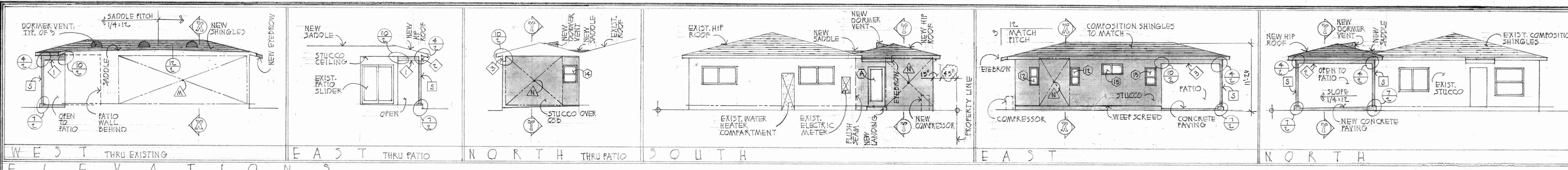




AN ADDITION TO A RESIDENCE FOR
JAMES K. MILLER
 512 W. 220TH STREET, CARSON, CA 90745



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

DOOR SCHEDULE

SYM.	TYPE	WIDTH	HEADER	REMARKS
A	FULL-LITE	3'-0"	4x4	
B	HOLLOW-CORE	2'-6"		VERIFY WIDTH FOR APPLIANCE INSTALLATION/REMOVAL
C		2'-6"		
D		2'-0"		
E		2'-6"		POCKET INSTALLATION
F	WARDROBE SLIDER	6'-0"		
G	SHOWER	2'-0"		WITH SIDE ENCLOSURE

WINDOW SCHEDULE

SYM.	TYPE	WIDTH	HEIGHT	HEADER	QTY.	REMARKS
12	DOUBLE-HUNG	1'-6"	3'-0"	4x4	TWO	
13		2'-0"	3'-0"		ONE	
14		2'-6"	3'-0"			
15	SLIDER	4'-0"	2'-0"			SILL AT 60" MIN. ABOVE FLOOR. OBSCURE GLASS

BEAM SCHEDULE

SYM.	SIZE	GR.	RL.	NORTH OR WEST SUPPORT	SOUTH OR EAST SUPPORT	POSITION	REMARKS
1	4x12	#2	4'	"ECC44LRQ-3D32.5" ON 4x4 POST	"HUC410" TO SIDE OF DOUBLE 2x4 STUD	SIM. UNDER RAFTERS	
2	4x12	#1			"ECC44LRQ-3D32.5" ON 4x4 POST		
3	4x12	#1		"ECC44LRQ-3D32.5" ON 4x4 POST	"HUC410" TO SIDE OF 4x4 STUD		
4	4x8	#1		ACROSS TOP PLATES ON 4x4 CRIPPLE TO HEADER	ACROSS BEAM		CHAMFER ENDS TO MATCH TOP OF 2x4 RAFTERS
5	4x8	#1		ACROSS TOP PLATES ON DOUBLE 2x4 STUD	ACROSS PLATES ON 4x4 STUD		
6	4x4	#1	3'	"HUC44" TO SIDE OF 2x4 STUD	2x4 TRIMMER	UNDER EXISTING TOP PLATES	

SCOPE OF WORK

- ADD BEDROOM, BATHROOM, LAUNDRY, AND COVERED PATIO.
- INSTALL MINI-SPLIT HEAT PUMP.

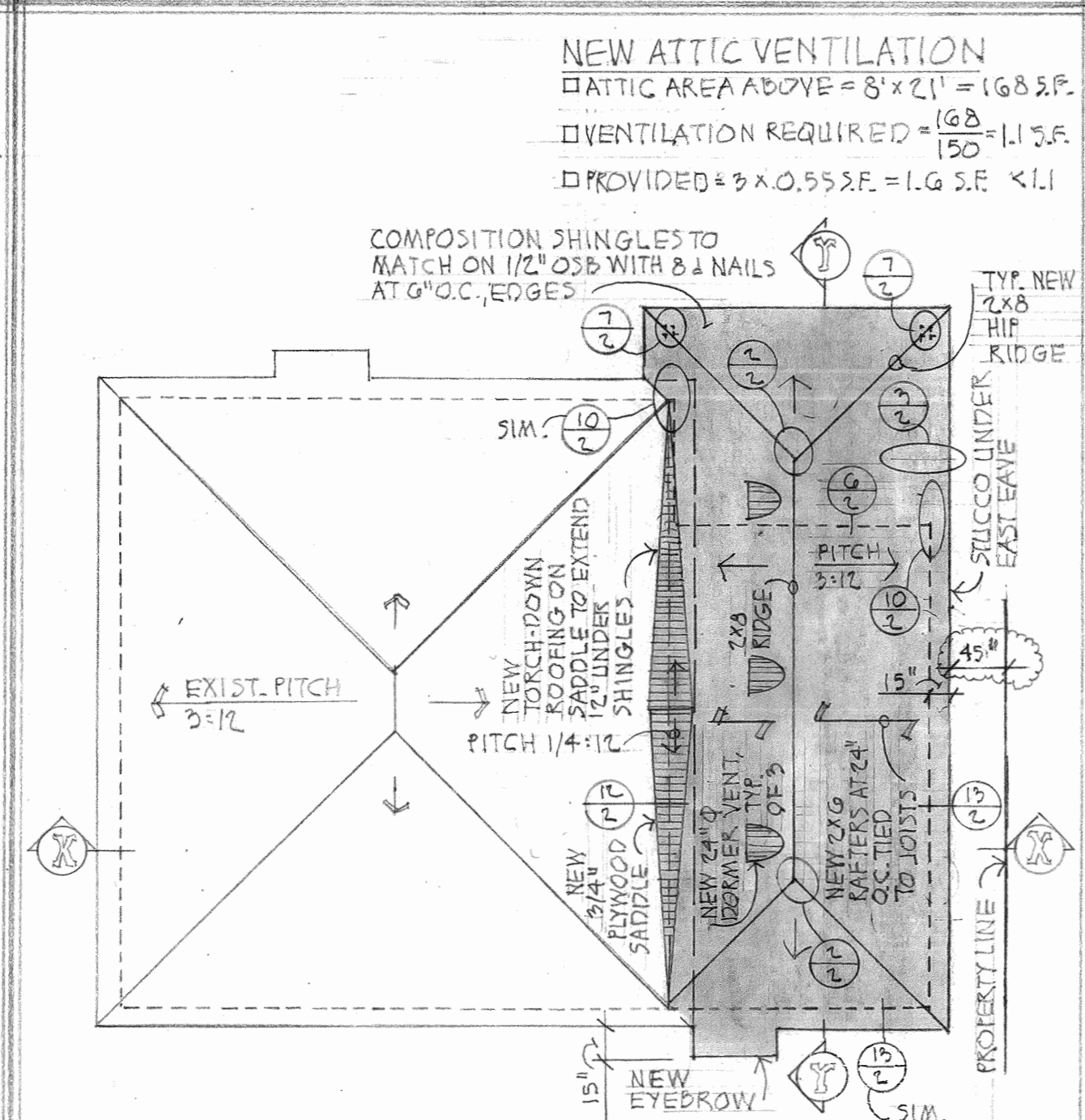
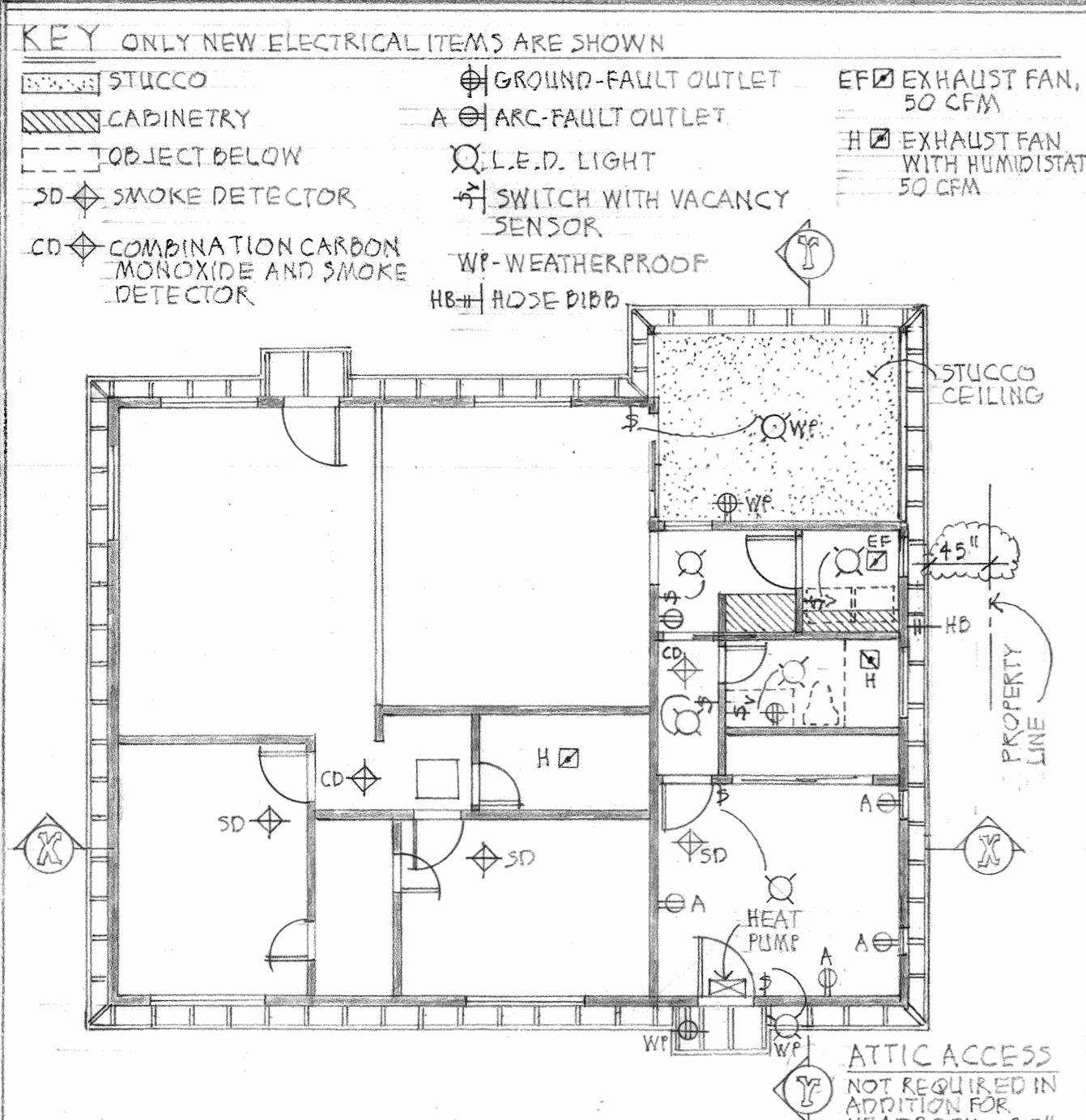
PROJECT DATA

