

Residence at Lanikeha
Ph. I - Lot 4, Ka'anapali Golf Estates
 Lahaina, Hawaii 96761
 (2) 4-4-019 : 004

LOCATION MAP

PROJECT TEAM

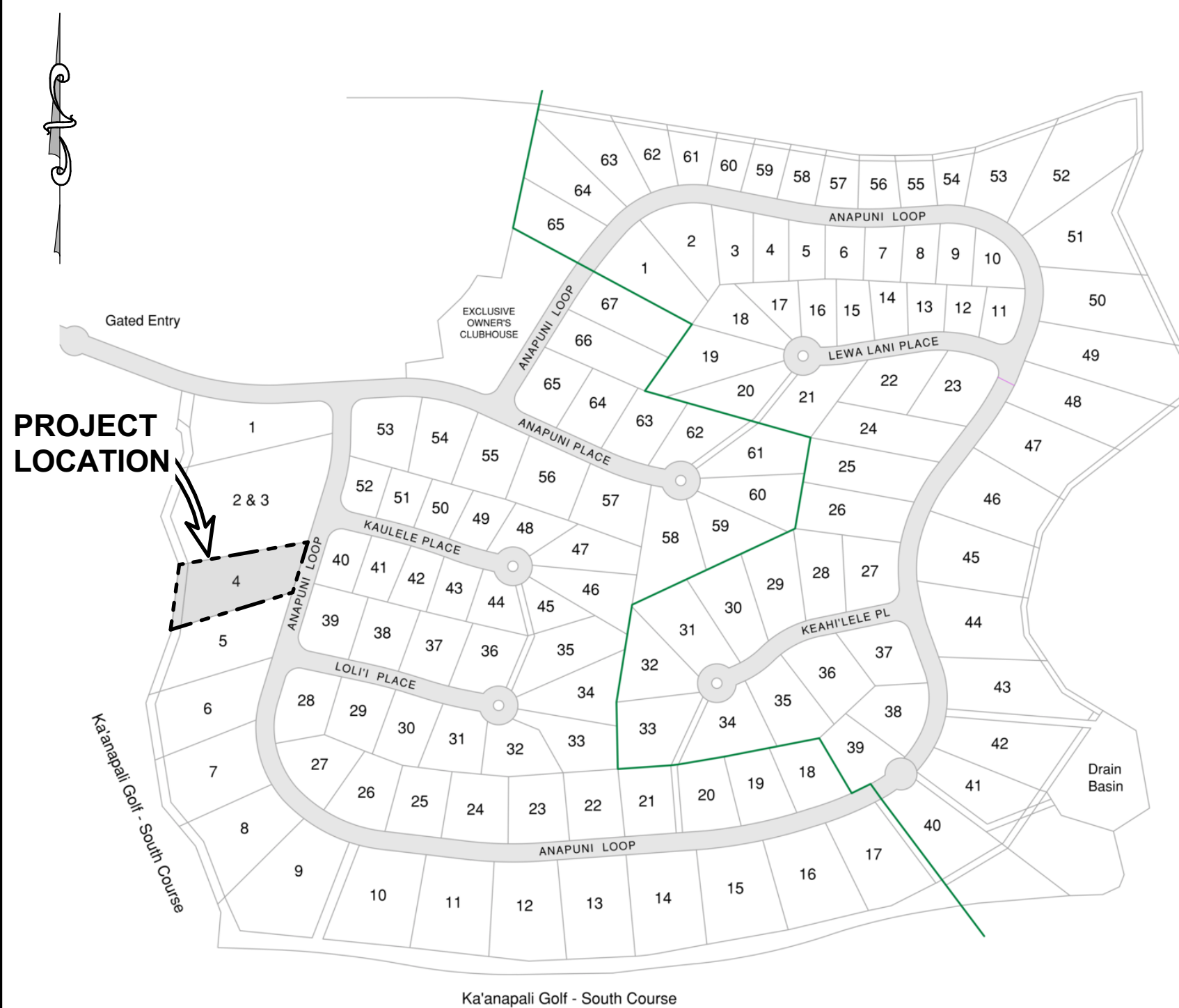
PROJECT INFORMATION

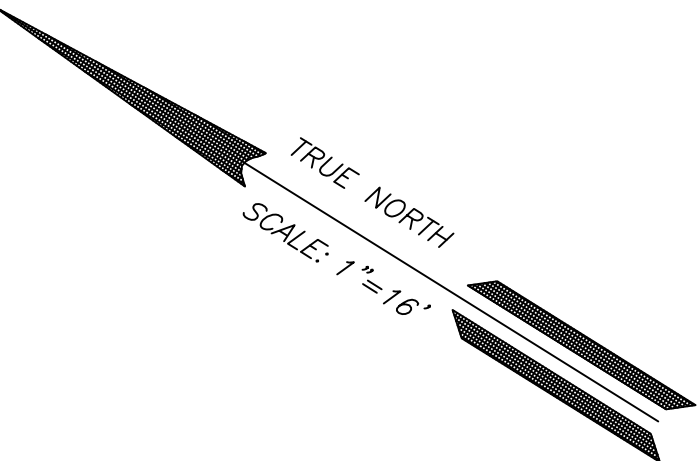
LOT NUMBER:	Lot 4
STREET ADDRESS:	64 Anapuni Loop
T.M.K. NUMBER:	(2) 4-4-019 : 004
LOT AREA:	40,430 sq. ft.
ZONING:	R-3 Residential
CONSTRUCTION TYPE:	VB
OCCUPANCY:	R-3
SETBACKS:	Front = 20' Side = 15' Rear = 20'
BUILDING AREA:	Enclosed Living = 3,302 sq. ft. Covered Lanais = 840 sq. ft. Covered Entry = 78 sq. ft. Garage & Storage = 996 sq. ft. <hr/> Total Area = 5,216 sq. ft.
DESIGN RESTRICTIONS:	Maximum Roof Height Allowed = 196.0 (C of M - 30' A.E.G.) Proposed Roof Height = 196.0

