.S.



INFILTRATION TRENCH DETAIL/DRIVEWAY

N.T.S.



5 BIOFILTRATION BMP/PLANTER BOX DETAIL

NTS

INFILTRATION TRENCH			
SUBAREA	DCV	INFILTRATION TRENCH DIMENSIONS (LXWXD)	GIS LOCATIONS
SUBAREA A	270.82 CF	57' X 4' X 2'	33.780961, -117.917844
SUBAREA B	119.59 CF	25' X 4' X 2'	33.781543, -117.917606

PLANTER BOX				
SUBAREA	DCV	REQUIRED AREA OF PLANTER BOX	AREA OF PLANTER BOX PROVIDED	GIS LOCATIONS
SUBAREA C	138.64 CF	85.32 SF	100.68 SF	33.781090, -117.918013
SUBAREA D	136.12 CF	83.77 SF	100.68 SF	33.780868, -117.917979
SUBAREA E	54.94 CF	33.81 SF	50.32 SF	33.780981, -117.917681
SUBAREA F	62.89 CF	38.70 SF	100.68 SF	33.780899, -117.917654

REGISTERED PROFESSIONAL ENGINEER
STEPHEN B. PETER
NO. 38623
Exp. 03/21
CIVIL
STATE OF CALIFORNIA

11/02/20

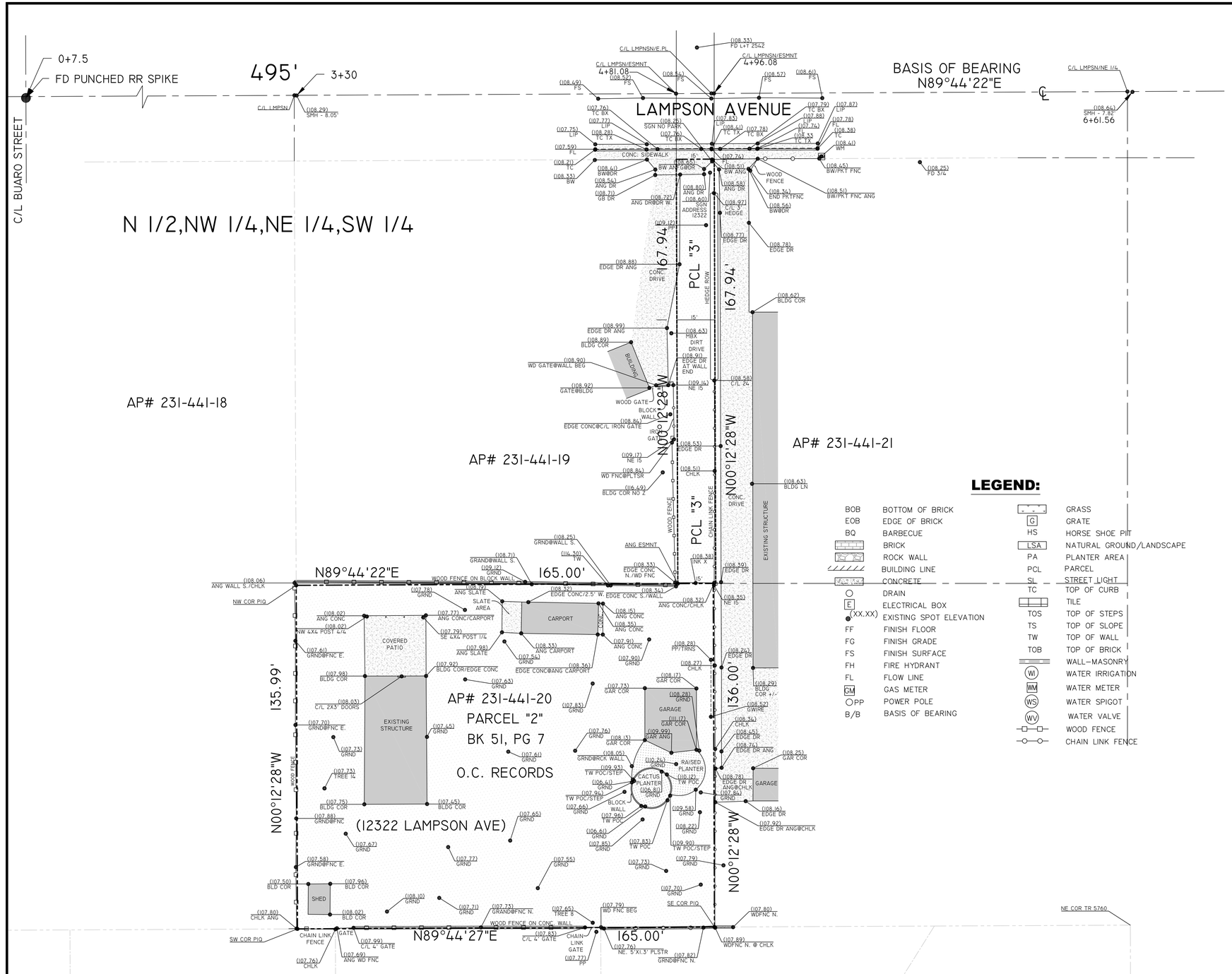
C-1426

WATER QUALITY MANAGEMENT PLAN

KHUU RESIDENCE
12322 LAMPSON AVENUE,
GARDEN GROVE, CA 92840

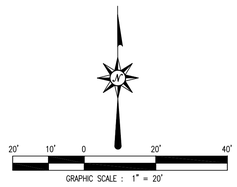
DRAWING NUMBER
C - 9

PLOT DATE: 11-02-2020



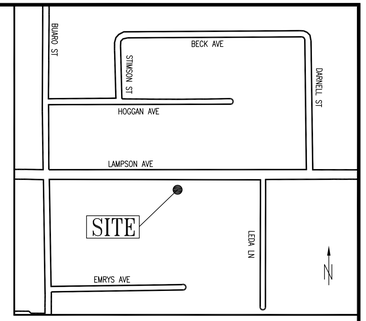
LEGEND:

BOB	BOTTOM OF BRICK		GRASS
EOB	EDGE OF BRICK	G	GRATE
BQ	BARBECUE	HS	HORSE SHOE PIT
	BRICK	LSA	NATURAL GROUND/LANDSCAPE
	ROCK WALL	PA	PLANTER AREA
	BUILDING LINE	PCL	PARCEL
	CONCRETE	SL	STREET LIGHT
	DRAIN	TC	TOP OF CURB
E	ELECTRICAL BOX		TILE
(XX.XX)	EXISTING SPOT ELEVATION	TOS	TOP OF STEPS
FF	FINISH FLOOR	TS	TOP OF SLOPE
FG	FINISH GRADE	TW	TOP OF WALL
FS	FINISH SURFACE	TOB	TOP OF BRICK
FH	FIRE HYDRANT		WALL-MASONRY
FL	FLOW LINE	WI	WATER IRRIGATION
GM	GAS METER	WM	WATER METER
PP	POWER POLE	WS	WATER SPIGOT
B/B	BASIS OF BEARING	WV	WATER VALVE
			WOOD FENCE
			CHAIN LINK FENCE



SITE ADDRESS:

12322 LAMPSON AVENUE,
GARDEN GROVE, CA 92840.



VICINITY MAP

N.T.S.

LEGAL DESCRIPTION:

PER PRELIMINARY TITLE REPORT(CHICAGO TITLE COMPANY) ORDER NO. 58601600782-PS:

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF GARDEN GROVE, COUNTY OF ORANGE, STATE OF CALIFORNIA AND IS DESCRIBED AS FOLLOWS:

PARCEL 1: A.P.N. 231-441-10

LOT 4 OF TRACT NO. 5760, IN THE CITY OF GARDEN GROVE, COUNTY OF ORANGE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 208, PAGES 37 AND 38 OF MISCELLANEOUS MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

PARCEL 2: A.P.N. 231-441-20

THE SOUTHERLY 136 FEET TO THE EASTERLY 165 FEET OF THE WESTERLY 495 FEET OF THE NORTH HALF OF THE NORTHWEST QUARTER OF THE NORTHWESTER OF THE SOUTHWEST QUARTER OF SECTION 34, TOWNSHIP 4 SOUTH, RANGE 10 WEST, IN THE RANCHO LAS BOLSAS, AS SHOWN ON A MAP THEREOF RECORDED IN BOOK 51, PAGE 7 ET SEQ., MISCELLANEOUS MAPS RECORDS OF SAID ORANGE COUNTY.

PARCEL 3:

AN EASEMENT FOR INGRESS AND EGRESS OVER THE EASTERLY 15.00 FEET OF THE WESTERLY 495.99 FEET OF THE NORTH HALF OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 34, TOWNSHIP 4 SOUTH, RANGE 10 WEST, IN RANCHO LAS BOLSAS, AS SHOWN ON A MAP THEREOF RECORDED IN BOOK 51, PAGE 10, MISCELLANEOUS MAPS, RECORDS OF SAID ORANGE COUNTY.

OCSBM DESCRIPTION:

DESCRIBED BY ORANGE COUNTY SURVEY 2002
FOUND 3 3\4" OCS ALUMINUM BENCHMARK DISK STAMPED "1F-161-1992", SET IN THE SOUTHEASTERLY CORNER OF A 4 FT. BY 10 FT. CONCRETE CATCH BASIN. MONUMENT IS LOCATED IN THE NORTHEASTERLY CORNER OF THE INTERSECTION OF LAMPSON AVENUE AND HARBOR BOULEVARD, 92 FT. EASTERLY OF THE CENTERLINE OF HARBOR BOULEVARD AND 25 FT. NORTHERLY OF THE CENTERLINE OF LAMPSON AVENUE. MONUMENT IS SET LEVEL WITH THE SIDEWALK.

BASIS OF BEARING:

C/L LAMPSON PER TRACK NO. 5760, MM 208/32-33
BEING: N89°44'22"E

PROFESSIONAL LAND SURVEYOR
JEFFREY R. PAUL
No. 6887
Exp. 12/31/20
STATE OF CALIFORNIA

SURVEY NOTE:

THIS MAP OR PLAT IS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION.

JEFFREY R. PAUL, P.L.S. 6887
LICENSE EXPIRES: 12/31/20

04/22/19
DATE

BY	REVISION	DESCRIPTION	APPROVED	DATE

SCALE: SCALE : 1" = 20'
ACAD FILE NO. 19S19028
PROJECT NO. 19S19028

DESIGNED: | DRAWN: PRIMA | CHECKED: JP

DATE

BENCHMARK

OCSBM 1F-161-92
ELEVATION = 111.988
YEAR LEVELED: 2010
NAVD 88/DATUM

A.P. NUMBER:
231-441-20

PLANS PREPARED BY:
PETER and ASSOCIATES ENGINEERS GEOLOGISTS & SURVEYORS, INC.
WWW.PETERASSOC.COM
1519 CALLE VALLE, SAN CLEMENTE, CA. 92672
Tel: (949) 492-3735 Fax: (949) 492-1891

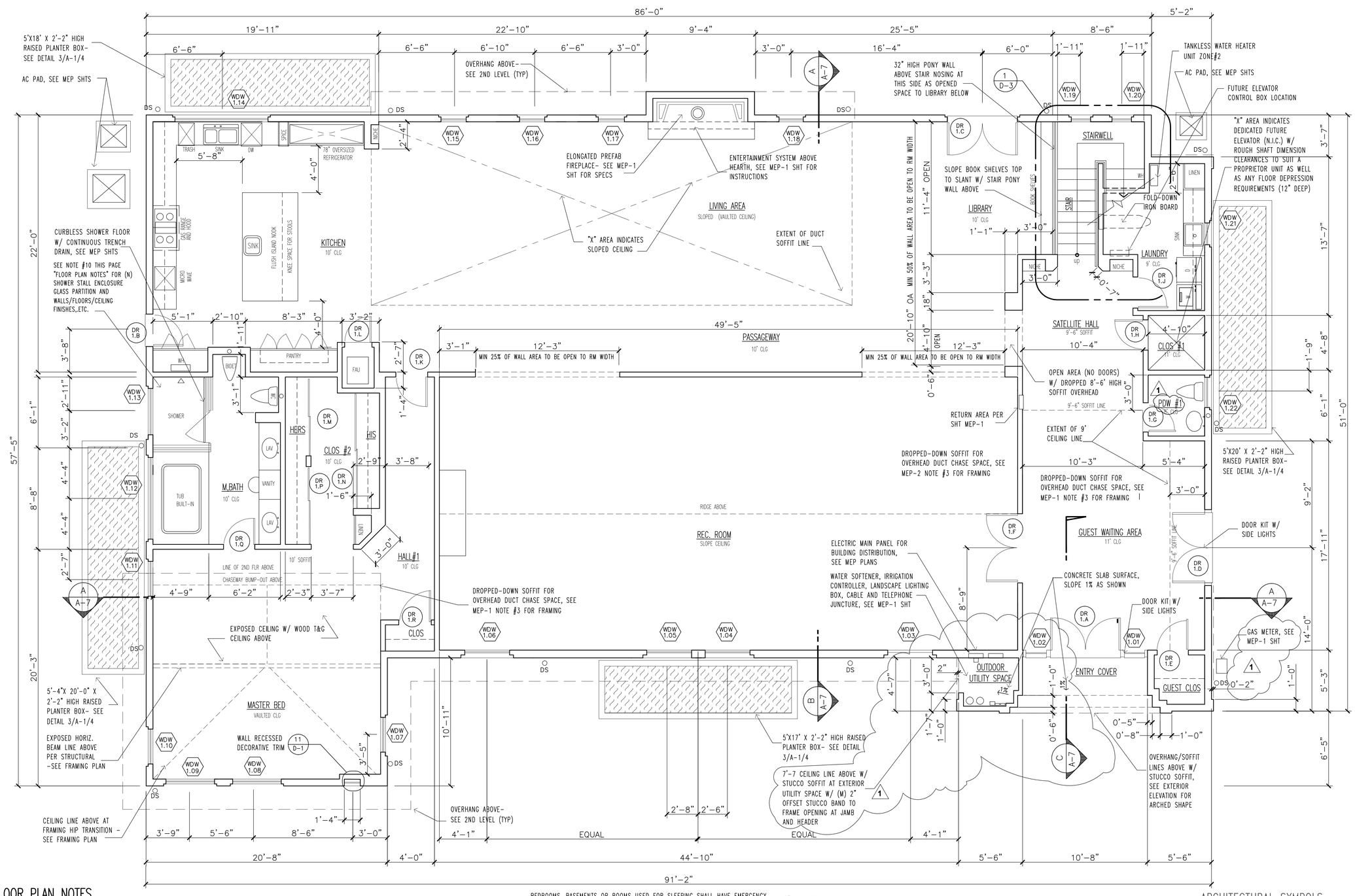
TOPOGRAPHIC MAP

12322 LAMPSON AVENUE
GARDEN GROVE, CA 92840
PREPARED FOR: MR. HENRY KHUU

G-1426

C-10

PLOT DATE: 04-29-2019



FLOOR PLAN NOTES

1. REFER TO COVER SHEET FOR ADDITIONAL INFORMATION NOT SHOWN
2. REFER TO BLDG SECTION SHT A-7 FOR ADDITIONAL GENERAL NOTES NOT SHOWN
3. SMOKE DETECTORS PER 2019 C.B.C., SEE COVER PAGE PER NOTE 5, 6 & 7 OF SHEET MEP-2 SECTION 16 ELECTRICAL
4. CONTRACTOR SHALL FIELD VERIFY BOTH HORIZONTAL AND VERTICAL DIMENSIONS TO ENDURE PROPER FIT FOR ALL DETAILS-REPORT TO THE ARCHITECT IMMEDIATELY TO SECURE INSTRUCTIONS SHOULD INFORMATION BE INCORRECTLY NOTED
5. ALL PAINT FINISHES AND TEXTURES PER OWNERS DIRECTIONS (PROVIDE 3/4" RADIUS CORNERS AT GYP BOARD WALLS BOTH (E) AND (N))
6. REFER TO MEP SHEET FOR ELECTRICAL, MECHANICAL AND PLUMBING HVAC AND FRAMING CONTRACTOR TO HAVE PRE-CONSTRUCTION MEETING FOR DUCT ROUTES AND POSSIBLE DROPPED FRAMED SOFFITS WHERE DUCT CHASE WAYS MAY NOT BE ACCESSIBLE TO REACH GRILLS FROM UNIT
7. VERIFY ALL ALL FINISHES W/ OWNER PRIOR TO INSTALL OF SUBTRATES. REFER TO CABINET SHOP, DRAWINGS FOR INTERIOR ELEVATIONS AND INTERIOR DETAILS NOT SHOWN
8. BEDROOMS, BASEMENTS OR ROOMS USED FOR SLEEPING SHALL HAVE EMERGENCY WINDOWS OR DOORS THAT MUST MEET CODE SECTION 310.4 FOR FIRE ESCAPE OR RESCUE NET DIMENSIONS: MIN 20" WIDE X 24" HIGH SIZE FOR OPERATIVE CLEARANCE SIZE OF 5.7. S.F. W/ SILL AT 44" MAX FROM FINISH FLOOR PER CRC R310.2. -REFER TO WINDOW SCHEDULE OF SHEET D-4 UNDER "REMARKS" COLUMN FOR COMMENTS THAT IDENTIFY THE LOCATIONS KEYED ON THIS PLAN
9. SOFFIT CLEARANCE HEIGHTS ARE SUGGESTIVE AS THE HVAC AND FRAMING CONTRACTOR ARE TO STRATEGIZE A METHOD TO MAKE COMPACT THE SOFFIT HEIGHTS AT DROPPED CEILING CHASE-WAY AREAS TO HUG AS CLOSE AS POSSIBLE TO UNDERSIDE WHILE ALSO KEEPING OVERHEAD FAU UNIT CLEARANCE TO MINIMUM CODE PER NOTE #3 OF SHEET MEP-1
10. SHOWER STALL
(N) SHOWER STALL-FINISH PER INTERIOR DRAWINGS (N) FRAMELESS GLASS SHOWER DOOR AND ENCLOSURE TO BE SAFETY OR TEMPERED GLAZING (CRC R308.4) SHOWER FLOORS AND WALLS ABOVE SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE TO A HEIGHT OF FULL HT OF 8' ABOVE THE FLOOR. (R307.2 CRC) CEMENT, FIBER-CEMENT, FIBER-MAT REINFORCED CEMENT, GLASS MAT GYPSUM OR FIBER-REINFORCED GYPSUM BACKERS SHALL BE USED AS A BASE FOR WALL TILE IN TUB AND SHOWER AREAS AND WALL AND CEILING PANELS IN SHOWER AREAS. (R702.4.2 CRC)- SEE MEP SHEET FOR PLUMBING LAYOUT

ARCHITECTURAL SYMBOLS

- 2X6 EXTERIOR WALL ASSEMBLY: 7/8" 3 COAT EXT STUCCO SYSTEM O/ 1" XPS EXTERIOR INSULATION BD OF R-5 O/ (2) LAYERS OF 60 MIN. BUILDING PAPER O/ SHEAR PLYWOOD SHEATHING O/ 2X6 WD STUDS @ 16" O.C. W/ R-21 BAT INSULATION AND 5/8" GYP. BOARD INTERIOR.
- 2X4 STUD INTERIOR WALLS @ 16" O.C W/ 5/8" GYP BOARD
- 2X6 STUD INTERIOR PLUMBING WALLS S @ 16" O.C W/ 5/8" GYP BOARD

PROPOSED FLOOR PLAN (MAIN BUILDING 1st LEVEL)

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

TRUE NORTH

Contractor shall exercise the responsibility with architect in securing latest approved drwgs. prior to actually executing work

REVISIONS NO.

1 CITY 2nd submit 8-1-20

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architect

KHUU RESIDENCE
NEW RESIDENCE WITH ADU
MAIN BUILDING
1st LEVEL FLOOR PLAN

OWNER/SITE ADDRESS:
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Garden Grove, CA 92840
(714) 722-8067 Email: HenryKhuu@gmail.com

REGISTERED PROFESSIONAL ARCHITECT JOHN A. SALAT NO. C-24445 CYPE 10-29-21 STATE OF CALIFORNIA

DRAWN JS
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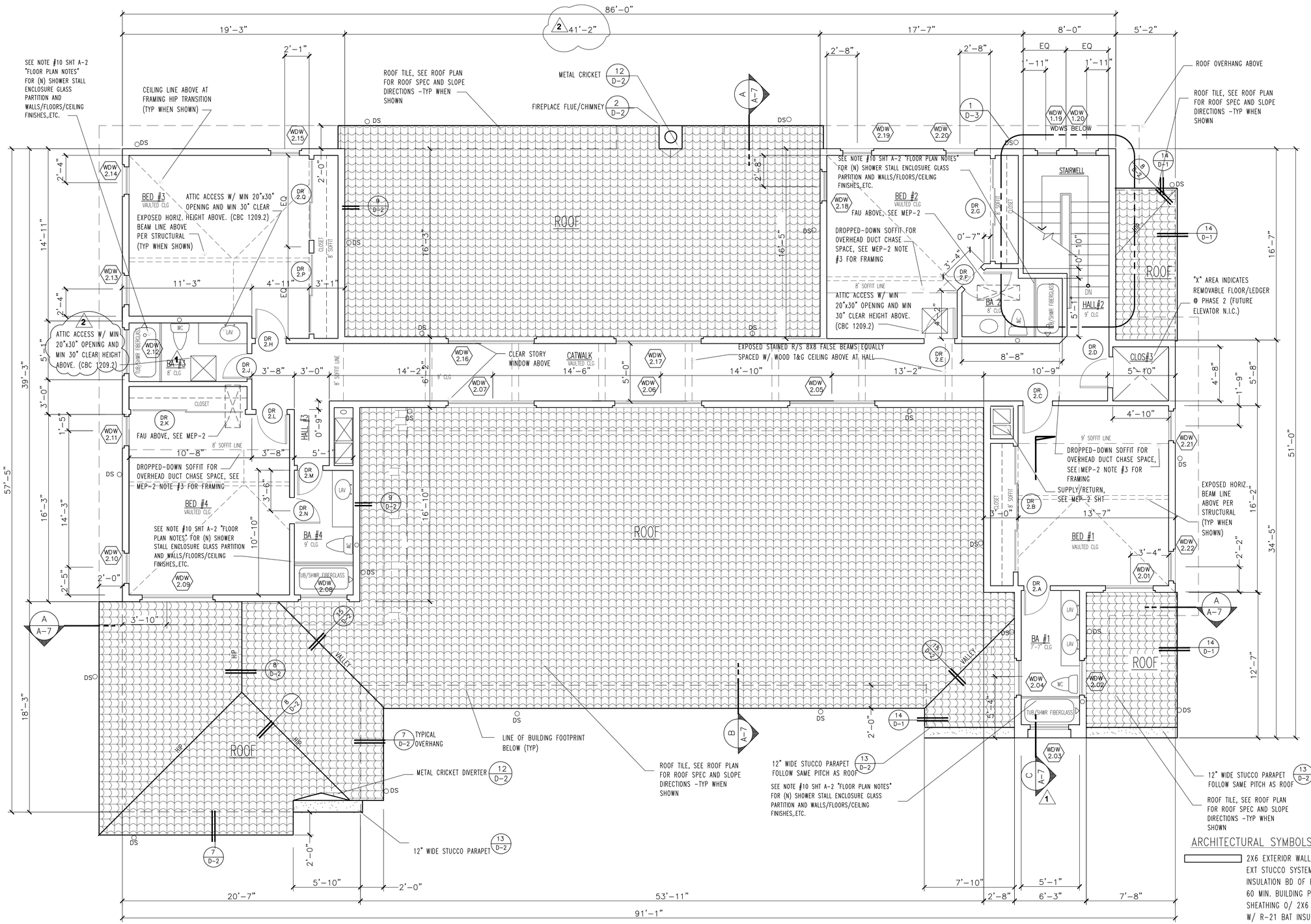
DATE SEE REVISION BOX ABOVE FOR DATE
SCALE AS NOTED ON PLANS
JOB NO.
SHEET

A-2

1 OF (SEE INDEX) SHEETS



FLOOR PLAN NOTES

1. REFER TO SHEET A-2, 1ST LEVEL PLAN FOR TYPICAL FLOOR PLAN NOTES SHOWN

ARCHITECTURAL SYMBOLS

- 2X6 EXTERIOR WALL ASSEMBLY: 7/8" 3 COAT EXT STUCCO SYSTEM O/ 1" XPS EXTERIOR INSULATION BD OF R-5 O/ (2) LAYERS OF 60 MIN. BUILDING PAPER O/ SHEAR PLYWOOD SHEATHING O/ 2X6 WD STUDS @ 16" O.C. W/ R-21 BAT INSULATION AND 5/8" GYP. BOARD INTERIOR.
- 2X4 STUD INTERIOR WALLS @ 16" O.C W/ 5/8" GYP BOARD
- 2X6 STUD INTERIOR PLUMBING WALLS W/ 5/8" GYP BOARD

PROPOSED FLOOR PLAN (MAIN BUILDING 2nd LEVEL)

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

TRUE NORTH

Contractor shall exercise the responsibility with architect in securing latest approved drwgs. prior to actually executing work

REVISIONS NO.

1 CITY 2nd submit 8-1-20

2 Field clarification

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architect

KHUU RESIDENCE
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MAIN BUILDING
2nd LEVEL FLOOR PLAN

OWNER/SITE ADDRESS:
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REGISTERED PROFESSIONAL ARCHITECT JOHN A. SALAT NO. C-24445 EXP. 10-29-21 STATE OF CALIFORNIA

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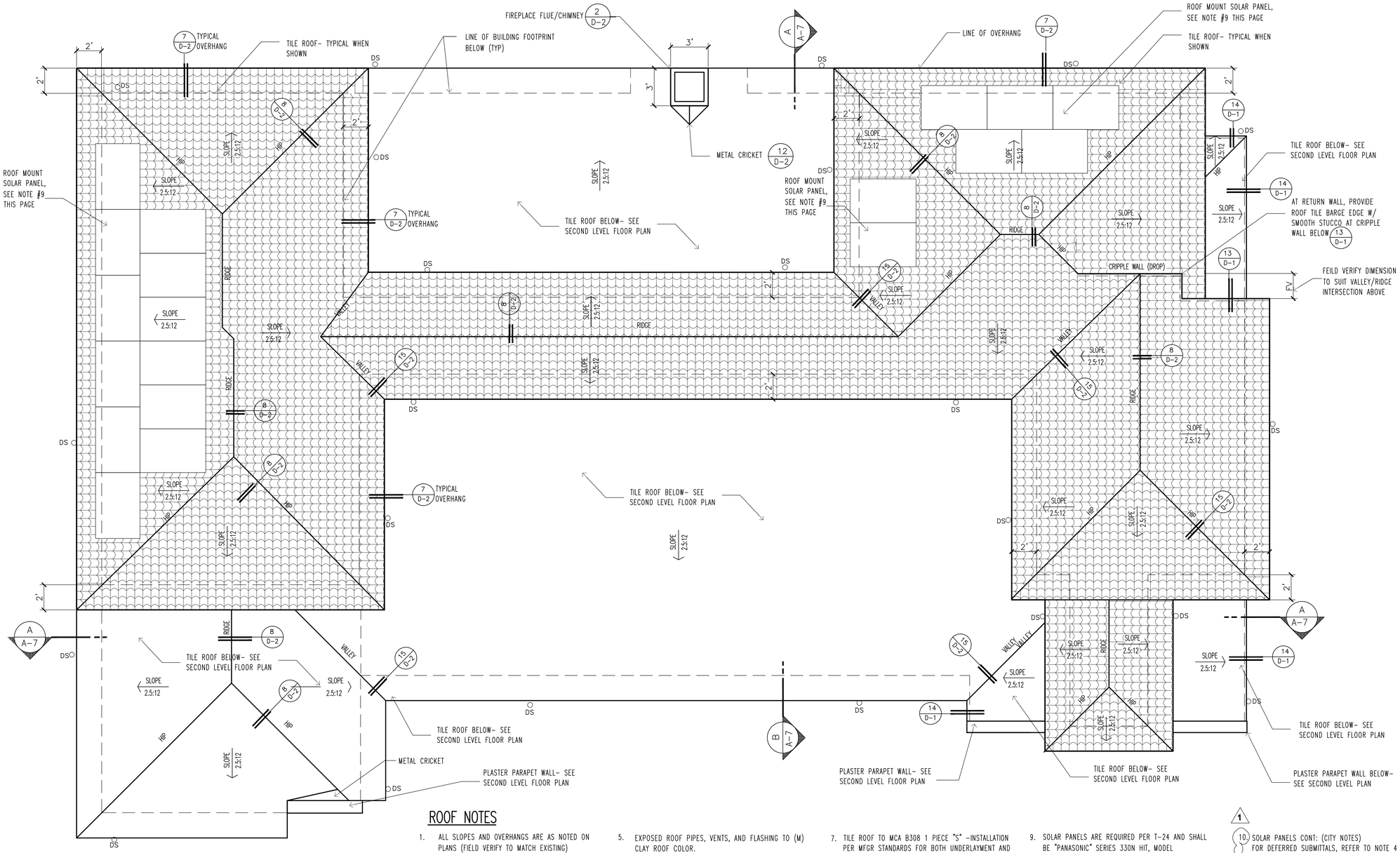
SHEET

A-3

1 OF (SEE INDEX) SHEETS



ROOF NOTES

1. ALL SLOPES AND OVERHANGS ARE AS NOTED ON PLANS (FIELD VERIFY TO MATCH EXISTING)
2. FOR TYPICAL SYMBOLS, ABBREVIATIONS AND NOTES, SEE COVER PAGE.
3. CONTRACTOR SHALL PROVIDE ADEQUATE ATTIC VENTILATION PER BUILDING CODES THROUGH CONTINUOUS SOFFIT VENTS AND EAVE AND DORMER VENTS.
4. ROOF WEIGHT FOR CLAY TILE ASSEMBLY WEIGHT PER 100 SF AREA (PER SQ) IS 800 lb FOR TILE AND W/ 40 LBS FOR UNDERLAYMENT
5. EXPOSED ROOF PIPES, VENTS, AND FLASHING TO (M) CLAY ROOF COLOR.
6. ROOF VENTILATION SHALL BE AREA RATIO OF 1/150 FOR ATTIC AREA OR 1/300 OF ATTIC AREA IF HALF THE VENT AREA LOCATED MORE THAN 3 FEET ABOVE EAVE VENTS W/ A BALANCE OF THE REQUIRED VENTILATION PROVIDED BY THE EAVE VENTS OPENINGS SHALL HAVE 1/4" INCHES CORROSION RESISTANT METAL MESH COVERING. PER SECTION 1505.3 DORMER VENTS SHALL BE SIZED ABOVE FREE AREA REQUIREMENT PER MANUFACTURE SPECIFICATIONS PER SECTION 1505.3 AND EACH VENT SHALL NOT EXCEED 144" SQ INCHES - SEE CHART BELOW OF THIS PAGE
7. TILE ROOF TO MCA B308 1 PIECE "S" -INSTALLATION PER MFGR STANDARDS FOR BOTH UNDERLAYMENT AND FLASHING. TILE TYPE SHALL BE FLAT INTER-LOCK CLAY ROOF TILE TWO TONE MIXED OF TERRA-COTTA (NATURAL RED F40) CLAY COLOR PALETTE W/ MAX 0.45 SOLAR REFLECTANCE AND MIN 0.88 THERMAL EMITTANCE.
8. UNDERLAYMENT BENEATH ROOF TILE SHALL BE INSTALLED WITH POLYGLASS POLYSTICK TU PLUS SELF ADHERED MEMBRANE TO PLYWOOD DECK W/ ICP POLYSET AH-160 FOAM ADHERED TILES TO TU PLUS AS TILES PLACE WITHOUT FASTENERS PER ICC ESR-1709.
9. SOLAR PANELS ARE REQUIRED PER T-24 AND SHALL BE "PANASONIC" SERIES 330N HIT, MODEL #VBH330RA18N: SIZE: 62.6"x41.5"x1.6" THICK @ 41.89 Lbs PER UNIT MEETING UL 1703. PROVIDE STAND-OFF THAT EXTEND ABOVE ROOF TILES FOR LOAD BALANCE OF THE SOLAR PANELS SO TO AVOID CONTACT TO ROOF TILES (SECTION R909.3). VENDOR SHALL VERIFY PANEL DESIGN BASED ON 6.35 KWS POWER DEMAND BY PROVIDING SHOP DRAWINGS IN ADVANCE PRIOR ROOFING CONTRACTORS INVOLVEMENT AS DRAWINGS ARE SHOWN DIAGRAMMATIC. CONTACT BARNES SOLAR INC 949-444-1577 www.barnessolar.com (SEE NOTE #10 FOR ADDT'L)

1

10. SOLAR PANELS CONT: (CITY NOTES)
FOR DEFERRED SUBMITTALS, REFER TO NOTE 4 UNDER AGENCY NOTES OF SHT A-1 (ALSO REFER TO NOTE #9 THIS PAGE FOR CITY STANDARD NOTES)
THE SOLAR ZONE AREA SHALL COMPRISE OF AREAS THAT HAVE NO DIMENSIONS LESS THAN 5' AND AREA SHALL BE NOT LESS THAN AS FOLLOWS:
a) 80 SF FOR ROOF AREAS OF 10,000 SF OR LESS
b) 160 SF FOR ROOF AREAS OVER 10,000 SF

THE SOLAR ZONE SHALL BE FREE FROM OBSTRUCTIONS AND BE SETBACK AT LEAST TWO TIMES THE HEIGHT OF ANY OBSTRUCTION, INCLUDE BUT NOT LIMITED TO VENTS, CHIMNEYS, EQUIPMENT'S, PARAPETS AND STAIRWELLS

PROPOSED ROOF PLAN (MAIN BUILDING)

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

NORTH TRUE

Contractor shall exercise the responsibility with architect in securing latest approved drwgs. prior to actually executing work

REVISIONS NO.

1 CITY 2nd submit 8-1-20

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zenarchitect.com

architect

KHUU RESIDENCE
NEW RESIDENCE WITH ADU
MAIN BUILDING
ROOF PLAN

OWNER/SITE ADDRESS:
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(714) 722-8067 Email : HenryKhuu@gmail.com

REGISTERED PROFESSIONAL ARCHITECT JOHN A. SALAT NO. C-24445 EXP. 10-29-20 STATE OF CALIFORNIA

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DATE SEE REVISION BOX ABOVE FOR DATE
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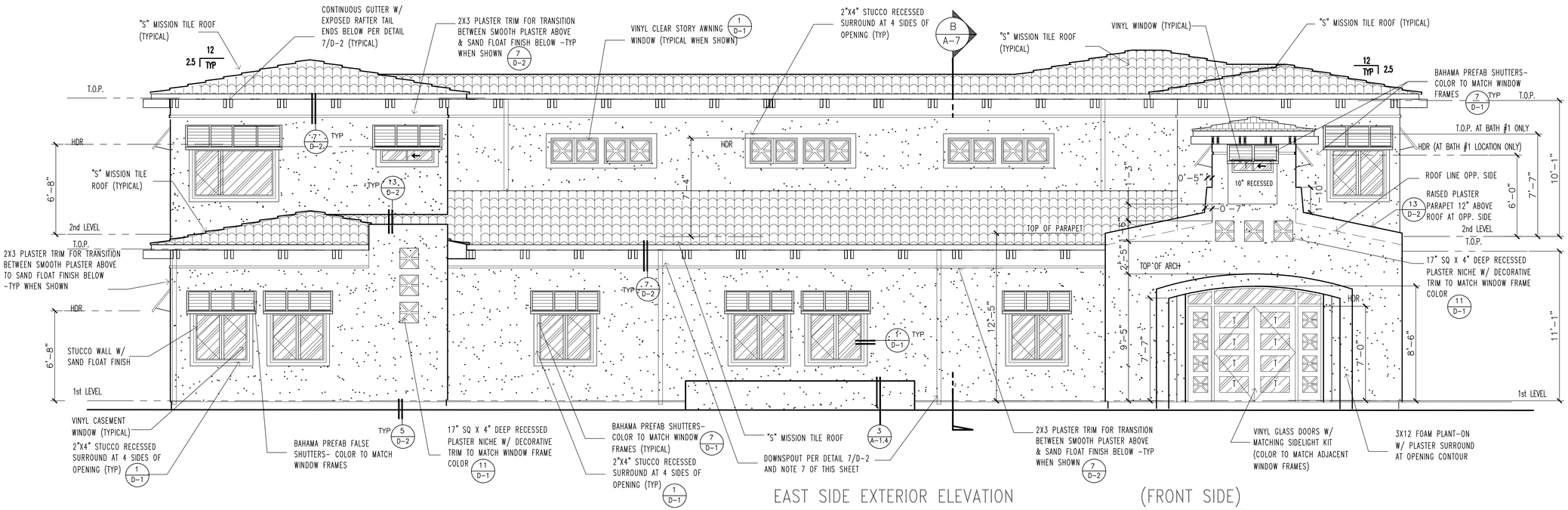
JOB NO.
SHEET

A-4

1 OF (SEE INDEX) SHEETS

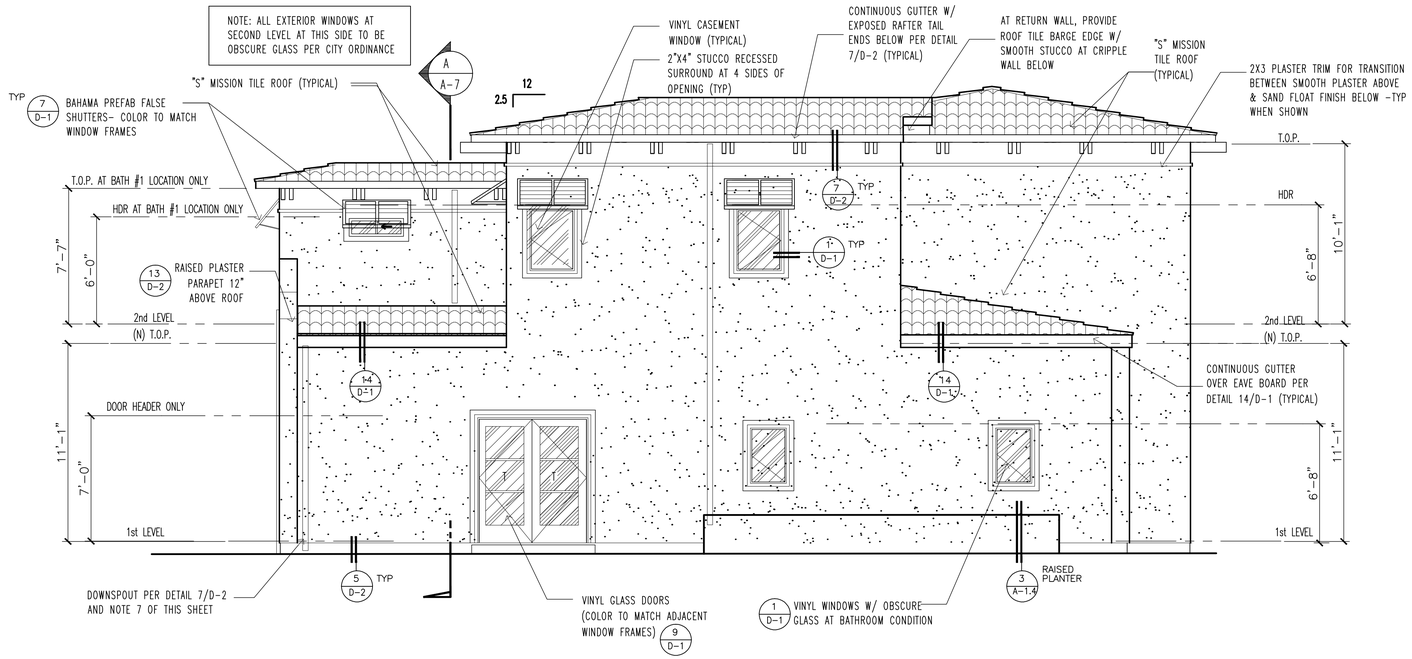


EAST SIDE EXTERIOR ELEVATION (FRONT SIDE)

EXTERIOR FINISH/MATERIAL NOTES

NOTE: REFER TO ATTACHED PRODUCT LITERATURE FOR EXPANDED INFO KEYED BELOW

1) WINDOWS: CUSTOM COLOR VINYL FRAMES W/ LOW-E DUAL PANE (CLEAR GLAZING AT LOWER LEVEL AND OBSCURE GLASS AT SECOND LEVEL FACING TOWARD 5' SIDE-YARD PER CITY ORDINANCE- SEE WINDOW SCHEDULE AND WEST ELEVATION FOR OCCURRENCE)
2) DOORS FRAMES AND GLASS TO MATCH WINDOW SYSTEMS PER SCHEDULE
3) EXTERIOR PLASTER TEXTURE AND COLOR PER SCHEDULE
4) ROOF TILE: "S" TYPE TILE W/ COLOR PER ROOF PER SCHEDULE
5) WOOD TRIM COLOR AND PLASTER ACCENT PER SCHEDULE
6) REFER TO BUILDING SECTIONS SHEET A-7 FOR ADDITIONAL NOTES NOT SHOWN FOR BUILDING SHELL
7) SEAMLESS GUTTER AND DOWN SPOUT SYSTEM. POWDERED COAT METAL WITH CUSTOM COLOR TO MATCH WALL AND TRIM BY http://gutter4u.com/ SEE DETAIL 7/D-2 FOR PROFILE AND NOTES
8) SOLAR PANELS NOT SHOWN FOR CLARITY- SEE ROOF PLAN FOR LAYOUT, NOTES AND DETAILS



NORTH EXTERIOR ELEVATION (RIGHT SIDE)

EXTERIOR ELEVATIONS (MAIN BUILDING)

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

Contractor shall exercise the responsibility with architect in securing latest approved drwgs. prior to actually executing work

REVISIONS NO.

REVISED 5-9-20

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zenarchitect.com
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KHUU RESIDENCE
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EXTERIOR ELEVATION

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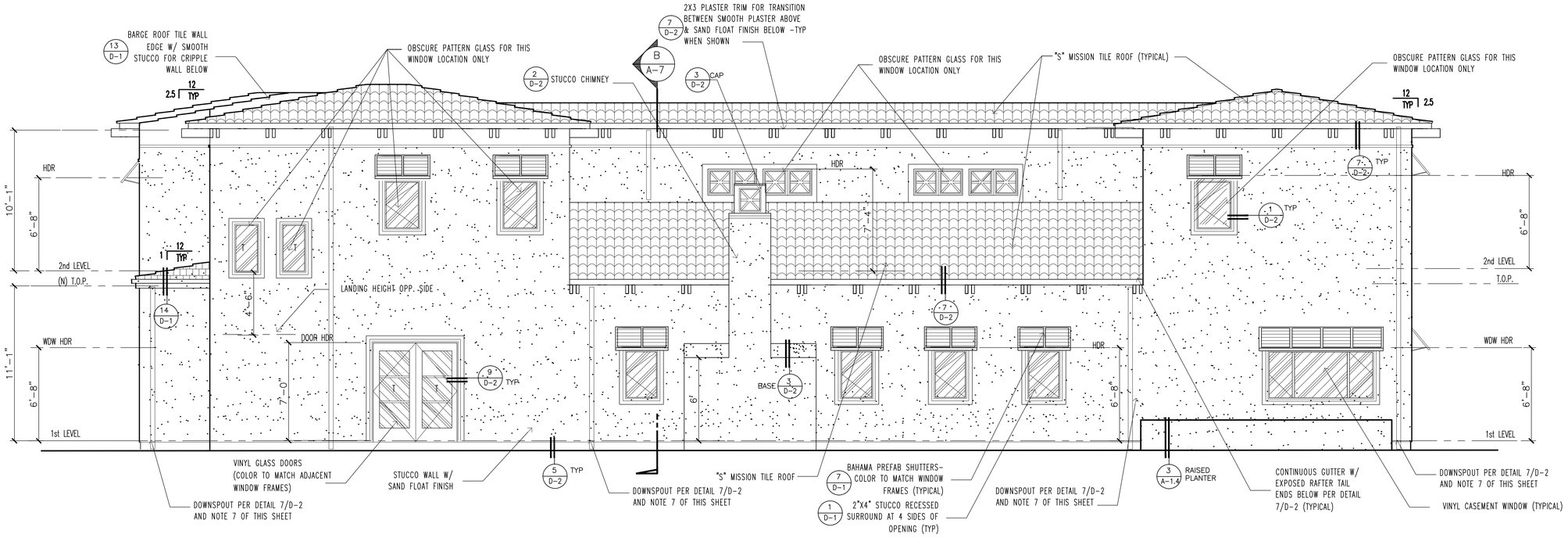
SHEET

A-5

1 OF (SEE INDEX) SHEETS

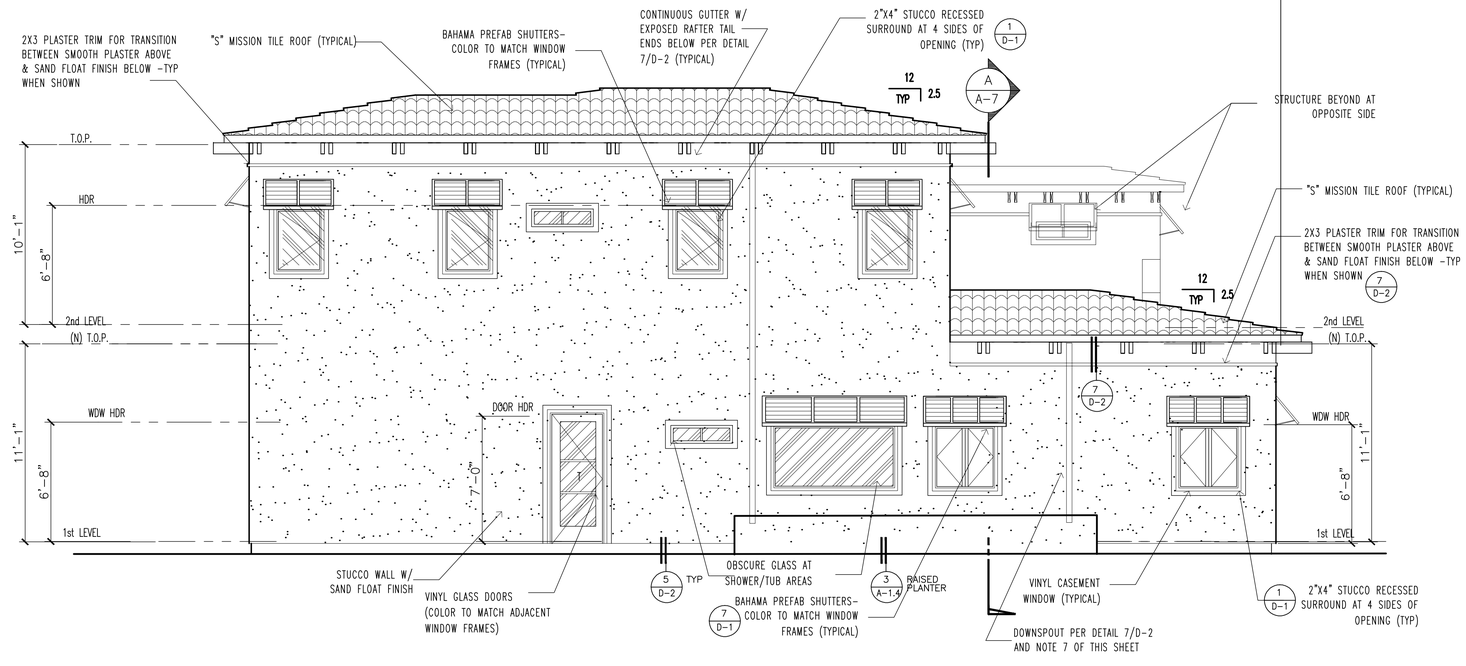


WEST SIDE EXTERIOR ELEVATION (REAR SIDE)

EXTERIOR FINISH/MATERIAL NOTES

NOTE: REFER TO ATTACHED PRODUCT LITERATURE FOR EXPANDED INFO KEYED BELOW

1) WINDOWS: CUSTOM COLOR VINYL FRAMES W/ LOW-E DUAL PANE (CLEAR GLAZING AT LOWER LEVEL AND OBSCURE GLASS AT SECOND LEVEL FACING TOWARD 5' SIDE-YARD PER CITY ORDINANCE- SEE WINDOW SCHEDULE AND WEST ELEVATION FOR OCCURRENCE)
2) DOORS FRAMES AND GLASS TO MATCH WINDOW SYSTEMS PER SCHEDULE
3) EXTERIOR PLASTER TEXTURE AND COLOR PER SCHEDULE
4) ROOF TILE: "S" TYPE TILE W/ COLOR PER ROOF PER SCHEDULE
5) WOOD TRIM COLOR AND PLASTER ACCENT PER SCHEDULE
6) REFER TO BUILDING SECTIONS SHEET A-7 FOR ADDITIONAL NOTES NOT SHOWN FOR BUILDING SHELL
7) SEAMLESS GUTTER AND DOWN SPOUT SYSTEM. POWDERED COAT METAL WITH CUSTOM COLOR TO MATCH WALL AND TRIM BY http://gutter4u.com/ SEE DETAIL 7/D-2 FOR PROFILE AND NOTES
8) SOLAR PANELS NOT SHOWN FOR CLARITY- SEE ROOF PLAN FOR LAYOUT, NOTES AND DETAILS



SOUTH EXTERIOR ELEVATION (LEFT SIDE)

EXTERIOR ELEVATIONS (MAIN BUILDING)

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

Contractor shall exercise the responsibility with architect in securing latest approved drwgs. prior to actually executing work

REVISIONS NO.

REVISED 5-9-20

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architect

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MAIN BUILDING
EXTERIOR ELEVATION

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REGISTERED PROFESSIONAL ARCHITECT JOHN A. SALAT NO. C-24445 EXP. 10-29-21 STATE OF CALIFORNIA

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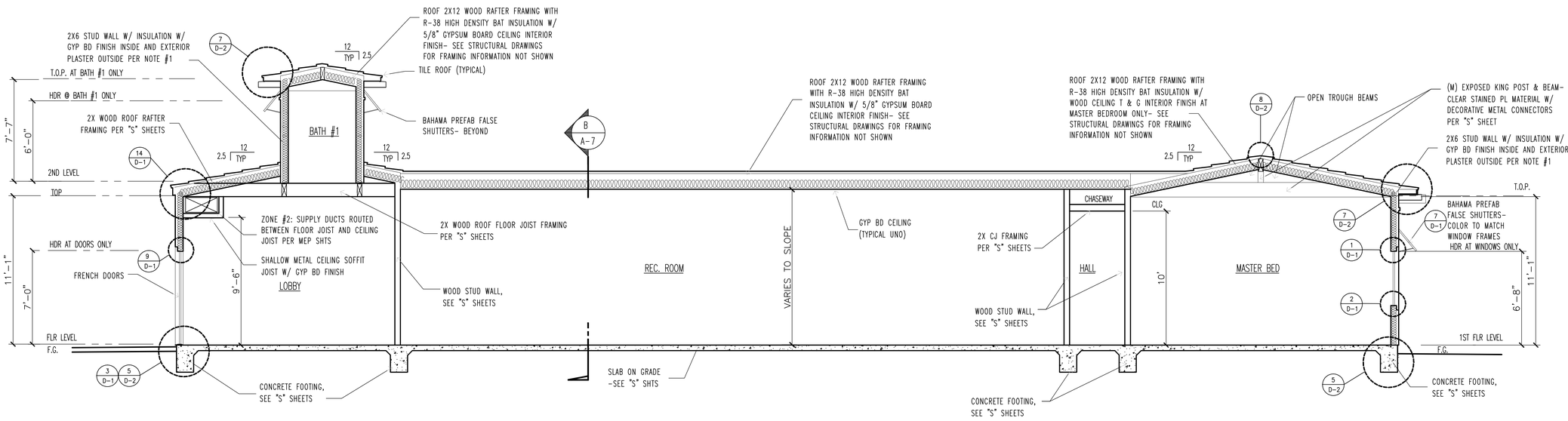
SHEET

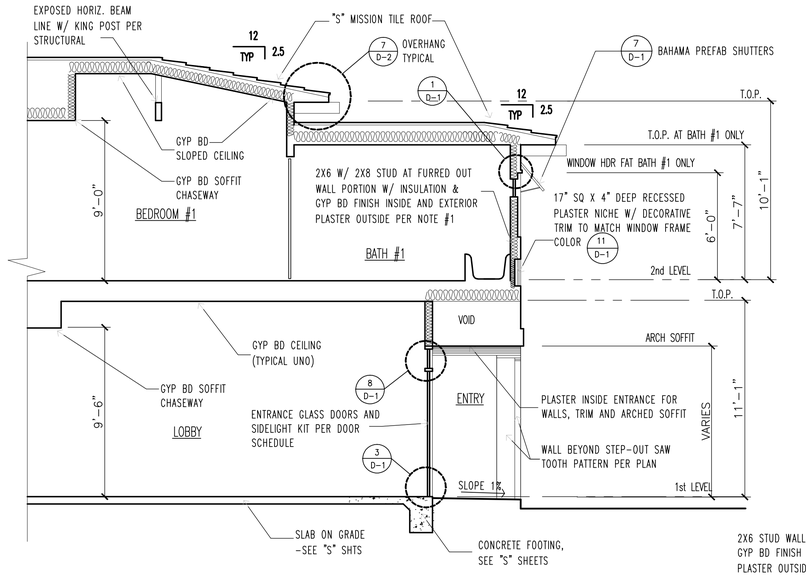
A-6

1 OF (SEE INDEX) SHEETS



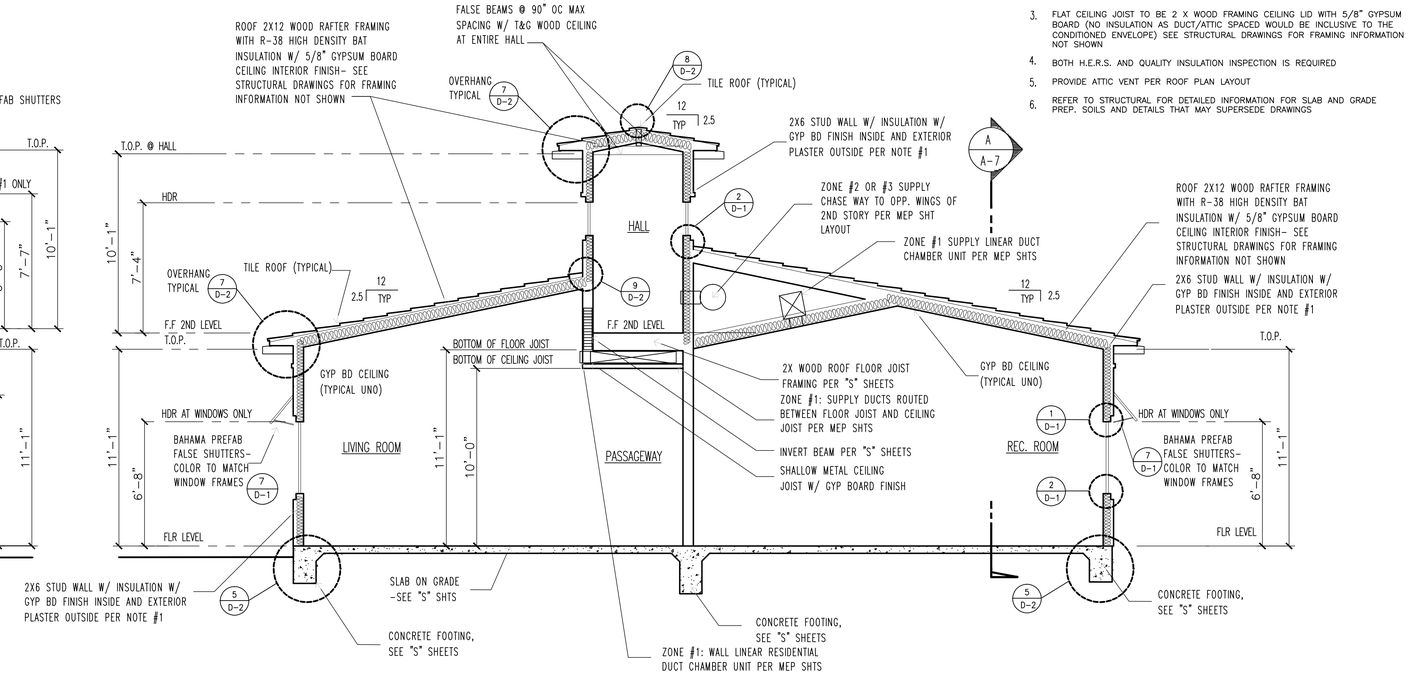
BUILDING SECTION "A" (MAIN BUILDING)

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



BUILDING SECTION "C" (MAIN BUILDING) 1

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



BUILDING SECTION "B" (MAIN BUILDING)

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

GENERAL NOTES

1. TYPICAL EXTERIOR WALL ASSEMBLY: 7/8" 3 COAT EXTERIOR STUCCO SYSTEM OVER 1" XPS EXTERIOR INSULATION BD OF R-5 O/ (2) LAYERS OF 60 MIN. BUILDING PAPER (WEATHER RESISTIVE BARRIER PER CRC 703) O/ SHEAR PLYWOOD SHEATHING O/ 2 X 6 WOOD STUDS @ 16" O.C. W/ R-21 BAT INSULATION AND 5/8" GYP. BOARD INTERIOR. – SEE STRUCTURAL DRAWINGS WHERE IN CONFLICT FOR FRAMING INFORMATION NOT SHOWN
2. ALL ROOF RAFTERS JOIST AT DWELLING PORTIONS TO BE 2 X 12 WOOD FRAMING WITH R-38 HIGH DENSITY BAT INSULATION W/ 5/8" GYPSUM BOARD CEILING INTERIOR FINISH– SEE STRUCTURAL DRAWINGS FOR FRAMING INFORMATION NOT SHOWN
3. FLAT CEILING JOIST TO BE 2 X WOOD FRAMING CEILING LID WITH 5/8" GYPSUM BOARD (NO INSULATION AS DUCT/ATTIC SPACED WOULD BE INCLUSIVE TO THE CONDITIONED ENVELOPE) SEE STRUCTURAL DRAWINGS FOR FRAMING INFORMATION NOT SHOWN
4. BOTH H.E.R.S. AND QUALITY INSULATION INSPECTION IS REQUIRED
5. PROVIDE ATTIC VENT PER ROOF PLAN LAYOUT
6. REFER TO STRUCTURAL FOR DETAILED INFORMATION FOR SLAB AND GRADE PREP. SOILS AND DETAILS THAT MAY SUPERSEDE DRAWINGS

Contractor shall exercise the responsibility with architect in securing latest approved drwgs. prior to actually executing work

REVISIONS NO.