BUILDING AREA

- EXISTING RESIDENCE: 866 SF
- ADDITION: 309 SF
- TOTAL RESIDENCE: 1175 SF
- NEW COVERED PATIO: 120.5 SF

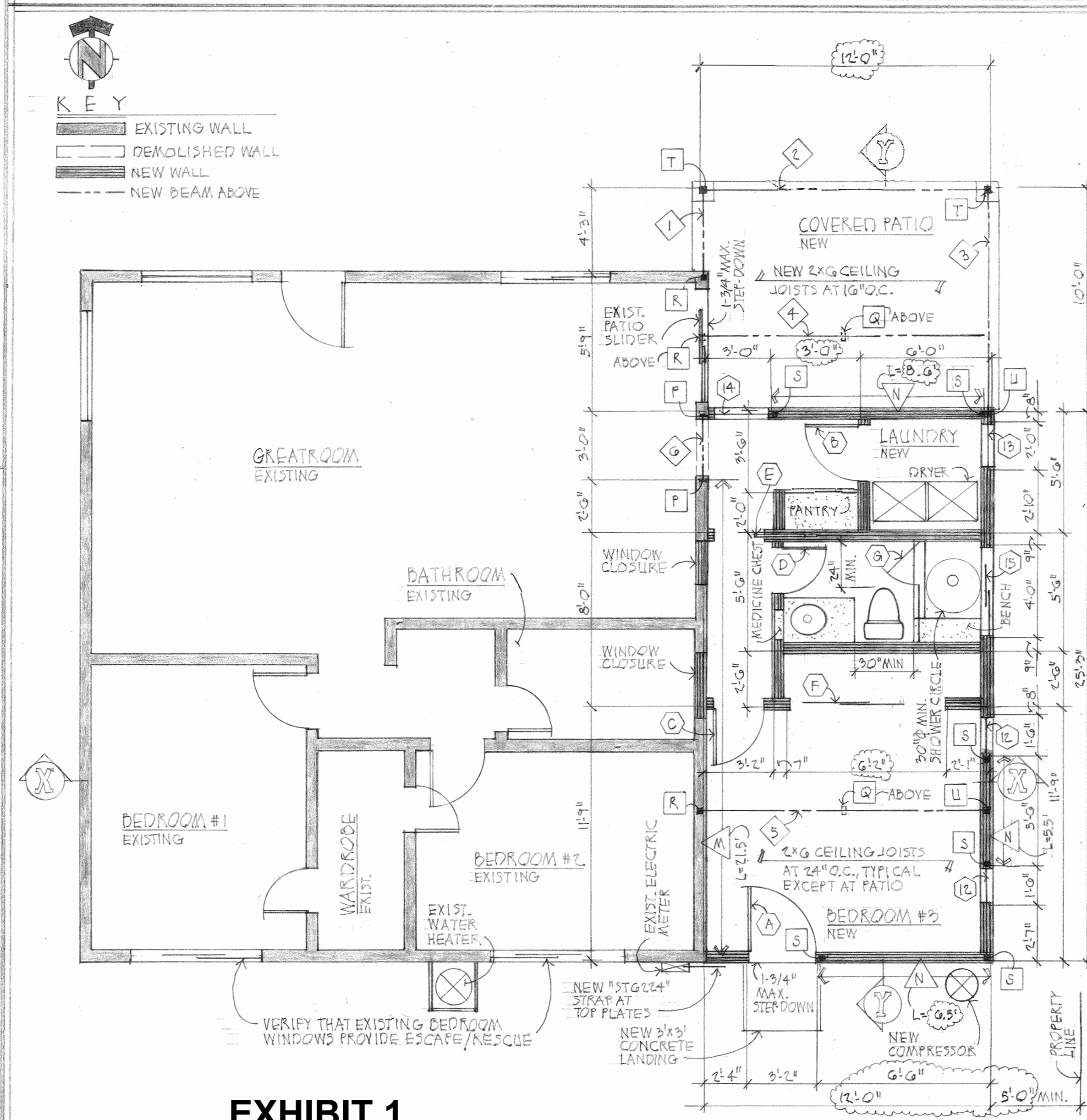
LOT COVERAGE

- REAR RESIDENCE: 111 SF
- FRONT RESIDENCE: 98 SF
- GARAGE: 400 SF
- TOTAL FOOTPRINTS: 2597 SF
- LOT COVERAGE: 557 SF = 23%



SHEAR PANEL SCHEDULE

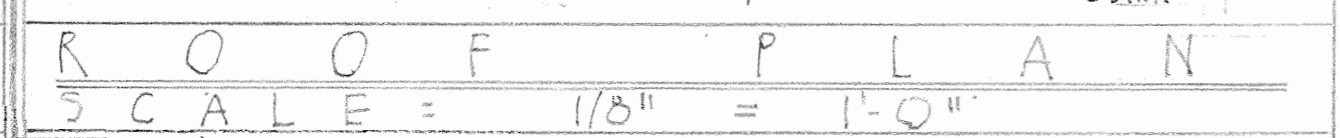
SYM.	OSB	P.T.SILL	HOLDOWNS	CHORD	SHEAR TRANSFER	REMARKS
M	7/16" WITH 3/8" NAILS AT 6" O.C.	EXISTING 2x4 WITH 1/2" BOLTS	NONE REQUIRED	EXISTING TOP PLATES WITH DRAG TO BEAM	"A95" AT 48" O.C. CHORD TO LEDGER	
N	2x4 WITH 3/8" BOLTS AT 48" O.C.	"HUC44" TO SIDE OF 2x4 STUD	"HUC44" TO SIDE OF 2x4 STUD	TOP PLATES WITH "STG215" AT ANY JUNCTION	"LTP4" AT 24" O.C. CHORD TO BLOCKS OR RAFTER	



FLOOR PLAN
 SCALE = 1/4" = 1'-0"



REFLECTED-CEILING PLAN
 SCALE = 1/8" = 1'-0"