VICINITY MAP

INDEX TO DRAWINGS

<u>Sht.</u>		<u>Description</u>	<u>Sht.</u>	<u>Description</u>	<u>Sht.</u>	<u>Description</u>
			<u>ARCHITECTURAL</u>			<u>STRUCTURAL</u>
T-1		Title Sheet	A-1	Site Plan	S1.0	Structural General Note
-		Topographic Survey	A-2	Impervious Diagram & Calculations	S2.0	Foundation Plan
			A-3	Floor Plan	S2.1	Roof Framing Plan
			A-4	Ceiling Plan	S3.1	Portal Frame Elevation
<u>CIVIL</u>			A-5	Roof Plan	S4.1	Typical Concrete Details
C0.1		Civil Title Sheet	A-6	Overall Exterior Elevations	S4.2	Typical Framing Details
C0.2		Civil Notes Sheet	A-7	Exterior Elevations 2	S5.1	Sections & Details
C1.0		Overall Site and Grading Plan	A-8	Exterior Elevations 3	S5.2	Sections & Details
C1.1		Site, Grading, and Drainage Plan	A-9	Site & Building Sections	S5.3	Sections & Details
C2.0		BMP Plan - Sediment and Erosion Control Plan	A-10	Wall Sections 1		
C3.0		Civil Construction Details Sheet	A-11	Wall Sections 2		
			A-12	Electrical Plan		<u>P O O L</u>
			A-13	Architectural Details 1	P1.0	Pool & Plan
			A-14	Architectural Details 2	P1.1	Pool Sections & Details
<u>RETAINING WALLS</u>						
RW-1		Retaining Wall Plan				
RW-2		Retaining Wall Details				
RW-3		Retaining Wall Details				
<u>LANDSCAPE</u>						
L-1		Planting Plan				
L-2		Irrigation Plan				
L-3		Conceptual Landscape Lighting Plan				
L-4		Planting & Irrigation Details, Notes & Legends				

[illegible]



ROYAL KAA NAPALI
GOLF COURSE

Easement SD-1
(20 FT WIDE)
for drainage and
sewerline purposes

LOT 3

LOT 4
Area= 40,430 Sq. Ft.

LOT 5

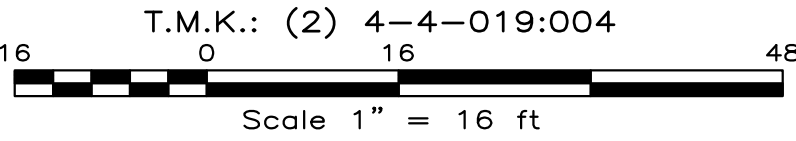
ANAPUNI LOOP

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

- NOTES:
1. This map is based from a survey performed on June 1, 2022.
 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..

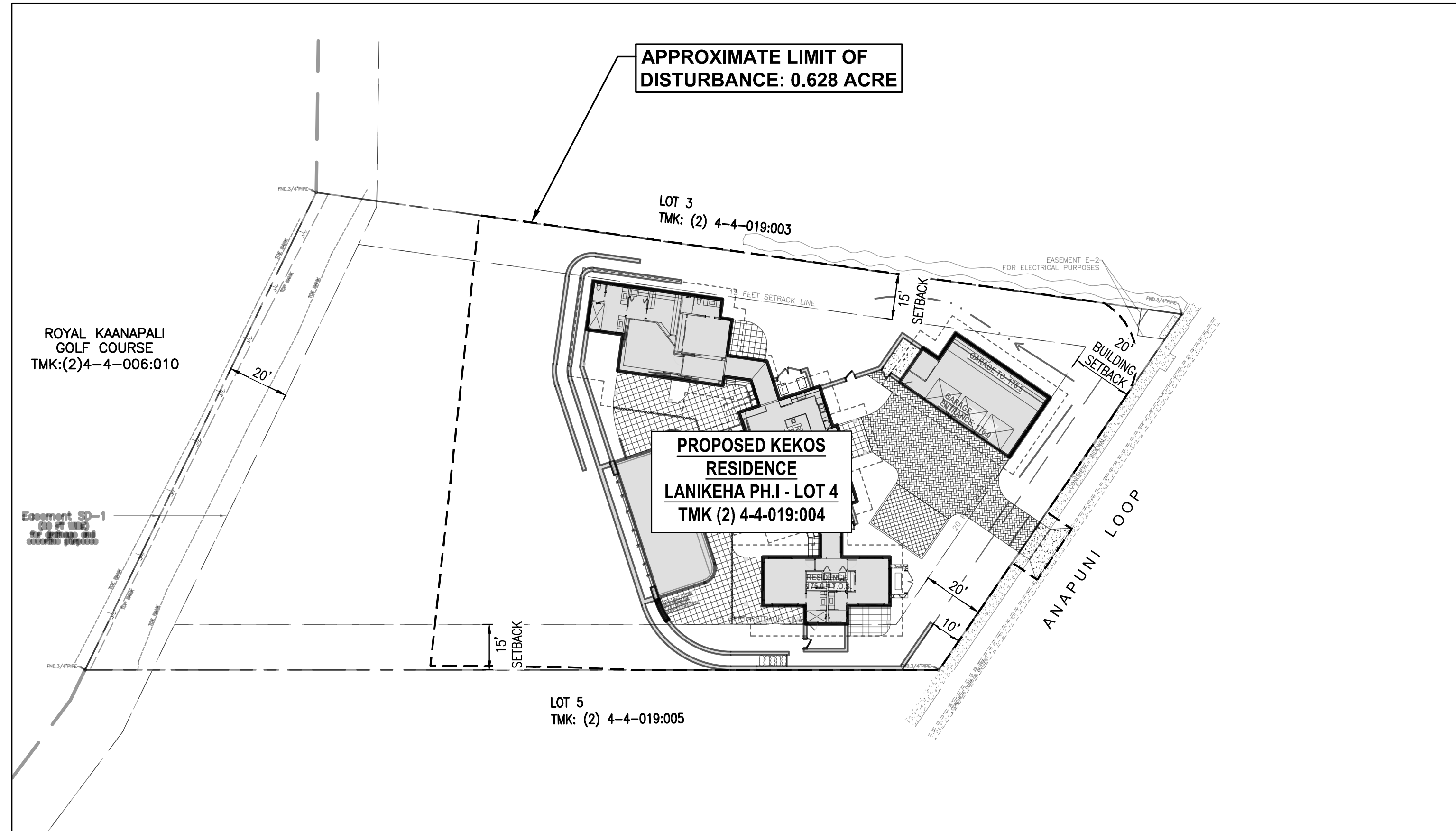
- LEGEND:
- WM=WATER METER
 - FH=FIRE HYDRANT
 - SMH=SEWER MANHOLE
 - SDMH=STORM DRAIN MANHOLE
 - SO=STUB OUT
 - LP=LIGHT POST
 - EB=ELECTRIC BOX
 - COCONUT
 - TREE

