# Coons Residence

Copyright (c) 1974 Maui Architectural Group, Inc. -- No part of this set may be reproduced in any form or by any means, electronic, mechanical, photocopying, or otherwise, without the prior written permission of Maui Architectural Group, Inc.

**ABBREVIATIONS** 

Ka'anapali Golf Estates, Lanikeha Ph. II - Lot 25 Lahaina, Hawaii 96761 (2) 4-4-019 : 097

SYMBOLS LEGEND

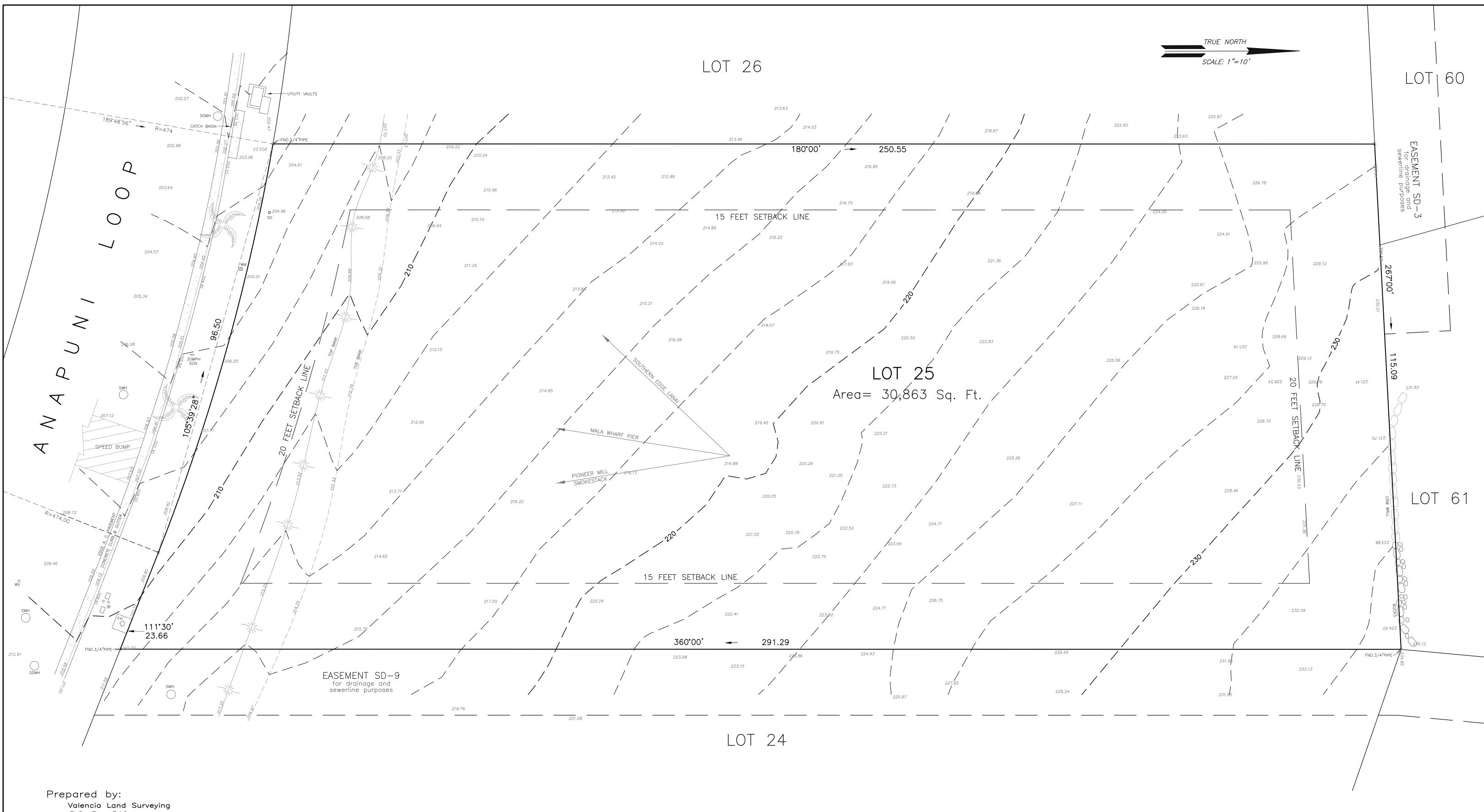
	COUNTY OF MAUI MAUI COUNTY CODE , CHAPTER 16.16B ENERGY CODE RESIDENTIAL PROVISIONS		4	
	COMPLIANCE METHOD Check applicable method			
X	R401.2(1) R401.3 through R404 (Prescriptive)			
	R401.2(2) R405, R401 through 404 labeled Mandatory (Simulates Performance Alternative)			
	R401.2(3) R406 (Energy Rating Index Compliance Alternative)			
	R401.2(4) R401.2.1 (Tropical Zone)			
	R102.1 (Alternative)			
To the hest of my knowledge, this project's design substantially				

PROJECT INFORMATION



& And FDN. Foundation  ∠ Angle F.G. Finish Grade  @ At FIN. Finish  Q Centerline FIX. Fixture  □ Channel FL. Floor  ' Foot; Feet FLASH. Flashing  " Inch; Inches FLG. Flooring  % Percent F.O.S. Face Of Studs  ⊥ Perpendicular F.R.P. Fiberglass Reinf. Panel  # Pound; Number FRMG. Framing  R Property Line FRZ. Freezer  FT. Foot; Feet  A/C Air Conditioning FTG. Footing  A.B. Anchor Bolt FURR. Furring; Furred  ABV. Above  A.C. Asphaltic Concrete GA. Gage  ACOUS. Acoustical GALV. Galvanized  A.D. Area Drain G.B. Grab Bar  ADD. Addendum  GL. Glass  ADJ. Adjustable GLU-LAM. Glu-Laminated Wood  ALT. Alter; Alternate GND. Ground	ABBR. WORD  R. Radius; Riser REBAR. Reinforcing Bar REF. Reference REFL. Reflected REFR. Refrigerator REINF. Reinforcing REQ. Required REV. Revised; Revision RFG. Roofing RGH. Rough R.H. Robe Hook RLG. Railling RM. Room RND. Round R.O. Rough Opening  S.C. Solid Core SCR. Screen S.D. Smoke Detector S.D. Smoke Detector S.D. Section S.F. Square Feet	SECTION REFERENCE SECTION NUMBER (TYP.) SHEET NUMBER (TYP.)  DETAILED SECTION REFERENCE  ELEVATION REFERENCE  DETAILED ELEVATION REFERENCE	NO. NAME  T-1 Title Sheet Topographic Survey S2.1 Foundation Plans S2.2 Foundation Plans S2.3 Foundation Plans S2.3 Foundation Plans S2.3 Foundation Plans S2.4 Foundation Plans S2.5 Foundation Plans S2.6 Foundation Plans S2.7 Foundation Plans S2.8 Foundation Plans S2.9 Foundation Plans S2.1 Foundation Plans S2.2 Foundation Plans S2.3 Foundation Plans S2.4 Foundation Plans S2.5 Foundation Plans S2.6 Foundation Plans S2.7 Foundation Plans S2.8 Foundation Plans S2.9 Foundation Plans S2.0 Foundation Plans S2.1 Foundation Plans S2.1 Foundation Plans S2.2 Foundation Plans S3.1 Wall & Beam Framing Plan S3.2 Wall & Beam, Roof Framing Plan S4.1 Roof Framing Plan S5.1 Structural Details S5.2 Structural Details S5.3 Structural Details S5.3 Structural Details S5.4 Structural Details S5.5 Structural Details S5.6 Structural Details S5.7 Structural Details S5.8 Structural Details S5.9 Structural Details	LOT NUMBER:  STREET ADDRESS:  Anapuni Loop  T.M.K. NUMBER:  (2) 4-4-019:097  LOT AREA:  1.045 Acres  ZONING:  R-3 Residential  CONSTRUCTION TYPE:  V Non-Rated  OCCUPANCY:  R-3  SETBACKS:  Front = 20'  Side = 15'	THIS WORK WAS PREPARED BY I OR UNDER MY SUPERVISION ANI CONSTRUCTION OF THIS PROJE WILL BE UNDER MY OBSERVATIO Observation of construction as defined in Hawaii Administrative Rules, Title 16.
A.P. Access Panel GYP. Gypsum  APPROX. Approximate  ARCH. Architectural H. High  A.T. Acoustical Tile H.B. Hose Bibb  H.C. Hollow Core  BD. Board HD. Head  BLDG. Building HDWD. Hardwood  BLK. Block HGR. Hanger  BLKG. Blocking HORIZ. Horizantal  BM. Beam HR. Hour  BOT. Bottom HT. Height  B.O.W. Bottow Of Wall  B.S. Both Sides I.D. Inside Diameter  BTWN. Between IN. Inch; Inches	S.F. Square Feet SH. Shelf SHR. Shower SHT. Sheet SHTG. Sheathing SIM. Similar SL. Slope SLDG. Sliding SLNT. Sealant S.M. Sheet Metal S.N. Shampoo Niche SPEC. Specification SPKR. Speaker SPRK. Sprinkler SQ. Square SST. Stainless Steel ST. Stone STD. Standard STL. Steel	DETAIL REFERENCE DETAIL NUMBER (TYP.) SHEET NUMBER (TYP.)  MATCH LINE SHADED PORTION IS SIDE TO BE CONSIDERED  DATUM OR CONTROL POINT	A-3 Ceiling Plan A-4 Roof Plan A-5 Exterior Elevations A-6 Site & Building Sections A-7 Wall Sections A-8 Electrical Plan A-9 Door & Window Types & Schedules A-10 Architectural Details 1 A-11 Architectural Details 2	BUILDING AREA:  Enclosed Living: 3,842 sq. ft.  Covered Lanais: 1,101 sq. ft.  Covered Entry: 168 sq. ft.  Garage & Storage: 1,074 sq. ft.  Total Footprint: 6,185 sq. ft.	Resident Certes, Lanikeha Ph. II-
CEM. PLAS. Cement Plaster CER. Ceramic JST. Joist C.J. Control Joint JT. Joint CLG. Ceiling CLO. Closet LAM. Laminate; Laminated CLR. Clear LAV. Lavatory C.M.U. Concrete Masonry Unit LB. Pound CNTR. Counter L.F. Lineal Feet COL. Column L.P.G. Liquid Propane Gas CONC. Concrete LT. Light CONN. Connection LVR. Louver CONSTR. Construction CONT. Continuous MAS. Masonry COORD. Coordinate MAX. Maximum COP. Copper M.B. Machine Bolt CORR. Corridor M.C. Medicine Cabinet CPT. Carpet MECH. Mechanical	STN. Stain STOR. Storage STRL. Structural STRUC. Structure SUSP. Suspended SYM. Symmetrical SYS. System  T&G Tongue and Groove T.B. Towel Bar T.B.B. Tile Backer Board T.D. Trench Drain TEL. Telephone TEMP. Tempered; Temporary THK. Thick THR. Threshold THRU Through TT. Teligit	NORTH POINT  EXTERIOR & INTERIOR ELEVATION KEY		DESIGN RESTRICTIONS:  Maximum Roof Height Allowed = 238'  Proposed Roof Height = 238'  Maximum Lot Coverage Allowed = 9,258 sq. ft.  Proposed Lot Coverage = 6,185 sq. ft.	Coons F Ka'anapali Golf Estat Lahaina.
C.T. Ceramic Tile MET. Metal MFR. Manufacturer  D. Dryer MIN. Minimum  DBL. Double MIR. Mirror  DET. Detail MISC. Miscellaneous  DIA. Diameter MLDG. Molding  DIAG. Diagonal MTL. Material	T.O.( ). Top Of (Item)  T.O.C. Top Of Curb  T.O.P. Top Of Plate  T.O.S. Top Of Slab  T.O.W. Top Of Wall  T.P.H. Toilet Paper Holder  T.R. Towel Ring  GREAT ROOM  SLATE  12'-0"	ROOM NAME FLOOR MATERIAL CEILING HEIGHT	LOCATION MAP	PROJECT TEAM	
DIM. Dimension DN. Down N. North DR. Door N.I.C. Not In Contract DS. Downspout NO. Number DW. Dishwasher N.T.S. Not To Scale DWG. Drawing  OBS. Obscure  (E); EXST. Existing O.C. On Center EA. Each O.D. Outside Diameter E.C. Elastomeric Coating OPNG. Opening E.F.S. Exterior Finish System OPP. Opposite E.I.F.S. Ext. Insul. Fin. Sys. OPR. Operable E.J. Expansion Joint OVHD. Overhead EL. Elevation ELEC. Electrical PL. Plate; Property Line ELEV. Elevator P.LAM. Plastic Laminate	TRAN. Transition TRD. Tread TV. Television TYP. Typical  UNF. Unfinished U.O.N. Unless Otherwise Noted  VAL. Valance VAR. Varies VERT. Vertical VOL. Volume V.T.R. Vent Through Roof  W. Washer; Width W/ With W/O With Out	PROPERTY LINE  SETBACK LINE  PROPOSED CONTOURS  EXISTING CONTOURS  REVISION NUMBER & CLOUD	PROJECT LOCATION  KAPALUA  NAPILI  MAIHEE  MAIKU  PAIA  HAIKU  KANAPALI  KANAPALI  LAHAINA  DLOWALU  KANAPALI  LAHAINA  DLOWALU  KANAWAO  NAHIKU  PUKALANI	OWNERS:  Tyler Coons - LLC, To Be Determined T.B.D. Lahaina, HI 96761 (808) 280-2480 tyler@tylercoonsmaui.com  SURVEYOR:  Valencia Land Surveying P.O. Box 546 Lahaina, HI 96767 (808) 661-3257 valenciamaui@aol.com  CIVIL ENGINEER:  Otomo Engineering, Inc. 305 South High Street, Ste. 102 Wailuku, HI 96793 (808) 242-0032 stacy@otomoengineering.com	No. Revisio
E.P. Electrical Panelboard PLBG. Plumbing EQ. Equal PLYWD. Plywood EQPT. Equipment PNL. Panel E.W. Each Way PR. Pair EXH. Exhaust PRCST. Precast EXP. Expansion PREFAB. Prefabricate EXPO. Exposed PREP. Preparation EXT. Exterior PROP. Property PT. Point; Paint FAB. Fabricate PTN. Partition F.B. Flat Bar PVMT. Pavement F.D. Floor Drain	W.C. Wall Covering WD. Wood WDW. Window W.H. Water Heater W.O. Where Occurs W.P. Water Proofing WP. MEMB. Waterproof Membrane W.R. Water Resistant WSCT. Wainscot WT. Weight W.W.M. Welded Wire Mesh	REVISION NUMBER & CLUUD	MAALAEA KULA HALEAKALA  KIHEI  WAILEA  MAKENA  NORTH	LANDSCAPE ARCHITECT:  Maxwell Design Group 495 Kaiwahine Street Kihei, HI 96753 (808) 281-3800 mdghawaii@gmail.com  ARCHITECT:  Maui Architectural Group, Inc. 2331 W. Main Street Wailuku, Maui, Hawaii	Sheet
	V.P. Vapor Proof			(808) 244-9011 (808) 242-1776 Email: mag@mauiarch.com  STRUCTURAL ENGINEER:  Richard Chesbro, P.E Consulting Engineer 236 Public Square, Ste. 101 Franklin, TN 37064 (808) 871-6356 rches@prodigy.net	Date: December  Scale: As Noted  Phase: Permit
				CONTRACTOR:  Crescent Custom Homes, LLC. 317 Anapuni Loop Lahaina, HI 96761 (Tel) 808-250-6563 (Email) calvin@crescenthomesmaui.com	Sheet Number:  Sheet: Of:

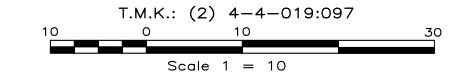
INDEX TO DRAWINGS



Valencia Land Surveying
P.O. Box 546
Lahaina, HI 96767
808-661-3257

## NOTES:

- 1. This map is based from a survey performed on Sept. 28, 2021.
- 2. Coordinates and azimuths are based from Triangulation Station "MANINI" and its meridian was established from the Street Survey monuments along Anapuni Loop.
- 3. Elevation is based from MSL Subdivision Bench Mark..



LEGEND:

WM=WATER METER FH=FIRE HYDRANT WV=WATER VALVE SMH=SEWER MANHOLE SDMH=STORM DRAIN MANHOLE SO=STUB OUT =COCONUT

This work was prepared by me or under my direct supervision. VALENCIA LAND SURVEYING

Arthur P. Valencia 9/30/21

ARTHUR P. VALENCIA Licensed Professional Land Surveyor State of Hawaii Certificate No. 10026 Exp. Date: 4-30-22

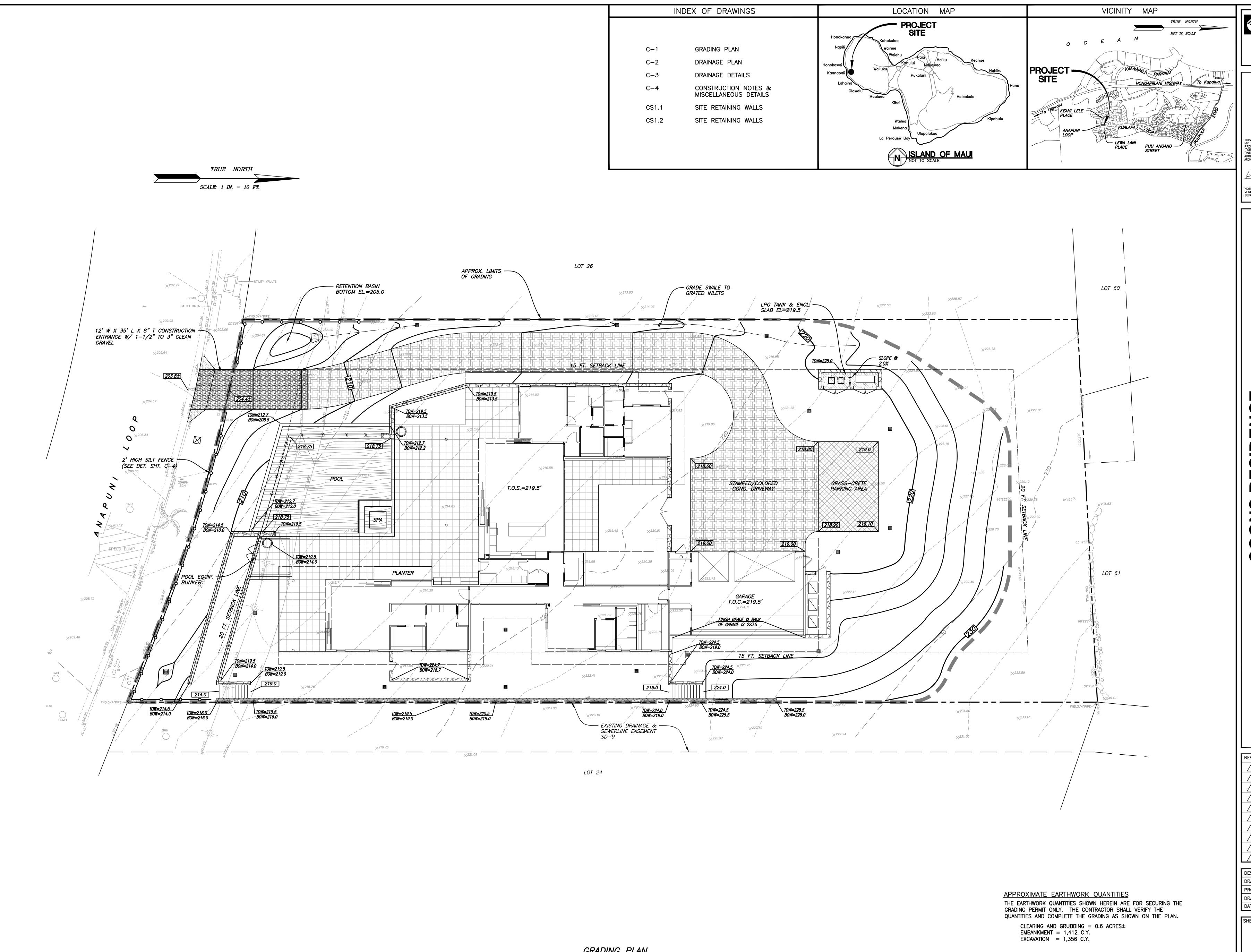


TOPOGRAPHIC MAP LOT 25 LANIKEHA-PHASE II

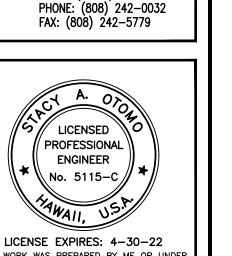
File Plan 2409

T.M.K.: (2) 4-4-019:097

Hanakaoo, Lahaina, Maui, Hawaii



ENGINEERING, INC.
CONSULTING CIVIL ENGINEERS
305 S. HIGH STREET, STE. 102
WAILUKU, MAUI, HAWAII 96793
PHONE: (808) 242-0032
FAX: (808) 242-5779



LICENSE EXPIRES: 4-30-22

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. ("OBSERVATION OF CONSTRUCTION" AS DEFINED UNDER SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS, AND LANDSCAPE ARCHITECTS.

SIGNATURE

NOTE: THE CONTRACTOR SHALL CHECK AND VERIEY ALL DIMENSIONS AT THE JOB SITE

SIGNATURE DATE

NOTE: THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AT THE JOB SITE BEFORE PROCEEDING WITH THE WORK.

COONS RESIDENCE
T.M.K.: (2) 4-4-019: 097
HANAKAOO, LAHAINA, MAUI, HA

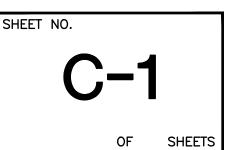
DESIGNED BY: S.A.O.

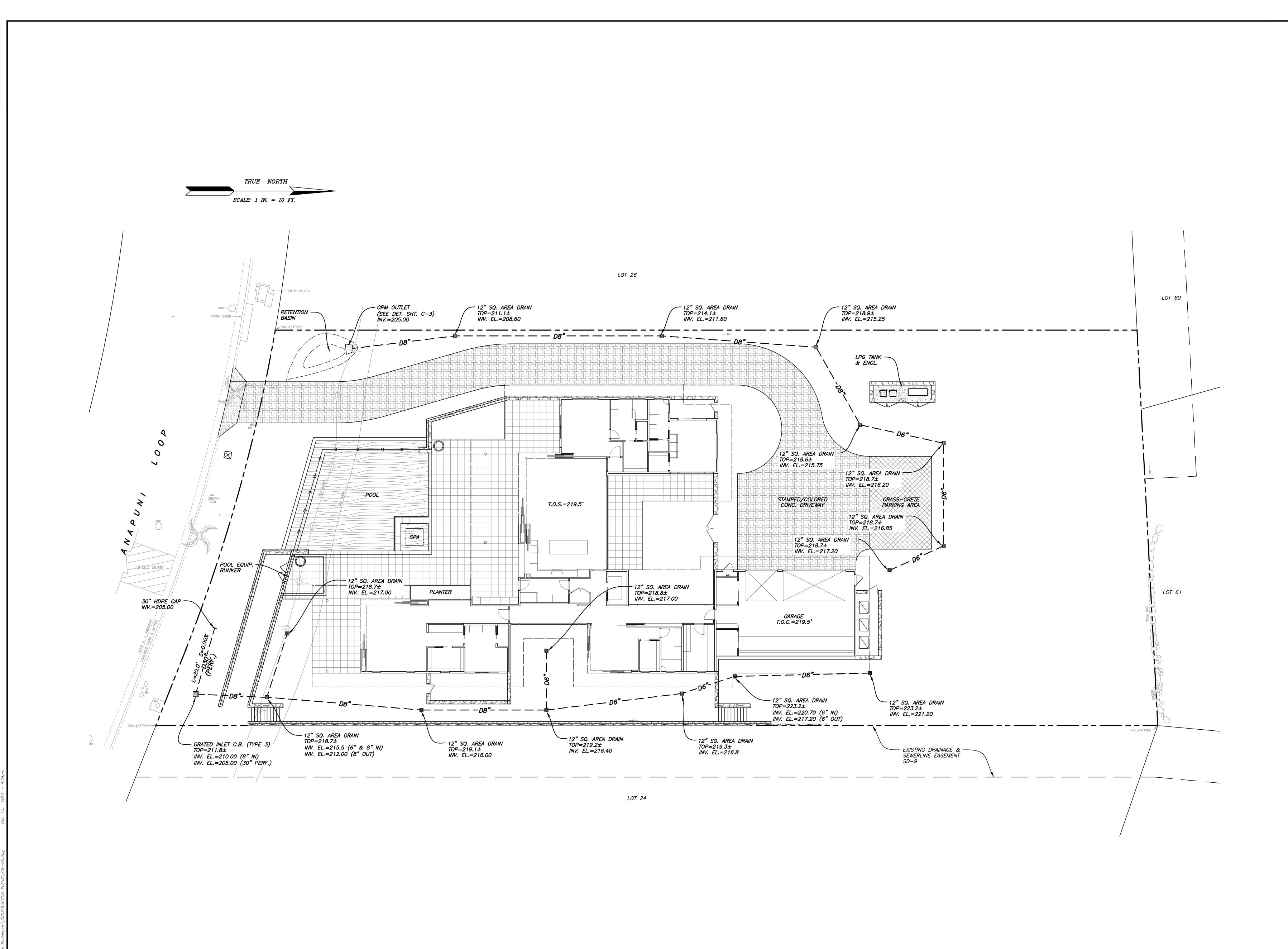
DRAWN BY: L.C.O.

PROJECT NO.: 2021-51

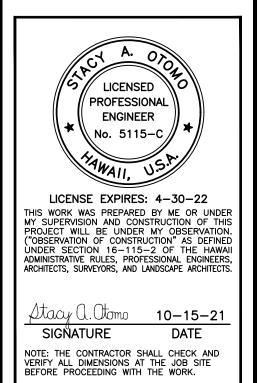
DRAWING NAME: GRAD-00

DATE: 10-15-21









**COONS RESIDENCE**T.M.K.: (2) 4-4-019: 097

DESIGNED BY: S.A.O.

DRAWN BY: L.C.O.

PROJECT NO.: 2021-51

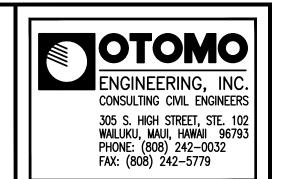
DRAWING NAME: UTIL-00

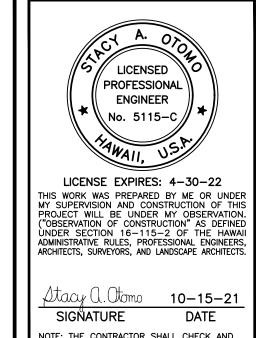
DATE: 10-15-21

C-2

NOT TO SCALE

NOT TO SCALE





NOTE: THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AT THE JOB SITE BEFORE PROCEEDING WITH THE WORK.