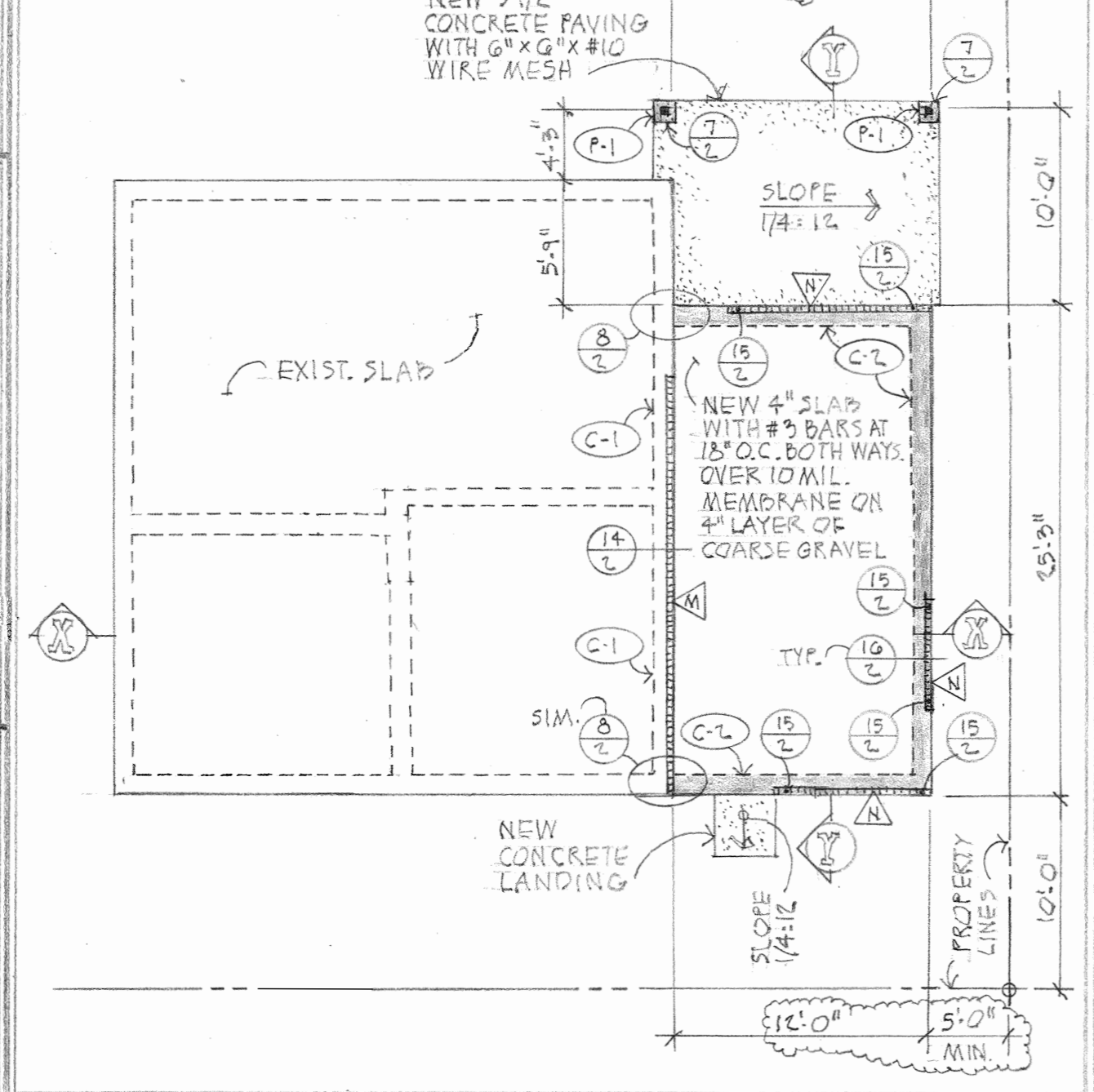
ROOF PLAN
 SCALE = 1/8" = 1'-0"

CODES

The prevailing building and construction codes are the 2014 editions of California Building Code (CBC), California Residential Code (CRC), California Mechanical Code (CMC), California Plumbing Code (CPC), California Electrical Code (CEC), California Energy Code (Title 24), and California Green Building Standards Code (CALGreen).

STUD SCHEDULE

SYM.	SIZE	CONNECTORS	REMARKS
P	2x4		"HUC44" OR "H44"
Q		"A95"	"LTP4" BOTH SIDES
R	DOUBLE 2x4		"HUC410" AT BEAM
S	4x4		"HUC44" AT BEAM
T			"ECC44LRQ-3D32.5" OR "LRQ"



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

FOUNDATION SCHEDULE

SYM.	TYPE	DIMENSIONS	REBAR	REMARKS
C-1	EXISTING CONTINUOUS FOOTING	12" WIDE, 12" MIN. INTO GRADE	UNKNOWN	
C-2	NEW CONTINUOUS FOOTING	12" WIDE, 12" MIN. INTO GRADE, 8" MIN. ABOVE GRADE	#4 BAR AT TOP AND BOTTOM	
F-1	NEW PAD	18" SQ., 12" MIN. INTO GRADE, 8" MIN. ABOVE GRADE	TWO #4 BARS BOTH WAYS AT BOTTOM	EMBED "ECC44LRQ-3D32.5" POST BASE