This work was prepared by me
or under my direct supervision.
VALENCIA LAND SURVEYING
Arthur P. Valencia 2/03/25
ARTHUR P. VALENCIA
Licensed Professional Land Surveyor
State of Hawaii Certificate No. 10026
Exp. Date: 4-30-28



TOPOGRAPHIC MAP
LOT 4
LANIKEHA-PHASE I
File Plan 2398
Hanakao, Lahaina, Maui, Hawaii

66 ANAPUNI LOOP, LAHAINA, HAWAII 96761
TMK: (2) 4-4-019:004




TURBANCE

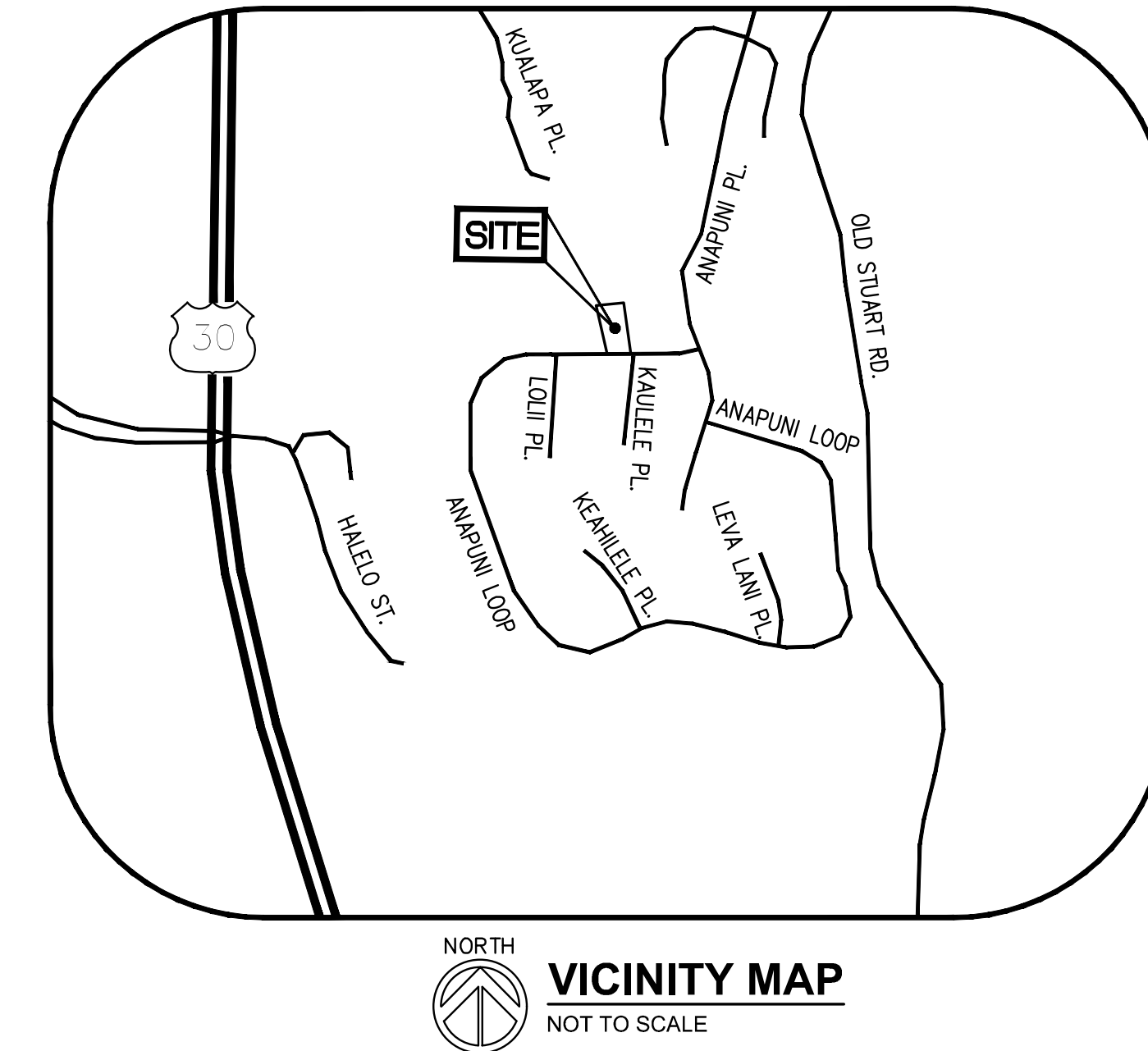
0 30 60 90

GRAPHIC SCALE IN FEET

SCALE: 1"=30'

 CALICH
DESIGN
GROUP

SDMH	STORM DRAIN MANHOLE
SDR35	STANDARD DIMENSIONAL RATIO 35
SF	SQUARE FEET
SL	STREET LIGHT
SLPB	STREET LIGHT PULL BOX
SP	SPECIFIC PLAN
SPEC	SPECIFICATION
SSCO	SANITARY SEWER CLEAN OUT
SSMH	SANITARY SEWER MANHOLE
ST	STREET
STD	STANDARD
STLT	STREET LIGHT
SW	SIDEWALK
T	TELEPHONE
TBM	TEMPORARY BENCHMARK
TC	TOP OF CURB
TCD	TRAFFIC CONTROL DEVICE
TEV	TELEPHONE VAULT
TL	TRAFFIC LIGHT
TMK	TAX MAP KEY
TOE	TOE OF SLOPE
TOP	TOP OF SLOPE / TOP OF PIPE
TS	TRAFFIC SIGNAL
TSPB	TRAFFIC SIGNAL PULL BOX
TVLT	TELEPHONE VAULT
TOW	TOP OF WALL
TYF	TYPICAL
UE	UNDERGROUND ELECTRIC
UT	UNDERGROUND TELEPHONE
UTIL	UTILITY
VAR	VARIABLE
VAT	VACUUM AIR TUBE
VCP	VITRIFIED CLAY PIPE
vLT	VAULT
W	WEST
W/	WITH
WM	WATER METER
WTR	WATER LINE
WV	WATER VALVE
WW T	WATER VAULT