1 CITY 2nd submit 8-1-20

2 FIELD CLARIFICATION

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KHUU RESIDENCE
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MAIN BUILDING
BUILDING SECTIONS

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A-7

1 OF (SEE INDEX) SHEETS

WINDOW SCHEDULE

WDW NO.	SIZE W	SIZE H	ELEV.	TYPE	FRAME MAT'L	FRAME FINISH	GLAZING TYPE	GLAZING THICK	GLAZING INSUL	GLAZING TEMP	REMARKS
1 S T L E V E L											
WDW 1.01	2'-0"	7'-0"	J	CA	AL/W	FF	TINT	3/4"	DBL	T	ARCHED HEAD W/ SIDELIGHT & TRANSOM AS 1 KIT
WDW 1.02	2'-0"	7'-0"	J	CA	AL/W	FF	TINT	3/4"	DBL	T	ARCHED HEAD W/ SIDELIGHT & TRANSOM AS 1 KIT
WDW 1.03	4'-0"	3'-6"	D	CA	AL/W	FF	TINT	3/4"	DBL	---	
WDW 1.04	4'-0"	3'-6"	D	CA	AL/W	FF	TINT	3/4"	DBL	---	
WDW 1.05	4'-0"	3'-6"	D	CA	AL/W	FF	TINT	3/4"	DBL	---	
WDW 1.06	4'-0"	3'-6"	D	CA	AL/W	FF	TINT	3/4"	DBL	---	
WDW 1.07	4'-0"	3'-6"	D	CA	AL/W	FF	TINT	3/4"	DBL	---	FIRE RESCUE/ESCAPE WDW PER NOTE 7 THIS PAGE
WDW 1.08	4'-0"	3'-6"	D	CA	AL/W	FF	TINT	3/4"	DBL	---	FIRE RESCUE/ESCAPE WDW PER NOTE 7 THIS PAGE
WDW 1.09	4'-0"	3'-6"	D	CA	AL/W	FF	TINT	3/4"	DBL	---	FIRE RESCUE/ESCAPE WDW PER NOTE 7 THIS PAGE
WDW 1.10	3'-0"	3'-6"	D	CA	AL/W	FF	TINT	3/4"	DBL	---	FIRE RESCUE/ESCAPE WDW PER NOTE 7 THIS PAGE
WDW 1.11	3'-0"	3'-6"	D	CA	AL/W	FF	TINT	3/4"	DBL	---	
WDW 1.12	7'-0"	3'-6"	B	FIXED	AL/W	FF	TINT	3/4"	DBL	T	(POG) PATTERN OBSCURE GLASS: MISLITE OR EQ
WDW 1.13	4'-0"	1'-0"	E	SL	AL/W	FF	TINT	3/4"	DBL	T	(POG) PATTERN OBSCURE GLASS: MISLITE OR EQ
WDW 1.14	8'-0"	3'-8"	G	CA/FIX	AL/W	FF	TINT	3/4"	DBL	---	VERFIY W/ OWNER SILL HEIGHT TO COUNTER
WDW 1.15	2'-0"	3'-6"	A	CA	AL/W	FF	TINT	3/4"	DBL	---	
WDW 1.16	2'-0"	3'-6"	A	CA	AL/W	FF	TINT	3/4"	DBL	---	
WDW 1.17	2'-0"	3'-6"	A	CA	AL/W	FF	TINT	3/4"	DBL	---	
WDW 1.18	2'-0"	3'-6"	A	CA	AL/W	FF	TINT	3/4"	DBL	---	
WDW 1.19	1'-6"	3'-6"	C	FIXED	AL/W	FF	TINT	3/4"	DBL	---	(POG) PATTERN OBSCURE GLASS: MISLITE OR EQ
WDW 1.20	1'-6"	3'-6"	C	FIXED	AL/W	FF	TINT	3/4"	DBL	---	(POG) PATTERN OBSCURE GLASS: MISLITE OR EQ
WDW 1.21	2'-6"	3'-6"	A	CA	AL/W	FF	TINT	3/4"	DBL	---	
WDW 1.22	2'-6"	3'-6"	A	CA	AL/W	FF	TINT	3/4"	DBL	---	(POG) PATTERN OBSCURE GLASS: MISLITE OR EQ
2 N D L E V E L											
WDW 2.01	4'-0"	3'-6"	D	CA	AL/W	FF	TINT	3/4"	DBL	---	FIRE RESCUE/ESCAPE WDW PER NOTE 7 THIS PAGE
WDW 2.02	3'-6"	1-0"	E	SL	AL/W	FF	TINT	3/4"	DBL	T	
WDW 2.03	3'-6"	1-0"	E	SL	AL/W	FF	TINT	3/4"	DBL	T	
WDW 2.04	3'-6"	1-0"	E	SL	AL/W	FF	TINT	3/4"	DBL	T	
WDW 2.05	7'-6"	1'-0"	F	AWN'G	AL/W	FF	TINT	3/4"	DBL	---	INSIDE GRILL * PATTERN
WDW 2.06	7'-6"	1'-0"	F	AWN'G	AL/W	FF	TINT	3/4"	DBL	---	INSIDE GRILL * PATTERN
WDW 2.07	7'-6"	1'-0"	F	AWN'G	AL/W	FF	TINT	3/4"	DBL	---	INSIDE GRILL * PATTERN
WDW 2.08	4'-0"	1'-0"	E	SL	AL/W	FF	TINT	3/4"	DBL	T	
WDW 2.09	6'-0"	3'-6"	H	CA/FIX	AL/W	FF	TINT	3/4"	DBL	---	FIRE RESCUE/ESCAPE WDW PER NOTE 7 THIS PAGE
WDW 2.10	2'-6"	3'-6"	A	CA	AL/W	FF	TINT	3/4"	DBL	---	FIRE RESCUE/ESCAPE WDW PER NOTE 7 THIS PAGE
WDW 2.11	2'-6"	3'-6"	A	CA	AL/W	FF	TINT	3/4"	DBL	---	FIRE RESCUE/ESCAPE WDW PER NOTE 7 THIS PAGE
WDW 2.12	4'-0"	1-0"	E	SL	AL/W	FF	TINT	3/4"	DBL	T	
WDW 2.13	2'-6"	3'-6"	A	CA	AL/W	FF	TINT	3/4"	DBL	---	FIRE RESCUE/ESCAPE WDW PER NOTE 7 THIS PAGE
WDW 2.14	2'-6"	3'-6"	A	CA	AL/W	FF	TINT	3/4"	DBL	---	FIRE RESCUE/ESCAPE WDW PER NOTE 7 THIS PAGE
WDW 2.15	2'-6"	3'-6"	A	CA	AL/W	FF	TINT	3/4"	DBL	---	(POG)FIRE RESCUE/ESCAPE WDW: NOTE 7 THIS PAGE
WDW 2.16	7'-6"	1'-0"	F	AWN'G	AL/W	FF	TINT	3/4"	DBL	---	(POG) PATTERN OBSCURE GLASS: MISLITE OR EQ
WDW 2.17	7'-6"	1'-0"	F	AWN'G	AL/W	FF	TINT	3/4"	DBL	---	(POG) PATTERN OBSCURE GLASS: MISLITE OR EQ
WDW 2.18	2'-6"	3'-6"	A	CA	AL/W	FF	TINT	3/4"	DBL	---	FIRE RESCUE/ESCAPE WDW PER NOTE 7 THIS PAGE
WDW 2.19	2'-6"	3'-6"	A	CA	AL/W	FF	TINT	3/4"	DBL	---	(POG)FIRE RESCUE/ESCAPE WDW: NOTE 7 THIS PAGE
WDW 2.20	2'-6"	3'-6"	A	CA	AL/W	FF	TINT	3/4"	DBL	---	(POG)FIRE RESCUE/ESCAPE WDW: NOTE 7 THIS PAGE
WDW 2.21	2'-6"	3'-6"	A	CA	AL/W	FF	TINT	3/4"	DBL	---	FIRE RESCUE/ESCAPE WDW PER NOTE 7 THIS PAGE
WDW 2.22	2'-6"	3'-6"	A	CA	AL/W	FF	TINT	3/4"	DBL	---	FIRE RESCUE/ESCAPE WDW PER NOTE 7 THIS PAGE

WINDOW LEGEND

ABBREVIATIONS:

WD = WOOD
T = TEMPERED GLAZING PER CBC (SEC 2406.4)
SL = SLIDING
FG = FIXED GLASS
CA = CASEMENT W/ SCREEN
ST = STAINED WOOD FRAME
TINT = TINT GLASS (FACTORY LOW-E PER T-24)
DBL = DOUBLE GLASS PANE
CLR = CLEAR
AL/W = ALUMINUM CLAD OVER WOOD SUPERSTRUCTURE
SP = SINGLE PANE CLEAR TEMPERED GLASS)
3/4" = OVERALL THICKNESS FOR DUAL PANE INSULATED GLASS
FF = FACTORY POWDER COAT FINISH PER NOTE #1 THIS SHEET
POG = PATTERN OBSCURE GLASS (MISLITE OR EQ)
AWN'G = AWNING SYSTEM

WINDOW NOTES

1) MANUFACTURE: ANDERSON WINDOWS "E" SERIES FOR CASEMENT, FIXED AND SLIDERS AS NOTED IN SCHEDULE WITH ALL MATCHING "E" STYLE DESIGN FOR BOTH PROFILES AND COLORS. ALL WINDOWS TO BE ALUMINUM CLAD OVER WOOD SUPERSTRUCTURE W/ FACTORY POWDERED COAT FINISH (INSIDE "WHITE" AND EXTERIOR "OLIVE") THE ENTIRE ASSEMBLY SHALL MEET THE MINIMUM REQUIREMENTS PER SHEETS T-24 SHEETS OF RATINGS W/ ATTACHED LABELS INDICATING ENERGY STAR LAB PERFORMANCE USING MIN .3 "U" FACTOR W/ .22 "SHGC" RATING W/SMART SUN HEATLOCK LOW "E4" DUAL SYSTEM GLAZING.

2) GRILLS ONLY APPLY WHEN SHOWN. GRILLS SHALL BE INTERIOR TYPE "FINE LIGHT" AS LAYOUT SHALL BE EITHER "*" SHAPE OR NO GRILLS AT ALL PER INDICATION ON ELEVATION TYPE OF WINDOW SCHEDULE.

3) SUBMIT LOCK AND HARDWARE SPECIFICATIONS, TYPE AND FUNCTION TO OWNER FOR REVIEW W/ VENDORS GUIDANCE PRIOR TO ORDERING ALL WINDOWS AND DOORS. INTERIOR HARDWARE SHALL MATCH INTERIOR FRAME COLOR OF WHITE. (COORDINATE INTERIOR HARDWARE FINISH WITH OWNER INTERIORS DESIGNER IF DIFFERENT).

4) PROVIDE SCREENS FOR ALL WINDOWS ON OPERABLE SIDE

5) ALL GLAZING AND TINT PER T-24 ENERGY REQUIREMENTS AS DOUBLE GLAZE. "T" DESIGNATION ON ELEVATIONS INDICATES TEMPERED GLASS PER CBC (SEC 2406.4).

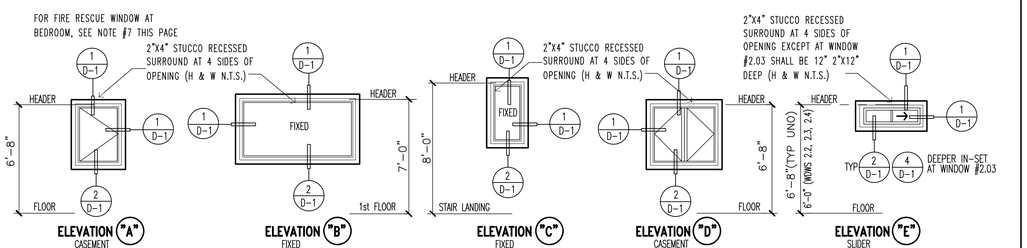
7) BEDROOM WINDOWS MUST MEET CODE SECTION 310.4 FOR FIRE ESCAPE OR RESCUE NET DIMENSIONS: MIN 20" WIDE X 24" HIGH SIZE FOR OPERATIVE CLEARANCE SIZE OF 5.7. S.F. W/ SILL AT 44" MAX FROM FINISH FLOOR SLIDERS AS SCHEDULED ON PLANS.

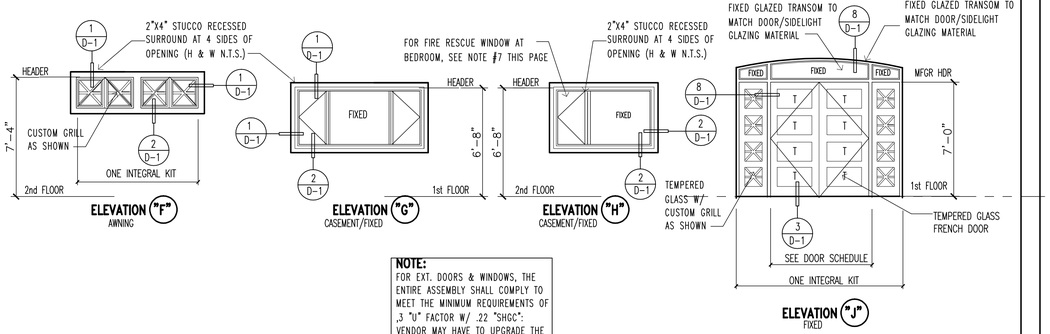
8) CONTRACTOR TO F,V, ALL DOOR AND WINDOW SIZES PRIOR TO ORDERS/INSTALLATION FOR ALL ACTUAL FIELD R.O. OPENINGS

WINDOW ELEVATION/TYPES

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

NOTE: SCHEDULE BELOW IS DIAGRAMMATIC WHERE SWING DIRECTIONS AND SCALE SHALL BE SUPERSEDED BY PLANS





NOTE:
FOR EXT. DOORS & WINDOWS, THE ENTIRE ASSEMBLY SHALL COMPLY TO MEET THE MINIMUM REQUIREMENTS OF .3 "U" FACTOR W/ .22 "SHGC": VENDOR MAY HAVE TO UPGRADE THE PANE SYSTEMS FROM STANDARD SPEC IF WINDOWS SLIDER OR DOOR APPLICATIONS MAY NOT WORK FROM THE SAME SPEC TO NOTE #4 OF THIS PAGE AS INFORMATION IS FOR GENERAL GUIDELINES ONLY.

DOOR SCHEDULE

DR NO.	DOOR W	DOOR H	DOOR T	ELEV.	TYPE	FRAME MAT'L	FRAME FINISH	GLASS	MAT'L	FINISH	THRESHOLD	
1 S T L E V E L												
DR 1.A	PR 6'-0"	*7'-0"	1 3/4"	1	SWING	AL/W	FF	T	AL/W	FF	3/D-1	CUSTOM ENTRY DOOR TO MATCH "E" SERIES IN MATERIAL
DR 1.B	3'-0"	7'-0"	1 3/4"	3	SWING	AL/W	FF	T	AL/W	FF	3/D-1	
DR 1.C	PR 6'-0"	7'-0"	1 3/4"	2	SWING	AL/W	FF	T	AL/W	FF	3/D-1	
DR 1.D	PR 6'-0"	7'-0"	1 3/4"	2	SWING	AL/W	FF	T	AL/W	FF	3/D-1	
DR 1.E	2'-6"	7'-0"	1 3/8"	4	SWING	WD	FPR	---	WD	FPR	---	
DR 1.F	PR 6'-0"	7'-0"	1 3/8"	8	SWING	WD	FPR	---	WD	FPR	---	
DR 1.G	2'-6"	7'-0"	1 3/8"	4	SWING	WD	FPR	---	WD	FPR	TR	UNDERCUT DOOR BOTTOM FOR EXHAUST FLOW
DR 1.H	2'-8"	7'-0"	1 3/8"	4	SWING	WD	FPR	---	WD	FPR	---	
DR 1.J	2'-8"	7'-0"	1 3/8"	4	SWING	WD	FPR	---	WD	FPR	---	
DR 1.K	2'-10"	7'-0"	1 3/8"	4	SWING	WD	FPR	---	WD	FPR	---	
DR 1.L	2'-4"	7'-0"	1 3/8"	5	SWING	WD	FPR	---	WD	FPR	---	NO DOOR TRIM (FLUSH PANEL TO OUTSIDE WALL)
DR 1.M	7'-6"	7'-0"	1 3/8"	6	SL	WD	FPR	---	WD	FPR	---	WARDROBE SLIDER TO MATCH SWING DOOR IN STYLE
DR 1.N	10'-0"	7'-0"	1 3/8"	7	SL	WD	FPR	---	WD	FPR	---	WARDROBE SLIDER TO MATCH SWING DOOR IN STYLE
DR 1.P	7'-6"	7'-0"	1 3/8"	6	SL	WD	FPR	---	WD	FPR	---	WARDROBE SLIDER TO MATCH SWING DOOR IN STYLE
DR 1.Q	2'-8"	7'-0"	1 3/8"	4	SWING	WD	FPR	---	WD	FPR	TR	UNDERCUT DOOR BOTTOM FOR EXHAUST FLOW
~~DR~~	~~2'-8"~~	~~7'-0"~~	~~1 3/4"~~	~~4~~	~~SWING~~	~~AL/W~~	~~FF~~	~~---~~	~~AL/W~~	~~FF~~	~~3/D-1~~	~~FULLY LOVERED DOOR W/ INTERIOR SCREEN~~
2 N D L E V E L												
DR 2.A	2'-8"	7'-0"	1 3/8"	4	SWING	WD	FPR	---	WD	FPR	---	
DR 2.B	10'-0"	7'-0"	1 3/8"	7	SL	WD	FPR	---	WD	FPR	---	WARDROBE SLIDER TO MATCH SWING DOOR IN STYLE
DR 2.C	2'-8"	7'-0"	1 3/8"	4	SWING	WD	FPR	---	WD	FPR	---	
DR 2.D	2'-8"	7'-0"	1 3/8"	4	SWING	WD	FPR	---	WD	FPR	---	
DR 2.E	2'-8"	7'-0"	1 3/8"	4	SWING	WD	FPR	---	WD	FPR	---	
DR 2.F	2'-4"	7'-0"	1 3/8"	4	SWING	WD	FPR	---	WD	FPR	TR	UNDERCUT DOOR BOTTOM FOR EXHAUST FLOW
DR 2.G	9'-0"	7'-0"	1 3/8"	7	SL	WD	FPR	---	WD	FPR	---	WARDROBE SLIDER TO MATCH SWING DOOR IN STYLE
DR 2.H	2'-8"	7'-0"	1 3/8"	4	SWING	WD	FPR	---	WD	FPR	---	
DR 2.J	2'-4"	7'-0"	1 3/8"	4	SWING	WD	FPR	---	WD	FPR	TR	UNDERCUT DOOR BOTTOM FOR EXHAUST FLOW
DR 2.K	10'-0"	7'-0"	1 3/8"	7	SL	WD	FPR	---	WD	FPR	---	WARDROBE SLIDER TO MATCH SWING DOOR IN STYLE
DR 2.L	2'-8"	7'-0"	1 3/8"	4	SWING	WD	FPR	---	WD	FPR	---	
DR 2.M	2'-8"	7'-0"	1 3/8"	4	SWING	WD	FPR	---	WD	FPR	TR	UNDERCUT DOOR BOTTOM FOR EXHAUST FLOW
DR 2.N	2'-8"	7'-0"	1 3/4"	4	SWING	WD	FPR	---	WD	FPR	---	
DR 2.P	7'-0"	7'-0"	1 3/4"	6	SL	WD	FPR	---	WD	FPR	---	WARDROBE SLIDER TO MATCH SWING DOOR IN STYLE
DR 2.Q	7'-0"	7'-0"	1 3/8"	6	SL	WD	FPR	---	WD	FPR	---	WARDROBE SLIDER TO MATCH SWING DOOR IN STYLE

NOTE: AT DIMENSION WHEN NOTED "*" MEANS VARIED ARCHED HEAD HT W/ SIDELIGHT & TRANSOM

DOOR LEGEND

ABBREVIATIONS:

SC = SOLID CORE
HC = HOLLOW CORE
FP = FIELD PAINT
SL = SLIDING
CLR = CLEAR
FG = FIXED GLASS
CA = CASEMENT W/ SCREEN
DBL = DOUBLE GLASS PANE
UC = UNDERCUT DOOR FOR EXHAUST FAN
TINT = FACTORY TINT (LOW-E PER T-24 SPECS)
SP = SINGLE PANE TEMPERED GLASS
WD = WOOD (SELECTED BY INTERIOR DESIGNER)
T = TEMPERED GLAZING PER CBC (SEC 2406.4)
AL/W = ALUMINUM CLAD OVER WOOD SUPERSTRUCTURE
FP = FIELD PAINT IN FLAT POSITION (FACTORY PRIMED)
POG = PATTERN OBSCURE GLASS AT INTERIOR SIDE (MISLITE OR EQ)
TR = DOOR THRESHOLD AT FLOOR TRANSITION IF APPLICABLE
FF = FACTORY POWDER COAT FINISH PER NOTE #1 THIS SHEET
3/4" = OVERALL THICKNESS FOR DUAL PANE INSULATED GLASS SYSTEMS
FPR = FACTORY PRIME WHITE
MTL = METAL
FCH = FRENCH
PR = PAIR
PD = POCKET DOOR

DOOR NOTES

1) MANUFACTURE: ANDERSON "E" SERIES FOR SWING FRENCH IN-SWING DOORS AND ENTRY CUSTOM DOORS AS NOTED IN SCHEDULE WITH ALL MATCHING "E" STYLE BOTH PROFILES AND COLORS FOR BOTH STANDARD DOORS AND ENTRY DOORS. ALL DOORS TO BE ALUMINUM CLAD OVER WOOD SUPERSTRUCTURE W/ FACTORY POWDERED COAT FINISH (INSIDE "WHITE" AND EXTERIOR "OLIVE") THE ENTIRE ASSEMBLY SHALL MEET THE MINIMUM REQUIREMENTS PER SHEETS T-24 SHEETS OF RATINGS W/ ATTACHED LABELS INDICATING ENERGY STAR LAB PERFORMANCE USING MIN .3 "U" FACTOR W/ .22 "SHGC" RATING W/SMART SUN HEATLOCK LOW "E4" DUAL SYSTEM GLAZING.

3) GRILLS ONLY APPLY WHEN SHOWN. GRILLS SHALL BE INTERIOR TYPE "FINE LIGHT" AS LAYOUT SHALL BE EITHER "*" SHAPE OR "HORIZONTAL" SHAPE PER INDICATION OF ELEVATION TYPE ON DOOR SCHEDULE (COLOR SHALL MATCH FRAMES).

4) SUBMIT LOCK AND HARDWARE SPECIFICATIONS, TYPE AND FUNCTION TO OWNER FOR REVIEW W/ VENDORS GUIDANCE PRIOR TO ORDERING ALL WINDOWS AND DOORS. INTERIOR HARDWARE SHALL MATCH INTERIOR FRAME COLOR OF WHITE. (COORDINATE INTERIOR HARDWARE FINISH WITH OWNER INTERIORS DESIGNER IF DIFFERENT).

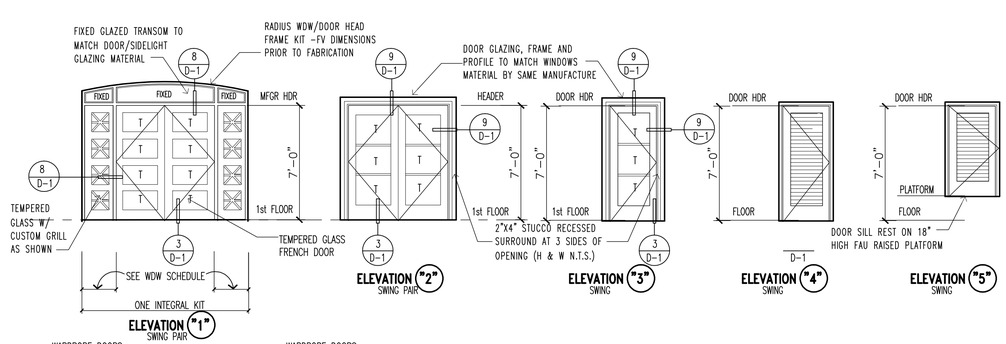
5) ALL GLAZING W/ "T" DESIGNATION ON ELEVATIONS INDICATES TEMPERED GLASS PER CBC (SEC 2406.4).

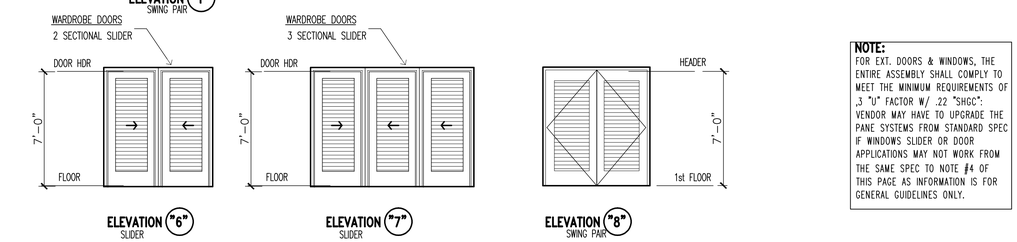
6) CONTRACTOR TO F,V, ALL DOOR AND WINDOW SIZES PRIOR TO ORDERS/INSTALLATION FOR ALL ACTUAL FIELD R.O. OPENINGS

DOOR ELEVATION/TYPES

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

NOTE: SCHEDULE BELOW IS DIAGRAMMATIC WHERE SWING DIRECTIONS AND SCALE SHALL BE SUPERSEDED BY PLANS





NOTE:
FOR EXT. DOORS & WINDOWS, THE ENTIRE ASSEMBLY SHALL COMPLY TO MEET THE MINIMUM REQUIREMENTS OF .3 "U" FACTOR W/ .22 "SHGC": VENDOR MAY HAVE TO UPGRADE THE PANE SYSTEMS FROM STANDARD SPEC IF WINDOWS SLIDER OR DOOR APPLICATIONS MAY NOT WORK FROM THE SAME SPEC TO NOTE #4 OF THIS PAGE AS INFORMATION IS FOR GENERAL GUIDELINES ONLY.

Contractor shall exercise the responsibility with architect in securing latest approved drwgs. prior to actually executing work

REVISIONS NO.
1 CITY 2nd submit 8-1-20

JOHN A. SALAT ARCHITECTS
22386 Woodgrove Road, Lake Forest, CA 92630
PH 949-230-4847 email: freeingwinds@earthlink.net
z e n a r c h i t e c t . c o m

architect

KHUU RESIDENCE
NEW RESIDENCE WITH ADU
MAIN BUILDING
DOOR & WINDOW SCHEDULE

OWNER/SITE ADDRESS:
CONTACT: Henry Khuu
12322 Lampson Avenue
Garden Grove, CA 92840
(714) 722-8067 Email: HenryKhuu@gmail.com

REGISTERED PROFESSIONAL ARCHITECT JOHN A. SALAT NO. C-24445 DATE 10-29-21 STATE OF CALIFORNIA

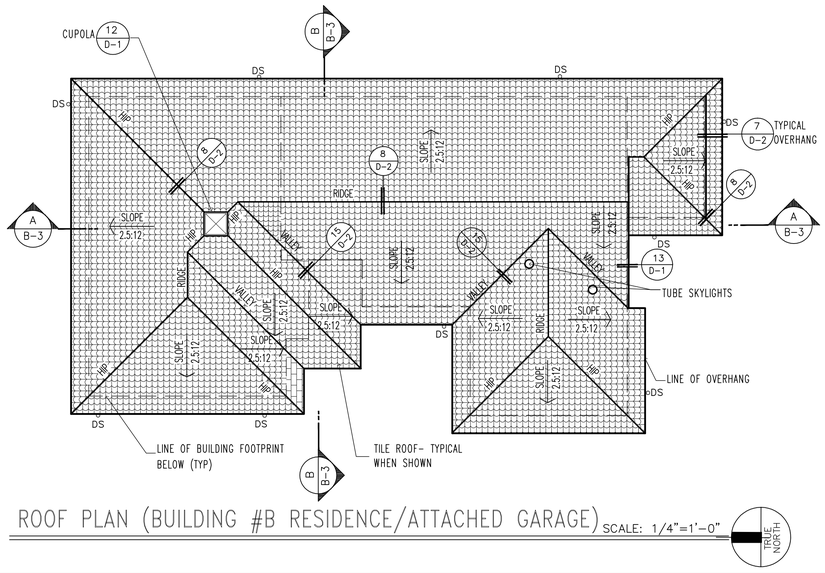
DRAWN JS
CHECKED JS
DATE SEE REVISION BOX ABOVE FOR DATE
SCALE AS NOTED ON PLANS
JOB NO.
SHEET

A-8

1 OF (SEE INDEX) SHEETS

ROOF NOTES

1. ALL SLOPES AND OVERHANGS ARE AS NOTED ON PLANS (FIELD VERIFY TO MATCH EXISTING)
2. FOR TYPICAL SYMBOLS, ABBREVIATIONS AND NOTES, SEE COVER PAGE.
3. CONTRACTOR SHALL PROVIDE ADEQUATE ATTIC VENTILATION PER BUILDING CODES THROUGH CONTINUOUS SOFFIT VENTS AND EAVE AND DORMER VENTS.
4. ROOF WEIGHT FOR CLAY TILE ASSEMBLY WEIGHT PER 100 SF AREA (PER SQ) IS 800 lb FOR TILE AND W/ 40 LBS FOR UNDERLAYMENT
5. EXPOSED ROOF PIPES, VENTS, AND FLASHING TO (M) CLAY ROOF COLOR.
6. ROOF VENTILATION SHALL BE AREA RATIO OF 1/150 FOR ATTIC AREA OR 1/300 OF ATTIC AREA IF HALF THE VENT AREA LOCATED MORE THAN 3 FEET ABOVE EAVE VENTS W/ A BALANCE OF THE REQUIRED VENTILATION PROVIDED BY THE EAVE VENTS OPENINGS SHALL HAVE 1/4" INCHES CORROSION RESISTANT METAL MESH COVERING. PER SECTION 1505.3 DORMER VENTS SHALL BE SIZED ABOVE FREE AREA REQUIREMENT PER MANUFACTURE SPECIFICATIONS PER SECTION 1505.3 AND EACH VENT SHALL NOT EXCEED 144" SQ INCHES - SEE CHART BELOW OF THIS PAGE
7. TILE ROOF TO MCA B308 1 PIECE "S" -INSTALLATION PER MFGR STANDARDS FOR BOTH UNDERLAYMENT AND FLASHING. TILE TYPE SHALL BE FLAT INTER-LOCK CLAY ROOF TILE TWO TONE MIXED OF TERRA-COTTA (NATURAL RED F40) CLAY COLOR PALETTE W/ MAX 0.45 SOLAR REFLECTANCE AND MIN 0.88 THERMAL EMITTANCE.
8. UNDERLAYMENT BENEATH ROOF TILE SHALL BE INSTALLED WITH POLYGLASS POLYSTICK TU PLUS SELF ADHERED MEMBRANE TO PLYWOOD DECK W/ ICP POLYSET AH-160 FOAM ADHERED TILES TO TU PLUS AS TILES PLACE WITHOUT FASTENERS PER ICC ESR-1709.



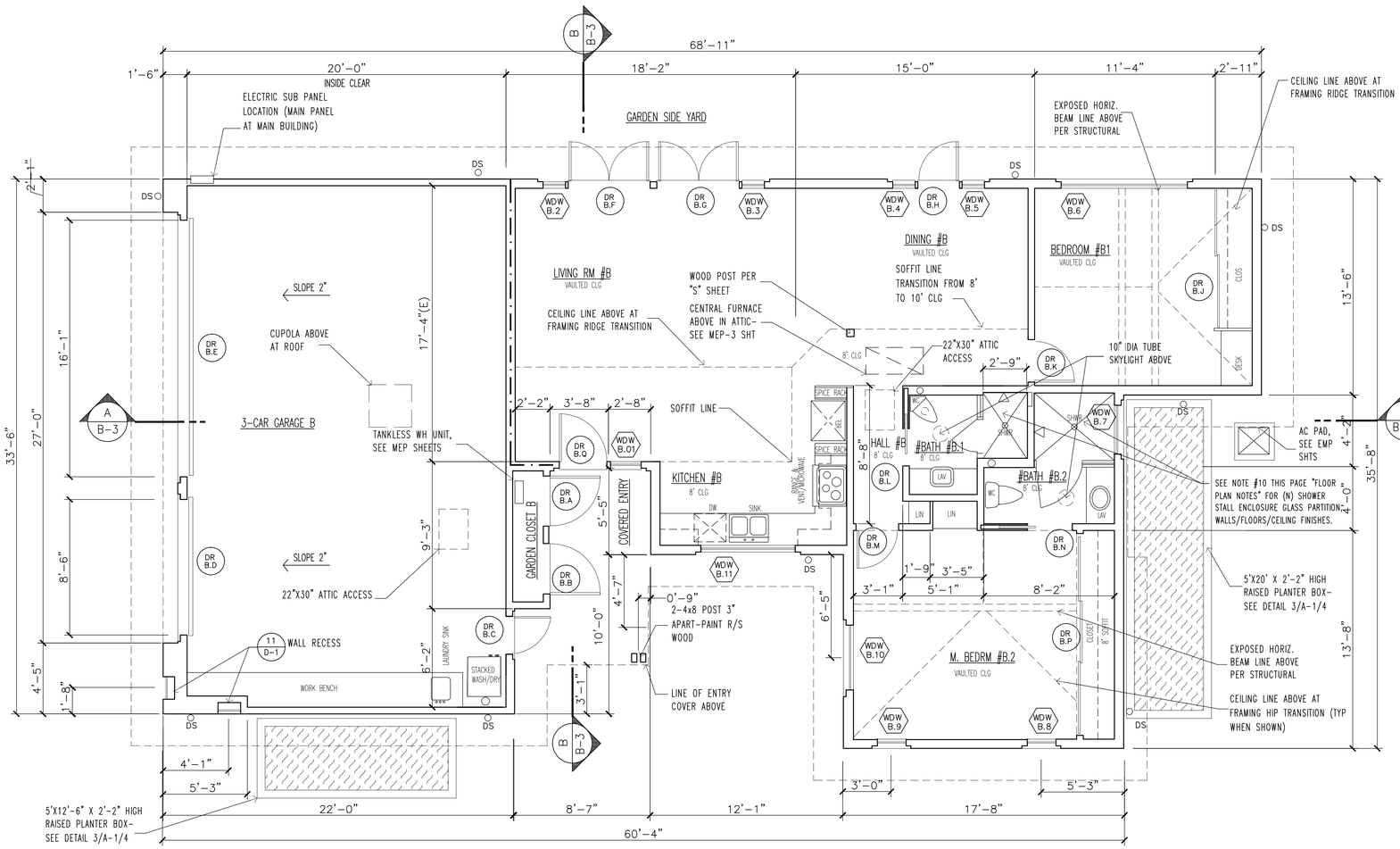
ROOF PLAN (BUILDING #B RESIDENCE/ATTACHED GARAGE) SCALE: 1/4"=1'-0"

FLOOR PLAN NOTES

1. REFER TO COVER SHEET FOR ADDITIONAL INFORMATION NOT SHOWN
2. REFER TO BLDG SECTION SHT B-3 FOR ADDITIONAL GENERAL NOTES NOT SHOWN
3. SMOKE DETECTORS PER 2019 C.B.C., SEE COVER PAGE PER NOTE 5, 6 & 7 OF SHEET MEP-2 SECTION 16 ELECTRICAL
4. CONTRACTOR SHALL FIELD VERIFY BOTH HORIZONTAL AND VERTICAL DIMENSIONS TO ENDURE PROPER FIT FOR ALL DETAILS-REPORT TO THE ARCHITECT IMMEDIATELY TO SECURE INSTRUCTIONS SHOULD INFORMATION BE INCORRECTLY NOTED
5. ALL PAINT FINISHES AND TEXTURES PER OWNERS DIRECTIONS (PROVIDE 3/4" RADIUS CORNERS AT GYP BOARD WALLS BOTH (E) AND (N))
6. REFER TO MEP SHEET FOR ELECTRICAL, MECHANICAL AND PLUMBING HVAC AND FRAMING CONTRACTOR TO HAVE PRE-CONSTRUCTION MEETING FOR DUCT ROUTES AND POSSIBLE DROPPED FRAMED SOFFITS WHERE DUCT CHASE WAYS MAY NOT BE ACCESSIBLE TO REACH GRILLS FROM UNIT
7. VERIFY ALL ALL FINISHES W/ OWNER PRIOR TO INSTALL OF SUBTRATES. REFER TO CABINET SHOP, DRAWINGS FOR INTERIOR ELEVATIONS AND INTERIOR DETAILS NOT SHOWN
8. BEDROOMS, BASEMENTS OR ROOMS USED FOR SLEEPING SHALL HAVE EMERGENCY WINDOWS OR DOORS THAT MUST MEET CODE SECTION 310.4 FOR FIRE ESCAPE OR RESCUE NET DIMENSIONS: MIN 20" WIDE X 24" HIGH SIZE FOR OPERATIVE CLEARANCE SIZE OF 5.7. S.F. W/ SILL AT 44" MAX FROM FINISH FLOOR PER CRC R310.2. -REFER TO WINDOW SCHEDULE OF SHEET D-4 UNDER "REMARKS" COLUMN FOR COMMENTS THAT IDENTIFY THE LOCATIONS KEYED ON THIS PLAN
9. SOFFIT CLEARANCE HEIGHTS ARE SUGGESTIVE AS THE HVAC AND FRAMING CONTRACTOR ARE TO STRATEGIZE A METHOD TO MAKE COMPACT THE SOFFIT HEIGHTS AT DROPPED CEILING CHASE-WAY AREAS TO HUG AS CLOSE AS POSSIBLE TO UNDERSIDE WHILE ALSO KEEPING OVERHEAD FAU UNIT CLEARANCE TO MINIMUM CODE PER NOTE #3 OF SHEET MEP-1
10. SHOWER STALL
(N) SHOWER STALL-FINISH PER INTERIOR DRAWINGS (N) FRAMELESS GLASS SHOWER DOOR AND ENCLOSURE TO BE SAFETY OR TEMPERED GLAZING (CRC R308.4) SHOWER FLOORS AND WALLS ABOVE SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE TO A HEIGHT OF FULL HT OF 8' ABOVE THE FLOOR. (R307.2 CRC) CEMENT, FIBER-CEMENT, FIBER-MAT REINFORCED CEMENT, GLASS MAT GYPSUM OR FIBER-REINFORCED GYPSUM BACKERS SHALL BE USED AS A BASE FOR WALL TILE IN TUB AND SHOWER AREAS AND WALL AND CEILING PANELS IN SHOWER AREAS. (R702.4.2 CRC)- SEE MEP SHEET FOR PLUMBING LAYOUT

ARCHITECTURAL SYMBOLS

- 2X6 EXTERIOR WALL ASSEMBLY: 7/8" 3 COAT EXT STUCCO SYSTEM O/ 1" XPS EXTERIOR INSULATION BD OF R-5 O/ (2) LAYERS OF 60 MIN. BUILDING PAPER O/ SHEAR PLYWOOD SHEATHING O/ 2X6 WD STUDS @ 16" O.C. W/ R-21 BAT INSULATION AND 5/8" GYP. BOARD INTERIOR.
- 2X4 STUD INTERIOR WALLS @ 16" O.C W/ 5/8" GYP BOARD
- 2X6 STUD INTERIOR PLUMBING WALLS S @ 16" O.C W/ 5/8" GYP BOARD
- 2X6 STUD WALL (1 HR) W/ R-15 BATT INSULATION



FLOOR PLAN (BUILDING #B AUXILIARY RESIDENCE & ATTACHED GARAGE) SCALE: 1/4"=1'-0"

(NOTE TO PLANNING DEPT: AUXILIARY DWELLING NET AREA IS 795.0- REFER TO COVER PAGE FOR GROSS BREAKDOWNS)

Contractor shall exercise the responsibility with architect in securing latest approved drwgs. prior to actually executing work

REVISIONS NO.

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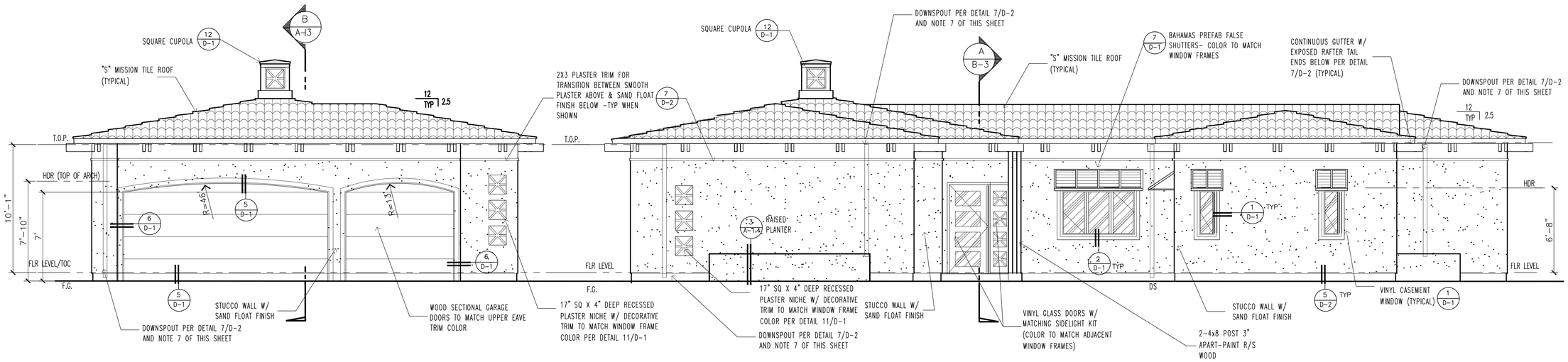
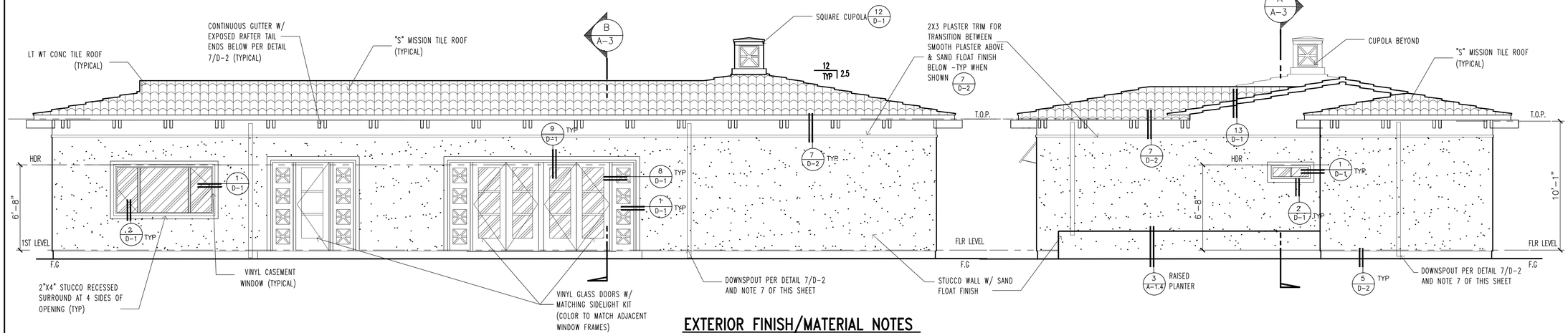
DATE SEE REVISION BLOCK ABOVE FOR DATE
SCALE AS NOTED ON PLANS
JO# B NO.
SHEET **B-1**
1 OF (SEE INDEX) SHEETS



WEST SIDE EXTERIOR ELEVATION (LEFT SIDE)

WEST SIDE EXTERIOR ELEVATION (FRONT SIDE)



EAST EXTERIOR ELEVATION (REAR SIDE)

SOUTH EXTERIOR ELEVATION (RIGHT SIDE)

EXTERIOR FINISH/MATERIAL NOTES

NOTE: REFER TO ATTACHED PRODUCT LITERATURE FOR EXPANDED INFO KEYED BELOW

1) WINDOWS: CUSTOM COLOR VINYL FRAMES W/ LOW-E DUAL PANE (CLEAR GLAZING AT LOWER LEVEL AND OBSCURE GLASS AT SECOND LEVEL FACING TOWARD 5' SIDE-YARD PER CITY ORDINANCE- SEE WINDOW SCHEDULE AND WEST ELEVATION FOR OCCURRENCE)
2) DOORS FRAMES AND GLASS TO MATCH WINDOW SYSTEMS PER SCHEDULE
3) EXTERIOR PLASTER TEXTURE AND COLOR PER SCHEDULE
4) ROOF TILE: "S" TYPE TILE W/ COLOR PER ROOF PER SCHEDULE
5) WOOD TRIM COLOR AND PLASTER ACCENT PER SCHEDULE
6) REFER TO BUILDING SECTIONS SHEET A-7 FOR ADDITIONAL NOTES NOT SHOWN FOR BUILDING SHELL
7) SEAMLESS GUTTER AND DOWN SPOUT SYSTEM. POWDERED COAT METAL WITH CUSTOM COLOR TO MATCH WALL AND TRIM BY http://gutter4u.com/ SEE DETAIL 7/D-2 FOR PROFILE AND NOTES

EXTERIOR ELEVATIONS (BUILDING #B AUXILIARR RESIDENCE & ATTACHED GARAGE)

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

Contractor shall exercise the responsibility with architect in securing latest approved drwgs. prior to actually executing work

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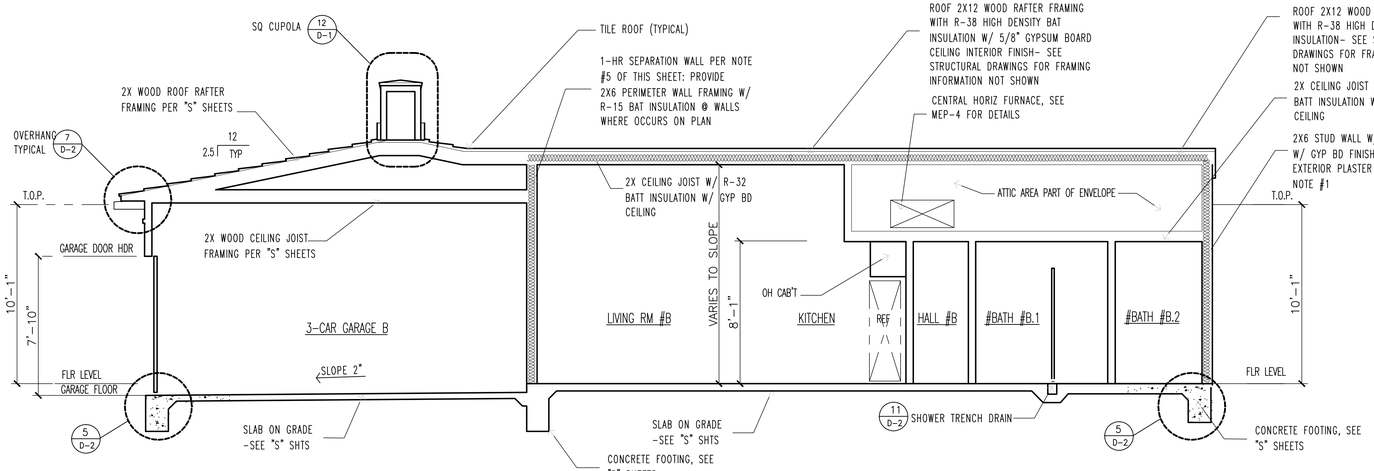
SHEET
B-2
1 OF (SEE INDEX) SHEETS

GENERAL NOTES

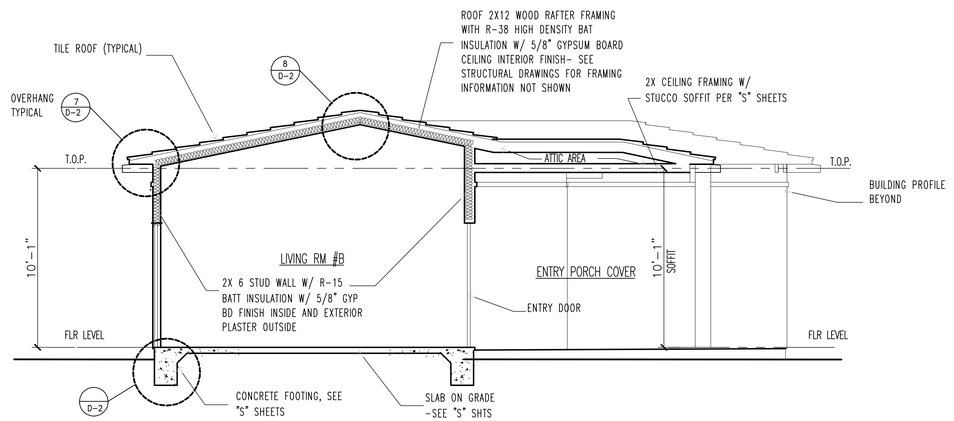
1. TYPICAL EXTERIOR WALL ASSEMBLY: 7/8" 3 COAT EXTERIOR STUCCO SYSTEM OVER 1" XPS EXTERIOR INSULATION BD OF R-5 O/ (2) LAYERS OF 60 MIN. BUILDING PAPER (WEATHER RESISTIVE BARRIER PER CRC 703) O/ SHEAR PLYWOOD SHEATHING O/ 2 X 6 WOOD STUDS @ 16" O.C. W/ R-21 BAT INSULATION AND 5/8" GYP. BOARD INTERIOR. – SEE STRUCTURAL DRAWINGS WHERE IN CONFLICT FOR FRAMING INFORMATION NOT SHOWN
2. ALL ROOF RAFTERS JOIST AT DWELLING PORTIONS TO BE 2 X 12 WOOD FRAMING WITH R-38 HIGH DENSITY BAT INSULATION W/ 5/8" GYPSUM BOARD CEILING INTERIOR FINISH– SEE STRUCTURAL DRAWINGS FOR FRAMING INFORMATION NOT SHOWN
3. FLAT CEILING JOIST TO BE 2 X WOOD FRAMING CEILING LID WITH 5/8" GYPSUM BOARD (NO INSULATION AS DUCT/ATTIC SPACED WOULD BE INCLUSIVE TO THE CONDITIONED ENVELOPE) SEE STRUCTURAL DRAWINGS FOR FRAMING INFORMATION NOT SHOWN
4. BOTH H.E.R.S. AND QUALITY INSULATION INSPECTION IS REQUIRED
5. PROVIDE ATTIC VENT PER ROOF PLAN LAYOUT
6. REFER TO STRUCTURAL FOR DETAILED INFORMATION FOR SLAB AND GRADE PREP. SOILS AND DETAILS THAT MAY SUPERSEDE DRAWINGS

7. THE FOLLOWING APPLIES FOR ATTACHED GARAGE FOR ONE HOUR ENVELOPE PROTECTION SECTION R302.4:
   - A. PROVIDE 1-HR FIRE RESISTANCE CONSTRUCTION ON THE GARAGE SIDE FOR WALLS, CEILING, POST, AND BEAMS OF GARAGE WITH MINIMUM OF 5/8" TYPE "X" GYPSUM BOARD @ 2X FRAMING OR 2-LAYERS OF 5/8" TYPE "X" GYPSUM BOARD @ MANUFACTURED TRUSS WHERE OCCURS PER CBC 302.4 AND TABLE 3-B.
   - B. ALL ELEMENTS INSIDE OF GARAGE SUPPORTING STORIES SHALL HAVE 1-HR FIRE RESISTANCE PROTECTION (CBC 302.4)
   - C. SELF-CLOSING TIGHT FITTING, SOLID WOOD 1-3/8" THICK DOOR OR A 20 MINUTE DOOR AT OPENING TO DWELLING (CBC 302.4)
   - D. DOORS FROM GARAGE NOT PERMITTED TO OPEN INTO ROOM USED FOR SLEEPING (CBC 312.4)
   - E. PROVIDE 26 GAGE STEEL DUCT IN GARAGE, IF IT PENETRATES 1-HR SEPARATION (CBC 302.4)
   - F. R302.4 DWELLING UNIT RATED PENETRATIONS. PENETRATIONS OF WALL OR FLOOR AND CEILING ASSEMBLIES REQUIRED TO BE FIRE-RESISTANCE RATED IN ACCORDANCE WITH SECTION R302.2 OR R302.3 SHALL BE PROTECTED IN ACCORDANCE WITH THIS SECTION. R302.4.1 THROUGH PENETRATIONS. THROUGH PENETRATIONS OF FIRE-RESISTANCE-RATED WALL OR FLOOR ASSEMBLIES SHALL COMPLY WITH SECTION R302.4.1.1 OR 302.4.1.2. EXCEPTION: WHERE THE PENETRATING ITEMS ARE STEEL, FERROUS OR COPPER PIPES, TUBES OR CONDUITS, THE ANNULAR SPACE SHALL BE PROTECTED AS FOLLOWS: 1. IN CONCRETE OR MASONRY WALL OR FLOOR ASSEMBLIES, CONCRETE, GROUT OR MORTAR SHALL BE PENNITTED WHERE INSTALLED TO THE FULL THICKNESS OF THE WALL OR FLOOR ASSEMBLY OR THE THICKNESS REQUIRED TO MAINTAIN THE FIRE-RESISTANCE RATING, PROVIDED: THE NOMINAL DIAMETER OF THE PENETRATING ITEM IS A MAXIMUM OF 6 INCHES AND 1.2. THE AREA OF THE OPENING THROUGH THE WALL DOES NOT EXCEED 144 SQUARE INCHES. 2. THE MATERIAL USED TO FILL THE ANNULAR SPACE SHALL PREVENT THE PASSAGE OF FLAME AND HOT GASES SUFFICIENT TO IGNITE COTTON WASTE WHERE SUBJECTED TO ASTM E 119 OR UL 263 TIME TEMPERATURE FIRE CONDITIONS UNDER A MINIMUM POSITIVE PRESSURE DIFFERENTIAL OF 0.01 INCH OF WATER (3 PA) AT THE LOCATION OF THE PENETRATION FOR THE TIME PERIOD EQUI VALENT TO THE FIRE-RESISTANCE RATING OF THE CONSTRUCTION PENETRATED. R302.4.1.1 FIRE-RESISTANCE-RATED ASSEMBLY. PENETRATIONS SHALL BE INSTALLED AS TESTED IN THE APPROVED FIRERESISTANCE-RATED ASSEMBLY.