OCCUPANCY

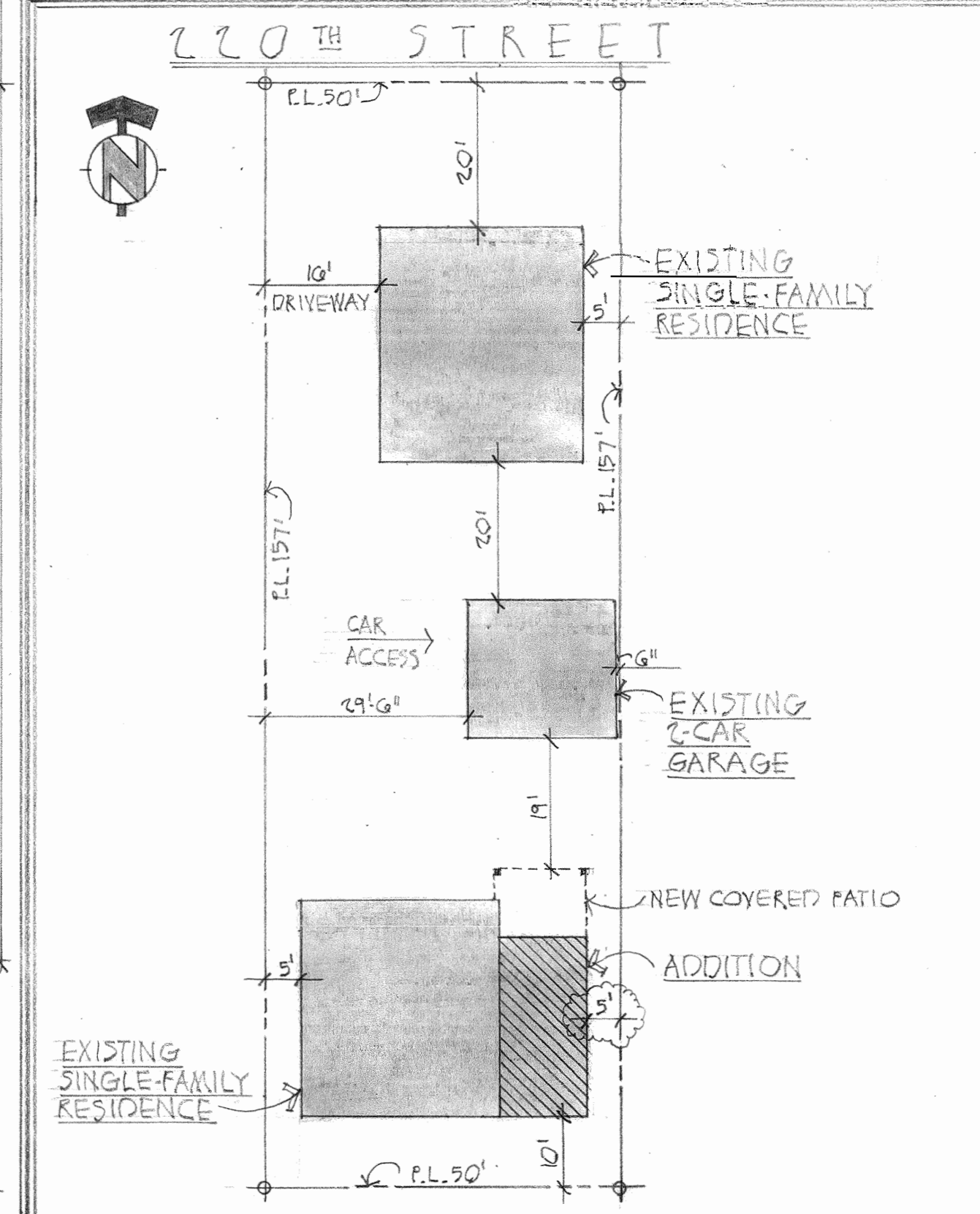
GROUP: R-3

CONSTRUCTION

TYPE: V-2
 SPRINKLERED: V-2

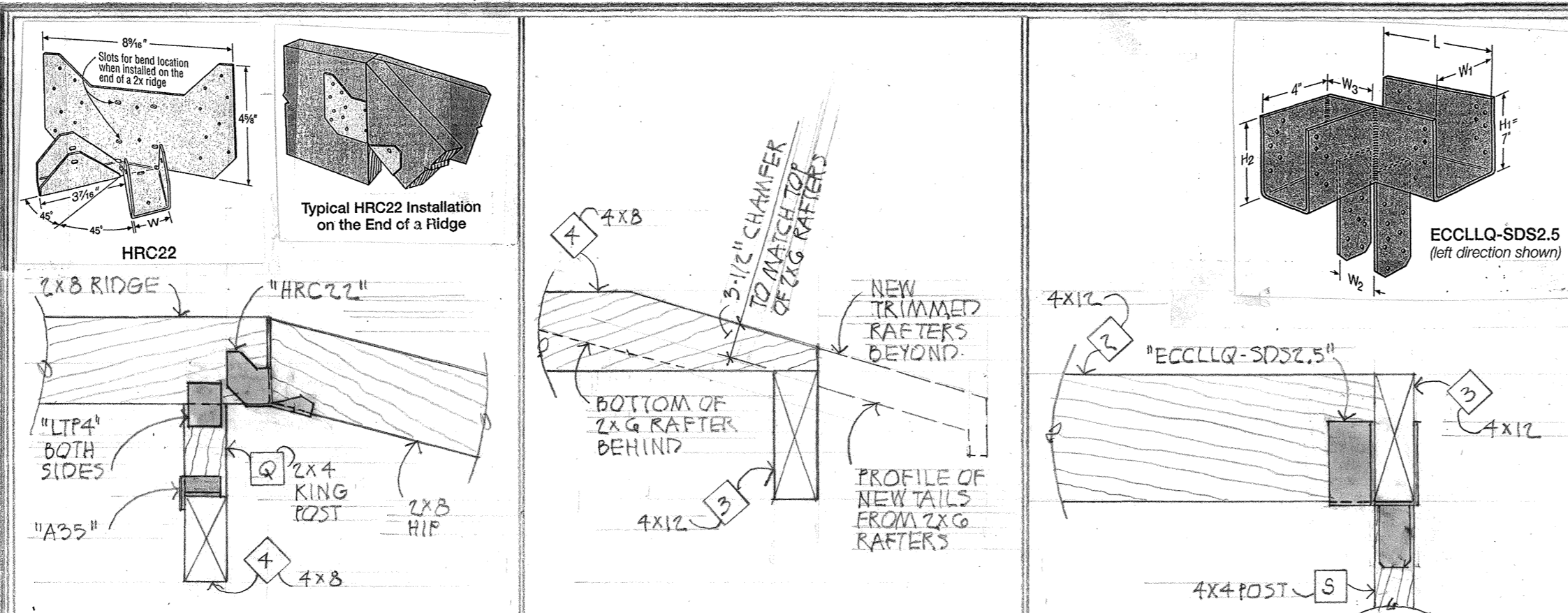
LEGAL DESCRIPTION

LOT: 9
 TRACT: 361
 A.I.N.: 7941009009

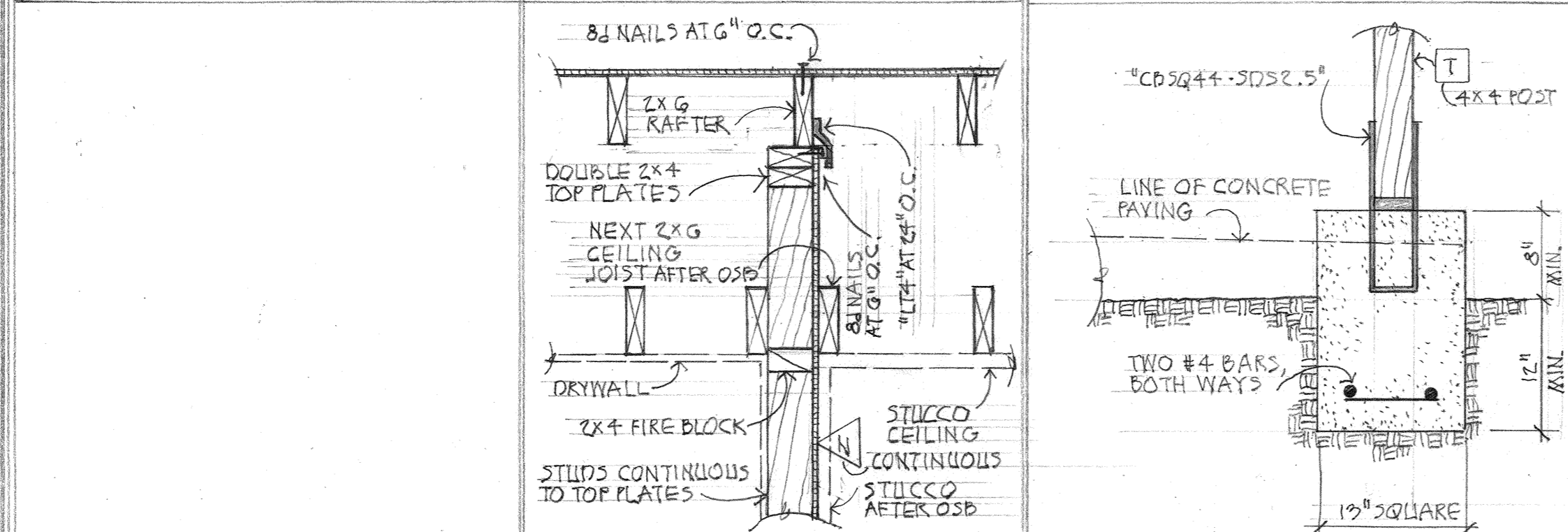


PLOT PLAN
 SCALE = 1" = 20'