C0.1	CIVIL TITLE SHEET
C0.2	CIVIL NOTES SHEET
C1.0	OVERALL SITE AND GRADING PLAN
C1.1	SITE, GRADING, AND DRAINAGE PLAN
C2.0	BMP PLAN – SEDIMENT AND EROSION CONTROL PLAN
C3.0	CIVIL CONSTRUCTION DETAILS SHEET

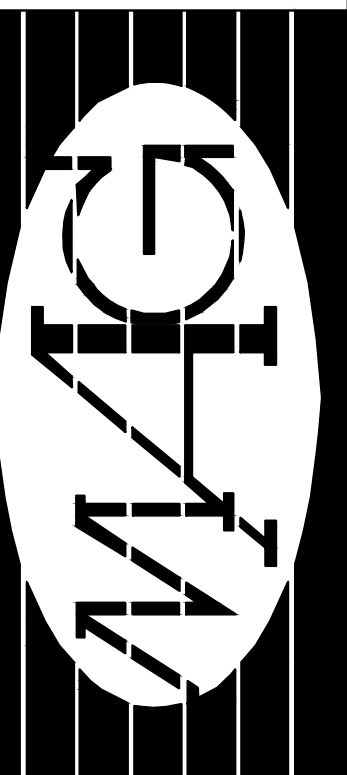
THE TYPES, LOCATIONS, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS TOPOGRAPHIC SURVEY WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. (A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL UNKNOWN UNDERGROUND UTILITIES.) HOWEVER, THE ENGINEER CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES WHICH MAY BE ENCOUNTERED, BUT WHICH ARE NOT SHOWN ON THESE DRAWINGS.

THE SUBJECT PROPERTY IS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 1500030353F - SEPTEMBER 19, 2012, AS BEING LOCATED IN FLOOD ZONE "ZONE X: AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN." INFORMATION WAS OBTAINED FROM THE FEMA WEBSITE (WWW.FEMA.GOV) ON DECEMBER 11, 2024.

TMK: (2)4-4-019:004			
LOT #4 AREA:	40,428 SF	=	0.928 ACRE
*TOTAL AREA OF DISTURBANCE:	27,358 SF	=	0.628 ACRE
<u>TOTAL IMPERVIOUS AREA:</u>	17,035 SF	=	0.391 ACRE
<u>TOTAL PERVIOUS AREA:</u>	10,323 SF	=	0.237 ACRE
<u>TOTAL DISTURBED AREA:</u>	27,358 SF	=	0.628 ACRE

TOTAL GROSS CUT = 293± CY
TOTAL GROSS FILL = 2,467± CY
NET CUT/FILL = 2,174± CY (FILL)
TOTAL GRADED AREA = 27,358± SF = 0.628 ACRES
MAXIMUM HEIGHT OF CUT OR FILL = 13.0FT (FILL)
* EARTHWORK QUANTITIES REFLECT CUT AND FILL TO FINISHED GRADE ELEVATIONS AND INCLUDE VOLUMES FOR BUILDING FOUNDATION, PAVING, AND POOLS. FOR FOUNDATION VOLUMES, ASSUME 1-FT FOUNDATION SECTION BELOW FINISH FLOOR ELEVATION. REFER TO STRUCTURAL DRAWINGS FOR DETAILS. FOR PAVED AREAS ASSUME 6-INCH PAVING SECTION UNLESS SPECIFIED

1. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST COUNTY OF MAU STANDARDS.
2. ANY EXISTING INFRASTRUCTURE OR SITE ITEMS (ABOVE OR BELOW GRADE, READILY VISIBLE OR NOT) OR PROPERTY DAMAGED AS A RESULT OF CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE APPROPRIATE AGENCY.
3. ALL CONSTRUCTION SHALL CONFORM TO APPLICABLE STATE AND LOCAL CODES. WHEN CODES ARE IN CONFLICT, THE MORE STRINGENT SHALL APPLY. THE CONTRACTOR SHALL CAUSE A CURRENT COPY OF SAID CODES TO BE MAINTAINED ON SITE AT ALL TIMES.
4. ALL DAMAGE AND PAINT MARKINGS SHALL COMPLY WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), OR AS OTHERWISE SPECIFIED. INSTALLATION OF SIGNS SHALL BE GOVERNED BY LOCAL CODES.
5. THE CONTRACTOR IS RESPONSIBLE TO LOCATE AND PROTECT ALL EXISTING UTILITIES DURING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE UTILITY NOTIFICATION CENTER AT LEAST THREE DAYS PRIOR TO ANY SITE WORK FOR PROPER IDENTIFICATION OF EXISTING UTILITIES.
6. THE CONTRACTOR SHALL VERIFY ALL EXISTING ITEMS AND DIMENSIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO BEGINNING CONSTRUCTION.
7. THE EDGE OF THE ASPHALT PAVED ROADWAY SHALL BE PROTECTED BY A REINFORCED CONCRETE HEADER AT ALL LOCATIONS USED FOR IMPROVED OR PERMANENT ACCESS TO THE LOT. THE ASPHALT EDGE PROTECTION SHALL BE INSTALLED PRIOR TO CONSTRUCTION OR ANY SIGNIFICANT TRAFFIC FROM THE ROADWAY TO THE LOT.
8. ALL EXISTING DOMESTIC & IRRIGATION WATERLINES SHALL BE PROTECTED THROUGHOUT THE COURSE OF CONSTRUCTION.



THIS WORK WAS PREPARED BY ME
UNDER MY SUPERVISION AND
INSTRUCTION OF THIS PROJECT
ALL BE UNDER MY OBSERVATION.
Observation of construction as defined in
Hawaii Administrative Rules, Title 16,
Chapter 115, Section 16-115-2.