BUILDING SECTION "A" (AUXILIARY RESIDENCE AND ATTACHED GARAGE)

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



BUILDING SECTION "B" (AUXILIARY RESIDENCE AND ATTACHED GARAGE)

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

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REVISIONS NO.
1 CITY 2nd submit 8-1-20
2 FIELD CLARIFICATION

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WINDOW SCHEDULE

WDW NO.	SIZE W	SIZE H	ELEV.	TYPE	FRAME MAT'L	FRAME FINISH	GLAZING TYPE	GLAZING THICK	GLAZING INSUL	GLAZING TEMP	REMARKS
I S T	L E V E L										
WDW B.1	2'-0"	7'-0"	S	FG	AL/W	FF	TINT	3/4"	DBL	T	INTEGRAL SIDE LIGHTS FOR DOOR (POG)
WDW B.2	1'-6"	7'-0"	R	FG	AL/W	FF	TINT	3/4"	DBL	T	INTEGRAL SIDE LIGHTS FOR DOOR
WDW B.3	1'-6"	7'-0"	R	FG	AL/W	FF	TINT	3/4"	DBL	T	INTEGRAL SIDE LIGHTS FOR DOOR
WDW B.4	1'-6"	7'-0"	M	FG	AL/W	FF	TINT	3/4"	DBL	T	INTEGRAL SIDE LIGHTS FOR DOOR
WDW B.5	1'-6"	7'-0"	M	FG	AL/W	FF	TINT	3/4"	DBL	T	INTEGRAL SIDE LIGHTS FOR DOOR
WDW B.6	8'-0"	4'-0"	Q	CA/FIX	AL/W	FF	TINT	3/4"	DBL	---	FIRE RESCUE/ESCAPE WDW PER NOTE 7 THIS PAGE
WDW B.7	3'-0"	1-0"	P	SL	AL/W	FF	TINT	3/4"	DBL	T	(POG) PATTERN OBSCURE GLASS: MISLITE OR EQ
WDW B.8	2'-0"	3'-6"	K	CA	AL/W	FF	TINT	3/4"	DBL	---	
WDW B.9	2'-0"	3'-6"	K	CA	AL/W	FF	TINT	3/4"	DBL	---	
WDW B.10	4'-0"	3'-6"	N	CA	AL/W	FF	TINT	3/4"	DBL	---	FIRE RESCUE/ESCAPE WDW PER NOTE 6 THIS PAGE
WDW B.11	6'-0"	3'-8"	Q	CA/FIX	AL/W	FF	TINT	3/4"	DBL	---	COORDINATE W/ OWNER SILL TO COUNTER HEIGHT

WINDOW LEGEND

ABBREVIATIONS:

- WD = WOOD
- T = TEMPERED GLAZING PER CBC (SEC 2406.4)
- SL = SLIDING
- FG = FIXED GLASS
- CA = CASEMENT W/ SCREEN
- ST = STAINED WOOD FRAME
- TINT = TINT GLASS (FACTORY LOW-E PER T-24)
- DBL = DOUBLE GLASS PANE
- CLR = CLEAR
- AL/W = ALUMINUM CLAD OVER WOOD SUPERSTRUCTURE
- SP = SINGLE PANE CLEAR TEMPERED GLASS)
- 3/4" = OVERALL THICKNESS FOR DUAL PANE INSULATED GLASS
- FF = FACTORY POWDER COAT FINISH PER NOTE #1 THIS SHEET
- POG = PATTERN OBSCURE GLASS (MISLITE OR EQ)

WINDOW NOTES

1) MANUFACTURE: ANDERSON WINDOWS "E" SERIES FOR CASEMENT, FIXED AND SLIDERS AS NOTED IN SCHEDULE WITH ALL MATCHING "E" STYLE DESIGN FOR BOTH PROFILES AND COLORS. ALL WINDOWS TO BE ALUMINUM CLAD OVER WOOD SUPERSTRUCTURE W/ FACTORY POWDERED COAT FINISH (INSIDE "WHITE" AND EXTERIOR "OLIVE") THE ENTIRE ASSEMBLY SHALL MEET THE MINIMUM REQUIREMENTS PER SHEETS T-24 SHEETS OF RATINGS W/ ATTACHED LABELS INDICATING ENERGY STAR LAB PERFORMANCE USING MIN .3 "U" FACTOR W/ .22 "SHGC" RATING W/SMART SUN HEATLOCK LOW "E4" DUAL SYSTEM GLAZING.

2) GRILLS ONLY APPLY WHEN SHOWN. GRILLS SHALL BE INTERIOR TYPE "FINE LIGHT" AS LAYOUT SHALL BE EITHER "*" SHAPE OR NO GRILLS AT ALL PER INDICATION ON ELEVATION TYPE OF WINDOW SCHEDULE.

3) SUBMIT LOCK AND HARDWARE SPECIFICATIONS, TYPE AND FUNCTION TO OWNER FOR REVIEW W/ VENDORS GUIDANCE PRIOR TO ORDERING ALL WINDOWS AND DOORS. INTERIOR HARDWARE SHALL MATCH INTERIOR FRAME COLOR OF WHITE. (COORDINATE INTERIOR HARDWARE FINISH WITH OWNER INTERIORS DESIGNER IF DIFFERENT).

4) PROVIDE SCREENS FOR ALL WINDOWS ON OPERABLE SIDE

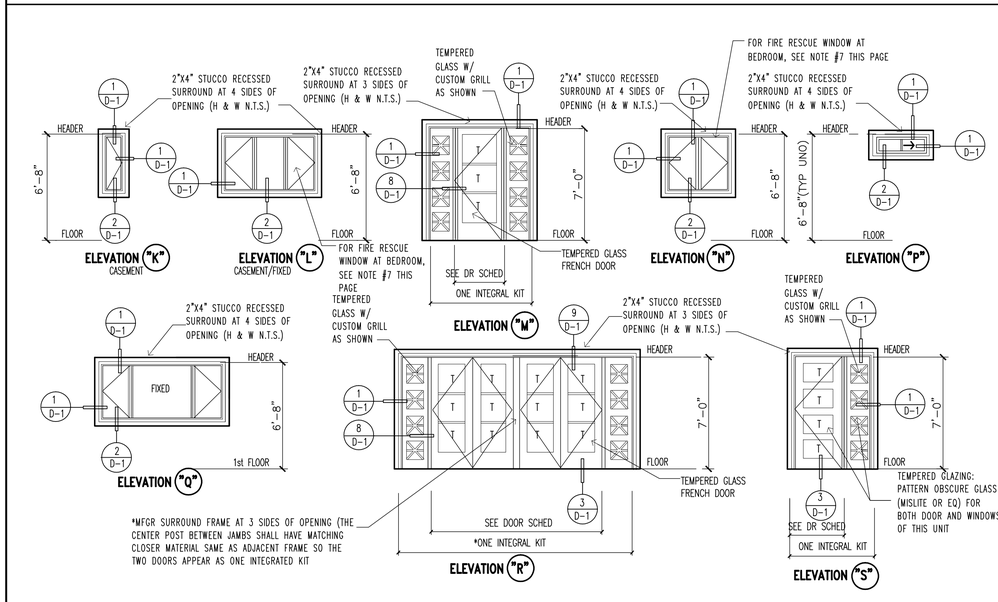
5) ALL GLAZING AND TINT PER T-24 ENERGY REQUIREMENTS AS DOUBLE GLAZE. "T" DESIGNATION ON ELEVATIONS INDICATES TEMPERED GLASS PER CBC (SEC 2406.4).

7) BEDROOM WINDOWS MUST MEET CODE SECTION 310.4 FOR FIRE ESCAPE OR RESCUE NET DIMENSIONS: MIN 20" WIDE X 24" HIGH SIZE FOR OPERATIVE CLEARANCE SIZE OF 5.7. S.F. W/ SILL AT 44" MAX FROM FINISH FLOOR SLIDERS AS SCHEDULED ON PLANS.

8) CONTRACTOR TO F.V, ALL DOOR AND WINDOW SIZES PRIOR TO ORDERS/INSTALLATION FOR ALL ACTUAL FIELD R.O. OPENINGS

WINDOW ELEVATION/TYPES

SCALE: 1/4" = 1'-0" NOTE: SCHEDULE BELOW IS DIAGRAMMATIC WHERE SWING DIRECTIONS AND SCALE SHALL BE SUPERSEDED BY PLANS



NOTE: EXT. DOORS & WINDOWS, THE ENTIRE ASSEMBLY SHALL COMPLY TO MEET THE MINIMUM REQUIREMENTS OF .3 "U" FACTOR W/ .22 "SHGC": VENDOR MAY HAVE TO UPGRADE THE PANE SYSTEMS FROM STANDARD SPEC IF WINDOWS SLIDER OR DOOR APPLICATIONS MAY NOT WORK FROM THE SAME SPEC TO NOTE #4 OF THIS PAGE AS INFORMATION IS FOR GENERAL GUIDELINES ONLY.

DOOR SCHEDULE

DR NO.	DOOR LEAF W	H	T	ELEV.	TYPE	MAT'L	FINISH	GLASS	FRAME MAT'L	FRAME FINISH	THRESHOLD	REMARKS
I S T	L E V E L											
DR B.A	3'-0"	7'-0"	1 3/4"	22	SWING	AL/W	FF	T/POG/SP	AL/W	FF	---	CENTER POST JAMB TO MATCH DOOR FRAME (UNDERCUT DR BOTTOM)
DR B.B	3'-0"	7'-0"	1 3/4"	22	SWING	AL/W	FF	T/POG/SP	AL/W	FF	---	CENTER POST JAMB TO MATCH DOOR FRAME (UNDERCUT DR BOTTOM)
DR B.C	2'-6"	7'-0"	1 3/4"	14	SWING	AL/W	FF	---	AL/W	FF	---	FLUSH PANEL
DR B.D	8'-7"	*7'-0"	---	20	ROLL-UP	---	FP	---	---	FP	5/D-1	* ARCHED HEAD (HEIGHT VARIES)
DR B.E	16'-1"	*7'-0"	---	20	ROLL-UP	---	FP	---	---	FP	5/D-1	* ARCHED HEAD (HEIGHT VARIES)
DR B.F	PR 5'-0"	7'-0"	1 3/4"	11	SWING	AL/W	FF	T	AL/W	FF	3/D-1	PAIR OF FRENCH DOORS W/ INTEGRATED SIDELIGHT
DR B.G	PR 5'-0"	7'-0"	1 3/4"	11	SWING	AL/W	FF	T	AL/W	FF	3/D-1	PAIR OF FRENCH DOORS W/ INTEGRATED SIDELIGHT
DR B.H	3'-0"	7'-0"	1 3/4"	18	SWING	AL/W	FF	T	AL/W	FF	---	FRENCH DOOR W/ INTEGRATED SIDELIGHT
DR B.J	8'-6"	7'-0"	1 3/8"	16	SL	AL/W	FPW	---	WD	FPW	---	WARDROBE SLIDER TO MATCH SWING DOOR IN STYLE
DR B.K	2'-8"	7'-0"	1 3/8"	15	SWING	AL/W	FPW	---	WD	FPW	TR	
DR B.L	2'-4"	7'-0"	1 3/8"	11	PD	AL/W	FPW	---	WD	FPW	TR	UNDERCUT DOOR BOTTOM FOR EXHAUST FLOW
DR B.M	2'-8"	7'-0"	1 3/8"	15	SWING	AL/W	FPW	---	WD	FPW	TR	
DR B.N	2'-8"	7'-0"	1 3/8"	19	PD	AL/W	FPW	---	WD	FPW	TR	UNDERCUT DOOR BOTTOM FOR EXHAUST FLOW
DR B.P	12'-6"	7'-0"	1 3/8"	17	SL	AL/W	FPW	---	WD	FPW	---	WARDROBE SLIDER TO MATCH SWING DOOR IN STYLE
DR B.Q	3'-0"	7'-0"	1 3/4"	12	SWING	AL/W	FPW	T/POG	AL/W	FF	3/D-1	CUSTOM FRONT DOOR TO MATCH "E" SERIES IN COLOR & MATERIALS

DOOR LEGEND

ABBREVIATIONS:

- SC = SOLID CORE
- HC = HOLLOW CORE
- FP = FIELD PAINT
- SL = SLIDING
- CLR = CLEAR
- FG = FIXED GLASS
- CA = CASEMENT W/ SCREEN
- DBL = DOUBLE GLASS PANE
- TINT = FACTORY TINT (LOW-E PER T-24 SPECS)
- SP = SINGLE PANE TEMPERED GLASS
- WD = WOOD (SELECTED BY INTERIOR DESIGNER)
- T = TEMPERED GLAZING PER CBC (SEC 2406.4)
- POG = PATTERN OBSCURE GLASS (MISLITE OR EQ)
- AL/W = ALUMINUM CLAD OVER WOOD SUPERSTRUCTURE
- FP = FIELD PAINT IN FLAT POSITION (FACTORY PRIMED)
- UC = UNDERCUT DOOR ACCORDINGLY FOR EXHAUST FAN
- TR = DOOR THRESHOLD AT FLOOR TRANSITION IF APPLICABLE
- FF = FACTORY POWDER COAT FINISH PER NOTE #1 THIS SHEET
- 3/4" = OVERALL THICKNESS FOR DUAL PANE INSULATED GLASS SYSTEMS
- FPR = FACTORY PRIME WHITE
- MTL = METAL
- FCH = FRENCH
- PR = PAIR
- PD = POCKET DOOR

DOOR NOTES

1) MANUFACTURE: ANDERSON "E" SERIES FOR SWING FRENCH IN-SWING DOORS AND ENTRY CUSTOM DOORS AS NOTED IN SCHEDULE WITH ALL MATCHING "E" STYLE BOTH PROFILES AND COLORS FOR BOTH STANDARD DOORS AND ENTRY DOORS. ALL DOORS TO BE ALUMINUM CLAD OVER WOOD SUPERSTRUCTURE W/ FACTORY POWDERED COAT FINISH (INSIDE "WHITE" AND EXTERIOR "OLIVE") THE ENTIRE ASSEMBLY SHALL MEET THE MINIMUM REQUIREMENTS PER SHEETS T-24 SHEETS OF RATINGS W/ ATTACHED LABELS INDICATING ENERGY STAR LAB PERFORMANCE USING MIN .3 "U" FACTOR W/ .22 "SHGC" RATING W/SMART SUN HEATLOCK LOW "E4" DUAL SYSTEM GLAZING.

3) GRILLS ONLY APPLY WHEN SHOWN. GRILLS SHALL BE INTERIOR TYPE "FINE LIGHT" AS LAYOUT SHALL BE EITHER "*" SHAPE OR "HORIZONTAL" SHAPE PER INDICATION OF ELEVATION TYPE ON DOOR SCHEDULE (COLOR SHALL MATCH FRAMES).

4) SUBMIT LOCK AND HARDWARE SPECIFICATIONS, TYPE AND FUNCTION TO OWNER FOR REVIEW W/ VENDORS GUIDANCE PRIOR TO ORDERING ALL WINDOWS AND DOORS. INTERIOR HARDWARE SHALL MATCH INTERIOR FRAME COLOR OF WHITE. (COORDINATE INTERIOR HARDWARE FINISH WITH OWNER INTERIORS DESIGNER IF DIFFERENT).

5) ALL GLAZING W/ "T" DESIGNATION ON ELEVATIONS INDICATES TEMPERED GLASS PER CBC (SEC 2406.4).

6) CONTRACTOR TO F.V, ALL DOOR AND WINDOW SIZES PRIOR TO ORDERS/INSTALLATION FOR ALL ACTUAL FIELD R.O. OPENINGS

DOOR ELEVATION/TYPES

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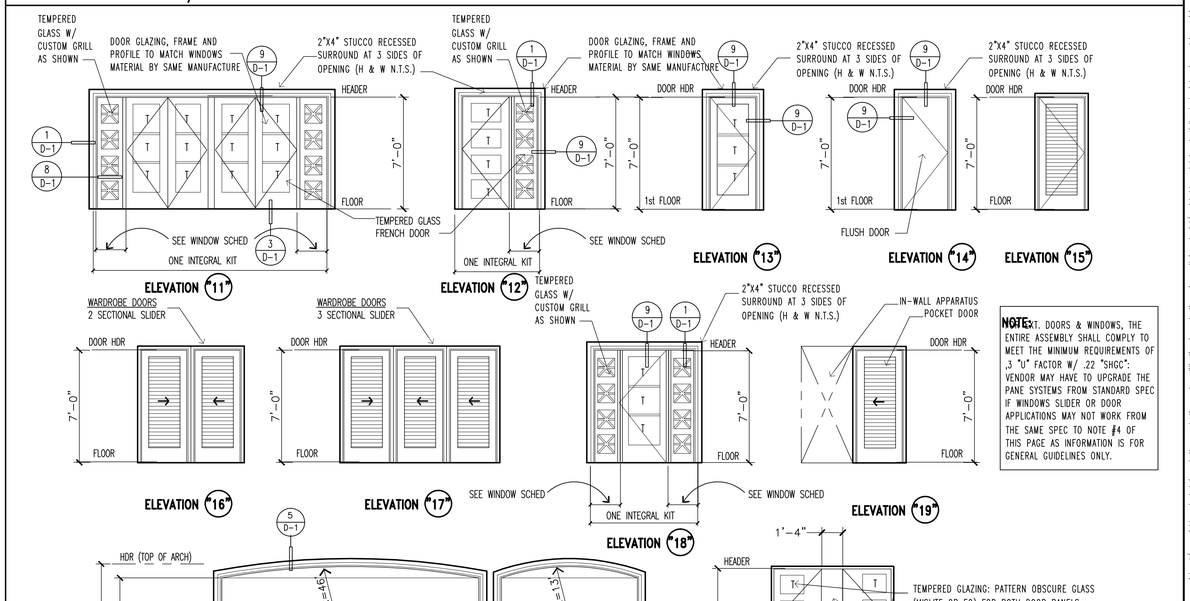

NOTE: EXT. DOORS & WINDOWS, THE ENTIRE ASSEMBLY SHALL COMPLY TO MEET THE MINIMUM REQUIREMENTS OF .3 "U" FACTOR W/ .22 "SHGC": VENDOR MAY HAVE TO UPGRADE THE PANE SYSTEMS FROM STANDARD SPEC IF WINDOWS SLIDER OR DOOR APPLICATIONS MAY NOT WORK FROM THE SAME SPEC TO NOTE #4 OF THIS PAGE AS INFORMATION IS FOR GENERAL GUIDELINES ONLY.

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DOOR & WINDOW SCHEDULE

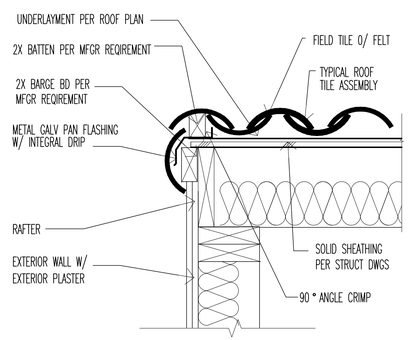
OWNER/SITE ADDRESS:
CONTACT: Henry Khuu
12322 Lampson Avenue
Garden Grove, CA 92840
(714) 722-8067 Email : Henrykhuu@gmail.com

REGISTERED PROFESSIONAL ARCHITECT JOHN A. SALAT NO. C-24445 EXP. 10-29-21 STATE OF CALIFORNIA

DRAWN JS
CHECKED JS
DATE SEE REVISION BOX ABOVE FOR DATE
SCALE AS NOTED ON PLANS
JOB NO.
SHEET

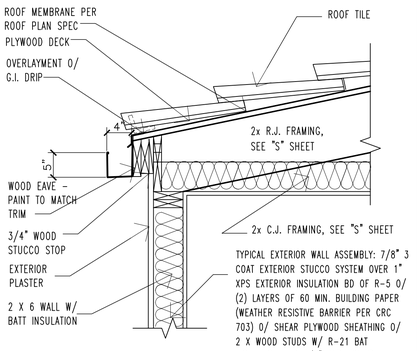
B-4

1 OF (SEE INDEX) SHEETS



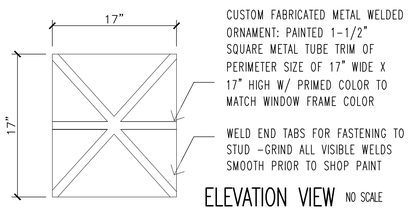
DETAILS ARE DRAWN DIAGRAMMATIC – INSTALL PER ROOF SHINGLE MFGR REQUIREMENTS

RAKE (BARGE AT ROOF) 13

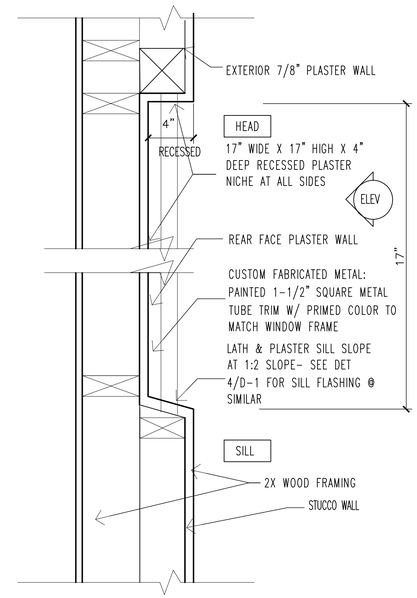


NOTE:
DETAILS ARE DRAWN DIAGRAMMATIC – INSTALL PER ROOF TILE MANUFACTURER'S REQUIREMENTS

OVERHANG (SHORTEN COND.) 14



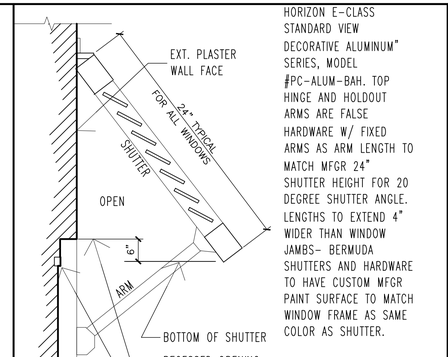
ELEVATION VIEW NO SCALE



SECTION VIEW NO SCALE

WALL RECESSED 11

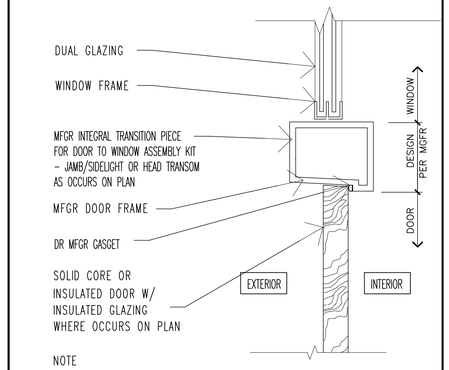
ROOF COPULA 12



HORIZON E-CLASS STANDARD VIEW DECORATIVE ALUMINUM" SERIES, MODEL #PC-ALUM-BAH. TOP HINGE AND HOLDOUT ARMS ARE FALSE HARDWARE W/ FIXED ARMS AS ARM LENGTH TO MATCH MFGR 24" SHUTTER HEIGHT FOR 20 DEGREE SHUTTER ANGLE. LENGTHS TO EXTEND 4" WIDER THAN WINDOW JAMBS– BERMUDA SHUTTERS AND HARDWARE TO HAVE CUSTOM MFGR PAINT SURFACE TO MATCH WINDOW FRAME AS SAME COLOR AS SHUTTER.

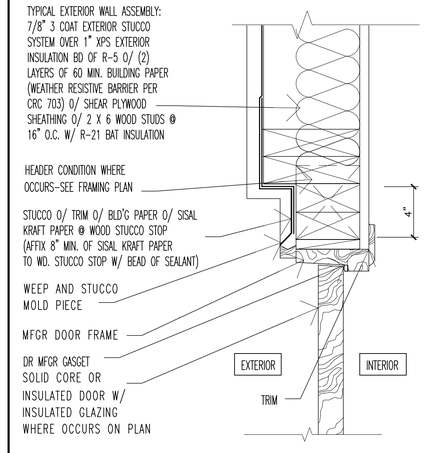
https://www.larsonshutter.com
800.675.6555

BAHAMA SHUTTER 7

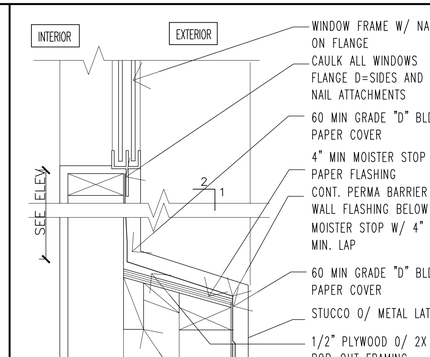


NOTE
DR/WDW JAMB TRANSOM BY MFGR FOR FULL KIT

DR/WDW (JAMB OR TRANSOM) 8



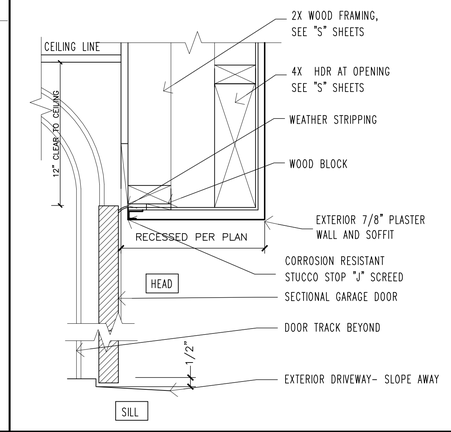
DOOR HEAD (JAMB SIM) 9



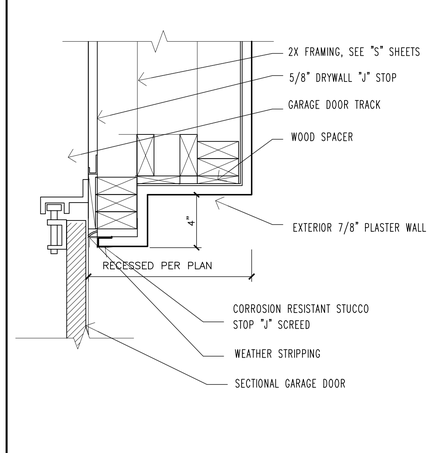
DEEPEN WINDOW SILL

NOTE: FOR INSULATION NOTES, SEE 1/D-1 FOR @ SIM

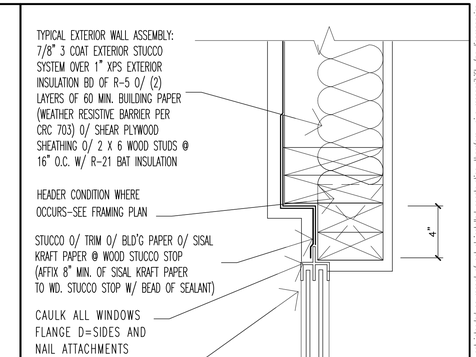
4



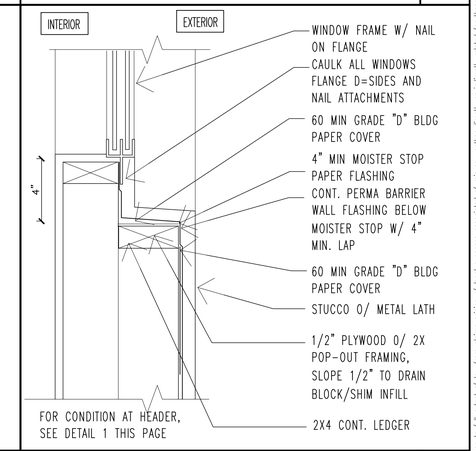
GARAGE DOOR HEAD 5



GARAGE DOOR JAMB 6



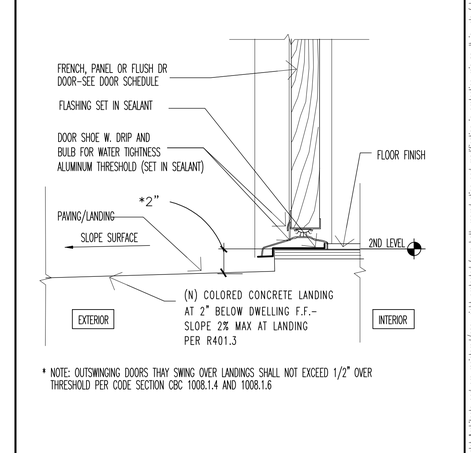
STD WINDOW HEAD (JAMB SIM) 1



STD WINDOW SILL

NOTE: FOR INSULATION NOTES, SEE 1/D-1 FOR @ SIMILAR

2



* NOTE: OUTSWINGING DOORS THAY SWING OVER LANDINGS SHALL NOT EXCEED 1/2" OVER THRESHOLD PER CODE SECTION CBC 1008.1.4 AND 1008.1.6

DOOR THRESHOLD 3

MISCELLANEOUS DETAILS

NO SCALE

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REVISIONS NO.
REVISED 5-9-20

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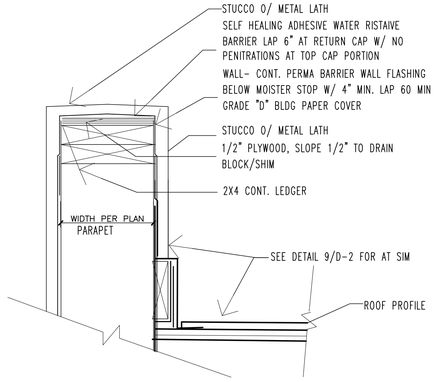
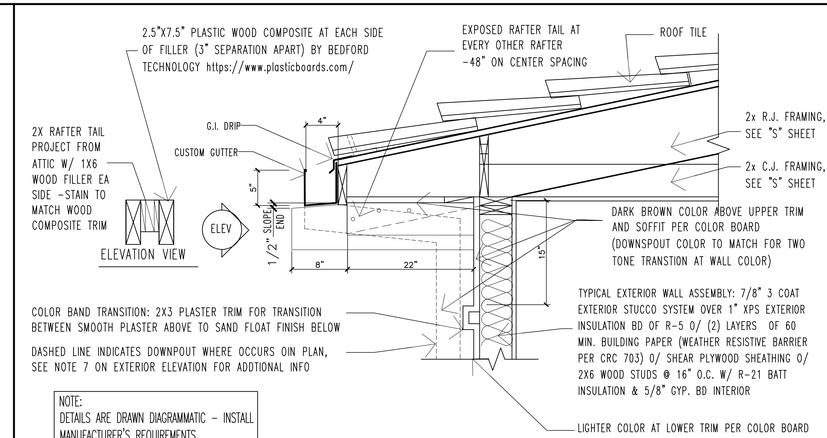
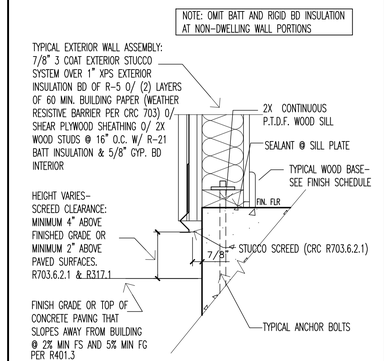


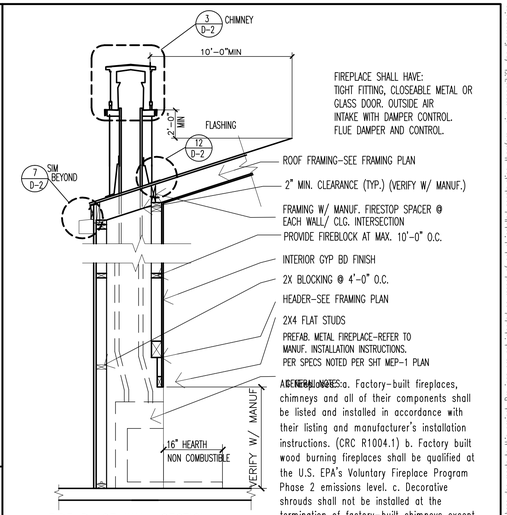
WALL CAP (PAPARAPET) | 13



OVERHANG DETAILS | 7



FOUNDATION SCREED | 4



FIRE PLACE WALL SECTION

ELONGATED PREFAB GAS FIREPLACE W/ 18 5/8" HIGH x 76 3/4" WIDE VIEW OPENING W/ METAL FIRE BOX TO CONNECT TO METAL FLUE OVERHEAD SYSTEM PER MFGR REQUIREMENTS AND CODE R1003. NAPOLEON LV74N VECTOR 74N DIRECT VENT INSET GAS FIREPLACE W/ ACCESSORY OPTIONS PER DESIGNERS SPECS (949) 650-2640 FOR REP FOR ROUGH-IN INSTALLATION SPECS LOCAL

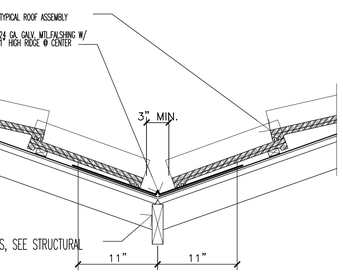
Overall Width: 89.5/16" unit (89 13/16" r.o.)
Overall Depth: 20" (20-1/8" r.o.)
Overall Height: 39 3/4" unit (40" r.o.)
Viewing Width: 76 3/4" X 18 5/8" viewing ht
Maximum Heat Output: 48,000 BTUs
Venting Type: Direct Vent
Venting Diameter: 5" | 8"

Fireplace lab test performed by Intertek #G102876742. Installed per National Fuel Gas Code, ANSI Z223.1 / NFPA 54 & ANSI / NFPA 70 National Electric Code

a. Factory-built fireplaces, chimneys and all of their components shall be listed and installed in accordance with their listing and manufacturer's installation instructions. (CRC R1004.1) b. Factory built wood burning fireplaces shall be qualified at the U.S. EPA's Voluntary Fireplace Program Phase 2 emissions level. c. Decorative shrouds shall not be installed at the termination of factory-built chimneys except where such shrouds are listed and labeled for use with the specific factory-built chimney system and are installed in accordance with manufacturer's installation instructions. (CRC R1005.2 & CMC 802.5.2.4) d. Horizontal openings are not allowed, for exhaust vents, in walls closer than 3 feet to a property line. (Tables R302.1(1)&(2)). Horizontal vent caps shall be 2 feet clear from property lines. e. Exhaust openings shall not be directed onto walkways. (R303.5.2)

SOLID FUEL BURNING FIREPLACE: a. Provide a permanently anchored gaseous fuel burning pan to the firebox of a solid fuel burning fireplace. b. Solid fuel burning fireplace must comply with the California Energy Standards mandatory measures. c. Chimney shall extend at least 2 ft. higher than any portion of the building within 10 ft., but shall not be less than 3 ft. above the highest point where the chimney passes through the roof. (CRC R1003.9) d. Liquid fueled fireplaces are not allowed for interior use.

DIRECT VENT GAS APPLIANCE FIREPLACE: a. Direct vent sealed-combustion gas appliance fireplace must comply with the Cal Green code requirements and must comply with ANSI Z21.50. (Cal Green 4.503.1)

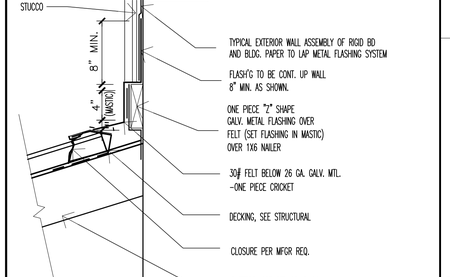


NOTES:
1. SHOWER FLOORS AND WALLS ABOVE SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE TO A HEIGHT OF FULL HT OF 8' ABOVE THE FLOOR. (R307.2 CRC) CEMENT, FIBER-CEMENT, FIBER-MAT REINFORCED CEMENT, GLASS MAT GYPSUM OR FIBER-REINFORCED GYPSUM BACKERS SHALL BE USED AS A BASE FOR WALL TILE IN TUB AND SHOWER AREAS AND WALL AND CEILING PANELS IN SHOWER AREAS. (R702.4.2 CRC)
2. MEMBRANE TO BE CONTINUOUS TO FULL HEIGHT OF TILE ASSEMBLY SHOWER RECEPTORS, CURBS, SEATS, ETC. MUST BE PROPERLY WATERPROOFED AND INSTALLED TO AVOID WATER DAMAGE TO ADJACENT BUILDING MATERIALS. SEE TCNA COMMON SHOWER SPECS

CURB LESS SHOWER FLR W/ CONTINUOUS TRENCH DRAIN ALONG ENTIRE OPENING WIDTH Linear Shower Drain with Drain Body ICC-ES Report PMG-1145 w/ Drop-in 304 grade stainless steel grate Manufactured 810.357.5608 http://www.whatadrain.com

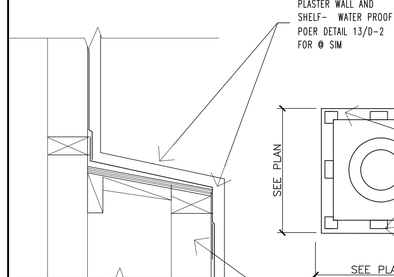
SLAB
SLOPED MORTAR BED TO DRAIN
BONDED WATERPROOF MEMBRANE

SHOWER STALL WALL/FLOOR | 11

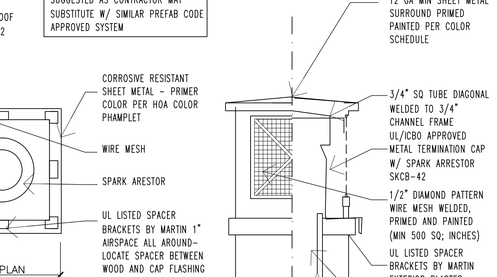


NOTE: DETAILS ARE DRAWN DIAGRAMMATIC - INSTALL PER ROOF TILE MANUFACTURER'S REQUIREMENTS

ROOF RIDGE (HIP SIMILAR) | 8



FOUNDATION EDGE | 5



VERT SECTION @ BASE | HORIZ SECTION | VERT SECTION @ CAP

FIRE PLACE | 2

NOTE: DETAILS ARE DRAWN DIAGRAMMATIC - INSTALL PER ROOF TILE MANUFACTURER'S REQUIREMENTS

VALLEY TRANSITION | 15

NOTE: DETAILS ARE DRAWN DIAGRAMMATIC - INSTALL PER ROOF TILE MANUFACTURER'S REQUIREMENTS

WALL TO ROOF | 12

NOTE: DETAILS ARE DRAWN DIAGRAMMATIC - INSTALL PER ROOF TILE MANUFACTURER'S REQUIREMENTS

WALL TO ROOF | 9

CHIMNEY CAP | 3

MISCELLANEOUS DETAILS NO SCALE

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REVISIONS NO.
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architect

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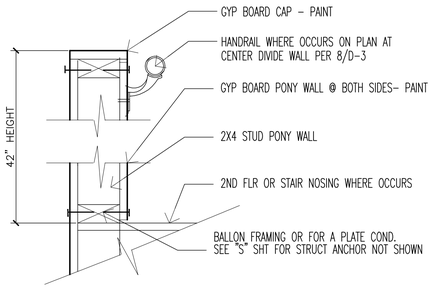
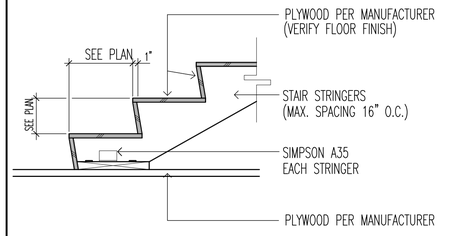


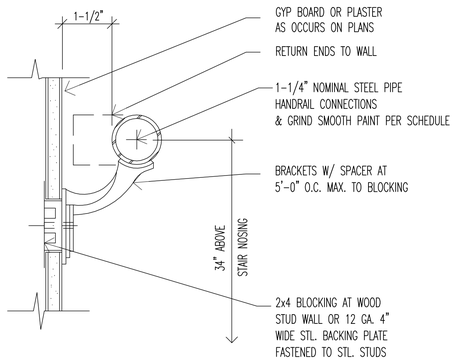
PONY WALL 9



NOTES:

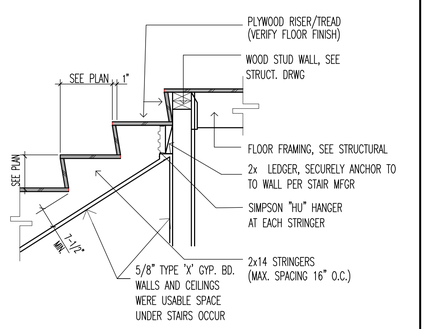
1. STRUCTURAL DRAWINGS SHALL SUPERSEDE DETAILS ON THIS PAGE
2. SEE GENERAL NOTES 1/D–3 ON THIS PAGE FOR STD RISER/TREAD CODE NOTES
3. VERIFY WITH OWNER STAIR TREAD/RISER FINISH AS THE SHAPE OF NOSING AND STAIR CONSTRUCTION MAY CHANGE TO MEET THE SUBSTRATE REQUIREMENTS

STAIR BOTTOM–SECTION 10



HANDRAIL DETAIL 11

1. STRUCTURAL DRAWINGS SHALL SUPERSEDE DETAILS ON THIS PAGE
2. SEE GENERAL NOTES ON THIS PAGE FOR STANDARD RISER/TREAD CODE NOTES
3. VERIFY WITH OWNER STAIR TREAD/RISER FINISH AS THE SHAPE OF NOSING AND STAIR CONSTRUCTION MAY CHANGE TO MEET THE SUBSTRATE REQUIREMENTS



STAIR TOP–SECTION 6

NOTES:

1. STRUCTURAL DRAWINGS SHALL SUPERSEDE DETAILS ON THIS PAGE
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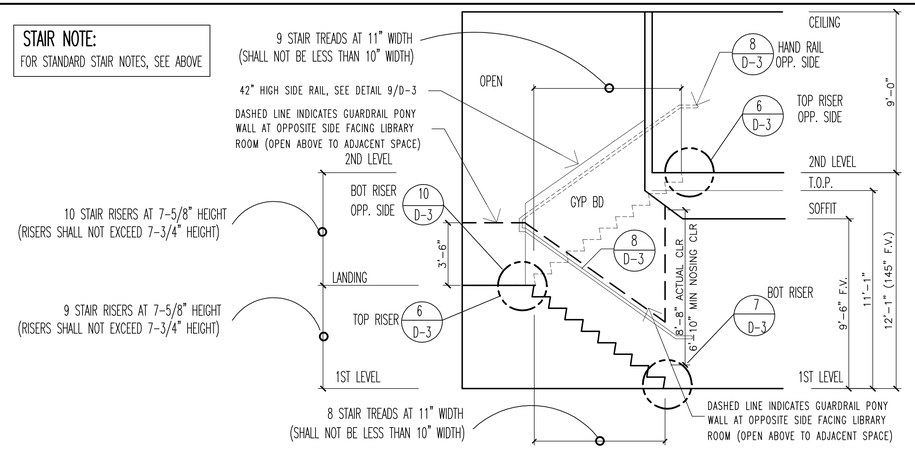
STAIR SECTION 3



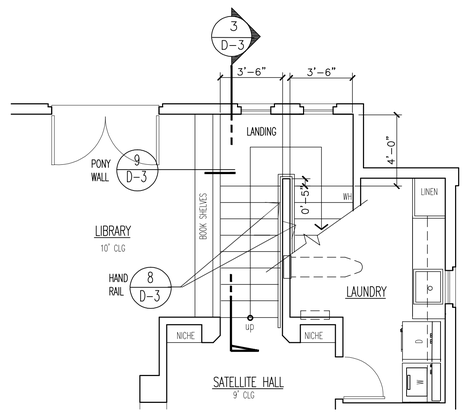
ENLARGE STAIR PLANS 1

SCALE: 1/4" = 1'–0"

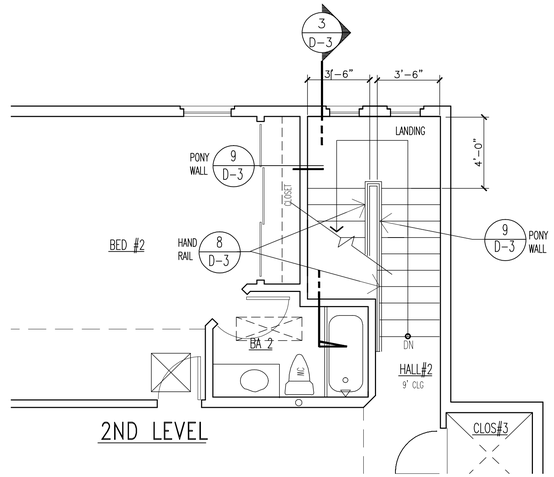
GENERAL STAIR NOTES

NOTE: ALL DIMENSIONS SHALL COMPLY W/ 2019 CBC OF CODE SECTIONS 1009.7, 1012.2

1. RESIDENTIAL STAIRS SHALL COMPLY W/ CODE SECTION R311
2. COLOR AND MATERIALS SELECTED BY OWNER FROM STAIR MANUFACTURER STANDARD PALETTE
3. STAIR ADEQUATE TO SUPPORT LOADS PER LINEAL FOOT AT A RIGHT ANGLE TO THE TOP RAIL (16–B)
4. METAL PICKETS, BARS AND SUPPORTS SPACED SO THAT 4 IN. SPHERE CANNOT PASS THROUGH.
5. NOSING AT 3/4" MINIMUM OFFSET
6. HANDRAILS SHALL SATISFY THE FOLLOWING TO SECTION 1003.3.6:
   a. PROVIDE CONTINUOUS HANDRAILS ON BOTH SIDES FOR STAIRWAYS W/ 4 OR MORE RISERS.
   b. HANDRAILS SHALL BE 34" TO 38" ABOVE THE NOSING OF THE TREAD & SHALL MEET 200 LBS POINT LOAD PER. CBC 1012.2, SEE DET 1/ A–6
   c. OPENINGS BETWEEN INTERMEDIATE BALUSTERS SHALL PRECLUDE THE PASSAGE OF MAXIMUM 4–INCH DIA SPHERE
   d. THE HAND GRIP PORTION OF THE HANDRAIL SHALL NOT BE LESS THAN 1–1/4" OR MORE THAN 2" DIAMETER SPHERE SMOOTH SURFACE WITH NO SHARP CORNERS.
   e. RETURN HANDRAILS TO NEWEL POST OR WALL
7. STAIRS SHALL SATISFY THE FOLLOWING PER CBC SECTION 1009.7, SEE ALL DETAILS THIS PAGE
   MAXIMUM STAIR RISE OF 7.75" AND A MINIMUM OF 10" STAIR TREAD
   STAIRWAYS W/ 4 OR MORE RISERS.
   MINIMUM WIDTH OF STAIR TO ANY PORTION SHALL NOT BE LESS THAN 36"
   MINIMUM HEADROOM SHALL NOT BE LESS THAN 6'–8"
   ENCLOSED USABLE CONSTRUCTION UNDER STAIRWAY REQUIRES TO FIRE BE 1–HR RESISTIVE CONSTRUCTION ON ENCLOSED SIDE
8. SEE PLANS AND SECTIONS FOR RISERS & RUN LAYOUT
9. THE LARGEST RISE OR RUN IN A FLIGHT OF STAIRS MAY NOT EXCEED THE SMALLEST BY 3/8".
10. STAIR RISERS SHALL NOT EXCEED 7–3/4" HEIGHT



1ST LEVEL



2ND LEVEL

SCALE: 1/4" = 1'–0"

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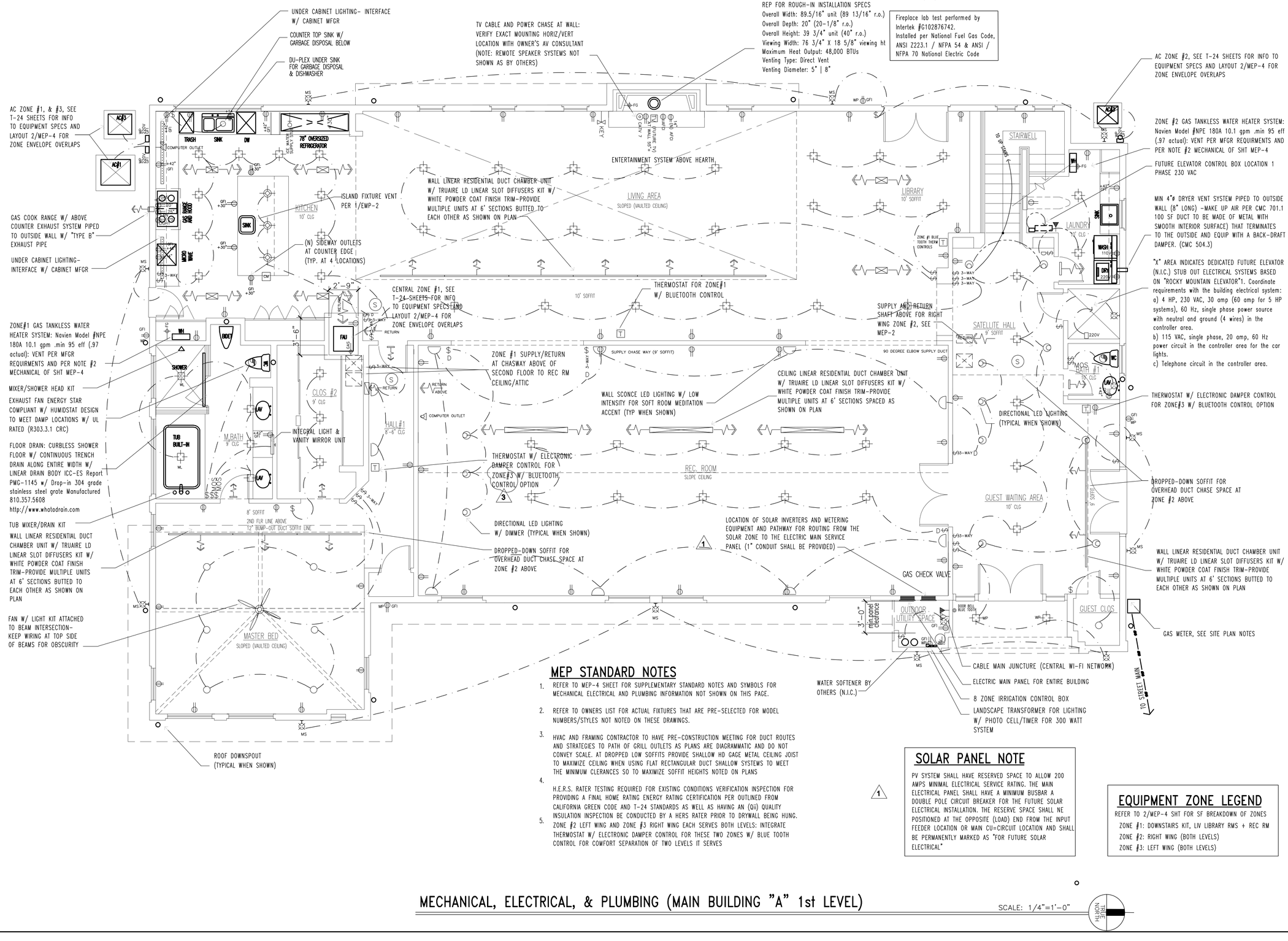

MEP STANDARD NOTES

1. REFER TO MEP-4 SHEET FOR SUPPLEMENTARY STANDARD NOTES AND SYMBOLS FOR MECHANICAL ELECTRICAL AND PLUMBING INFORMATION NOT SHOWN ON THIS PAGE.
2. REFER TO OWNERS LIST FOR ACTUAL FIXTURES THAT ARE PRE-SELECTED FOR MODEL NUMBERS/STYLES NOT NOTED ON THESE DRAWINGS.
3. HVAC AND FRAMING CONTRACTOR TO HAVE PRE-CONSTRUCTION MEETING FOR DUCT ROUTES AND STRATEGIES TO PATH OF GRILL OUTLETS AS PLANS ARE DIAGRAMMATIC AND DO NOT CONVEY SCALE. AT DROPPED LOW SOFFITS PROVIDE SHALLOW HD GAGE METAL CEILING JOIST TO MAXIMIZE CEILING WHEN USING FLAT RECTANGULAR DUCT SHALLOW SYSTEMS TO MEET THE MINIMUM CLERANCES SO TO MAXIMIZE SOFFIT HEIGHTS NOTED ON PLANS
4. H.E.R.S. RATER TESTING REQUIRED FOR EXISTING CONDITIONS VERIFICATION INSPECTION FOR PROVIDING A FINAL HOME RATING ENERGY RATING CERTIFICATION PER OUTLINED FROM CALIFORNIA GREEN CODE AND T-24 STANDARDS AS WELL AS HAVING AN (Qii) QUALITY INSULATION INSPECTION BE CONDUCTED BY A HERS RATER PRIOR TO DRYWALL BEING HUNG.
5. ZONE #2 LEFT WING AND ZONE #3 RIGHT WING EACH SERVES BOTH LEVELS: INTEGRATE THERMOSTAT W/ ELECTRONIC DAMPER CONTROL FOR THESE TWO ZONES W/ BLUE TOOTH CONTROL FOR COMFORT SEPARATION OF TWO LEVELS IT SERVES

SOLAR PANEL NOTE

1 PV SYSTEM SHALL HAVE RESERVED SPACE TO ALLOW 200 AMPS MINIMAL ELECTRICAL SERVICE RATING. THE MAIN ELECTRICAL PANEL SHALL HAVE A MINIMUM BUSBAR A DOUBLE POLE CIRCUIT BREAKER FOR THE FUTURE SOLAR ELECTRICAL INSTALLATION. THE RESERVE SPACE SHALL NE POSITIONED AT THE OPPOSITE (LOAD) END FROM THE INPUT FEEDER LOCATION OR MAIN CU=CIRCUIT LOCATION AND SHALL BE PERMANENTLY MARKED AS "FOR FUTURE SOLAR ELECTRICAL"

EQUIPMENT ZONE LEGEND

REFER TO 2/MEP-4 SHT FOR SF BREAKDOWN OF ZONES
ZONE #1: DOWNSTAIRS KIT, LIV LIBRARY RMS + REC RM
ZONE #2: RIGHT WING (BOTH LEVELS)
ZONE #3: LEFT WING (BOTH LEVELS)

MECHANICAL, ELECTRICAL, & PLUMBING (MAIN BUILDING "A" 1st LEVEL)

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

TRUE NORTH

Contractor shall exercise the responsibility with architect in securing latest approved drwgs. prior to actually executing work

REVISIONS NO.
1 CITY 2nd submit 8-1-20
2 FIELD CLARIFICATION
3 FIELD CLARIFICATION

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z e n a r c h i t e c t . c o m
architect

KHUU RESIDENCE
NEW RESIDENCE WITH ADU
1st LEVEL FLOOR PLAN
MECH, ELECT, PLUMBING

OWNER/SITE ADDRESS:
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REGISTERED PROFESSIONAL ENGINEER JOHN A. SALAT NO. C-24445 EXP. 10-29-21 STATE OF CALIFORNIA

DRAWN JS
CHECKED JS
DATE SEE REVISION BOX PROVE FOR DATE
SCALE AS NOTED ON PLANS
JOB NO.
SHEET
MEP-1
1 OF (SEE INDEX) SHEETS

CALCULATION SHEET FOR FIGURE No. 3

DRYER VENT CALCULATIONS, OVERHEAD, ENGINEERED EQUIVALENT

SECTION	ITEM	SIZE (INCHES)	LENGTH	(FEET OR °C)	VELOCITY (FPM)	VELOCITY PRESSURE (INCHES W.G.)	PRESSURE DROP (INCHES W.G.)
A–B	DUCT	4	1.0	0.01	1,400	––	0.01
B–C	ELL	4	––	0.37	1,400	0.12	0.04
B–C	DUCT	4	8.0	0.01	1,400	––	0.08
C	ELL	4	––	0.37	1,400	0.12	0.04
C–D	DUCT	4	5.0	0.01	1,400	––	0.05
D	OUTLET	4	––	0.55	1,400	0.12	0.07
			14.0				0.29

CALCULATION SHEET FOR FIGURE No. 4

DRYER VENT CALCULATIONS, OVERHEAD, ENGINEERED EQUIVALENT

SECTION	ITEM	SIZE (INCHES)	LENGTH	(FEET OR °C)	VELOCITY (FPM)	VELOCITY PRESSURE (INCHES W.G.)	PRESSURE DROP (INCHES W.G.)
A–B	DUCT	4	1.0	0.0100	1,400	––	0.01
B	ELL	4 TO 3 BY 6	––	0.4200	1,400	0.12	0.05
B–C	DUCT	3 BY 6	8.0	0.0052	1,070	––	0.04
C	ELL	3 BY 6 TO 5	––	0.4200	1,070	0.07	0.03
C–D	DUCT	5	28.5	0.0032	875	––	0.09
D–E	TRANSITION	5 TO 4	––	0.0500	1,400	0.12	0.01
E	OUTLET	4	––	0.5500	1,400	0.12	0.07
			37.5				0.29

ALTERNATE CALCULATION SHEET FOR FIGURE No. 4

DRYER VENT CALCULATIONS, OVERHEAD, ENGINEERED EQUIVALENT

SECTION	ITEM	SIZE (INCHES)	LENGTH	(FEET OR °C)	VELOCITY (FPM)	VELOCITY PRESSURE (INCHES W.G.)	PRESSURE DROP (INCHES W.G.)
A–B	DUCT	4	1.0	0.0100	1,400	––	0.01
B	ELL	4 TO 3 BY 6	––	0.4200	1,400	0.12	0.05
B–C	DUCT	3 BY 6	8.0	0.0052	1,070	––	0.04
C	ELL	3 BY 6 TO 6	––	0.4200	1,070	0.07	0.03
C–D	DUCT	6	70.0	0.0013	625	––	0.09
D–E	TRANSITION	6 TO 4	––	0.0500	1,400	0.12	0.01
E	OUTLET	4	––	0.5500	1,400	0.12	0.07
			79.0				0.29

CALCULATION SHEET FOR FIGURE No. 4

DRYER VENT CALCULATIONS, EQUIVALENT LENGTH OF ELBOWS

ITEM	SIZE (INCHES)	STRAIGHT DUCT (FEET)	FITTING K	VELOCITY (FPM)	VELOCITY PRESSURE (INCHES W.G.)	PRESSURE DROP (INCHES W.G.)	EQUIVALENT DUCT LENGTH
ELL	5	0.0032	0.3700	875	0.05	0.02	6
ELL	6	0.0031	0.3700	625	0.03	0.01	7

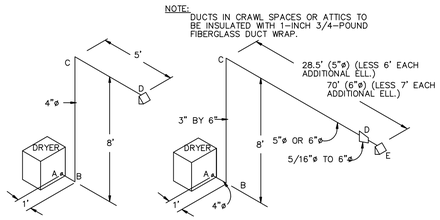


FIGURE No. 3–DRYER VENT AS SPECIFIED IN U.M.C. SECTION 908 (NOT TO SCALE)

FIGURE No. 4–ENGINEERED DRYER VENT EQUIVALENT TO U.M.C. SECTION 908 (NOT TO SCALE)

DRYER VENT REQUIREMENTS

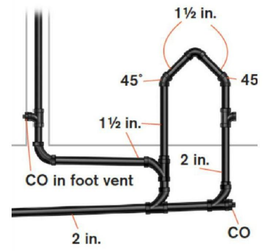
NO SCALE 2

- Drainage fittings shall be used on the vent below the floor level, and a slope of not less than ¼ inch per foot back to the drain shall be maintained.
- The return bend used under the drain board shall be a one-piece fitting or an assembly of a 45 degree, a 90 degree, and a 45-degree elbow in the order named.
- Pipe sizing shall be as elsewhere required in this code.
- The island sink drain, upstream of the returned vent, shall serve no other fixtures.
- An accessible cleanout shall be installed in the vertical portion of the foot vent.