REVISION DATE NOTE

DESIGNED BY: S.A.O. DRAWN BY: L.C.O. PROJECT NO.: 2021-51 DRAWING NAME: DETAIL-1 DATE: 10-15-21

<u>PLAN</u>

DETAILS-CRM OUTLET HEADWALL

NOT TO SCALE

C-3 OF SHEETS

## GRADING

- 1. The Contractor shall obatain a "Grading Permit" from the Development Services Administration, Department of Public Works and Environmental Management, four (4) weeks prior to commencement of any clearing and grubbing. A satisfactory dust and erosion control plan and/or outline shall be submitted by the Contractor.
- 2. The Contractor shall remove all silt and debris resulting from his work and deposited in drainage facilities, roadways and other areas. The cost incurred for any necessary remedial action by the Chief Environmentalist shall be borne entirely by the Contractor.
- 3. The Contractor, at his sole expense, shall keep the project area and surrounding areas free from dust nuisance. The work shall be in conformance with the Air Pollution Control Standards and Regulations of the State Department of Health.
- 4. All grading operations shall be performed in conformance with the applicble provisions of the Water Pollution Control and Water Quality Standards of Public Health Regulations, State Department of Health and Chapter 20.08 of the Maui County Code.
- 5. Construction debris and wastes shall be deposited at appropriate sites. Said sites shall also fulfill
- the requirements of Chapter 20.08 of the Maui County Code. 6. The Contractor shall be responsible for all construction stakeout.

## ENVIRONMENTAL PROTECTION

- 1. The contractor shall remove all silt and debris resulting from his work and deposited in drainage facilities, roadways and other areas. The costs incurred for any necessary remedial action by the Chief Environmentalist shall be borne by the Contractor.
- 2. The Contractor shall keep the project area and surrounding areas free from dust nuisance, all in accordance with the Air Pollution Control Standards and Regulations of the State Department of Health. All costs shall be borne by the Contractor.
- 3. All arading operations shall be performed in conformance with the applicable provisions of the Water Pollution Control and Water Quality Standards of the Public Health Regulations of the State Department of Health and the County's Grading Ordinance.
- 4. All cut and fill slopes shall be sodded or planted immediately after grading work has been
- 5. Construction debris and wastes shall be deposited at appropriate sites. The Contractor shall inform the Engineer of the location of the disposal sites. The disposal sites shall also fulfill the requirements of the Grading Ordinance.
- 6. The Contractor shall not demolish or clear any structure, site, or vacant lot without first ascertaining the presence or absence of rodents which may endanger the public health by dispersal from such premises. Should such inspection reveal the presence of such rodents, the Contractor shall eradicate such rodents before demolishing or clearing said structure, site or vacant lot.

# **EROSION CONTROL**

- The following measures shall be taken to control erosion during the site development period:
- Minimize the time of construction.
- Retain existing around cover until latest date to complete construction.
- 3. Early construction of drainage control features.
- 4. Use temporary area sprinklers in non-active construction areas when ground cover is removed. 5. Station water truck on site during construction period to provide for immediate sprinkling, as
- needed in active construction zones (weekends and holidays included).
- 6. Use temporary berms and cut-off ditches, where needed, for control of erosion. 7. Graded areas shall be thoroughly watered after construction activity has ceased for the day and
- 8. All cut and fill slopes shall be sodded immediately after grading work has been completed.

EROSION CONTROL PLAN REQUIREMENTS

The erosion control plan shall employ Best Management Practices to the maximum extent practicable to prevent or reduce pollutants from water bodies, including sediment and other

#### contaminants, in discharging from a construction site. The following must be addressed if applicable:

- Stabilization of denuded areas. Protection/stabilization of soil stockpiles.
- Permanent soil stabilization. Establishment and maintenance of permanent vegetation.
- Protection of adjacent properties and water bodies. Sediment trapping measures.
- Sediment basins.
- Cut and fill slopes (terracing). Stormwater management.
- 10. Sequence of construction operations, including phased and successive development
- Stabilization of waterways and outlets.
- 12. Storm sewer inlet protection.
- 13. Control of access and vehicular movement. 14. Vehicular control on residential lots during construction.
- 15. Working in or crossing watercourses.
- 16. Underground utility construction. 17. Timely installation of permanent erosion and sediment control.
- 18. Maintenance of erosion control facilities. 19. Protection of existing vegetation.
- 20. Dust control.

# EXISTING GRADES

1. Existing grades shall be verified by the contractor before proceeding with grading work. Should any discrepancies be discovered in the existing grades or dimensions given on the plans, the Contractor shall immediately notify the Engineer before proceeding further with any work, otherwise he will be held responsible for any cost involved in correction of construction placed due to such discrepancies.

# EXISTING UTILITIES

- 1. The location, depth and type of the various existing utility lines shown on the construction plans were determined on the basis of the best information possible. The Contractor shall verify exact
- location, depth, and type prior to commencement of work.

  2. Contractor shall notify the Engineer of any discrepancies between the existing utilities as shown on the construction plans and that located in ground, and not proceed with any further work until written notification is received from the Engineer. Any work done without written notification from the Engineer shall be the sole responsibility of the Contractor.
- 3. All existing utilities whether or not shown on the plans, if damaged during construction by the Contractor, shall be repaired solely at his expense.

# STATE HISTORIC PRESERVATION DIVISION REQUIREMENTS

Should historic sites such as walls, platforms, pavements and mounds, or remains such as artifacts, burials, concentration of charcoal or shells be encountered during construction activities, work shall cease in the immediate vicinity of the find and the find shall be protected from further damage. The contractor and/or landowner shall immediately contact the State Historic Preservation Division (692-8015), which will assess the significance of the find and recommend an appropriate mitigation measure, if necessary.

# EARTHWORK SPECIFICATIONS

- 1. All vegetation, weeds, brush, roots, stumps, rubbish, debris, soft soil and other deleterious material shall be removed and disposed of offsite.
- 2. In areas to receive fill and at finish subgrade in cut areas, the exposed surface shall then be scarified to a depth of 6 inches, moisture conditioned to near optimum moisture and then compacted to a degree of compaction specified herein. If soft or loose spots are encountered that can not be re-compacted, the project soils engineer shall be consulted to discuss the available options.
- Structural areas shall be defined as areas beneath pavement structures and areas beneath and 3 feet beyond the edges of the buildings.
- 4. Structural fill and backfill material shall be granular, well-graded with no particle larger than 3 inches in greatest dimension. Each layer shall be placed in lifts not exceeding 8 inches in loose thickness. Prior to compacting the soil, the soils moisture content shall be adjusted to near optimum moisture content. Each layer shall be thoroughly compacted to at least 95 percent of the maximum dry density (ASTM D 1557).
- 5. Non-structural areas shall be defined as areas beyond 3 feet from the edge of any building and non-payement greas. Non-structural fill and backfill material shall consist of material which is free of organics and debris. In the upper 3 feet from finished grade the material shall be less than 3 inches in greatest dimension. Below 3 feet from finished grade, the material shall be less than 12 inches in greatest dimension, provided there is sufficient fines to fill the interstices. The onsite soils are acceptable for use as non structural fill at any depth provided the above gradation requirements are met and the material is free of organics and man made debris. Each layer shall be placed in lifts not exceeding 12 inches in loose thickness. Prior to compacting the soil, the soils moisture content shall be adjusted to near optimum moisture content. Each layer shall be thoroughly compacted prior to placing of any subsequent lifts to at least 90 percent of
- the maximum dry density as determined by the ASTM D 1557-91 test procedure. 6. During construction, drainage shall be provided to minimize ponding of water adjacent to or on foundation and payement areas. Ponded areas shall be drained immediately or water pumped out without damaging adjacent structures and property. If water accumu—lation softens the subgrade materials, the affected soils shall be removed an replaced with properly compacted fill.
- 7. The Contractor shall retain the services of a Soils Engineer, licensed in the State of Hawaii, to monitor as test the soils in accordance with the Soils Investigation Report.

### MINIMUM BEST MANAGEMENT PRACTICES

Drainage. Handle drainage to control erosion, prevent damage to downstream properties and return waters to the natural drainage course in a manner which minimizes sedimentation or other pollution to the maximum extent practicable.

Dust Control. Control dust emissions to the maximum extent practicable through BMP's such as water sprinkling, dust fences, limiting area of disturbance and timely grassing of finish areas.

Vegetation. Retain natural vegetation, especially grasses, wherever feasible. Avoid storage of grubbed material near watercourses.

vegetation, runoff diversion, check dams, mulching, blankets, bonded fiber matrices, and Sediment Control. Capture sediment transported in runoff to minimize the sediment from

Erosion Controls. Stabilize all disturbed areas with erosion control measures such as

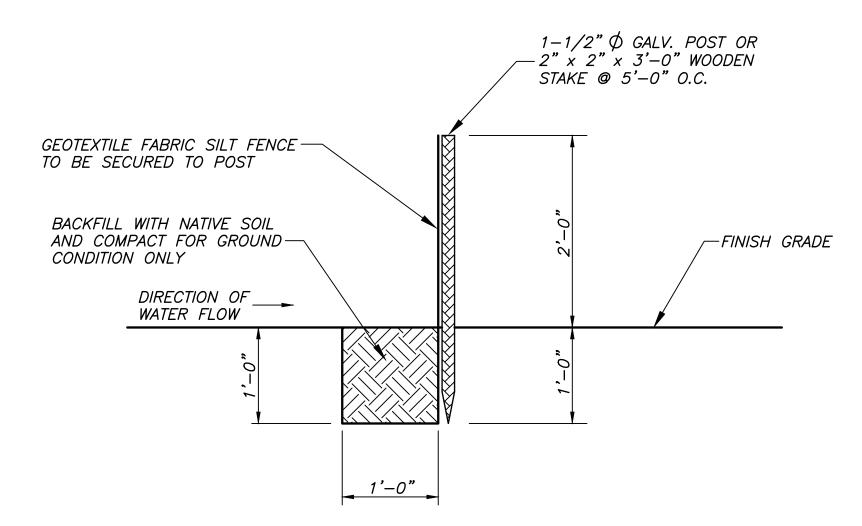
leaving the site with methods such as sediment basins, sediment traps, silt fences, sand bags, and vegetated filter strips. Material and Waste Management. Properly store toxic material and prevent the discharge

Timing of Control Measure Implementation. Timing of control measures shall be in accordance with the approved erosion control plan. Disturbed areas of construction sites that will not be re-disturbed for twenty-one days or more will be stabilized (grassed or graveled) by no later than the fourteenth day after the last disturbance.

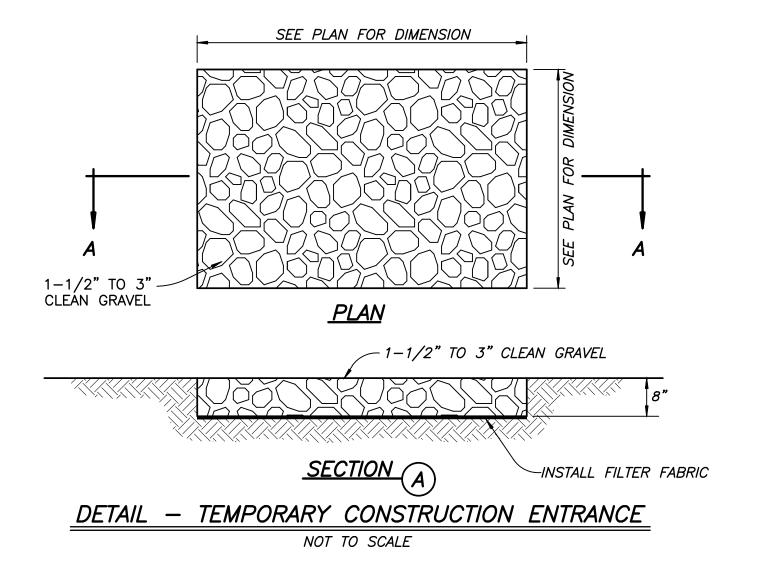
Shoreline Area. Use of soil as fill is prohibited within any shoreline area, except for sand.

Coastal Dune. Grading or mining of a coastal dune is prohibited.

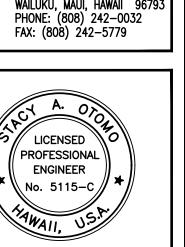
of pollutants associated with construction material.



DETAIL - SILT FENCE INSTALLATION SCALE: 1 IN. = 1 FT.







LICENSE EXPIRES: 4-30-22 HIS WORK WAS PREPARED BY ME OR UND MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. ("OBSERVATION OF CONSTRUCTION" AS DEFINED UNDER SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS, AND LANDSCAPE ARCHITECTS.

SIGNATURE DATE NOTE: THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AT THE JOB SITE BEFORE PROCEEDING WITH THE WORK.

> **Al >** 0

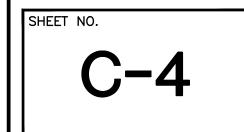
DETAIL

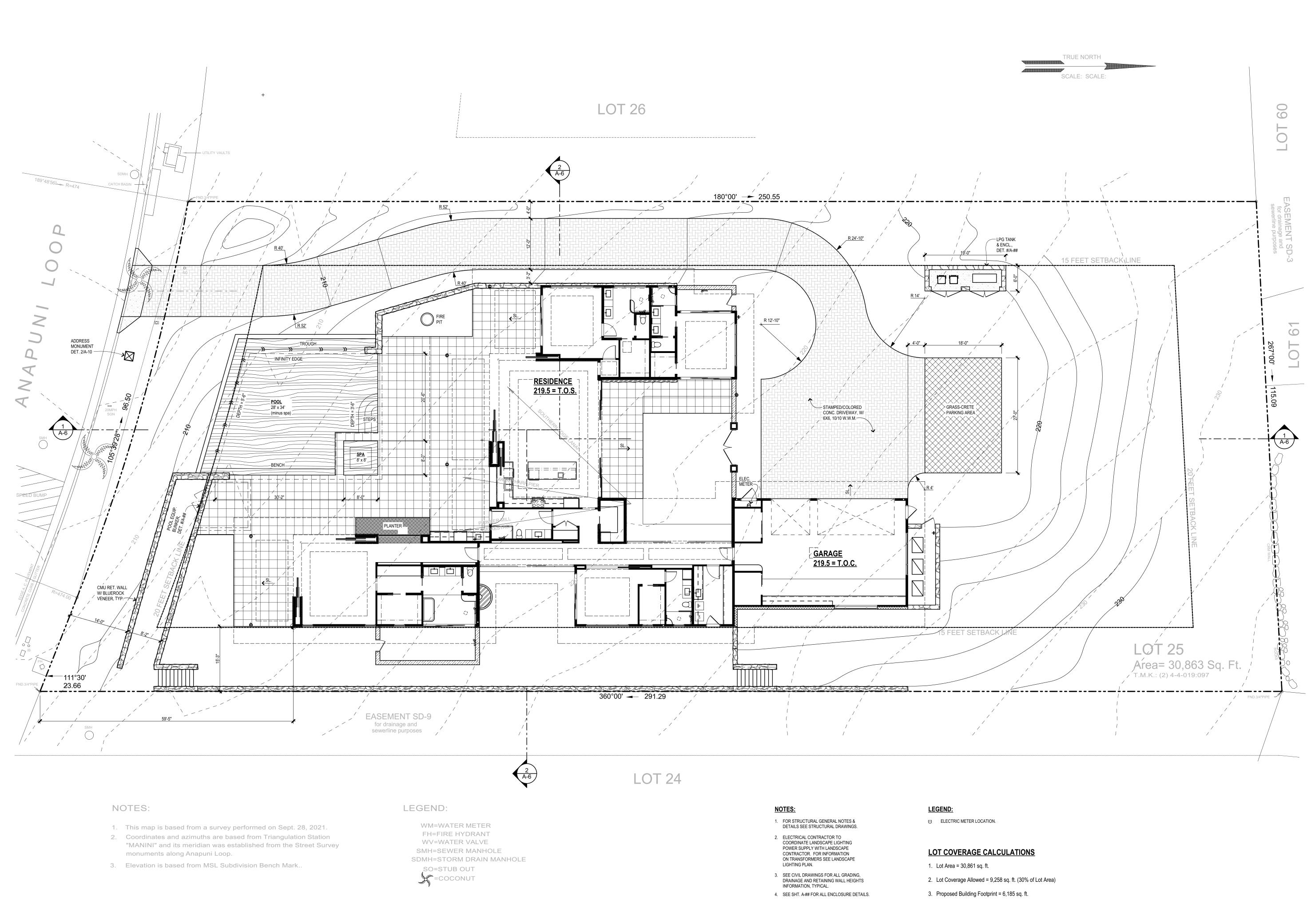
STR

ON

REVISION DATE NOTE

DESIGNED BY: S.A.O. DRAWN BY: L.C.O. PROJECT NO.: 2021-51 DRAWING NAME: NOTES-1 DATE: 10-15-21

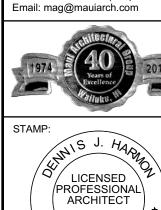




ARCHITECTURAL

www.mauiarch.com

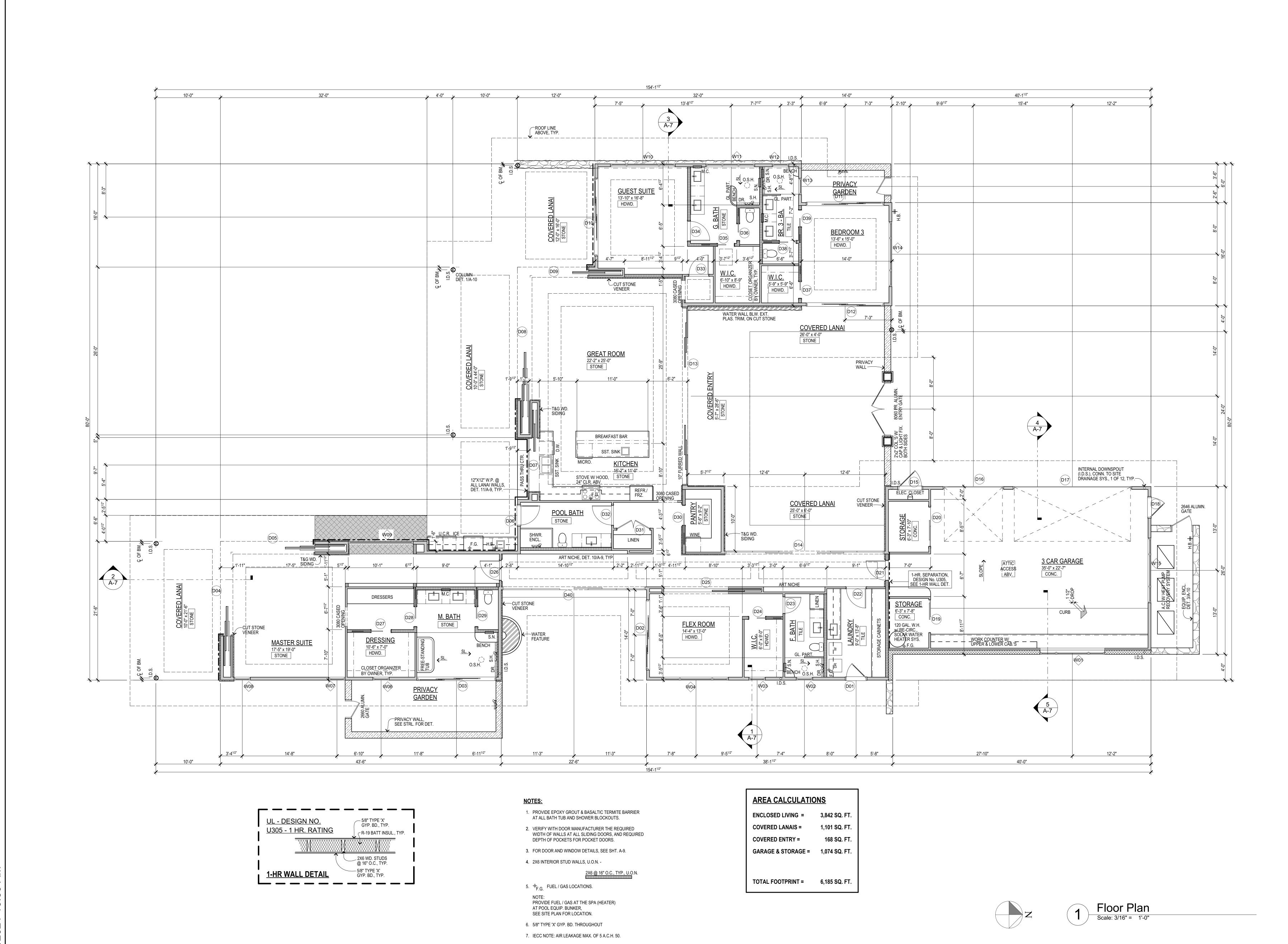
2331 W. Main Street
Wailuku, Maui, Hawaii
TELEPHONE (808) 244-9011
FAX (808) 242-1776 Email: mag@mauiarch.com



Revision

December 3, 2021

Copyright (c) 1974 Maui Architectural Group, Inc. -- No part of this set may be reproduced in any form or by any means, electronic, mechanical, photocopying, or otherwise, without the prior written permission of Maui Architectural Group, Inc.



Copyright (c) 1974 Maui Architectural Group, Inc. -- No part of this set may be reproduced in any form or by any means, electronic, mechanical, photocopying, or otherwise, without the prior written permission of Maui Architectural Group, Inc.

ARCHITECTURAL

www.mauiarch.com

Wailuku, Maui, Hawaii TELEPHONE (808) 244-9011 FAX (808) 242-1776

Email: mag@mauiarch.com

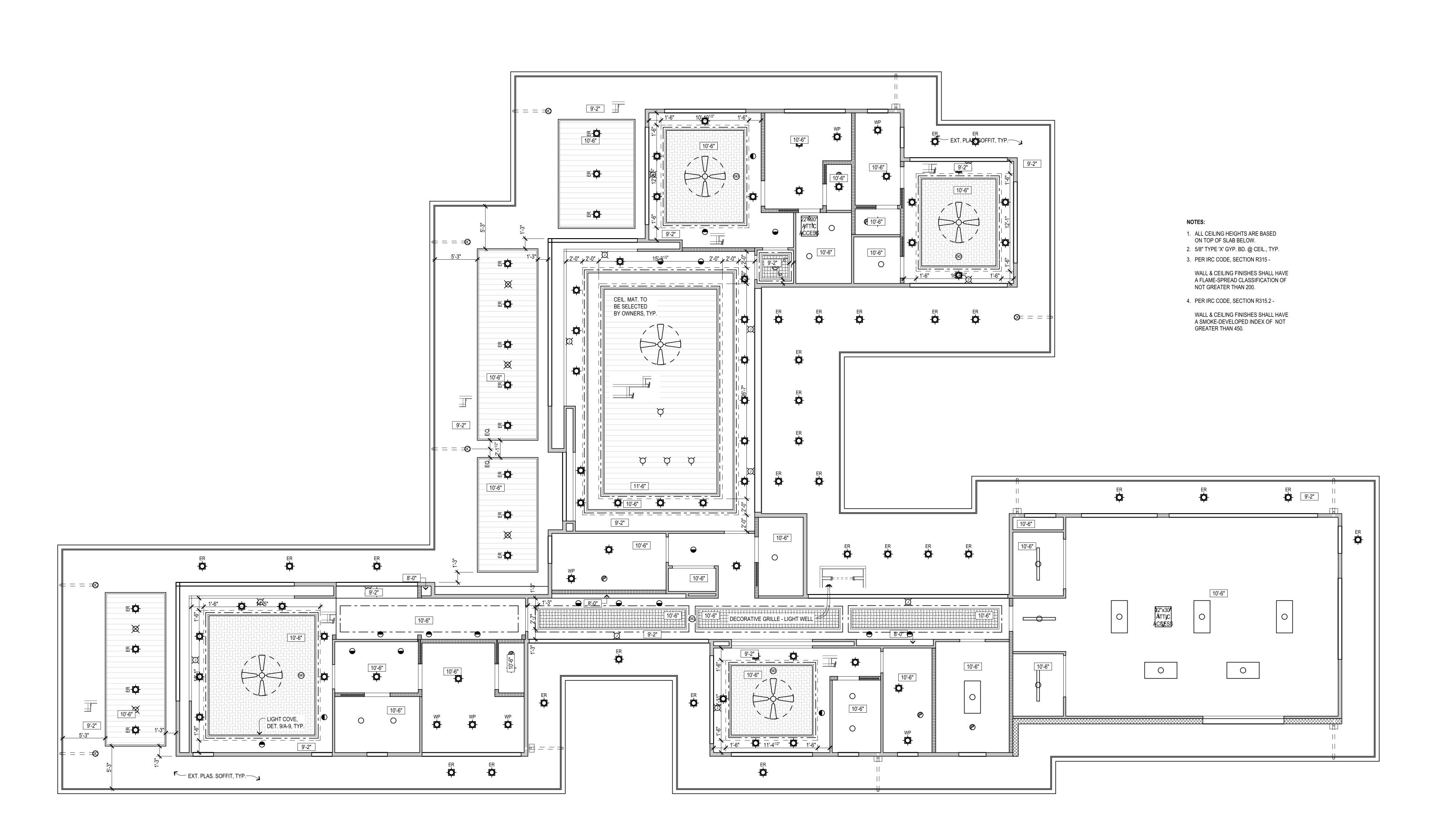
**GROUP** 

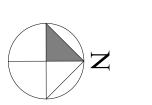
2331 W. Main Street

Revision

December 3, 2021 ale: As Noted

Permit Sheet Number:







anikeha Ph. II - Lot 25

ali 96761

ARCHITECTURAL

www.mauiarch.com

Wailuku, Maui, Hawaii TELEPHONE (808) 244-9011 FAX (808) 242-1776

No. 9681

Email: mag@mauiarch.com

**GROUP** 

2331 W. Main Street

Coons Residence
Ka'anapali Golf Estates, Lanikeha Ph. II - Lo

o. Revision

Ceiling Plan

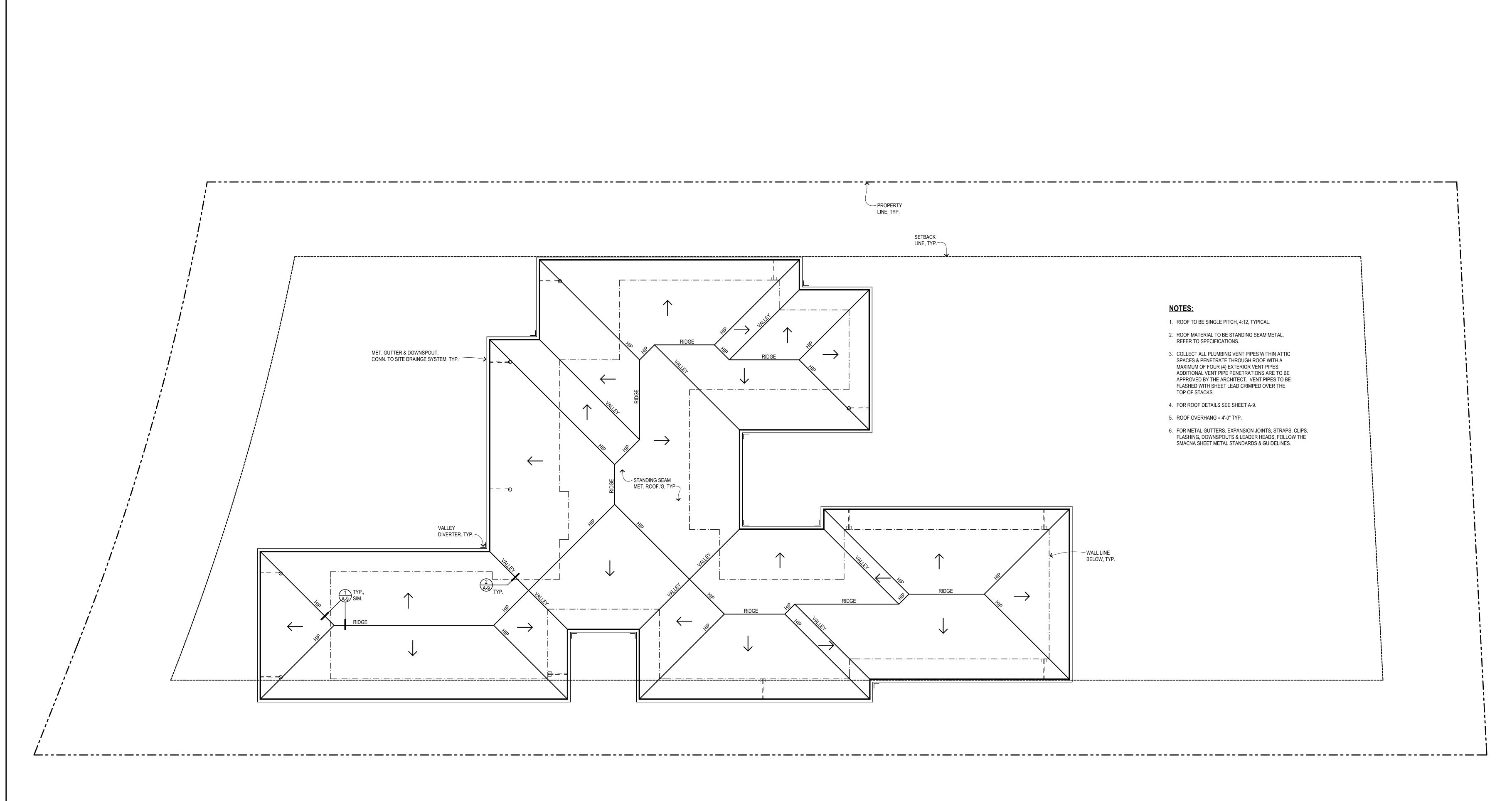
December 3, 2021

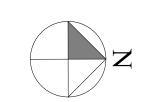
e: As Noted

Se: Permit

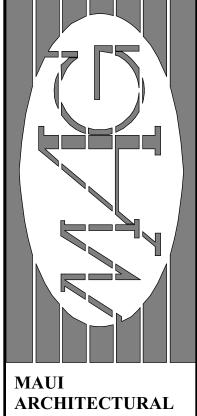
A-3

Copyright (c) 1974 Maui Architectural Group, Inc. -- No part of this set may be reproduced in any form or by any means, electronic, mechanical, photocopying, or otherwise, without the prior written permission of Maui Architectural Group, Inc.



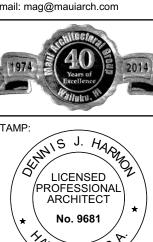






GROUP

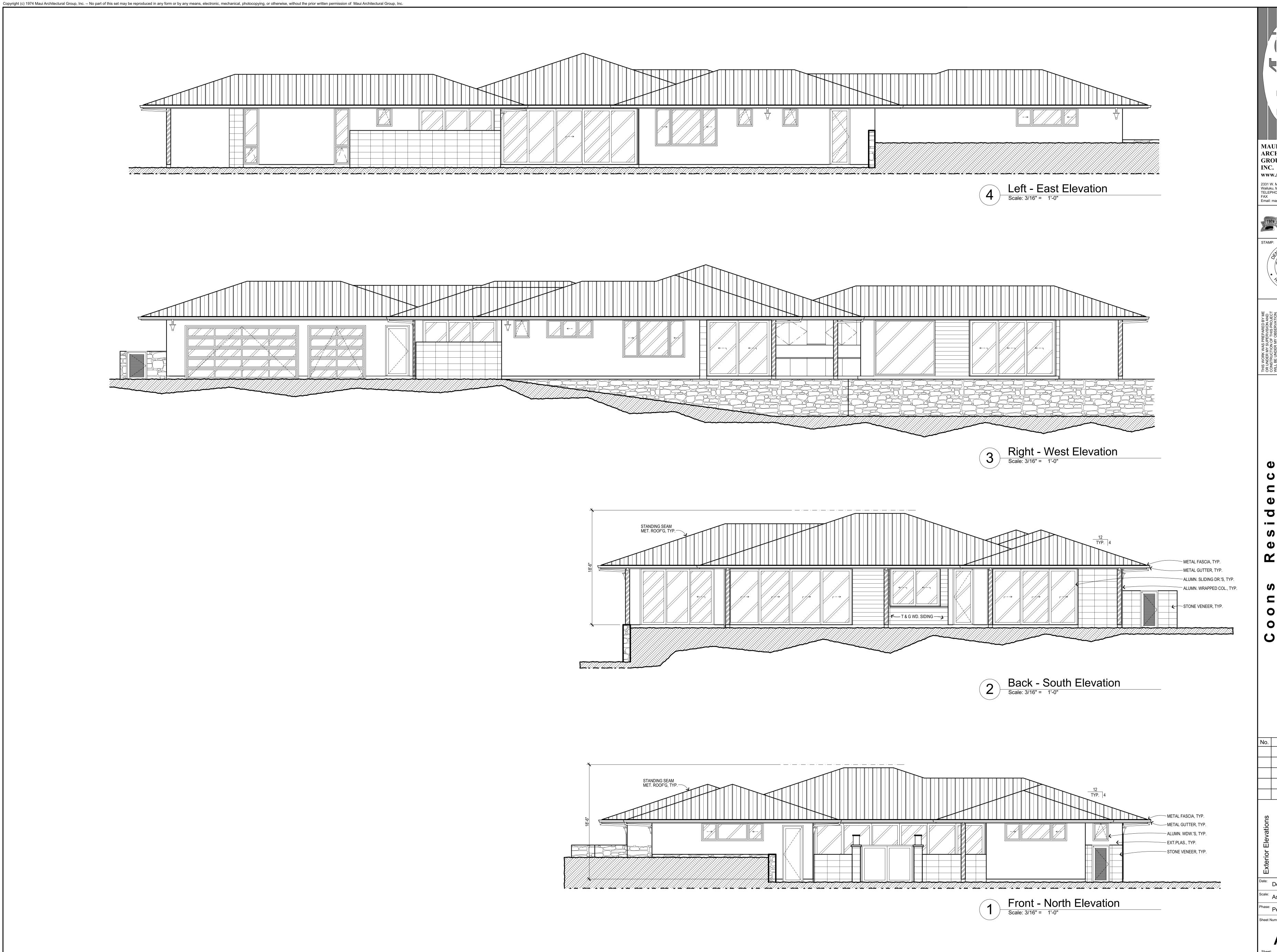




Revision

December 3, 2021

Copyright (c) 1974 Maui Architectural Group, Inc. -- No part of this set may be reproduced in any form or by any means, electronic, mechanical, photocopying, or otherwise, without the prior written permission of Maui Architectural Group, Inc.



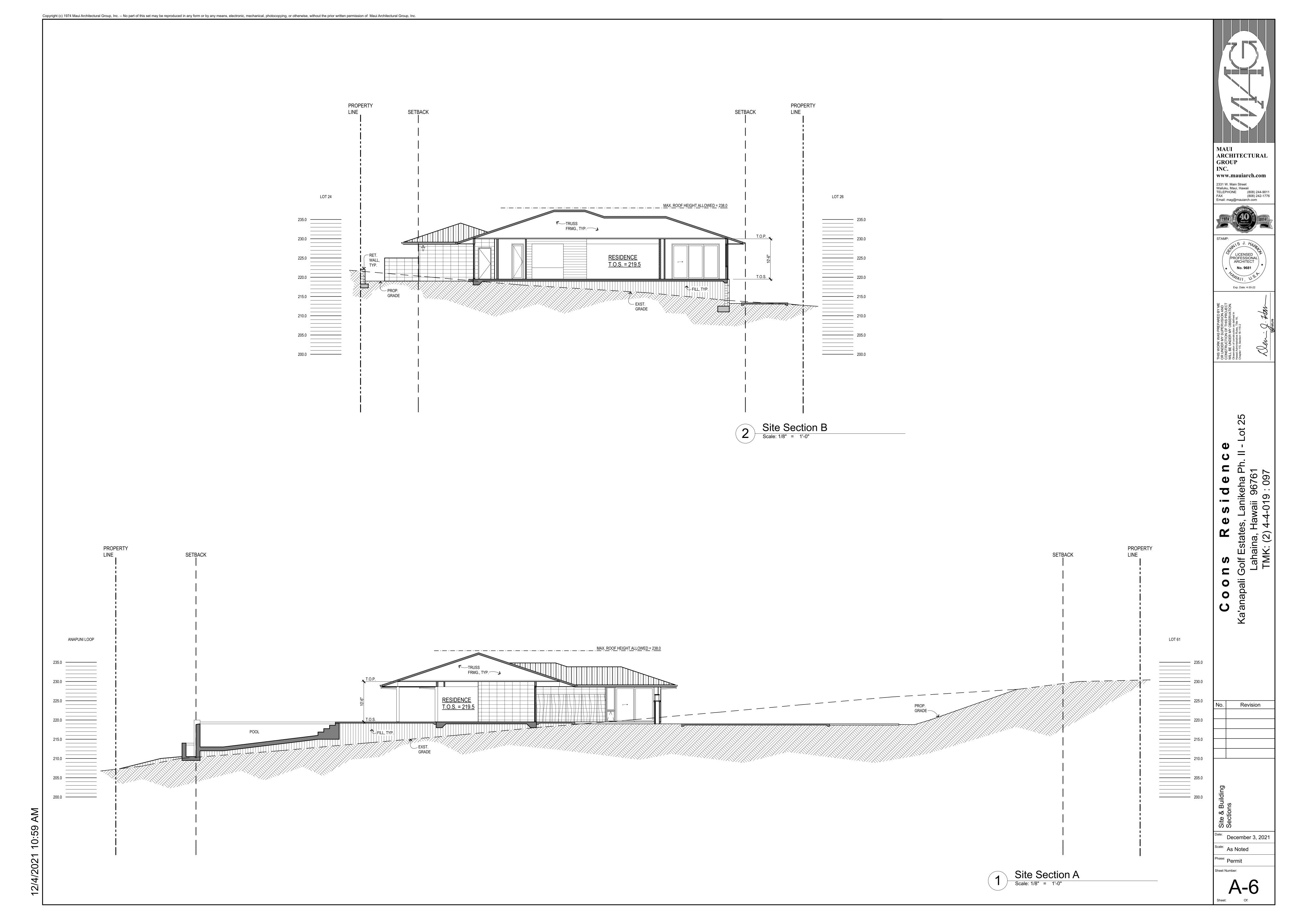
ARCHITECTURAL GROUP www.mauiarch.com

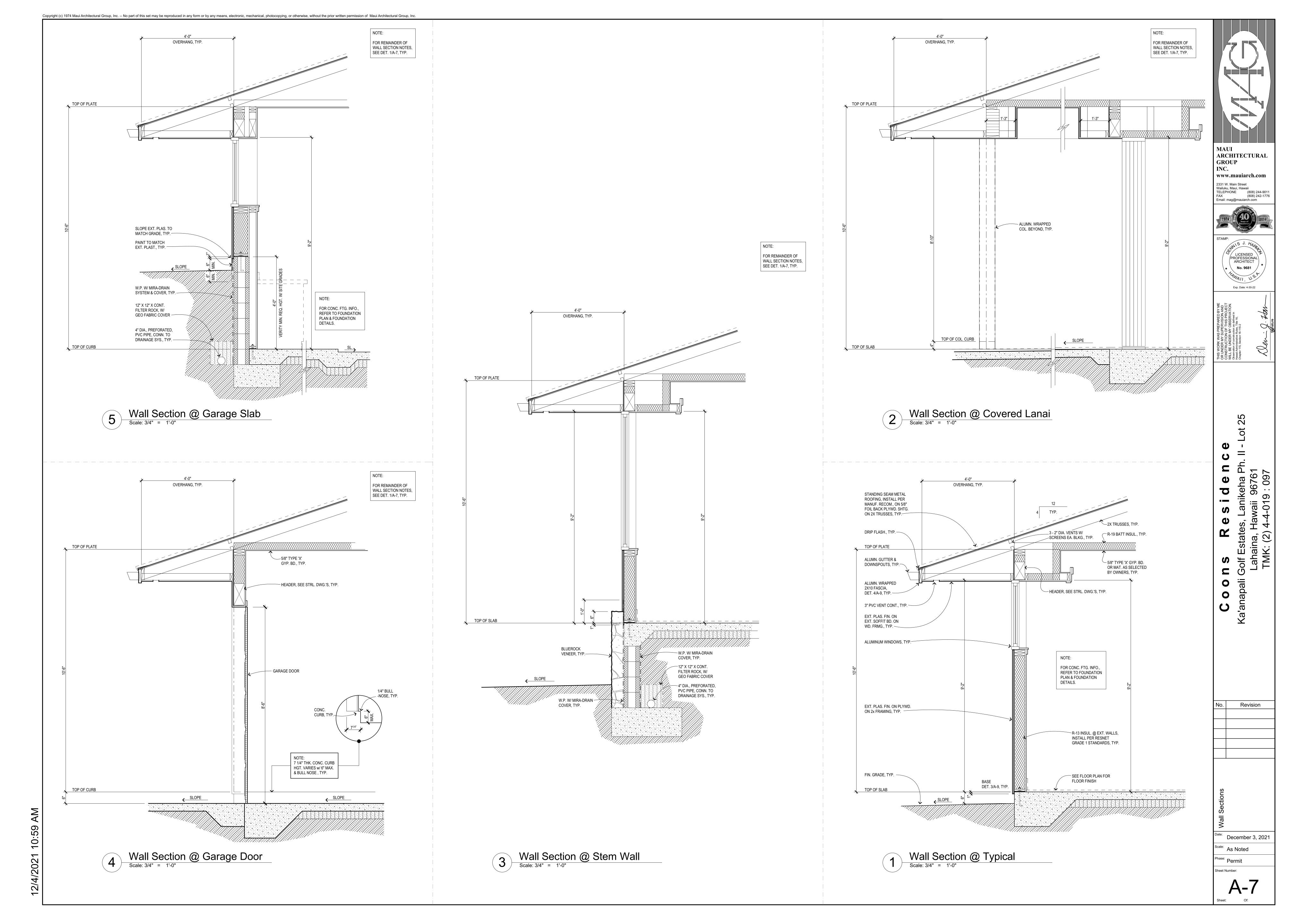
2331 W. Main Street Wailuku, Maui, Hawaii TELEPHONE (808) 244-9011 FAX (808) 242-1776 Email: mag@mauiarch.com

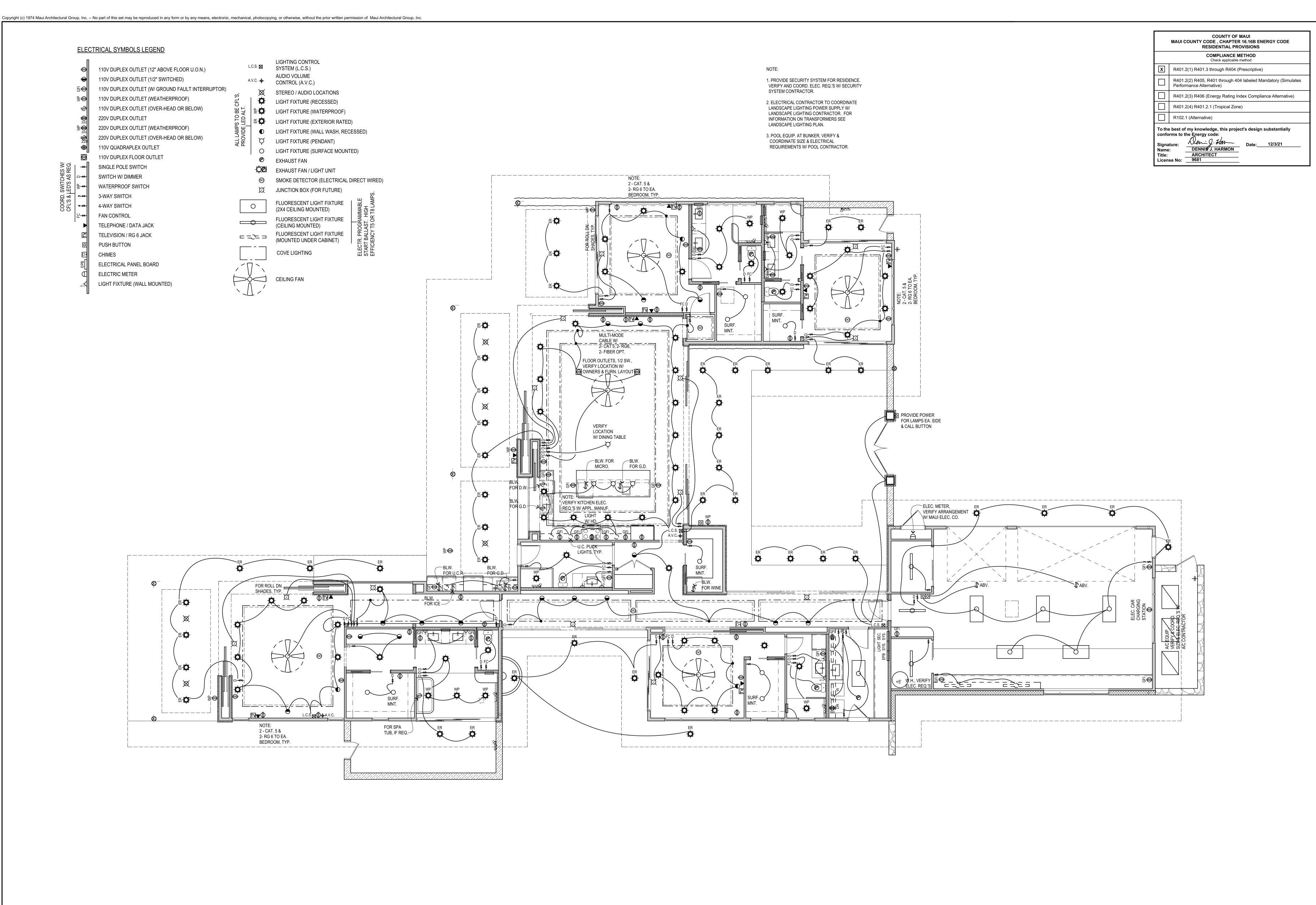
25

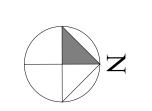
Revision

December 3, 2021 As Noted











**MAUI ARCHITECTURAL** 

**GROUP** www.mauiarch.com 2331 W. Main Street

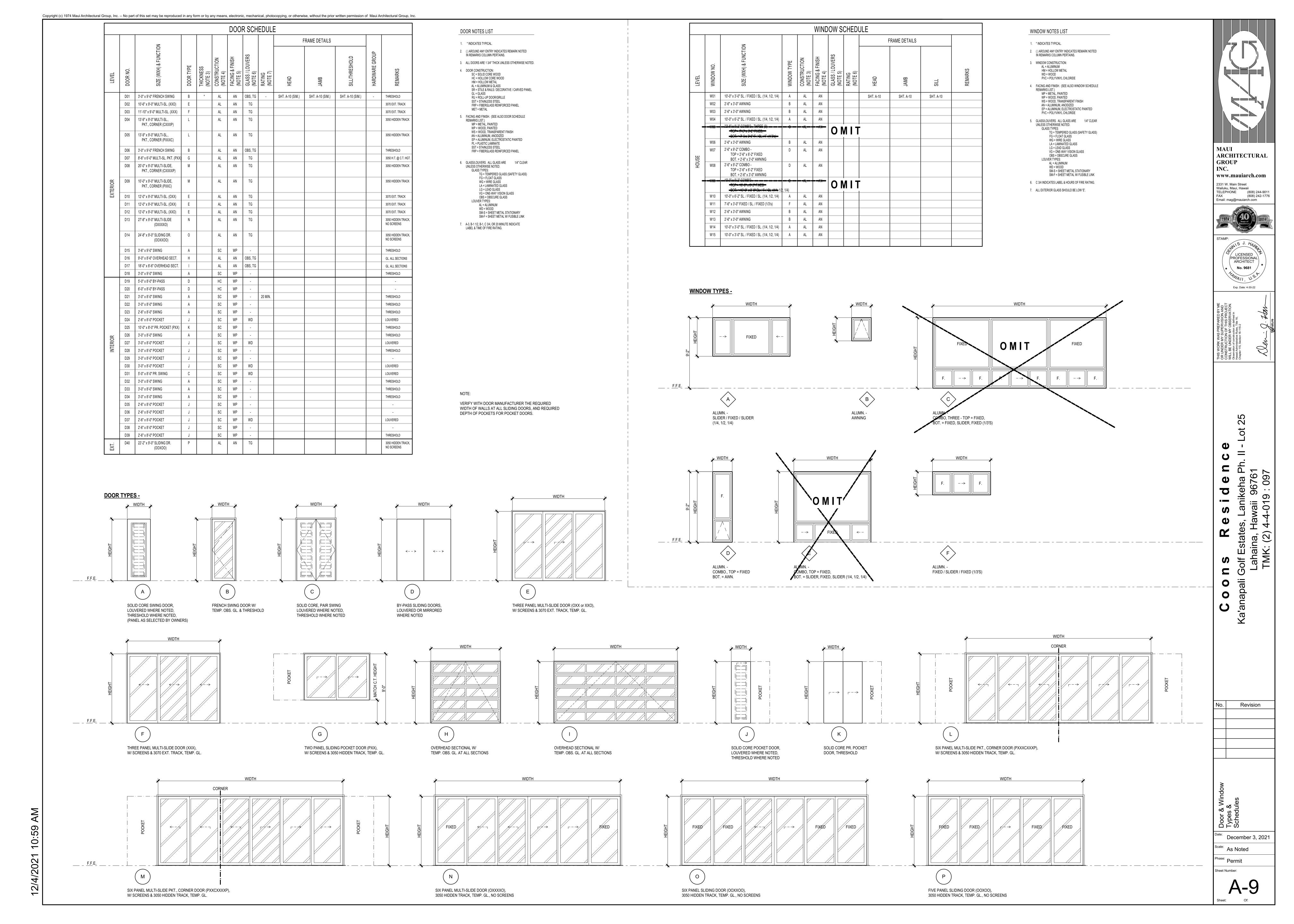
Wailuku, Maui, Hawaii TELEPHONE (808) 244-9011 (808) 242-1776 Email: mag@mauiarch.com