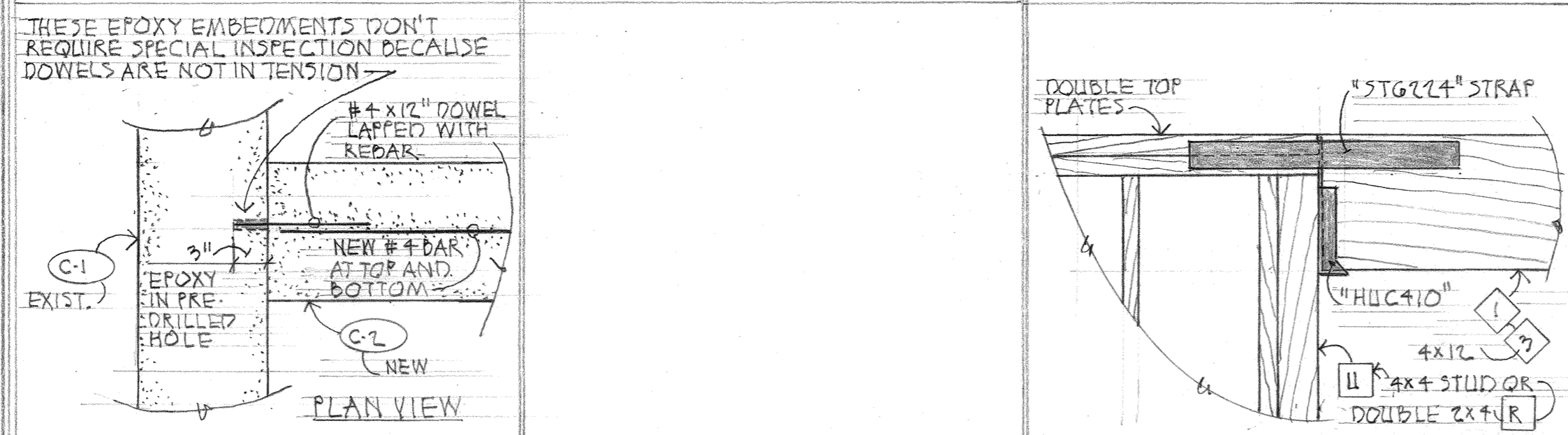
EXHIBIT 1



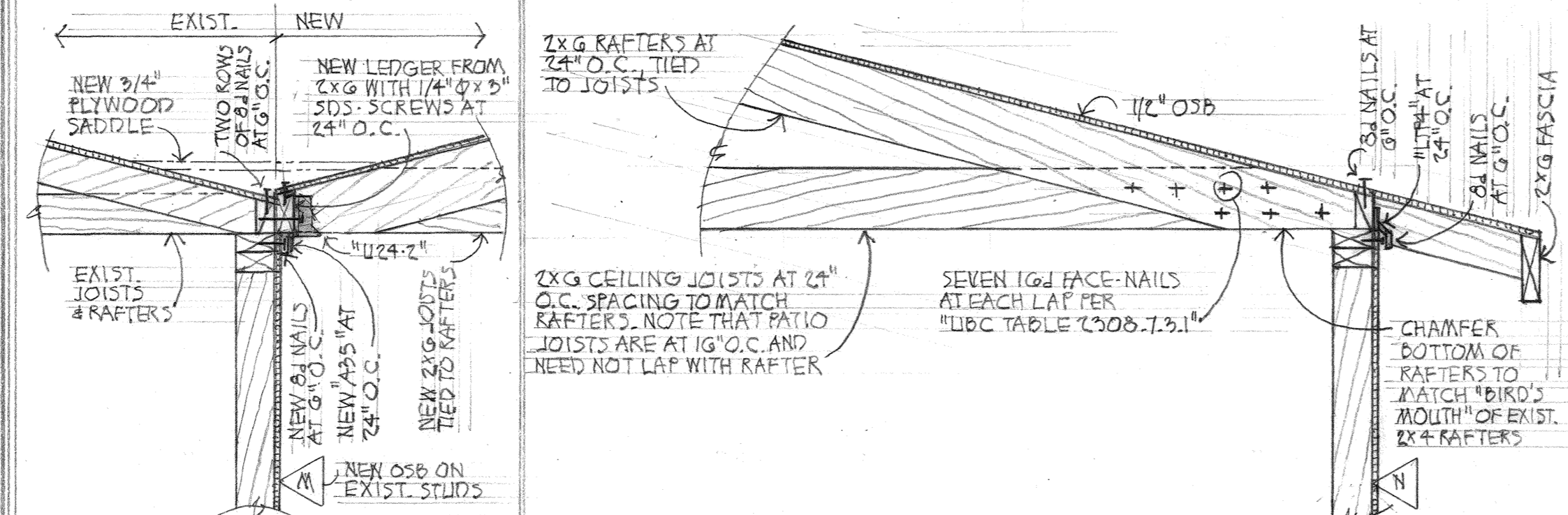
1 RIDGE TO HIPS 2 BEAM ACROSS BEAM 3 BEAM TO BEAM AT CORNER 4



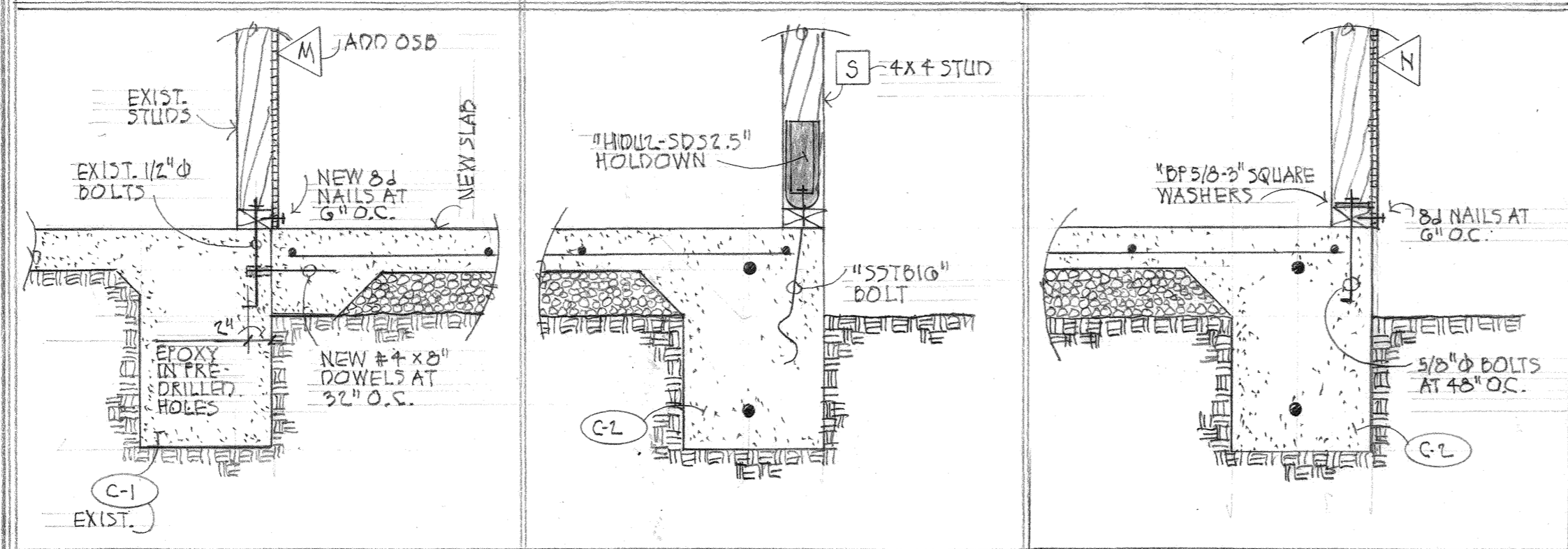
5 SHEAR TRANSFER AT PARALLEL RAFTER 6 POST BASE 7