CPC Section 909.0 Island Sink Venting.

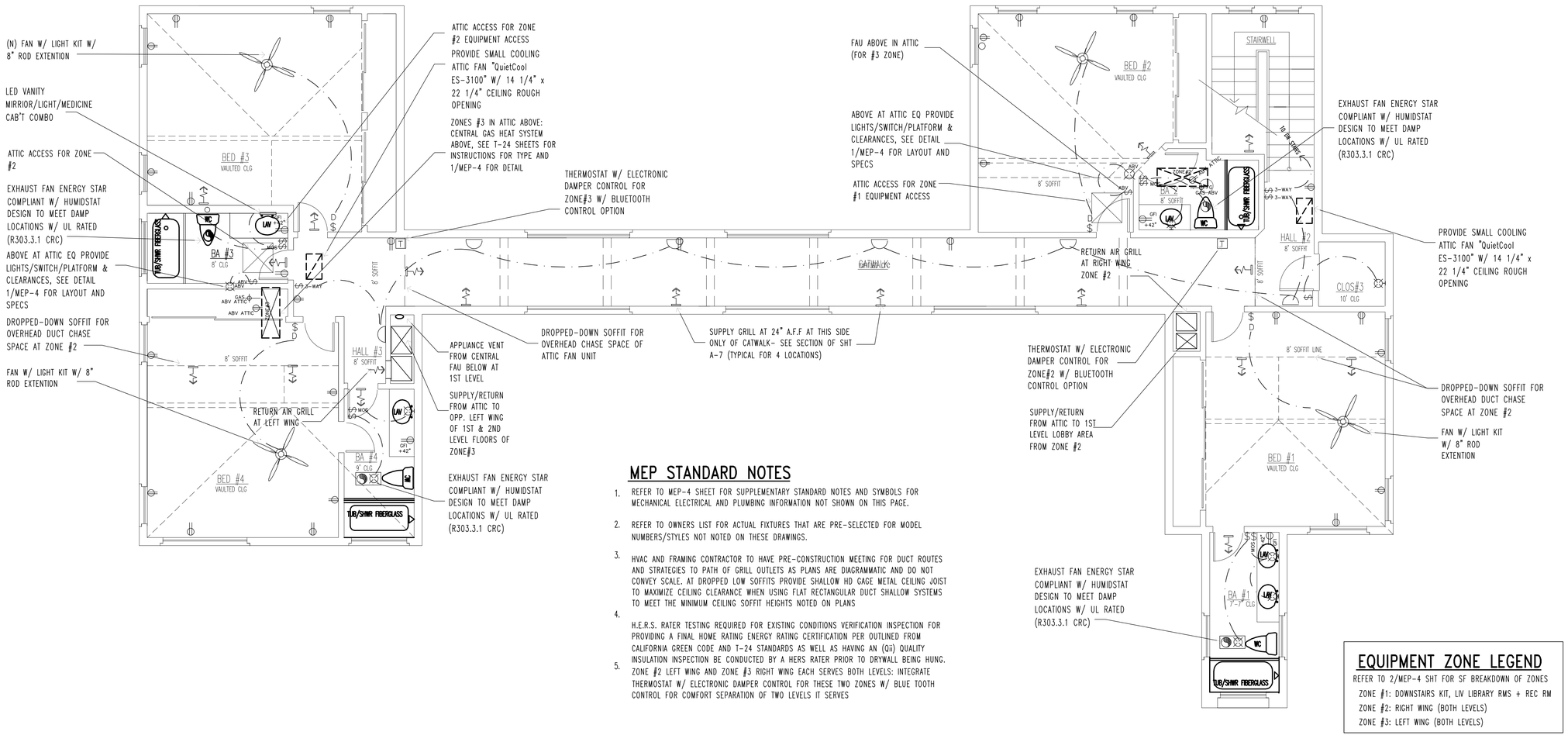
- Traps for island sinks and similar equipment shall be roughed in above the floor and shall be permitted to be vented by extending the vent as high as possible, but not less than the drain board height and then returning it downward and connecting it to the horizontal sink drain immediately downstream from the vertical sink fixture drain.
- The return vent shall be connected to the horizontal drain through a wye-branch fitting and shall, in addition, be provided with a foot vent taken off the vertical fixture vent by means of a wye branch immediately below the floor and extending to the nearest partition and then through the roof to the open air, or shall be permitted to be connected to other vents at a point not less than 6 inches above the floor-level rim of the fixtures served.

UPC Kitchen Island Sink



ISLAND VENT REQUIREMENTS

NO SCALE 1



MEP STANDARD NOTES

1. REFER TO MEP-4 SHEET FOR SUPPLEMENTARY STANDARD NOTES AND SYMBOLS FOR MECHANICAL ELECTRICAL AND PLUMBING INFORMATION NOT SHOWN ON THIS PAGE.
2. REFER TO OWNERS LIST FOR ACTUAL FIXTURES THAT ARE PRE-SELECTED FOR MODEL NUMBERS/STYLES NOT NOTED ON THESE DRAWINGS.
3. HVAC AND FRAMING CONTRACTOR TO HAVE PRE-CONSTRUCTION MEETING FOR DUCT ROUTES AND STRATEGIES TO PATH OF GRILL OUTLETS AS PLANS ARE DIAGRAMMATIC AND DO NOT CONVEY SCALE. AT DROPPED LOW SOFFITS PROVIDE SHALLOW HD GAGE METAL CEILING JOIST TO MAXIMIZE CEILING CLEARANCE WHEN USING FLAT RECTANGULAR DUCT SHALLOW SYSTEMS TO MEET THE MINIMUM CEILING SOFFIT HEIGHTS NOTED ON PLANS
4. H.E.R.S. RATER TESTING REQUIRED FOR EXISTING CONDITIONS VERIFICATION INSPECTION FOR PROVIDING A FINAL HOME RATING ENERGY RATING CERTIFICATION PER OUTLINED FROM CALIFORNIA GREEN CODE AND T-24 STANDARDS AS WELL AS HAVING AN (Qii) QUALITY INSULATION INSPECTION BE CONDUCTED BY A HERS RATER PRIOR TO DRYWALL BEING HUNG.
5. ZONE #2 LEFT WING AND ZONE #3 RIGHT WING EACH SERVES BOTH LEVELS: INTEGRATE THERMOSTAT W/ ELECTRONIC DAMPER CONTROL FOR THESE TWO ZONES W/ BLUE TOOTH CONTROL FOR COMFORT SEPARATION OF TWO LEVELS IT SERVES

EQUIPMENT ZONE LEGEND

REFER TO 2/MEP-4 SHT FOR SF BREAKDOWN OF ZONES

ZONE #1: DOWNSTAIRS KIT, LIV LIBRARY RMS + REC RM

ZONE #2: RIGHT WING (BOTH LEVELS)

ZONE #3: LEFT WING (BOTH LEVELS)

MECHANICAL, ELECTRICAL, & PLUMBING (MAIN BUILDING "A" 2nd LEVEL)

SCALE: 1/4"=1'–0"

TRUE NORTH

Contractor shall exercise the responsibility with architect in securing latest approved drwgs. prior to actually executing work

REVISIONS NO.

1 CITY 2nd submit 8–1–20

2 FIELD CLARIFICATION

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SCALE AS NOTED ON PLANS

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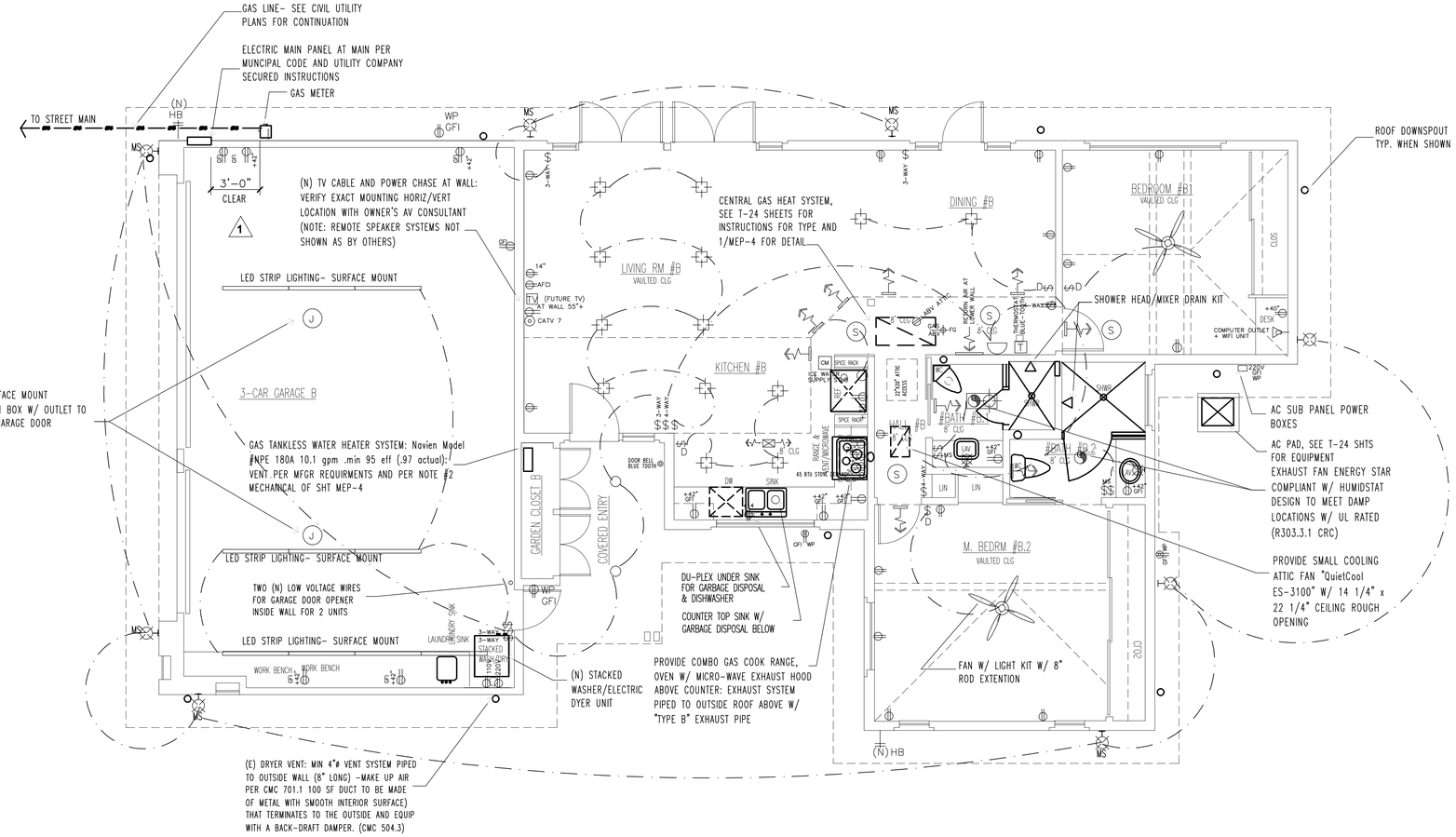
SHEET

MEP-2

1 OF (SEE INDEX) SHEETS



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MECHANICAL. ELECTRICAL & PLUMBING (BUILDING "B" AUXILIARY RESIDENCE & GARAGE)

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

TRUE NORTH

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1 CITY 2nd submit 8-1-20

2 FIELD CLARIFICATION

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KHUU RESIDENCE
NEW RESIDENCE WITH ADU
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SHEET

MEP-3

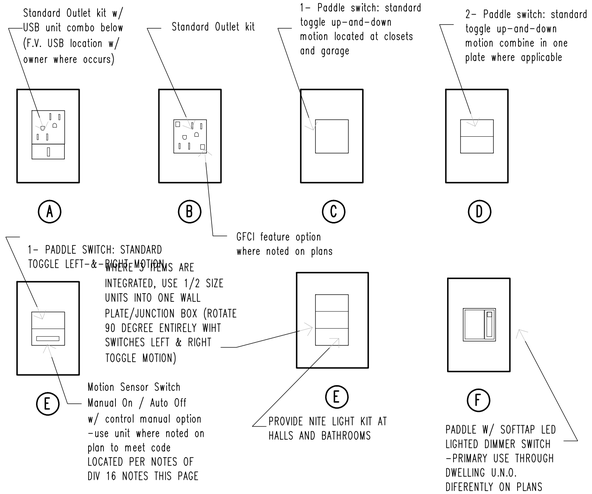
1 OF (SEE INDEX) SHEETS

PLATE SPEC COVER (LIGHTS/PLUGS)

STANDARD ELECTRICAL WALL PLATE NOTES

1. The Adorne Collection by Legrand, includes everything from light switches and outlets to under-cabinet lighting and a Blue tooth sound system. Specifications may not include all scenarios for home entertainment as shall be coordinate with owner and entertainment consultant for future blue tooth, WIFI, USB, network hub, timers and other possible features not mentioned prior to order and install
2. Refer to plans for total functions as electrical contractor shall coordinate the combinations in options limited to below. always combined foctions into one single plate by going half size units stacked as shown below. For more than two combo's, rotate plate 90 degree to vertically stacked unit combo's
3. Color Scheme: All units, accessories and plate to be monolithic in color of factory "white" throughout U.N.O. on the interior designers drawings
4. Provide qualified installers familiar with adorn series as. Follow manufactures instructions for detailed combo kit options, schematic and other installation specifications at https://www.legrand.us/adorne/products/ (no substitutes allowed)

NOTE: BELOW LEGEND PROVIDE MANUFACTURES OPTIONS FOR OUTLETS AND SWITCHES. FOR LIGHT SWITCHES THAT ARE NOT MOTIONS SENSOR OR TIMERS, PROVIDE PROVIDE THE "SOFTAP" LED LIGHTED DIMMER SWITCH, 700W TRU-UNIVERSAL THROUGOUT



STANDARD MEP SYMBOLS

electrical

- TELEPHONE JACK
- COMPUTER OUTLET
- DOUBLE RECEPTACLE OUTLET (TAMPER-RESISTANT)
- FOURPLEX OUTLET (TAMPER-RESISTANT)
- GFCI GROUND FAULT INTERRUPT OUTLET PER (CEC 210.8A) (TAMPER-RESISTANT)
- DUPLEX OUTLET (1/2 HOT OUTLET) TAMPER-RESISTANT
- RECEPTACLE OUTLET (TAMPER-RESISTANT)
- 220v 220 VOLT OUTLET
- WP GFI WATERPROOF GROUND FAULT INTERRUPT OUTLET OUTDOOR EXTERIOR USE PER (CEC 210-52e)
- TV CABLE TELEVISION OUTLET
- ELECTRIC METER
- D LIGHT SWITCH WITH DIMMER
- SINGLE POLE LIGHT SWITCH
- 3 WAY DOUBLE POLE LIGHT SWITCH 3 WAY SWITCH
- 4 WAY 4 WAY SWITCH
- MOS MOTION OCCUP. SENSOR
- LED WALL MOUNTED LIGHT FIXTURE
- 4" SQUARE RECESSED LED CAN LIGHT FIXTURE CEILING MOUNTED
- CLG. HUNG LED. LIGHT FIXTURE
- 'J' BOX FOR FIXTURE IN ALLOWANCE
- EXHAUST FAN (CONTROLLED BY HUMIDISTAT)
- LED LIGHT & FAN COMBINATION (CONTROLLED BY HUMIDISTAT)
- RECESSED MR LOW VOLTAGE DOWN LIGHT
- RECESSED LOW VOLTAGE 'MR' LAMP DIRECTIONAL
- S ELEC. SMOKE DETECTOR w/BATT. BACKUP
- LED TRACT LIGHT & LENGTH
- LED STRIP LT. X 4' LENGTH SECTIONS CHAIN HUNG SHOP LAMP
- LED WALL SCONCE LIGHTING
- LED UNDER COUNTER LIGHTING STRIP WITH NON CONCEALED WIRING -COORDINATE W/ CAB'T MFGR FOR HIDING LOW VOLTAGE WIRING FROM CENTRAL TRANSFORMER NETWORK

electrical (cont)

- LED PENDANT LIGHTING FIXTURE (HUNG CEILING MOUNTED ON CORD)
- SURFACE CEILING MOUNT LIGHT FIXTURE
- S SMOKE DETECTOR- HARD WIRED W/ BATTERY BACKUP SEE NOTE 5 THIS PAGE "DIV 16- ELECT.
- CM CARBON MONOXIDE DETECTOR HARD WIRED W/ BATTERY BACKUP PER CODE SECTION 315 -SEE NOTE 6 THIS PAGE OF "DIVISION 16- ELECT.
- CATV 7 (CABLE NETWORK)
- 4" RECESSED LED CAN LIGHT FIXTURE CEILING MOUNTED
- 6" RECESSED LED CAN LIGHT FIXTURE CEILING MOUNTED
- 6" LED TYPE CAN HIGH EFFICACY CEILING MOUNT LIGHTS FIXTURE, (SWITCHED SEPARATELY AT KITCHEN) SEE THIS SHT DIV-16 ELECTRIC
- LOW VOLTAGE LIGHT- HANG 6' FROM F.F. MINI PENDANT LAMPS
- MS LED EXTERIOR LAMP SECURITY NIGHT LIGHT W/ MOTION CENSORED PHOTO CELL WIRED HOT

mechanical

- CEILING MOUNTED SUPPLY AIR DIFFUSER
- CEILING MOUNTED RETURN AIR DIFFUSER
- WALL MOUNTED SUPPLY AIR DIFFUSER
- WALL MOUNTED RETURN AIR DIFFUSER
- T THERMOSTAT
- ICE MAKER WATER SUPPLY
- RECESSED ICE MAKER CONNECTION w/VALVE
- RECESSED WASH MACHINE WATER & DRAIN
- HB HB. W/ S.O.V. HOSE BIBB
- HOSE BIBB w/SHUT OFF VALVE
- FUEL GAS
- KEY GAS LOG LIGHTER KEY
- GAS CHECK VALVE GAS CHECK VALVE
- DRYER VENT
- GAS GAS SUPPLY
- WC WATER CLOSET

abbreviations

MSIPC= MOTION SENSOR W/ INTEGRATED PHOTO CELL UNIT-SEE THIS SHEET DIV-16 ELECTRIC

MOS= MOTION OCCUPANCE SENSOR

AFCI = ARC FAULT CIRCUIT INTERRUPTER SEE THIS SHEET DIV-16 ELECTRIC

(E) = EXISTING
(N) = NEW

WL = WET LOCATION RECESSED LIGHT FIXTURE PER NEC 410

STD MECHANICAL/ELECTRICAL/PLUMBING SPECS

DIVISION 15 - MECHANICAL/PLUMBING

ALL GOVERNING CODES FOR THIS PROJECT ARE AS FOLLOWS:
2019 CALIFORNIA RESIDENTIAL (CRC), ELECTRICAL (CEC), MECHANICAL (CMC), CODE (EES) & PLUMBING (CPC),2019 CALIF. ENERGY EFFICIENCY STANDARDS CODES WITH LOCAL AMENDMENTS INCLUDING CALIFORNIA GREEN CODE 2019 AND 2019 ENERGY CODE (T-24)

EQUIPMENT/APPLIANCE LIST

REFER TO T-24 AND OWNERS SEPARATE LIST FOR FIXTURES

DIVISION 15 - PLUMBING

ALL EXISTING PLUMBING FIXTURES MUST BE UPGRADED PURSUANT TO CALIFORNIA CIVIL CODE, SECTIONS 1101.1 - 1101.8 TO COMPLY WITH THE FOLLOWING CONSUMPTION LIMITS:

A. ANY TOILET MANUFACTURED TO USE MORE THAN 1.6 GALLONS OF WATER PER FLUSH.
B. ANY URINAL MANUFACTURED TO USE MORE THAN ONE GALLON OF WATER PER FLUSH.
C. ANY SHOWER HEAD MANUFACTURED TO HAVE A FLOW CAPACITY OF MORE THAN 2.5 GALLONS OF WATER PER MINUTE.
D. ANY INTERIOR FAUCET THAT EMITS MORE THAN 2.2 GALLONS OF WATER PER MINUTE

NOTE TO CONTRACTOR: A COMPLETED AFFIDAVIT MAY BE PROVIDED TO THE BUILDING INSPECTOR AT OR BEFORE FINAL IN LIEU OF INSPECTIONS OF THESE FIXTURES AS NEW AND EXISTING BOTH MUST COMPLY TO CHART BELOW.

MAXIMUM FLOW RATE STANDARDS INDOOR WATER USE -CGBSC 4.303 RATE TO TABLE 4.303.2:

TABLE - MAXIMUM FIXTURE WATER USE

FIXTURE TYPE	FLOW RATE
SHOWER HEADS (SINGLE)	1.8 GMP @ 80 PSI
MULTI-SHOWER HEAD TO OPERATE ONE HEAD AT A TIME SO THAT THE COMBINED FLOW RATE IS STILL THE SAME AS SINGLE HEAD IN SHOWER STALL AREA	1.8 GMP @ 80 PSI
LAVATORY FAUCETS	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

1. ALL WATER INLET SUPPLY HOSE WITH TOP GRADE STAINLESS STEEL BRAIDED FLEXIBLE METAL HOSES AND ALL SHUT-OFF VALVES TO BE 1/4 TURN -NO EXCEPTIONS (TYPICAL THROUGHOUT HOUSE)
2. NO GAS PIPING SHALL BE INSTALLED IN OR ON THE GROUND UNDER ANY BUILDING OR STRUCTURE. ALL EXPOSED GAS PIPING SHALL BE KEPT AT LEAST 6" ABOVE GRADE OR STRUCTURE. (CPC 1211)
3. PROVIDE BONDING FROM COLD TO HOT WATER PIPING TO COMPLY WITH NEC SECTION 250-80.
4. PROVIDE SOLID WASTE CONNECTORS IN LIEU OF ACCESS PANELS. (CPC 405)
   PROVIDE DEVICES TO ABSORB HIGH PRESSURES RESULTING FROM THE QUICK CLOSING OF THE QUICK-ACTING VALVES FROM THE WASHER AND DISHWASHER, ETC. (CPC)
5. AT BATHTUBS AND TUB/SHOWER COMBINATIONS, CONTROL VALVES SHALL BE PRESSURE BALANCED OR MIXING. VALVES SHALL BE THERMOSTATICALLY CONTROLLED PER THE CPC SEC 410.7. 18.

DIVISION 15 - MECHANICAL

1. BATHROOMS, WATER CLOSET COMPARTMENTS AND SIMILAR ROOMS SHALL BE PROVIDED WITH MECHANICAL VENTILATION PER SECTION R303.3 UNLESS WINDOWS MEET OPEN VENTILATION REQUIREMENTS.
2. FUEL BURNING APPLIANCES: FUEL BURNING APPLIANCES SUCH AS WATER HEATERS AND FURNACES REQUIRE COMBUSTION AIR DUCTS AND EXHAUST VENTS THAT MUST EXTEND TO THE OUTSIDE. THOUGHT MUST BE GIVEN TO ROUTING. IT IS ADVISABLE TO LOCATE FUEL BURNING APPLIANCES ADJACENT TO AN OUTSIDE WALL FOR EASE IN PROVIDING COMBUSTION AIR. CONSULT THE 2019 CALIFORNIA MECHANICAL CODE AND 2019 CALIFORNIA ENERGY CODE. R402.4.4/N1102.4.4,
3. ROOMS CONTAINING BATHTUBS, SHOWERS, SPAS AND SIMILAR BATHING FIXTURES SHALL BE MECHANICALLY VENTILATED BY EXHAUST FAN WHICH EXHAUSTS DIRECTLY -DUCTED TO TERMINATE OUTSIDE THE BUILDING CBC 1203.4.2.1 .BATHROOM FANS MUST BE ENERGY STAR COMPLIANT AND SHALL HAVE AN EXHAUST FAN THAT IS MIN. 50 CFM, A MAX SOUND RATING OR 3 SONE FOR INTERMITTENT OPERATION FOR CONTROLLED BY HUMIDITY CONTROL UNLESS EXEMPTED ELSEWHERE,
4. KITCHEN EXHAUST HOOD SHALL BE A MINIMUM OF 100 CFM WITH A MAX SOUND RATING OF 3 SONE OF INTERMITTENT OPERATION. KITCHEN HOOD SHALL BE DUCTED TO OUTSIDE AIR REGARDLESS OF FUEL TYPE OR HOOD TYPE SUCH AS MICROWAVE (SUGGEST 400 CFM OR HIGHER)

HERS TESTING REQUIRED PER T-24

5. This building requires H.E.R.S verification.
   All energy documentations forms must be registered H.E.R.S. provider.

DIVISION 16 - ELECTRICAL

1. ALL GOVERNING CODES FOR THIS PROJECT ARE AS FOLLOWS:
   2019 CALIFORNIA RESIDENTIAL (CRC), ELECTRICAL (CEC), MECHANICAL (CMC), CODE (EES) & PLUMBING (CPC),2019 CALIF. ENERGY EFFICIENCY STANDARDS CODES WITH LOCAL AMENDMENTS INCLUDING CALIFORNIA GREEN CODE 2019 AND 2019 ENERGY CODE (T-24)
2. ALL ELECTRICAL WORK SHALL COMPLY WITH STATE CALIFORNIA ENERGY REGULATIONS (2019 ENERGY EFFICIENCY STANDARDS)
3. ALL POWER AND LIGHTING OUTLETS IN FAMILY ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, HALLWAYS & SIMILAR AREAS ARE TO BE PROTECTED BY A COMBINATION AFGI BREAKER. CEC 210.12(B). PROVIDE AT LEAST ONE RECEPTACLE OUTLET IN BATHROOM WITHIN 36 INCHES OF EACH SINK. GROUND CIRCUIT INTERUPTER (GFI) OUTLETS SHALL BE PROVIDED IN GARAGE, ICEC 210.8(A)
   PROVIDE A MINIMUM OF (1) 20-AMP CIRCUIT FOR BATHROOM(S) OUTLET. SUCH CIRCUIT SHALL HAVE NO OTHER OUTLETS. THIS CIRCUIT MAY SERVE MORE THAN ONE BATHROOM" (CEO 210-52(D)).
4. NEW DWELLING, SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS PER SECTION FOR R314 UL 217 SMOKE ALARMS
   A. IN EACH SLEEPING ROOM CONTAINING A FUEL-BURNING APPLIANCE
   B. OUTSIDE EACH SEPARATE SLEEPING AREA IN THE VICINITY OF THE BEDROOMS.
   C. IN EACH STORY, INCLUDING BASEMENTS AND HABITABLE ATTICS.
   D. AND IN DWELLING UNITS THAT HAVE AN ATTACHED GARAGE. IORC R315
   E. WHEN ONE OR MORE SMOKE ALARM IS REQUIRED THE ALARM DEVICE SHALL BE INTERCONNECTED IN SUCH MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT.

continue DIVISION 16 - ELECTRICAL

5. AN APPROVED CARBON MONOXIDE ALARM SHALL BE INSTALLED IN DWELLING UNITS AND IN SLEEPING UNITS WITHIN WHICH FUEL-BURNING APPLIANCES ARE INSTALLED AND IN DWELLING UNITS THAT HAVE ATTACHED GARAGES IN ACCORDANCE WITH R31 UL 2034/2075. CARBON MONOXIDE ALARMS SHALL ONLY BE REQUIRED IN SPECIFIC DWELLING UNITS OR SLEEPING UNITS FOR WHICH THE PERMIT WAS OBTAINED. THE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS: A. OUTSIDE EACH SEPARATE DWELLING UNIT SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOM(S). B. ON EVERY LEVEL OF A DWELLING UNIT INCLUDING BASEMENTS. C WHERE MORE THAN ONE ALARM IS REQUIRED TO BE INSTALLED WITHIN THE DWELLING UNIT OR WITHIN A SLEEPING UNIT THE ALARM SHALL BE INTERCONNECTED IN A MANNER THAT ACTIVATION OF ONE ALARM SHALL ACTIVATE ALL THE ALARMS IN THE INDIVIDUAL UNIT.
6. omit
7. RECESSED LUMINARIES INSTALLED IN INSULATED CEILING SHALL BE IC RATED (ZERO CLEARANCE) AND AT RATED (AIR TIGHT) AND SHALL BE SEALED AND/OR GASKETED BETWEEN CEILING AND HOUSING. IN COMPLIANCE WITH SECTION 150 (K)4.
8. INTERIOR LIGHTING SWITCHING DEVICES AND CONTROLS:

   A. All forward phase cut dimmers used with LED light sources shall comply with NEMA SSL 7A.
   B. Exhaust fans shall be controlled separately from lighting systems. SECTION 150.0 - MANDATORY FEATURES AND DEVICES

   EXCEPTION to Section 150.0(k)2B: Lighting integral to an exhaust fan may be on the same control as the fan provided the lighting can be turned OFF in accordance with the applicable provisions in Section 150.0(k)2 while allowing the fan to continue to operate.

   C. Lighting shall have readily accessible wall-mounted controls that allow the lighting to be manually turned ON and OFF.
   EXCEPTION to Section 150.0(k)2C: Ceiling fans may provide control of integrated lighting via a remote control.

   D. Lighting controls and equipment shall be installed in accordance with the manufacturer's instructions.

   E. No controls shall bypass a dimmer, occupant sensor or vacancy sensor function where that dimmer or sensor has been installed to comply with Section 150.0(k).

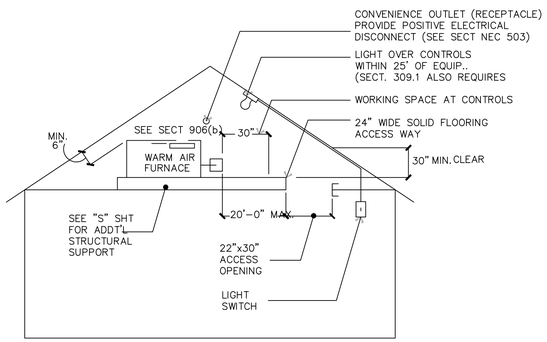
   F. Lighting controls shall comply with the applicable requirements of Section 110.9.

   G. An Energy Management Control System (EMCS) may be used to comply with control requirements in Section 150.0(k) if at a minimum it provides the functionality of the specified controls in accordance with Section 110.9, meets the installation certificate requirements in Section 130.4, meets the EMCS requirements in Section 130.0(e), and complies with all other applicable requirements in Section 150.0(k)2.

   H. A multiscene programmable controller may be used to comply with dimmer requirements in Section 150.0(k) if at a minimum it provides the functionality of a dimmer in accordance with Section 110.9, and complies with all other applicable requirements in Section 150.0(k)2.

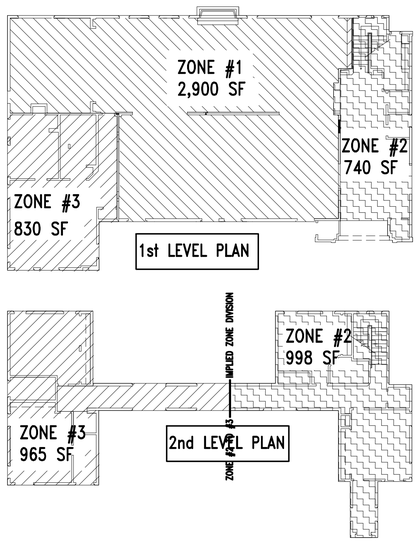
   I. In bathrooms, garages, laundry rooms, and utility rooms, at least one luminaire in each of these spaces shall be controlled by an occupant or vacancy sensor providing automatic-off functionality. If an occupant sensor is installed, it shall be initially configured to manual-on operation using the manual control required under Section 150.0(k)2C.

   J. Luminaires that are or contain light sources that meet Reference Joint Appendix JA8 requirements for dimming, and that are not controlled by occupancy or vacancy sensors, shall have dimming controls.
   EXCEPTION 1 to Section 150.0(k)2J: Luminaires in closets less than 70 square ff
11. ANY FIXED APPLIANCE SUCH AS DISPOSAL, DISHWASHER, CLOTHES WASHER, DRYER, BUILT-IN HEATERS, OR ANY OTHER FIXED APPLIANCE WITH 1/4 H.P. MOTOR OR LARGER, SHALL BE ON A SEPARATE #12 AWG WIRE BRANCH CIRCUIT. EACH DWELLING UNIT SHALL HAVE INSTALLED THEREIN AN INDIVIDUAL DISPOSAL CIRCUIT SUPPLIED WITH MINIMUM #12 AWG WIRE AND A 15 AMP INDICATING-TYPE SWITCH. [CEC 210.23 &220]
12. LUMINARIAS PROVIDING RESIDENTIAL OUTDOOR LIGHTING SHALL MEET THE FOLLOWING REQUIREMENTS AS APPLICABLE:
    OUTDOOR LIGHTING PERMANENTLY MOUNTED TO A RESIDENTIAL BUILDING OR, TO OTHER BUILDINGS ON THE SAME LOT SHALL MEET THE REQUIREMENT IN ITEM #a) AND THE REQUIREMENTS INITEM #a) SHALL MEET THAT EITHER ITEM TO #b) OR #c) AS FOLLOWS:
    a). CONTROLLED BY MANUAL ON AND OFF SWITCH THAT DOES NOT GO OVERIDE TO ON THE AUTOMATIC ACTIONS OF THE ITEM #2 OR #3: AND
    b). CONTROLLED BY PHOTOCELL AND MOTION SENSOR CONTROLS THAT OVERRIDE TO ON SHALL NOT BE ALLOWED UNLESS THE OVERRIDE AUTOMATICALLY REACTIVATES THE MOTION SENSOR WITHIN 6 HOURS OR,
    c). CONTROL BY ONE OF THE FOLLOWING METHODS:
        aa) PHOTOCONTROL AND AUTOMATIC TIME SWITCH CONTROL. CONTROLS THAT OVERRIDE TO ON SHALL NOT BE ALLOWED UNLESS THE OVERRIDE SHALL AUTOMATICALLY RETURN THE PHOTOCONTROL AND AUTOMATICALLY TIME SWITCH CONTROL TO ITS NORMAL OPERATION WITHIN 6 HOURS. OR
        bb) ASTRONOMICAL TIME CLOCK, CONTROLS THAT OVERRIDES TO ON SHALL NOT BE ALLOWED UNLESS YOU OVERRIDE SHALL AUTOMATICALLY RETURN THE ASTRONOMICAL CLOCK TO ITS NORMAL OPERATION WITHIN 6 HOURS AND WHICH IS PROGRAM TO AUTOMATICALLY TURN THE OUTDOOR SWITCH OFF DURING DAYLIGHT HOURS.



RELATED CODES SECTIONS: 309.1, 319
CENTRAL WARM-AIR FURNACES INSTALLED IN ATTICS MUST BE ACCESSIBLE FOR ROUTINE INSPECTION AND MAINTENANCE BY THE OWNER/OCCUPANT AND FOR SERVICE AND REPAIR AS NEEDED. CHANGING FILTERS, LUBRICATING MOTOR AND FAN BEARINGS, CHECKING BELT TENSIONS AND RELIGHTING THE PILOT FOLLOWING A SERVICE INTERRUPTION ARE NORMAL OWNER FUNCTIONS. ADEQUATE LIGHT, AN ELECTRICAL OUTLET, SAFE ACCESS WAY AND SUFFICIENT WORKING SPACE ON THE CONTROL SIDE ALL ENCOURAGE AND FACILITATE MAINTENANCE AND ALSO ENABLE RAPID EGRESS IN AN EMERGENCY.

STD EQUIPMENT ATTIC SECTION LAYOUT — NO SCALE — 1



ALL ENVELOPE ZONES SHALL BE DIVIDED AS SHOWN

ZONE#1: 2,900 SF 1st LEVEL MAIN CORE AREA
ZONE#2: 1,657 SF RIGHT WING (1st & 2nd LEVEL)
ZONE#3: 1,795 SF LEFT WING (1st & 2nd LEVEL)

MAIN BUILDING "A" LAYOUT — SCALE 1" = 1/16"

HEAT/COOL ZONE #1, #2 & #3 LAYOUT PLAN — 2

Contractor shall exercise the responsibility with architect in securing latest approved drwgs. prior to actually executing work

REVISIONS NO.
1 CITY 2nd submit 8-1-20
2 FIELD CLARIFICATION

JOHN A. SALAT ARCHITECTS
22386 Woodgrove Road, Lake Forest, CA 92630
PH 949-235-4847 email: freeingwinds@earthlink.net
z e n a r c h i t e c t . c o m

architect

KHUU RESIDENCE
NEW RESIDENCE WITH ADU
NOTES MECH, ELECT, PLUMBING

OWNER/SITE ADDRESS:
CONTACT: Henry Khuu
12322 Lampson Avenue
Garden Grove, CA 92840
(714) 722-8067 Email : HenryKhuu@gmail.com

REGISTERED PROFESSIONAL ENGINEER JOHN A. SALAT NO. C-24445 EXP 10-29-21 STATE OF CALIFORNIA

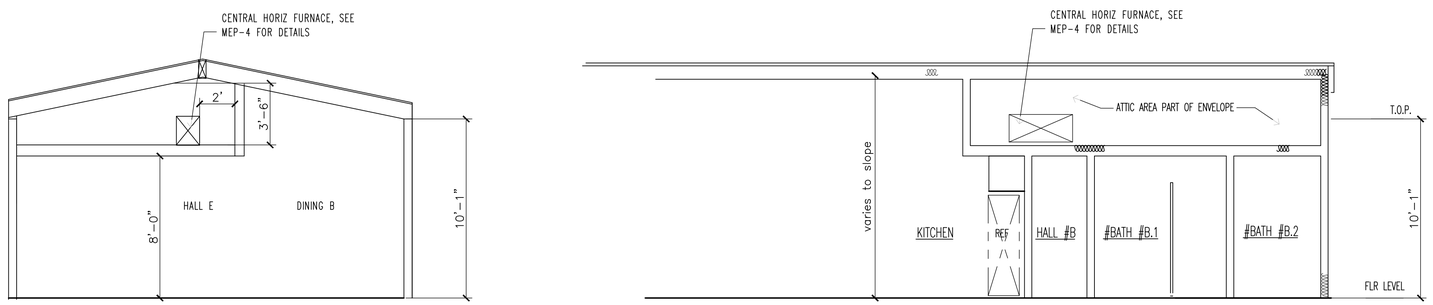
DRAWN JS
CHECKED JS
DATE SEE REVISION BOX ABOVE FOR DATE
SCALE AS NOTED ON PLANS
JOB NO.
SHEET

MEP-4

1 OF (SEE INDEX) SHEETS

BUILDING "A" HVAC ATTIC STUDY SECTION

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



BUILDING "B" HVAC ATTIC STUDY SECTION

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

Contractor shall exercise the responsibility with architect in securing latest approved drwgs. prior to actually executing work

REVISIONS NO.

1 CITY 2nd submit 8-1-20

2 FIELD CLARIFICATION

3 FIELD CLARIFICATION

JOHN A. SALAT ARCHITECTS
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z e n a r c h i t e c t . c o m

architect

KHUU RESIDENCE
NEW RESIDENCE WITH ADU
ADU/GARAGE BUILDING
BUILDING SECTIONS

OWNER/SITE ADDRESS:
CONTACT: Henry Khuu
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Garden Grove, CA 92840
(714) 722-8067 Email : HenryKhuu@gmail.com

REGISTERED PROFESSIONAL ARCHITECT JOHN A. SALAT NO. C-24445 EXP 10-29-21 STATE OF CALIFORNIA

DRAWN JS

CHECKED JS

DATE SEE REVISION #BOX ABOVE FOR DATE

SCALE AS NOTED ON PLANS

JOB NO.

SHEET

MEP-5

1 OF(SEE INDEX) SHEETS

MAIN BUILDING "A" RESIDENCE T-24 ENERGY SPEC (sht 1 of 2)

CERTIFICATE OF COMPLIANCE — **CF1R-PRF-01E**

Project Name: Khuu Residence — **Calculation Date/Time:** 2020-03-25T06:19:56-07:00 — **(Page 1 of 13)**

Calculation Description: Title 24 Analysis — **Input File Name:** 12322LampsonKhuu.ribd19x

GENERAL INFORMATION

01	**Project Name**	Khuu Residence			
02	**Run Title**	Title 24 Analysis			
03	**Project Location**	12322 Lampson Ave			
04	**City**	Garden Grove	05	**Standards Version**	2019
06	**Zip code**	92840	07	**Software Version**	CBECC-Res 2019.1.1 (1107)
08	**Climate Zone**	8	09	**Front Orientation (deg/ Cardinal)**	90
10	**Building Type**	SingleFamily	11	**Number of Dwelling Units**	1
12	**Project Scope**	NewConstruction	13	**Number of Bedrooms**	5
14	**New Cond. Flo or Area (ft²)**	0	15	**Number of Stories**	2
16	**Existing Cond. Flo or Area (ft²)**	n/a	17	**Fenestration Average U-factor**	0.3
18	**Total Cond. Flo or Area (ft²)**	6352	19	**Glazing Percentage (%)**	9.56%
20	**ADU Bedroom Count**	n/a	21	**ADU Conditioned Floor Area**	n/a

COMPLIANCE RESULTS

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

Registration Number: 420-P010034381A-000-000-0000000-0000 — Registration Date/Time: 03/25/2020 13:53 — HERS Provider: Cal Energy

CA Building Energy Efficiency Standards - 2019 Residential Compliance — Report Version: 2019.1.100 Schema Version: rev 20190401 — Report Generated: 2020-03-25 06:23:20

CERTIFICATE OF COMPLIANCE — **CF1R-PRF-01E**

Project Name: Khuu Residence — **Calculation Date/Time:** 2020-03-25T06:19:56-07:00 — **(Page 2 of 13)**

Calculation Description: Title 24 Analysis — **Input File Name:** 12322LampsonKhuu.ribd19x

ENERGY DESIGN RATING

	Energy Design Ratings		Compliance Margins	
	Efficiency[1] (EDR)	Total[2] (EDR)	Efficiency[1] (EDR)	Total[2] (EDR)
Standard Design	32.5	15.5		
Proposed Design	32.3	2.8	0.2	12.7

RESULT: [3] COMPLIES

[1] Efficiency EDR includes improvements to the building envelope and more efficient equipment
[2] Total EDR includes efficiency and demand response measures such as photovoltaic (PV) systems and batteries
[3] Building complies when efficiency and total compliance margins are greater than or equal to zero

- Standard Design PV Capacity: 3.59 kWdc
- Proposed PV kWh output exceeds proposed electricity use by 79% which may violate NEM rules. Contact local utility.
- PV System(s) scaled by a factor of 0.977 to equal Reduced PV Requirement of 6.352 kWdc

ENERGY USE SUMMARY

Energy Use (kTDV/ft²-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	8.45	8.19	0.26	3.1
Space Cooling	1.53	1.1	0.43	28.1
IAQ Ventilation	2.02	2.02	0	0
Water Heating	4.58	5.03	-0.45	-9.8
Self Utilization Credit	n/a	0	0	n/a
Compliance Energy Total	**16.58**	**16.34**	**0.24**	**1.4**

REQUIRED PV SYSTEMS

01	02	03	04	05	06	07	08	09	10	11
DC System Size (kWdc)	**Exception**	**Module Type**	**Array Type**	**Power Electronics**	**CFI**	**Azimuth (deg)**	**Tilt Input**	**Array Angle (deg)**	**Tilt: (x in 12)**	**Inverter Eff. (%)**
6.35	2 habitable stories	Standard	Fixed (roof mount)	none	true	n/a	n/a	n/a	n/a	96

Registration Number: 420-P010034381A-000-000-0000000-0000 — Registration Date/Time: 03/25/2020 13:53 — HERS Provider: Cal Energy

CA Building Energy Efficiency Standards - 2019 Residential Compliance — Report Version: 2019.1.100 Schema Version: rev 20190401 — Report Generated: 2020-03-25 06:23:20

CERTIFICATE OF COMPLIANCE — **CF1R-PRF-01E**

Project Name: Khuu Residence — **Calculation Date/Time:** 2020-03-25T06:19:56-07:00 — **(Page 3 of 13)**

Calculation Description: Title 24 Analysis — **Input File Name:** 12322LampsonKhuu.ribd19x

REQUIRED SPECIAL FEATURES

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

- PV System: 6.35 kWdc
- Whole house fan
- Cool roof
- Window overhangs and/or fins
- Non-standard duct location (any location other than attic)

HERS FEATURE SUMMARY

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

Building-level Verifications:
- Quality insulation installation (QII)
- Indoor air quality ventilation
- Kitchen range hood
- Whole house fan airflow and fan efficacy

Cooling System Verifications:
- Minimum Airflow
- Verified EER
- Verified SEER
- Verified Refrigerant Charge
- Fan Efficacy Watts/CFM

Heating System Verifications:
- -- None --

HVAC Distribution System Verifications:
- Duct leakage testing
- Ducts located entirely in conditioned space confirmed by duct leakage testing.

Domestic Hot Water System Verifications:
- -- None --

BUILDING - FEATURES INFORMATION

01	02	03	04	05	06	07
Project Name	**Conditioned Floor Area (ft²)**	**Number of Dwelling Units**	**Number of Bedrooms**	**Number of Zones**	**Number of Ventilation Cooling Systems**	**Number of Water Heating Systems**
Khuu Residence	6352	1	5	1	1	1

Registration Number: 420-P010034381A-000-000-0000000-0000 — Registration Date/Time: 03/25/2020 13:53 — HERS Provider: Cal Energy

CA Building Energy Efficiency Standards - 2019 Residential Compliance — Report Version: 2019.1.100 Schema Version: rev 20190401 — Report Generated: 2020-03-25 06:23:20

CERTIFICATE OF COMPLIANCE — **CF1R-PRF-01E**

Project Name: Khuu Residence — **Calculation Date/Time:** 2020-03-25T06:19:56-07:00 — **(Page 4 of 13)**

Calculation Description: Title 24 Analysis — **Input File Name:** 12322LampsonKhuu.ribd19x

ZONE INFORMATION

01	02	03	04	05	06	07
Zone Name	**Zone Type**	**HVAC System Name**	**Zone Floor Area (ft²)**	**Avg. Ceiling Height**	**Water Heating System 1**	**Water Heating System 2**
House	Conditioned	HVAC System1	6352	11	DHW Sys 1	N/A

OPAQUE SURFACES

01	02	03	04	05	06	07	08
Name	**Zone**	**Construction**	**Azimuth**	**Orientation**	**Gross Area (ft²)**	**Window and Door Area (ft2)**	**Tilt (deg)**
Front Wall	House	R-21 + R-5 Wall	90	Front	1910	219	90
Left Wall	House	R-21 + R-5 Wall	180	Left	1560	142.751	90
Rear Wall	House	R-21 + R-5 Wall	270	Back	1910	151.081	90
Right Wall	House	R-21 + R-5 Wall	0	Right	1560	94.5	90

OPAQUE SURFACES - CATHEDRAL CEILINGS

01	02	03	04	05	06	07	08	09	10	11
Name	**Zone**	**Type**	**Azimuth**	**Orientation**	**Area (ft²)**	**Skylight Area (ft²)**	**Roof Rise (x in 12)**	**Roof Reflectance**	**Roof Emittance**	**Cool Roof**
Roof 2	House	R-38 Roof No Attic	0	Front	1090	0	2.5	0.25	0.88	Yes
Roof 3	House	R-38 Roof No Attic	90	Left	700	0	2.5	0.25	0.88	Yes
Roof 4	House	R-38 Roof No Attic	180	Back	1060	0	2.5	0.25	0.88	Yes
Roof 5	House	R-38 Roof No Attic	270	Right	880	0	2.5	0.25	0.88	Yes
Roof 1	House	R-38 Roof No Attic	0	Front	750	0	2.5	0.25	0.88	Yes

Registration Number: 420-P010034381A-000-000-0000000-0000 — Registration Date/Time: 03/25/2020 13:53 — HERS Provider: Cal Energy

CA Building Energy Efficiency Standards - 2019 Residential Compliance — Report Version: 2019.1.100 Schema Version: rev 20190401 — Report Generated: 2020-03-25 06:23:20

CERTIFICATE OF COMPLIANCE — **CF1R-PRF-01E**

Project Name: Khuu Residence — **Calculation Date/Time:** 2020-03-25T06:19:56-07:00 — **(Page 5 of 13)**

Calculation Description: Title 24 Analysis — **Input File Name:** 12322LampsonKhuu.ribd19x

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	**Type**	**Surface**	**Orientation**	**Azimuth**	**Width (ft)**	**Height (ft)**	**Mult.**	**Area (ft²)**	**U-factor**	**U-factor Source**	**SHGC**	**SHGC Source**	**Exterior Shading**
Entry Doors	Window	Front Wall	Front	90			1	42	0.3	NFRC	0.23	NFRC	Bug Screen
1.01 / 1.02	Window	Front Wall	Front	90			1	28	0.3	NFRC	0.23	NFRC	Bug Screen
1.03	Window	Front Wall	Front	90	3.5	4	1	14	0.3	NFRC	0.22	NFRC	Bug Screen
1.04	Window	Front Wall	Front	90	3.5	4	1	14	0.3	NFRC	0.22	NFRC	Bug Screen
1.05	Window	Front Wall	Front	90	3.5	4	1	14	0.3	NFRC	0.22	NFRC	Bug Screen
1.06	Window	Front Wall	Front	90	3.5	4	1	14	0.3	NFRC	0.22	NFRC	Bug Screen
1.08	Window	Front Wall	Front	90	3.5	4	1	14	0.3	NFRC	0.22	NFRC	Bug Screen
1.09	Window	Front Wall	Front	90	3.5	4	1	14	0.3	NFRC	0.22	NFRC	Bug Screen
2.01	Window	Front Wall	Front	90	3.5	4	1	14	0.3	NFRC	0.22	NFRC	Bug Screen
2.03	Window	Front Wall	Front	90	3.5	1	1	3.5	0.3	NFRC	0.22	NFRC	Bug Screen
2.05	Window	Front Wall	Front	90			1	7.5	0.3	NFRC	0.22	NFRC	Bug Screen
2.06	Window	Front Wall	Front	90			1	7.5	0.3	NFRC	0.22	NFRC	Bug Screen
2.07	Window	Front Wall	Front	90			1	7.5	0.3	NFRC	0.22	NFRC	Bug Screen
2.08	Window	Front Wall	Front	90	4	1	1	4	0.3	NFRC	0.22	NFRC	Bug Screen
2.09	Window	Front Wall	Front	90	6	3.5	1	21	0.3	NFRC	0.22	NFRC	Bug Screen
1.10	Window	Left Wall	Left	180	3	3.5	1	10.5	0.3	NFRC	0.22	NFRC	Bug Screen
1.11	Window	Left Wall	Left	180	3	3.5	1	10.5	0.3	NFRC	0.22	NFRC	Bug Screen
1.12	Window	Left Wall	Left	180	7	3.5	1	24.5	0.3	NFRC	0.22	NFRC	Bug Screen
1.13	Window	Left Wall	Left	180			1	4	0.3	NFRC	0.22	NFRC	Bug Screen
2.04	Window	Left Wall	Left	180	3	1	1	3.5	0.3	NFRC	0.22	NFRC	Bug Screen
2.10	Window	Left Wall	Left	180	2.5	3.5	1	8.75	0.3	NFRC	0.22	NFRC	Bug Screen
2.11	Window	Left Wall	Left	180	2.5	3.5	1	8.75	0.3	NFRC	0.22	NFRC	Bug Screen
2.12	Window	Left Wall	Left	180			1	4	0.3	NFRC	0.22	NFRC	Bug Screen
2.13	Window	Left Wall	Left	180	2.5	3.5	1	8.75	0.3	NFRC	0.22	NFRC	Bug Screen

Registration Number: 420-P010034381A-000-000-0000000-0000 — Registration Date/Time: 03/25/2020 13:53 — HERS Provider: Cal Energy

CA Building Energy Efficiency Standards - 2019 Residential Compliance — Report Version: 2019.1.100 Schema Version: rev 20190401 — Report Generated: 2020-03-25 06:23:20

CERTIFICATE OF COMPLIANCE — **CF1R-PRF-01E**

Project Name: Khuu Residence — **Calculation Date/Time:** 2020-03-25T06:19:56-07:00 — **(Page 6 of 13)**

Calculation Description: Title 24 Analysis — **Input File Name:** 12322LampsonKhuu.ribd19x

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	**Type**	**Surface**	**Orientation**	**Azimuth**	**Width (ft)**	**Height (ft)**	**Mult.**	**Area (ft²)**	**U-factor**	**U-factor Source**	**SHGC**	**SHGC Source**	**Exterior Shading**
2.14	Window	Left Wall	Left	180	2.5	3.5	1	8.75	0.3	NFRC	0.22	NFRC	Bug Screen
2.18	Window	Left Wall	Left	180	2.5	3.5	1	8.75	0.3	NFRC	0.22	NFRC	Bug Screen
Door 1.B	Window	Left Wall	Left	180			1	42	0.3	NFRC	0.22	NFRC	Bug Screen
Door 1.C	Window	Rear Wall	Back	270			1	42	0.3	NFRC	0.22	NFRC	Bug Screen
1.14	Window	Rear Wall	Back	270	8	3.67	0	29.33	0.3	NFRC	0.22	NFRC	Bug Screen
1.15	Window	Rear Wall	Back	270	2	3.5	1	7	0.3	NFRC	0.22	NFRC	Bug Screen
1.16	Window	Rear Wall	Back	270	2	3.5	1	7	0.3	NFRC	0.22	NFRC	Bug Screen
1.17	Window	Rear Wall	Back	270	2	3.5	1	7	0.3	NFRC	0.22	NFRC	Bug Screen
1.18	Window	Rear Wall	Back	270	2	3.5	1	7	0.3	NFRC	0.22	NFRC	Bug Screen
1.19	Window	Rear Wall	Back	270			1	5.25	0.3	NFRC	0.22	NFRC	Bug Screen
1.20	Window	Rear Wall	Back	270			1	5.25	0.3	NFRC	0.22	NFRC	Bug Screen
2.15	Window	Rear Wall	Back	270	2.5	3.5	1	8.75	0.3	NFRC	0.22	NFRC	Bug Screen
2.16	Window	Rear Wall	Back	270			1	7.5	0.3	NFRC	0.22	NFRC	Bug Screen
2.17	Window	Rear Wall	Back	270			1	7.5	0.3	NFRC	0.22	NFRC	Bug Screen
2.19	Window	Rear Wall	Back	270	2.5	3.5	1	8.75	0.3	NFRC	0.22	NFRC	Bug Screen
2.20	Window	Rear Wall	Back	270	2.5	3.5	1	8.75	0.3	NFRC	0.22	NFRC	Bug Screen
Door 1.D	Window	Right Wall	Right	0			1	42	0.3	NFRC	0.22	NFRC	Bug Screen
1.07	Window	Right Wall	Right	0			1	14	0.3	NFRC	0.22	NFRC	Bug Screen
1.21	Window	Right Wall	Right	0			1	8.75	0.3	NFRC	0.22	NFRC	Bug Screen
1.22	Window	Right Wall	Right	0			1	8.75	0.3	NFRC	0.22	NFRC	Bug Screen
2.02	Window	Right Wall	Right	0	3.5	1	1	3.5	0.3	NFRC	0.22	NFRC	Bug Screen
2.21	Window	Right Wall	Right	0	2.5	3.5	1	8.75	0.3	NFRC	0.22	NFRC	Bug Screen
2.22	Window	Right Wall	Right	0	2.5	3.5	1	8.75	0.3	NFRC	0.22	NFRC	Bug Screen

Registration Number: 420-P010034381A-000-000-0000000-0000 — Registration Date/Time: 03/25/2020 13:53 — HERS Provider: Cal Energy

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Contractor shall exercise the responsibility with architect in securing latest approved drwgs. prior to actually executing work

REVISIONS NO.