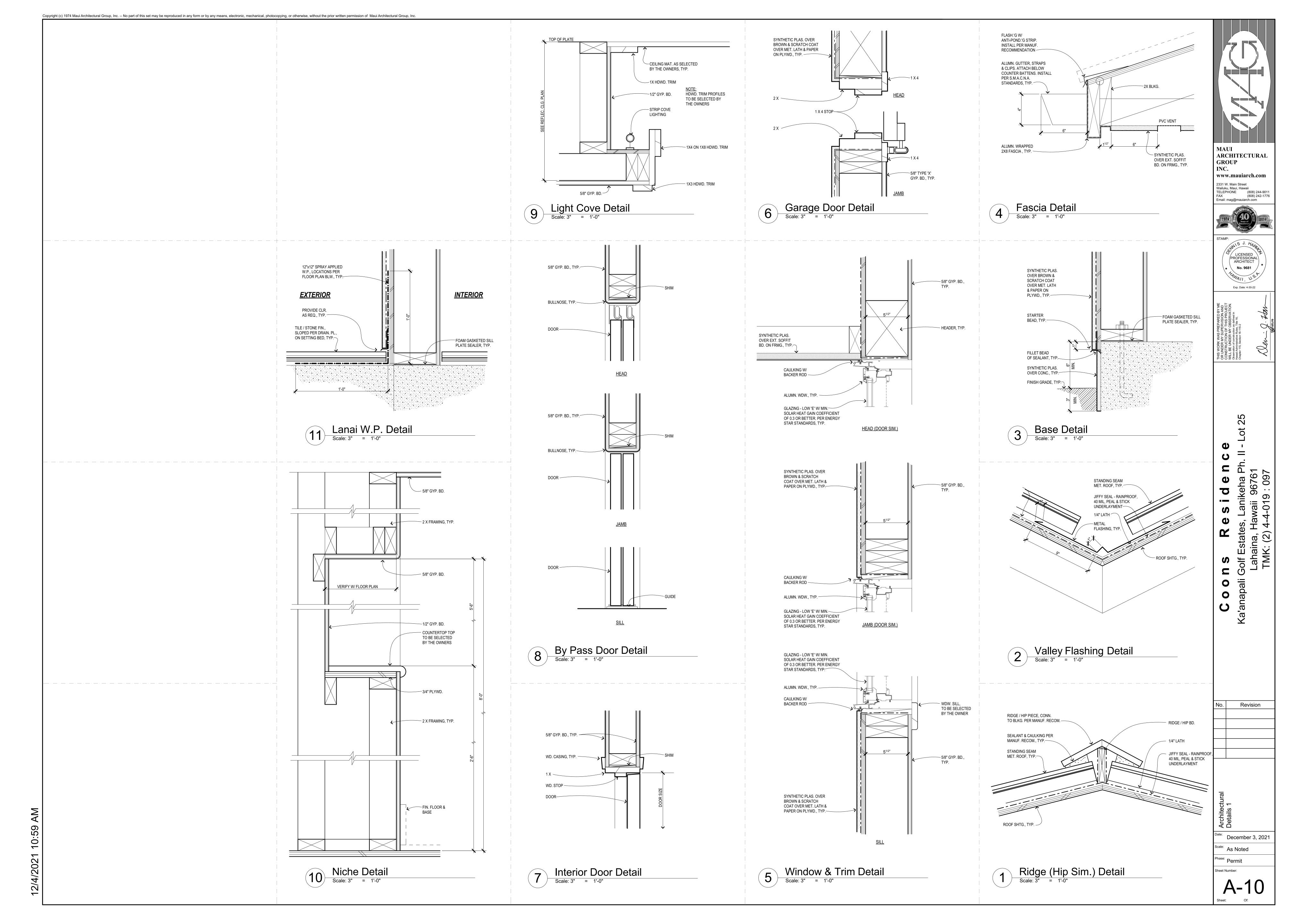
LICENSED

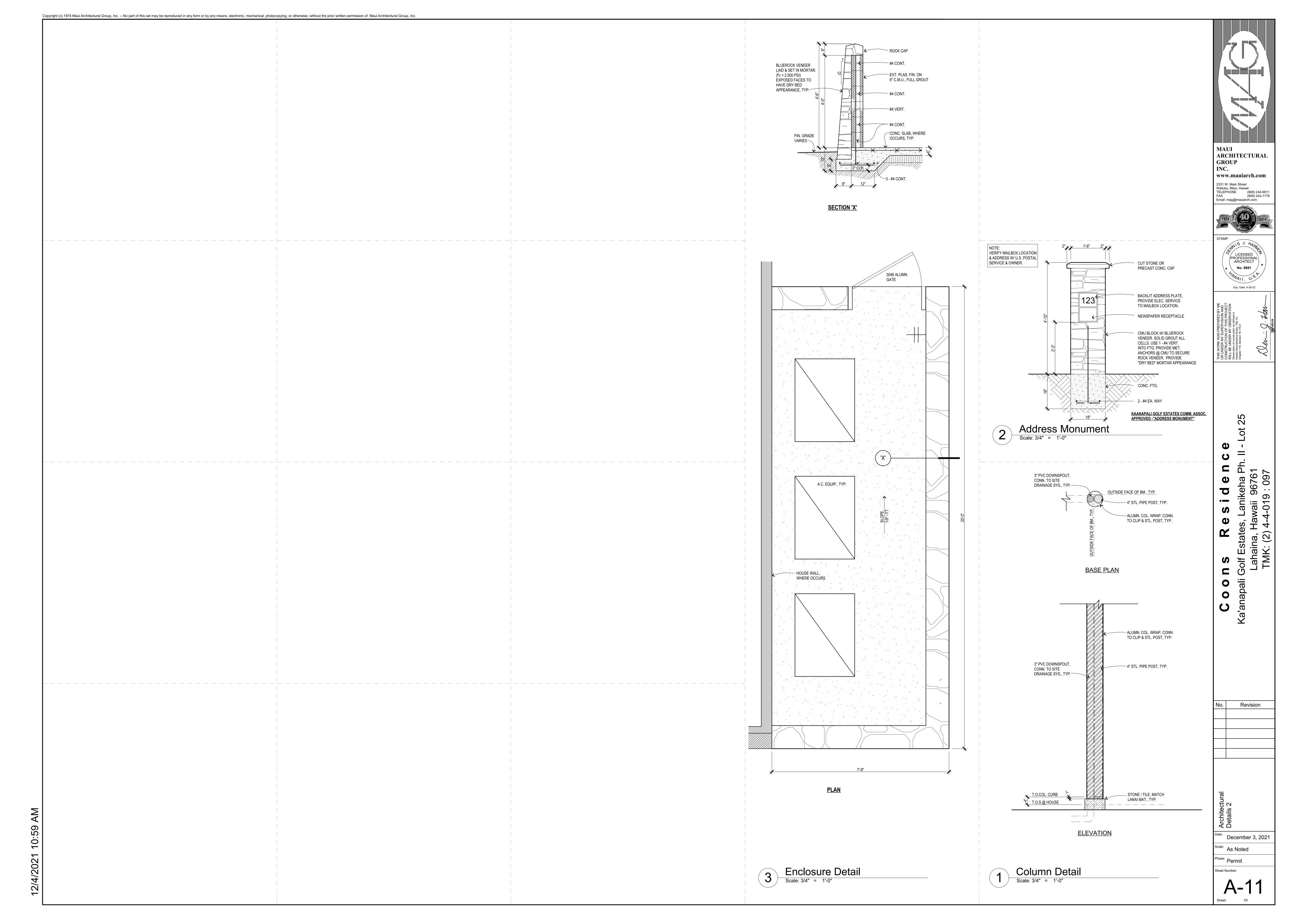
No. 9681 Exp. Date: 4-30-22

Revision

December 3, 2021







#### GENERAL STRUCTURAL NOTES

#### A. GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MINIMUM REQUIREMENTS OF THE 2018 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC) AND LOCAL BUILDING CODES AND ORDINANCES OR AS SPECIFICALLY NOTED ON THESE PLANS AND CALCULATIONS, THE MOST STRINGENT OF WHICH SHALL GOVERN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE FAMILIAR WITH AND COMPLY WITH THE THE REQUIREMENTS AS STATED IN THE IBC AND LOCAL BUILDING CODES AND ORDINANCES.

2. IF ANY CHANGES AND/OR SUBSTITUTIONS ARE MADE FROM THESE PLANS OR CALCULATIONS, THE ENGINEER SHALL BE NOTIFIED PRIOR TO THE IMPLEMENTATION OF SUCH CHANGES AND/OR SUBSTITUTIONS IN THE FIELD AND THE CLIENT SHALL OBTAIN THE NECESSARY CERTIFIED PLANS AND CALCULATIONS REQUIRED FOR AGENCY APPROVAL. IF SUCH CHANGES AND/OR SUBSTITUTIONS ARE MADE WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER, THEN THE ENGINEER WILL ASSUME NO RESPONSIBILITY FOR THE ENTIRE STRUCTURE OR ANY PORTIONS THEREOF, AND SHALL BE HELD HARMLESS FROM ANY RESULTING

3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON THE PLANS PRIOR TO COMMENCING WORK AND THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES FOUND.

4. THESE PLANS AND STRUCTURAL CALCULATIONS ARE BASED ON A COMPLETED STRUCTURE AS PER PLANS. THE ENGINEER IS NOT RESPONSIBLE FOR, AND HELD HARMLESS FROM, ANY DAMAGE RESULTING TO AN INCOMPLETE STRUCTURE SUBJECT TO THE DESIGN LOADS UNLESS FIRST CONSULTED FOR AN INTERIM DESIGN.

5. THIS STRUCTURAL DESIGN IS BASED ON LOADING CONDITIONS AS DETERMINED BY THE LOCAL BUILDING OFFICIAL, CODES AND THE IBC. THE ENGINEER IS NOT RESPONSIBLE FOR DAMAGE RESULTING TO A STRUCTURE DUE TO LOADING CONDITIONS EXCEEDING THOSE FOR WHICH THE STRUCTURE HAS BEEN DESIGNED, OR DUE TO "ACTS OF GOD" (E.G., FIRE, FLOOD, WAR, ETC.) BE RESPONSIBLE FOR PORTIONS OF THE STRUCTURE NOT SPECIFICALLY INCLUDED IN THE SCOPE OF WORK OF THE ADDITION/REMODEL

6. GRADES SHOWN ON PLOT MAPS AND ELEVATION DRAWINGS ARE THE RESPONSIBILITY OF THE CLIENT, UNLESS A FIELD INSPECTION AND/OR SURVEY IS SPECIFICALLY REQUESTED AND PERFORMED BY A LICENSED SURVEYOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR DAMAGE TO, OR ADDITIONAL CONSTRUCTION COSTS OF ANY STRUCTURE WHICH THE CLIENT, DESIGNER, ARCHITECT, SURVEYOR OR ANY OTHER PARTY HAS MISREPRESENTED THE RELATIVE POSITION OF THE STRUCTURE TO THE NATURAL FINISHED GRADES OF THE BUILDING SITE.

1. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY BRACING AND SHORING. CONSTRUCTION AND JOB SAFETY PROCEDURES ARE THE RESPONSIBILITY OF THE CONTRACTOR.

8. STRUCTURAL ENGINEERING AND PLANS FOR REMODELS AND ADDITIONS, OR PARTIAL ENGINEERING FOR A STRUCTURE, SHALL ONLY PERTAIN TO THOSE SPECIFIC AREAS ADDRESSED IN THE DESIGN CALCULATIONS AND THE PLANS. THE ENGINEER SHALL NOT RESPONSIBILITY TO INCORPORATE ALL SPECIFICATIONS INCLUDED IN THE CONSTRUCTION SET FOR EVERY FACET OF THE CONSTRUCTION.

9. IN CASE OF CONFLICT BETWEEN THE PLANS , SPECIFICATIONS, DETAILS OR NOTES, THE MOST RIGID REQUIREMENTS SHALL GOVERN UNTIL SUCH A TIME WHEN A CLARIFICATION IS ISSUED BY THE ENGINEER IN WRITING.

10. THE ENGINEER IS NOT RESPONSIBLE FOR THE ADAPTION OF THESE CALCULATIONS OR DRAWINGS TO ANY SITE OTHER THAN THE SPECIFIC LOCATION INDICATED ON THE COVER SHEET OF THE CALCULATIONS AND THE PLANS.

11. THE STRUCTURAL DOCUMENTS ARE ONLY ONE PART OF THE TOTAL SET OF CONSTRUCTION DOCUMENTS. IT IS THE CONTRACTOR'S IN THE LIKELY EVENT THERE ARE CONFLICTS BETWEEN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS, THE CONTRACTOR SHALL CONTACT BOTH ARCHITECT AND ENGINEER TO DETERMINE THE PROPER SPECIFICATION.

1. ALL LUMBER AND TIMBER PRODUCTS SPECIFIED IN THIS STRUCTURE SHALL BE PRESSURE TREATED. (THIS INCLUDES ALL FRAMING LUMBER, PLYWOOD OR OSB SHEATHING, MANUFACTURED TRUSS MEMBERS,

ENGINEERED WOOD PRODUCTS, ETC.) ALL MEMBERS SHALL BE FREE OF HEART CENTERS TYPICALLY. ALL EXPOSED TO VIEW FRAMING LUMBER SHALL ALSO BE KILN DRIED.

2. FRAMING LUMBER SHALL BE DOUGLAS FIR, DRY (19% MAXIMUM MOISTURE CONTENT) AS GRADED IN IBC. FRAMING LUMBER SHALL BE AS SPECIFIED BELOW AS MINIMUM UNLESS NOTED OTHERWISE IN THE CALCULATIONS AND PLANS. A. STUDS SHALL BE DOUGLAS FIR STUD GRADE OR BETTER.

B. 2x JOISTS, RAFTERS, PLATES AND HEADERS SHALL BE DOUGLAS FIR #2 OR BETTER C. 4x JOISTS, RAFTERS, HEADERS, BEAMS AND POSTS SHALL BE DOUGLAS FIR \*2 OR BETTER.

D. 6x BEAMS, RAFTERS, HEADERS AND POSTS SHALL BE DOUGLAS FIR #1 OR BETTER.

3. ALL EXPOSED FOR VIEW FRAMING LUMBER SHALL BE GRADED AS FOLLOWS

A. ALL 2× OR 4× RAFTERS, BRACES OR BEAMS SHALL BE DOUGLAS FIR #1 OR BETTER. B. ALL 6x & LARGER RAFTERS, BEAMS, BRACES OR COLUMNS SHALL BE DOUGLAS FIR SELECT STRUCTURAL.

4. GLU-LAMINATED MEMBERS SHALL CONFORM TO "AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) STANDARD 117-15 AND "APA-THE ENGINEERED WOOD ASSOCIATION" (APA) A19Ø.1-17, AND SHALL BE CLASSIFIED AS DOUGLAS FIR 24F - V4 OR 24F - V8 WITH DESIGN VALUES AS SPECIFIED IN IBC CHAPTER 23, APA 5475-16 AND ND5-18 WOOD DESIGN MANUAL TABLES. ALL GLU-LAMINATED MEMBERS EXPOSED TO WEATHER SHALL BE PROTECTED FROM STANDING WATER, ICE OR SNOW BY FLASHINGS, OR OTHER METHODS, OR SHALL BE PRESSURE TREATED WITH AN APPROVED PRESERVATIVE. ALL GLU-LAMINATED MEMBERS IN EXPOSED AREAS SHALL BE ORDERED ROUGH SAWN ARCHITECTURAL GRADE. ALL GLU-LAMINATED MEMBERS SHALL BE ORDERED WITH "O" CAMBER.

5. ALL MANUFACTURED WOOD JOISTS SHALL BE "TRUS-JOIST" BRAND OR EQUAL. ALL SPECIFICATIONS IN THE CALCULATIONS AND PLANS SHALL REFER TO "TRUS-JOIST" BRAND PRODUCTS. ALTERNATIVE BRANDS MAY BE USED IF THE LOAD CARRYING CAPABILITES MEET OR EXCEED THOSE OF "TRUS-JOIST" PRODUCTS AS SPECIFIED IN THE CALCULATIONS. ALL SUCH PRODUCTS SHALL BE INSTALLED PER THE "TRUS-JOIST" MANUFACTURER'S SPECIFICATIONS AND DETAILS FOR THIS SPECIFIC PROJECT.

THE FOLLOWING "TRUSS JOIST" BRAND ENGINEERED LUMBER SHALL MEET OR EXCEED THE FOLLOWING DESIGN VALUES WHERE INIDCATED IN THE STRUCTURAL DOCUMENTS:

L.S.L. (LAMINATED STRAND LUMBER) GRADE 1.55E (Fb = 2,325 psi - E = 1.55 x 106 psi) L.V.L. (LAMINATED VENEER LUMBER) GRADE 1.9E (Fb = 2600 psi - E = 1.9 x 106 psi) PSL (PARALLEL STRAND LUMBER) GRADE 2.0E (  $Fb = 2,9000 psi - E = 2.0 \times 10^6 psi)$ 

6. ALL STUD WALLS SHALL HAVE DOUBLE 2x TOP PLATES OF THE SAME DIMENSION AS THE STUDS IN THE WALL. PLATES SHAL BE LAPPED WITH A MINIMUM OF 48" BETWEEN SPLICES WITH AT LEAST 20 - 16d NAILS EACH SIDE OF THE SPLICE LOCATION. WHERE PLATES ARE DISCONTINUOUS DUE TO A POST, BEAM OR OTHER FRAMING MEMBER, A SIMPSON ST6236 STRAP SHALL BE USED TO SPLICE THE PLATE-TO-PLATE CONNECTION TOGETHER.

1. ALL JOISTS, RAFTERS AND STUDS SHALL BE SOLID BLOCKED OR CROSS-BRIDGE BLOCKED OVER ALL SUPPORT WALLS, BEAMS, GIRDERS AND ANY AND ALL LOCATIONS AS SPECIFIED IN IBC CHAPTER 23.

8. ALL POSTS, STUDS AND BEAM POCKETS SHALL HAVE SOLID BEARING TO THE FOUNDATION THROUGH WALLS, BLOCKING,

BEAMS AND OTHER STRUCTURAL MEMBERS. 9. ALL TIMBER FRAMING TECHNIQUES AND REQUIREMENTS SHALL CONFORM TO THE MINIMUM STANDARDS AS SET FORTH IN

# C. CONNECTIONS

IBC CHAPTER 23 AND LOCAL CODES AND ORDINANCES.

1. ALL POST AND COLUMN CONNECTIONS SHALL BE AS SPECIFIED IN THE CALCULATIONS WITH THE MINIMUM CONNECTION BEING ICBO APPROVED FASTENER, BASE, CAP, STRAP OR OTHER.

2. ALL HARDWARE (I.E., COLUMN CAPS AND BASES, HOLDOWNS, STRAPS, HANGERS, ETC.) SHALL BE "SIMPSON STRONG TIE" BRAND (SIMPSON) OR CUSTOM FABRICATED SPECIFICALLY AS DETAILED ON THE PLANS OR CALCULATIONS, AND SHALL BE INSTALLED WITH NAILS OR BOLTS EXACTLY AS CALLED FOR BY THE MANUFACTURER OR AS NOTED ON THE PLANS. ALTERNATIVE ICC APPROVED HARDWARE MAY BE SUBSTITUTED FOR SIMPSON, HOWEVER THE ENGINEER SHALL APPROVE THE SUBSTITUTION PRIOR TO ITS USE.

3. ALL NAILS SHALL BE COMMON OR SINKERS, UNLESS NOTED OTHERWISE. ALL NAILS USED IN HANGERS, STRAPS, HOLDOWNS OR OTHER HARDWARE SHALL BE A MINIMUM OF AN NIG TYPE OR AS SPECIFIED. ALL BOLTS SHALL COMPLY WITH ASTM A-30T STANDARDS OR GREATER.

4. POSTS USED FOR BEAMS OR GIRDER SUPPORTS SHALL BE EITHER 1) SOLID, CONTINUOUS MEMBERS TO THE FOUNDATION, OR 2) SPLICED AT MID-DEPTH OF FLOOR JOIST CAVITY, WITH FULL DIRECT BEARING AND USING SOLID BLOCKING AND SIMPSON ST6224 STRAPS ON ALL SIDES OF THE POST UNLESS NOTED OTHERWISE.

5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL HOLDOWN ANCHOR BOLTS, POST BASES AND OTHER HARDWARE PLACED IN CONCRETE BASED ON THE CONNECTION STUDS, WINDOW ROUGH OPENINGS AND OTHER FACTORS. THE ENGINEER IS NOT RESPONSIBLE FOR EXACT LOCATIONS OF THIS HARDWARE. UNLESS SPECIFICALLY DIMENSIONED IN THE PLANS, ALL HARDWARE DESIGNATIONS ARE SCHEMATIC IN NATURE AND INDICATE THE GENERAL LOCATION OF THE HARDWARE WITH RESPECT TO THE SPECIFIED HOLDOWN ATTACHMENT STUDS OR POSTS.

6. ALL HOLDOWN HARDWARE SHALL BE INSTALLED PER THE MANUFACTURER'S REQUIREMENTS. HOLDOWNS SHALL BE SECURED TO A MINIMUM ATTACHMENT STUD AS SPECIFIED IN THE MANUFACTURER'S SPECIFICATIONS OR AS SPECIFIED IN THE PLANS OR STRUCTURAL CALCULATIONS. LARGER HOLDOWNS MAY BE SUBSTITUTED FOR SMALLER HOLDOWNS WHEN INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

1. ALL FASTENERS USED IN PRESERVATIVE-TREATED AND FIRE-RETARDANT-TREATED LUMBER SHALL BE OF HOT-DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER. FASTENERS OTHER THAN NAILS, TIMBER RIVETS, WOOD SCREWS AND LAG SCREWS SHALL BE PERMITTED TO BE OF MECHANICALLY DEPOSITED ZINC COATED STEEL.

# D. PLYWOOD DIAPHRAGMS

1. HORIZONTAL DIAPHRAGMS: PLYWOOD SHALL BE A MINIMUM THICKNESS AS INDICATED IN THE CALCULATIONS AND THE PLANS AND SHALL MEET OR EXCEED THE REQUIREMENTS FOR APA GRADES - CDX PS-1 OR APA OSB GRADES STRUC.-1 PS-2 STANDARS. ALL DIAPRAGMS SHALL BE NAILED AS SPECIFIED IN THE CALCULATIONS WITH THE MINIMUM BEING THAT AS SPECIFIED FOR THE THICKNESS OF SHEATHING SPECIFIED IN IBC TABLES 2306.2.1(1) OR 2306.2(2) AND IN NDS-15 WOOD DESIGN MANUAL AND IN THE AMERICAN WOOD COUNCIL (AWC) SDPWS-15 MANUAL.

2. VERTICAL DIAPHRAGMS (SHEAR WALLS): ALL EXTERIOR WALLS OF A STRUCTURE SHALL BE COVERED WITH MINIMUM 1/2" CDX PLYWOOD (OR AS SPECIFIED IN THE CALCULATIONS) AND NAILED AS SPECIFIED IN THE CALCULATIONS AND PLANS WITH THE MINIMUM BEING THAT AS SPECIFIED FOR THE THICKNESS OF PLYWOOD INDICATED IN IBC TABLE 23/06.3 AND IN THE AWC SDPWS-15 MANUAL. EDGE NAIL SPECIFICATIONS SHALL APPLY TO ALL TOP PLATES, SOLE PLATES, RIM JOISTS, INTERMEDIATE BLOCKING LINES AND ALL HOLDOWN ATTACHEMENT STUDS OR POSTS. ALL NAILS SHALL BE STAGGERED ON EDGE OR BOUNDARY NAILING FRAMING MEMBERS IN ALL CASES WHEN THE NAIL SPACING SPECIFIED IS 3" O.C. OR CLOSER OR THE ATTACHMENT MEMBER IS A 3x (NET 2 1/2") OR WIDER MEMBER. ALL NAILS MUST BE INSTALLED AT LEAST 3/4" FROM EDGES AND ENDS OF PANELS TYP.

3. NAIL DIAPHRAGM SHEATHING TO ALL RAFTERS, TRUSSES, JOISTS, BLOCKING, DRAG STRUTS AND FOUNDATION SILLS CONNECTED TO SHEAR WALLS WITH DIAPHRAGM BOUNDARY NAILING SPECIFICATIONS (OR EDGE NAILING IF BOUNDARY IS NOT SPECIFIED). PNEUMATIC DRIVEN FASTENERS SHALL NOT BE OVERDRIVEN TO BELOW THE EXTERIOR SURFACE OF THE SHEATHING.

4. ROOF DIAPHRAGMS SHALL BE COMPLETELY SHEATHED UNDER ALL OVERFRAMING (CALIFORNIA ROOFS).

#### E. PREMANUFACTURED ROOF TRUSSES

1. THE MANUFACTURER SHALL DESIGN THE TRUSSES ACCORDING TO THE LOADING CONDITIONS AS SPECIFIED IN THE STRUCTURAL CONSTRUCTION DOCUMENTS, NAMELY 1) LIVE AND DEAD LOADS, 2) UNEQUAL LOADING CONDITIONS, 3) WIND LOADING CONDITIONS, 4) TRUSS SPACING, 5) SPANS AND EAVE OVERHANGS, 6) ROOF PITCH (EXTERIOR & INTERIOR), AND 6) BEARING POINTS. THE MANUFACTURER SHALL BE RESPONSIBLE FOR ANY SPECIAL CONDITIONS, HANGERS OR BEARING-INCREASE ENHANCERS DISCOVERED AS A RESULT OF THEIR CALCULATIONS. ANY VARIATION FROM THE SCHEMATICS SHOWN IN THE CALCULATIONS OR ON THE DRAWINGS MUST BE APPROVED BY THE ENGINEER. PRIOR TO FABRICATION OF ANY TRUSSES, TWO COPIES OF TRUSS LAYOUT DRAWINGS AND TRUSS CALCULATIONS SHOWING AXIAL, BENDING AND LATERAL STRESSES AND JOINT DESIGNS CONFORMING TO 2018 IBC, SECTION 2303.4 SHALL BE SUBMITTED TO THE BUILDING OFFICIAL. THE DRAWINGS SHALL BEAR THE APPROVAL OF THE ENGINEER OF RECORD.

2. EACH TRUSS SHALL BE CONNECTED TO EACH BEARING WALL TOP PLATE WITH 1 - SIMPSON H-1 CONNECTOR SCISSOR TRUSSES MAY REQUIRE SPECIAL CONNECTORS DUE TO HORIZONTAL DEFLECTIONS.

### F. STEEL FABRICATION

1. ALL STEEL BEAMS, COLUMNS, PLATES AND SECTIONS SHALL MEET OR EXCEED MINIMUM STANDARDS SET FOR ASTM A-36. STEEL TUBING SHALL MEET ASTM A500-B. ALL "W" SHAPES SHALL MEET ASTM-A992 (50 ksi) SPECIFICATIONS. ALL STEEL SHALL BE CLEAN FROM RUST OR DETERIORATION AND SHALL ARRIVE TO THE JOB SITE PRIMED.

2. ALL CONNECTION HARDWARE AND BOLTS SHALL MEET REQUIREMENTS OF ASTM A-307 UNLESS NOTED OTHERWISE. (SEE #S)

3. ALL STEEL-TO-STEEL BOLTS SHALL MEET REQUIREMENTS OF ASTM A-325 UNLESS NOTED OTHERWISE. ALL INSTALLATION OF SUCH BOLTS SHALL BE APPROVED BY THE SPECIAL INSPECTOR ON THE PROJECT.

4. ALL WELDING SHALL BE PERFORMED WITH ETØXX ELECTRODES OR APPROVED EQUAL UNLESS SPECIFIED IN THE PLANS OR CALCULATIONS. ALL SHOP WELDING SHALL BE PERFORMED BY AN APPROVED FABRICATOR AS SPECIFIED IN THE IBC AND ASTM STANDARDS. ALL FIELD WELDING SHALL BE PERFORMED BY AN AWS CERTIFIED WELDER POSSESSING CURRENT QUALIFICATION DOCUMENTS FOR EACH SPECIFIC WELDING PROCESS AND PROCEDURE.

5. ALL WELDS REQUIRING "SPECIAL INSPECTION" SHALL BE INSPECTED BY AN AWS CERTIFIED WELDING INSPECTOR: "SPECIAL INSPECTORS" MUST BE NOTIFIED AND PROVIDED WITH THE STRUCTURAL STEEL PLANS AND DETAILS PRIOR TO ANY FIELD WELDING. 6. ALL WELD FILLER MATERIAL USED IN CJP WELDS AT MOMENT-FRAME CONDITIONS SHALL HAVE A CHARPY V-NOTCH (CVN) TOUGHNESS OF 20 FT-LBS @ -20° F. ALL SUCH WELDS SHALL BE PERFORMED AS SPECIFIED BY FEMA-350.

1. ALL MATERIALS AND PROCEDURES SHALL CONFORM WITH CURRENT AWS, AISC, ASTM, FEMA AND IBC REQUIRMENTS AND STANDARDS 8. ALL BOLTS NOT SPECIFIED AS A-325 HIGH STRENGTH BOLTS MAY BE GRADE A-307 BOLTS. ALL BOLTS SHALL BE OF A LENGTH THAT WILL ENSURE A MINIMUM OF 2-THREADS EXPOSURE BEYOND THE END OF THE TIGHTENED NUT. ALL NUTS MAY BE INSTALLED WITH "SNUG TIGHT" INSTALLATION AS DEFINED IN THE AISC STEEL MANUAL. ALL TIMBER-TO-STEEL CONNECTIONS SHALL INCLUDE STANDARD FLAT WASHERS @ TIMBER FACE U.N.O.