8 FOOTING JUNCTION EXISTING TO NEW 9 DRAG STRAP AT PATIO 10



11 SHEAR TRANSFER AT SADDLE 12 RAFTER TIE 13

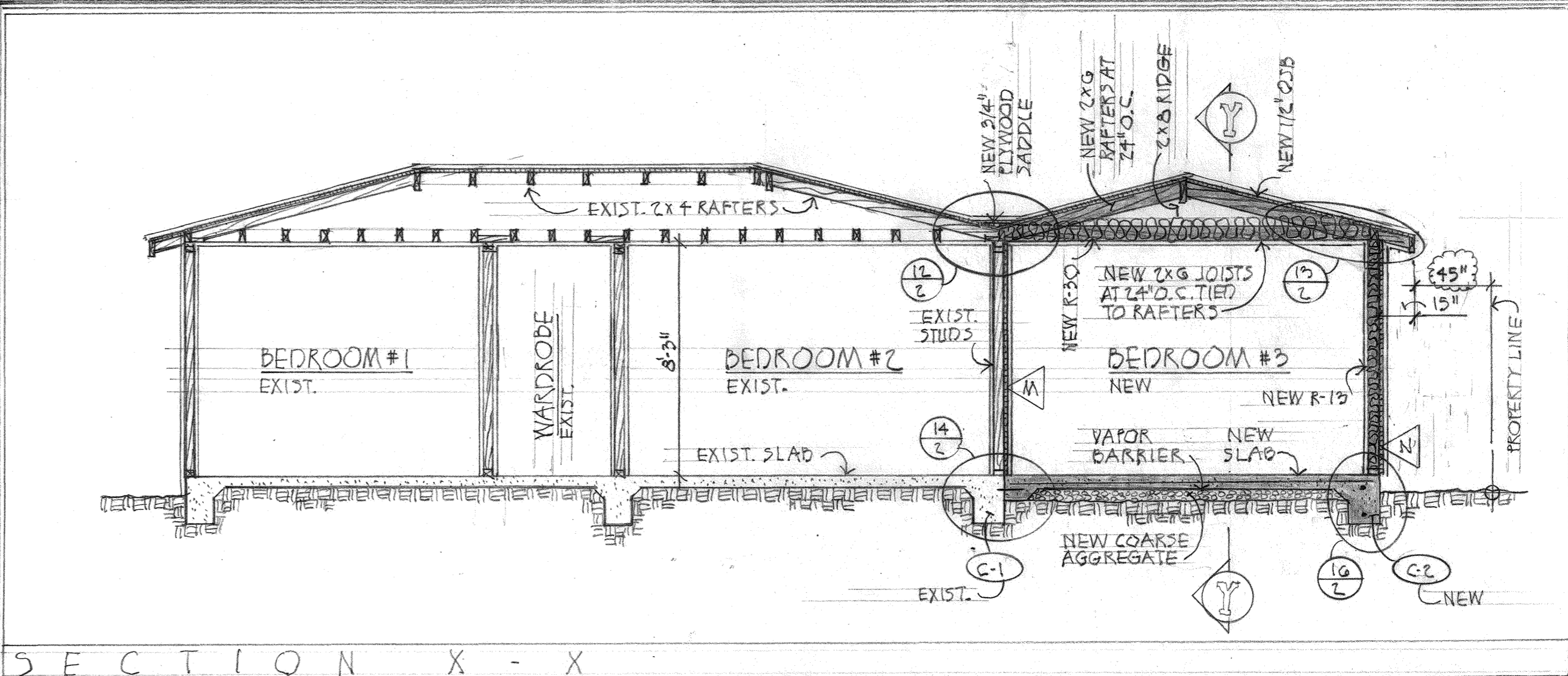


14 SLAB JUNCTION EXISTING TO NEW 15 HOLDOWN 16 SILL BOLT 17

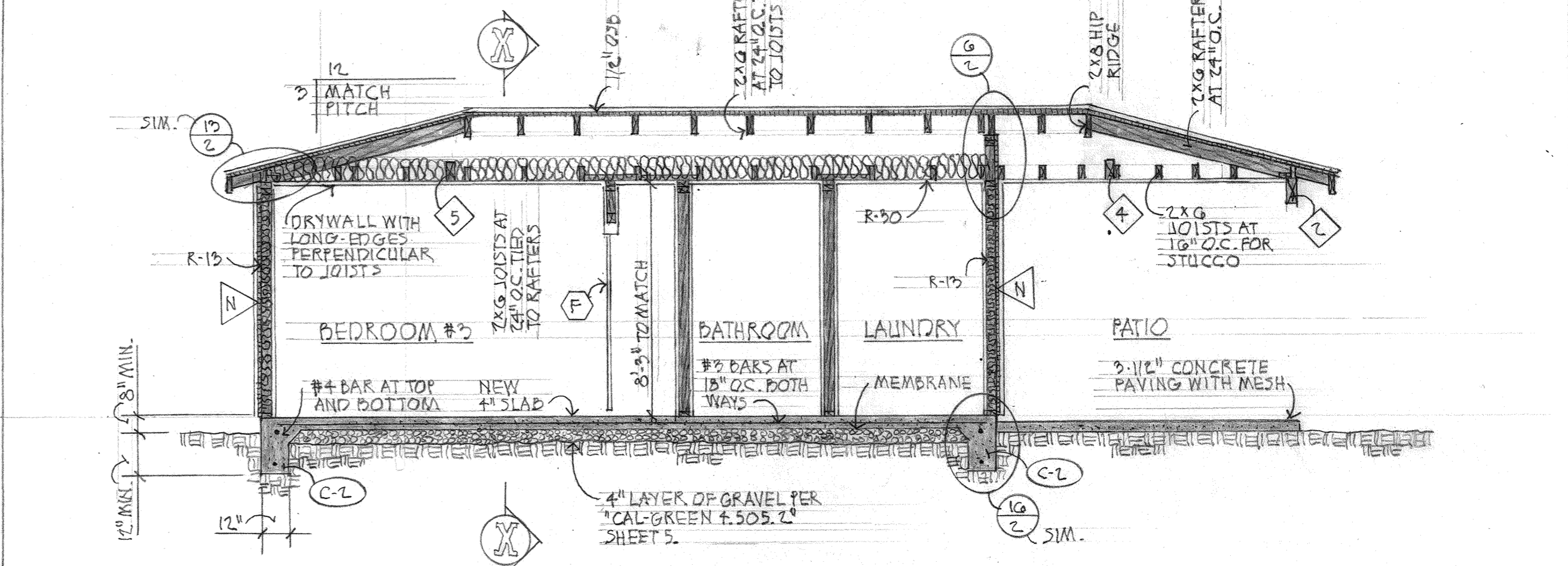
DETAILS SCALE = 1" = 1'-0"

GENERAL NOTES

- STANDARDS**
 • Contractor shall verify dimensions and conditions at site. Many dimensions are dependent on existing conditions. Discrepancies with the plans shall be reported promptly to the Architect.
- FOUNDATION**
 • Concrete shall have a compressive strength of 2900 psi.
 • New sill bolts shall have 3/8" x 3" square washers.
 • Holdown anchors must be tied in place prior to foundation inspection and re-tightened just prior to covering the wall framing.
 • New sill bolts shall be 5/8" diameter x 10" with 1" embedment spaced 32" apart and not more than 12" or less than 4" from each end piece.
- FRAMING**
 • Beam, joists, rafters & headers shall be #2 grade Douglas fir.
 • Timber connector model numbers refer to SIMPSON STRONG-TIE COMPANY. It is mandatory that these products are installed per the SIMPSON catalog specifications.
 • Only common nails are permitted for roof sheathing and shear panel nailing. Field edges of OSB shear panels shall have 4x4 backing. Field nailing shall be at 12" o.c.
- ELECTRICAL**
 • Carbon monoxide/smoke detectors shall be hard-wired, and interconnected in such a manner that the activation of one alarm will activate all of the alarms. All detectors shall be equipped with battery backup.
 • Provide a 20amp branch circuit in the new bathroom. This circuit shall have no other outlets.
 • Recessed lighting at ceilings shall be UL listed for direct contact with insulation.
 • New outlets shall be tamper-resistant.
- PLUMBING**
 • Shower shall be provided with individual control valves of the pressure-balance, thermostatic, or combination pressure balance/thermostatic mixing valve type that provide scald and thermal shock protection.
 • Toilet, showerhead, and faucets shall be water-conserving per CALGreen (see sheet 4).
- OPENINGS**
 • New windows and exterior door shall be dual-glazed with a maximum U-value of 0.32 and SHGC of 0.25. CEC compliance labels should stay on for inspector to verify.
 • Glazing in new exterior door and shower enclosure shall be tempered.
- INSULATION**
 • New exterior walls shall receive R-19.
 • New ceilings shall receive R-30.
- FINISHES**
 • The new shower shall have a smooth, non-absorbent surface to a height not less than 70" above the drain inlet.
 • Exterior OSB covered by stucco shall have 2 layers of Grade-D underlayment.
 • Stucco shall have weep screeds, 2" minimum above paving, 4" minimum above grade.
 • New ceiling drywall shall be installed with long edges perpendicular to joists.



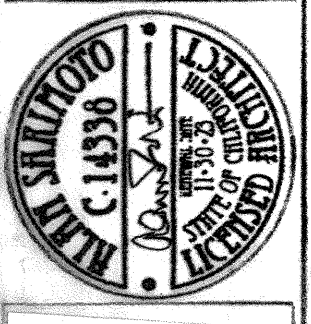
SECTION X - X



SECTION Y - Y

CROSS-SECTIONS SCALE = 1/4" = 1'-0"

ALAN SAKI MOTO ARCHITECT
 1441 W. 152ND STREET, GARDENA, CA 90249
 OFFICE (714) 531-1106
 alansakimoto@gmail.com



AN ADDITION TO A RESIDENCE FOR:
AMER KAHN & HORIYAMA
 312 W. 220TH STREET, CARSON, CA 90745

JOB NUMBER
209

DATE PRINTED
 27 DECEMBER 2022
 23 FEBRUARY 2023

SHEET
2
 OF 5

2019 Low-Rise Residential Mandatory Measures Summary

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

Optimal Options

Table with 2 columns: Section Number and Description. Includes sections 110.0001 through 110.0015 covering various building envelope and energy efficiency requirements.

Ducts and Ductwork

Table with 2 columns: Section Number and Description. Includes sections 110.0016 through 110.0020 covering duct leakage and sealing requirements.

Energy-Related Systems

Table with 2 columns: Section Number and Description. Includes sections 110.0021 through 110.0030 covering HVAC, lighting, and other energy systems.

Other Requirements

Table with 2 columns: Section Number and Description. Includes sections 110.0031 through 110.0040 covering miscellaneous requirements.

Other Requirements

Table with 2 columns: Section Number and Description. Includes sections 110.0041 through 110.0050 covering miscellaneous requirements.

Requirements for Ventilation and Indoor Air Quality

Table with 2 columns: Section Number and Description. Includes sections 110.0001 through 110.0005 covering ventilation and IAQ requirements.

Pool and Spa Systems and Equipment

Table with 2 columns: Section Number and Description. Includes sections 110.0006 through 110.0010 covering pool and spa requirements.

Lighting

Table with 2 columns: Section Number and Description. Includes sections 110.0011 through 110.0015 covering lighting requirements.

Energy Use Summary

Table with 5 columns: Energy Use (kWh/ft²/yr), Standard Design, Proposed Design, Compliance Margin, and Percent Improvement. Includes rows for Space Heating, Space Cooling, IAQ Ventilation, Water Heating, Self Utilization/Flexibility Credit, and Compliance Energy Total.

REQUIRED SPECIAL FEATURES

- List of special features including variable capacity heat pump compliance option, variable capacity heat pump compliance option, and variable capacity heat pump compliance option.

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.

Table with 2 columns: Feature Name and Description. Lists various HERS features such as variable capacity heat pump, ductless indoor units, and energy-efficient lighting.

ZONE INFORMATION

Table with 7 columns: Zone Name, Zone Type, HVAC System Name, Zone Floor Area (ft²), Avg. Ceiling Height, Water Heating System 1, and Water Heating System 2.

OPaque SURFACES

Table with 10 columns: Name, Zone, Construction, Azimuth, Orientation, Gross Area (ft²), Window and Door Area (ft²), Tilt (deg), Wall Exceptions, and Status.

ATIC

Table with 8 columns: Name, Construction, Type, Roof Rise (x in 12), Roof Reflectance, Roof Emittance, Radiant Barrier, and Cool Roof.

FENESTRATION / GLAZING

Table with 14 columns: Name, Type, Surface, Orientation, Azimuth, Width (ft), Height (ft), Mult., Area (ft²), U-factor, U-factor Source, SHGC, SHGC Source, and Exterior Shading.

FENESTRATION / GLAZING

Table with 14 columns: Name, Type, Surface, Orientation, Azimuth, Width (ft), Height (ft), Mult., Area (ft²), U-factor, U-factor Source, SHGC, SHGC Source, and Exterior Shading.