Signature

KEKOS RESIDENCE
LANIKEHA PH-I - LOT 4
66 ANAPUNI LOOP
Lahaina, Maui, Hawaii 96761
TMK: (2) 4-4-019 : 004

No.	Revision

CIVIL TITLE
SHEET

02/06/2025

Case: Permit

Sheet Number:

C0.1

Sheet: Of:

ENGINEER'S CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL LEAVE AN EMERGENCY PHONE NUMBER WITH THE POLICE AND FIRE DEPARTMENTS AND KEEP THEM INFORMED OF DETOURS.
2. CONTRACTOR SHALL POST EMERGENCY TELEPHONE NUMBERS ON THE SITE FOR PUBLIC WORKS, AMBULANCE, POLICE, UTILITY LOCATE COMPANIES AND FIRE DEPARTMENT AT ALL TIMES.
3. CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR OR REPLACE ANY EXISTING IMPROVEMENTS OR UNDERGROUND FACILITIES THAT ARE DAMAGED.
4. ALL DIMENSIONS SHOWN ARE TO THE FACE OF CURB, EDGE OF PAVEMENT, FACE OF WALL, ALL RADI SHOWN ARE TO THE FACE OF CURB, UNLESS OTHERWISE NOTED.
5. THE CONTRACTOR SHALL CONDUCT HIS/HER WORK SO AS NOT TO INTERFERE WITH OR HINDER THE PROGRESS OF COMPLETION OF WORK BEING PERFORMED BY OTHER CONTRACTORS.
6. THE CONTRACTOR AND ALL SUBCONTRACTORS INVOLVED SHALL ASSUME ALL LIABILITY, FINANCIAL OR OTHERWISE, IN CONNECTION WITH HIS/HER CONTRACT AND SHALL PROTECT AND SAVE HARMLESS THE OWNER AND THE OWNER'S REPRESENTATIVES FROM ANY AND ALL DAMAGES OR CLAIMS THAT MAY ARISE BECAUSE OF INCONVENIENCE, DELAYS, OR LOSS EXPERIENCED BECAUSE OF THE PRESENCE AND OPERATIONS OF OTHER CONTRACTORS OR CONSULTANTS WORKING ADJACENT TO OR WITHIN THE LIMITS OF THE PROJECT.
7. CONTRACTOR MUST REPAIR ANY DAMAGE TO PROPERTY DURING CONSTRUCTION. DAMAGED PROPERTY SHALL BE RETURNED TO EXISTING CONDITIONS AT A MINIMUM.
8. PUBLIC SAFETY AND TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH THE COUNTY OF MAUI STANDARDS AND SPECIFICATIONS (AS APPLICABLE) AND AS DIRECTED BY THE COUNTY OF MAUI. SAFE VEHICULAR AND PEDESTRIAN ACCESS SHALL BE PROVIDED AROUND THE SITE AT ALL TIMES.
9. PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE FEATURES AND UTILITIES, AND REPORT ALL DISCREPANCIES TO ENGINEER.
10. ANY AND ALL FIELD MODIFICATIONS TO THESE PLANS MUST BE APPROVED IN WRITING PRIOR TO ANY CONSTRUCTION OR DEMOLITION RESULTING THEREOF. THE ENGINEER IS UNDER NO OBLIGATION TO PROVIDE ANY LEVEL OF CERTIFICATION FOR WORK THAT WAS NOT COMPLETED IN STRICT ACCORDANCE WITH THESE PLANS UNLESS THE ENGINEER DIRECTED THE CONTRACTOR TO MAKE SAID CHANGE BY RESPONDING TO A FORMAL WRITTEN REQUEST FOR INFORMATION (RFI) THAT FOLLOWED THE MUTUALLY AGREED UPON RFI PROCESS.

ENGINEER'S SITE NOTES:

1. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES FOR SAFETY PRECAUTIONS OR PROGRAMS. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
2. NOTHING CONTAINED IN THE CONTRACT DOCUMENTS SHALL CREATE, NOR SHALL BE CONSTRUED TO CREATE, ANY CONTRACTUAL RELATIONSHIP BETWEEN THE ENGINEER AND THE CONTRACTOR OR SUBCONTRACTOR.
3. THE ENGINEER AND APPLICABLE AGENCY MUST APPROVE, PRIOR TO CONSTRUCTION, ANY ALTERATION OR VARIANCE FROM THESE PLANS, ANY VARIATIONS FROM THESE PLANS SHALL BE PROPOSED ON CONSTRUCTION FIELD PRINTS AND TRANSMITTED TO THE ENGINEER.
4. ANY INSPECTION BY THE CITY, COUNTY, OR THE ENGINEER SHALL NOT, IN ANY WAY, RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM THE WORK IN STRICT COMPLIANCE WITH THE APPLICABLE CODES AND AGENCY REQUIREMENTS.
5. REMOVAL AND REPLACEMENT QUANTITIES ARE APPROXIMATE. THE EXACT LOCATION OF REMOVAL LIMITS SHALL BE VERIFIED IN THE FIELD AND APPROVED BY THE INSPECTOR PRIOR TO THE START OF CONSTRUCTION.
6. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL REQUIRED CONSTRUCTION PERMITS AND BONDS PRIOR TO CONSTRUCTION.
7. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE COPY OF THE CONTRACT DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, AND SPECIAL CONDITIONS, COPIES OF REQUIRED CONSTRUCTION PERMITS, AND EROSION CONTROL PLANS AND INSPECTION REPORTS.
8. THE CONTRACTOR SHALL PROVIDE A COPY OF ALL REQUIRED CONSTRUCTION PERMITS TO THE OWNER WITHIN SEVEN (7) DAYS OF ISSUE OF SUBJECT PERMIT.
9. ALL COPIES OF COMPACTION, CONCRETE AND OTHER REQUIRED TEST RESULTS ARE TO BE SENT TO THE OWNER AND ENGINEER OF RECORD DIRECTLY FROM THE TESTING AGENCY.
10. CONTRACTOR SHALL THOROUGHLY CHECK COORDINATION OF ARCHITECTURAL, CIVIL, LANDSCAPE, STRUCTURAL, MEP, AND OTHER PLANS PRIOR TO COMMENCING CONSTRUCTION. OWNER AND ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY PRIOR TO COMMENCING CONSTRUCTION.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY RELOCATIONS INCLUDING BUT NOT LIMITED TO: UNDERGROUND AND OVERHEAD UTILITIES, STORM DRAINAGE SIGNS, TRAFFIC SIGNALS & POLES, IRRIGATION STRUCTURES AND OTHER EXISTING APPURTENANCES AS REQUIRED TO FACILITATE THE INSTALLATION OF THE PROPOSED IMPROVEMENTS. ALL RELOCATION WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES/OWNERS SPECIFICATIONS AND SHALL BE APPROVED BY THE GOVERNING AUTHORITIES/OWNERS PRIOR TO COMMENCEMENT OF THE WORK. ALL RESULTING COSTS SHALL BE DEEMED TO BE INCLUDED IN THE CONTRACTOR'S BID.
12. THE CONTRACTOR SHALL NOT TAKE ADVANTAGE OF ANY APPARENT ERROR OR OMISSION ON THE PLANS OR SPECIFICATIONS. IN THE EVENT THE CONTRACTOR DISCOVERS ANY APPARENT ERROR OR DISCREPANCY, HE SHALL IMMEDIATELY CALL UPON THE ENGINEER FOR HIS/HER INTERPRETATION AND DECISION, AND SUCH DECISION SHALL BE FINAL.
13. THE CONTRACTOR SHALL COMPLY WITH ALL LEGAL LOAD RESTRICTIONS IN THE HAULING OF MATERIALS ON PUBLIC ROADS BEYOND THE LIMITS OF THE WORK. A SPECIAL HAUL PERMIT WILL NOT RELIEVE THE CONTRACTOR OF LIABILITY FOR DAMAGE WHICH MAY RESULT FORM THE MOVING OF MATERIAL OR EQUIPMENT.
14. BOUNDARY CORNERS ARE TO BE CLEARLY STAKED AND CLEARLY DELINEATED THROUGHOUT CONSTRUCTION.