## G. CONCRETE AND MASONRY

PROVIDE CONCRETE TO OBTAIN THE FOLLOWING MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS:

4.000 PSI . FOOTINGS 2. SLABS ON GRADE OR FILL 3. GROUT (FILLED CELLS) 2,500 PSI \*

\* PEA GRAVEL MIX AT 8" TO 11" SLUMP 2. CONCRETE MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH ACI-318-14 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE AND ACI-301-10 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS. MASONRY MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH TMS 402/602-16

3. THE MINIMUM CONCRETE COVER SHALL BE IN ACCORDANCE WITH ACI-318-14, CHAPTERS 7-12.

EACH MEMBER TYPE WILL MEET THE REQUIREMENTS OF THE SPECIFIC CHAPTER.

AND 2018 IBC, CHAPTER 21. THE DESIGN, CONSTRUCTION AND SPECIFICATIONS CONCERNING

REGARDING ALL MASONRY AND STONE VENEER SHALL BE IN ACCORDANCE WITH TMS 402/602-16.

4. BAR SUPPORTS IN CONTACT WITH EXPOSED SURFACES SHALL BE PLASTIC TIPPED. ALL ACCESSORIES SHALL BE GALVANIZED.

5. PROVIDE SPACERS, CHAIRS, BOLSTERS, ETC. AS REQUIRED AND NECESSARY TO ASSEMBLE, PLACE AND SUPPORT ALL REINFORCING IN PLACE. USE WIRE

6. ALL CONCRETE SHALL CONTAIN AN APPROVED WATER REDUCING PLASTICIZING ADMIXTURE. ALL CONCRETE PERMANENTLY EXPOSED TO THE WEATHER SHALL CONTAIN AN APPROVED AIR-ENTRAINING ADMIXTURE. NO CALCIUM CHLORIDE SHALL BE USED IN ANY CONCRETE. NO WATER SHALL BE ADDED AT THE

7. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER DESIGN AND CONSTRUCTION OF ALL FORMWORK, SHORING AND RESHORING. PROVIDE COMMERCIAL FORM COATING COMPOUNDS THAT WILL NOT BOND, STAIN OR ADVERSELY AFFECT CONCRETE SURFACES.

BAR TYPE SUPPORTS COMPLYING WITH CRSI RECOMMENDATIONS.

8. ALL CONCRETE SHALL BE CONSOLIDATED IN PLACE USING INTERNAL VIBRATOR. DO NOT USE VIBRATORS TO TRANSPORT CONCRETE WITHIN FORMS.

9. NO SLUMP OVER 5" SHALL BE PERMITTED FOR STRUCTURAL CONCRETE.

# H. NON-SHRINK GROUT @ BASE AND BEARING PLATES

1. TYPE - ALL GROUT FOR BASE AND BEARING PLATES SHALL BE NON-METALLIC, SHRINKAGE RESISTANT, PREMIXED AND NON-STAINING PRODUCT CONTAINING PORTLAND CEMENT, SILICA SANS, SHRINKAGE COMPENSATING AGENTS AND FLUIDITY IMPROVING COMPOUNDS.

. NON-SHRINK GROUT SHALL CONFORM TO CORPS OF ENGINEERS SPECIFICATION FOR NON-SHRINK GROUT CRD-C621-83.

3. TWENTY-EIGHT DAY COMPRESSIVE STRENGTH, AS DETERMINED BY GROUT CUBE TESTS,

SHALL BE 6000 psi FOR SUPPORTING CONCRETE OF 3000 psi AND LESS.

4. GROUT SHALL BE PLACED IN A FLUID FLOWABLE STATE UNDER BASEPLATES THAT HAVE A FORM BUILT AROUND THEM FOR GROUT CONFINEMENT. GROUT SHALL BE CURED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

5. THE MINIMUM THICKNESS OF GROUT UNDER ALL BASE AND BEARING PLATES SHALL BE 1", UNLESS SPECIFIED OTHERWISE IN DRAWINGS.

# I. REINFORCING STEEL

1. ALL REINFORCING STEEL SHALL BE BILLET STEEL CONFORMING TO STANDARDS OF ASTM A615, GRADE 60.

2. ALL WELDED WIRE FABRIC SHALL CONFORM TO STANDARDS OF ASTM A185.

3. ALL REINFORCING DETAILS SHALL CONFORM TO "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" (ACI 315)

AT A MINIMUM, REINFORCEMENT LAPS SHALL BE AS FOLLOWS:

UNLESS DETAILED OTHERWISE ON THE STRUCTURAL DRAWINGS. 4. THE CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS OF REINFORCING BARS SHOWING NUMBER, SIZE AND LOCATION (INCLUDING BAR LISTS AND

5. ALL REINFORCEMENT LAPS @ SPLICES SHALL MEET OR EXCEED THE LENGTHS SPECIFIED IN ACI 315 AND ACI 318-14 FOR CONCRETE STRENGTH AND REINFORCEMENT GRADE.

BAR SIZE (GRADE)	HORIZONTAL (WALLS/ FTGS)	VERTICAL (WALLS/ COLS/ FTGS)	HOOKS (ALL LOCATIONS)
*4 BARS (GR. 40)	40 d (20" MIN)	40 d (20" MIN)	12 d (12" MIN)
*4 BARS (GR. 60)	40 d (20" MIN)	55 d (30" MIN)	12 d (12" MIN)
*5 BARS (GR. 60)	40 d (25" MIN)	55 d (36" MIN)	12 d (12" MIN)
*6 BARS (GR. 60)	40 d (30" MIN)	55 d (42" MIN)	12 d (12" MIN)

# J. FOUNDATIONS

I. ALL FOOTINGS SHALL BEAR ON FIRM UNDISTURBED, NON-ORGANIC SOIL OR ON FILL COMPACTED TO 95% OF MAXIMUM. DENSITY BASED ON ASTM D-1557. ALL FILL COMPACTION SHALL BE DONE UNDER THE DIRECT GUIDANCE OF A LICENSED

2. ALL FOOTINGS OUTSIDE OR AT THE PERIMETER OF THE STRUCTURE, OR IN OTHER UNHEATED AREAS, SHALL BE SET TO A DEPTH OF AT LEAST 24" BELOW FINISHED GRADE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS.

3. AN ALLOWABLE SOIL BEARING PRESSURE OF 1,000 psf HAS BEEN USED IN THE STRUCTURAL CALCULATIONS PER THE VALUES ALLOWED IN CHAPTER IS OF THE IBC FOR THIS TYPE OF SOIL CONDITION. IF ANY QUESTIONABLE SOIL CONDITIONS ARE DISCOVERED IN THE FIELD, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT A LICENSED GEOTECHNICAL ENGINEER TO INVESTIGATE THE SOILS CONDITIONS AND INSTRUCT THE CONTRACTOR HOW TO PROCEED. THE GEOTECHNICAL ENGINEER SHALL PREPARE A WRITTEN STATEMENT OF FINDINGS AND PROVIDE THE STATEMENT TO THE ENGINEER FOR STRUCTURAL RE-ANALYSIS OF THE STRUCTURE. THE SOILS INVESTIGATION REPORT AND ALL RECOMMENDATIONS AND SPECIFICATIONS THEREIN ARE TO BE CONSIDERED A PART OF THESE WORKING DRAWINGS.

4. WATERPROOFING OF FOUNDATIONS, RETAINING WALLS AND SLABS IS THE RESPONSIBILITY OF THE OWNER, CONTRACTOR OR ARCHITECT. THE ENGINEER SHALL BE HELD HARMLESS FOR ANY CLAIMS RESULTING IN DAMAGE DUE TO WATER CONDITIONS WHICH OCCUR DUE TO THE CONSTRUCTION OF A FOUNDATION. ALL RETAINING WALLS SHALL BE BACKFILLED WITH AN APPROVED GRAVEL, ROCK OR DRAINBOARD AND DRAINAGE SYSTEM TO ENSURE NO HYDROSTATIC PRESSURES BE APPLIED TO THE WALL.

5. ALL FOUNDATION ANCHORS SHALL BE "SIMPSON MASB" OR 5/6" 4 x 12" PLACED @ 48" O.C. MAXIMUM UNLESS NOTED OTHERWISE IN THE PLANS PROVIDE 1" EMBEDMENT MINIMUM FOR ANCHOR BOLTS. PROVIDE 3" x 3" x 1/4" WASHERS MINIMUM @ ALL ANCHOR BOLTS. ALL FOUNDATION ANCHORS SHALL BE "WET-SET" AT THE TIME FOUNDATION SYSTEM IS PLACED.

6. ALL FOOTINGS SHALL BE REINFORCED WITH A MINIMUM OF 3 - \*4 BARS CONTINUOUS PLACED 3" CLEAR FROM ANY SOIL AT THE BOTTOM OR SIDES. ALL STEM WALLS SHALL BE REINFORCED WITH 1 - \*4 BAR CONTINUOUS IN TOP 4" OF STEM.

## GENERAL STRUCTURAL LOADS

ROOF LIVE LOAD = 20 psf

ROOF DEAD LOAD:

6.0 psf PLYWOOD 3.0 psf TRUSSES 2.0 psf MECHANICAL 3.0 psf MISC. 4.0 psf 25.0 psf

#### FLOORS

FLOOR LIVE LOAD = 40 psf TYP. LANAI LIVE LOAD = 60 psf TYP.

ALL FLOORS ARE CONCRETE SLAB ON GRADE

WIND DESIGN LOADS PER ASCE 1-16 & STATE OF HAWAII WIND MAPS ULTIMATE (Yu) WIND SPEED @ 120 mph WIND IMPORTANCE FACTOR = 1.0 Kzt FACTOR = 1.0 PER STATE OF HAWAII WIND MAPS EXPOSURES PER IBC CHAPTER 16, ASCE 7-16 CHAPTER 26 \$ STATE OF HAWAII WIND MAPS EXPOSURE C PER STATE OF HAWAII WIND MAPS INTERNAL PRESSURE COEFFICIENT = ± 0.18

COMPONENT & CLADDING MIN. POSITIVE DESIGN PRESSURES: ROOF ZONES: 20 psf

WALL ZONES: 20 pef

SEISMIC DESIGN CATAGORY

SEISMIC DESIGN LOADS PER IBC CHAPTER 16 & ASCE 7-16 CHAPTERS 11 & 12 SEISMIC IMPORTANCE FACTOR SOIL SITE CLASS MAPPED SPECTRAL RESPONSE SHORT PERIOD (Ss) *.*Ø234Ø 1-SECOND PERIOD (S1) SPECTRAL COEFFICIENTS SHORT PERIOD (Sps. *Ø.*323 1-SECOND PERIOD (SDI)

#### DEFERRED SUBMITTAL LIST

THE FOLLOWING IS A LIST OF ELEMENTS OF THE DESIGN OF THE STRUCTURE THAT SHALL HAVE DOCUMENTS SUBMITTED TO THE ENGINEER FOR REVIEW FOR COMPLIANCE WITH DESIGN REQUIREMENTS AND PARAMETERS. TWO (2) COPIES OF EACH DEFERRED SUBMITTAL SHALL FIRST BE SUBMITTED TO THE ARCHITECT/ ENGINEER OF RECORD, WHO WILL REVIEW THEM AND FORWARD THEM TO THE MAUI COUNTY BUILDING DEPARTMENT WITH NOTATIONS INDICATING THAT THE SUBMITTALS CONFORM TO THE DESIGN OF THE BUILDING. THE ENGINEER(S) RESPONSIBLE FOR THE DESIGN OF THE DEFERRED SUBMITTAL ITEMS

BUILDING STRUCTURAL SYSTEM

SHALL STAMP AND WET-SIGN THOSE DRAWINGS AND CALCULATIONS FOR WHICH HE/SHE IS RESPONSIBLE. APPROXIMATE TIMEFRAME FOR SUBMITTAL

1. MANUFACTURED ROOF TRUSSES SUBMITTAL TO BUILDING DEPARTMENT PRIOR TO ROUGH FRAMING INSPECTION

# ABBREYIATIONS

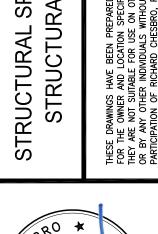
ANCHOR BOLT

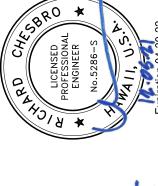
	, " (C. 1011 DOL1	1 14 .			
ABY.	ABOVE	HDR.	HEADER	T.O.C.	TOP OF CONCRETE
ADJ.	ADJACENT	ID.C	NITEDNIATIONIAL DUILDING CODE	T.O.S.	TOP OF SLAB
ALT.	ALTERNATE	IBC	INTERNATIONAL BUILDING CODE	T#G	TOUNGE & GROOVE
ARCH.	ARCHITECT/ ARCHITECTURAL	INCL.	INCLUDE/ INCLUDED	TRIM.	TRIMMER
		K	KIPS (1,000 POUNDS)	TRIP.	TRIPLE
BLK'G.	BLOCKING			TYP.	TYPICAL
BLW.	BELOW	L.S.L	LAMINATED STRAND LUMBER		
BM.	BEAM			U.N.O.	UNLESS NOTED OTHER
BRG.	BEARING	MANUF.	MANUFACTURED/ MANUFACTURER		
		MAX.	MAXIMUM	W.W.F.	WELDED WIRE FABRIC
C.J.	CONTROL JOINT	MIN.	MINIMUM	w.w.M.	WELDED WIRE MESH
CLR.	CLEAR	M.B.	MACHINE BOLT		
CMU	CONCRETE MASONRY UNITS	N.T.S.	NOT TO SCALE		
COL.	COLUMN	14.1.0.	NOT TO SCALE		
CONC.	CONCRETE	o.c.	ON CENTER		
CONT.	CONTINUOUS	0.5. 08B	ORIENTED STRAND BOARD		
		000	ORIENTED STRAND DOARD		
DBL.	DOUBLE	P.E.	PROFESSIONAL ENGINEER		
D.F.	DOUGLAS FIR	PL.	PLATE (TIMBER OR STEEL)		
DTL.	DETAIL	P.S.L.	PARALLEL STRAND LUMBER		
		PLF	POUNDS PER LINEAR FOOT		
EA.	EACH	PLY	PLYWOOD		
E.W.	EACH WAY	PSI	POUNDS PER SQUARE INCH		
EQ.	EQUAL	<del>P</del> .T.	PRESSURE TREATED		
EXIST.	EXISTING				
EXT.	EXTERIOR	RS.	RESAWN		
		RE-BAR	DEFORMED STEEL BARS		
F.F.	FINISH FLOOR	REQ.	REQUIRED		
F.G.	FINISHED GRADE				
FTG.	FOOTING	SAD	SEE ARCHITECTURAL DRAWINGS		
		SHTG	SHEATHING		
GALY.	GALYINIZED	SIM.	SIMILAR		
	GLUE LAMINATED BEAM	SPECS	SPECIFICATIONS		
GLB GRDR.	GIRDER	STL.	STEEL		
GYP.	GYP9UM	SYP	SOUTHERN YELLOW PINE		
<b>4</b> 11.	G 1 1 00 1				

HEM FIR

 $\Box$ 

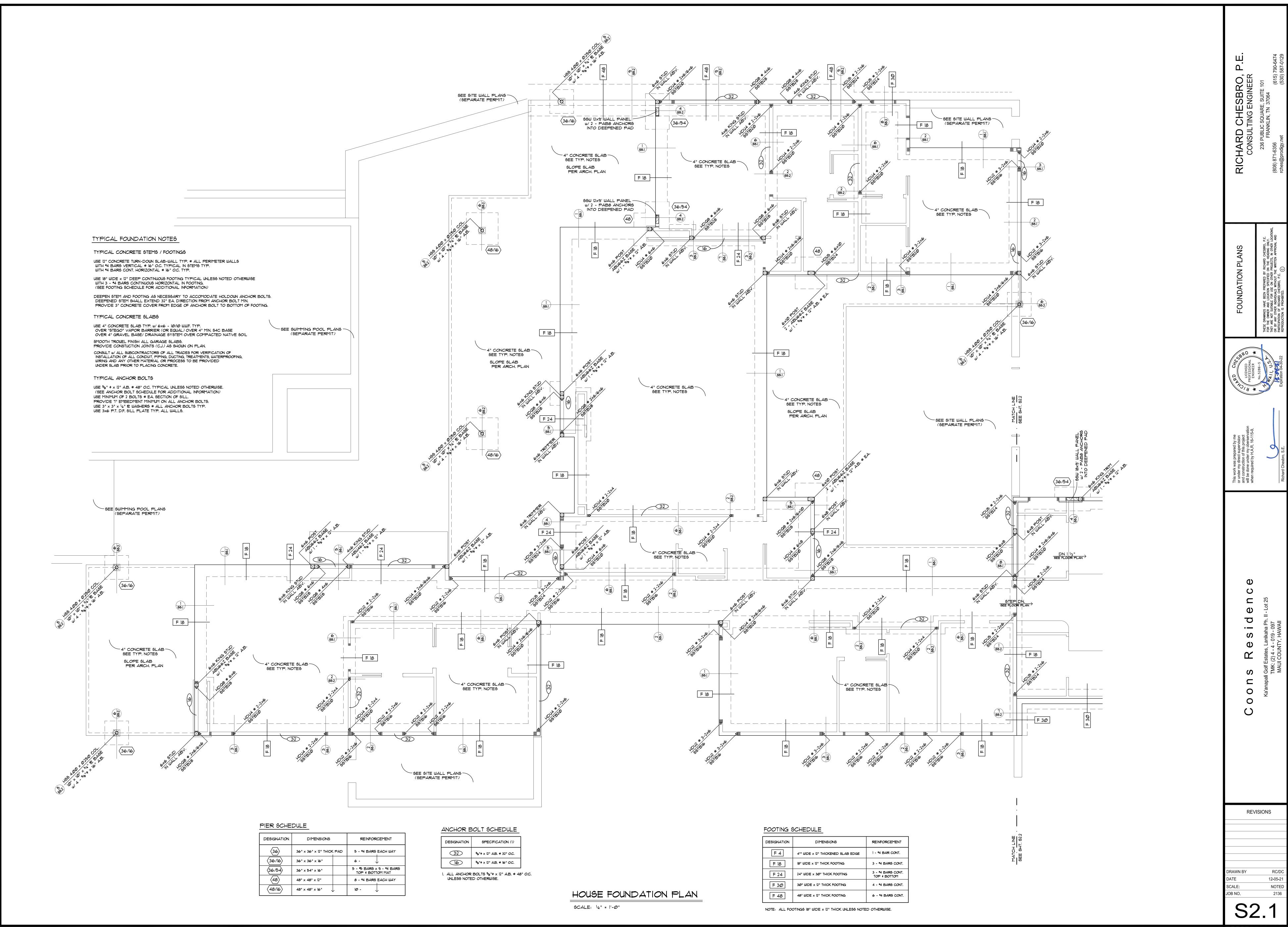
HARD



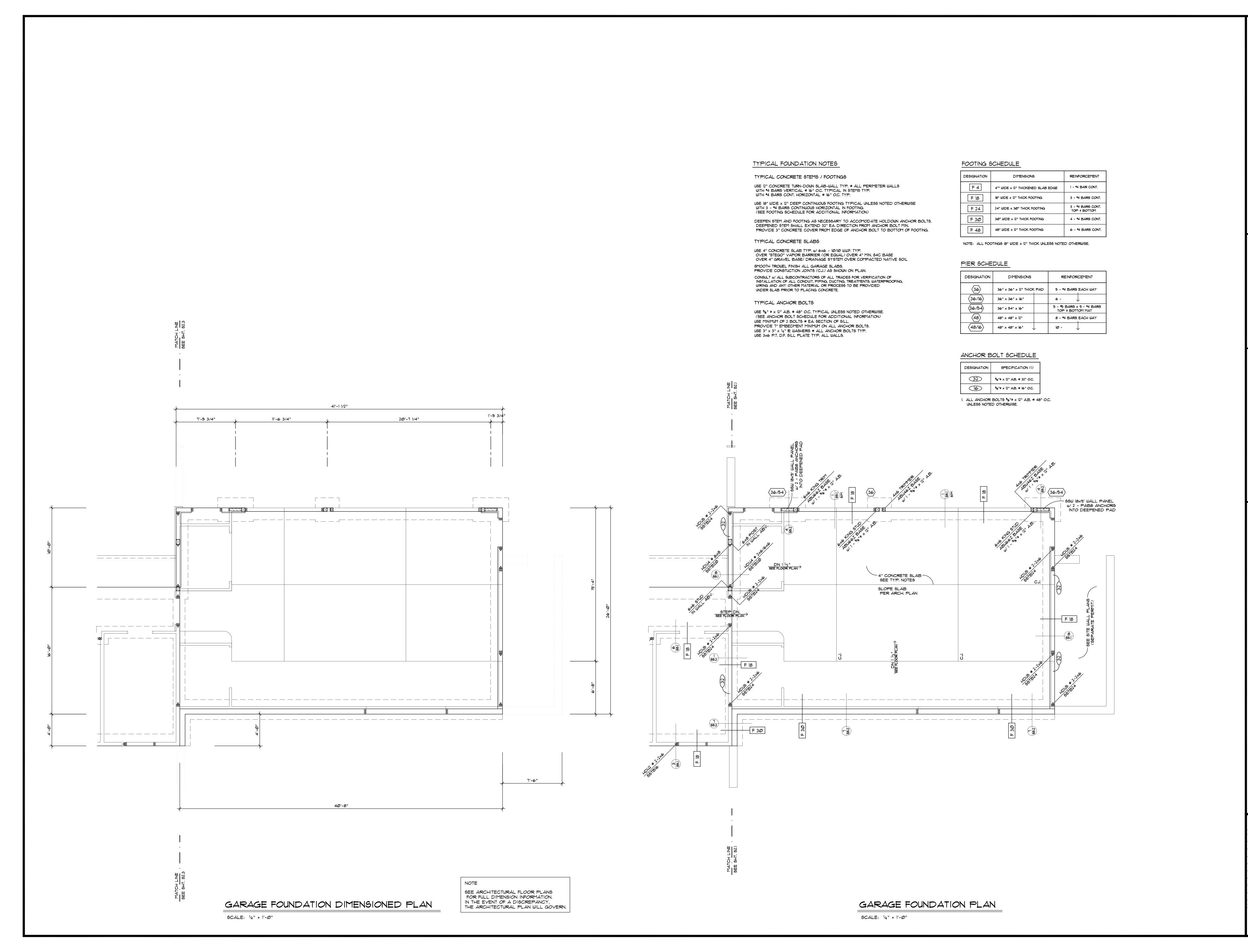


REVISIONS

DRAWN BY NOTED OB NO.