REVISED 5-9-20

JOHN A. SALAT ARCHITECTS
22386 Woodgrove Road, Lake Forest, CA 92630
PH 949-235-4847 email: freeingwinds@earthlink.net
zenarchitect.com

architect

KHUU RESIDENCE
NEW RESIDENCE WITH ADU
MAIN BUILDING
T-24 ENERGY SPEC

OWNER/SITE ADDRESS:
CONTACT: Henry Khuu
12322 Lampson Avenue
Garden Grove, CA 92840
(714) 722-8067 Email : HenryKhuu@gmail.com

REGISTERED PROFESSIONAL ENGINEER JOHN A. SALAT NO. C-24445 EXP. 10-29-21 STATE OF CALIFORNIA

DRAWN JS
CHECKED JS
DATE SEE REVISION BOX ABOVE FOR DATE
SCALE AS NOTED ON PLANS
JOB NO.
SHEET

T-24 A.1

1 OF (SEE INDEX) SHEETS

MAIN BUILDING "A" RESIDENCE T-24 ENERGY SPEC (sht 2 of 2)

CERTIFICATE OF COMPLIANCE — CF1R-PRF-01E
Project Name: Khuu Residence — **Calculation Date/Time:** 2020-03-25T06:19:56-07:00 — (Page 7 of 13)
Calculation Description: Title 24 Analysis — **Input File Name:** 12322LampsonKhuu.ribd19x

OVERHANGS AND FINS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Window	Overhang					Left Fin				Right Fin			
	Depth	Dist Up	Left Extent	Right Extent	Flap Ht.	Depth	Top Up	Dist L	Bot Up	Depth	Top Up	Dist R	Bot Up
1.03	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
1.04	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
1.05	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
1.06	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
1.08	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
1.09	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
2.01	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
2.03	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
2.08	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
2.09	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
1.10	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
1.11	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
1.12	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
2.04	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
2.10	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
2.11	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
2.13	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0

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CERTIFICATE OF COMPLIANCE — CF1R-PRF-01E
Project Name: Khuu Residence — **Calculation Date/Time:** 2020-03-25T06:19:56-07:00 — (Page 8 of 13)
Calculation Description: Title 24 Analysis — **Input File Name:** 12322LampsonKhuu.ribd19x

OVERHANGS AND FINS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Window	Overhang					Left Fin				Right Fin			
	Depth	Dist Up	Left Extent	Right Extent	Flap Ht.	Depth	Top Up	Dist L	Bot Up	Depth	Top Up	Dist R	Bot Up
2.14	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
2.18	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
1.14	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
1.15	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
1.16	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
1.17	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
1.18	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
2.15	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
2.19	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
2.20	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
2.02	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
2.21	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0
2.22	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0

SLAB FLOORS

01	02	03	04	05	06	07
Name	Zone	Area (ft2)	Perimeter (ft)	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
Slab	House	4482	298	None	80%	No

Registration Number: 420-P010034381A-000-000-0000000-0000 — Registration Date/Time: 03/25/2020 13:53 — HERS Provider: Cal Energy
CA Building Energy Efficiency Standards - 2019 Residential Compliance — Report Version: 2019.1.100 Schema Version: rev 20190401 — Report Generated: 2020-03-25 06:23:20

CERTIFICATE OF COMPLIANCE — CF1R-PRF-01E
Project Name: Khuu Residence — **Calculation Date/Time:** 2020-03-25T06:19:56-07:00 — (Page 9 of 13)
Calculation Description: Title 24 Analysis — **Input File Name:** 12322LampsonKhuu.ribd19x

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-21 + R-5 Wall	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O.C.	R-21	None / R-5	0.048	Inside Finish: Gypsum Board Cavity / Frame: R-21 / 2x6 Sheathing / Insulation: R-5 Sheathing Exterior Finish: 3 Coat Stucco
R-38 Roof No Attic	Cathedral Ceilings	Wood Framed Ceiling	2x8 @ 16 in. O.C.	R-38	None / None	0.032	Roofing: 10 PSF (RoofTile) Tile Gap: present Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-38 / 2x8 Inside Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION

01	02	03	04
Quality Insulation Installation (QII)	Quality Installation of Spray Foam Insulation	Building Envelope Air Leakage	CFM50
Required	Not Required	Not Required	n/a

WATER HEATING SYSTEMS

01	02	03	04	05	06	07
Name	System Type	Distribution Type	Water Heater Name (#)	Solar Fraction (%)	Compact Distribution	HERS Verification
DHW Sys 1	Domestic Hot Water (DHW)	Standard Distribution System	DHW Heater 1 (2)	0	None	n/a

Registration Number: 420-P010034381A-000-000-0000000-0000 — Registration Date/Time: 03/25/2020 13:53 — HERS Provider: Cal Energy
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CERTIFICATE OF COMPLIANCE — CF1R-PRF-01E
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Calculation Description: Title 24 Analysis — **Input File Name:** 12322LampsonKhuu.ribd19x

WATER HEATERS

01	02	03	04	05	06	07	08	09	10	11	12
Name	Heating Element Type	Tank Type	# Units	Tank Vol. (gal)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value (int/Ext)	Standby Loss or Recovery Eff.	1st Hr. Rating or Flow Rate	NEEA Heat Pump Brand or Model / Other	Tank Location or Ambient Condition
DHW Heater 1	Natural Gas	Consumer Instantaneous	2	0	0.95-UEF	200000-Btu/Hr	0	n/a	n/a	n/a	n/a

WATER HEATING - HERS VERIFICATION

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

SPACE CONDITIONING SYSTEMS

01	02	03	04	05	06	07	08	09
Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Required Thermostat Type	Heating Equipment Count	Cooling Equipment Count
HVAC System1	Heating and cooling system other	Heating Component 1	Cooling Component 1	HVAC Fan 1	Air Distribution System 1	Setback	3	3

HVAC - HEATING UNIT TYPES

01	02	03	04	05
Name	System Type	Number of Units	Heating Efficiency Type	Efficiency
Heating Component 1	Central gas furnace	3	AFUE	95

Registration Number: 420-P010034381A-000-000-0000000-0000 — Registration Date/Time: 03/25/2020 13:53 — HERS Provider: Cal Energy
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CERTIFICATE OF COMPLIANCE — CF1R-PRF-01E
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Calculation Description: Title 24 Analysis — **Input File Name:** 12322LampsonKhuu.ribd19x

HVAC - COOLING UNIT TYPES

01	02	03	04	05	06	07	08
Name	System Type	Number of Units	Efficiency EER	Efficiency SEER	Zonally Controlled	Multi-speed Compressor	HERS Verification
Cooling Component 1	Central split AC	3	12.5	16	Not Zonal	Multi-speed	Cooling Component 1-hers-cool

HVAC COOLING - HERS VERIFICATION

01	02	03	04	05	06
Name	Verified Airflow	Airflow Target	Verified EER	Verified SEER	Verified Refrigerant Charge
Cooling Component 1-hers-cool	Required	350	Required	Required	Required

HVAC - DISTRIBUTION SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12
			Duct Ins. R-value		Duct location		Surface Area				
Name	Type	Design Type	Supply	Return	Supply	Return	Supply	Return	Bypass Duct	Duct Leakage	HERS Verification
Air Distribution System 1	Conditioned space-entirely	Non-Verified	R-4.2	R-4.2	Conditioned Zone	Conditioned Zone	n/a	n/a	No Bypass Duct	Sealed and Tested	Air Distribution System 1-hers-dist

HVAC DISTRIBUTION - HERS VERIFICATION

01	02	03	04	05	06	07	08	09
Name	Duct Leakage Verification	Duct leakage target (%)	Verified Duct Location	Verified Duct Design	Buried Ducts	Deeply Buried Ducts	Low-leakage Air Handler	Low Leakage Ducts Entirely in Conditioned Space
Air Distribution System 1-hers-dist	Yes	5	Required	Not Required	Not Required	Credit not taken	Not Required	No

Registration Number: 420-P010034381A-000-000-0000000-0000 — Registration Date/Time: 03/25/2020 13:53 — HERS Provider: Cal Energy
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CERTIFICATE OF COMPLIANCE — CF1R-PRF-01E
Project Name: Khuu Residence — **Calculation Date/Time:** 2020-03-25T06:19:56-07:00 — (Page 12 of 13)
Calculation Description: Title 24 Analysis — **Input File Name:** 12322LampsonKhuu.ribd19x

HVAC - FAN SYSTEMS

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

HVAC FAN SYSTEMS - HERS VERIFICATION

01	02	03
Name	Verified Fan Watt Draw	Required Fan Efficiency (Watts/CFM)
HVAC Fan 1-hers-fan	Required	0.45

IAQ (INDOOR AIR QUALITY) FANS

01	02	03	04	05	06
Dwelling Unit	IAQ CFM	IAQ Watts/CFM	IAQ Fan Type	IAQ Recovery Effectiveness (%)	HERS Verification
SFam IAQVentRpt	219	0.25	Default	0	Yes

COOLING VENTILATION

01	02	03	04	05	06	07	08	09
Name	Airflow Rate (CFM/ft2)	Cooling Vent CFM	Cooling Vent Watts/CFM	Total Watts	Number of Fans	CFVCS Type	Exhausts to	HERS Verification
ES-3100	0.38	2400	0.12	288	1	Not a CFVCS	Outside	Yes

Registration Number: 420-P010034381A-000-000-0000000-0000 — Registration Date/Time: 03/25/2020 13:53 — HERS Provider: Cal Energy
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Calculation Description: Title 24 Analysis — **Input File Name:** 12322LampsonKhuu.ribd19x

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name:	Documentation Author Signature:
Denise Kowal	Denise Kowal
Company: Hummingbird Energy Services	Signature Date: 03/25/2020
Address: 14811 Slalom Way	CEA/HERS Certification Identification (If applicable):
City/State/Zip: Tuckee, CA 96161	Phone: 530-448-1053

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:
1. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance.
2. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
3. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

Responsible Designer Name:	Responsible Designer Signature:
John Salat	John Salat
Company: John A Salat Architects	Date Signed: 03/25/2020
Address: 22386Woodgrove Rd Woodgrove Rd	License: C-24445
City/State/Zip: Lake Forest, CA 92630	Phone: 9492354847

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REVISED 5-9-20

JOHN A. SALAT ARCHITECTS
22386 Woodgrove Road, Lake Forest, CA 92630
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KHUU RESIDENCE
NEW RESIDENCE WITH ADU
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OWNER/SITE ADDRESS:
CONTACT: Henry Khuu
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REGISTERED PROFESSIONAL ENGINEER JOHN A. SALAT NO. C-24445 EXP. 10-09-21 STATE OF CALIFORNIA

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JOB NO.
SHEET

T-24 A.2

1 OF (SEE INDEX) SHEETS

ADU BUILDING "B" RESIDENCE T-24 ENERGY SPEC (sht 1 of 2)

CERTIFICATE OF COMPLIANCE — CF1R-PRF-01E

Project Name: Khuu ADU — **Calculation Date/Time:** 2020-03-25T06:56:11-07:00 — **(Page 1 of 11)**

Calculation Description: Title 24 Analysis — **Input File Name:** 12322LampsonKhuuADU.ribd19x

GENERAL INFORMATION					
01	Project Name	Khuu ADU			
02	Run Title	Title 24 Analysis			
03	Project Location	12322 Lampson Ave			
04	City	Garden Grove	05	Standards Version	2019
06	Zipcode	92840	07	Software Version	CBECC-Res 2019.1.1 (1107)
08	Climate Zone	8	09	Front Orientation (deg/ Cardinal)	270
10	Building Type	SingleFamily	11	Number of Dwelling Units	1
12	Project Scope	NewConstruction	13	Number of Bedrooms	2
14	New Cond. Floor Area (ft^2)	0	15	Number of Stories	1
16	Existing Cond. Floor Area (ft^2)	n/a	17	Fenestration Average U-factor	0.3
18	Total Cond. Floor Area (ft^2)	1196	19	Glazing Percentage (%)	21.19%
20	ADU Bedroom Count	2	21	ADU Conditioned Floor Area	1196

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

Registration Number: 420-P010034382A-000-000-0000000-0000 — Registration Date/Time: 03/25/2020 13:52 — HERS Provider: Cal Energy

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CERTIFICATE OF COMPLIANCE — CF1R-PRF-01E

Project Name: Khuu ADU — **Calculation Date/Time:** 2020-03-25T06:56:11-07:00 — **(Page 2 of 11)**

Calculation Description: Title 24 Analysis — **Input File Name:** 12322LampsonKhuuADU.ribd19x

ENERGY DESIGN RATING				
	Energy Design Ratings		Compliance Margins	
	Efficiency[1] (EDR)	Total[2] (EDR)	Efficiency[1] (EDR)	Total[2] (EDR)
Standard Design	45.4	45.4		
Proposed Design	44.8	44.8	0.6	0.6
RESULT:[3] COMPLIES				

[1] Efficiency EDR includes improvements to the building envelope and more efficient equipment
[2] Total EDR includes efficiency and demand response measures such as photovoltaic (PV) systems and batteries
[3] Building complies when efficiency and total compliance margins are greater than or equal to zero

- Standard Design PV Capacity: 0.00 kW dc

ENERGY USE SUMMARY				
Energy Use (kTDV/ft^2-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	5.63	7.12	-1.49	-26.5
Space Cooling	13.24	13.5	-0.26	-2
IAQ Ventilation	3.59	3.59	0	0
Water Heating	30.89	27.56	3.33	10.8
Self Utilization Credit	n/a	0	0	n/a
Compliance Energy Total	**53.35**	**51.77**	**1.58**	**3**

REQUIRED SPECIAL FEATURES
The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.
• Whole house fan • Cool roof • Window overhangs and/or fins • Non-standard duct location (any location other than attic)

Registration Number: 420-P010034382A-000-000-0000000-0000 — Registration Date/Time: 03/25/2020 13:52 — HERS Provider: Cal Energy

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CERTIFICATE OF COMPLIANCE — CF1R-PRF-01E

Project Name: Khuu ADU — **Calculation Date/Time:** 2020-03-25T06:56:11-07:00 — **(Page 3 of 11)**

Calculation Description: Title 24 Analysis — **Input File Name:** 12322LampsonKhuuADU.ribd19x

HERS FEATURE SUMMARY
The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry
Building-level Verifications: • Indoor air quality ventilation • Kitchen range hood • Whole house fan airflow and fan efficacy Cooling System Verifications: • Minimum Airflow • Verified EER • Verified SEER • Verified Refrigerant Charge • Fan Efficacy Watts/CFM Heating System Verifications: • -- None -- HVAC Distribution System Verifications: • Duct leakage testing • Ducts located entirely in conditioned space confirmed by duct leakage testing Domestic Hot Water System Verifications: • -- None --

BUILDING - FEATURES INFORMATION						
01	02	03	04	05	06	07
Project Name	Conditioned Floor Area (ft^2)	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
Khuu ADU	1196	1	2	1	1	1

ZONE INFORMATION						
01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft^2)	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2
House	Conditioned	HVAC System1	1196	11	DHW Sys 1	N/A

Registration Number: 420-P010034382A-000-000-0000000-0000 — Registration Date/Time: 03/25/2020 13:52 — HERS Provider: Cal Energy

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CERTIFICATE OF COMPLIANCE — CF1R-PRF-01E

Project Name: Khuu ADU — **Calculation Date/Time:** 2020-03-25T06:56:11-07:00 — **(Page 4 of 11)**

Calculation Description: Title 24 Analysis — **Input File Name:** 12322LampsonKhuuADU.ribd19x

OPAQUE SURFACES							
01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft^2)	Window and Door Area (ft2)	Tilt (deg)
Front Wall	House	R-21 + R-5 Wall	270	Front	460	70.998	90
Left Wall	House	R-21 + R-5 Wall	0	Left	160	14	90
Rear Wall	House	R-21 + R-5 Wall	90	Back	460	165	90
Right Wall	House	R-21 + R-5 Wall	180	Right	360	3	90
Wall to Garage	House>>__Garage__	R-21 Wall1	n/a	n/a	170	0	n/a
Gar Roof	__Garage__	R-0 Roof Attic	n/a	n/a	692	n/a	n/a
Gar Front Wall	__Garage__	R-0 Wall	270	Front	220	0	90
Gar Left Wall	__Garage__	R-0 Wall	0	Left	330	0	90
Gar Rear Wall	__Garage__	R-0 Wall	90	Back	220	0	90
Gar Right Wall	__Garage__	R-0 Wall	180	Right	160	0	90

OPAQUE SURFACES - CATHEDRAL CEILINGS										
01	02	03	04	05	06	07	08	09	10	11
Name	Zone	Type	Azimuth	Orientation	Area (ft^2)	Skylight Area (ft^2)	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Cool Roof
Roof 1	House	R-38 Roof Cathedral	0	Front	380	0	2.5	0.25	0.88	Yes
Roof 2	House	R-38 Roof Cathedral	90	Left	130	0	2.5	0.25	0.88	Yes
Roof 3	House	R-38 Roof Cathedral	180	Back	490	0	2.5	0.25	0.88	Yes
Roof 4	House	R-38 Roof Cathedral	270	Right	170	0	2.5	0.25	0.88	Yes

Registration Number: 420-P010034382A-000-000-0000000-0000 — Registration Date/Time: 03/25/2020 13:52 — HERS Provider: Cal Energy

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CERTIFICATE OF COMPLIANCE — CF1R-PRF-01E

Project Name: Khuu ADU — **Calculation Date/Time:** 2020-03-25T06:56:11-07:00 — **(Page 5 of 11)**

Calculation Description: Title 24 Analysis — **Input File Name:** 12322LampsonKhuuADU.ribd19x

ATTIC					
01	02	03	04	05	06	07	08
Name	Construction	Type	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Radiant Barrier	Cool Roof
Attic__Garage__	Attic Garage Roof Cons	Ventilated	0	0.25	0.88	No	No

FENESTRATION / GLAZING													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
Entry Door	Window	Front Wall	Front	270			1	21	0.3	NFRC	0.23	NFRC	Bug Screen
B.1	Window	Front Wall	Front	270			1	14	0.3	NFRC	0.23	NFRC	Bug Screen
B.8	Window	Front Wall	Front	270	2	3.5	1	7	0.3	NFRC	0.22	NFRC	Bug Screen
B.9	Window	Front Wall	Front	270	2	3.5	1	7	0.3	NFRC	0.22	NFRC	Bug Screen
B.11	Window	Front Wall	Front	270	6	3.67	1	22	0.3	NFRC	0.22	NFRC	Bug Screen
B.10	Window	Left Wall	Left	0			1	14	0.3	NFRC	0.22	NFRC	Bug Screen
Door B.F	Window	Rear Wall	Back	90			1	55	0.3	NFRC	0.22	NFRC	Bug Screen
Door B.G	Window	Rear Wall	Back	90			1	35	0.3	NFRC	0.22	NFRC	Bug Screen
Door B.H	Window	Rear Wall	Back	90			1	21	0.3	NFRC	0.22	NFRC	Bug Screen
B.2	Window	Rear Wall	Back	90			1	10.5	0.3	NFRC	0.22	NFRC	Bug Screen
B.3	Window	Rear Wall	Back	90			1	10.5	0.3	NFRC	0.22	NFRC	Bug Screen
B.4	Window	Rear Wall	Back	90			1	10.5	0.3	NFRC	0.22	NFRC	Bug Screen
B.5	Window	Rear Wall	Back	90			1	10.5	0.3	NFRC	0.22	NFRC	Bug Screen
B.6	Window	Rear Wall	Back	90			1	32	0.3	NFRC	0.22	NFRC	Bug Screen
B.7	Window	Right Wall	Right	180			1	3	0.3	NFRC	0.22	NFRC	Bug Screen

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CA Building Energy Efficiency Standards - 2019 Residential Compliance — Report Version: 2019.1.100 Schema Version: rev 20190401 — Report Generated: 2020-03-25 06:57:07

CERTIFICATE OF COMPLIANCE — CF1R-PRF-01E

Project Name: Khuu ADU — **Calculation Date/Time:** 2020-03-25T06:56:11-07:00 — **(Page 6 of 11)**

Calculation Description: Title 24 Analysis — **Input File Name:** 12322LampsonKhuuADU.ribd19x

OVERHANGS AND FINS														
01	02	03	04	05	06	07	08	09	10	11	12	13	14	
Window	Overhang					Left Fin				Right Fin				
	Depth	Dist Up	Left Extent	Right Extent	Flap Ht.	Depth	Top Up	Dist L	Bot Up	Depth	Top Up	Dist R	Bot Up	
B.8	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0	
B.9	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0	
B.11	1.3	0.1	0.5	0.5	0.2	0	0	0	0	0	0	0	0	

SLAB FLOORS						
01	02	03	04	05	06	07
Name	Zone	Area (ft2)	Perimeter (ft)	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
Slab	House	1196	142	None	80%	No
Gar Slab	__Garage__	692	94	None	0%	No

OPAQUE SURFACE CONSTRUCTIONS							
01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-0 Wall	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-0	None / None	0.361	Inside Finish: Gypsum Board Cavity / Frame: no insul. / 2x4 Exterior Finish: 3 Coat Stucco
R-21 + R-5 Wall	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-21	None / R-5	0.048	Inside Finish: Gypsum Board Cavity / Frame: R-21 / 2x6 Sheathing / Insulation: R-5 Sheathing Exterior Finish: 3 Coat Stucco

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JOHN A. SALAT ARCHITECTS
22386 Woodgrove Road, Lake Forest, CA 92630
PH 949-235-4847 email: freeingwinds@earthlink.net
www.salatarchitect.com

architect

KHUU RESIDENCE
NEW RESIDENCE WITH ADU
ADU BUILDING
T-24 ENERGY SPEC

OWNER/SITE ADDRESS:
CONTACT: Henry Khuu
12322 Lampson Avenue
Garden Grove, CA 92840
(714) 722-8067 Email: HenryKhuu@gmail.com

REGISTERED PROFESSIONAL ENGINEER JOHN A. SALAT NO. C-24445 EXP. 10-29-21 STATE OF CALIFORNIA

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JOB NO.
SHEET

T-24 B.1

1 OF (SEE INDEX) SHEETS

ADU BUILDING "B" RESIDENCE T-24 ENERGY SPEC (sht 2 of 2)

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: Khuu ADU **Calculation Date/Time:** 2020-03-25T06:56:11-07:00 **(Page 7 of 11)**

Calculation Description: Title 24 Analysis **Input File Name:** 12322LampsonKhuuADU.ribd19x

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-38 Roof Cathedral	Cathedral Ceilings	Wood Framed Ceiling	2x12 @ 24 in. O.C.	R-38	None / None	0.028	Roofing: 10 PSF (Roof Tile) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-38 / 2x12 Inside Finish: Gypsum Board
R-21 Wall1	Interior Walls	Wood Framed Wall	2x6 @ 16 in. O.C.	R-21	None / None	0.064	Inside Finish: Gypsum Board Cavity / Frame: R-21 / 2x6 Other Side Finish: Gypsum Board
Attic Garage Roof Cons	Attic Roofs	Wood Framed Ceiling	2x4 Top Chord of Roof Truss @ 24 in. O.C.	R-0	None / None	0.616	Roofing: 10 PSF (Roof Tile) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4 Top Chrd
R-0 Roof Attic	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O.C.	R-0	None / None	0.481	Cavity / Frame: no insul. / 2x4 Inside Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION

01	02	03	04
Quality Insulation Installation (QII)	Quality Installation of Spray Foam Insulation	Building Envelope Air Leakage	CFM50
Not Required	Not Required	Not Required	n/a

WATER HEATING SYSTEMS

01	02	03	04	05	06	07
Name	System Type	Distribution Type	Water Heater Name (#)	Solar Fraction (%)	Compact Distribution	HERS Verification
DHW Sys 1	Domestic Hot Water (DHW)	Standard Distribution System	DHW Heater 1 (1)	0	None	n/a

Registration Number: 420-P010034382A-000-000-0000000-0000 Registration Date/Time: 03/25/2020 13:52 HERS Provider: Cal Energy

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Calculation Description: Title 24 Analysis **Input File Name:** 12322LampsonKhuuADU.ribd19x

WATER HEATERS

01	02	03	04	05	06	07	08	09	10	11	12
Name	Heating Element Type	Tank Type	# Units	Tank Vol. (gal)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value (Int/Ext)	Standby Loss or Recovery Eff.	1st Hr. Rating or Flow Rate	NEEA Heat Pump Brand or Model / Other	Tank Location or Ambient Condition
DHW Heater 1	Natural Gas	Consumer Instantaneous	1	0	0.95-UEF	200000 Btu/Hr	0	n/a	n/a	n/a	n/a

WATER HEATING - HERS VERIFICATION

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

SPACE CONDITIONING SYSTEMS

01	02	03	04	05	06	07	08	09
Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Required Thermostat Type	Heating Equipment Count	Cooling Equipment Count
HVAC System1	Heating and cooling system other	Heating Component 1	Cooling Component 1	HVAC Fan 1	Air Distribution System 1	Setback	1	1

HVAC - HEATING UNIT TYPES

01	02	03	04	05
Name	System Type	Number of Units	Heating Efficiency Type	Efficiency
Heating Component 1	Central gas furnace	1	AFUE	95

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Calculation Description: Title 24 Analysis **Input File Name:** 12322LampsonKhuuADU.ribd19x

HVAC - COOLING UNIT TYPES

01	02	03	04	05	06	07	08
Name	System Type	Number of Units	Efficiency EER	Efficiency SEER	Zonally Controlled	Multi-speed Compressor	HERS Verification
Cooling Component 1	Central split AC	1	12.5	15	Not Zonal	Single Speed	Cooling Component 1-hers-cool

HVAC COOLING - HERS VERIFICATION

01	02	03	04	05	06
Name	Verified Airflow	Airflow Target	Verified EER	Verified SEER	Verified Refrigerant Charge
Cooling Component 1-hers-cool	Required	350	Required	Required	Required

HVAC - DISTRIBUTION SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12
			Duct Ins. R-value		Duct Location		Surface Area				
Name	Type	Design Type	Supply	Return	Supply	Return	Supply	Return	Bypass Duct	Duct Leakage	HERS Verification
Air Distribution System 1	Conditioned space-entirely	Non-Verified	R-6	R-6	Conditioned Zone	Conditioned Zone	n/a	n/a	No Bypass Duct	Sealed and Tested	Air Distribution System 1-hers-dist

HVAC DISTRIBUTION - HERS VERIFICATION

01	02	03	04	05	06	07	08	09
Name	Duct Leakage Verification	Duct leakage target (%)	Verified Duct Location	Verified Duct Design	Buried Ducts	Deeply Buried Ducts	Low-leakage Air Handler	Low Leakage Ducts Entirely in Conditioned Space
Air Distribution System 1-hers-dist	Yes	5	Required	Not Required	Not Required	Credit not taken	Not Required	No

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CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

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HVAC - FAN SYSTEMS

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

HVAC FAN SYSTEMS - HERS VERIFICATION

01	02	03
Name	Verified Fan Watt Draw	Required Fan Efficiency (Watts/CFM)
HVAC Fan 1-hers-fan	Required	0.45

IAQ (INDOOR AIR QUALITY) FANS

01	02	03	04	05	06
Dwelling Unit	IAQ CFM	IAQ Watts/CFM	IAQ Fan Type	IAQ Recovery Effectiveness (%)	HERS Verification
SFam IAQVentRpt	15	0.25	Default	0	Yes
SFam ADU IAQVentRpt	58	0.25	Default	0	Yes

COOLING VENTILATION

01	02	03	04	05	06	07	08	09
Name	Airflow Rate (CFM/ft2)	Cooling Vent CFM	Cooling Vent Watts/CFM	Total Watts	Number of Fans	CFVCS Type	Exhausts to	HERS Verification
Quiet Cool ES-2250	1.55	1850	0.08	148	1	Not a CFVCS	Outside	Yes

Registration Number: 420-P010034382A-000-000-0000000-0000 Registration Date/Time: 03/25/2020 13:52 HERS Provider: Cal Energy

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CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

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Calculation Description: Title 24 Analysis **Input File Name:** 12322LampsonKhuuADU.ribd19x

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Denise Kowal	Documentation Author Signature: Denise Kowal
Company: Hummingbird Energy Services	Signature Date: 03/25/2020
Address: 14811 Slalom Way	CEA/ HERS Certification Identification (If applicable):
City/State/Zip: Tuckee, CA 96161	Phone: 530-448-1053

RESPONSIBLE PERSON'S DECLARATION STATEMENT

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

1. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance.
2. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
3. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

Responsible Designer Name: John Salat	Responsible Designer Signature: John Salat
Company: John A Salat Architects	Date Signed: 03/25/2020
Address: 22386Woodgrove Rd Woodgrove Rd	License: C-24445
City/State/Zip: Lake Forest, CA 92630	Phone: 9492354847

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CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.1.100 Schema Version: rev 20190401 Report Generated: 2020-03-25 06:57:07

Contractor shall exercise the responsibility with architect in securing latest approved drwgs. prior to actually executing work

REVISIONS NO.

REVISED 5-9-20

JOHN A. SALAT ARCHITECTS
22386 Woodgrove Road, Lake Forest, CA 92630
PH 949-235-4847 email: freeingwinds@earthlink.net
zenarchitect.com

architect

KHUU RESIDENCE
NEW RESIDENCE WITH ADU
ADU BUILDING
T-24 ENERGY SPEC

OWNER/SITE ADDRESS:
CONTACT: Henry Khuu
12322 Lampson Avenue
Garden Grove, CA 92840
(714) 722-8067 Email : Henrykhuu@gmail.com

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JOB NO.
SHEET

T-24 B.2

1 OF (SEE INDEX) SHEETS

GENERAL STRUCTURAL NOTES:

1. Coordination: The Contractor shall verify all dimensions and conditions at the job site and shall be responsible for coordination of all work and materials including those furnished by subcontractors.

2. Discrepancies: The Contractor shall inform the Engineer in writing, of any discrepancies or omissions noted on the drawings that do not conform to codes, rules and regulations. Any such discrepancy, omission, or variation not reported shall be the responsibility of the contractor.

3. Typical Details and Notes on these sheets shall apply unless specifically shown or noted otherwise. Construction details not fully shown or noted shall be similar to details shown for similar conditions. All construction work shall comply with all applicable building codes, regulations and safety requirements.

4. Trade Names: Where an item is identified by a trade name the suffix "or approved equivalent" shall be implied unless specifically noted otherwise.

5. Standards: Except where more stringent requirements are noted or shown in the plans or specifications, all phases of work shall conform to the minimum standards of the 2019 C.B.C. adopted by the City of Garden Grove.

6. Building Live Loads:
   Roof — 20 psf**
   Floor — 40 psf*
   Deck — 60 psf*
   *Reducible depending upon tributary area
   ** Reducible depending upon tributary area, and slope

7. Other Trades: See architectural and consultant drawings for size and location of pipe, other openings, anchor bolt requirements for equipment and other details not shown on these structural drawings. All dimensions are to be checked and verified with the architectural drawings.

8. Materials and Workmanship: The Contractor shall supply all labor, materials, equipment and services of every kind, including water and power, necessary for the proper execution of the work shown or indicated on these drawings. All material shall be new materials. Subcontractors shall be skilled in their trade.

9. Materials and Workmanship Warranty: The Contractor shall replace any defective materials and correct poor workmanship with no additional costs to the owner, and shall remedy any defects in material or workmanship which appear in one year from the date of completion of the project. This warranty applies to the work done by the subcontractors as well as the work done by the employees of the contractor.

10. Shoring: It shall be the Contractor's sole responsibility to design and provide adequate shoring, bracing and formwork, etc., as required for the protection of life and property during the construction of this building.

11. Excavation: The Contractor shall be solely responsible for all excavation procedures including lagging, shoring, and protection of adjacent property, structures, streets and utilities in accordance with the standards of the City of Garden Grove and with the joining property. The premises shall be kept from accumulation of waste materials, and debris, and at the end of the job the contractor shall remove all rubbish, surplus of materials, and tools and leave the building broom clean.

FOUNDATION NOTES:

1. Footings: All footings shall extend a minimum depth below finished or natural grade into acceptable geological material as follows unless noted otherwise.
   Building–A
   1.1. Exterior footings = 18"
   1.2. Interior footings = 18"
   Building–B
   1.1. Exterior footings = 18"
   1.2. Interior footings = 18"

2. Foundation design soil values
   Allowable Bedrock Material Bearing Pressure = 1500 psf

3. Inspections: A Geotechnical Engineer shall certify in writing the adequacy of soil beneath foundations prior to placement of forms or reinforcing. A Geotechnical Engineer or his authorized representative shall inspect all subgrade preparation prior to the placement of any reinforcing steel or concrete and shall perform test as necessary to verify that such work is in conformance with the recommendations given in the soils report or building code.

CONCRETE NOTES:

1. Compressive Strength: The minimum ultimate compressive strength of all concrete shall be 4500 psi min at 28 days, unless noted otherwise. Refer to plans and table below for the design strength of concrete for specific structural elements. Design of mixes shall be by an approved testing laboratory and signed by a registered engineer.

2. Weight: All concrete shall be "normal weight" unless noted otherwise.

3. Concrete shall have a maximum water–cementitious material ratio, by weight, of 0.45

4. Cement: Cement shall conform to the ASTM C150–09 Type V.

5. Aggregate: Aggregate shall conform to ASTM C33–08.

6. Concrete Placement and Quality: Shall conform to applicable recommendations of ACI SP–15. A copy of SP–15 shall be available at construction site during the project.

7. Debris: Remove all debris from forms before placing of concrete.

8. Doweling: All walls and columns shall be doweled into footings, walls, beams, or slabs as shown or noted on the drawings.

9. Splices: Vertical wall bars shall be spliced at or near floor lines. Splice bars in spandrels, walls, beams, grade beams, etc., unless noted otherwise as follows; top bars at mid–point of span, bottom bars at the support. All reinforcing steel shall be securely wired and properly supported above the ground and away from forms as shown or noted.

10. Inserts: All items to be cast in concrete such as reinforcing, dowels, bolts, anchors, pipes, sleeves, etc., shall be secure and positioned before placing of concrete.

11. Conduit and Pipes: Conduit and Pipes shall not be embedded in structural concrete except where specifically approved by the Engineer of Record. Maximum conduit and pipe size shall be 1/3 of the slab or wall thickness and located at its mid depth. Minimum spacing shall be 3 times the conduit/pipe diameter. Conduit and pipes shall not impair the strength of the member. Conduit and pipes shall not be aluminum. Conduit and pipes shall not displace more than 4% of the cross section area.

REINFORCING STEEL NOTES:

1. Grade: All reinforcing steel shall be deformed bars which shall conform to the standard specifications of ASTM A–615 Grade 60

2. Minimum Lap: See lap/splice details.

3. Minimum Cover: Reinforcing steel to have the following minimum cover:
   A. Concrete against earth (not formed) .....3"
   B. Concrete exposed to earth or weather (formed or troweled)
   #6 – #18 bars .....2"
   #5 and smaller .....1–1/2"
   C. Slab–On–Grade .....@ CL of slab

4. Doweling: Dowels shall be provided at construction joints and shall be the same size and spacing as detailed or #3 @ 12"o.c. x 3'–0" long (minimum).

5. Tolerance for Rebar Placement: Tolerance for longitudinal location of bends and ends of reinforcement shall be plus or minus 2 inches except at discontinuous ends of members where tolerances shall be plus or minus 1/2 inch.

SIMPSON CONCRETE SET–XP EPOXY ADHESIVE ANCHORS:

1. Anchor Manufacturer: Where adhesive anchors are called for on these plans, the contractor shall use the "Simpson SET–XP Epoxy Adhesive Anchor System" by Simpson Strong–Tie, Pleasanton, California, installed per requirements of I.C.C. Report No. ESR–2508, dated July 2018.

2. Adhesive Requirement: The adhesive used with these anchors shall be "Simpson SET–XP Epoxy Adhesive", installation of which shall be under the continuous observation of a Special Inspector.

3. Anchor Bolt: Anchor bolts shall conform to ASTM A193, Grade B7.

4. Installation Information: The contractor shall obtain and retain on the premises a copy of the above referenced I.C.C. Report.

5. Anchor Locations: Refer to the drawing and details for location and specific anchor size and spacing.

STRUCTURAL STEEL NOTES:

1. Materials: All structural steel plates shall conform to ASTM A572 Gr. 50 unless noted otherwise. Structural steel tube shall conform to ASTM A–500 Gr. B; Fy=46ksi.

2. Welding: All welds shall be in conformity with the stand code for arc and gas welding of American Welding Society (AWS) and the American Institute of Steel Construction (AISC). All structural welding shall be performed by certified welders using the shielded electric arc process with approved electrodes. All welds shall be of min E70XX (70ksi) electrodes.

3. Shop Welding: Shop welding shall be performed only in the shop of an approved licensed fabricator.

4. Field Welding: All field welding shall be performed by certified welders and shall be continuously inspected by a Registered Special Inspector.

5. Bolts: All bolts shall be unfinished bolts conforming to ASTM A325 unless noted otherwise.

6. Anchor rods shall be ASTM F1554 Gr. 55 S1, Threaded Rod and Nutted unless noted otherwise. Standard cut waster between double nut at embedded end.

7. Bolt Holes: Bolt holes in steel to be 1/16" larger diameter than the nominal bolt size used except as noted otherwise.

8. Steel headed stud anchors shall be ASTM A108 unless noted otherwise.

9. Detailing: All connections and detailing practice shall conform to the 14th Edition of A.I.S.C. specifications.

10. Certification: At completion of fabrication, the approved fabricator shall submit a certificate of compliance to the building official stating that the work was performed in accordance with the approved construction documents.

WOOD NOTES:

1. Lumber: All lumber shall conform to the provision of the 2019 C.B.C. section 2303.

2. Lumber Grading: All wood structural members shall be D.F. No. 1 per WCLIB Rule #17 (both horizontal and vertical), unless noted otherwise.
   All structural members shall be grade marked per Rule #17 of WCLIB.

3. Sills and Ledgers: All sills and ledgers in contact with concrete or within 8" of soil shall be pressure treated D.F. conforming to 2016 C.B.C. section 2303.

4. Wood supported by exterior foundation walls. Wood framing members, including wood sheathing, that are in contact with exterior foundation walls and are less than 8 inches from exposed earth shall be of naturally durable or preservative–treated wood.

5. Sleepers and sills. Sleepers and sill on a concrete or masonry slab that is in direct contact with earth shall be of naturally durable or preservative treated wood.

6. Sill Anchorage: Unless shown or noted otherwise, all sill plates shall be anchored with ⅝"ø X 12" anchor bolts embedded a minimum of 8" into concrete. They shall be spaced at a maximum of 4'–0" o.c. There shall be a minimum of 2 bolts per piece of sill plate with one bolt located not more than 12" or less than 4½" from each end of each piece. A 0.229"X3"X3" min. plate washer shall be used on each bolt. The hole in the plate washer is permitted to be diagonally slotted with a width of up to ⅜" larger than the bolt diameter and a slot length not to exceed 1¾", provided a standard cut washer is placed between the plate washer and the nut. The plate washer shall extend to within ½" of the edge of the bottom plate on the side(s) with sheathing or other shear resisting material for wind or seismic.

7. Wood Supported by Exterior Foundation Walls: Wood framing members, including wood sheathing, that rest on exterior foundation walls and are less than 8 inches from exposed earth shall be of naturally durable preserve–treated wood.

8. Exterior Lumber: All exterior exposed lumber to be preserved treated. Any cutting, notching, or boring of preserve treated lumber shall be performed, treated, and sealed according to manufacturer's recommendations. Surface damage shall be treated and sealed according to manufacturer's recommendations.

WOOD NOTES: (CONT.)

9. Fasteners and connectors for preserve treated lumber and fasteners and connectors exposed to weather: Fasteners, including nuts and washers, in contact with preservative–treated lumber or exposed to weather shall be hot–dipped zinc–coated galvanized steel in accordance with ASTM A153 or stainless steel. Fasteners other than nails, timber rivets, wood screws and lag screws shall be permitted to be mechanically deposited zinc–coated steel with coating weights in accordance with ASTM B695, Class 55 minimum. Connectors that are used in exterior applications and in contact with preservative–treated wood shall have coating types and weights in accordance with the treated wood or connector manufacture's recommendations. In the absence of manufacture's recommendation, a minimum of ASTM A653, Type G185 zinc–coating galvanized steel, or equivalent, shall be used.

10. Fasteners for fire–retardant–treated wood used in exterior applications or wet or damp locations: Fasteners, including nuts and washers, for fire–retardant–treated wood used in exterior applications or wet or damp locations shall be of hot–dipped zinc–coated galvanized steel in accordance with ASTM A153 or stainless steel. Fasteners other than nails, timber rivets, wood screws and lag screws shall be permitted to be mechanically deposited zinc–coated steel with coating weights in accordance with ASTM B695, Class 55 minimum.

11. Fasteners for fire–retardant–treated wood used in interior applications: Fasteners, including nuts and washers, for fire–retardant–treated wood used in interior locations shall be in accordance with the manufacture's recommendations. In the absence of manufacture's recommendations, fasteners, including nuts and washer, shall be of hot–dipped zinc–coated galvanized steel in accordance with ASTM A153 or stainless steel. Fasteners other than nails, timber rivets, wood screws and lag screws shall be permitted to be mechanically deposited zinc–coated steel with coating weights in accordance with ASTM B695, Class 55 minimum.

12. Bolts: All bolts in wood shall be ASTM A307 Gr A unless noted otherwise. All bolt heads and nuts bearing on wood shall have standard cut washers meeting the requirements of ANSI/ASME B18.22.2. All bolt holes in wood shall be drilled 1/32" to 1/16" diameter larger than the nominal bolt diameter.

13. Anchor Bolts: All anchor bolts shall be ASTM F1554 Gr 36 unless noted otherwise. Anchor bolts in wood still plates may be hooked, headed, or threaded and nutted. See plans and details for anchor type for other applications.

14. Lag Screws: All lag screws bearing on wood shall have washers. The hold for the shank shall be the same diameter and length as the unthreaded shank, the lead hole for the threads shall be about 70 percent of the shank diameter and length of the thread.

15. Wood Screws: The lead hole shall be about 70 percent of the root diameter of the screw and the length of the screw.

16. Nails: Nailing shall conform to Table 2304.9.1 of the 2016 C.B.C. Connections shown are minimum permissible. All nails shall be common wire nails unless noted otherwise. Where possible, nails driven perpendicular to the grain shall be used instead of toenails. Pre–drill members and renail should splitting develop due to the nature of the material or connection.

17. Plywood Sheathing: Plywood sheathing shall be D.F. plywood with exterior type glue (Exposure 1) as specified by the American Plywood Association and as noted on plans. Wood structural panels shall conform to requirements of DOC PS 1 or DOS PS 2. Nail as shown on plans. If the nail head breaks the face ply, the nail shall be removed and renailed into firm adjacent wood. Nails heads which break face ply shall be cause for rejection of vertical or horizontal diaphragms as installed.

18. OSB Sheathing: OSB sheathing shall be Exposure 1 D.F. as specified by the American Plywood Association and as noted on the plans. OSB structural panels shall conform to the requirements of DOC PS 2. Nail as shown on plans.

19. Roof Sheathing: Roof sheathing shall be inspected and approved prior to placing of any roofing and/or insulation.

20. Wall Sheathing: Wall sheathing shall be inspected and approved prior to covering with drywall or felts.

MICROLLAM BEAM (LVL) NOTES

1. Installation: Microllam – laminated veneer lumber (LVL) is manufactured from thin sheets of veneer structural bonded together by Weyerhaeuser, shall be installed as noted by ICC ESR 1387 February 2017 recommendations.

2. Grade/Manufacturers Stamp: Microllam beams delivered to the project shall be stamped by the manufacturer. Grade Fb=2900psi and Modulus of Elasticity E=1.9X10^6 psi minimum.

PARALLAM BEAM NOTES:

1. Installation: Parallam beams, made of parallel strand lumber, by Weyerhaeuser, shall be installed as noted by NER 481 and ICC ESR 1387 February 2017 recommendations.

2. Grade/Manufacturer's Stamp: Parallam beams delivered to the project shall be stamped by the manufacturer.

3. Exterior Beams: Exterior exposed PSL members are to be Walmanized PSL approved for exterior use. Any field alterations shall be performed, treated and sealed according to manufacturer's recommendations. Surface damage shall also be treated and sealed according to manufacturer's recommendations.

4. Preserve–Treated Beams: Fasteners for preservative–treated beams shall be hot dipped zinc–coated galvanized steel per ASTM A 153 or stainless steel. Fasteners other than nails, timber rivets, wood screws and lag screws shall be permitted to be of mechanically deposited zinc coated steel with coating weights in accordance with ASTM B 695, Class 55 minimum. All other steel to be hot dipped zinc–coated galvanized or stainless steel.

Earthquake Design Data

1. Risk Category II

2. Seismic importance factor I = 1.0

3. Mapped spectral response accelerations
   Ss = 1.369
   S1 = 0.485

4. Site Class = D

5. Spectral response coefficients
   SDS = 0.913
   SD1 = 0.587

6. Seismic design category = D

7. Basic seismic force resisting systems
   a. Light–frame (wood) wall sheathed with wood structural panels

8. Design base shear
   BLDG–A, V = 33.6 kips
   BLDG–B, V = 10.8 kips

9. Seismic response coefficients
   a. BLDG–A, Cs = 0.1154
   b. BLDG–B, Cs = 0.1404

10. Response modification factors
    a. R= 6.5

11. Equivalent Lateral Force Design Procedure

12. Redundancy ρ = 1.3

13. Overstrength Ω_o = 2.5

Basic Wind Design Data

1. Ultimate Design Wind Speed, V_{ult} = 110 mph
   Nominal Design Wind Speed, $V_{asd} = V_{ult}*\sqrt{0.6}$ = 85.2 mph

2. Risk Category, II

3. Wind Exposure C

4. Internal Pressure Coefficient = ±0.18

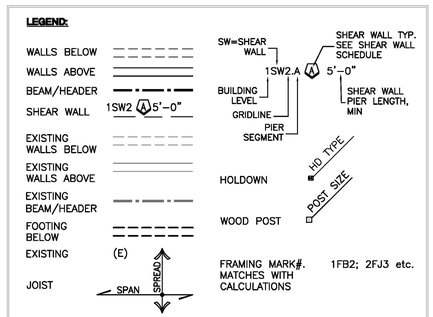
5. Components & Cladding Design Wind Pressure q_z = 26 psf

TYPICAL ABBREVIATIONS

AB	ANCHOR BOLT
ABV	ABOVE
ACI	AMERICAN CONCRETE INSTITUTE
ADD'L	ADDITIONAL
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
APA	AMERICAN PLYWOOD ASSOCIATION
APPROX	APPROXIMATE
ARCH	ARCHITECT
ARCH'L	ARCHITECTURAL
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS
AWS	AMERICAN WELDING SOCIETY
BLW	BELOW
BLD'G	BUILDING
BLK	BLOCK
BLK'G	BLOCKING
BM	BEAM
BN	BOUNDARY NAILING
BOF	BOTTOM OF FOOTING
BTM	BOTTOM
BTWN	BETWEEN
CALCS	CALCULATIONS
CANT	CANTILEVER
CBC	CALIFORNIA BUILDING CODE
CF	CUBIC FOOT
CJ	CONTROL JOINT
CLR	CLEAR
COL	COLUMN
CONC.	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CTR	CENTER(ED)
CTSK	COUNTERSINK
D	DEPTH
DBL	DOUBLE
DF	DOUGLAS FIR
DIA, ø	DIAMETER
DIAPH	DIAPHRAGM
DIM	DIMENSION
DKG	DECKING
DL	DEAD LOAD
DTL	DETAIL
DWG	DRAWING
DWL	DOWEL
(E)	EXISTING
EA	EACH
EE	EACH END
EF	EACH FACE
ELEV	ELEVATION
EN	EDGE NAIL
ENGR	ENGINEER
EQ	EQUAL
EQUIP	EQUIPMENT
ES	EACH SIDE
EW	EACH WAY
FDN	FOUNDATION
FLR	FLOOR
FN	FIELD NAIL
FOC	FACE OF CONCRETE
FOS	FACE OF STUD
FRM'G	FRAMING
FT	FEET (FOOT)
FTG	FOOTING
ga.	GAUGE
GALV	GALVANIZED
GEN	GENERAL
GLB	GLUED LAMINATED BEAM
GRD	GRADE
HD	HOLDOWN
HDR	HEADER
HGR	HANGER
HSS	HOLLOW STRUCTURAL SECTION
HT	HEIGHT
IN	INCHES
INFO	INFORMATION
INTER	INTERMEDIATE
JST	JOIST
KSI	KIPS PER SQUARE INCH
KO	KNOCK OUT
KP	KING POST

TYPICAL ABBREVIATIONS (CONT.)

LAT	LATERAL
LBS, #	POUNDS
LF	LINEAR FEET (FOOT)
LL	LIVE LOAD
LONG	LONGITUDINAL
LSL	TIMBER STRAND
LVL	MICROLAM
MAT'L	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MECH'L	MECHANICAL
MEMB	MEMBRANE
MANF	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	MATERIAL
(N)	NEW
N/A	NON APPLICABLE
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPN'G	OPENING
OPP	OPPOSITE
OPT'L	OPTIONAL
PA	POST ABOVE
PB	POST BELOW
PAR	PARALLEL
PEN	PENETRATION
PERP	PERPENDICULAR
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PLY	PLYWOOD
PRELIM	PRELIMINARY
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSL	PARALLAM
PT	PRESSURE TREATED
QTY	QUANTITY
REF	REFERENCE
REINF	REINFORCEMENT
REQ'D	REQUIRED
RET	RETAINING
REV	REVISION
RND	ROUND
SCHED	SCHEDULE
SF	SQUARE FEET (FOOT)
SHT	SHEET
SHT'G	SHEATHING
SIM	SIMILAR
SN	SILL NAIL
SOG	SLAB ON GRADE
SPEC	SPECIFICATION
SQ	SQUARE
SS	SELECT STRUCTURAL
STD	STANDARD
STL	STEEL
STR'L	STRUCTURAL
SY	SQUARE YARD
T	TOP
T & B	TOP AND BOTTOM
T & G	TONGUE AND GROOVE
THRD	THREADED
THKN	THICKENED
TL	TOTAL LOAD
TN	TOE NAIL
TOS	TOP OF SHEATHING
TRANV	TRANSVERSE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VAR	VARIES
VERT	VERTICAL
VIF	VERIFY IN FIELD
VL	VERSA–LAM
W/	WITH
W/O	WITHOUT
WF	WIDE FLANGE
WS	WELDED STUD
W.S.	WOOD SCREWS



DETAIL

BSE
BURKE STRUCTURAL ENGINEERS, PC
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REGISTERED PROFESSIONAL ENGINEER THOMAS J. BURKE No. 9085 STRUCTURAL STATE OF CALIFORNIA

REVISIONS	BY

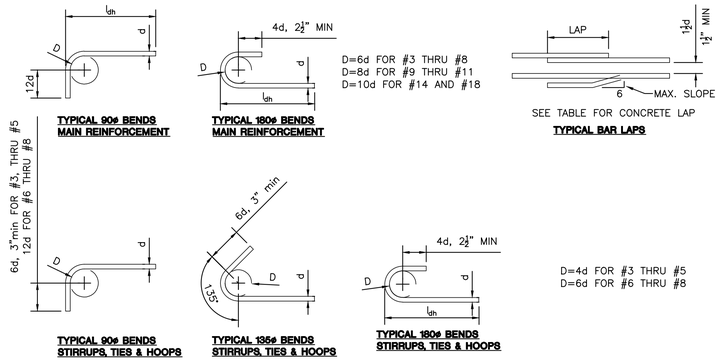
GENERAL NOTES, LEGEND AND ABBREVIATIONS

HENRY KHUU

NEW RESIDENCE + ADDITION

12322 LAMPSON AVE., GARDEN GROVE, CA 92840

DATE 2020–04–06
SCALE AS SHOWN
DRAWN BY TPH
JOB NO. 19107
SHEET SN1
OF SHEETS



TYPICAL 90ø BENDS MAIN REINFORCEMENT

TYPICAL 180ø BENDS MAIN REINFORCEMENT

TYPICAL BAR LAPS

TYPICAL 90ø BENDS STIRRUPS, TIES & HOOPS

TYPICAL 135ø BENDS STIRRUPS, TIES & HOOPS

TYPICAL 180ø BENDS STIRRUPS, TIES & HOOPS

STRAIGHT BAR DEVELOPMENT

Fy=60 ksi NORMAL–WEIGHT CONCRETE						
BAR SIZE	f'c=2500 psi		f'c=3000 psi		f'c=4000 psi	
	TOP	OTHER	TOP	OTHER	TOP	OTHER
#3	20"	15"	18"	14"	16"	12"
#4	32"	24"	29"	22"	25"	19"
#5	45"	35"	42"	32"	36"	28"
#6	61"	47"	55"	43"	48"	37"
#7	96"	74"	88"	68"	76"	59"
#8	117"	90"	107"	83"	93"	72"
#9	132"	102"	121"	93"	105"	81"
#10	149"	115"	136"	105"	118"	91"
#11	165"	127"	151"	116"	131"	101"
#14	199"	153"	181"	140"	157"	121"
#18	265"	204"	242"	186"	209"	161"

LAP SPLICE SCHEDULE, CLASS B

Fy=60 ksi NORMAL–WEIGHT CONCRETE						
BAR SIZE	f'c=2500 psi		f'c=3000 psi		f'c=4000 psi	
	TOP	OTHER	TOP	OTHER	TOP	OTHER
#3	25"	20"	23"	18"	20"	16"
#4	41"	32"	38"	29"	33"	25"
#5	59"	45"	54"	42"	47"	36"
#6	79"	61"	72"	55"	62"	48"
#7	125"	96"	114"	88"	99"	76"
#8	153"	117"	139"	107"	121"	93"
#9	172"	132	157"	121"	136"	105"
#10	194"	149"	177"	136"	153"	118"
#11	215"	165"	196"	151"	170"	131"

STANDARD HOOK DEVELOPMENT l_{dh}

Fy=60 ksi NORMAL–WEIGHT CONCRETE			
BAR SIZE	f'c=2500psi	f'c=3000psi	f'c=4000psi
#3	9"	9"	8"
#4	12"	11"	10"
#5	15"	14"	12"
#6	18"	17"	15"
#7	21"	20"	17"
#8	24"	22"	19"
#9	28"	25"	22"
#10	31"	28"	25"
#11	34"	31"	27"
#14	41"	38"	33"
#18	55"	50"	43"

SESIMIC STRAIGHT BAR DEVELOPMENT

Fy=60 ksi NORMAL–WEIGHT CONCRETE						
BAR SIZE	f'c=2500 psi		f'c=3000 psi		f'c=4000 psi	
	TOP	OTHER	TOP	OTHER	TOP	OTHER
#3	24"	19"	22"	17"	19"	15"
#4	39"	30"	36"	28"	31"	24"
#5	57"	44"	52"	40"	45"	35"
#6	76"	58"	69"	53"	60"	46"
#7	120"	92"	110	84"	95"	73"
#8	147"	113"	134"	103"	116"	89"
#9	165"	127"	151"	116"	131"	101"
#10	186"	143"	170"	131"	147"	113"
#11	207"	159"	189"	145"	164"	126"
#14	248"	191"	227"	174"	196"	151"
#18	331"	254"	302"	232"	261"	201"

SEISMIC LAP SPLICE SCHEDULE, CLASS B

Fy=60 ksi NORMAL–WEIGHT CONCRETE						
BAR SIZE	f'c=2500 psi		f'c=3000 psi		f'c=4000 psi	
	TOP	OTHER	TOP	OTHER	TOP	OTHER
#3	32"	24"	29"	22"	25"	20"
#4	51"	39"	47"	36"	41"	31"
#5	74"	57"	67"	52"	58"	45"
#6	98"	76"	90"	69"	78"	60"
#7	156"	120"	142"	110"	123"	95"
#8	191"	147"	174"	134"	151"	116"
#9	215"	165"	196"	151"	170"	131"
#10	242"	186"	221"	170"	191"	147"
#11	269"	207"	245"	189"	212"	164"

SEISMIC HOOK DEVELOPMENT l_{dh}

Fy=60 ksi NORMAL–WEIGHT CONCRETE			
BAR SIZE	f'c=2500psi	f'c=3000psi	f'c=4000psi
#3	12"	11"	9"
#4	15"	14"	12"
#5	19"	18"	15"
#6	23"	21"	18"
#7	27"	24"	21"
#8	30"	28"	24"
#9	34"	31"	27"
#10	39"	35"	31"
#11	43"	39"	34"
#14	51"	47"	41"
#18	68"	62"	54"

SEISMIC DEVELOPMENT AND LAP LENGTHS:

1. MINIMUM SEISMIC DEVELOPMENT AND LAP LOCATIONS
   A. SPECIAL CONCRETE SHEAR WALLS
      - LAP OF VERTICAL REINFORCEMENT AT BASE OF WALL
      - DEVELOPMENT OF REINFORCEMENT IN FOUNDATION ELEMENT
      - DEVELOPMENT OF DIAGONAL REBAR OF COUPLER BEAMS INTO WALLS

   B. SPECIAL CONCRETE MOMENT FRAMES
      - DEVELOPMENT OF LONGITUDINAL BEAM REINFORCEMENT IN CONFINED CORE OF COLUMN. ANY PORTION OF STRAIGHT BAR DEVELOPMENT OUTSIDE THE CONFINED CORE SHALL BE INCREASED BY A FACTOR OF 1.6.
      - COLUMN LONGITUDINAL REBAR DEVELOPMENT INTO FOUNDATION ELEMENTS.