PUBLIC HEALTH SAFETY AND CONVENIENCE NOTES

1. CONTRACTOR SHALL OBSERVE AND COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS REQUIRED FOR THE PROTECTION OF PUBLIC HEALTH, SAFETY AND ENVIRONMENTAL QUALITY.
2. THE CONTRACTOR SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM RUBBISH, DUST, NOISE, EROSION, ETC. THE WORK SHALL BE DONE IN CONFORMANCE WITH THE AIR AND WATER POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH AND COUNTY GRADING ORDINANCE.
3. NO CONTRACTOR SHALL PERFORM ANY CONSTRUCTION OPERATION SO AS TO CAUSE FALLING ROCKS, SILT OR DEBRIS IN ANY FORM TO FALL, SLIDE OR FLOW ONTO ADJOINING PROPERTIES, STREETS OR NATURAL WATERCOURSES. SHOULD SUCH VIOLATIONS OCCUR, THE CONTRACTOR MAY BE CITED AND THE CONTRACTOR SHALL IMMEDIATELY MAKE ALL REMEDIAL ACTIONS AS NECESSARY.
4. THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLARES, BARRICADES, AND OTHER PROTECTIVE DEVICES FOR THE PROTECTION, SAFETY AND CONVENIENCE OF THE PUBLIC, ACCORDING TO THE LATEST VERSION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS."
5. THE CONTRACTOR SHALL OBTAIN A PERMIT, IF REQUIRED, FROM THE DIRECTOR OF HEALTH, IN ACCORDANCE TO CHAPTER 48, PUBLIC HEALTH REGULATIONS, DEPARTMENT OF HEALTH, STATE OF HAWAII, "COMMUNITY NOISE CONTROL," IN WHICH MAXIMUM PERMISSIBLE NOISE LEVELS HAVE BEEN SET. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE NOISE LEVEL RESTRICTIONS AND THE PROCEDURES FOR OBTAINING A PERMIT FOR THE CONSTRUCTION ACTIVITIES. APPLICATION AND INFORMATION ON VARIANCES ARE AVAILABLE FROM THE ENVIRONMENTAL PROTECTION AND HEALTH SERVICES DIVISION, 1250 PUNCHBOWL ST., HONOLULU, HI 96813 OR BY TELEPHONE (548-6455).

COMPACTION REQUIREMENTS

1. TESTING OF MATERIALS SHALL BE CONDUCTED BY AN APPROVED INDEPENDENT TESTING AGENCY IN ACCORDANCE WITH ASTM STANDARD METHODS OR AS SPECIFIED BY THE DEPARTMENT OF PUBLIC WORKS, AS FOLLOWS:
 - A. EMBANKMENT/SELECT BORROW AND SUBGRADE MATERIALS: 1 COMPACTION TEST PER 600 SQUARE YARDS PER LIFT.
 - B. AGGREGATE SUBBASE COURSE: 1 COMPACTION TEST PER 400 SQUARE YARDS; 1 GRADATION AND SAND EQUIVALENT TEST PER LIFT PER PROJECT.
 - C. AGGREGATE BASE COURSE: 1 COMPACTION TEST PER 300 SQUARE YARDS; 1 GRADATION AND SAND EQUIVALENT TEST PER LIFT PER PROJECT.
 - D. AGGREGATE CONCRETE PAVEMENT OR ASPHALT TREATED BASE COURSE; 3 A.C. CORES FOR THICKNESS AND DENSITY TESTS PER PROJECT.
 - E. TRENCH BACKFILL MATERIAL: 1 TEST FOR EACH 300 LINEAL FEET OF TRENCH PER LIFT OF MATERIAL.
 - F. ADDITIONAL TESTING MAY BE REQUIRED FOR ANY REASON, INCLUDING WHEN MULTIPLE TRENCHES HAVE BEEN EXCAVATED OR WHEN WORK IN A TRENCH EXTENDS TO MULTIPLE DAYS.
2. CONTRACTOR SHALL SUBMIT ALL TESTING REPORTS INCLUDING RESULTS TO THE COUNTY'S INSPECTION AGENCY FOR REVIEW AND APPROVAL PRIOR TO COUNTY'S ACCEPTANCE OF WORK.
3. THE CONTRACTOR IS REQUIRED TO NOTIFY THE COUNTY OF ANY TESTING FAILURES AND CORRECT EACH FAILURE PRIOR TO PROCEEDING TO THE NEXT PHASE OF CONSTRUCTION.