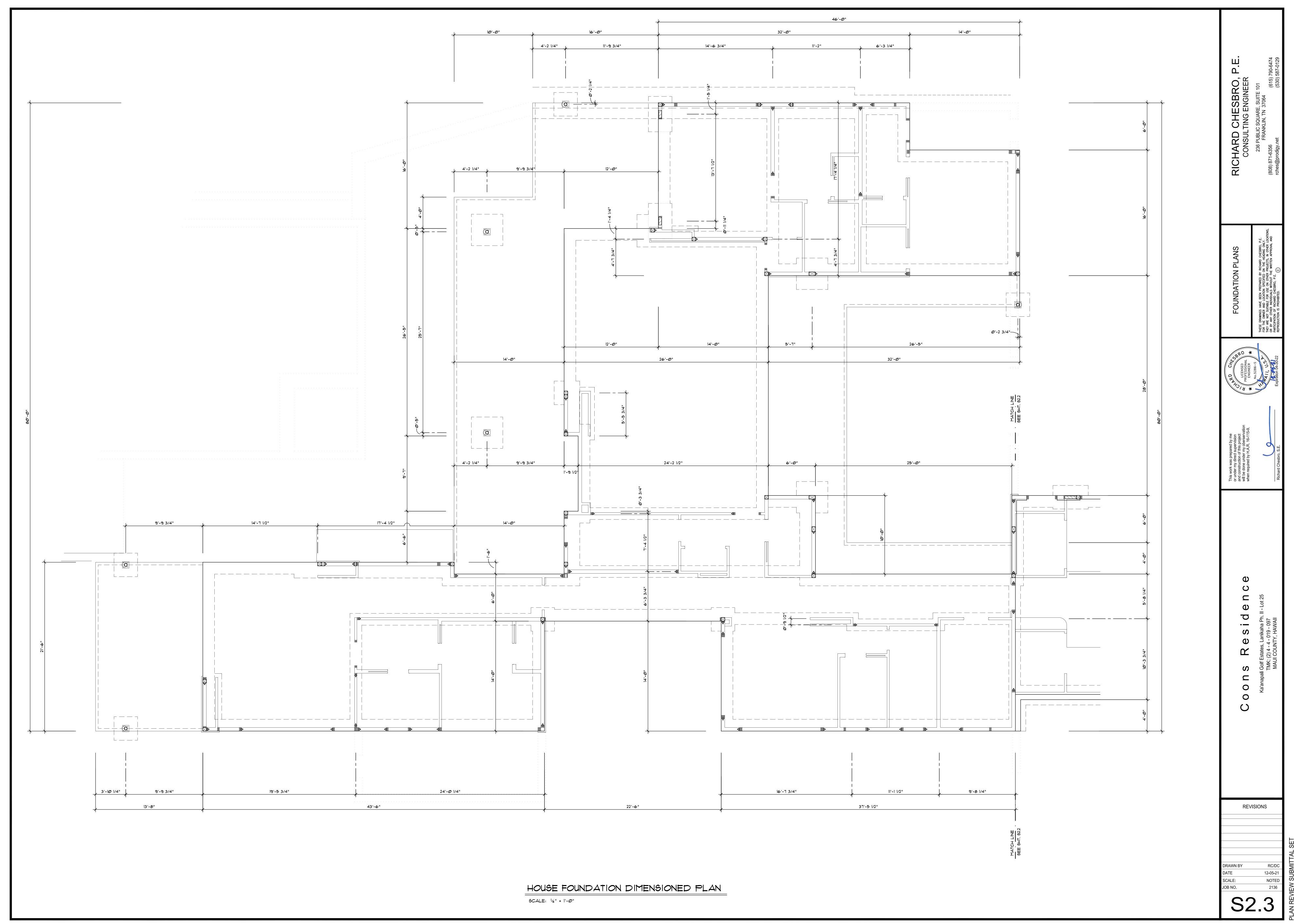


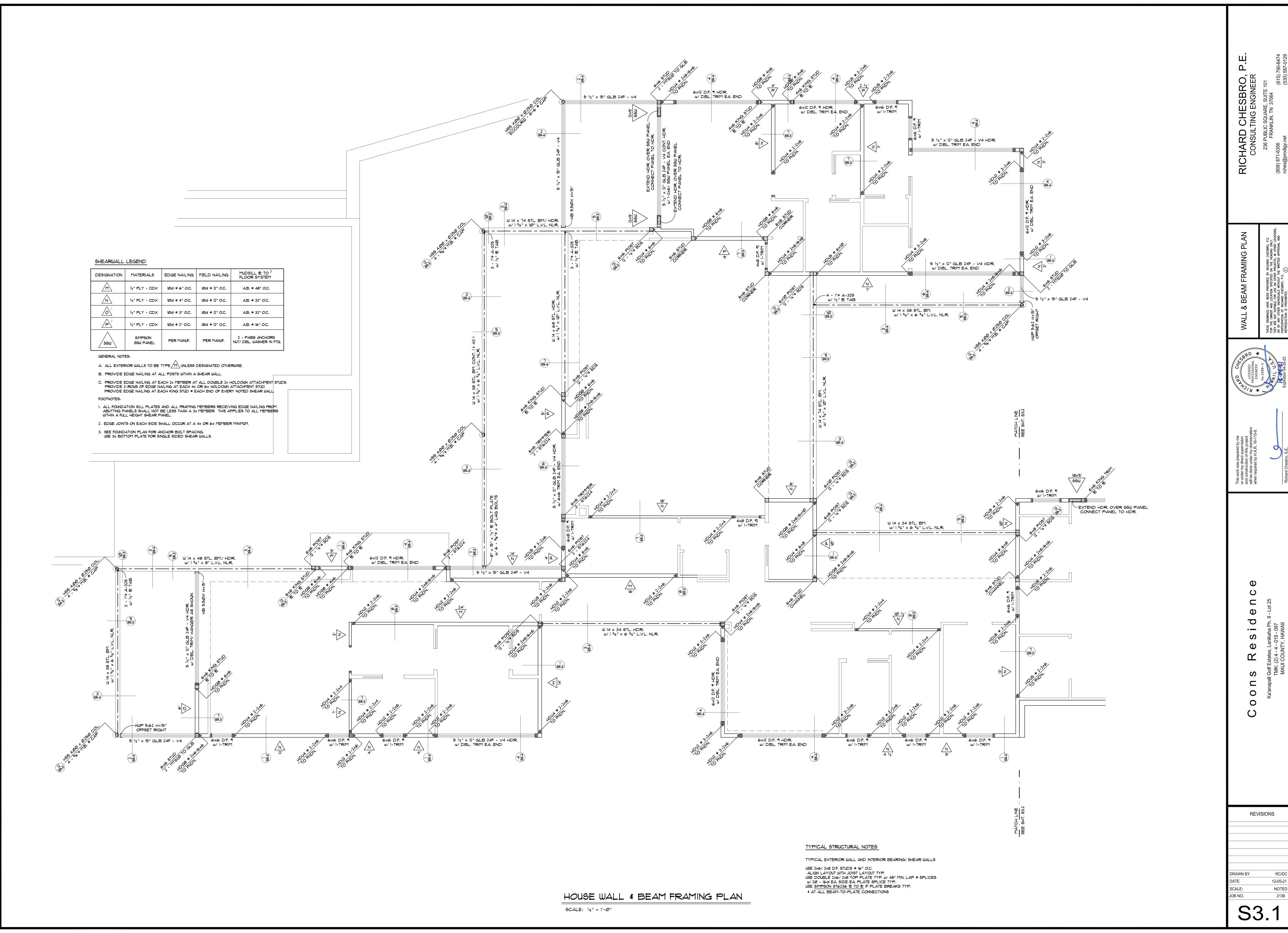
LAN REVIEW SUBMITTAL SET



REVISIONS

DRAWN BY





LAN REVIEW SUBMITTAL SET

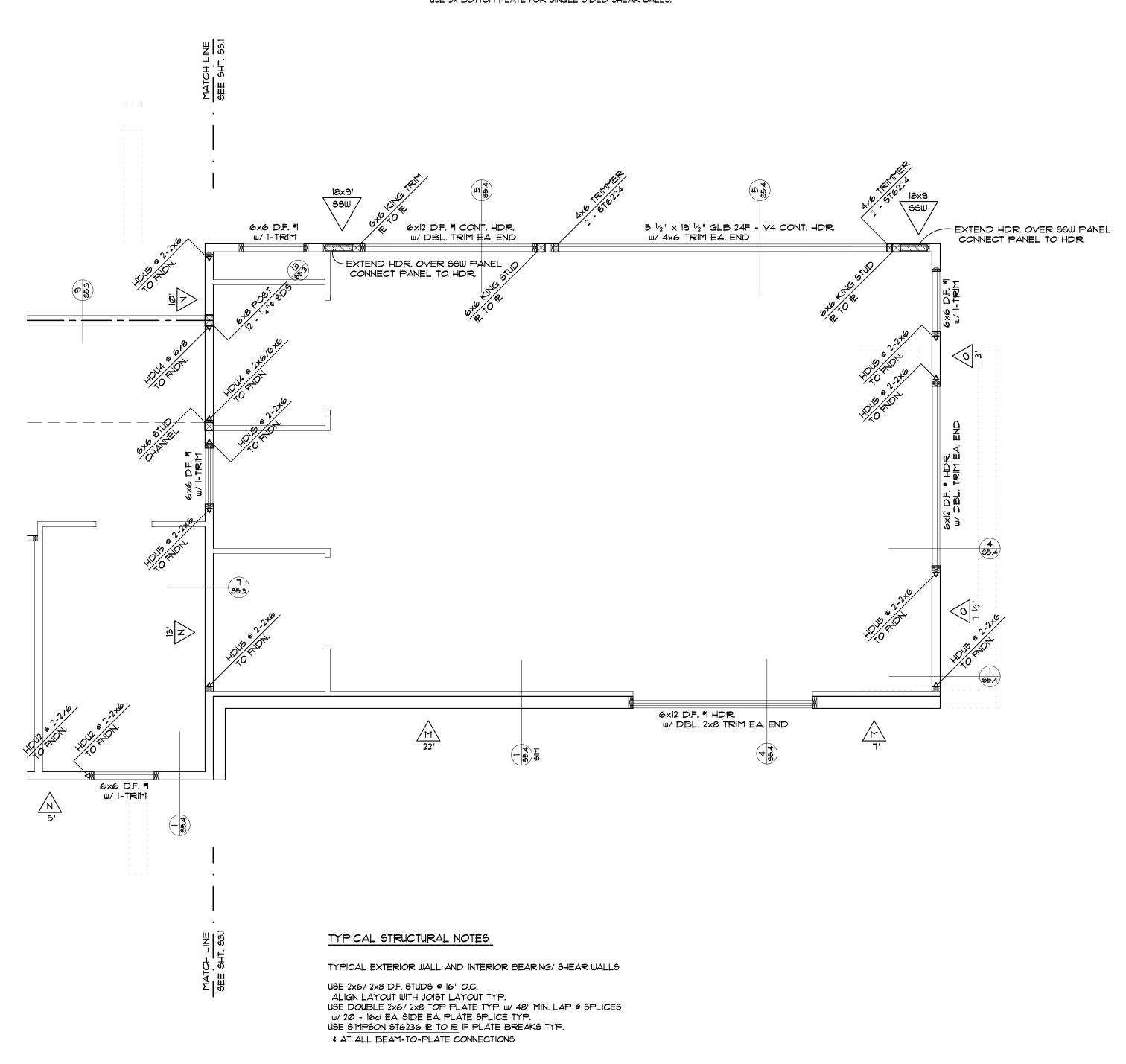


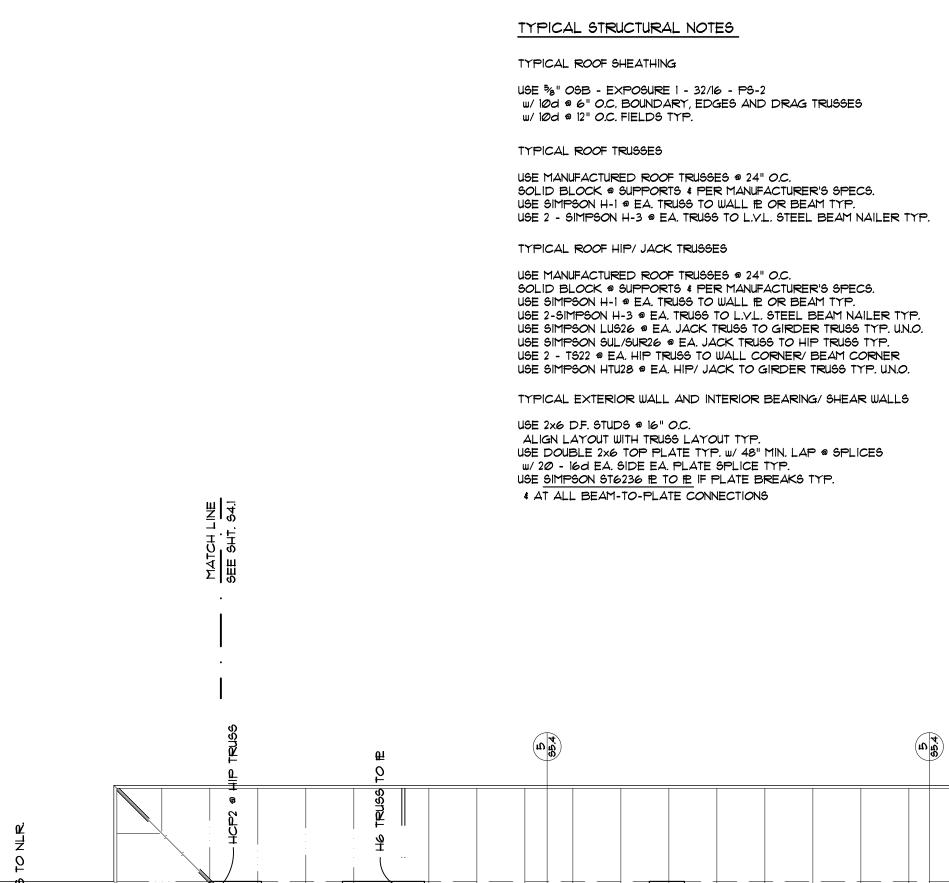
DESIGNATION	MATERIALS	EDGE NAILING	FIELD NAILING	MUDSILL IE TO <sup>3</sup> FLOOR SYSTEM
<u> </u>	½" PLY - CDX	10d @ 6" O.C.	10d @ 12" O.C.	A.B. @ 48" O.C.
N	1/2" PLY - CDX	10d @ 4" O.C.	10d @ 12" O.C.	A.B. @ 32" O.C.
	½" PLY - CDX	10d @ 3" O.C.	10d @ 12" O.C.	A.B. @ 32" O.C.
7	½" PLY - CDX	10d @ 2" O.C.	10d @ 12" O.C.	A.B. @ 16" O.C.
mee	SIMPSON SSW PANEL	PER MANUF.	PER MANUF.	2 - PABS ANCHORS NUT/ DBL. WASHER IN FTG.

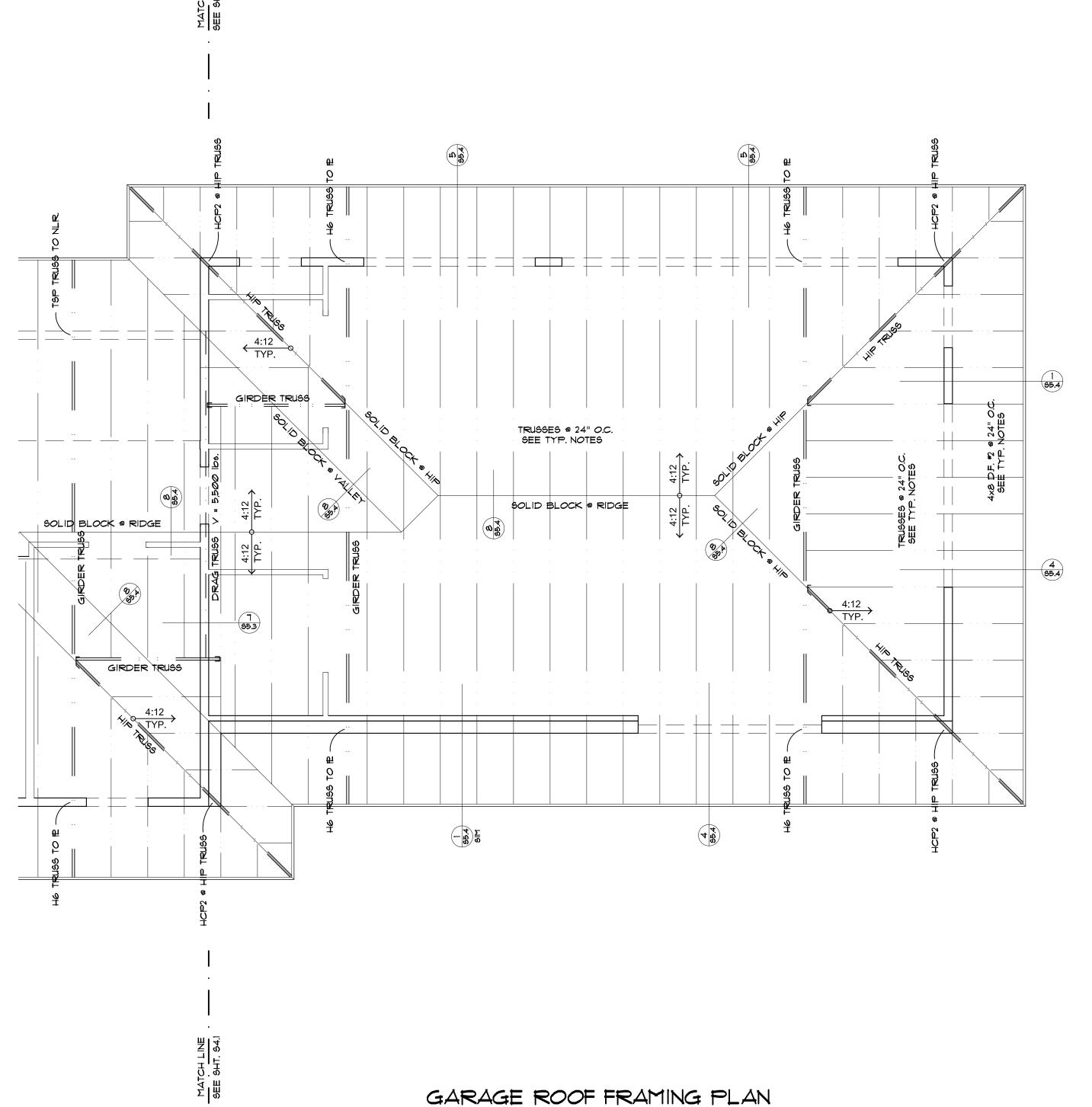
#### GENERAL NOTES

SHEARWALL LEGEND

- A. ALL EXTERIOR WALLS TO BE TYPE M UNLESS DESIGNATED OTHERWISE.
- B. PROVIDE EDGE NAILING AT ALL POSTS WITHIN A SHEAR WALL.
- C. PROVIDE EDGE NAILING AT EACH 2X MEMBER AT ALL DOUBLE 2X HOLDOWN ATTACHMENT STUDS. PROVIDE 2-ROWS OF EDGE NAILING AT EACH 4X OR 6X HOLDOWN ATTACHMENT STUD. PROVIDE EDGE NAILING AT EACH KING STUD @ EACH END OF EVERY NOTED SHEAR WALL.
- ALL FOUNDATION SILL PLATES AND ALL FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS SHALL NOT BE LESS THAN A 3x MEMBER. THIS APPLIES TO ALL MEMBERS WITHIN A FULL HEIGHT SHEAR PANEL.
- 2. EDGE JOINTS ON EACH SIDE SHALL OCCUR AT A 4 imes OR 6 imes MEMBER MINIMUM.
- 3. SEE FOUNDATION PLAN FOR ANCHOR BOLT SPACING. USE 3x BOTTOM PLATE FOR SINGLE SIDED SHEAR WALLS.







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

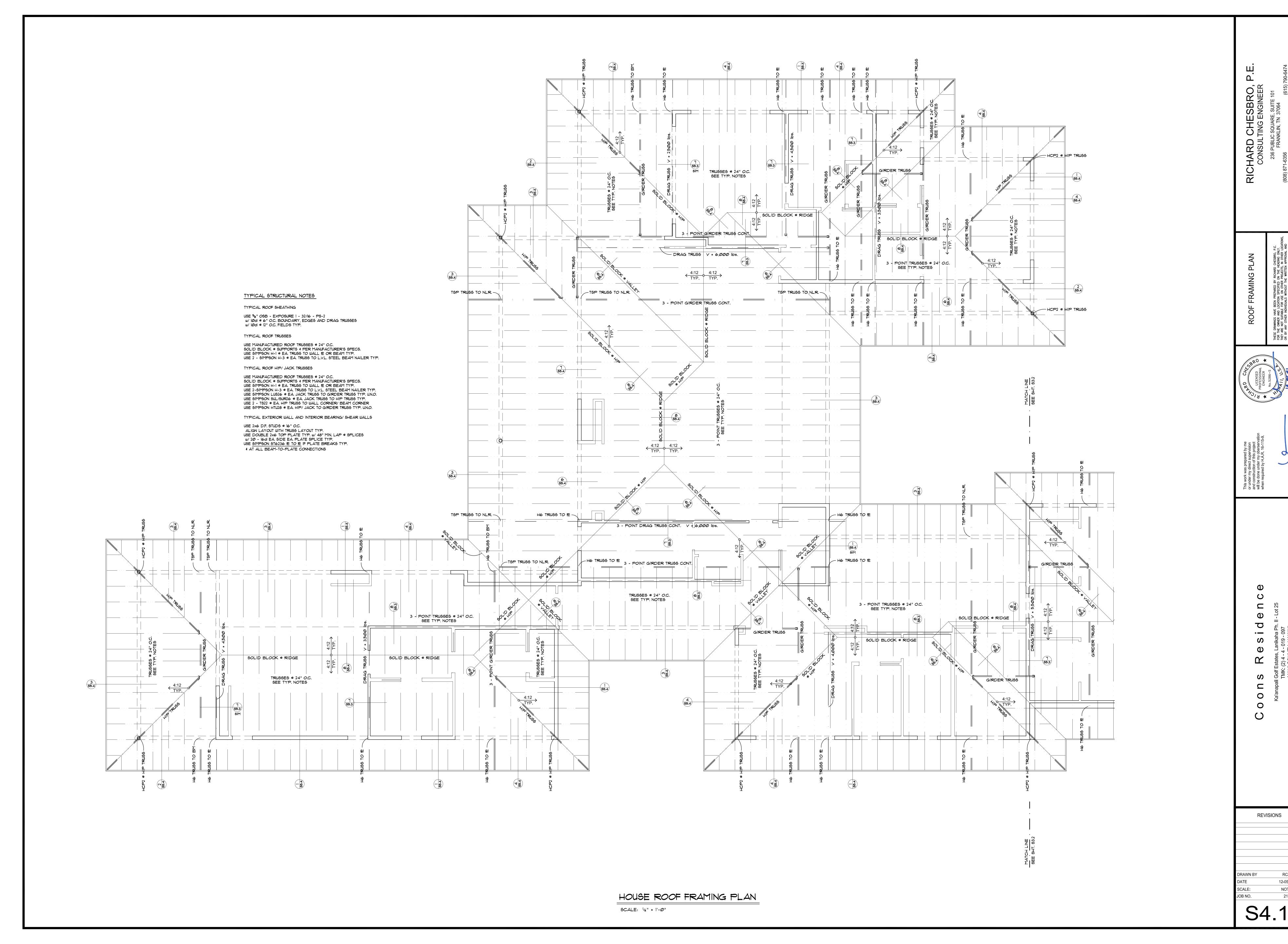
REVISIONS

DRAWN BY RC/DC
DATE 12-05-21
SCALE: NOTED
JOB NO. 2136

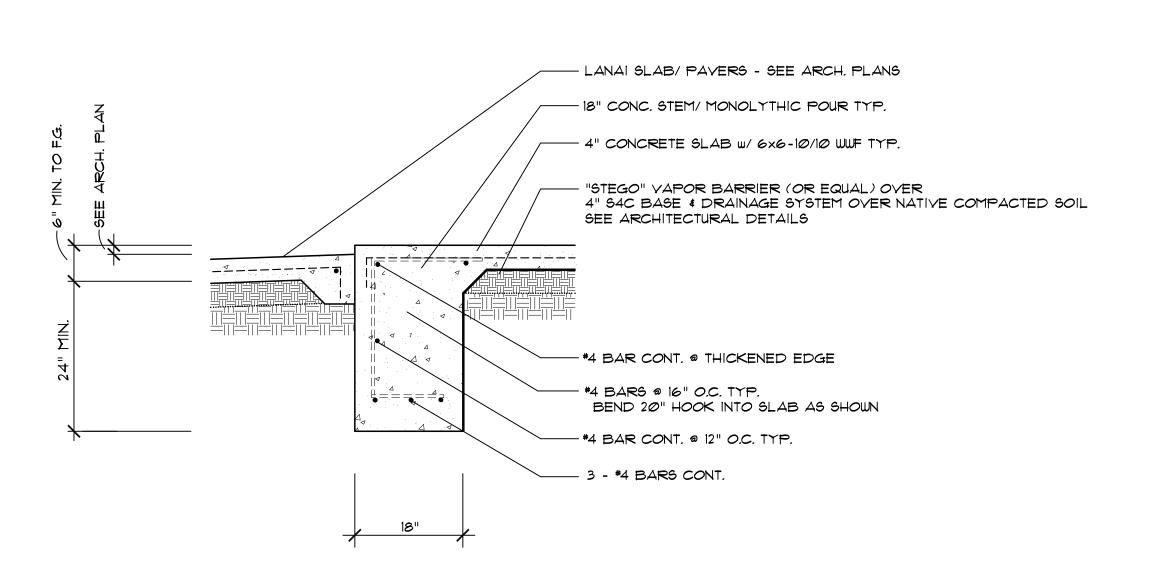
GARAGE WALL & BEAM FRAMING PLAN

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

N REVIEW SUBMITTAL SET

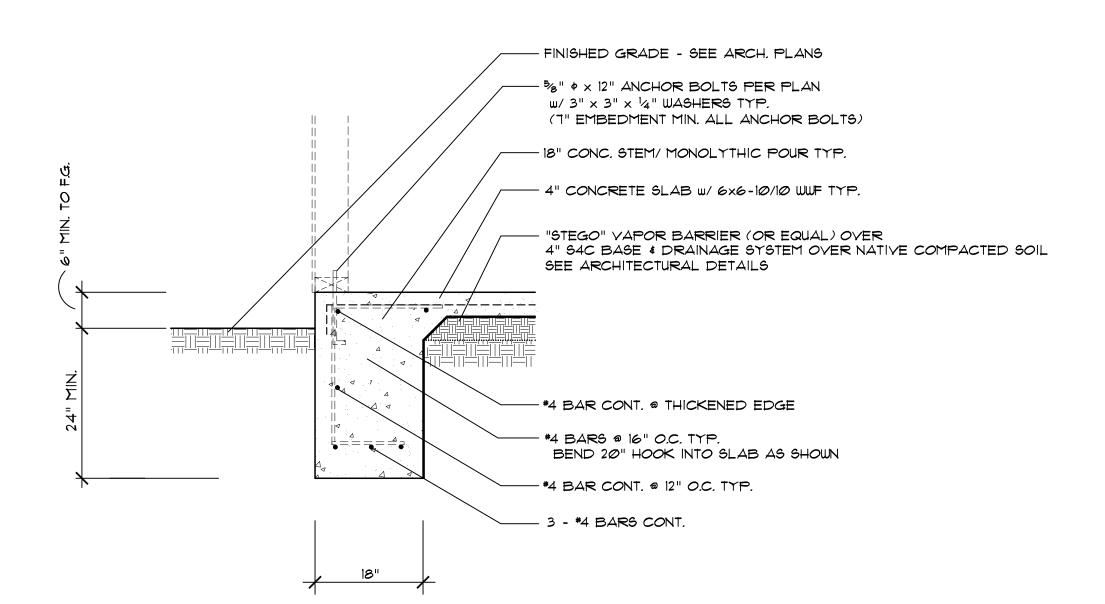


N REVIEW SUBMITTAL SET



TYPICAL 18" PERIMETER FOOTING/ SLAB @ DOORS

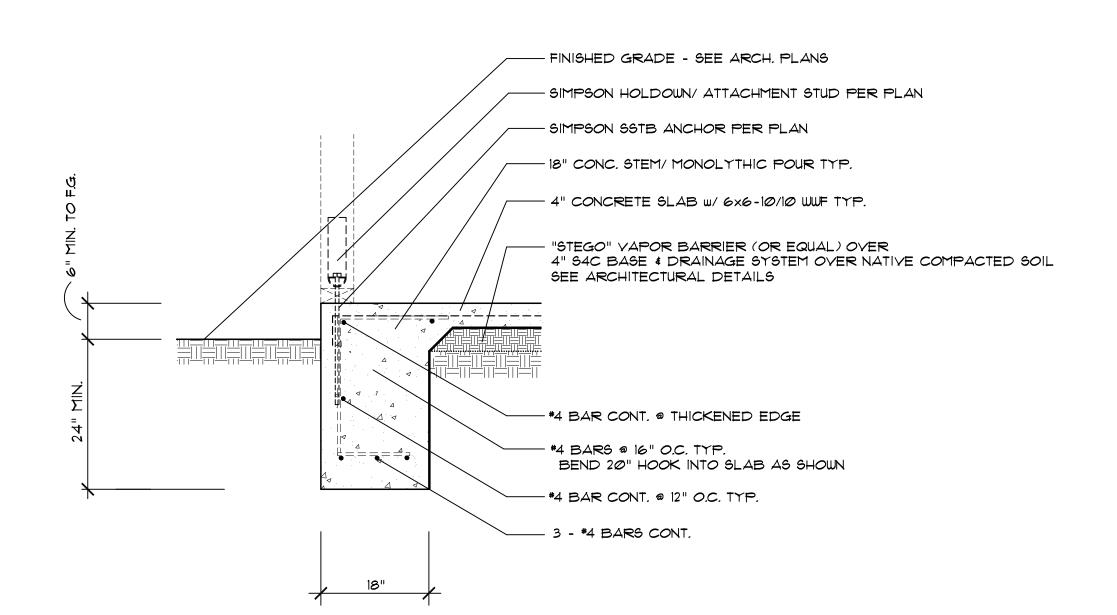
65.1 F 18 9CALE: 34" = 1'-0"