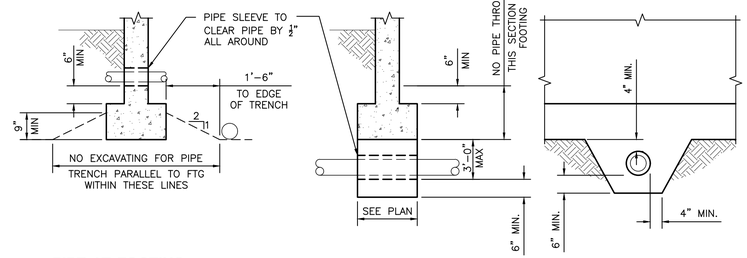
2. SEE PLAN AND DETAILS FOR ADDITIONAL SEISMIC DEVELOPMENT AND LAP LOCATIONS

NOTES:

1. TOP BARS ARE DEFINED AS HORIZONTAL REINFORCEMENT WHERE MORE THAN 12" OF FRESH CONCRETE IS PLACED BELOW THE BARS BEING DEVELOPED OR SPLICED
2. VALUES IN TABLES ABOVE ARE FOR NORMAL WEIGHT CONCRETE ONLY. INCREASE LENGTHS BY 33.3% (1.33) FOR LIGHTWEIGHT CONCRETE
3. #14 AND #18 REQUIRE WELDED SPLICE OR MECHANICAL SPLICE
4. FOR F'c GREATER THAN 4000 PSI, USE VALUES FOR F'c = 4000 PSI.

CONCRETE REBAR BENDS AND LAPS

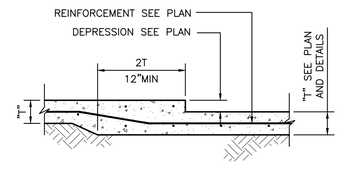
DETAIL 1/ST1



PIPE AT FOOTING REQUIREMENTS

CONCRETE FILL TO BE MADE BEFORE FOOTINGS ARE PLACED. MAKE SAME WIDTH AS FOOTING AND WIDTH OF TRENCH.

DETAIL 2/ST1



DEPRESSION AT SLAB ON GRADE

DETAIL 3/ST1

DETAIL 4/ST1

DETAIL 1/ST1

BSE

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REVISIONS	BY

TYPICAL CONCRETE DETAILS

HENRY KHUU

NEW RESIDENCE + ADDITION

12322 LAMPSON AVE., GARDEN GROVE, CA 92840

DATE 2020-04-06
SCALE AS SHOWN
DRAWN BY TPH/SD
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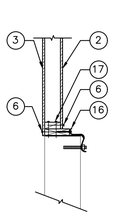
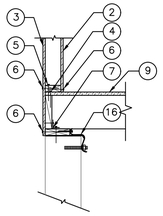
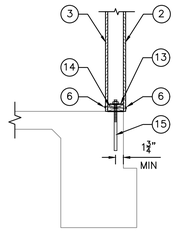
SHEET ST1
OF SHEETS



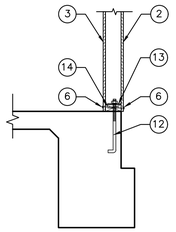
EXISTING FOUNDATION SHEAR TRANSFER DETAIL



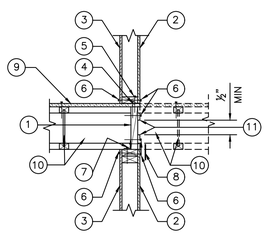
EXISTING FOUNDATION SHEAR TRANSFER DETAIL



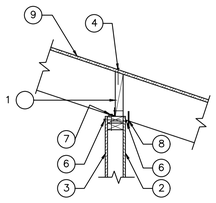
EXISTING FOUNDATION SHEAR TRANSFER DETAIL



NEW FOUNDATION SHEAR TRANSFER DETAIL

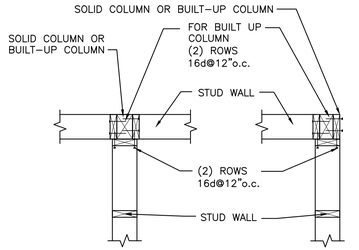


FRAMING SHEAR TRANSFER DETAIL



FRAMING SHEAR TRANSFER DETAIL

FRAMING NOTES
1. SHEAR TRANSFER BLK'G OR RIM – SEE SCHEDULE AND FRAMING DETAILS
2. SHEAR PANEL ON ONE SIDE
3. SHEAR PANEL ON SECOND SIDE WHERE OCCURS – SEE PLAN
4. BOUNDARY NAILING (BN). PROVIDE ⅜" MINIMUM EDGE DISTANCE. INTERIOR SHEAR WALLS REQUIRE DOUBLE BOUNDARY NAILING, 2 ROWS, (WALLS WHERE THE DIAPHRAGM EXTENDS PAST EACH SIDE OF THE WALL).
5. SILL NAILING (SN) – SEE SCHEDULE
6. EDGE NAILING (EN) – SEE SCHEDULE
7. SHEAR TRANSFER HARDWARE A35 – SEE SCHEDULE
8. SHEAR TRANSFER HARDWARE LTP4 – SEE SCHEDULE – MAY BE INSTALLED OVER ½" SHT'G WITH 8d COMMON NAIL (2½" LENGTH)
9. HORIZONTAL DIAPHRAGM – SEE PLANS
10. FRAMING PERPENDICULAR OR PARALLEL TO WALL – SEE PLANS
11. EXTERIOR FACE OF SHEAR PANEL MAY BE EXTENDED 2" MINIMUM TO BLK'G/RIM IN ORDER TO OMIT SHEAR TRANSFER HARDWARE FOR SINGLE SIDED SHEAR WALL. (SHEAR TRANSFER HARDWARE STILL REQUIRED FOR DOUBLE SIDED OR PANEL ON INSIDE FACE OF WALL)
12. ANCHOR BOLT – SEE SHEAR WALL SCHEDULE
13. PLATE WASHER – SEE SHEAR WALL NOTES AND PLATE WASHER DETAIL
14. PRESERVE TREATED SILL PLATE – SEE SCHEDULE
15. EPOXY ANCHOR BOLT, 7" MIN EMBED, SIMPSON SET-XP EPOXY – SEE SHEAR WALL SCHEDULE. SEE EPOXY NOTES ON SHEET SN1, SPECIAL INSPECTION REQUIRED.
16. FOUNDATION PLATE – SEE FOUNDATION PLATE DETAILS
17. SILL BLK'G – SEE FOUNDATION PLATE DETAILS



PLAN VIEW INTERIOR JOINT

PLAN VIEW CORNER JOINT

DETAIL

S12/S14

SHEATHING MATERAIL	MIN. NOMINAL PANEL THICKNESS (in.)	MIN FASTENER PENETRATION	NAIL COMMON WIRE	FASTENER SPACING AT PANEL EDGE (EN)	FASTENER SPACING AT INTERMEDIATE SUPPORTS (FN)	ALLOWABLE SHEAR PLF ASD	SILL PLATE MINIMUM THICKNESS	Min Shear Transfer Blk'g or Rim	SILL ATTACHMENT (wood to wood)	SILL ATTACHMENT (to concrete)	SILL ATTACHMENT (to concrete) Foundation Plate URFP	SILL ATTACHMENT (to concrete) Foundation Plate FRFP	SILL BLK'G (16"o.c Stud Spacing)	SIMPSON SHEAR TRANSFER HARDWARE MAX SPACING (IN. O.C.) A35	SIMPSON SHEAR TRANSFER HARDWARE MAX SPACING (IN. O.C.) LTP4	DESIGNATION ON DRAWINGS
WOOD STRUCTURAL PANELS – APA RATED SHEATHING	15/32	1½"	10d	6"	12"	310	2x	1½ LSL / 2X	16d@8"o.c. or SDWS 0.220"x6"@12"o.c.	⅝"øA.B.@48"o.c.	@58"o.c.	@70"o.c.	2x w/ 4–10d	@ 24"o.c.	@ 24"o.c.	A
				4"	12"	460	2x	1½ LSL / 2X	SDWS 0.220"x6"@10"o.c.	⅝"øA.B.@32"o.c.	@39"o.c.	@46"o.c.	2x w/ 4–10d	@ 16"o.c.	@ 16"o.c.	B
				3"	12"	600	2x	1½ LSL / 2X	SDWS 0.220"x6"@8"o.c.	⅝"øA.B.@24"o.c.	@30"o.c.	@36"o.c.	2x w/ 6–10d	@ 12"o.c.	@ 12"o.c.	C
				2"	12"	770	2x	3½ PSL / 4X	SDWS 0.220"x6"@6"o.c.	⅝"øA.B.@16"o.c.	@23"o.c.	@28"o.c.	2x w/ 6–10d	@ 8"o.c.	@ 8"o.c.	D
WOOD STRUCTURAL PANELS – STRUCTURAL 1 GRADE	15/32	1½"	10d	6"	12"	340	2x	1½ LSL / 2X	16d@7"o.c. or SDWS 0.220"x6"@12"o.c.	⅝"øA.B.@48"o.c.	@54"o.c.	@64"o.c.	2x w/ 4–10d	@ 24"o.c.	@ 16"o.c.	E
				4"	12"	510	2x	1½ LSL / 2X	SDWS 0.220"x6"@8"o.c.	⅝"øA.B.@32"o.c.	@36"o.c.	@43"o.c.	2x w/ 4–10d	@ 16"o.c.	@ 12"o.c.	F
				3"	12"	665	2x	3½ PSL / 4X	SDWS 0.220"x6"@6"o.c.	⅝"øA.B.@24"o.c.	@26"o.c.	@33"o.c.	2x w/ 6–10d	@ 12"o.c.	@ 12"o.c.	G
				2"	12"	870	2x	3½ PSL / 4X	SDWS 0.220"x6"@6"o.c.	⅝"øA.B.@16"o.c.	@20"o.c.	@25"o.c.	2x w/ 8–10d	@ 8"o.c.	@ 8"o.c.	H

Shear Wall Notes
1. Block edges
2. Framing at adjoining panel edges shall be 3" nominal or wider, and nails shall be staggered where
   (A) Nails are spaced 2" on center at adjoining panel edges.
   (B) 10d common nails having penetration into the framing members and blocking of mare than 1½" are specified at 3"o.c. or less at adjoining panel edges.
   (C) The required nominal unit shear capacity exceeds 350psf.
3. Where panels applied on both faces of a wall and nail spacing is less than 6" o.c. on either side, panel joints shall be offset to fall on different framing members, or framing shall be 3" nominal or thicker at adjoining panel edges and nails on each side shall be staggered.
4. Foundation anchor bolts shall have a steel plate washer under each nut not less than 0.229"x3"x3" square plate washer. The hole in the plate washer shall be permitted to be diagonally slotted with a width of up to 3/16" larger than the bolt diameter and a slot length not to exceed 1¾", provided a standard cut washer is placed between the plate washer and the nut. The plate washer shall extend to within ½" of the edge of the bottom plate on the side(s) with sheathing.
5. Nails in preserve treated lumber shall be galvanized. Galvanized nails shall be hot dipped or tumbled.
6. Pier sheathing and nailing to extend across entire wall.
7. All other exterior ply shall be :
   15/32" APA Rated Sheathing Panels w/ 10d @ 6" o.c. EN
   @ 12" o.c. FN
8. Double sided shear walls required 2 times (2x) the sill attachment and shear transfer hardware attachments listed in the schedule. Install sill nail/screw fasteners in two rows.
9. Use sawn lumber shear transfer blk'g/rim with sawn lumber joist/rafters framing. Use LVL or PSL with TJI, LVL and other structural composite lumber joist/rafters framing.
10. SDWS min edge distance = ¾", Min spacing between rows = 1". Stagger SDWS. Min penetration into blk'g/rim = 2".
11. Maximum stud spacing = 16"o.c.
12. Nails shall be located at least ⅜" from the panel edges.
13. The width of shear transfer members (rim/blk'g) receiving Diaphragm Boundary Nailing (BN) shall be 4" nominal or greater. Use 2 rows of nails offset ½"
14. Add (2) additional 10d for sill blocking per note 17 above where stud spacing is between 16" and 24"o.c.

SHEAR WALL SCHEDULE & SHEAR TRANSFER DETAILS

DETAIL

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FASTENING SCHEDULE (PER 2016 CBC, TABLE 2304.10.1)

CONNECTION	FASTENING	LOCATION
1. Joist to sill or girder	3–8d common (2½"x0.131") 3–3"x0.131" nails 3–3" 14 gage staples	toenail
2. Bridging to joist	2–8d common (2½"x0.131") 2–3"x0.131" nails 2–3" 14 gage staples	toenail each end
3. 1"x6" subfloor or less to each joist	2–8d common (2½"x0.131")	face nail
4. Wider than 1"x6" subfloor to each joist	3–8d common (2½"x0.131")	face nail
5. 2" subfloor to joist or girder	2–16d common (3½"x0.162")	blind and face nail
6. Sole plate to joist or blocking	16d (3½"x0.135") at 16"o.c. 3"x0.131" nails at 8"o.c. 3" 14 gage staples at 12"o.c.	typical face nail
Sole plate to joist or blocking at braced wall panel	3–16d (3½"x0.135") at 16"o.c. 4–3"x0.131" nails at 16"o.c. 4–3" 14 gage staples at 16"o.c.	braced wall panels
7. Top plate to stud	2–16d (3½"x0.162") 3–3"x0.131" nails 3–3" 14 gage staples	end nail
8. Stud to sole plate	4–8d common (2½"x0.131") 4–3"x0.131" nails 3–3" 14 gage staples	toenail
	2–16d common (3½"x0.162") 3–3"x0.131" nails 3–3" 14 gage staples	end nail
9. Double studs	16d (3½"x0.135") at 24"o.c. 3"x0.131" nail at 8"o.c. 3" 14 gage staples at 8"o.c.	face nail
10. Double top plates	16d (3½"x0.135") at 16"o.c. 3"x0.131" nail at 12"o.c. 3" 14 gage staple at 12"o.c.	typical face nail
Double top plates	8–16d common (3½"x0.162") 12–3"x0.131" nails 12–3" 14 gage staples	lap splice
11. Blocking between joists or rafters to top plate	3–8d common (2½"x0.131") 3–3"x0.131" nails 3–3" 14 gage staples	toenail
12. Rim joist to top plate	8d (2½"x0.131") at 6"o.c. 3"x0.131" nail @ 6"o.c. 3" 14 gage staple at 6"o.c.	toenail
13. Top plates, laps and intersections	2–16d common (3½"x0.162") 3–3"x0.131" nails 3–3" 14 gage staples	face nail
14. Continuous header, two pieces	16d common (3½"x0.162")	16"o.c. along edge
15. Ceiling joist to plate	3–8d common (2½"x0.131") 5–3"x0.131" nails 5–3" 14 gage staples	toenail
16. Continuous header to stud	4–8d common (2½"x0.131")	toenail
17. Ceiling joists, laps over partitions (see Section 2308.10.4.1, Table 2308.10.4.1)	3–16d common (3½"x0.162") min. Table 2308.10.4.1 4–3"x0.131" nails 4–3" 14 gage staples	face nail
18. Ceiling joists to parallel rafters (see Section 2308.10.4.1, Table 2308.10.4.1)	3–16d common (3½"x0.162") min. Table 2308.10.4.1 4–3"x0.131" nails 4–3" 14 gage staples	face nail
19. Rafter to plate (see Section 2308.10.1. Table 2308.10.1)	3–8d common (2½"x0.131") 3–3"x0.131" nails 3–3" 14 gage staples	toenail
20. 1" diagonal brace to each stud and plate	2–8d common (2½"x0.131") 2–3"x0.131" nails 3–3" 14 gage staples	face nail
21. 1"x8" sheathing to each bearing	3–8d common (2½"x0.131")	face nail
22. Wider than 1"x8" sheathing to each bearing	3–8d common (2½"x0.131")	face nail
23. Built-up corner studs	16d common (3½"x0.162") 3"x0.131" nails 3" 14 gage staples	24"o.c. 16"o.c. 16"o.c.
24. Built-up girder and beams	20d common (4"x0.192") 32"o.c. 3"x0.131" nail at 24"o.c. 3" 14 gage staple at 24"o.c.	face nail at top & bottom staggered on opposite sides
	2–20d common (4"x0.192") 3–3"x0.131" nails 3–3" 14 gage staples	face nail at ends and at each splice
25. 2" planks	16d common (3½"x0.162")	at each bearing
26. Collar tie to rafter	3–10d common (3"x0.148") 4–3"x0.131" nails 4–3" 14 gage staples	face nail
27. Jack rafter to hip	3–10d common (3"x0.148") 4–3"x0.131" nails 4–3" 14 gage staples	toenail
	2–16d common (3½"x0.162") 3–3"x0.131" nails 3–3" 14 gage staples	face nail
28. Roof rafter to 2–by ridge beam	2–16d common (3½"x0.162") 3–3"x0.131" nails 3–3" 14 gage staples	toenail
	2–16d common (3½"x0.162") 3–3"x0.131" nails 3–3" 14 gage staples	face nail
29. Joist to band joist	3–16d common (3½"x0.162") 4–3"x0.131" nails 4–3" 14 gage staples	face nail
30. Ledger strip	3–16d common (3½"x0.162") 4–3"x0.131" nails 4–3" 14 gage staples	face nail at each joist
31. Wood structural panels and particleboard Subfloor, roof and wall sheathing (to framing)	½" & less	6d[c,j]
	19/32" to ¾"	2⅜"x0.113" nail[c] 1¾"16gage[b] 8d[c] or 6d[d]
		2⅜"x0.113" nail[c] 2"16 gage[b] 8d[c]
	⅞" to 1"	10d[c] or 8d[c]
	1⅛" to 1¼"	
Single floor (combination subfloor–underlayment to framing)	¾" & less	8d[c]
	⅞" to 1"	8d[c]
	1⅛" to 1¼"	10d[c] or 8d[c]
32. Panel siding (to framing)	½" or less	6d[c]
	⅝"	8d[c]
33. Fiberboard sheathing[g]	½"	No.11 gage roofing nail[h] 6d common nail (2"x0.113") No.16 gage staple[i]
	25/32"	No.11 gage roofing nail[h] 8d common nail (2½"x0.113") No.16 gage staple[i]
34. Interior paneling	¼"	4d[j]
	⅜"	6d[k]

For SI: inch = 25.4mm
a. Common or box nails are permitted to be used except where otherwise stated.
b. Nails spaced at 6 inches on center at edges, 12 inches at intermediate supports except 6 inches at supports where spans are 48 inches or more. for nailing of wood structural panel and particleboard diaphragms and shear walls, refer to Section 2305. Nails for wall sheathing are permitted to be common, box or casing.
c. Common or deformed shank (6d–2"x0.113"; 8d–2½"x0.131"; 10d–3"x0.148").
d. Common (6d–2"x0.113"; 8d–2½"x0.131"; 10d–3"x0.148").
e. Deformed shank (6d–2"x0.113"; 8d–2½"x0.131"; 10d–3"x0.148")
f. Corrosion-resistant siding (6d–1⅞"x0.106"; 8d–2⅜"x0.128") or casing (6d–2"x0.099"; 8d–2½"x0.113") nail.
g. Fasteners spaced 3 inches on center at exterior edges and 6 inches on center at intermediate supports, when used as structural sheathing. Spacing shall be 6 inches on center on the edges and 12 inches on center at intermediate supports for nonstructural applications.
h. Corrosion–resistant roofing nails with 7/16–inch diameter head and 1½–inch sheathing and 1¾–inch length for 25/32–inch sheathing.
i. Corrosion–resistant staples with nominal 7/16–inch crown or 1–inch crown and 1¼–inch length for ½–inch sheathing and 1½–inch length for 25/32–inch sheathing. Panel supports at 16 inches (20 inches if strength axis int he long direction of the panel, unless otherwise marked).
j. Casing (1½"x0.080") or finish (1½"x0.072") nails spaced 6 inches on panel edges, 12 inches at intermediate supports.
k. Panel supports at 24 inches. Casing or finish nails spaced 6 inhes on panel edges, 12 inches at intermediate supports.
l. For roof sheathing applications, 8d nails (2½"x0.113") are the minimum required for wood structural panels.
m. Staples shall have a minimum crown width of 7/16 inch.
n. For roof sheathing applications, fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports.
o. Fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports for subfloor and wall sheathing and 3 inches on center at edges, 6 inches at intermediate supports for roof sheathing.
p. Fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports.

DETAIL

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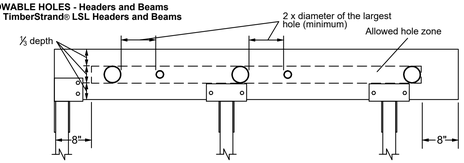
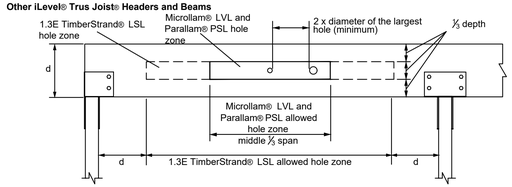
ALLOWABLE HOLES - Headers and Beams
1.55E TimberStrand® LSL Headers and Beams



Other iLevel® Trus Joist® Headers and Beams



General Notes

- Allowed hole zone suitable for headers and beams with **uniform and/or concentrated loads**.
- Round holes only
- No holes in headers or beams in plank orientation.

1.55E TimberStrand® LSL

Header or Beam Depth	Maximum Round Hole Size
9¼"-9½"	3"
11¼"-11 7/8"	3½"
14"-16"	4½"

See illustration for allowed hole zone

General Notes

- Allowed hole zone suitable for headers and beams with **uniform loads only.**
- Round holes only
- No holes in cantilevers.
- No holes in headers or beams in plank orientation.

Other iLevel® Trus Joist® Beams

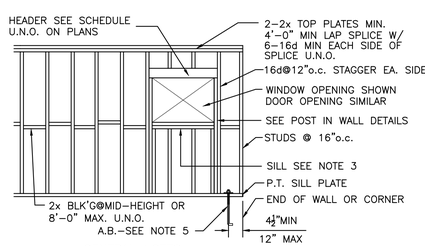
Header or Beam Depth	Maximum Round Hole Size
4½"	1"
5½"	1½"
7¼"- 20"	2"

See illustration for Allowed Hole Zone

DO NOT cut, notch or drill holes in headers or beams except as indicated in illustrations and tables.

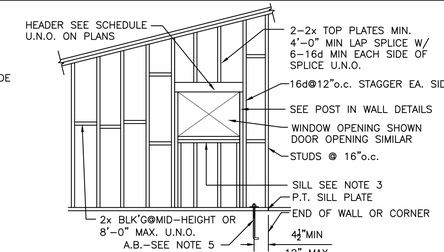
DETAIL

4 S12



GENERAL NOTES

HEADER SCHEDULE U.N.O.		
d	SPAN #1	SPAN #2
3/8"	6'–0" OR LESS	4'–0" OR LESS
5/8"	6'–0" TO 9'–0"	4'–0" TO 6'–0"
7/8"	9'–0" TO 12'–0"	6'–0" TO 9'–0"
9/8"	12'–0" TO 16'–0"	9'–0" TO 12'–0"
11⅛"	16'–0" TO 20'–0"	12'–0" TO 16'–0"



1. SPAN #1 SUPPORTS ROOF ONLY
   SPAN #2 SUPPORTS ROOF AND FLOOR OR FLOOR ONLY
2. WIDTH OF HEADER SAME AS SUPPORTING STUDS
3. 2–2x PLATES FOR WIDTH GREATER THAN 4'–0"
   1–2x PLATE FOR LESS THAN 4'–0"
4. SEE NAIL'G SCHEDULE FOR ALL OTHER NAILING CONDITIONS
5. USE 2x SILL PLATES w/ ⅝"ø ANCHOR BOLTS x12" LONG @ 4'–0"o.c. w/ 3"SQ.x0.229" WASHERS TYP. U.N.O.
6. USE PARALLAM FOR HEADERS DEEPER THAN 7¼"

TYPICAL STUD WALL FRAMING REQUIREMENTS

DETAIL

5 S12

BSE

BURKE STRUCTURAL ENGINEERS, PC
151 KALMUS DRIVE, BLDG. E-140
COSTA MESA, CA., 92626
(657) 289-0460

REGISTERED PROFESSIONAL ENGINEER THOMAS J. BURKE No. 9088 STRUCTURAL STATE OF CALIFORNIA

REVISIONS	BY

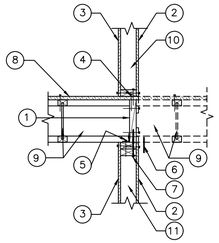
TYPICAL WOOD DETAILS

HENRY KHUU

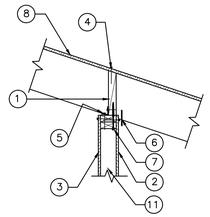
NEW RESIDENCE + ADDITION

12322 LAMPSON AVE., GARDEN GROVE, CA 92840

DATE 2020–04–06
SCALE AS SHOWN
DRAWN BY TPH/SD
JOB NO. 19107
SHEET ST2
OF SHEETS



DIAPHRAGM TRANSFER DETAIL

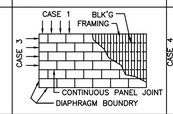
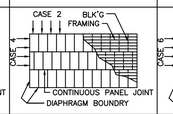
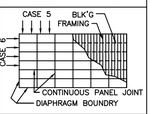
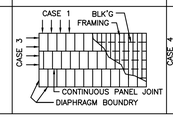
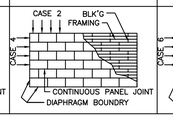
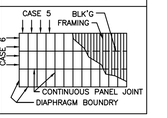


DIAPHRAGM TRANSFER DETAIL

FRAMING NOTES
1. SHEAR TRANSFER BLK'G OR RIM – SEE SCHEDULE, FRAMING DETAILS AND SHEAR WALL SCHEDULE
2. SHEAR PANEL ON ONE SIDE
3. SHEAR PANEL ON SECOND SIDE WHERE OCCURS – SEE PLAN
4. BOUNDARY NAILING (BN) PROVIDE ⅜" MINIMUM EDGE DISTANCE. INTERIOR SHEAR WALLS REQUIRE DOUBLE BOUNDARY NAILING (WALLS WHERE THE DIAPHRAGM EXTENDS PAST EACH SIDE OF THE WALL).
5. OPTION 1. SHEAR TRANSFER HARDWARE A35 – SEE SCHEDULE
6. OPTION 2. SHEAR TRANSFER HARDWARE LTP4 – SEE SCHEDULE. MAY BE INSTALLED OVER ½" SHT'G WITH 8d COMMON NAIL (2½" LENGTH)
7. OPTION 3. SHEAR TRANSFER FASTENER – SEE SCHEDULE
8. HORIZONTAL DIAPHRAGM – SEE PLANS
9. FRAMING PERPENDICULAR OR PARALLEL TO WALL – SEE PLANS
10. SHEAR WALL ABOVE WHERE OCCURS – SEE PLAN
11. SHEAR WALL BELOW WHERE OCCURS – SEE PLAN

SHEATHING MATERIAL/GRADE	MIN. NOMINAL PANEL THICKNESS (in.)	MIN FASTENER PENETRATION INTO FRAMING MEMBER OR BLOCKING	COMMON WIRE NAIL	MINIMUM NOMINAL WIDTH OF NAILED FACE AT ADJOINING PANEL EDGES AND BOUNDARIES (in.)	FASTENER SPACING (in.) AT BOUNDARIES (ALL CASES) (BN), @ CONTINUOUS PANEL EDGES PARALLEL TO LOAD (CASE 3&4), AND AT ALL PANEL EDGES (CASES 5&6)	FASTENER SPACING (in.) AT ALL OTHER PANEL EDGES (CASES 1, 2, 3, 4, 5) (EN)	FASTENER SPACING ALONG INTERMEDIATE FRAMING MEMBERS AND BLOCKING (FN) (in)	SHEAR CAPACITY, ASD, SEISMIC (plf)	SHEAR TRANSFER OPTIONS. A35'S OR LTP4'S OR SDS SCREWS		
									SIMPSON SHEAR TRANSFER HARDWARE, 25% INCREASE FOR IRREGULARITIES PER ASCE		SIMPSON SDS 0.25" SCREW MAX. SPACING (in.), 3" MINIMUM EMBEDMENT. 25% INCREASE FOR IRREGULARITIES PER ASCE
									A35 MAXIMUM SPACING (in)	LTP4 MAXIMUM SPACING (in)	
WOOD STRUCTURAL PANELS – STRUCTURAL 1 GRADE	15/32 AND THICKER	1½"	10d	2	6	6	12	320	16	16	16
				2	4	6	12	425	12	12	12
				2	2.5	4	12	640	8	8	8
				2	2	3	12	730	8	8	7
				3	6	6	12	360	16	16	14
				3	4	6	12	480	12	12	10
				3	2.5	4	12	720	8	8	7
				3	2	6	12	820	8	7	6
WOOD STRUCTURAL PANELS – APA RATED SHEATHTING	15/32	1½"	10d	2	6	6	12	290	20	22	18
				2	4	6	12	385	16	16	13
				2	2.5	4	12	575	10	8	9
				2	2	3	12	655	10	8	7
				3	6	6	12	325	20	18	16
				3	4	6	12	430	12	12	12
				3	2.5	4	12	650	8	8	8
				3	2	6	12	735	8	8	7
WOOD STRUCTURAL PANELS – APA RATED SHEATHTING	19/32 AND THICKER	1½"	10d	2	6	6	12	320	16	16	16
				2	4	6	12	425	12	12	12
				2	2.5	4	12	640	8	8	8
				2	2	3	12	730	8	8	7
				3	6	6	12	360	16	16	14
				3	4	6	12	480	12	12	10
				3	2.5	4	12	720	8	8	7
				3	2	6	12	820	8	7	6

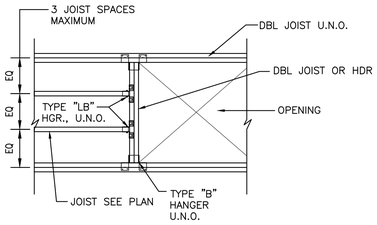
Diaphragm Notes
1. Block edges
2. All joints in sheathing shall occur over and be fastened to common framing members or common blocking.
3. Panels shall not be less than 4'x8' except at boundaries and changes in framing where minimum panel dimension shall be 24" unless all edges of the undersized panels are supported by and fastene4d to framing members or blocking.
4. Nailers shall be located at least 0.375" from the edges of panels. Maximum nail spacing at panels shall be 6" on center.
5. The width of nailed face of framing members and blocking shall be 2" nominal or grater at adjoining panels edges except that a 3" nominal or grater width at adjoining panel edges and staggered nailing at all panels edges are required where: a. Nail spacing of 2.5" on center for less at adjoining panels edges is specified, or b. 10d common nails having penetration into framing members or blocking of more than 1.5" are specified at 3" on center or less at adjoining panels edges.
6. Wood structural panels shall conform to the requirements for their type in DOC PS1 or PS2.
7. See shear wall schedule for other minimum requirements.
8. At shear wall below, use the more restrictive requirement of diaphragm shear transfer and shear wall below shear transfer
9. At shear wall above, use the more restrictive requirement of shear wall bellow shear transfer or diaphragm shear transfer plus shear wall above shear transfer.

	CASES 1&3: CONTINUOUS PANEL JOINTS PERPENDICULAR TO FRAMING	CASES 2&4: CONTINUOUS PANEL JOINTS PARALLEL TO FRAMING	CASES 5&6: CONTINUOUS PANEL JOINTS PERPENDICULAR AND PARALLEL TO FRAMING
LONG PANEL DIRECTION PERPENDICULAR TO SUPPORTS			
LONG PANEL DIRECTION PARALLEL TO SUPPORTS			

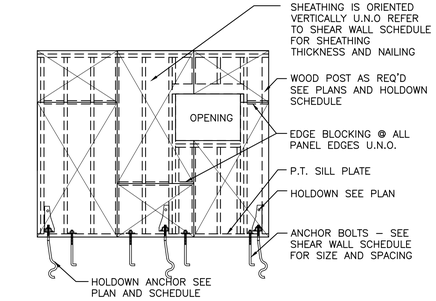
Diaphragm Notes
1. Only cases 1, 2, 3, and 4 shall be used. Do NOT use case 5 or 6

DIAPHRAGM SHEAR TRANSFER SCHEDULE AND DETAILS

DETAIL 1/S13



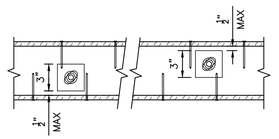
DETAIL 2/S13



Shear Wall Notes
1. Framing at adjoining panel edges shall be 3" nominal or wider, and nails shall be staggered where nails are spaced 2" on center.
2. Framing at adjoining panel edges shall be 3" nominal or wider, and nails shall be staggered where both the following conditions occurs:
   (A) 10dx3" nails having a penetration into framing of more than 1½" and
   (B) nails are spaced 3" on center.
3. Where panels applied on both faces of a wall and nail spacing is less than 6" o.c. on either side, panel joints shall be offset to fall on different framing members, or framing shall be 3" nominal or thicker at adjoining panel edges and nails on each side shall be staggered.
4. Where shear values exceed 350plf, all framing members receiving edge nailing from abutting panels shall not be less than a single 3" nominal member. Wood structural panel joint and sill plate nailing shall be staggered. Sill plates shall not be less than a 3" nominal member. Min 3x3x.229" square plate washers shall be used with all anchor bolts in shear wall sill plates.
5. Galvanized nails shall be hot dipped or tumbled.

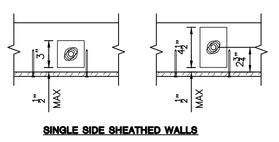
VERTICAL SHEARWALL SHEATHING

DETAIL 3/S13

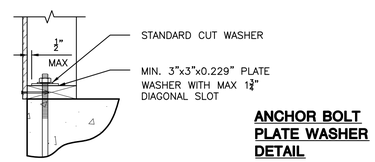


2x6 AND LARGER WALLS SHEATHED BOTH SIDE

2x6 WALLS SHEATHED BOTH SIDES

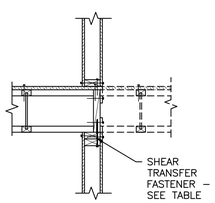


SINGLE SIDE SHEATHED WALLS



ANCHOR BOLT PLATE WASHER DETAIL

DETAIL 4/S13



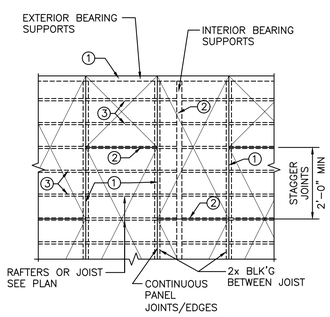
SHEAR TRANSFER DETAIL

ALTERNATIVE TOP PLATE SHEAR TRANSFER CONNECTION

SHEAR WALL TYPE	SHEATHING MATERIAL	MIN. NOMINAL PANEL THICKNESS (in)	EDGE NAILING (EN)	ALLOWABLE SHEAR; PLF; ASD; SEISMIC	MIN. SHEAR TRANSFER BLK'G/RIM; SINGLE SIDED WALL	SHEAR TRANSFER FASTENER; SINGLE SIDED WALL	MIN SHEAR TRANSFER BLK'G/RIM; SINGLE SIDED WALL	SHEAR TRANSFER FASTENER; DOUBLE SIDED WALL
A	APA RATED GRADE	15/32	10d@6"o.c.	310	1½"LSL/2x	¼"x6" SDS@12"o.c.	3½"PSL	¼"x6" SDS@6"o.c.
B			10d@4"o.c.	460	1½"LSL/2x	¼"x6" SDS@10"o.c.	3½"PSL	¼"x6" SDS@5"o.c.
C			10d@3"o.c.	600	1½"LSL/2x	¼"x6" SDS@8"o.c.	3½"PSL	2–ROWS ¼"x6" SDS@6"o.c. EA. ROW
D			10d@2"o.c.	770	3½"PSL/4x	¼"x6" SDS@6"o.c.	3½"PSL	2–ROWS ¼"x6" SDS@6"o.c. EA. ROW
E	STRUCTURAL 1 GRADE	15/32	10d@6"o.c.	340	1½"LSL/2x	¼"x6" SDS@12"o.c.	3½"PSL	¼"x6" SDS@6"o.c.
F			10d@4"o.c.	510	1½"LSL/2x	¼"x6" SDS@8"o.c.	3½"PSL	¼"x6" SDS@4"o.c.
G			10d@3"o.c.	665	3½"PSL/4x	¼"x6" SDS@7"o.c.	3½"PSL	2–ROWS ¼"x6" SDS@6"o.c. EA. ROW
H			10d@2"o.c.	870	3½"PSL/4x	¼"x6" SDS@5"o.c.	3½"PSL	2–ROWS ¼"x5" SDS@6"o.c. EA. ROW

NOTES:
1. See shear wall schedule detail for additional shear connection information and details
2. Simpson SDS fastener replaces the LTP4/A35 Simpson shear transfer hardware
3. Use 2x and 4x blocking with sawn lumber framing/joist. Use LSL and PSL with structural composite framing/joist
4. SDS length based on 2–2x plates. Use longer screw for thicker plates.
5. 2" min screw penetration into blocking req'd
6. ICC–ES ESR–2236; LA RR25711, FL9589

DETAIL 5/S13



DIAPHRAGM SHEATHING

NOTES:
1. BOUNDARY NAIL (BN) AT EDGES OF DIAPHRAGM AND AT CONTINUOUS PANEL EDGES.
2. EDGE NAIL (EN) EDGES OF ALL SHEETS. EDGE NAIL AT BEARING SUPPORTS
3. INTERMEDIATE NAILING (FIELD NAILING, FN) @ 12"o.c.
4. SEE PLAN FOR SHEATHING TYPE, THICKNESS AND NAILING
5. LONG DIMENSION OF SHEATHING SHALL RUN PERPENDICULAR TO JOIST OR RAFTERS
6. MIN. EDGE DISTANCE FOR SHEATHING NAILS SHALL BE ⅜"
7. MINIMUM SHEATHING PANEL SIZE SHALL BE 2'–0"x4'–0"
8. PROVIDE 1/16" GAP BETWEEN ADJACENT SHEETS OF SHEATHING.
9. FRAMING AT ADJOINING PANEL EDGES SHALL BE 3" NOMINAL OR WIDER, AND NAILS SHALL BE STAGGERED WHERE NAILS ARE SPACED 2" o.c. OR 2½" o.c.
10. FRAMING AT ADJOINING PANELS EDGES SHALL BE 3" NOMINAL OR WIDER, AND NAILS SHALL BE STAGGERED WHERE BOTH OF THE FOLLOWING CONDITIONS ARE MET: (a) 10d NAILS HAVING PENETRATION INTO FRAMING OF MORE THAN 1½" AND (b) NAILS ARE SPACED 3" o,c. OR LESS.

DETAIL 6/S13

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REVISIONS	BY

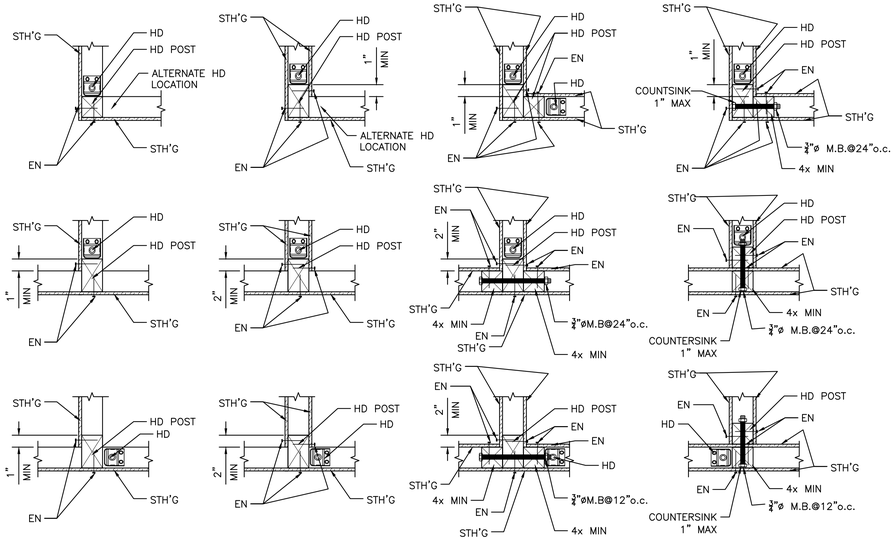
TYPICAL WOOD DETAILS

HENRY KHUU

NEW RESIDENCE + ADDITION

12322 LAMPSON AVE., GARDEN GROVE, CA 92840

DATE 2020-04-06
SCALE AS SHOWN
DRAWN BY TPH/SD
JOB NO. 19107
SHEET ST3
OF SHEETS

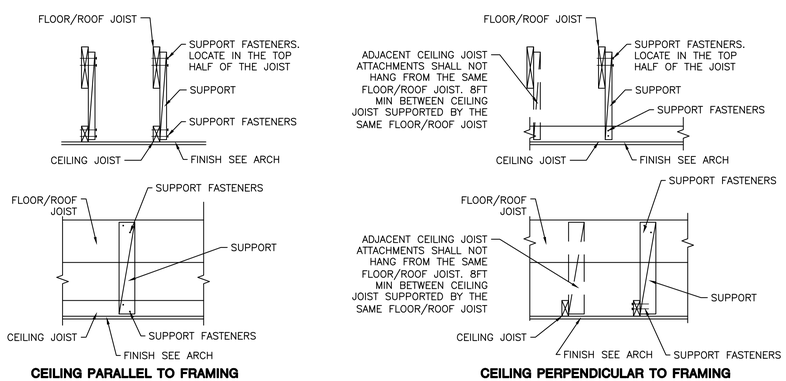


SHEARWALL INTERSECTIONS

DETAIL 1/ST4

CEILING FRAMING SCHEDULE U.N.O. 42" MAX. CLEAR BETWEEN CEILING JOIST & FRAMING ABOVE				
JOIST SIZE & SPACING	JOIST SPAN BETWEEN SUPPORTS	SUPPORTS (MIN SIZE)	SUPPORT FASTENERS (MIN)	
2x4@16"o.c.	LESS THAN 8FT	2X4	2–10d	
2x6@16"o.c.	8FT TO 12 FT	2X4	3–10d	
2x8@16"o.c.	12FT TO 16 FT	2X6	3–16d	

1. NO STORAGE ABOVE CEILING JOIST, 10 psf LIVE LOAD
2. DOUGLAS FIR–LARCH #1 GRADE LUMBER
3. DRYWALL FINISH, ⅝" MAX, SINGLE LAYER
4. WALL STUDS AT 16"o.c. MAX
5. –– NO BLK'G REQ'D



CEILING PARALLEL TO FRAMING

CEILING PERPENDICULAR TO FRAMING

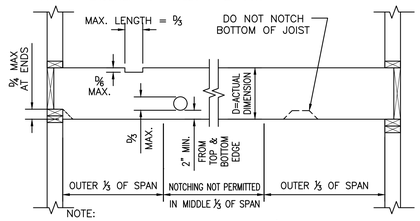
CEILING FRAMING DETAILS NON-STRUCTURAL

DROPPED CEILING FRAMING DETAIL 4/ST4

TABLE 1: MAXIMUM SIZES FOR CUTS IN 2x JOISTS

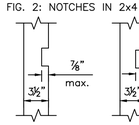
Joist Size	Max. Hole	Max. Notch Depth	Max. End Notch
2x4	none	none	none
2x6	1½"	⅞"	1⅜"
2x8	2⅜"	1¼"	1⅞"
2x10	3"	1½"	2⅜"
2x12	3¾"	1⅞"	2⅞"

FIG. 1: PLACEMENT OF HOLES IN 2x JOIST



NOTE:
1. HOLES ONLY PERMITTED IN MIDDLE ⅓ OF SPAN
2. MIN CLEAR SPACE BETWEEN HOLES = 4x DIA.

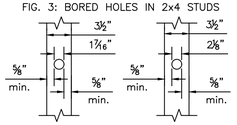
FIG. 2: NOTCHES IN 2x4 STUDS



25% allowed in exterior and bearing walls

40% allowed in any non–bearing wall

FIG. 3: BORED HOLES IN 2x4 STUDS



40% allowed in any wall

60% allowed in any non–bearing wall or in bearing walls with not more than two successive studs bored and doubled

FIGURES 2 AND 3 ILUSTRATE 25%, 40% AND 60% NOTCHES OR HOLES IN 2x4s (e.g. 0.25x3½ = 0.875 OR ⅞").
THESE PERCENTAGES APPLY TO STUDS OF ANY SIZE.

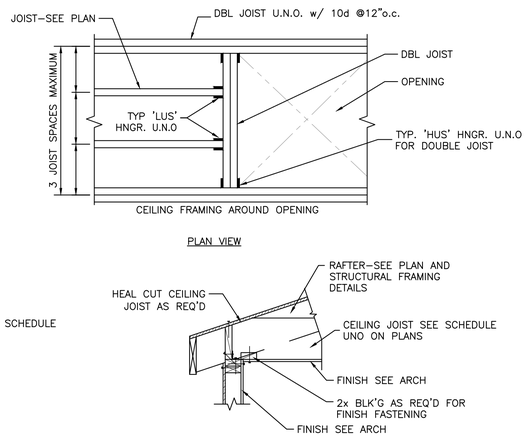
DETAIL 2/ST4

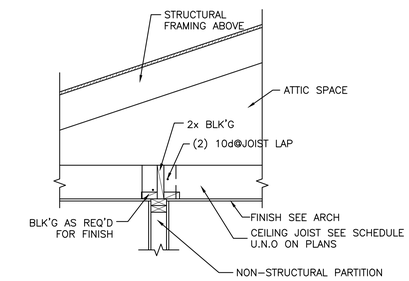
CEILING FRAMING SCHEDULE U.N.O. 42" MAX. CLEAR BETWEEN CEILING JOIST & FRAMING ABOVE				
JOIST SIZE & SPACING	JOIST SPAN	LEDGER FASTENERS	HANGER	BLK'G MAX SPACING
2x6@16"o.c.	12FT OR LESS	2–16d	LUS26	––
2x8@16"o.c.	12FT TO 16 FT	2–16d	LUS28	––
2x10@16"o.c.	16FT TO 22 FT	3–16d	LUS210	12ft o.c.
2x12@16"o.c.	22FT TO 25.5 FT	4–16d	LUS210	12ft o.c.

1. NO STORAGE ABOVE CEILING JOIST, 10 psf LIVE LOAD
2. DOUGLAS FIR–LARCH #1 GRADE LUMBER
3. DRYWALL FINISH, ⅝" MAX, SINGLE LAYER
4. WALL STUDS AT 16"o.c. MAX
5. –– NO BLK'G REQ'D

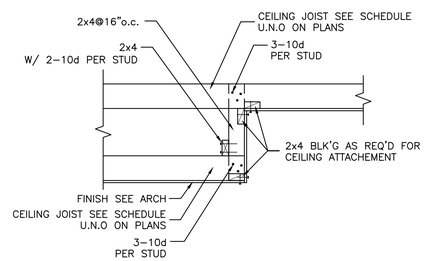
CEILING FRAMING SCHEDULE U.N.O. 42" OR MORE CLEAR BETWEEN CEILING JOIST & FRAMING ABOVE				
JOIST SIZE & SPACING	JOIST SPAN	LEDGER FASTENERS	HANGER	BLK'G MAX SPACING
2x6@16"o.c.	12FT OR LESS	2–16d	LUS26	––
2x8@16"o.c.	12FT TO 15 FT	3–16d	LUS28	––
2x10@16"o.c.	15FT TO 19 FT	3–16d	LUS210	12ft o.c.
2x12@16"o.c.	19FT TO 23.5 FT	4–16d	LUS210	8ft o.c.

1. 20 psf LIVE LOAD
2. DOUGLAS FIR–LARCH #1 GRADE LUMBER
3. DRYWALL FINISH, ⅝" MAX, SINGLE LAYER
4. WALL STUDS AT 16"o.c. MAX
5. –– NO BLK'G REQ'D





CEILING AT NON–STRUCTURAL PARTITION



CEILING DROP

CEILING FRAMING DETAILS NON-STRUCTURAL

CEILING FRAMING DETAIL 3/ST4

SHEATHING SEE PLAN
EN
1/16", PROVIDE GAP FOR EXPANSION OF SHEATHING
2x FLAT BLK'G SIMPSON "Z2" CLIP EACH SIDE OPTIONAL

THE NAIL HEAD SHALL NOT BREAK THE FACE PLY. IF THE NAILS BREAK THE FACE PLY, THE NAIL SHALL BE REMOVED AND RENAILED INTO FIRM ADJACENT WOOD.