TEMPORARY CONSTRUCTION STAGING AND STORAGE AREA NOTES

1. COORDINATE TEMPORARY CONSTRUCTION STAGING AND STORAGE AREA WITH ENGINEER IN CHARGE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANING AND REMOVAL OF ALL SILT AND DEBRIS GENERATED BY CONTRACTOR'S WORK AND DEPOSITED AND ACCUMULATED WITHIN DOWNSTREAM WATERWAYS, DITCHES AND DRAIN PIPES, AND ON PUBLIC AND PRIVATE ROADWAYS. THE CONTRACTOR AGREES TO REIMBURSE THE COUNTY OF MAUI FOR ALL COSTS EXPENDED IN PERFORMANCE OF THE ABOVE WORK IF REQUIRED FOR PUBLIC HEALTH AND SAFETY, OR MADE NECESSARY BY NON-PERFORMANCE BY THE CONTRACTOR.
3. IN ACCORDANCE WITH THE HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 58.1, SOLID WASTE MANAGEMENT CONTROL, DEMOLITION WASTES, AND CONSTRUCTION WASTES SHALL BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF THE STATE DEPARTMENT OF HEALTH AND AT AN AUTHORIZED SITE. THE CONTRACTOR SHALL INFORM THE ENGINEER IN CHARGE OF THE LOCATION OF DISPOSAL SITES FOR THE EXCESS MATERIAL AND TEMPORARY CONSTRUCTION STAGING AND STORAGE AREA FOR THE PROJECT. THE DISPOSAL SITE SHALL COMPLY WITH REVISED ORDINANCES OF HONOLULU.
4. THE CONTRACTOR SHALL MINIMIZE THE QUANTITY OF CONSTRUCTION MATERIAL STORED IN THE TEMPORARY CONSTRUCTION STAGING AND STORAGE AREA.
5. UPON COMPLETION OF THE PROJECT, THE EXCESS MATERIAL AT THE TEMPORARY CONSTRUCTION STAGING AND STORAGE AREA SHALL BE REMOVED AND VEGETATION SHALL BE RESTORED AT UNPAVED AREAS.
6. ELEVATED PLATFORMS MAY BE INSTALLED IN THE TEMPORARY CONSTRUCTION STAGING AND STORAGE AREA FOR SOME MATERIALS SO THAT THEY ARE LOCATED ABOVE AND OUR OF THE PATH OF STORM WATER RUNOFF.
7. LIMIT OF TEMPORARY CONSTRUCTION AND STAGING AND STORAGE AREA IS ABOVE 400 SQUARE FEET. COORDINATE CONTRACTOR'S AREA WITH COUNTY REPRESENTATIVE OR ENGINEER IN CHARGE.
8. ACCESSIBLE ROUTES SHALL BE PROVIDED THROUGHOUT CONSTRUCTION IN ACCORDANCE WITH ADAAG SECTION 201.3, SECTION 206, AND COMPLY WITH ADAAG CHAPTER 4.

ARCHAEOLOGICAL NOTES

1. SHOULD HISTORIC SITES SUCH AS WALLS, PLATFORMS, PAVEMENTS, OR MOUNDS, OR REMAINS SUCH AS ARTIFACTS, BURIALS, CONCENTRATION OF SHELL OR CHARCOAL BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES, WORK SHALL CEASE IMMEDIATELY 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 (243-5169), WHICH WILL ASSESS THE SIGNIFICANCE OF THE FIND AND RECOMMEND AND APPROPRIATE MITIGATION MEASURES, IF NECESSARY.
2. PURSUANT TO CHAPTER 6E OF THE HAWAII REVISED STATUTES, ALL CONTRACTORS SHALL ENSURE THAT IN THE EVENT THAT ANY HUMAN SKELETAL REMAINS ARE INADVERTENTLY DISCOVERED DURING CONSTRUCTION, THE REMAINS SHALL NOT BE MOVED AND ANY ACTIVITY IN THE IMMEDIATE AREA THAT COULD DAMAGE THE REMAINS OR THE POTENTIAL HISTORIC SITE SHALL CEASE AND THE DEPARTMENT OF LAND AND NATURAL RESOURCES' HISTORIC PRESERVATION DIVISION (TELEPHONE: 243-5169), THE APPROPRIATE MEDICAL EXAMINER OR CORONER, AND THE POLICE DEPARTMENT (TELEPHONE: 244-6400), SHALL BE CONTACTED.

GRADING NOTES

1. FINISH SPOT ELEVATIONS AND FINISH CONTOURS, AS SHOWN ON PLAN REPRESENT FINISH GRADING. THE TEMPORARY CONTRACTOR SHALL COORDINATE WITH THE LANDSCAPE CONTRACTOR THE LOCATION AND DEPTH OF TOPSOIL. THE FINISH SUBGRADE SHALL REFLECT THE FINISH GRADE LESS SPECIFIED TOPSOIL DEPTH.
2. THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN THE MEASURES OF "THE CONSTRUCTION BEST MANAGEMENT PRACTICE (BMP) FOR THE COUNTY OF MAUI" DATED MAY 2001. ALL GRADING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE WATER POLLUTION CONTROL AND WATER QUALITY STANDARDS CONTAINED IN THE PUBLIC HEALTH REGULATIONS, STATE DEPARTMENT OF HEALTH, ON WATER POLLUTION CONTROL AND WATER QUALITY STANDARDS.
3. CONSTRUCTION DEBRIS AND WASTES SHALL BE DEPOSITED AT AN APPROPRIATE SITE. THE CONTRACTOR SHALL INFORM THE ENGINEER OF THE LOCATION OF DISPOSAL SITES. THE DISPOSAL SITE MUST ALSO FULFILL REQUIREMENTS OF THE GRADING ORDINANCES.
4. 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.
5. ALL GRADING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE WATER QUALITY AND WATER POLLUTION CONTROL STANDARDS CONTAINED IN HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 54, "WATER QUALITY STANDARDS" AND TITLE 11, CHAPTER 55, "WATER POLLUTION CONTROL" AND THE NPDES PERMIT FOR THE PROJECT.
6. ALL GRADING AND CONSTRUCTION WORK SHALL IMPLEMENT MEASURES TO ENSURE THAT THE DISCHARGE OF POLLUTANTS FROM THE CONSTRUCTION SITE WILL BE REDUCED TO THE MAXIMUM EXTENT PRACTICABLE AND WILL NOT CAUSE OR CONTRIBUTE TO AN EXCEEDANCE OF WATER QUALITY STANDARDS.
7. FOR ALL PROJECTS, WHICH WILL DISTURB ONE (1) ACRE OR MORE OF LAND, THE CONTRACTOR SHALL NOT START CONSTRUCTION UNTIL A NOTICE OF GENERAL PERMIT COVERAGE (NGPC) IS RECEIVED FROM THE DEPARTMENT OF HEALTH, STATE OF HAWAII, AND HAS SATISFIED ANY OTHER APPLICABLE REQUIREMENTS OF THE NPDES PERMIT PROGRAM.
8. SOIL STABILIZATION WITH HYDRO MULCHING AND/OR APPROPRIATE VEGETATIVE COVER SHALL BE APPLIED IMMEDIATELY TO AREAS WHERE GRADING AND/OR CONSTRUCTION HAVE BEEN COMPLETED.