SLAB FLOORS

Table with 8 columns: Name, Zone, Area (ft²), Perimeter (ft), Edge Insul. R-value and Depth, Edge Insul. R-value and Depth, Carpeted Fraction, and Heated.

CERTIFICATE OF COMPLIANCE

Project Name: Khan & Ameen Residence, Calculation Date/Time: 2022-12-20T15:34:34 08:00, Project Description: Title 24 Analysis, Input File Name: 19169-2.rbd19x

GENERAL INFORMATION

Table with 22 columns: ID, Project Name, Run Title, Project Location, City, Zip code, Climate Zone, Building Type, Project Scope, Addition Cond. Floor Area (ft²), Existing Cond. Floor Area (ft²), Total Cond. Floor Area (ft²), ADU Bedroom Count, Is Natural Gas Available?

Table with 6 columns: ID, Existing Area (excl. new addition) (ft²), Addition Area (excl. existing) (ft²), Total Area (ft²), Existing Bedrooms, Addition Bedrooms, Total Bedrooms.

COMPLIANCE RESULTS

Table with 3 columns: ID, Description, and Compliance Status. Includes rows for Building Complies with Computer Performance, This building incorporates features that require field testing and/or verification, and This building incorporates one or more Special Features shown below.

ENERGY USE SUMMARY

Table with 5 columns: Energy Use (kWh/ft²/yr), Standard Design, Proposed Design, Compliance Margin, and Percent Improvement. Includes rows for Space Heating, Space Cooling, IAQ Ventilation, Water Heating, Self Utilization/Flexibility Credit, and Compliance Energy Total.

REQUIRED SPECIAL FEATURES

- List of special features including variable capacity heat pump compliance option, variable capacity heat pump compliance option, and variable capacity heat pump compliance option.

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ATIC

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FENESTRATION / GLAZING

Table with 14 columns: Name, Type, Surface, Orientation, Azimuth, Width (ft), Height (ft), Mult., Area (ft²), U-factor, U-factor Source, SHGC, SHGC Source, and Exterior Shading.

FENESTRATION / GLAZING

Table with 14 columns: Name, Type, Surface, Orientation, Azimuth, Width (ft), Height (ft), Mult., Area (ft²), U-factor, U-factor Source, SHGC, SHGC Source, and Exterior Shading.

SLAB FLOORS

Table with 8 columns: Name, Zone, Area (ft²), Perimeter (ft), Edge Insul. R-value and Depth, Edge Insul. R-value and Depth, Carpeted Fraction, and Heated.

OPaque SURFACE CONSTRUCTIONS

Table with 8 columns: Construction Name, Surface Type, Construction Type, Framing, Total CV5 R-value, Interior / Exterior Continuous R-value, U-factor, and Assembly Layers.

BUILDING ENVELOPE - HERS VERIFICATION

Table with 4 columns: ID, Description, and Compliance Status. Includes rows for Quality Insulation Installation (QII) and Building Envelope Air Leakage.

WATER HEATING SYSTEMS

Table with 7 columns: ID, Name, System Type, Distribution Type, Water Heater Name (if), Solar Heating System, Compact Distribution, and HERS Verification.

WATER HEATERS

Table with 14 columns: ID, Name, Heating Element Type, Tank Type, # of Units, Tank Vol. (gal), Energy Factor or Efficiency, Input Rating or Pilot, Tank Insulation R-Value (in/Recy), Standby Loss or Recovery Eff, 1st Hr. Heating or Flow Rate, NEA Heat Pump Brand or Model, Tank Location or Ambient Condition, Status, and Verified Existing Condition.

WATER HEATING - HERS VERIFICATION

Table with 7 columns: ID, Name, Pipe Insulation, Parallel Piping, Compact Distribution, Compact Distribution Type, Recirculation Control, and Shower Drain Water Heat Recovery.

SPACE CONDITIONING SYSTEMS

Table with 11 columns: Name, System Type, Heating Unit Name, Cooling Unit Name, Fan Name, Distribution Name, Required Thermostat Type, Status, Verified Equipment Condition, Heating Equipment Count, and Cooling Equipment Count.

HVAC - HEAT PUMPS

Table with 11 columns: Name, System Type, Number of Units, HSPF/COP, Cap 47, Cap 17, SEER, EER/CEER, Zonally Controlled, Compressor Type, and HERS Verification.

HVAC HEAT PUMPS - HERS VERIFICATION

Table with 9 columns: Name, Verified Airflow, Airflow Target, Verified EER, Verified SEER, Verified HSPF, Verified HSPF Charge, Verified HSPF, Verified Heating Cap 47, and Verified Heating Cap 17.

VARIABLE CAPACITY HEAT PUMP COMPLIANCE OPTION - HERS VERIFICATION

Table with 10 columns: Name, Certified Low-Static VCHP System, Airflow to Habitable Rooms, Ductless Units in Conditioned Space, Wall Mount Thermostat, Air Filter Sizing & Pressure Drop Rating, Low Leakage Ducts in Conditioned Space, Minimum Airflow per RA3.3.4.1, Certified non-continuous Fan, and Indoor Fan not Continuous.

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I, the undersigned, certify that this Certificate of Compliance documentation is accurate and complete.

Table with 2 columns: Documentation Author Name and Signature, and Documentation Author Signature. Includes fields for Name, Address, City/State/Zip, Phone, and Signature Date.

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 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.

Table with 2 columns: Responsible Designer Name and Signature, and Responsible Designer Signature. Includes fields for Name, Address, City/State/Zip, Phone, and Signature Date.

RESIDENT INFORMATION

Table with 2 columns: Name and Address. Includes fields for Name, Address, City/State/Zip, and Phone.

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

Registration Number: 222-P010247248-000-0000000-000, Registration Date/Time: 2022-12-20 15:52:37, HERS Provider: CatCERTS Inc., CA Building Energy Efficiency Standards - 2019 Residential Compliance, Report Version: 2019.2.000, Schema Version: rev 20200901, Report Generated: 2022-12-20 15:34:48

Vertical banner for Alan Sakimoto Architect, Inc. with contact information: 1441 W. 183rd Street, Gardena, CA 90248, Phone: 310-532-7108, Email: alan@ksakimoto.com. Includes a circular logo and the text 'AN ADDITION TO A RESIDENCE FOR AMERKHAM & HORRYH AND CARLSON CA 90745'.

Job Number 209, Date Printed 21 DECEMBER 2022, Sheet 3 of 5.



AN ADDITION TO A RESIDENCE FOR
AMER KAHN
 312 W. 220TH STREET CARSON, CA 90745
 1076 NUMBER
209
 DATE PRINTED
 27 DECEMBER 2019
 SHEET
4
 OF 5

CHAPTER 3 GREEN BUILDING
SECTION 301 GENERAL

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

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

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

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

SECTION 302 MIXED OCCUPANCY BUILDINGS
302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.

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

CHAPTER 4 RESIDENTIAL MANDATORY MEASURES
DIVISION 4.1 PLANNING AND DESIGN
SECTION 4.102 DEFINITIONS
4.102.1 DEFINITIONS
 The following terms are defined in Chapter 2 (and are included here for reference)

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

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

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

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

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

Note: Refer to the State Water Resources Control Board for projects which disturb one acre or more of soil, or are part of a larger common plan of development which in total disturbs one acre or more of soil.
 (Website: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html)

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

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

Exception: Additions and alterations not altering the drainage path.

4.106.4 Electric vehicle (EV) charging for new construction. New construction shall comply with Sections 4.106.4.1, 4.106.4.2, or 4.106.4.3 to facilitate future installation and use of EV chargers. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the California Electrical Code, Article 625.

Exceptions:

- On a case-by-case basis, where the local enforcing agency has determined EV charging and infrastructure are not feasible based upon one or more of the following conditions:
 - Where there is no commercial power supply.
 - Where there is evidence substantiating that meeting the requirements will alter the local utility infrastructure design requirements on the utility side of the meter so as to increase the utility side cost to the homeowner or the developer by more than \$400.00 per dwelling unit.
- Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities.

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

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

4.106.4.2 New multifamily dwellings. If residential parking is available, ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future EVSE. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

Notes:

- Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.
- There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.

4.106.4.2.1 Electric vehicle charging space (EV space) locations. Construction documents shall indicate the location of proposed EV spaces. Where common use parking is provided at least one EV space shall be located in the common use parking area and shall be available for use by all residents.

4.106.4.2.1.1 Electric Vehicle Charging Stations (EVCS) When EV chargers are installed, EV spaces required by Section 4.106.2.2, Item 3, shall comply with at least one of the following options:

- The EV space shall be located adjacent to an accessible parking space meeting the requirements of the California Building Code, Chapter 11A, to allow use of the EV charger from the accessible parking space.
- The EV space shall be located on an accessible route, as defined in the California Building Code, Chapter 2, to the building.