SHEATHING BLOCKING

DETAIL 3/ST4

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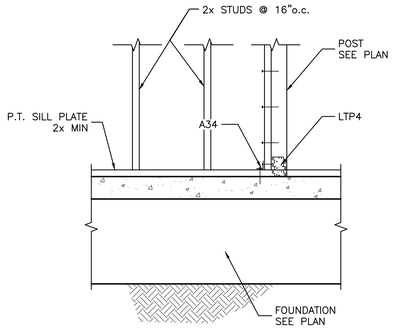
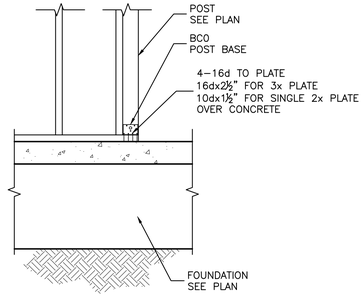
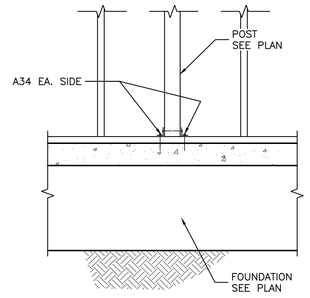
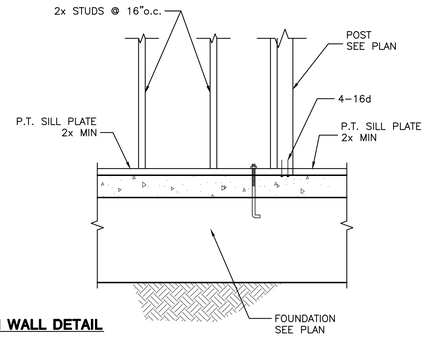


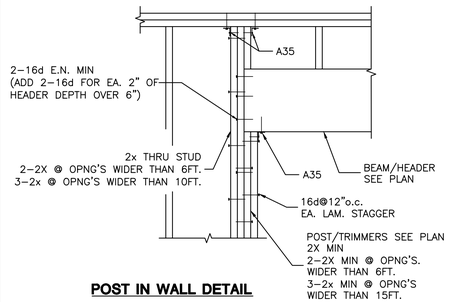




POST IN WALL DETAIL

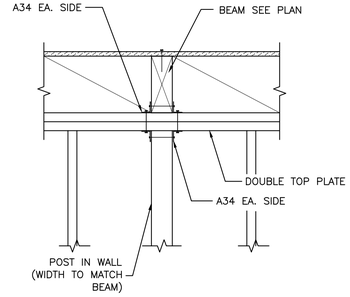


DETAIL 1/S15



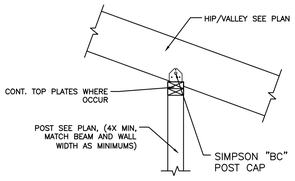
POST IN WALL DETAIL

DETAIL 2/S15

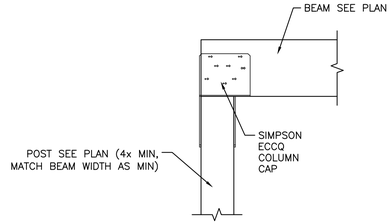


POST IN WALL DETAIL

DETAIL 3/S15

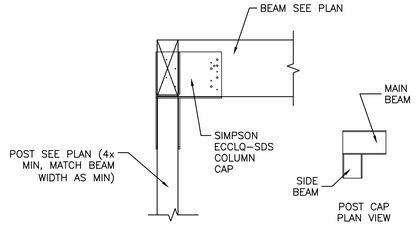


DETAIL 4/S15



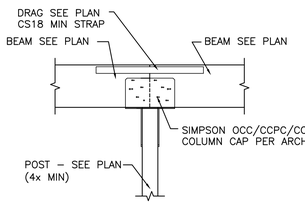
BEAM TO POST

DETAIL 5/S15

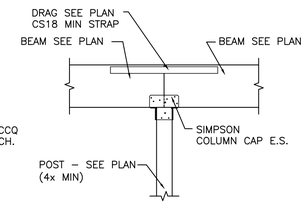


BEAM TO POST

DETAIL 6/S15



BEAM TO BEAM CONNECTION AT COLUMN



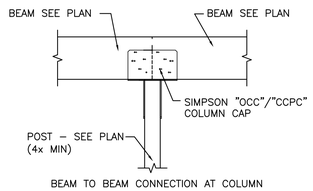
BEAM TO BEAM CONNECTION AT COLUMN

SIMPSON COIL STRAP	FASTENERS	le	CAPACITY (ASD, 1.6)
CMST12	74–16d	33"	9,215#
	86–10d	39"	
CMST14	56–16d	26"	6,490#
	66–10d	30"	
CMSTC16	50–16d SINKERS	20"	4,585#
CS14	26–10d	26"	2,490#
	30–8d	30"	
CS16	20–10d	11"	1,705#
	22–8d	13"	
CS18	16–10d	9"	1,370#
	18–8d	11"	
CS20	12–10d	7"	1,030#
	14–8d	9"	
CS22	10–10d	7"	845#
	12–8d	9"	

NOTES:
1. USE ½ OF THE REQUIRED FASTENERS IN EACH MEMBER BEING CONNECTED

BEAM TO BEAM AT POST DETAIL

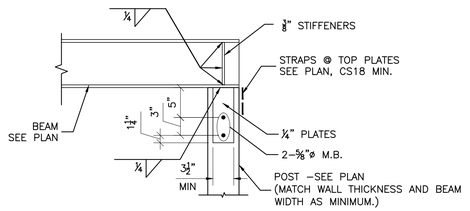
DETAIL 7/S15



BEAM TO BEAM CONNECTION AT COLUMN

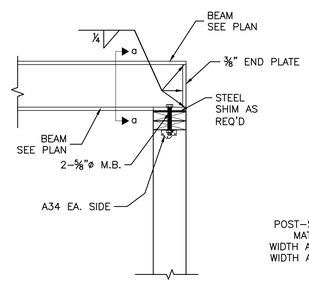
BEAM TO BEAM AT POST DETAIL

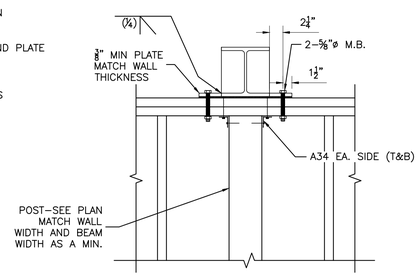
DETAIL 8/S15



STEEL BEAM TO WOOD COLUMN DETAIL

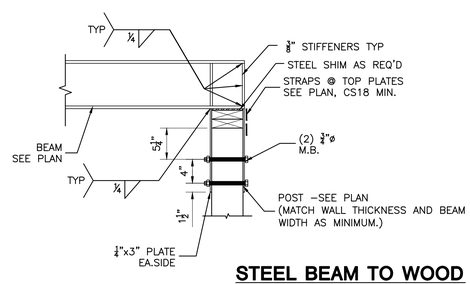
DETAIL 9/S15



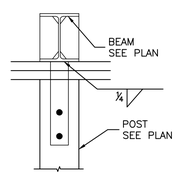


SECTION a–a

DETAIL 10/S15



STEEL BEAM TO WOOD COLUMN DETAIL



DETAIL 11/S15

BSE
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151 KALMUS DRIVE, BLDG. E-140
COSTA MESA, CA., 92626
(657) 289-0460

REGISTERED PROFESSIONAL ENGINEER THOMAS J. BURKE No. 9088 STRUCTURAL STATE OF CALIFORNIA

REVISIONS	BY

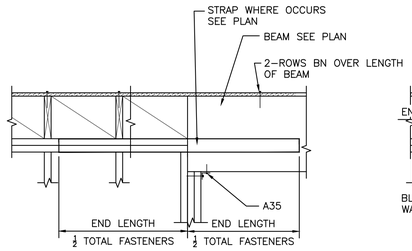
TYPICAL POST IN WALL DETAILS

HENRY KHUU

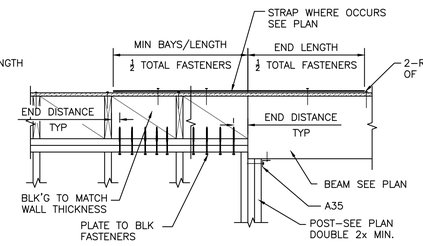
NEW RESIDENCE + ADDITION

12322 LAMPSON AVE., GARDEN GROVE, CA 92840

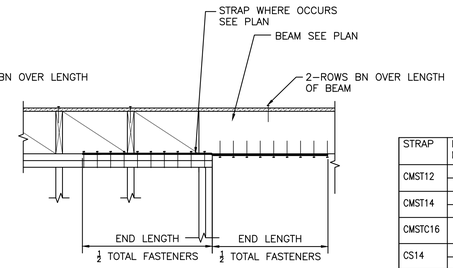
DATE 2020-04-06
SCALE AS SHOWN
DRAWN BY TPH/SD
JOB NO. 19107
SHEET ST5
OF SHEETS



BEAM TO DOUBLE TOP PLATES



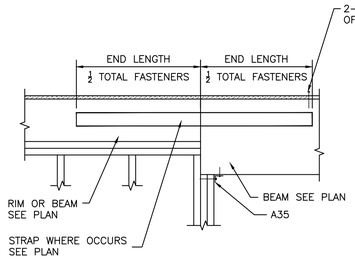
BEAM TO BLK'G



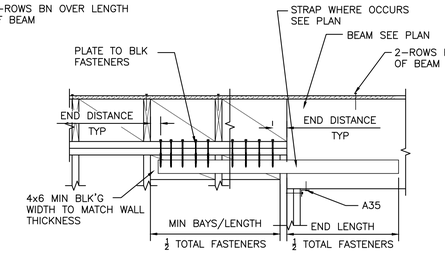
BEAM TO DOUBLE TOP PLATES

STRAP	END LENGTH MIN	MIN BLK'G BAYS/LENGTH	FASTENERS	BLK' TO PLATE FASTENERS	WELD LENGTH E.S.	ALLOWABLE TENSION (160)
CMST12	33"	3 –BAYS 48" MIN	74–16d	17–SDS¼"x8" OR 15–½ø x8" LAG	7"	9215
	39"		86–10d			9215
CMST14	26"	3 –BAYS 48" MIN	56–16d	12–SDS¼"x8" OR 11–½ø x8" LAG	6"	6490
	30"		66–10d			6490
CMSTC16	20"	2 –BAYS 32" MIN	50–16d SINKER	9–SDS¼"x8" OR 8–½ø x8" LAG	4"	4586
CS14	15"	2 –BAYS 32" MIN	26–10d	6–SDS¼"x8" OR 4–½ø x8" LAG	3"	2490
	16"		30–8d			2490
CS16	11"	2 –BAYS 32" MIN	20–10d	5–SDS¼"x8" OR 3–½ø x8" LAG	3"	1705
	13"		22–8d			1705
CS18	9"	1 –BAY 16" MIN	16–10d	3–SDS¼"x8" OR 3–½ø x8" LAG	3"	1370
	11"		18–8d			1370
CS20	7"	1 –BAY 16" MIN	12–10d	3–SDS¼"x8" OR 2–½ø x8" LAG	3"	1030
	9"		14–8d			1030
CS22	7"	1 –BAY 16" MIN	10–10d	3–SDS¼"x8" OR 2–½ø x8" LAG	3"	845
	9"		12–8d			845

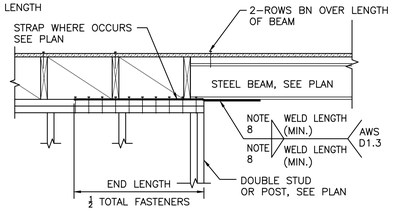
NOTES
1. USE ½ OF THE REQUIRED NAILS IN EACH MEMBER BEING CONNECTED
2. NAIL; 16d=0.162"ø x3½", 16d Sinker = 0.148"ø x3¼" LONG, 10d=0.148"ø x3"LONG, 8d=0.131"ø x2½" LONG
3. INSTALL BLK TO PLATE FASTENERS IN 2 ROWS, OFFSET ¾" BETWEEN ROWS, STAGGER
4. ½"ø LAGS HAVE A 3½" END DISTANCE FOR BLK'S AND PLATES
5. STRAP LENGTH ON BLK'G TO BE THE LONGER OF END LENGTH OR MIN BAY LENGTH
6. FOR MULTIPLE STRAPS, MULTIPLY 'MIN BLK'G BAY/LENGTH' AND BLK'G TO PLATE FASTENERS' BY THE NUMBER OF STRAPS.
7. STRAPS WITH 8d NAILS SHALL BE INSTALLED BENEATH SHEATHING
8. STRAP WELD SIZE TO MATCH STRAP THICKNESS.



BEAM TO RIM/BEAM



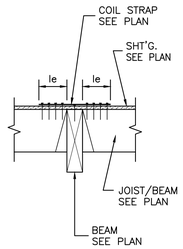
BEAM TO SIDE BLK'G



STL BEAM TO DOUBLE TOP PLATES

DRAG/COLLECTOR DETAIL

DETAIL 1/ST6

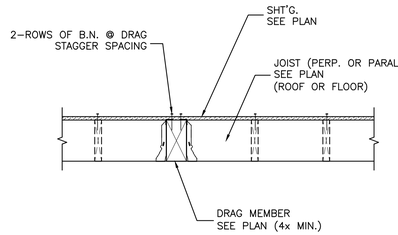


SIMPSON COIL STRAP	FASTENERS	le	CAPACITY (ASD, 1.6)
CMST12	74–16d	33"	9,215#
	86–10d	39"	
CMST14	56–16d	26"	6,490#
	66–10d	30"	
CMSTC16	50–16d SINKERS	20"	4,585#
CS14	26–10d	26"	2,490#
	30–8d	30"	
CS16	20–10d	11"	1,705#
	22–8d	13"	
CS18	16–10d	9"	1,370#
	18–8d	11"	
CS20	12–10d	7"	1,030#
	14–8d	9"	
CS22	10–10d	7"	845#
	12–8d	9"	

NOTES:
1. USE ½ OF THE REQUIRED FASTENERS IN EACH MEMBER BEING CONNECTED
2. USE MIN 4x JOIST/BEAM WITH 3" WIDE STRAPS
3. STRAPS WITH 8d NAILS SHALL BE INSTALLED BENEATH STHEATHING

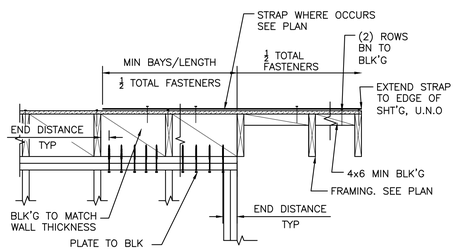
DRAG DETAIL

DETAIL 2/ST6

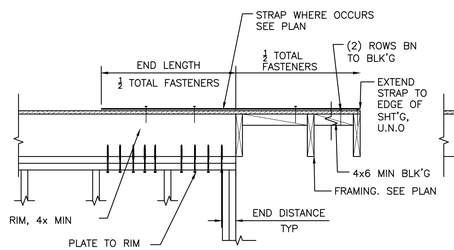


DRAG DETAIL

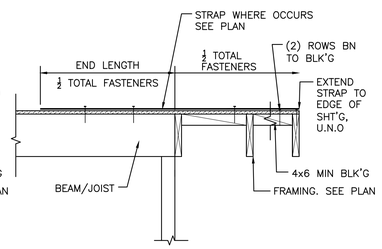
DETAIL 5/ST6



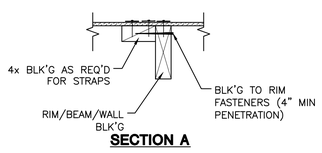
STRAP TO BLK'G



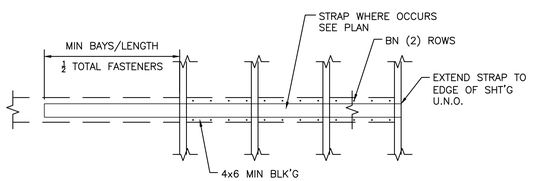
STRAP TO RIM



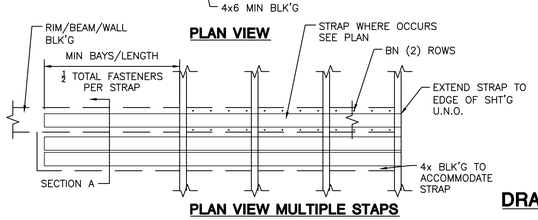
STRAP TO BEAM/JOIST



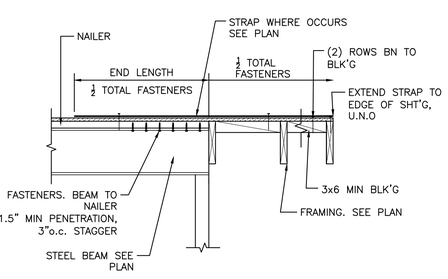
SECTION A



PLAN VIEW



PLAN VIEW MULTIPLE STAPS



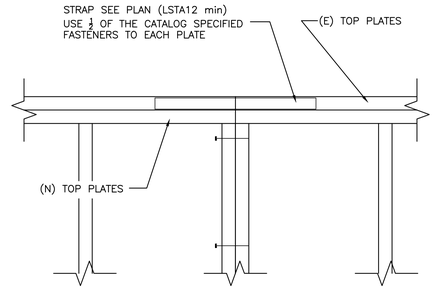
STRAP TO STEEL BEAM

STRAP	END LENGTH MIN	MIN BLK'G BAYS/LENGTH	FASTENERS	BLK' TO PLATE FASTENERS	BLK' TO RIM	BEAM TO NAILER	ALLOWABLE TENSION (160)
CMST12	33"	3 –BAYS 48" MIN	74–16d	17–SDS¼"x8" OR 15–½ø x8" LAG	15–½ø x8" LAG	14–SDS¼"	9215
	39"		86–10d				9215
CMST14	26"	3 –BAYS 48" MIN	56–16d	12–SDS¼"x8" OR 11–½ø x8" LAG	11–½ø x8" LAG	10–SDS¼"	6490
	30"		66–10d				6490
CMSTC16	20"	2 –BAYS 32" MIN	50–16d SINKER	9–SDS¼"x8" OR 8–½ø x8" LAG	8–½ø x8" LAG	7–SDS¼"	4586
CS14	15"	2 –BAYS 32" MIN	26–10d	6–SDS¼"x8" OR 4–½ø x8" LAG	4–½ø x8" LAG	6–SDS¼"	2490
	16"		30–8d				2490
CS16	11"	2 –BAYS 32" MIN	20–10d	5–SDS¼"x8" OR 3–½ø x8" LAG	3–½ø x8" LAG	6–SDS¼"	1705
	13"		22–8d				1705
CS18	9"	1 –BAY 16" MIN	16–10d	3–SDS¼"x8" OR 3–½ø x8" LAG	3–½ø x8" LAG	6–SDS¼"	1370
	11"		18–8d				1370
CS20	7"	1 –BAY 16" MIN	12–10d	3–SDS¼"x8" OR 2–½ø x8" LAG	2–½ø x8" LAG	6–SDS¼"	1030
	9"		14–8d				1030
CS22	7"	1 –BAY 16" MIN	10–10d	3–SDS¼"x8" OR 2–½ø x8" LAG	2–½ø x8" LAG	6–SDS¼"	845
	9"		12–8d				845

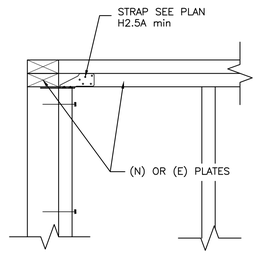
NOTES
1. USE ½ OF THE REQUIRED NAILS IN EACH SIDE OF CONNECTION
2. NAIL; 16d=0.162"ø x3½", 16d Sinker = 0.148"ø x3¼" LONG, 10d=0.148"ø x3"LONG,
3. INSTALL BLK TO PLATE FASTENERS IN 2 ROWS, OFFSET ¾" BETWEEN ROWS, STAGGER
4. ½"ø LAGS HAVE A 3½" END DISTANCE FOR BLK'S AND PLATES
5. STRAP LENGTH ON BLK'G TO BE THE LONGER OF END LENGTH OR MIN BAY LENGTH
6. FOR MULTIPLE STRAPS, MULTIPLY 'MIN BLK'G BAY/LENGTH', BLK'G TO PLATE FASTENERS, BEAM TO NAILER FASTENERS AND BLK'G TO RIM FASTENERS BY THE NUMBER OF STRAPS.

DRAG/COLLECTOR DETAIL

DETAIL 3/ST6



(N) WALL PARALLEL TO (E) WALL



(N) WALL PERPENDICULAR TO (E) WALL

DETAIL 4/ST6

BSE
BURKE STRUCTURAL ENGINEERS, PC
151 KALMUS DRIVE, BLDG. E-140
COSTA MESA, CA., 92626
(657) 289-0460

REGISTERED PROFESSIONAL ENGINEER THOMAS J. BURKE No. 9088 STRUCTURAL STATE OF CALIFORNIA

REVISIONS	BY

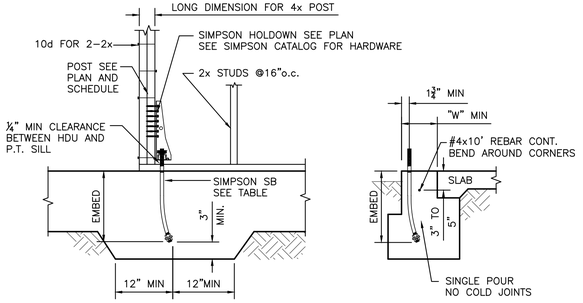
TYPICAL DRAG DETAILS

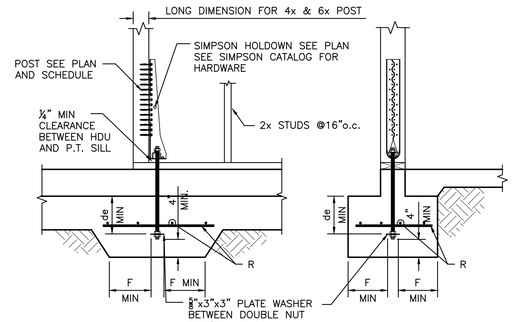
HENRY KHUU

NEW RESIDENCE + ADDITION

12322 LAMPSON AVE., GARDEN GROVE, CA 92840

DATE 2020-04-06
SCALE AS SHOWN
DRAWN BY TPH/SD
JOB NO. 19107
SHEET ST6
OF SHEETS





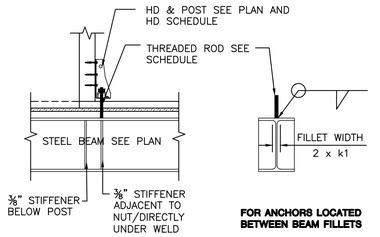
SIMPSON HOLDOWN	SIMPSON ANCHOR	MIN EMBED	MIN W	FASTENER	MIN POST U.N.O.	CAPACITY ASD, 1.6, KIPS
HDU2-SDS2.5	SB⅝X24	18"	6"	6-SDS ¼"x2½"	2-2x w/ 10-10d	3.075
HDU4-SDS2.5	SB⅝X24	18"	6"	10-SDS ¼"x2½"	2-2x w/ 14-10d	4.565
HDU5-SDS2.5	SB⅝X24	18"	6"	14-SDS ¼"x2½"	2-2x w/ 16-10d	5.645

NOTES:
1. 4¼" MINIMUM CORNER AND END DISTANCE
2. Simpson SB anchors, ICC-ES ESR-2611, LA RR25827
3. F'c=2500PSI MIN. SEE CONCRETE NOTES ON SN1 FOR ADDITIONAL STRENGTH REQUIREMENTS.
4. SEE PLAN AND FOUNDATION DETAILS FOR REINFORCEMENT
5. SEE PLAN, POST IN WALL DETAILS AND POST TO BEAM DETAILS FOR ADDITIONAL POST SIZE REQUIREMENTS.
6. CITY OF LOS ANGELES, REDUCE LOADS ABOVE BY 25% PER LARR'S

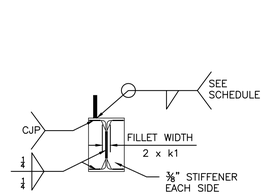
SIMPSON HOLDOWN	ANCHOR	de	F	FASTENER	MIN POST U.N.O.	MIN. REINFORCEMENT R EA. WAY U.N.O	CAPACITY ASD, 1.6, KIPS	ICC-ESR	IAPMO	LARR
DTT1Z	⅜"ø	7"	10"	8-10dx1½"	2x	#4@12"o.c.	0.910		ER-130	RR25818
DTT2Z-SDS2.5	½"ø	7"	10"	8-SDS ¼"x2½"	2-2x w/ 10-10d	#4@12"o.c.	2.145	ESR-2330		RR25720
HDU2-SDS2.5	⅝"ø	9"	14"	6-SDS ¼"x2½"	2-2x w/ 10-10d	#4@12"o.c.	3.075	ESR-2330		RR25720
HDU4-SDS2.5	⅝"ø	10"	14"	10-SDS ¼"x2½"	2-2x w/ 14-10d	#4@8"o.c.	4.565	ESR-2330		RR25720
HDU5-SDS2.5	⅝"ø	11"	16"	14-SDS ¼"x2½"	2-2x w/ 16-10d	#4@8"o.c.	5.645	ESR-2330		RR25720
HDU8-SDS2.5	⅞"ø	14"	20"	20-SDS ¼"x2½"	4x6	#5@12"o.c.	7.870	ESR-2330		RR25720
HDU11-SDS2.5	1"ø	17"	25"	30-SDS ¼"x2½"	4x8	#5@8"o.c.	11.175	ESR-2330		RR25720
HDU14-SDS2.5	1"ø	20"	29"	36-SDS ¼"x2½"	6x6	#5@8"o.c.	14.445	ESR-2330		RR25720
HHDQ14-SDS2.5	1"ø	20"	29"	30-SDS ¼"x2½"	6x6	#5@8"o.c.	13.710	ESR-2330		RR25720
HD19	1¼"ø	23"	34"	5-1"ø M.B.	6x8	#5@6"o.c.	19.360		ER-143	RR25828

NOTES:
1. ANCHORS SHALL BE F1554 GR. 105 OR A193 Gr. B7 (Fu = 125 ksi)
2. HDU14 & HHDQ14 REQUIRES HEAVY HEX ANCHOR NUT @ HD SEAT
3. de IS MEASURED TO TOP OF PLATE WASHER
4. F'c = 2500psi min. SEE CONCRETE NOTES ON SN1 FOR ADDITIONAL STRENGTH REQUIREMENTS.
5. SEE PLAN FOR ADDITIONAL REINFORCEMENT REQUIREMENTS
6. SEE PLAN, POST IN WALL DETAILS AND POST TO BEAM DETAILS FOR ADDITIONAL POST SIZE REQUIREMENTS.
7. CITY OF LOS ANGELES, REDUCE LOADS ABOVE BY 25% PER LARR'S.

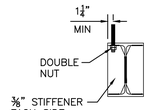
DETAIL 1/ST7



FOR ANCHORS LOCATED BETWEEN BEAM FILLETS



FOR ANCHORS LOCATED OUTSIDE THE BEAM FILLETS



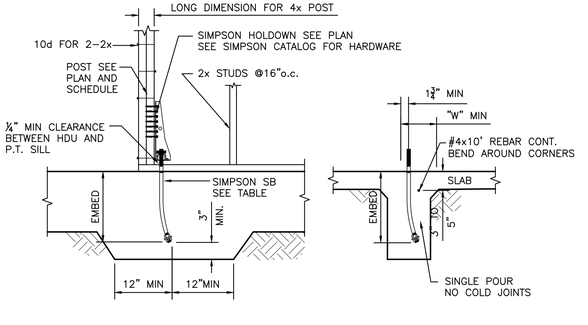
FOR BOLTED ANCHORS LOCATED OUTSIDE THE BEAM FILLETS

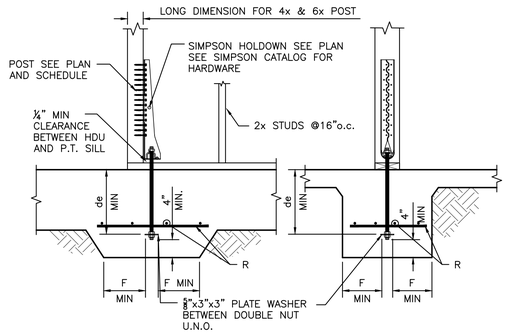
HOLDOWN SCHEDULE										
SIMPSON HOLD DOWN	THREADED ROD SIZE, A36	MIN POST SIZE, UNO	MIN WELD SIZE INCHES	FASTENERS	ALLOWABLE LOAD, ASD	ICC	IAPMO UES ER	LA RR	FLORIDA
DTT2Z	½"ø	4x4	¼ FILLET	8-SDS ¼"x2½"	2145#	ESR 2330		RR25720	FL10441
HDU2	⅝"ø	4x4	¼ FILLET	6-SDS ¼"x2½"	3075#	ESR 2330		RR25720	FL10441
HDU4	⅝"ø	4x4	¼ FILLET	10-SDS ¼"x2½"	4565	ESR 2330		RR25720	FL10441
HDU5	⅝"ø	4x4	¼ FILLET	14-SDS ¼"x2½"	5646#	ESR 2330		RR25720	FL10441
HDU8	⅞"ø	4x6	5/16 FILLET	20-SDS ¼"x2½"	7870#	ESR 2330		RR25720	FL10441
HDU11	1"ø	6x6	5/16 FILLET	30-SDS ¼"x2½"	11175#	ESR 2330		RR25720	FL10441
HDU14 ①	1"ø	6x6	5/16 FILLET	36-SDS ¼"x2½"	14445#	ESR 2330		RR25720	FL10441
HD19	1¼"ø	6x8②	⅜ FILLET	5-1"ø M.B.③④	19360#		ER 103	RR25828	FL11496

1. REQUIRES HEAVY HEX ANCHOR NUT
2. HD INSTALLED ON NARROW FACE (5¼" FACE)
3. BOLT HOLES SHALL BE A MINIMUM OF 1/32" TO A MAXIMUM OF 1/16" LARGER THAN THE BOLT DIAMETER
4. BOLTS SHOULD BE SNUGLY TIGHTENED WITH STANDARD CUT WASHERS BETWEEN THE WOOD AND NUT (BP'S ARE REQUIRED IN THE CITY AND COUNTY OF LOS ANGELES)
5. SEE PLAN, POST IN WALL DETAILS AND POST TO BEAM DETAILS FOR ADDITIONAL POST SIZE REQUIREMENTS.

HOLDOWN TO STEEL BEAM DETAIL

DETAIL 3/ST7





SIMPSON HOLDOWN	SIMPSON ANCHOR	MIN EMBED	MIN W	FASTENER	MIN POST U.N.O.	CAPACITY ASD, 1.6, KIPS
HDU2-SDS2.5	SB⅝X24	18"	6"	6-SDS ¼"x2½"	2-2x w/ 10-10d	3.075
HDU4-SDS2.5	SB⅝X24	18"	6"	10-SDS ¼"x2½"	2-2x w/ 14-10d	4.565
HDU5-SDS2.5	SB⅝X24	18"	6"	14-SDS ¼"x2½"	2-2x w/ 16-10d	5.645

NOTES:
1. 4¼" MINIMUM CORNER AND END DISTANCE
2. Simpson SB anchors, ICC-ES ESR-2611, LA RR25827
3. F'c=2500PSI MIN. SEE CONCRETE NOTES ON SN1 FOR ADDITIONAL STRENGTH REQUIREMENTS.
4. SEE PLAN AND FOUNDATION DETAILS FOR REINFORCEMENT
5. SEE PLAN, POST IN WALL DETAILS AND POST TO BEAM DETAILS FOR ADDITIONAL POST SIZE REQUIREMENTS.
6. CITY OF LOS ANGELES, REDUCE LOADS ABOVE BY 25% PER LARR'S

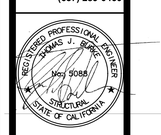
INTERIOR MONOLITHIC SLAB & FOOTING DETAIL

SIMPSON HOLDOWN	ANCHOR	de	F	FASTENER	MIN POST U.N.O.	MIN. REINFORCEMENT R EA. WAY U.N.O	CAPACITY ASD, 1.6, KIPS	ICC-ESR	IAPMO	LARR
DTT1Z	⅜"ø	7"	10"	8-10dx1½"	2x	#4@12"o.c.	0.910		ER-130	RR25818
DTT2Z-SDS2.5	½"ø	7"	10"	8-SDS ¼"x2½"	2-2x w/ 10-10d	#4@12"o.c.	2.145	ESR-2330		RR25720
HDU2-SDS2.5	⅝"ø	9"	14"	6-SDS ¼"x2½"	2-2x w/ 10-10d	#4@12"o.c.	3.075	ESR-2330		RR25720
HDU4-SDS2.5	⅝"ø	10"	14"	10-SDS ¼"x2½"	2-2x w/ 14-10d	#4@8"o.c.	4.565	ESR-2330		RR25720
HDU5-SDS2.5	⅝"ø	11"	16"	14-SDS ¼"x2½"	2-2x w/ 16-10d	#4@8"o.c.	5.645	ESR-2330		RR25720
HDU8-SDS2.5	⅞"ø	14"	20"	20-SDS ¼"x2½"	4x6	#5@12"o.c.	7.870	ESR-2330		RR25720
HDU11-SDS2.5	1"ø	17"	25"	30-SDS ¼"x2½"	4x8	#5@8"o.c.	11.175	ESR-2330		RR25720
HDU14-SDS2.5	1"ø	20"	29"	36-SDS ¼"x2½"	6x6	#5@8"o.c.	14.445	ESR-2330		RR25720
HHDQ14-SDS2.5	1"ø	20"	29"	30-SDS ¼"x2½"	6x6	#5@8"o.c.	13.710	ESR-2330		RR25720
HD19	1¼"ø	23"	34"	5-1"ø M.B.	6x8	#5@6"o.c.	19.360		ER-143	RR25828

NOTES:
1. ANCHORS SHALL BE F1554 GR. 105 OR A193 Gr. B7 (Fu = 125 ksi)
2. HDU14 & HHDQ14 REQUIRES HEAVY HEX ANCHOR NUT @ HD SEAT
3. de IS MEASURED TO TOP OF PLATE WASHER
4. F'c = 2500psi min. SEE CONCRETE NOTES ON SN1 FOR ADDITIONAL STRENGTH REQUIREMENTS.
5. SEE PLAN FOR ADDITIONAL REINFORCEMENT REQUIREMENTS
6. SEE PLAN, POST IN WALL DETAILS AND POST TO BEAM DETAILS FOR ADDITIONAL POST SIZE REQUIREMENTS.
7. CITY OF LOS ANGELES, REDUCE LOADS ABOVE BY 25% PER LARR'S.

DETAIL 2/ST7

BSE
BURKE STRUCTURAL ENGINEERS, PC
151 KALMUS DRIVE, BLDG. E-140
COSTA MESA, CA., 92626
(657) 289-0460



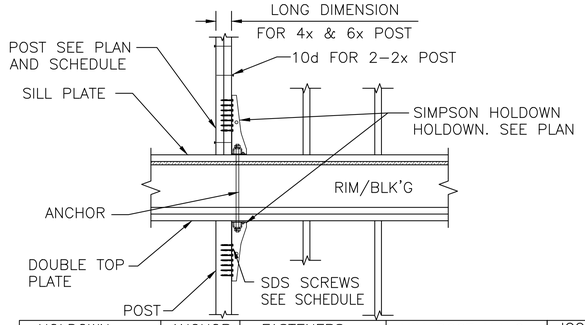
REVISIONS	BY

TYPICAL HOLDOWN DETAILS (WOOD TO CONCRETE)

HENRY KHUU

NEW RESIDENCE + ADDITION
12322 LAMPSON AVE., GARDEN GROVE, CA 92840

DATE 2020-04-06
SCALE AS SHOWN
DRAWN BY TPH/SD
JOB NO. 19107
SHEET ST7
OF SHEETS

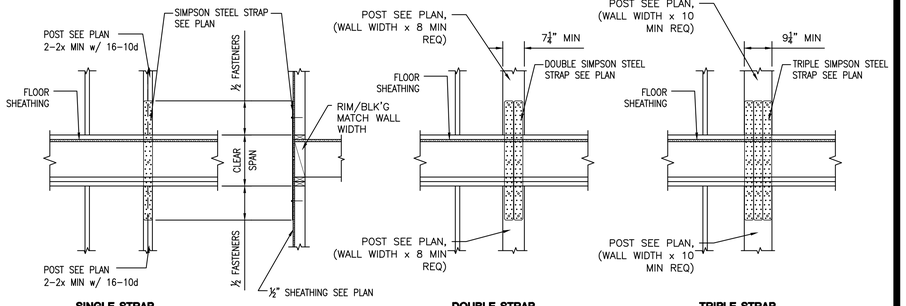


HOLDOWN	ANCHOR	FASTENERS	MIN POST U.N.O.	ICC-ES ESR	IAPMO	LA RR
HDU2-SDS2.5	5/8"ø	6-SDS¼x2½"w.s.	2-2x w/ 10-10d	ESR-2330		RR25818
HDU4-SDS2.5	5/8"ø	10-SDS¼x2½"w.s.	2-2x w/ 14-10d	ESR-2330		RR25818
HDU5-SDS2.5	5/8"ø	14-SDS¼x2½"w.s.	2-2x w/ 16-10d	ESR-2330		RR25818
HDU8-SDS2.5	7/8"ø	20-SDS¼x2½"w.s.	4x6	ESR-2330		RR25818
HDU11-SDS2.5	1"ø	30-SDS¼x2½"w.s.	4x8	ESR-2330		RR25818
HDU14-SDS2.5	1"ø	36-SDS¼x2½"w.s.	6x6	ESR-2330		RR25818
HD19	1¼"ø	5-1"ø M.B.	6x8		ER-413	RR25828

1. ANCHORS SHALL BE ASTM A36 THREADED ROD
2. HDU14 REQUIRES HEAVY HEX ANCHOR NUT @ HD SEAT
3. SEE PLAN, POST IN WALL DETAILS AND POST TO BEAM DETAILS FOR ADDITIONAL POST SIZE REQUIREMENTS.

DETAIL

1 ST8



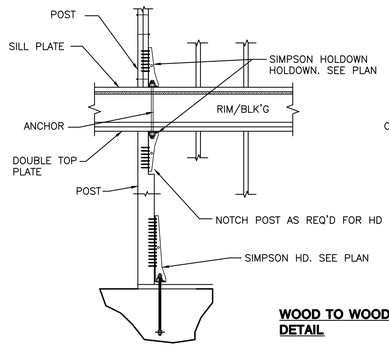
SINGLE STRAP **DOUBLE STRAP** **TRIPLE STRAP**

STRAP	MAX CLEAR SPAN	FESTENERS PER STRAP	ALLOWABLE TENSION (160)	ICC-ER	IAPMO	LA RR
MSTA49	18"	26-10d	2020	ESR-2105	ER-124	RR25713
	16	26-10d	2020	ESR-2105	ER-124	RR25713
MSTC28	18"	12-16d SINKERS	1155	ESR-2105	ER-124	RR25713
	16	16-16d SINKERS	1540	ESR-2105	ER-124	RR25713
MSTC40	18"	28-16d SINKERS	2695	ESR-2105	ER-124	RR25713
	16	36-16d SINKERS	3465	ESR-2105	ER-124	RR25713
MSTC52	18"	44-16d SINKERS	4235	ESR-2105	ER-124	RR25713
	16	48-16d SINKERS	4620	ESR-2105	ER-124	RR25713
MSTC66	18"	64-16d SINKERS	5860	ESR-2105	ER-124	RR25713
	16	68-16d SINKERS	5860	ESR-2105	ER-124	RR25713
MSTC78	18"	76-16d SINKERS	5860	ESR-2105	ER-124	RR25713
	16	76-16d SINKERS	5860	ESR-2105	ER-124	RR25713
MST37	18"	20-16d	2465	ESR-2105	ER-124	RR25713
	16	22-16d	2710	ESR-2105	ER-124	RR25713
MST48	18"	32-16d	3695	ESR-2105	ER-124	RR25713
	16	34-16d	3695	ESR-2105	ER-124	RR25713
MST60	18"	46-16d	4830	ESR-2105	ER-124	RR25713
	16	48-16d	4830	ESR-2105	ER-124	RR25713
MST72	18"	46-16d	4830	ESR-2105	ER-124	RR25713
	16	48-16d	4830	ESR-2105	ER-124	RR25713

NOTES
1. 10d TO BE 3" LONG
2. SEE PLAN, POST IN WALL DETAILS AND POST TO BEAM DETAILS FOR ADDITIONAL POST SIZE REQUIREMENTS.
3. CAPACITY OF MULTIPLE STRAPS, MULTIPLY TABLE CAPACITY BY NUMBER OF STRAPS

DETAIL

2 ST8



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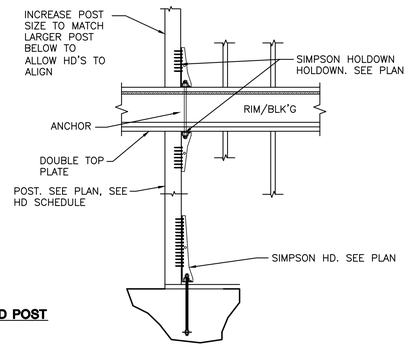
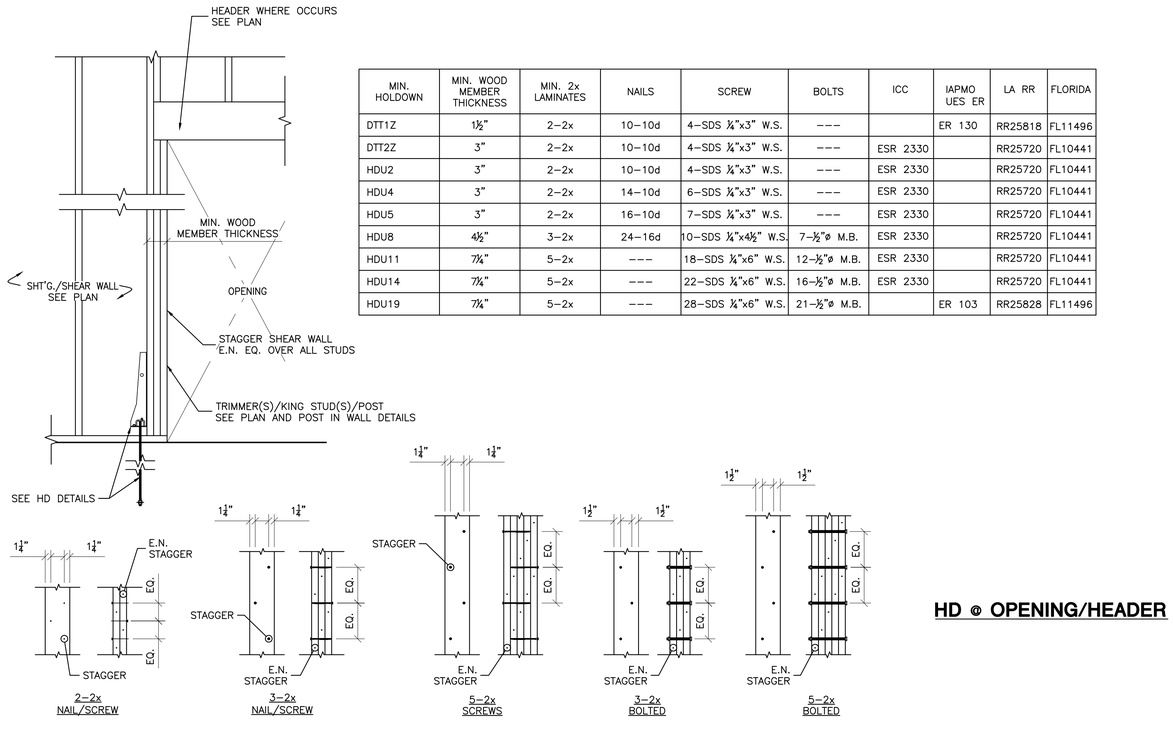


WOOD TO WOOD HD POST DETAIL

DETAIL

4 ST8



MIN. HOLDOWN	MIN. WOOD MEMBER THICKNESS	MIN. 2x LAMINATES	NAILS	SCREW	BOLTS	ICC	IAPMO UES ER	LA RR	FLORIDA
DTT1Z	1½"	2-2x	10-10d	4-SDS ¼"x3" W.S.	---		ER 130	RR25818	FL11496
DTT2Z	3"	2-2x	10-10d	4-SDS ¼"x3" W.S.	---	ESR 2330		RR25720	FL10441
HDU2	3"	2-2x	10-10d	4-SDS ¼"x3" W.S.	---	ESR 2330		RR25720	FL10441
HDU4	3"	2-2x	14-10d	6-SDS ¼"x3" W.S.	---	ESR 2330		RR25720	FL10441
HDU5	3"	2-2x	16-10d	7-SDS ¼"x3" W.S.	---	ESR 2330		RR25720	FL10441
HDU8	4½"	3-2x	24-16d	10-SDS ¼"x4½" W.S.	7-½"ø M.B.	ESR 2330		RR25720	FL10441
HDU11	7¼"	5-2x	---	18-SDS ¼"x6" W.S.	12-½"ø M.B.	ESR 2330		RR25720	FL10441
HDU14	7¼"	5-2x	---	22-SDS ¼"x6" W.S.	16-½"ø M.B.	ESR 2330		RR25720	FL10441
HDU19	7¼"	5-2x	---	28-SDS ¼"x6" W.S.	21-½"ø M.B.		ER 103	RR25828	FL11496

HD @ OPENING/HEADER

DETAIL

3 ST8

BSE
BURKE STRUCTURAL ENGINEERS, PC
151 KALMUS DRIVE, BLDG. E-140
COSTA MESA, CA., 92626
(657) 289-0460

REGISTERED PROFESSIONAL ENGINEER
THOMAS J. BURKE
No. 9088
STRUCTURAL
STATE OF CALIFORNIA

REVISIONS	BY

TYPICAL HOLDOWN DETAILS (WOOD TO WOOD)

HENRY KHUU

NEW RESIDENCE + ADDITION

12322 LAMPSON AVE., GARDEN GROVE, CA 92840

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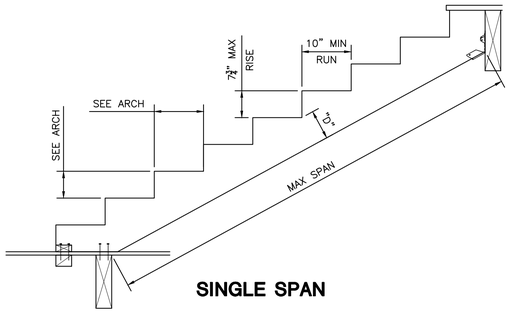
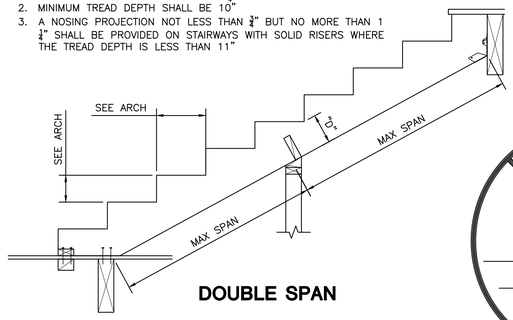


SINGLE SPAN

STRINGER SINGLE SPAN	STRINGER SPACING	D MIN	SPAN MAX
1½" LVL	12"o.c.	3½"	6'-9"
1½" LVL	16"o.c.	3½"	6'-0"
1½" LVL	12"o.c.	5½"	10'-6"
1½" LVL	16"o.c.	5½"	9'-6"
1½" LVL	12"o.c.	7¼"	14'-0"
1½" LVL	16"o.c.	7¼"	12'-9"
1½" LVL	12"o.c.	9¼"	17'-10"
1½" LVL	16"o.c.	9¼"	16'-2"
1½" LSL 1.55E	12"o.c.	3½"	6'-3"
1½" LSL 1.55E	16"o.c.	3½"	5'-9"
1½" LSL 1.55E	12"o.c.	5½"	10'-0"
1½" LSL 1.55E	16"o.c.	5½"	9'-0"
1½" LSL 1.55E	12"o.c.	7¼"	13'-3"
1½" LSL 1.55E	16"o.c.	7¼"	12'-0"
1½" LSL 1.55E	12"o.c.	9¼"	16'-9"
1½" LSL 1.55E	16"o.c.	9¼"	15'-3"

NOTE:
1. 40PSF LIVE LOAD
2. FOR STRINGER NOT SUPPORTING TILE FINISH
3. 7¾" MAX RISE, 10" MIN RUN (RESIDENTIAL)

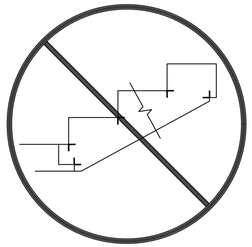
NOTES:
1. MAXIMUM RISER HEIGHT SHALL BE 7¾"
2. MINIMUM TREAD DEPTH SHALL BE 10"
3. A NOSING PROJECTION NOT LESS THAN ¾" BUT NO MORE THAN 1 ¼" SHALL BE PROVIDED ON STAIRWAYS WITH SOLID RISERS WHERE THE TREAD DEPTH IS LESS THAN 11"



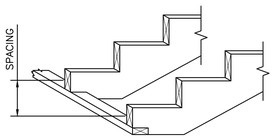
DOUBLE SPAN

STRINGER SINGLE SPAN	STRINGER SPACING	D MIN	SPAN MAX
1½" LVL	12"o.c.	3½"	6'-9"
1½" LVL	16"o.c.	3½"	6'-0"
1½" LVL	12"o.c.	5½"	10'-6"
1½" LVL	16"o.c.	5½"	9'-6"
1½" LVL	12"o.c.	7¼"	14'-0"
1½" LVL	16"o.c.	7¼"	12'-9"
1½" LVL	12"o.c.	9¼"	17'-10"
1½" LVL	16"o.c.	9¼"	16'-2"
1½" LSL 1.55E	12"o.c.	3½"	6'-3"
1½" LSL 1.55E	16"o.c.	3½"	5'-9"
1½" LSL 1.55E	12"o.c.	5½"	10'-0"
1½" LSL 1.55E	16"o.c.	5½"	9'-0"
1½" LSL 1.55E	12"o.c.	7¼"	13'-3"
1½" LSL 1.55E	16"o.c.	7¼"	12'-0"
1½" LSL 1.55E	12"o.c.	9¼"	16'-9"
1½" LSL 1.55E	16"o.c.	9¼"	15'-3"

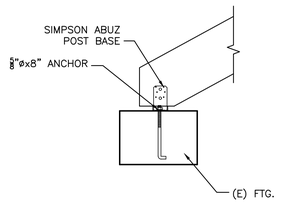
NOTE:
1. 40PSF LIVE LOAD
2. FOR STRINGER NOT SUPPORTING TILE FINISH
3. 7¾" MAX RISE, 10" MIN RUN (RESIDENTIAL)



DO NOT OVER CUT STAIR STRINGER

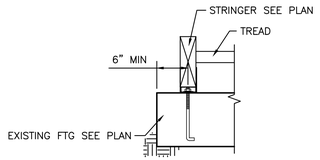


DETAIL 1/ST9



BOTTOM CONNECTIONS

DETAIL 3/ST9



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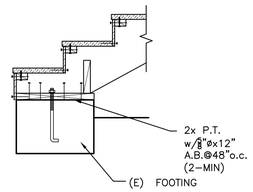

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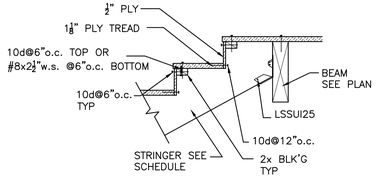
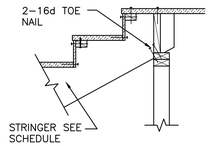
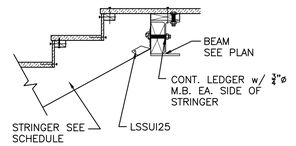
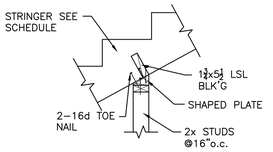
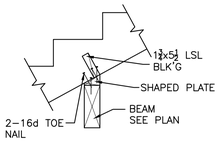




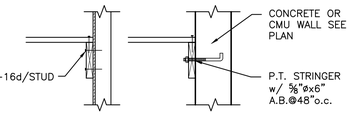


TOP CONNECTIONS

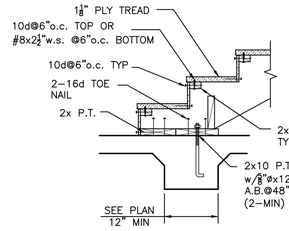


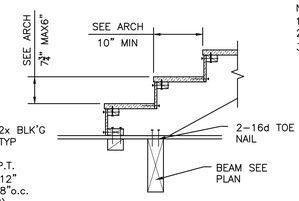


INTERMEDIATE SUPPORT CONNECTION



SIDE STRINGER CONNECTIONS





NOTES:
1. MAXIMUM RISER HEIGHT SHALL BE 7¾"
2. MINIMUM TREAD DEPTH SHALL BE 10"
3. A NOSING PROJECTION NOT LESS THAN ¾" BUT NO MORE THAN 1 ¼" SHALL BE PROVIDED ON STAIRWAYS WITH SOLID RISERS WHERE THE TREAD DEPTH IS LESS THAN 11"

BOTTOM CONNECTIONS

DETAIL 2/ST9

DETAIL 5/ST9

DETAIL 5/ST9

BSE
BURKE STRUCTURAL ENGINEERS, PC
151 KALMUS DRIVE, BLDG. E-140
COSTA MESA, CA., 92626
(657) 289-0460

REGISTERED PROFESSIONAL ENGINEER THOMAS J. BURKE No. 9088 STRUCTURAL STATE OF CALIFORNIA

REVISIONS	BY

TYPICAL STAIRCASE DETAILS

HENRY KHUU

NEW RESIDENCE + ADDITION

12322 LAMPSON AVE., GARDEN GROVE, CA 92840

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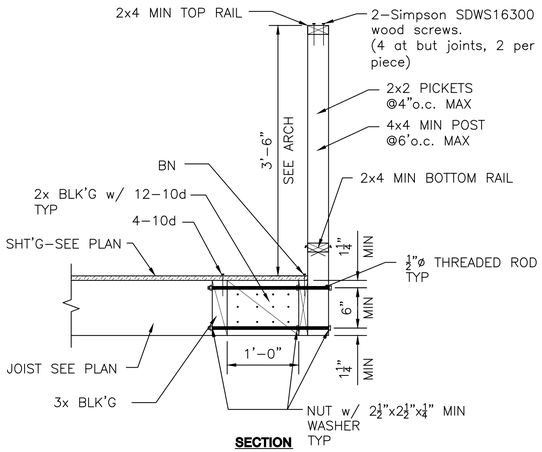

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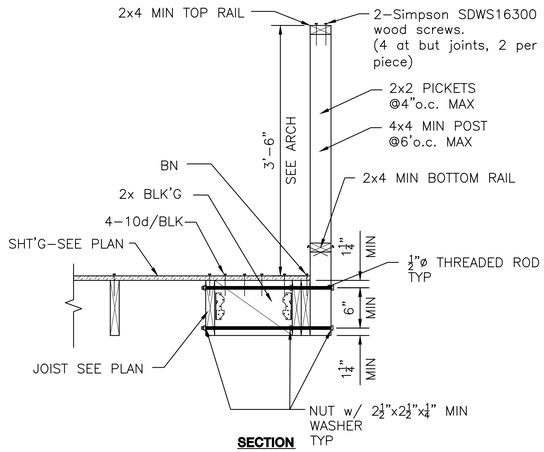
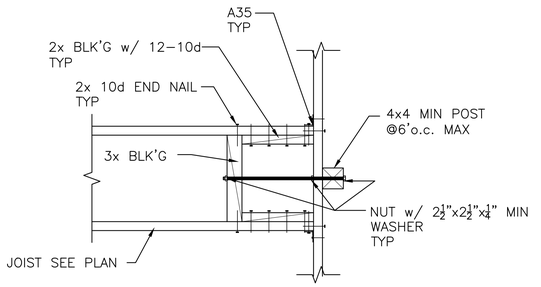
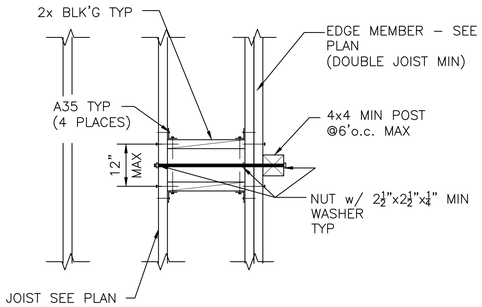


SECTION



PLAN VIEW



PLAN VIEW

DETAIL ST10

BSE
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151 KALMUS DRIVE, BLDG. E-140
COSTA MESA, CA., 92626
(657) 289-0460

REGISTERED PROFESSIONAL ENGINEER THOMAS J. BURKE No. 9088 STRUCTURAL STATE OF CALIFORNIA

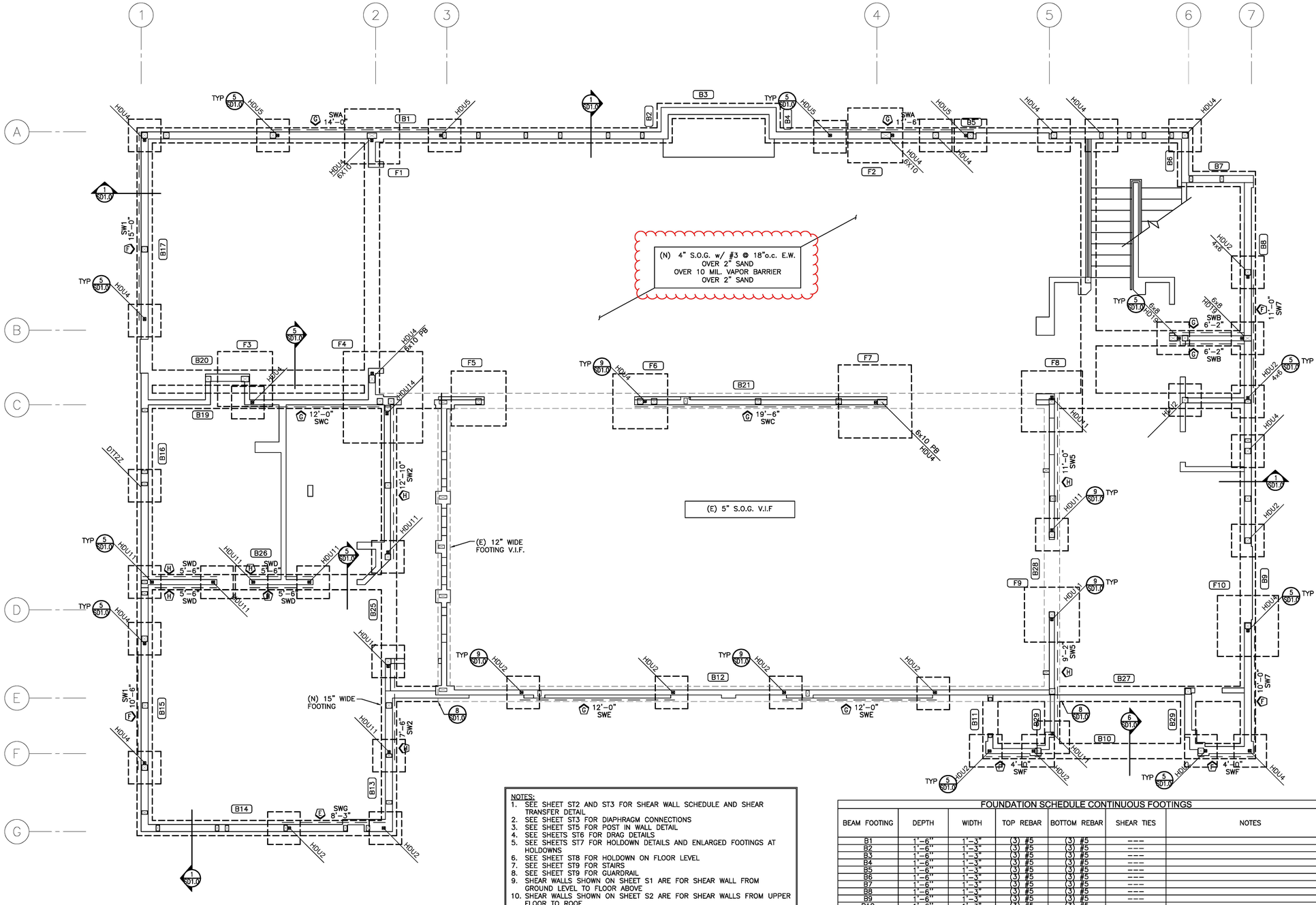
REVISIONS	BY

TYPICAL GUARDRAIL DETAILS

HENRY KHUU

NEW RESIDENCE + ADDITION
12322 LAMPSON AVE., GARDEN GROVE, CA 92840

DATE 2020-04-06
SCALE AS SHOWN
DRAWN BY TPH/SD
JOB NO. 19107
SHEET ST10
OF SHEETS



NOTES:
1. SEE SHEET ST2 AND ST3 FOR SHEAR WALL SCHEDULE AND SHEAR TRANSFER DETAIL
2. SEE SHEET ST3 FOR DIAPHRAGM CONNECTIONS
3. SEE SHEET ST5 FOR POST IN WALL DETAIL
4. SEE SHEETS ST6 FOR DRAG DETAILS
5. SEE SHEETS ST7 FOR HOLDOWN DETAILS AND ENLARGED FOOTINGS AT HOLDOWNS
6. SEE SHEET ST8 FOR HOLDOWN ON FLOOR LEVEL
7. SEE SHEET ST9 FOR STAIRS
8. SEE SHEET ST9 FOR GUARDRAIL
9. SHEAR WALLS SHOWN ON SHEET S1 ARE FOR SHEAR WALL FROM GROUND LEVEL TO FLOOR ABOVE
10. SHEAR WALLS SHOWN ON SHEET S2 ARE FOR SHEAR WALLS FROM UPPER FLOOR TO ROOF
11. CHANGE THE MEMBER FROM DF TO PSL FOR FINAL FINISH IF NEEDED
12. SEE DETAIL 4/ST1 FOR PLANTER WALL DETAIL

FOUNDATION SCHEDULE PAD FOOTINGS

PAD FOOTING	DEPTH	WIDTH	LENGTH	BOTTOM REBAR	TOP REBAR	NOTES
F1/N18	1'-6"	4'-6"	4'-6"	(6) #5 E.W.	(6) #5 E.W.	
F2/N67	1'-6"	4'-6"	4'-6"	(6) #5 E.W.	(6) #5 E.W.	
F3/N30	1'-6"	4'-6"	4'-6"	(6) #5 E.W.	---	
F4/N21-27	2'-0"	6'-6"	7'-6"	(16) #5 E.W.	(16) #5 E.W.	
F5/N70	1'-6"	4'-6"	4'-6"	(6) #5 E.W.	---	
F6/N55	1'-6"	4'-6"	4'-6"	(6) #5 E.W.	(6) #5 E.W.	
F7/N56	2'-0"	6'-0"	6'-0"	(9) #5 E.W.	(9) #5 E.W.	
F8/N22	2'-0"	5'-0"	5'-0"	(9) #5 E.W.	(9) #5 E.W.	
F9/N40	1'-6"	4'-6"	4'-6"	(6) #5 E.W.	(6) #5 E.W.	
F10/N43	1'-6"	4'-6"	4'-6"	(6) #5 E.W.	(6) #5 E.W.	