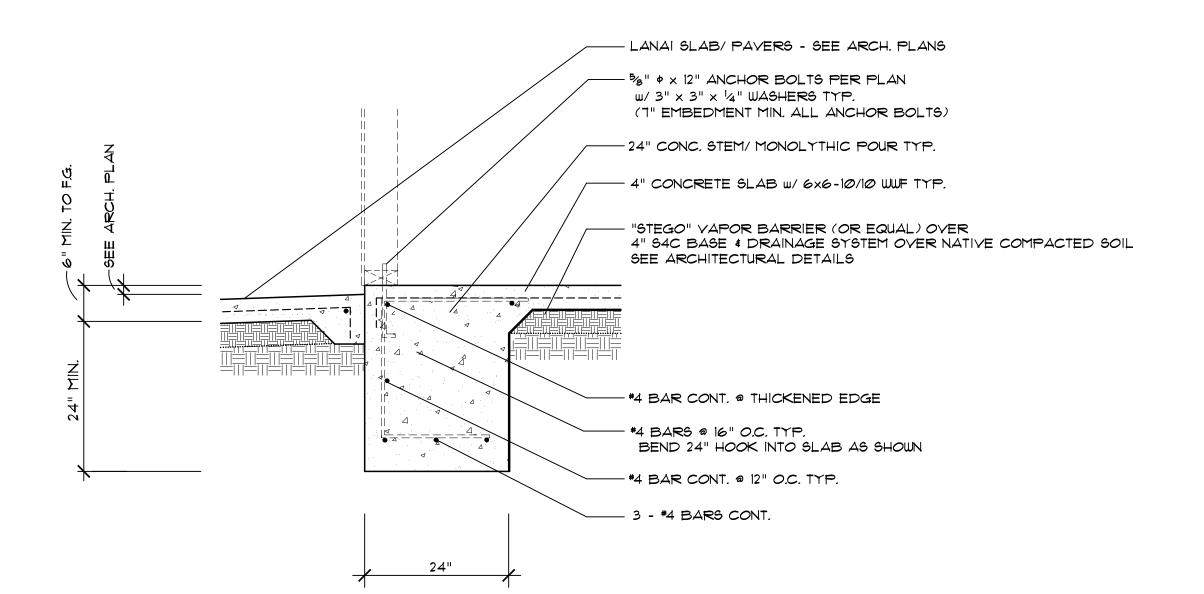
TYPICAL 18" PERIMETER FOOTING/ SLAB @ WALLS

95.1 F 18

9CALE: 34" = 1'-0"



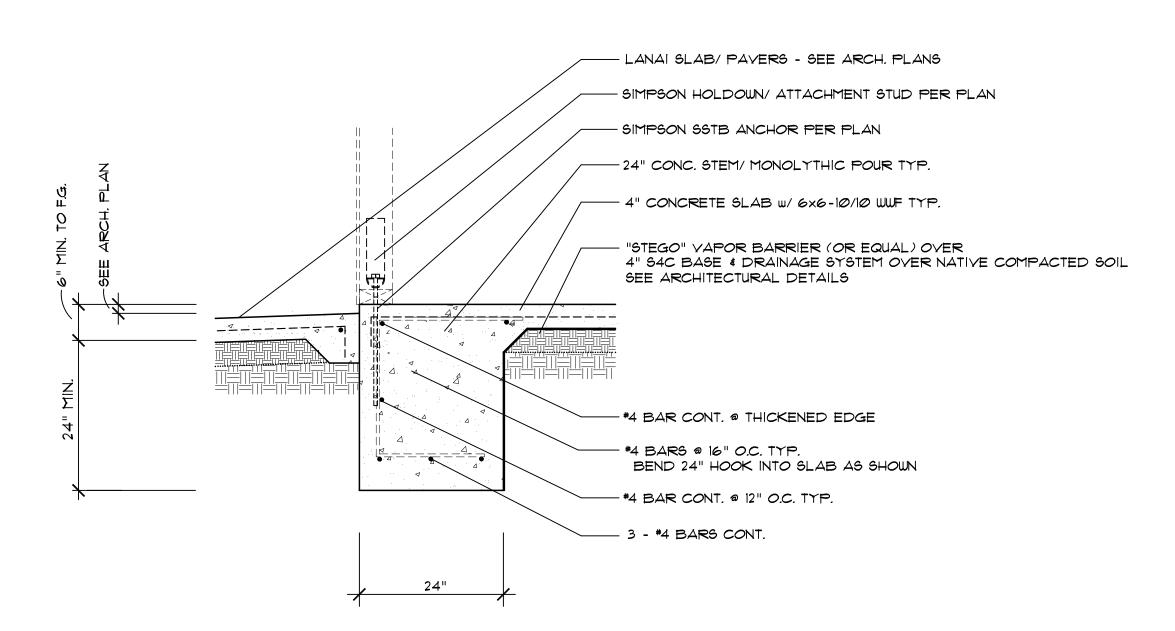
3 TYPICAL 18" PERIMETER FOOTING/ SLAB @ HOLDOWN ANCHOR SEALE: 34" = 1'-0"



TYPICAL 24" PERIMETER FOOTING/ SLAB @ WALLS

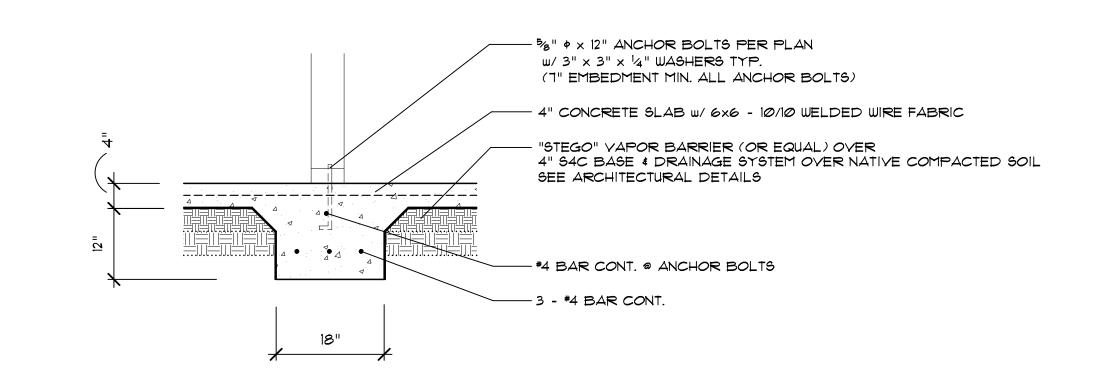
95.1 F 24

95.1 F 24

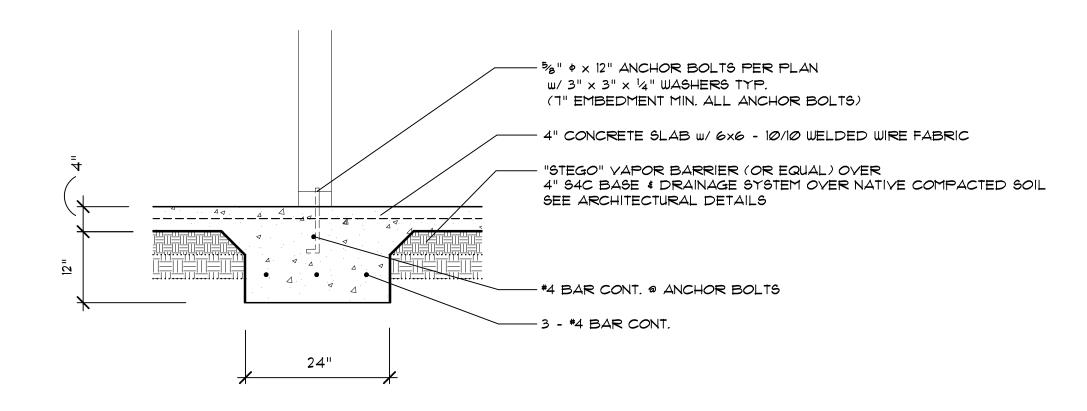


5 TYPICAL 24" PERIMETER FOOTING/ SLAB @ HOLDOWN ANCHOR \$5.1 F 24

\$CALE: 34" = 1'-0"



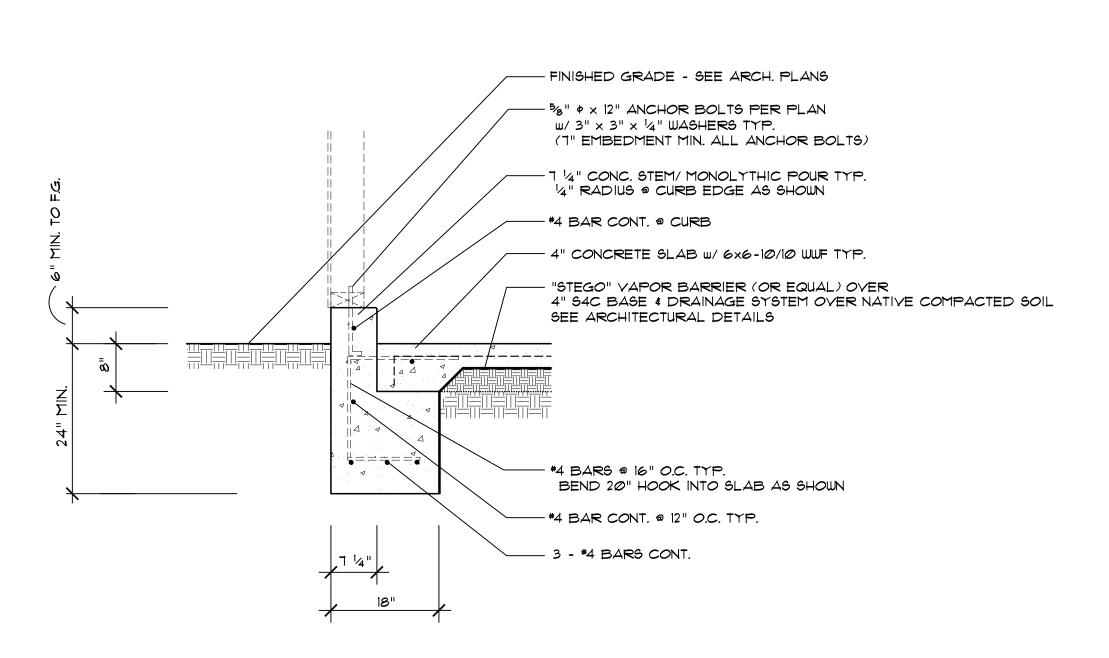
6 TYPICAL CONT. INTERIOR 18" FOOTING @ SLAB 55.1 F 18 5CALE: 34" = 1'-@"



TYPICAL CONT. INTERIOR 24" FOOTING @ SLAB

S5.1 F 24

SCALE: 34" = 1'-0"



8 TYPICAL 18" PERIMETER FOOTING/ SLAB @ WALLS

55.1 F 18 

SCALE: 34" = 1'-0"

REVISIONS

CHESBRO, I

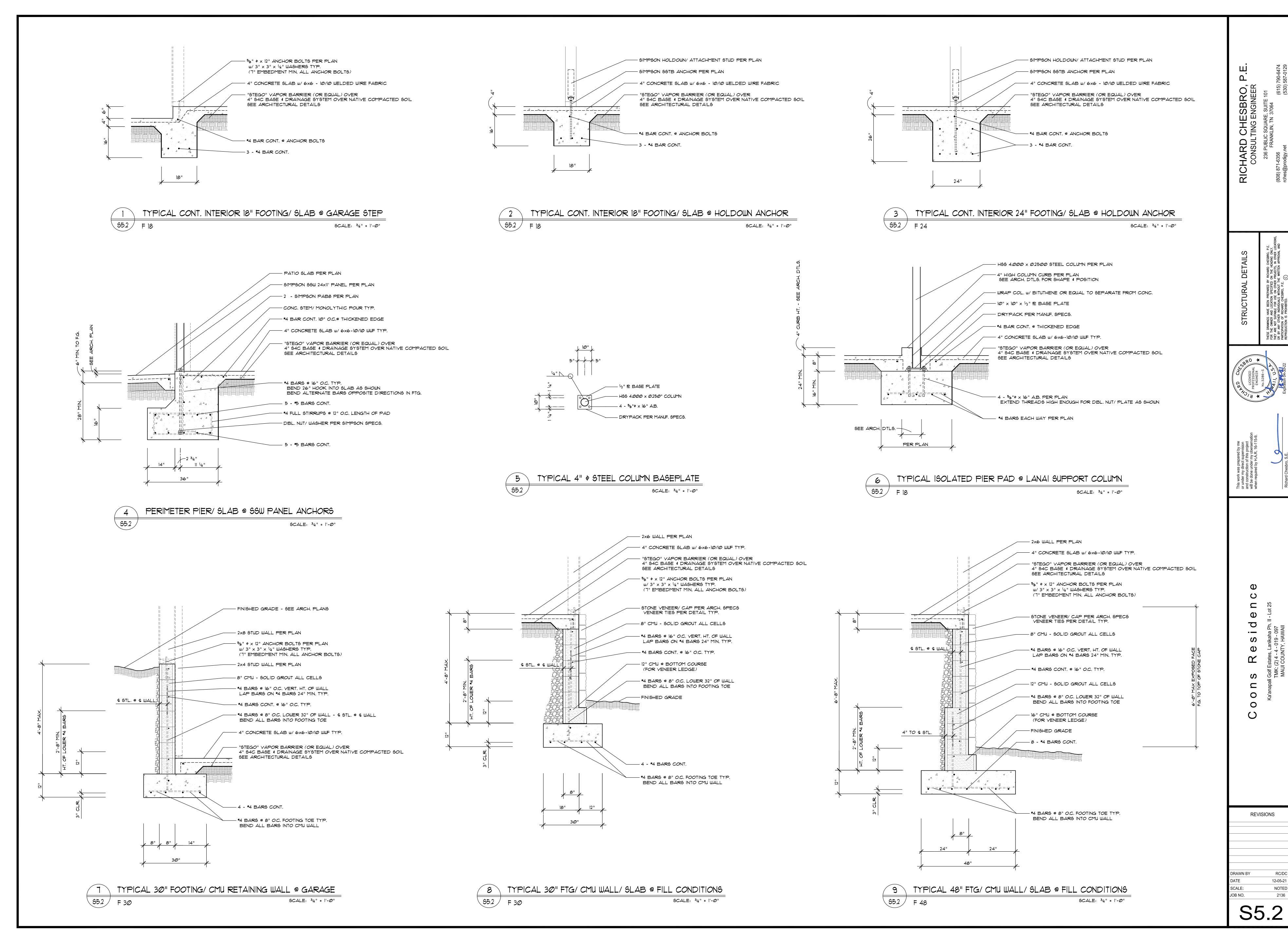
HARD CONSUL

RC

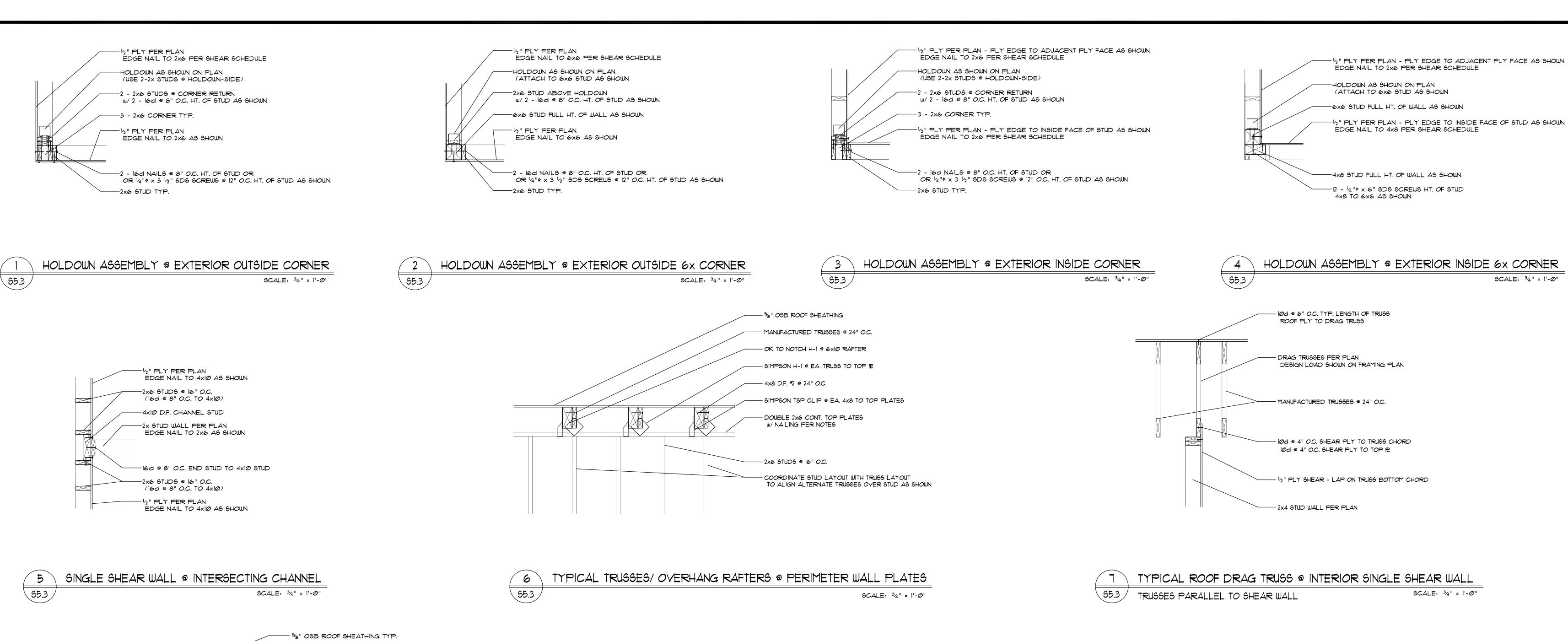
4018 x

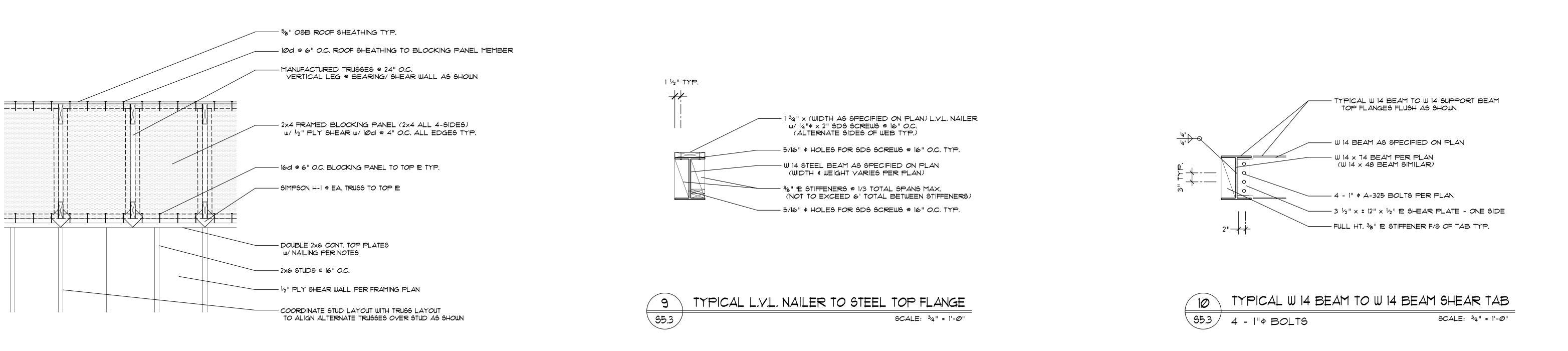
AWN BY RC/DC
TE 12-05-21
ALE: NOTED
B NO. 2136

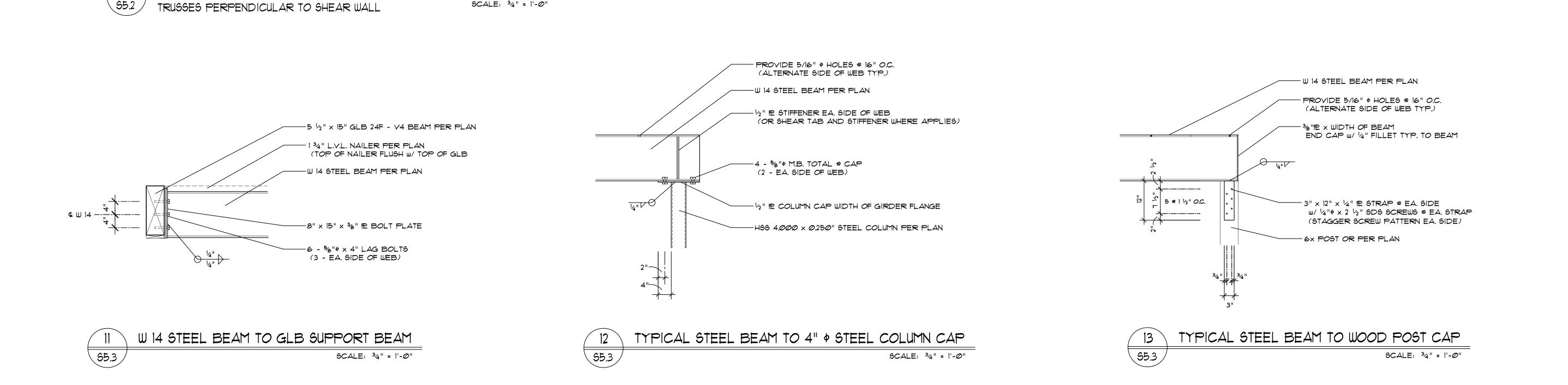
S5.1



AN REVIEW SUBMITTAL SET







TYPICAL ROOF TRUSSES @ INTERIOR BEARING/ SHEAR WALL

DRAWN BY SCALE: NOTED JOB NO.

REVISIONS

SBRO,

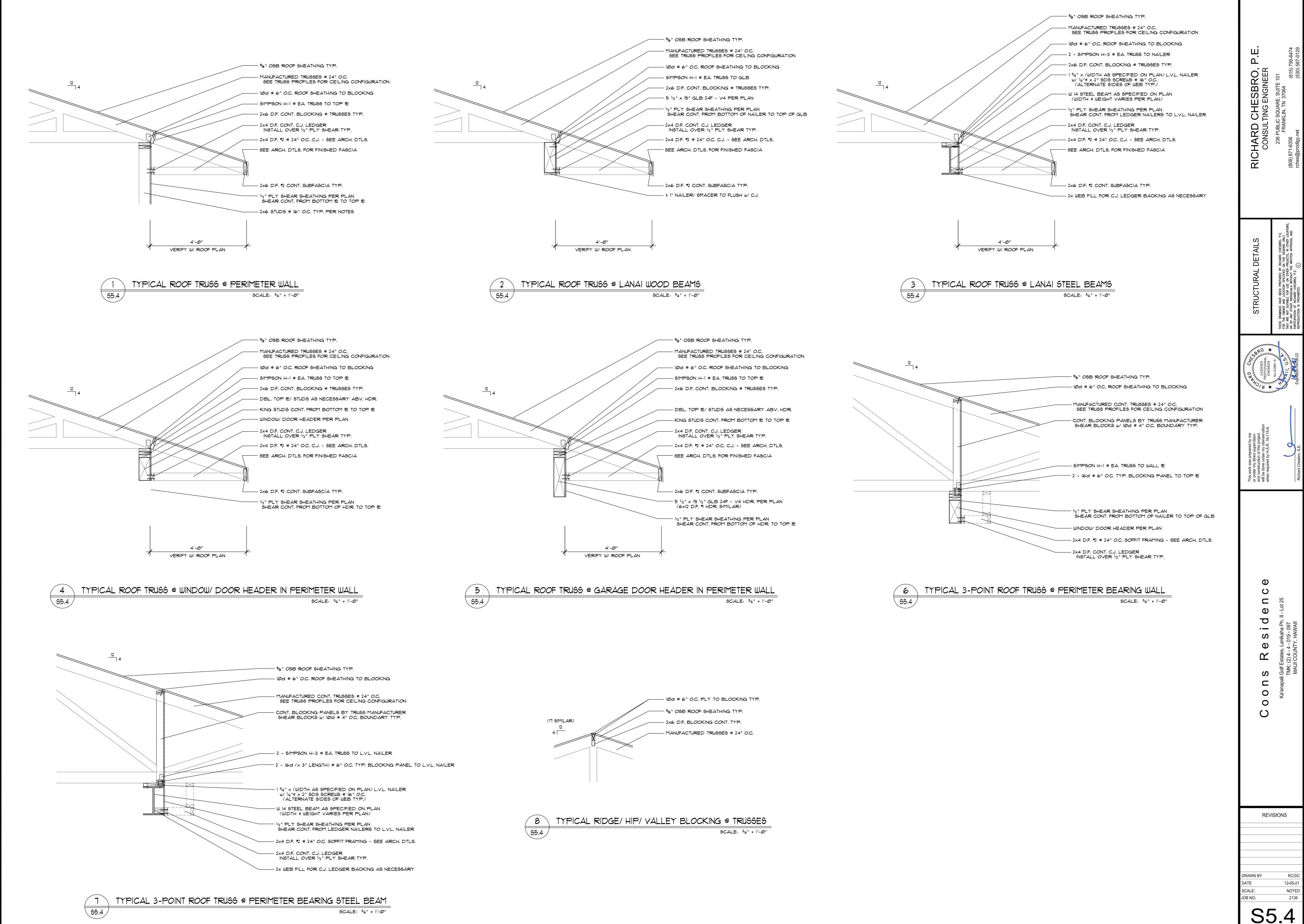
CHE.