Exception: Electric vehicle charging stations designed and constructed in compliance with the California Building Code, Chapter 11B, are not required to comply with Section 4.106.4.2.1.1 and Section 4.106.4.2.2, Item 3.

Note: Electric Vehicle charging stations serving public housing are required to comply with the California Building Code, Chapter 11B.

4.106.4.2.2 Electric vehicle charging space (EV space) dimensions. The EV space shall be designed to comply with the following:

- The minimum length of each EV space shall be 18 feet (5486 mm).
- The minimum width of each EV space shall be 9 feet (2743 mm).
- One in every 26 EV spaces, but not less than one EV space, shall have an 8-foot (2438 mm) wide minimum aisle. A 5-foot (1524 mm) wide minimum aisle shall be permitted provided the minimum width of the EV space is 12 feet (3658 mm).

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

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

4.106.4.2.4 Multiple EV spaces required. Construction documents shall indicate the raceway termination point and proposed location of future EV spaces and EV chargers. Construction documents shall also provide information on ampacity of future EVSE, raceway method(s), wiring schematics and electrical load calculations to verify that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at the full rated ampacity of the EVSE. Plan design shall be based upon a 40-ampere minimum branch circuit. Required raceways and related components that are planned to be installed underground, enclosed, inaccessible or in concealed areas and spaces shall be installed at the time of original construction.

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

4.106.4.3 New hotels and motels. All newly constructed hotels and motels shall provide EV spaces capable of supporting future installation of EVSE. The construction documents shall identify the location of the EV spaces.

Notes:

- Construction documents are intended to demonstrate the project's capability and capacity or facilitating future EV charging.
- There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.

4.106.4.3.1 Number of required EV spaces. The number of required EV spaces shall be based on the total number of parking spaces provided for all types of parking facilities in accordance with Table 4.106.4.3.1. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

TOTAL NUMBER OF PARKING SPACES	NUMBER OF REQUIRED EV SPACES
0-9	0
10-25	1
26-50	2
51-75	4
76-100	5
101-150	7
151-200	10
201 and over	6 percent of total

4.106.4.3.2 Electric vehicle charging space (EV space) dimensions. The EV spaces shall be designed to comply with the following:

- The minimum length of each EV space shall be 18 feet (5486mm).
- The minimum width of each EV space shall be 9 feet (2743mm).

4.106.4.3.3 Single EV space required. When a single EV space is required, the EV space shall be designed in accordance with Section 4.106.4.2.3.

4.106.4.3.4 Multiple EV spaces required. When multiple EV spaces are required, the EV spaces shall be designed in accordance with Section 4.106.4.2.4.

4.106.4.3.5 Identification. The service panels or sub-panels shall be identified in accordance with Section 4.106.4.2.5.

4.106.4.3.6 Accessible EV spaces. In addition to the requirements in Section 4.106.4.3, EV spaces for hotels/motels and all EVSE, when installed, shall comply with the accessibility provisions for the EV charging stations in the California Building Code, Chapter 11B.

DIVISION 4.2 ENERGY EFFICIENCY

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

DIVISION 4.3 WATER EFFICIENCY AND CONSERVATION
4.303 INDOOR WATER USE
4.303.1 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the sections 4.303.1.1, 4.303.1.2, 4.303.1.3, and 4.303.4.4.

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

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

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

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

4.303.1.3 Showerheads.

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

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

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

4.303.1.4 Faucets.

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

4.303.1.4.2 Lavatory Faucets in Common and Public Use Areas. The maximum flow rate of lavatory faucets installed in common and public use areas (outside of dwellings or sleeping units) in residential buildings shall not exceed 0.5 gallons per minute at 60 psi.

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

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

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

4.303.2 STANDARDS FOR PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures and fittings shall be installed in accordance with the California Plumbing Code, and shall meet the applicable standards referenced in Table 1701.1 of the California Plumbing Code.

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

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

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

NOTES:

- The Model Water Efficient Landscape Ordinance (MWELO) is located in the California Code Regulations, Title 23, Chapter 27, Division 2. MWELO and supporting documents, including water budget calculator, are available at <https://www.water.ca.gov/>

DIVISION 4.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY
4.406 ENHANCED DURABILITY AND REDUCED MAINTENANCE
4.406.1 ROBOTIC PROOFING. Annular spaces around pipes, electric cables, conduits or other openings in sole/bottom plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or a similar method acceptable to the enforcing agency.

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

Exceptions:

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

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

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

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

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

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

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

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

Notes:

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

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

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

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

Exception: Rural jurisdictions that meet and apply for the exemption in Public Resources Code Section 42649.82 (a)(2)(A) et seq. are not required to comply with the organic waste portion of this section.

DIVISION 4.5 ENVIRONMENTAL QUALITY

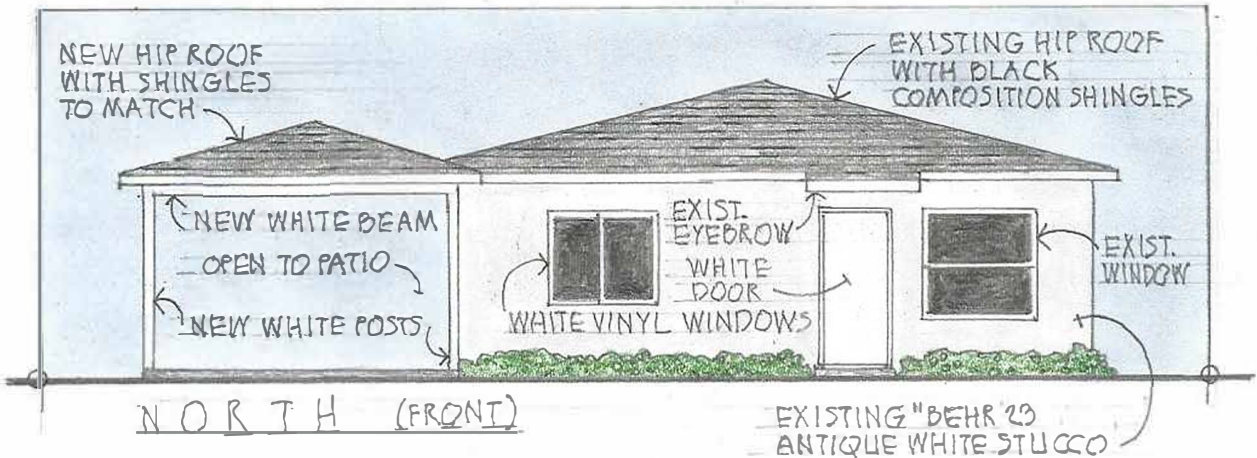
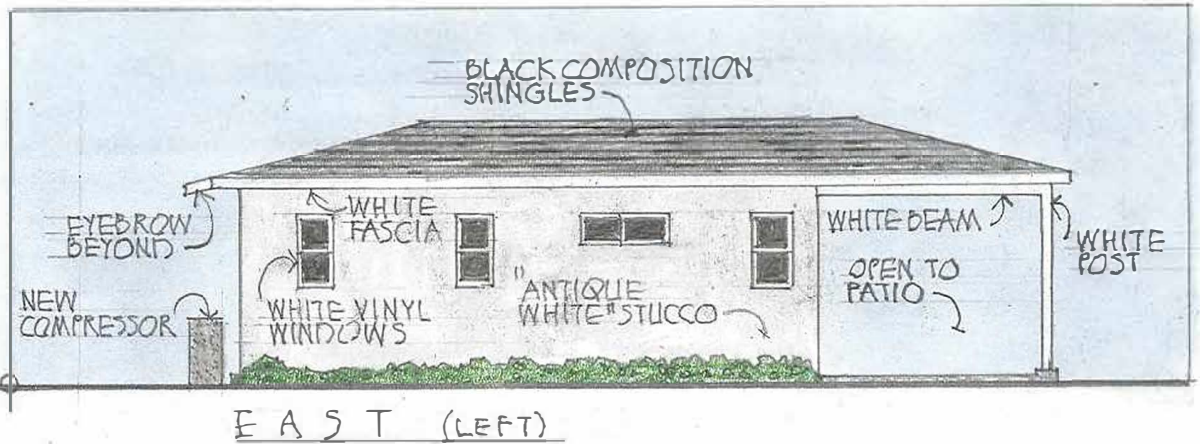
SECTION 4.501 GENERAL
4.501.1 Scope
 The provisions of this chapter shall outline means of reducing the quality of air contaminants that are odorous, irritating and/or harmful to the comfort and well being of a building's installers, occupants and neighbors.

SECTION 4.502 DEFINITIONS
5.102.1 DEFINITIONS
 The following terms are defined in Chapter 2 (and are included here for reference)

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

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

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



ELEVATIONS

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

312 W. 220TH STREET, CARSON, CA 90745