FOUNDATION SCHEDULE CONTINUOUS FOOTINGS

BEAM FOOTING	DEPTH	WIDTH	TOP REBAR	BOTTOM REBAR	SHEAR TIES	NOTES
B1	1'-6"	1'-3"	(3) #5	(3) #5	---	
B2	1'-6"	1'-3"	(3) #5	(3) #5	---	
B3	1'-6"	1'-3"	(3) #5	(3) #5	---	
B4	1'-6"	1'-3"	(3) #5	(3) #5	---	
B5	1'-6"	1'-3"	(3) #5	(3) #5	---	
B6	1'-6"	1'-3"	(3) #5	(3) #5	---	
B7	1'-6"	1'-3"	(3) #5	(3) #5	---	
B8	1'-6"	1'-3"	(3) #5	(3) #5	---	
B9	1'-6"	1'-3"	(3) #5	(3) #5	---	
B10	1'-6"	1'-3"	(3) #5	(3) #5	---	
B11	1'-6"	1'-3"	(3) #5	(3) #5	---	
B12	1'-6"	1'-3"	(3) #5	(3) #5	---	ASSUMED (E) FTG SIZE & REINF. NOTIFY ENGINEER IF SIZE IS NOT MATCHED
B13	1'-6"	1'-3"	(3) #5	(3) #5	---	
B14	1'-6"	1'-3"	(3) #5	(3) #5	---	
B15	1'-6"	1'-3"	(3) #5	(3) #5	---	
B16	1'-6"	1'-3"	(3) #5	(3) #5	---	
B17	1'-6"	1'-3"	(3) #5	(3) #5	---	
B18	1'-6"	1'-3"	(2) #5	(2) #5	---	
B19	1'-6"	1'-3"	(3) #5	(3) #5	---	
B20	1'-6"	1'-3"	(3) #5	(3) #5	---	
B21	1'-6"	1'-3"	(2) #5	(2) #5	---	ASSUMED (E) FTG SIZE & REINF. NOTIFY ENGINEER IF SIZE IS NOT MATCHED
B22	1'-6"	1'-3"	(3) #5	(3) #5	2 LEGS-#3@8	
B23	1'-6"	1'-3"	(3) #5	(3) #5	---	
B24	1'-6"	1'-3"	(3) #5	(3) #5	2 LEGS-#3@8	
B25	1'-6"	1'-3"	(3) #5	(3) #5	---	
B26	1'-6"	1'-3"	(3) #5	(3) #5	---	
B27	1'-6"	1'-3"	(3) #5	(3) #5	---	
B28	1'-6"	1'-3"	(2) #5	(2) #5	---	ASSUMED (E) FTG SIZE & REINF. NOTIFY ENGINEER IF SIZE IS NOT MATCHED
B29	1'-6"	1'-3"	(3) #5	(3) #5	---	

FOUNDATION PLAN - BUILDING A

scale ¼"=1'-0"

BSE

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151 KALMUS DRIVE, BLDG. E-140
COSTA MESA, CA, 92626
(657) 289-0460

REGISTERED PROFESSIONAL ENGINEER — THOMAS J. BURKE — No. 9088 — STRUCTURAL — STATE OF CALIFORNIA

REVISIONS	BY

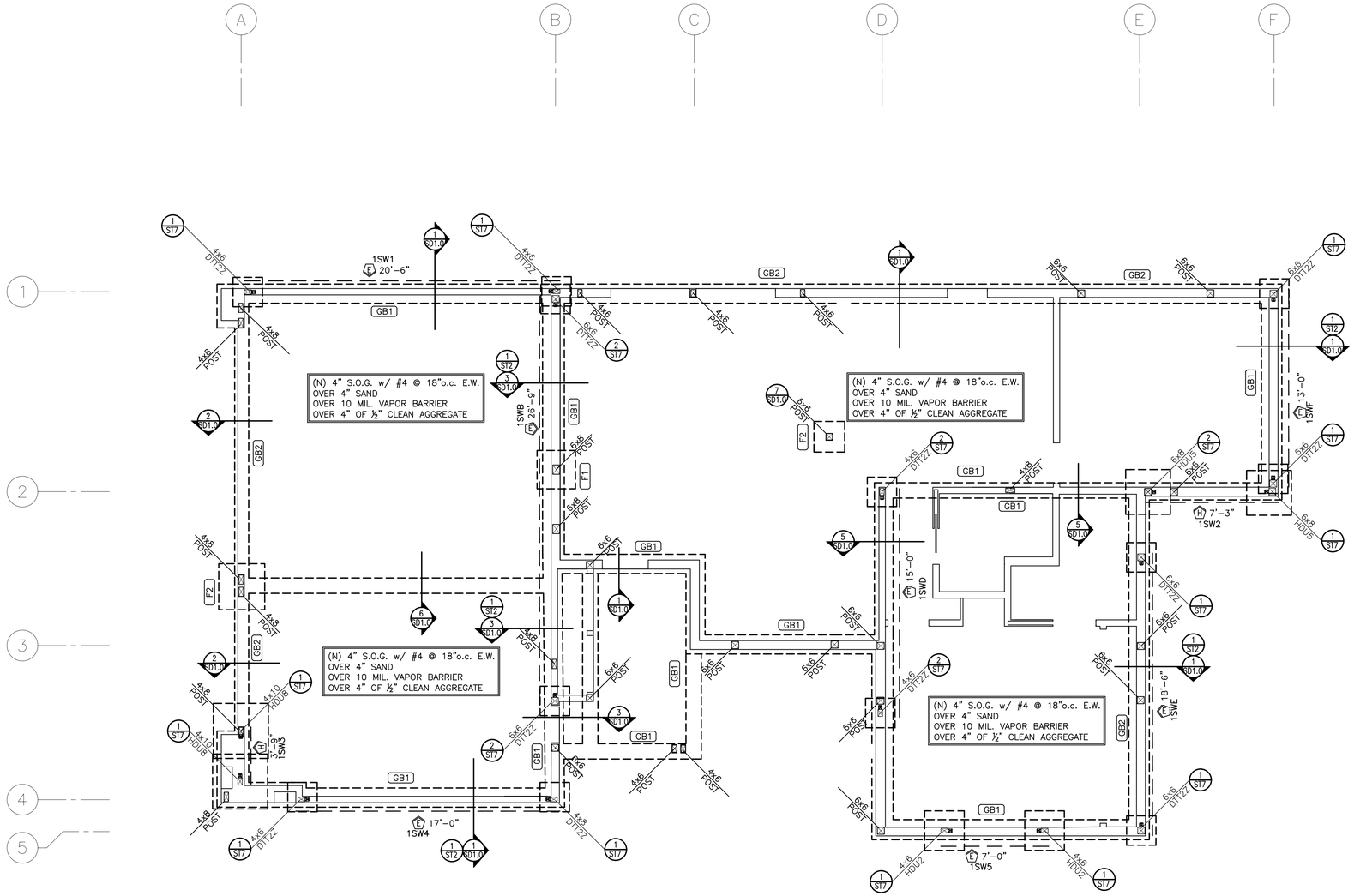
FOUNDATION PLAN - BUILDING A

HENRY KHUU

NEW RESIDENCE + ADDITION

12322 LAMPSON AVE., GARDEN GROVE, CA 92840

DATE 2020-04-06
SCALE 1/4"=1'-0"
DRAWN BY MD/HS
JOB NO. 19107
SHEET S1.0
OF SHEETS



FOUNDATION SCHEDULE CONTINUOUS FOOTINGS						
BEAM FOOTING	DEPTH	WIDTH	TOP REBAR	BOTTOM REBAR	SHEAR TIES	NOTES
GB1	1'-6"	1'-3"	(2) #5	(2) #5	#3 @24"o.c.	
GB2	2'-0"	1'-3"	(3) #5	(3) #5	#3 @18"o.c.	

FOUNDATION SCHEDULE PAD FOOTINGS						
PAD FOOTING	DEPTH	WIDTH	LENGTH	BOTTOM REBAR	TOP REBAR	NOTES
F1	2'-0"	2'-6"	2'-6"	(3) #5 E.W.	---	
F2	2'-0"	3'-0"	3'-0"	(4) #5 E.W.	(4) #5 E.W.	

NOTES:

1. SEE SHEET ST2 AND ST3 FOR SHEAR WALL SCHEDULE AND SHEAR TRANSFER DETAIL
2. SEE SHEET ST3 FOR DIAPHRAGM CONNECTIONS
3. SEE SHEET ST5 FOR POST IN WALL DETAIL
4. SEE SHEETS ST6 FOR DRAG DETAILS
5. SEE SHEETS ST7 FOR HOLDOWN DETAILS AND ENLARGED FOOTINGS AT HOLDOWNS
6. SEE SHEET ST4 FOR CEILING FRAMING DETAILS
7. CHANGE THE MEMBER FROM DF TO PSL FOR FINAL FINISH IF NEEDED
8. SEE DETAIL 4/ST1 FOR PLANTER WALL DETAIL

FOUNDATION PLAN - BUILDING B

scale ¼"=1'-0"

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THOMAS J. BURKE
No. 9088
STRUCTURAL
STATE OF CALIFORNIA

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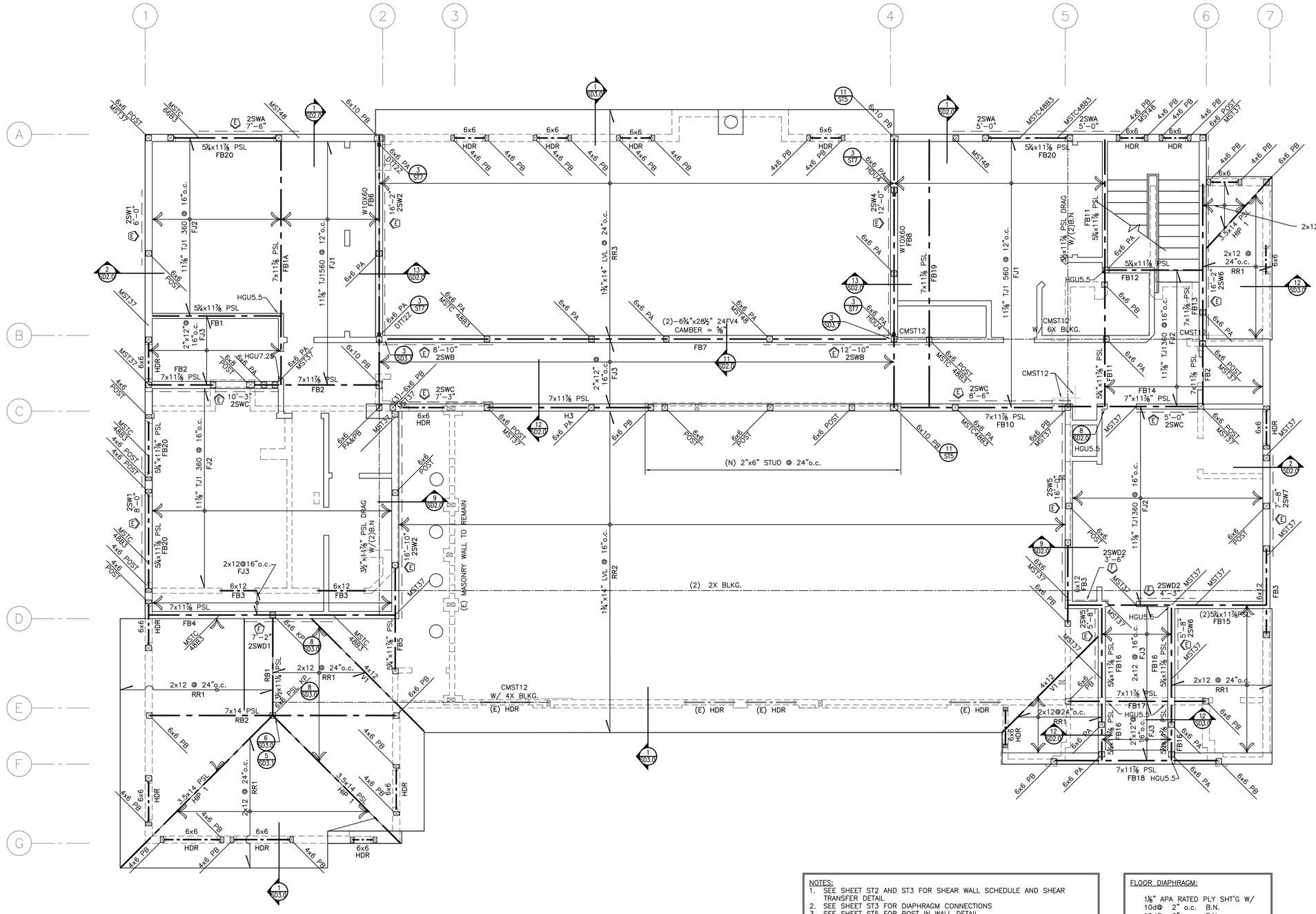
FOUNDATION PLAN - BUILDING B

HENRY KHUU

NEW RESIDENCE + ADDITION
12322 LAMPSON AVE., GARDEN GROVE, CA 92840

DATE 2020-04-06
SCALE 1/4"=1'-0"
DRAWN BY MD/HS
JOB NO. 19107
SHEET S1.1
OF SHEETS



NOTES:
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2. SEE SHEET ST3 FOR DIAPHRAGM CONNECTIONS
3. SEE SHEET ST5 FOR POST IN WALL DETAIL
4. SEE SHEET ST4 FOR CEILING FRAMING DETAIL
5. SEE SHEETS ST6 FOR DRAG DETAILS
6. SEE SHEETS ST7 FOR HOLDOWN DETAILS AND ENLARGED FOOTINGS AT HOLDOWNS
7. SEE SHEET ST8 FOR HOLDOWN ON FLOOR LEVEL
8. SEE SHEET ST9 FOR STAIRS
9. SEE SHEET ST9 FOR GUARDRAIL
10. SHEAR WALLS SHOWN ON SHEET S1 ARE FOR SHEAR WALL FROM GROUND LEVEL TO FLOOR ABOVE
11. SHEAR WALLS SHOWN ON SHEET S2 ARE FOR SHEAR WALLS FROM UPPER FLOOR TO ROOF
12. CHANGE THE MEMBER FROM DF TO PSL FOR FINAL FINISH IF NEEDED

FLOOR DIAPHRAGM:

1⅛" APA RATED PLY SHT'G W/
10d@ 2" o.c. B.N.
10d@ 6" o.c. E.N.
10d@ 10" o.c. F.N.
W/ 24" SPAN RATING

BLOCK ALL EDGES
1.5" LIGHTWEIGHT CONCRETE ON TOP OF PLY, USE DOUBLE SILL PLATE

FLOOR FRAMING PLAN - BUILDING A

scale ¼"=1'-0"

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1 2017-MO-DA	CAD

FLOOR FRAMING PLAN - BUILDING A

HENRY KHUU

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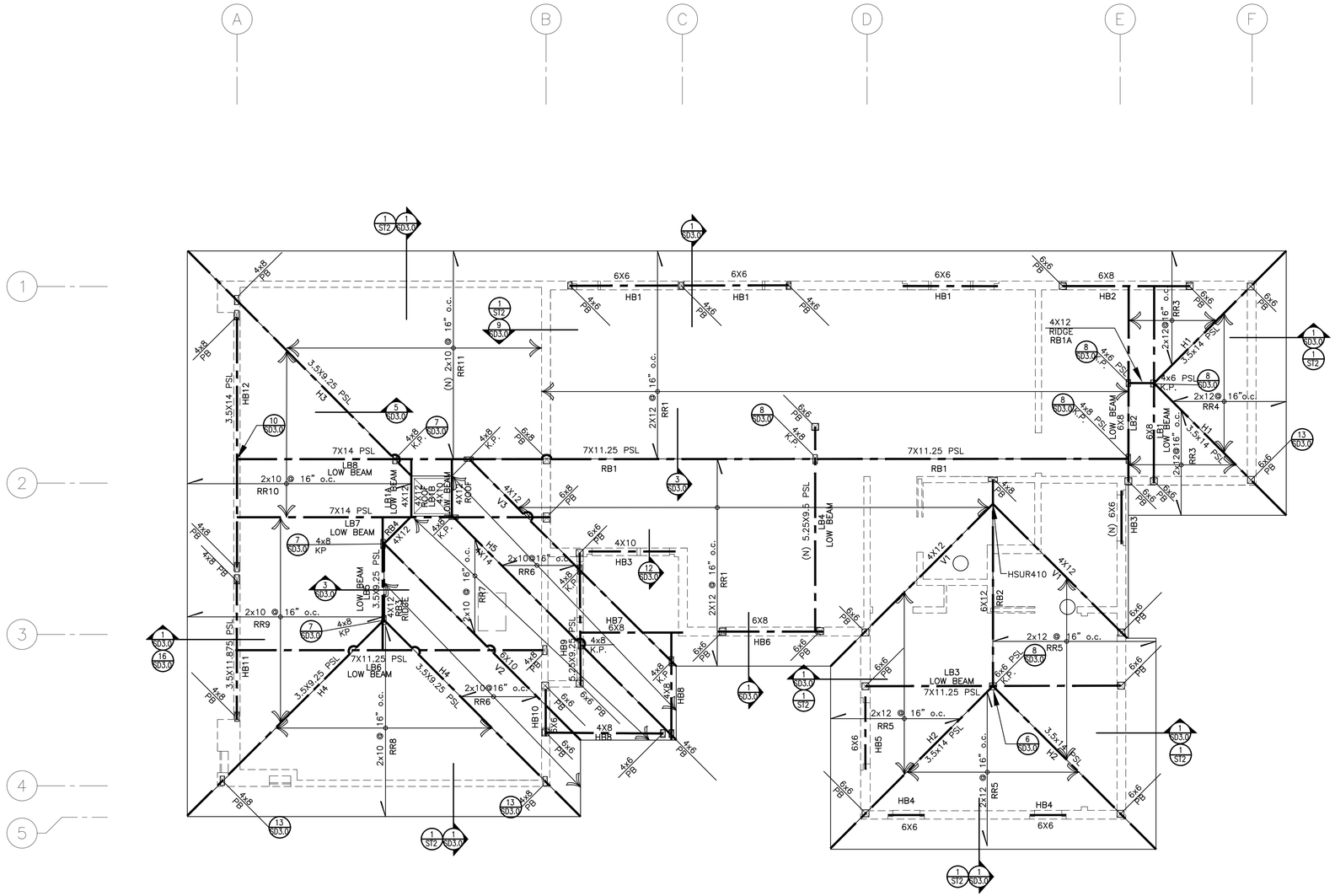
DATE 2020-04-06
SCALE 1/4"=1'-0"
DRAWN BY MD/HS
JOB NO. 19107
SHEET S2.0
OF SHEETS



ROOF DIAPHRAGM:

⅝" APA RATED PLY SHT'G w/
10d@ 6" o.c. B.N.
10d@ 6" o.c. E.N.
10d@ 12" o.c. F.N.
w/ 24" SPAN RATING

BLOCK ALL EDGES

NOTES:

1. SEE SHEET ST2 AND ST3 FOR SHEAR WALL SCHEDULE AND SHEAR TRANSFER DETAIL
2. SEE SHEET ST3 FOR DIAPHRAGM CONNECTIONS
3. SEE SHEET ST5 FOR POST IN WALL DETAIL
4. SEE SHEETS ST6 FOR DRAG DETAILS
5. SEE SHEETS ST7 FOR HOLDOWN DETAILS AND ENLARGED FOOTINGS AT HOLDOWNS
6. SEE SHEET ST4 FOR CEILING FRAMING DETAILS
7. CHANGE THE MEMBER FROM DF TO PSL FOR FINAL FINISH IF NEEDED
8. SEE DETAIL 4/ST1 FOR PLANTER WALL DETAIL

FLOOR FRAMING PLAN - BUILDING B

scale ¼"=1'-0"

BSE

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No. 9088
STRUCTURAL
STATE OF CALIFORNIA

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ROOF FRAMING PLAN - BUILDING B

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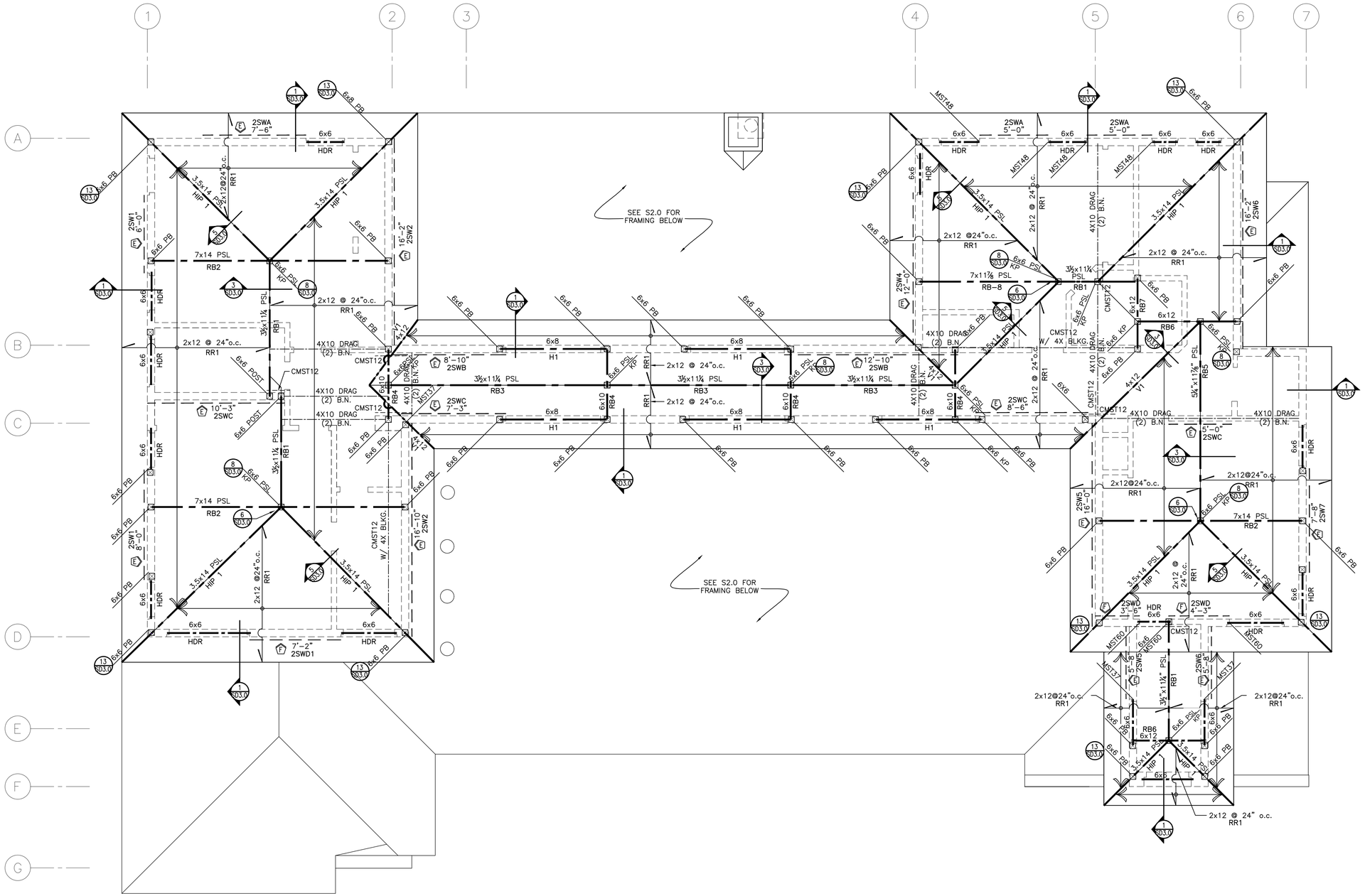
DATE 2020-04-06
SCALE 1/4"=1'-0"
DRAWN BY MD/HS
JOB NO. 19107
SHEET S2.1
OF SHEETS



NOTES:
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12. CHANGE THE MEMBER FROM DF TO PSL FOR FINAL FINISH IF NEEDED

FLOOR DIAPHRAGM:

½" APA RATED PLY SHT'G W/
10d@ 4" o.c. B.N.
10d@ 6" o.c. E.N.
10d@ 12" o.c. F.N.
W/ 24" SPAN RATING

BLOCK ALL EDGES

ROOF FRAMING PLAN - BUILDING A

scale ¼"=1'-0"

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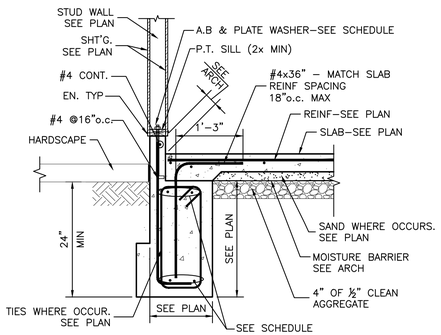
ROOF FRAMING PLAN - BUILDING A

HENRY KHUU

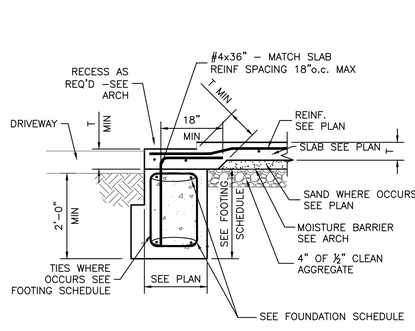
NEW RESIDENCE + ADDITION

12322 LAMPSON AVE., GARDEN GROVE, CA 92840

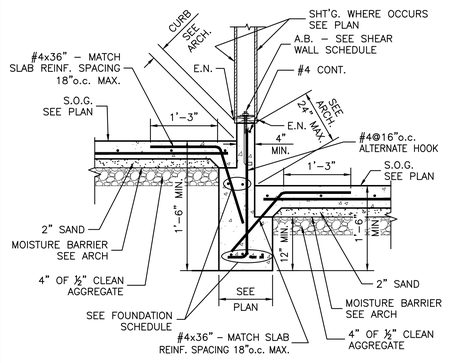
DATE 2020-04-06
SCALE 1/4"=1'-0"
DRAWN BY MD/HS
JOB NO. 19107
SHEET S3.0
OF SHEETS



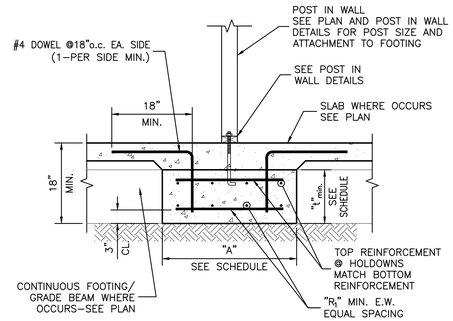
DETAIL scale ¾"=1'-0" (1 SD1.0)



DETAIL scale ¾"=1'-0" (2 SD1.0)



DETAIL scale ¾"=1'-0" (3 SD1.0)



DETAIL

POST	"A" MIN.	"t" MIN.	"Rt"	CAPACITY
4x4	2'–6"	12"	(5)–#4	7.6K
4x6	3'–3"	12"	(5)–#4	11.9K
4x8	3'–9"	12"	(5)–#4	16.2K
4x10	4'–3"	12"	(6)–#4	20.5K
4x12	4'–6"	12"	(6)–#4	24.3K
6x6	4'–0"	12"	(5)–#5	18.9K
6x8	4'–9"	12"	(5)–#5	25.7K
6x10	5'–3"	12"	(6)–#5	32.7K
6x12	5'–9"	12"	(6)–#5	38.7K
6x14	6'–3"	12"	(6)–#5	45.6K
8x8	5'–6"	12"	(5)–#6	35.2K
8x10	6'–0"	12"	(5)–#6	44.6K
8x12	6'–9"	14"	(6)–#6	54.0K
8x14	7'–3"	14"	(6)–#6	64.0K

NOTES:
1. SOIL BEARING 1500psf.
2. MIN. FOOTING REQUIREMENTS U.N.O. ON PLANS
3. WHERE HOLDOWN OCCURS. SEE HOLDOWN DETAILS PER ADDITIONAL FOOTING INFORMATION

scale ¾"=1'-0" (4 SD1.0)

DETAIL scale ¾"=1'-0" (5 SD1.0)

DETAIL scale ¾"=1'-0" (6 SD1.0)

WOOD POST TO FTG., PEDESTAL

DETAIL scale ¾"=1'-0" (7 SD1.0)

NOTE:
1. SEE EPOXY NOTES ON SHEET SN1
2. EPOXY REQUIRES SPECIAL INSPECTION

DETAIL scale ¾"=1'-0" (8 SD1.0)

DETAIL scale ¾"=1'-0" (9 SD1.0)

BSE

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REVISIONS	BY

FOUNDATION DETAILS

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DATE 2020-04-06
SCALE AS SHOWN
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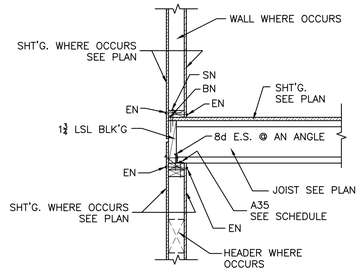
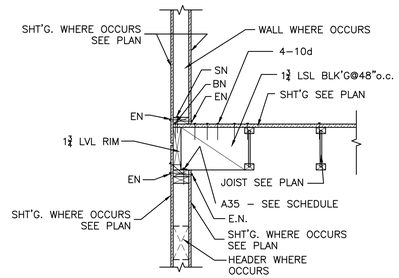
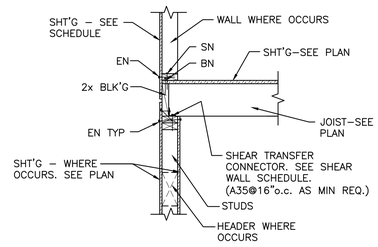
SHEET SD1.0
OF SHEETS



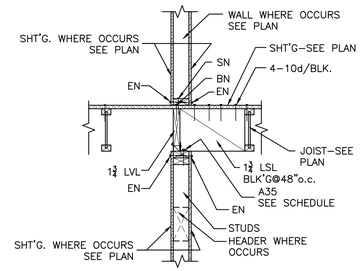
DETAIL scale ¾"=1'-0" 1/SD2.0



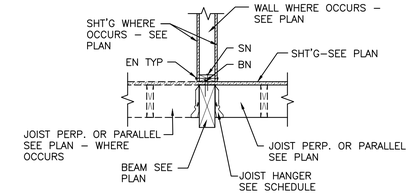
DETAIL scale ¾"=1'-0" 2/SD2.0



DETAIL scale ¾"=1'-0" 3/SD2.0

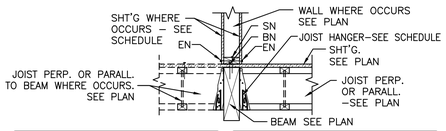


DETAIL scale ¾"=1'-0" 4/SD2.0



FLOOR JOIST HANGER SCHEDULE	
JOIST	SIMPSON HANGER
2x4	LUS24
2x6	JB26
2x8	JB28
2x10	JB210
2x12	JB212
1¾x7¼ LVL	LBV1.81/7.25
1¾x9½ LVL	LBV1.81/9.5
1¾x11⅞ LVL	BA1.81/11.88

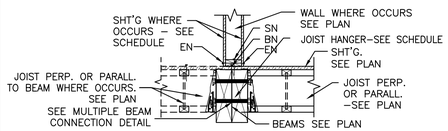
DETAIL scale ¾"=1'-0" 5/SD2.0



FLOOR JOIST HANGER SCHEDULE	
JOIST	SIMPSON HANGER
9½ TJI 210	ITS2.06/9.5
11⅞ TJI 210	ITS2.06/11.88
14 TJI 210	ITS2.06/14
16 TJI 210	ITS2.06/16
9½ TJI 230	ITS2.37/9.5
11⅞ TJI 230	ITS2.37/11.88
14 TJI 230	ITS2.37/14
16 TJI 230	ITS2.37/16
11⅞ TJI 360	ITS2.37/11.88
14 TJI 360	ITS2.37/14
16 TJI 360	ITS2.37/16
11⅞ TJI 560	ITS3.56/11.88
14 TJI 560	ITS3.56/14
16 TJI 560	ITS3.56/16

FLOOR JOIST HANGER SCHEDULE	
JOIST	SIMPSON HANGER
2x4	LUS24
2x6	JB26
2x8	JB28
2x10	JB210
2x12	JB212
1¾x7¼ LVL	LBV1.81/7.25
1¾x9½ LVL	LBV1.81/9.5
1¾x11⅞ LVL	LBV1.81/11.88
1¾x14 LVL	LBV1.81/14
1¾x16 LVL	LBV1.81/16

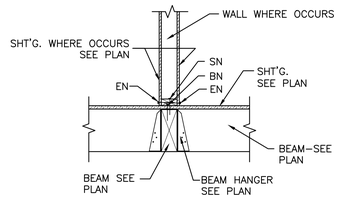
DETAIL scale ¾"=1'-0" 6/SD2.0

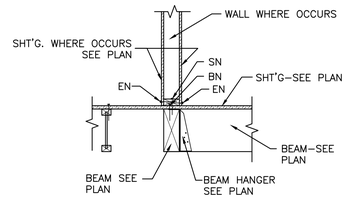


FLOOR JOIST HANGER SCHEDULE	
JOIST	SIMPSON HANGER
9½ TJI 210	ITS2.06/9.5
11⅞ TJI 210	ITS2.06/11.88
14 TJI 210	ITS2.06/14
16 TJI 210	ITS2.06/16
9½ TJI 230	ITS2.37/9.5
11⅞ TJI 230	ITS2.37/11.88
14 TJI 230	ITS2.37/14
16 TJI 230	ITS2.37/16
11⅞ TJI 360	ITS2.37/11.88
14 TJI 360	ITS2.37/14
16 TJI 360	ITS2.37/16
11⅞ TJI 560	ITS3.56/11.88
14 TJI 560	ITS3.56/14
16 TJI 560	ITS3.56/16

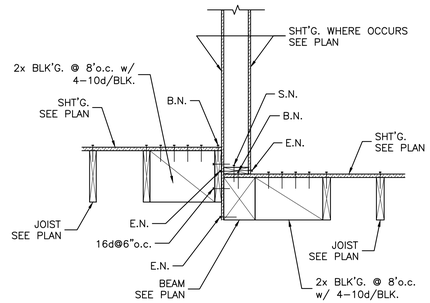
FLOOR JOIST HANGER SCHEDULE	
JOIST	SIMPSON HANGER
2x4	LUS24
2x6	JB26
2x8	JB28
2x10	JB210
2x12	JB212
1¾x7¼ LVL	LBV1.81/7.25
1¾x9½ LVL	LBV1.81/9.5
1¾x11⅞ LVL	LBV1.81/11.88
1¾x14 LVL	LBV1.81/14
1¾x16 LVL	LBV1.81/16

DETAIL scale ¾"=1'-0" 7/SD2.0

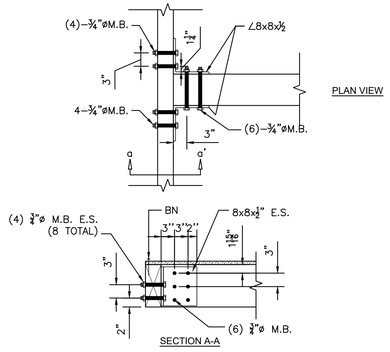




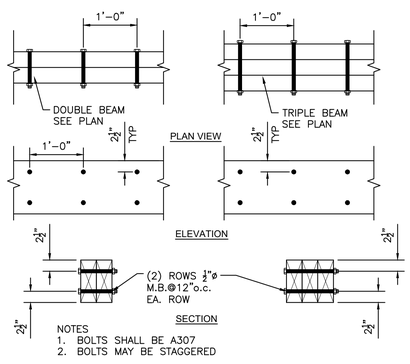
DETAIL scale ¾"=1'-0" 8/SD2.0



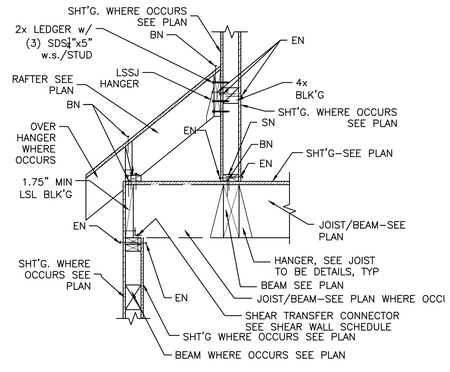
DETAIL scale ¾"=1'-0" 9/SD2.0



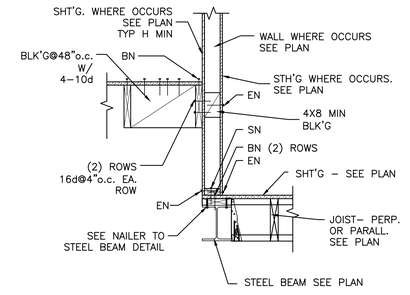
DETAIL scale ¾"=1'-0" 10/SD2.0



DETAIL scale ¾"=1'-0" 11/SD2.0



DETAIL scale ¾"=1'-0" 12/SD2.0



DETAIL scale ¾"=1'-0" 13/SD2.0

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COSTA MESA, CA., 92626
(657) 289-0460

REGISTERED PROFESSIONAL ENGINEER THOMAS J. BURKE No. 9088 STRUCTURAL STATE OF CALIFORNIA

REVISIONS	BY

FLOOR FRAMING DETAILS

HENRY KHUU

NEW RESIDENCE + ADDITION

12322 LAMPSON AVE., GARDEN GROVE, CA 92840

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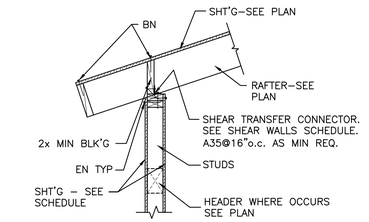
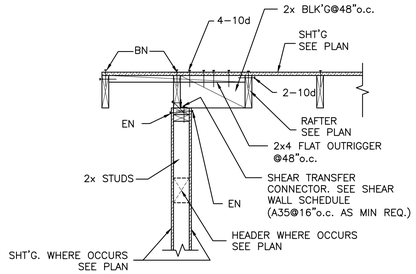


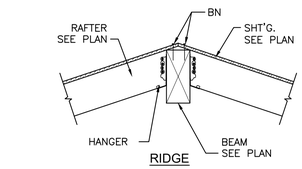
NOTE:
1. USE LSL BLK'G & LVL RIM WITH STRUCTURAL COMPOSITE LUMBER FRAMING

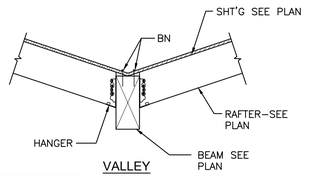
DETAIL scale ¾"=1'-0" 1 SD3.0



NOTE:
1. USE LSL BLK'G WITH STRUCTURAL COMPOSITE LUMBER FRAMING

DETAIL scale ¾"=1'-0" 2 SD3.0

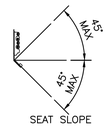




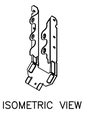

DOUBLE SHEAR NAILING TOP VIEW

ROOF RAFTER HANGER SCHEDULE			
RAFTER	SIMPSON HANGER	MAX C_1	CAPACITY C_D=1.25
2x4	2–16d Toe nails	–––	236 LBS
2x6	LRU26Z	1½"	1,270 LBS
2x8	LRU28Z	1½"	1,355 LBS
2x10	LRU210Z	1½"	1,620 LBS
2x12	LRU212Z	3½"	1,905 LBS

NOTES
1. HANGER CAN BE SLOPED TO 45° UP OR DOWN
2. FASTENERS SHALL BE 16d OR SD#10x2½"
3. JOIST FASTENERS MUST BE INSTALLED AT AN ANGLE THROUGH THE RAFTER OR JOIST TO THE HEADER

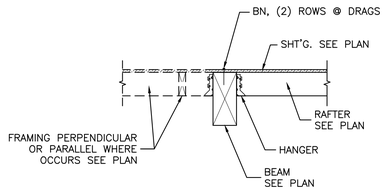


SEAT SLOPE


ISOMETRIC VIEW

R6E RAFTER TO RIDGE/VALLEY

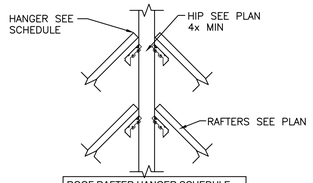
DETAIL scale ¾"=1'-0" 3 SD3.0



ROOF RAFTER HANGER SCHEDULE				
RAFTER	SIMPSON HANGER	ICC–ES	LA RR	FL
2x4	LUS24	ESR–2549	RR25807	FL10655
2x6	LUS26	ESR–2549	RR25807	FL10655
2x8	LUS28	ESR–2549	RR25807	FL10655
2x10	LUS20	ESR–2549	RR25807	FL10655
2x12	HU212	ESR–2549	RR25807	FL10655
2x14	HU214	ESR–2549	RR25807	FL10655

RAFTERS/JOISTS TO BEAM

DETAIL scale ¾"=1'-0" 4 SD3.0



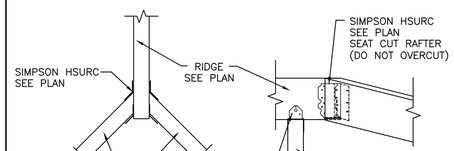
ROOF RAFTER HANGER SCHEDULE	
RAFTER	SIMPSON HANGER
2x4	2–16d TOENAIL
2x6	LSU26
2x8	LSSU28
2x10	LSSU210
2x12	LSSU210

INSTALL HANGER PER SIMPSON RECOMMENDATIONS FOR SLOPED AND SKEWED HANGERS

HANGER MAY BE SLOPED UP AND DOWN AND SKEWED LEFT OR RIGHT, UP TO 45°

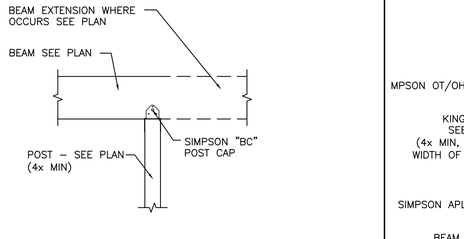
BEVEL CUT 2x4 RAFTERS FOR TOENAIL CONNECTION

DETAIL scale ¾"=1'-0" 5 SD3.0

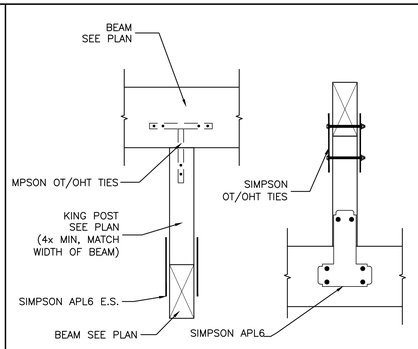


1. INSTALL ALL FASTENERS PER SIMPSON
2. ICC ESR 2549 HSURC & HSULC, FL10655 HSURC & HSULC

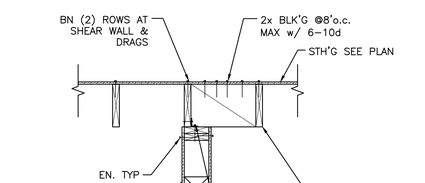
DETAIL scale ¾"=1'-0" 6 SD3.0



DETAIL scale ¾"=1'-0" 7 SD3.0

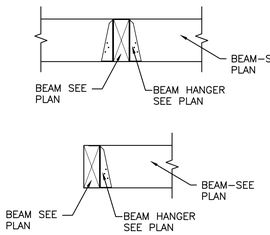


DETAIL scale ¾"=1'-0" 8 SD3.0



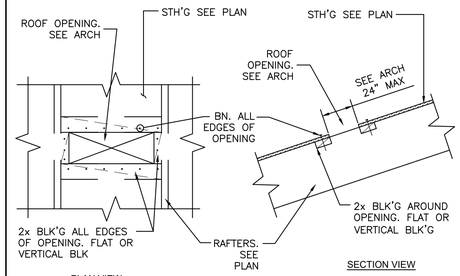
WALL AT ROOF FRAMING

DETAIL scale ¾"=1'-0" 9 SD3.0



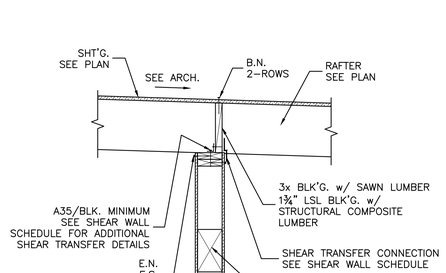
BEAM TO BEAM CONNECTION

DETAIL scale ¾"=1'-0" 10 SD3.0

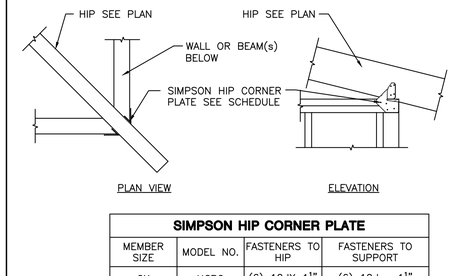


SEE FRAMING AROUND OPENING FOR OPENINGS LARGER THAN RAFTER BAY WIDTH

DETAIL scale ¾"=1'-0" 11 SD3.0



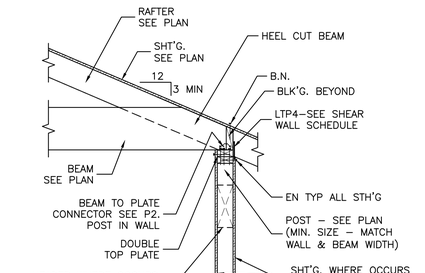
DETAIL scale ¾"=1'-0" 12 SD3.0



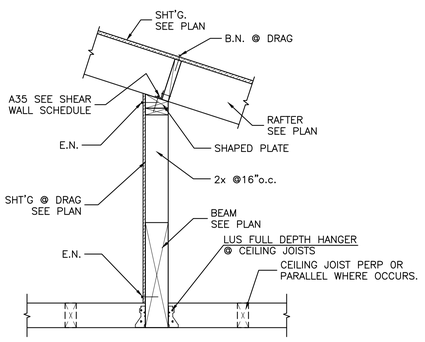
SIMPSON HIP CORNER PLATE			
MEMBER SIZE	MODEL NO.	FASTENERS TO HIP	FASTENERS TO SUPPORT
2X	HCP2	(6) 10dX 1½"	(6) 10d x 1½"
4X	HCP4Z	(8) 10d	(8) 10d

1. INSTALL ALL FASTENERS PER SIMPSON
2. ICC ESR 2551, LA RR25804, FL10447

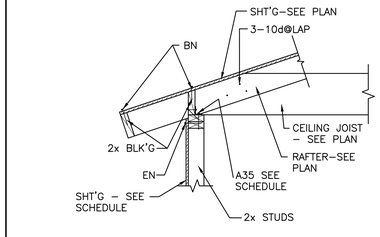
DETAIL scale ¾"=1'-0" 13 SD3.0



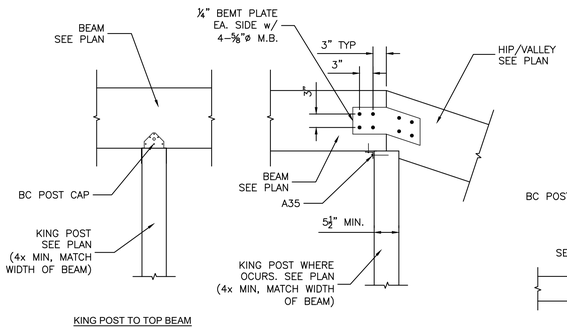
DETAIL scale ¾"=1'-0" 14 SD3.0

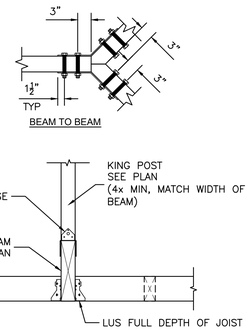


DETAIL scale ¾"=1'-0" 15 SD3.0



DETAIL scale ¾"=1'-0" 16 SD3.0





DETAIL scale ¾"=1'-0" 17 SD3.0

DETAIL

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REGISTERED PROFESSIONAL ENGINEER THOMAS J. BURKE No. 9088 STRUCTURAL STATE OF CALIFORNIA

REVISIONS	BY

ROOF FRAMING DETAILS

HENRY KHUU

NEW RESIDENCE + ADDITION
12322 LAMPSON AVE., GARDEN GROVE, CA 92840

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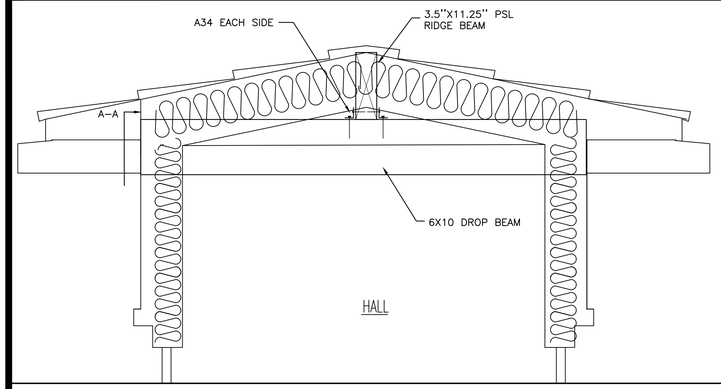
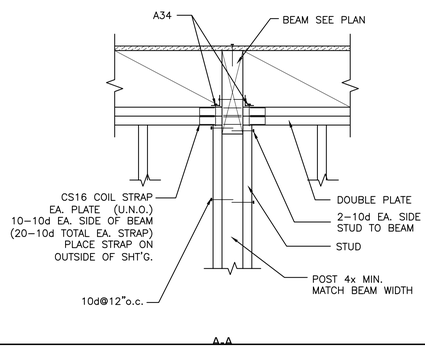
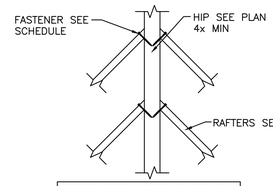


DETAIL scale 1"=1'-0" (1/SD3.1)

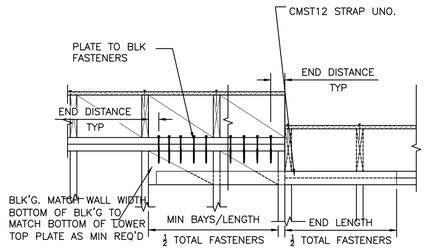




ROOF RAFTER HANGER SCHEDULE	
RAFTER	FASTENER
2x4	2-16d TOENAIL
2x6	2-SDWS 4" LONG
2x8	2-SDWS 4" LONG
2x10	3-SDWS 4" LONG
4x4	2-SDWS 6" LONG
4x6	2-SDWS 6" LONG
4x8	3-SDWS 6" LONG

1. SDS MAY BE SUBSTITUTED FOR SDWS FOR NON-EXPOSEE RAFTERS

DETAIL scale ¾"=1'-0" (4/SD3.1)



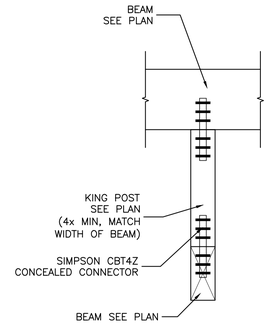
BEAM TO SIDE BLK'G

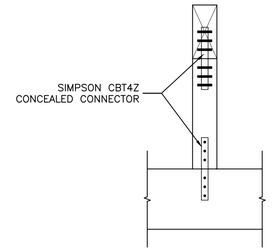
CHANG IN TOP PLATE ELEVATION

STRAP	END LENGTH MIN	MIN BLK'G BAYS/LENGTH	FASTENERS	BLK' TO PLATE FASTENERS	ALLOWABLE TENSION (160)
CMST12	33"	3 -BAYS 48" MIN	74-16d	17-SDS¼"x8" OR	9215
	39"		86-10d	15-¼ø x8" LAG	9215
CMST14	26"	3 -BAYS 48" MIN	56-16d	12-SDS¼"x8" OR	6490
	30"		66-10d	11-¼ø x8" LAG	6490
CMSTC16	20"	2 -BAYS 32" MIN	50-16d SINKER	9-SDS¼"x8" OR 8-¼ø x8" LAG	4586
CS14	15"	2 -BAYS 32" MIN	26-10d	6-SDS¼"x8" OR	2490
	16"		30-8d	4-¼ø x8" LAG	2490
CS16	11"	2 -BAYS 32" MIN	20-10d	5-SDS¼"x8" OR	1705
	13"		22-8d	3-¼ø x8" LAG	1705
CS18	9"	1 -BAY 16" MIN	16-10d	3-SDS¼"x8" OR	1370
	11"		18-8d	3-¼ø x8" LAG	1370
CS20	7"	1 -BAY 16" MIN	12-10d	3-SDS¼"x8" OR	1030
	9"		14-8d	2-¼ø x8" LAG	1030
CS22	7"	1 -BAY 16" MIN	10-10d	3-SDS¼"x8" OR	845
	9"		12-8d	2-¼ø x8" LAG	845

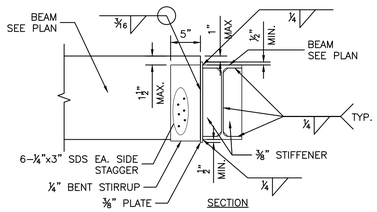
NOTES
1. USE ½ OF THE REQUIRED NAILS IN EACH MEMBER BEING CONNECTED
2. NAIL; 16d=0.162"ø x3½", 16d Sinker = 0.148"ø x3¼" LONG, 10d=0.148"ø x3"LONG, 8d=0.131"ø x2½" LONG
3. INSTALL BLK TO PLATE FASTENERS IN 2 ROWS, OFFSET ¾" BETWEEN ROWS, STAGGER
4. ¼"ø LAGS HAVE A 3½" END DISTANCE FOR BLK'S AND PLATES
5. STRAP LENGTH ON BLK'G TO BE THE LONGER OF END LENGTH OR MIN BAY LENGTH
6. FOR MULTIPLE STRAPS, MULTIPLY 'MIN BLK'G BAY/LENGTH' AND BLK'G TO PLATE FASTENERS' BY THE NUMBER OF STRAPS

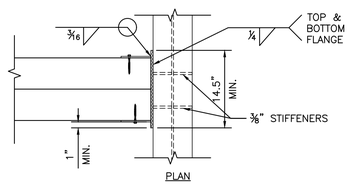
DETAIL scale ¾"=1'-0" (2/SD3.1)





DETAIL scale ¾"=1'-0" (5/SD3.1)





DETAIL scale ¾"=1'-0" (3/SD3.1)

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REVISIONS	BY
1 2017-MO-DA	CAD

ROOF FRAMING DETAILS

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