HARD

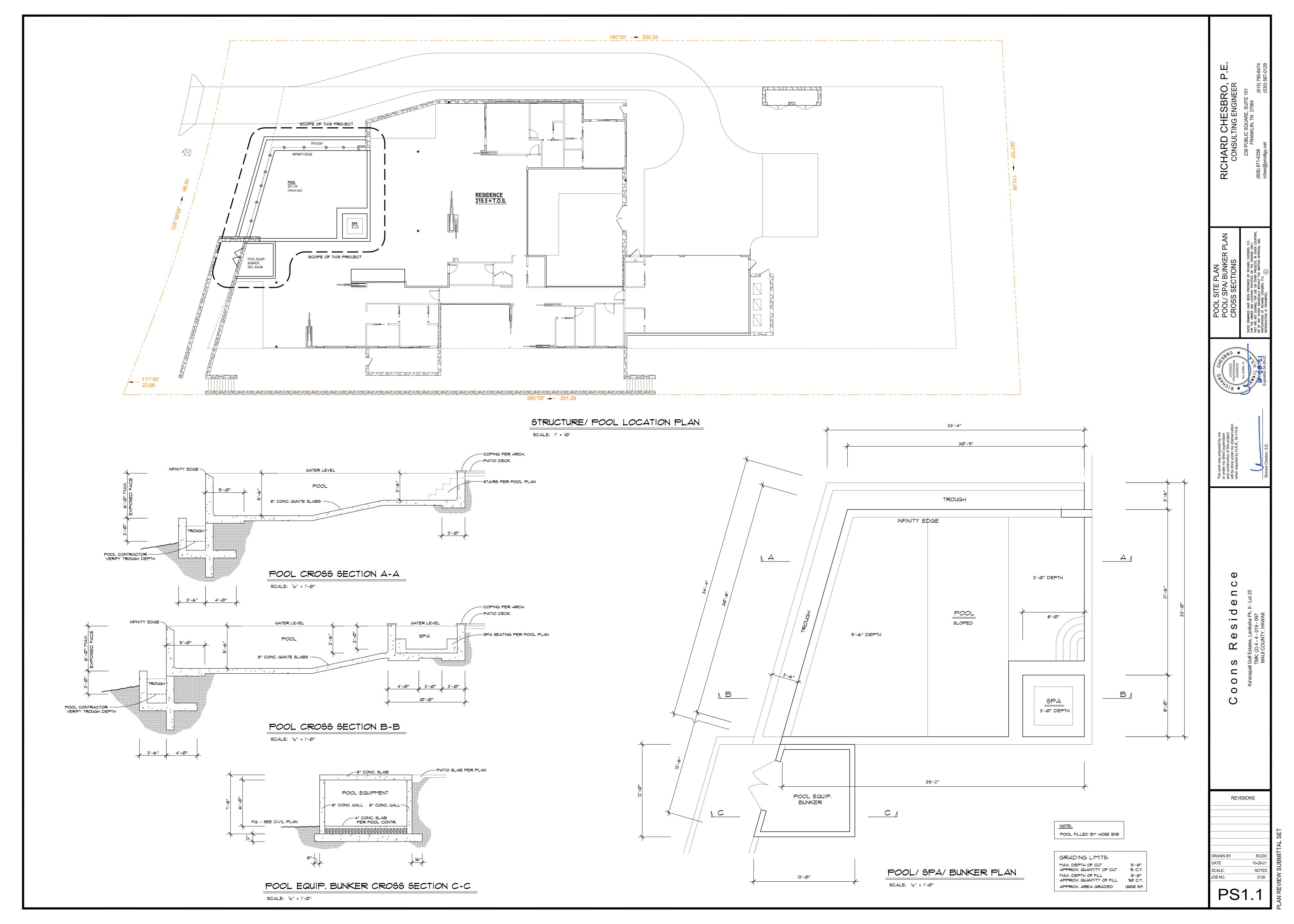
ADIA \*

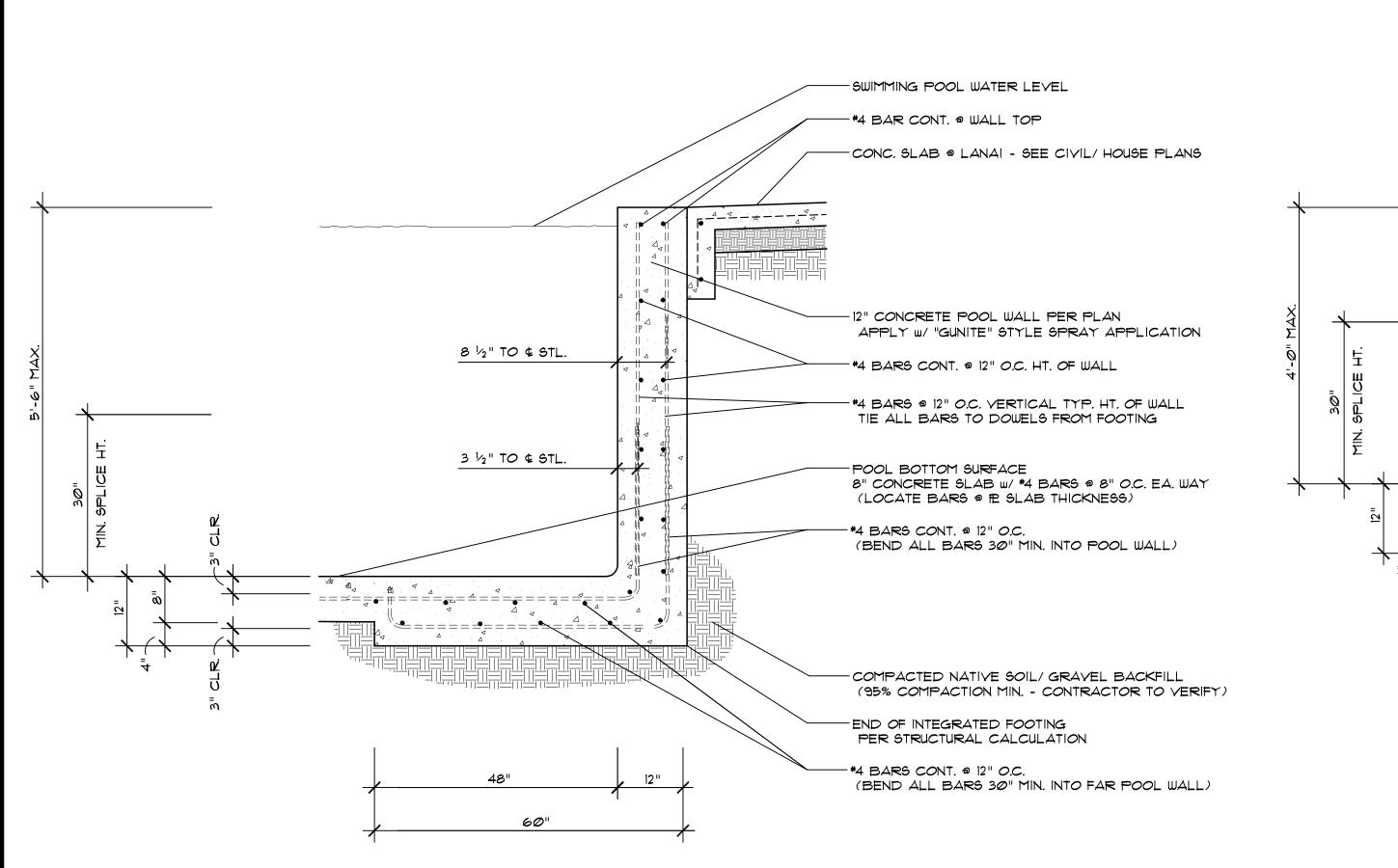
 $SCALE: \frac{3}{4}" = 1'-0"$ 

 $SCALE: \frac{3}{4}" = 1' - 0"$ 



LAN REVIEW SUBMITTAL SET





TYPICAL 5 1/2" HT. SWIMMING POOL WALL/ INTEGRATED FOOTING @ LANAI SLAB

-SWIMMING POOL WATER LEVEL -12" CONCRETE POOL WALL PER PLAN -SWIMMING POOL WATER LEVEL APPLY w/ "GUNITE" STYLE SPRAY APPLICATION - #4 BAR CONT. @ WALL TOP - #4 BAR CONT. @ WALL TOP --- 4" CONCRETE SLAB PER CIVIL/ HOUSE PLANS - #4 BARS @ 12" O.C. VERTICAL TYP. HT. OF WALL SLOPE PER ARCH. PLAN TIE ALL BARS TO DOWELS FROM FOOTING - CONC. SLAB @ LANAI - SEE CIVIL/ HOUSE PLANS "STEGO" YAPOR BARRIER (OR EQUAL) OYER 4" S4C BASE & DRAINAGE SYSTEM OVER NATIVE COMPACTED SOIL SEE ARCHITECTURAL DETAILS - \*4 BAR CONT. @ THICKENED EDGE 8 1/2" TO & STL. -#4 BARS CONT. @ 12" O.C. HT. OF WALL -12" CONCRETE POOL WALL PER PLAN APPLY W/ "GUNITE" STYLE SPRAY APPLICATION 3 1/2" TO & STL. -POOL BOTTOM SURFACE 8" CONCRETE SLAB w/ \*4 BARS @ 8" O.C. EA. WAY -#4 BARS @ 12" O.C. VERTICAL TYP. HT. OF WALL (LOCATE BARS @ P. SLAB THICKNESS) TIE ALL BARS TO DOWELS FROM FOOTING -#4 BARS CONT. @ 12" O.C. -#4 BARS CONT. @ 12" O.C. HT. OF WALL (BEND ALL BARS 30" MIN. INTO POOL WALL) -COMPACTED NATIVE SOIL/ GRAVEL BACKFILL (95% COMPACTION MIN. - CONTRACTOR TO VERIFY) -END OF INTEGRATED FOOTING PER STRUCTURAL CALCULATION TYPICAL HOUSE LANAI SLAB TO POOL WALL -#4 BARS CONT. @ 12" O.C. 36" (BEND ALL BARS 30" MIN. INTO FAR POOL WALL) SCALE:  $\frac{3}{4}$ " = 1'-0"

2 TYPICAL 4' HT. SWIMMING POOL WALL/ INTEGRATED FOOTING @ LANAI SLAB PS2.1 = 48

# GENERAL POOL STRUCTURAL NOTES

# A. GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MINIMUM REQUIREMENTS OF THE 2012 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC) AND LOCAL BUILDING CODES AND ORDINANCES OR AS SPECIFICALLY NOTED ON THESE PLANS AND CALCULATIONS, THE MOST STRINGENT OF WHICH SHALL GOVERN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE FAMILIAR WITH AND COMPLY WITH THE THE REQUIREMENTS AS STATED IN THE IBC AND LOCAL BUILDING CODES AND ORDINANCES.

2. IF ANY CHANGES AND/OR SUBSTITUTIONS ARE MADE FROM THESE PLANS OR CALCULATIONS, THE ENGINEER SHALL BE NOTIFIED PRIOR TO THE IMPLEMENTATION OF SUCH CHANGES AND/OR SUBSTITUTIONS IN THE FIELD AND THE CLIENT SHALL OBTAIN THE NECESSARY CERTIFIED PLANS AND CALCULATIONS REQUIRED FOR AGENCY APPROVAL. IF SUCH CHANGES AND/OR SUBSTITUTIONS ARE MADE WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER, THEN THE ENGINEER WILL ASSUME NO RESPONSIBILITY FOR THE ENTIRE STRUCTURE OR ANY PORTIONS THEREOF, AND SHALL BE HELD HARMLESS FROM ANY RESULTING CLAIMS.

3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON THE PLANS PRIOR TO COMMENCING WORK AND THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES FOUND.

4. THESE PLANS AND STRUCTURAL CALCULATIONS ARE BASED ON A COMPLETED STRUCTURE AS PER PLANS. THE ENGINEER IS NOT RESPONSIBLE FOR, AND HELD HARMLESS FROM, ANY DAMAGE RESULTING TO AN INCOMPLETE STRUCTURE SUBJECT TO THE DESIGN LOADS UNLESS FIRST CONSULTED FOR AN INTERIM DESIGN.

5. THIS STRUCTURAL DESIGN IS BASED ON LOADING CONDITIONS AS DETERMINED BY THE LOCAL BUILDING OFFICIAL, CODES AND THE CBC. THE ENGINEER IS NOT RESPONSIBLE FOR DAMAGE RESULTING TO A STRUCTURE DUE TO LOADING CONDITIONS

6. GRADES SHOWN ON PLOT MAPS AND ELEVATION DRAWINGS ARE THE RESPONSIBILITY OF THE CLIENT, UNLESS A
FIELD INSPECTION AND/OR SURVEY IS SPECIFICALLY REQUESTED AND PERFORMED BY A LICENSED SURVEYOR. THE ENGINEER
ASSUMES NO RESPONSIBILITY FOR DAMAGE TO, OR ADDITIONAL CONSTRUCTION COSTS OF ANY STRUCTURE WHICH THE CLIENT,
DESIGNER, ARCHITECT, SURVEYOR OR ANY OTHER PARTY HAS MISREPRESENTED THE RELATIVE POSITION OF THE STRUCTURE TO THE
NATURAL FINISHED GRADES OF THE BUILDING SITE.

EXCEEDING THOSE FOR WHICH THE STRUCTURE HAS BEEN DESIGNED, OR DUE TO "ACTS OF GOD" (E.G., FIRE, FLOOD, WAR, ETC.)

1. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY BRACING AND SHORING. CONSTRUCTION AND JOB SAFETY PROCEDURES ARE THE RESPONSIBILITY OF THE CONTRACTOR.

8. STRUCTURAL ENGINEERING AND PLANS FOR REMODELS AND ADDITIONS, OR PARTIAL ENGINEERING FOR A STRUCTURE, SHALL ONLY PERTAIN TO THOSE SPECIFIC AREAS ADDRESSED IN THE DESIGN CALCULATIONS AND THE PLANS. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR PORTIONS OF THE STRUCTURE NOT SPECIFICALLY INCLUDED IN THE SCOPE OF WORK OF THE ADDITION/REMODEL

BE RESPONSIBLE FOR PORTIONS OF THE STRUCTURE NOT SPECIFICALLY INCLUDED IN THE SCOPE OF WORK OF THE ADDITION/REM AS PROPOSED BY THE DRAWINGS.

9. IN CASE OF CONFLICT BETWEEN THE PLANS, SPECIFICATIONS, DETAILS OR NOTES, THE MOST RIGID REQUIREMENTS SHALL GOVERN UNTIL SUCH A TIME WHEN A CLARIFICATION IS ISSUED BY THE ENGINEER IN WRITING.

10. THE ENGINEER IS NOT RESPONSIBLE FOR THE ADAPTION OF THESE CALCULATIONS OR DRAWINGS TO ANY SITE OTHER
THAN THE SPECIFIC LOCATION INDICATED ON THE COVER SHEET OF THE CALCULATIONS AND THE PLANS.

11. THE STRUCTURAL DOCUMENTS ARE ONLY ONE PART OF THE TOTAL SET OF CONSTRUCTION DOCUMENTS. IT IS THE CONTRACTOR'S
RESPONSIBILITY TO INCORPORATE ALL SPECIFICATIONS INCLUDED IN THE CONSTRUCTION SET FOR EVERY FACET OF THE CONSTRUCTION.

IN THE LIKELY EVENT THERE ARE CONFLICTS BETWEEN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS, THE CONTRACTOR SHALL

B. REINFORCING STEEL

1. ALL REINFORCING STEEL SHALL BE BILLET STEEL CONFORMING TO STANDARDS

CONTACT BOTH ARCHITECT AND ENGINEER TO DETERMINE THE PROPER SPECIFICATION.

- OF ASTM AG15, GRADE GØ UNLESS NOTED OTHERWISE.

  2. ALL WELDED WIRE FABRIC SHALL CONFORM TO STANDARDS OF ASTM A185.
- PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" (ACI 315)
  UNLESS DETAILED OTHERWISE ON THE STRUCTURAL DRAWINGS.
- 4. THE CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS OF REINFORCING BARS SHOWING NUMBER, SIZE AND LOCATION (INCLUDING BAR LISTS AND BEND DIAGRAMS).
- 5. ALL REINFORCEMENT LAPS © SPLICES SHALL MEET OR EXCEED THE LENGTHS SPECIFIED IN ACI 315 AND ACI 318-14 FOR CONCRETE STRENGTH AND REINFORCEMENT GRADE.

  AT A MINIMUM, REINFORCEMENT LAPS SHALL BE AS FOLLOWS:

BAR SIZE (GRADE)	HORIZONTAL (WALLS/ FTGS)	VERTICAL (WALLS/ COLS/ FTGS)	HOOKS (ALL LOCATIONS)
*4 BARS (GR. 40)	40 d (20" MIN)	40 d (20" MIN)	12 d (12" MIN)
*4 BARS (GR. 60)	40 d (20" MIN)	55 d (30" MIN)	12 d (12" MIN)
#5 BARS (GR. 60)	40 d (25" MIN)	55 d (36" MIN)	12 d (12" MIN)
*6 BARS (GR. 60)	40 d (30" MIN)	55 d (42" MIN)	12 d (12" MIN)

C. CONCRETE, GUNITE AND MASONRY

SCALE:  $\frac{3}{4}$ " = 1'-0"

- 1. PROVIDE CONCRETE TO OBTAIN THE FOLLOWING MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS:
- 2. SLABS ON GRADE OR FILL
  3,000 PSI
  3. WALLS (GUNITE OR POURED-IN-PLACE)
  3,000 PSI
  3,000 PSI
  4,000 PSI
  4,000 PSI
  5,000 PSI
  5,000 PSI
  6,000 PSI
  6,0
- 3. GROUT (FILLED CELLS)

   PEA GRAVEL MIX AT 8" TO 11" SLUMP
- 2. CONCRETE MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH ACI-318-14 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE AND ACI-301-10 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS. MASONRY MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH TMS 402-13 AND ACI 530-13 THE DESIGN, CONSTRUCTION AND SPECIFICATIONS CONCERNING REGARDING ALL MASONRY AND STONE VENEER.
- 3. THE MINIMUM CONCRETE COVER SHALL BE IN ACCORDANCE WITH ACI-318-14, SECTION 7.7.
- 4. BAR SUPPORTS IN CONTACT WITH EXPOSED SURFACES SHALL BE PLASTIC TIPPED. ALL ACCESSORIES SHALL BE GALVANIZED.
- 5. PROVIDE SPACERS, CHAIRS, BOLSTERS, ETC. AS REQUIRED AND NECESSARY TO ASSEMBLE, PLACE AND SUPPORT ALL REINFORCING IN PLACE. USE WIRE BAR TYPE SUPPORTS COMPLYING WITH CRSI RECOMMENDATIONS.
- 6. ALL CONCRETE SHALL CONTAIN AN APPROVED WATER REDUCING PLASTICIZING ADMIXTURE. ALL CONCRETE PERMANENTLY EXPOSED TO THE WEATHER SHALL CONTAIN AN APPROVED AIR-ENTRAINING ADMIXTURE. NO CALCIUM CHLORIDE SHALL BE USED IN ANY CONCRETE. NO WATER SHALL BE ADDED AT THE
- THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER DESIGN AND CONSTRUCTION OF ALL FORMWORK, SHORING AND RESHORING. PROVIDE COMMERCIAL FORM COATING COMPOUNDS THAT WILL NOT BOND, STAIN OR ADVERSELY AFFECT CONCRETE SURFACES.
- 8. ALL CONCRETE SHALL BE CONSOLIDATED IN PLACE USING INTERNAL VIBRATOR. DO NOT USE VIBRATORS TO TRANSPORT CONCRETE WITHIN FORMS.
- DO NOT USE VIBRATORS TO TRANSPORT CONCRETE WITHIN FORMS.

  9. NO SLUMP OVER 5" SHALL BE PERMITTED FOR STRUCTURAL CONCRETE.

# D. FOUNDATIONS

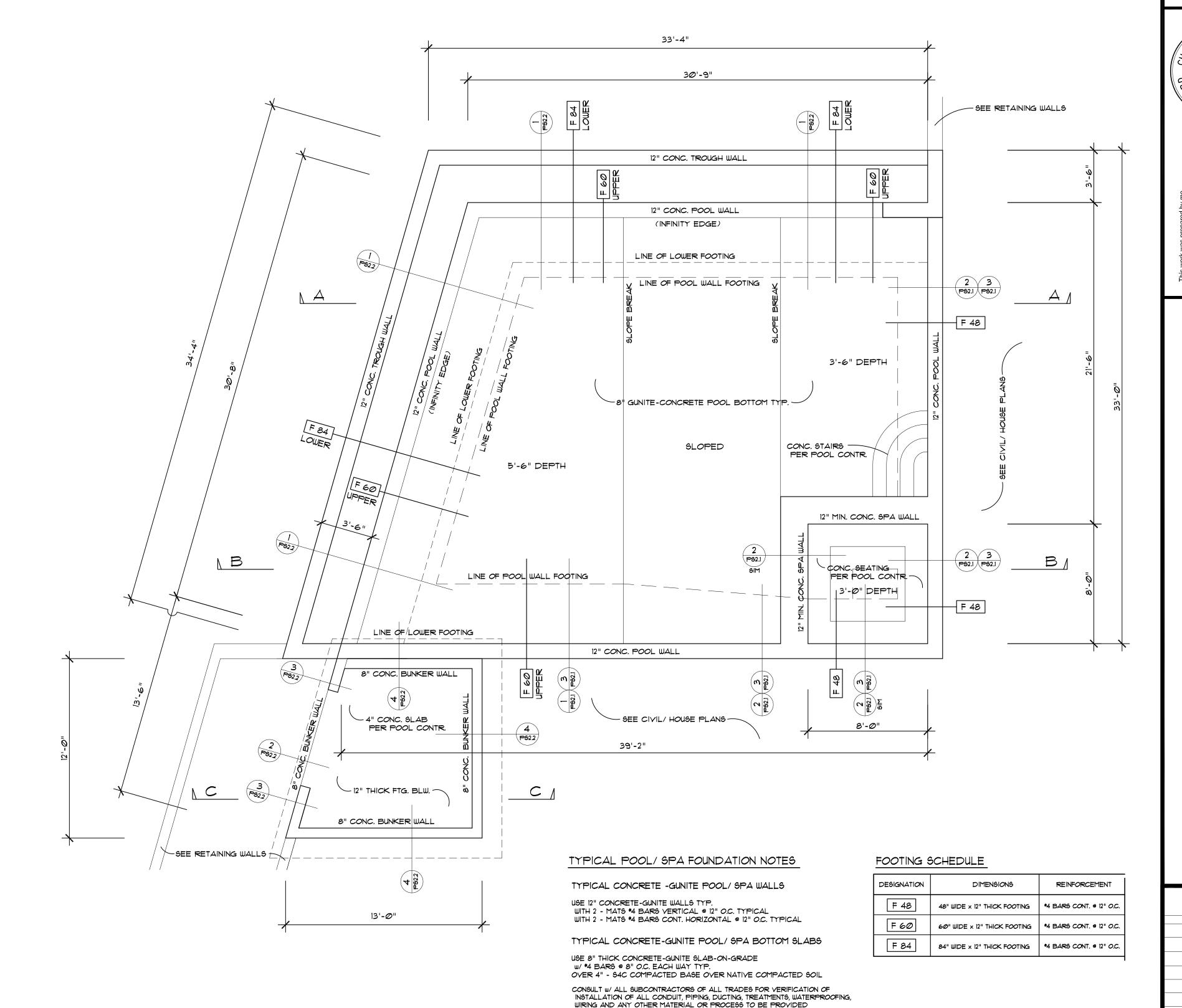
1. ALL FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED, NON-ORGANIC SOIL OR ON FILL COMPACTED TO 95% OF MAXIMUM DENSITY BASED ON ASTM D-1557. ALL FILL COMPACTION SHALL BE DONE UNDER THE DIRECT GUIDANCE OF A LICENSED GEOTECHNICAL ENGINEER.

2. ALL FOOTINGS OUTSIDE OR AT THE PERIMETER OF THE STRUCTURE, OR IN OTHER UNHEATED AREAS, SHALL BE SET TO A DEPTH OF AT LEAST 12" BELOW FINISHED GRADE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS.

3. AN ALLOWABLE SOIL BEARING PRESSURE OF 1,000 psf HAS BEEN USED IN THE STRUCTURAL CALCULATIONS
PER THE VALUES ALLOWED FOR THIS SOIL TYPE IN CHAPTER IS OF THE 2012 IBC.
IF ANY QUESTIONABLE SOIL CONDITIONS ARE DISCOVERED IN THE FIELD, IT IS THE CONTRACTOR'S RESPONSIBILITY
TO CONTACT A LICENSED GEOTECHNICAL ENGINEER TO INVESTIGATE THE SOILS CONDITIONS AND INSTRUCT THE
CONTRACTOR AS TO HOW TO PROCEED. THE GEOTECHNICAL ENGINEER SHALL PREPARE A WRITTEN STATEMENT OF FINDINGS AND
RECOMMENDATIONS TO THE PROJECT ENGINEER FOR STRUCTURAL RE-ANALYSIS OF THE STRUCTURE. THE SOILS INVESTIGATION REPORT
AND ALL RECOMMENDATIONS AND SPECIFICATIONS THEREIN ARE TO BE CONSIDERED A PART OF THESE WORKING DRAWINGS.

4. WATERPROOFING OF FOUNDATIONS, RETAINING WALLS AND SLABS IS THE RESPONSIBILITY OF THE OWNER, CONTRACTOR OR ARCHITECT. THE ENGINEER SHALL BE HELD HARMLESS FOR ANY CLAIMS RESULTING IN DAMAGE DUE TO WATER CONDITIONS WHICH OCCUR DUE TO THE CONSTRUCTION OF A FOUNDATION. ALL RETAINING WALLS SHALL BE BACKFILLED WITH AN APPROVED GRAVEL, ROCK OR DRAINBOARD AND DRAINAGE SYSTEM TO ENSURE NO HYDROSTATIC PRESSURES BE APPLIED TO THE WALL.

5. ALL FOOTINGS SHALL BE REINFORCED WITH A MINIMUM OF 3 - \*4 BARS CONTINUOUS PLACED 3" CLEAR FROM ANY SOIL AT THE BOTTOM OR SIDES. ALL STEM WALLS SHALL BE REINFORCED WITH I - \*4 BAR CONTINUOUS IN TOP 4" OF STEM. ALL STEM SECTIONS OF CONCRETE MAY BE POURED WITH NO VERTICAL STEEL REINFORCEMENT IF THE STEM SECTION IS 24" IN TOTAL HEIGHT OR LESS FROM THE TOP OF THE FOOTING TO THE TOP OF THE STEM. ANY STEM OVER 16" IN HEIGHT SHALL BE REINFORCED WITH \*4 BARS VERTICAL @ 16" O.C. OR AS SPECIFIED IN THE CALCULATIONS. ALL STEM WALLS OVER 48" IN HEIGHT SHALL BE DESIGNED AS RETAINING WALLS.



POOL/ SPA/ BUNKER FOUNDATION PLAN

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

UNDER POOL BOTTOM SLAB PRIOR TO PLACING CONCRETE.

PS2.1

DRAWN BY

SCALE:

JOB NO.

REVISIONS

RC/DC

10-28-21

NOTED

SBRO

CHE!

HARD CONSUL

2