CHLORINATION OF WATER SYSTEMS

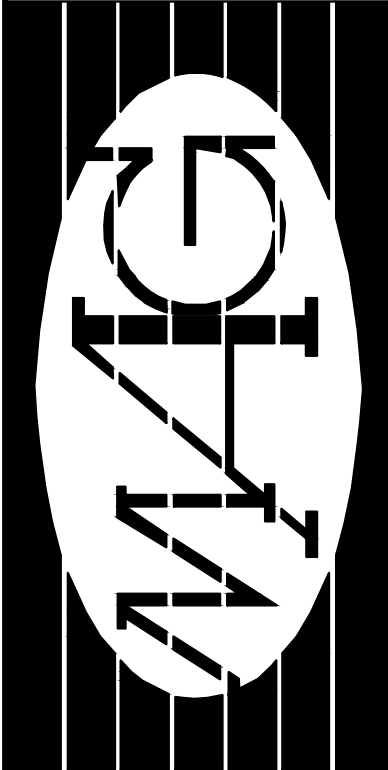
1. LIQUID CHLORINE OR CALCIUM HYPOCHLORITE, CONFORMING TO AWWA STANDARDS SHALL BE USED FOR THE CHLORINATION OF THE PROJECT.
2. PRIOR TO CHLORINATION, THE PROJECT PIPELINES SHALL BE THOROUGHLY CLEANED. CLEANING OF LINES 8" AND LARGER SHALL BE BY PIGGING USING FOAM PIGS. SMALLER LINES CAN BE FLUSHED IN ACCORDANCE WITH AWWA REQUIREMENTS IF ADEQUATE WATER SUPPLY IS PROVIDED, OTHERWISE BY PIGGING. THE CONTRACTOR SHALL SUBMIT HIS PLAN FOR PIPELINE CLEANING, INCLUDING FITTING REQUIREMENTS FOR PIGGING, FOR APPROVAL PRIOR TO PROCEEDING.
3. THE INTERIOR SURFACES OF THE PROJECT SHALL BE EXPOSED TO THE CHLORINATING SOLUTION FOR A MINIMUM OF 24 HOURS AND THE CHLORINE RESIDUAL SHALL NOT BE LESS THAN 10 PPM AFTER SUCH TIME.
4. SHOULD CALCIUM HYPOCHLORITE BE USED, NO SOLID AND/OR UNDISSOLVED PORTION OF THE COMPOUND SHALL BE INTRODUCED INTO ANY SECTION OF THE PROJECT TO BE CHLORINATED.
5. AT THE END OF THE 24-HOUR DISINFECTION PERIOD, REPRESENTATIVE SAMPLES SHALL BE TAKEN AND ANALYZED TO ASSURE A CHLORINE RESIDUAL OF AT LEAST 10 PPM.
6. SHOULD THE RESULTS INDICATE ADEQUATE CHLORINATION, THE PROJECT SHALL BE THOROUGHLY FLUSHED AND FILLED WITH POTABLE WATER FROM THE EXISTING SYSTEM AND AGAIN TESTED FOR CHLORINE RESIDUAL. THE FLUSHING SHALL BE CONSIDERED ADEQUATE IF THE TEST RESULTS INDICATE THAT THE WATER IN THE PROJECT HAS A COMPARABLE CHLORINE RESIDUAL AS THE WATER IN THE EXISTING SYSTEM.
7. FOLLOWING THE ACCEPTABLE FLUSHING OF THE PROJECT, TWO CONSECUTIVE SETS OF ACCEPTABLE SAMPLE SHALL BE TAKEN AT LEAST 24 HOURS APART FROM REPRESENTATIVE POINTS IN THE PROJECT AND SUBJECTED TO MICROBIOLOGICAL TESTS. AT LEAST ONE SET OF SAMPLES SHALL BE COLLECTED FROM EVERY 1,200 FEET OF THE NEW WATER MAIN, PLUS ONE SET FROM THE END OF THE LINE AND AT LEAST ONE SET FROM EACH BRANCH. POSITIVE RESULTS WILL NOT BE ACCEPTABLE AND THE PROCESS WILL BE REPEATED.
8. ANALYSIS FOR RESIDUAL CHLORINE SHALL BE MADE IN ACCORDANCE WITH "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER," AMERICAN PUBLIC HEALTH ASSOCIATION, 20TH EDITION.
9. MICROBIOLOGICAL TESTS SHALL BE MADE IN ACCORDANCE WITH "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER," AMERICAN PUBLIC HEALTH ASSOCIATION, 20TH EDITION.
10. ALL MEASUREMENTS FOR CHLORINE RESIDUAL AND MICROBIOLOGICAL TESTS SHALL BE PERFORMED BY A LABORATORY APPROVED BY THE DIRECTOR.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ALL THE FOREGOING.

GENERAL PRIVATE UTILITY NOTES

1. ALL WORK TO LOCATE AND VERIFY THE DEPTH OF IRRIGATION MAINS SHALL BE DONE WITH HAND TOOLS ONLY IN ORDER TO MINIMIZE THE RISK OF DAMAGE TO EXISTING IRRIGATION MAIN WATERLINES, NO HEAVY EQUIPMENT SHALL BE USED TO LOCATE AND VERIFY IRRIGATION MAINS.
2. ALL SEWER CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE 1994 HAWAII STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND PUBLIC WORKS CONSTRUCTION, AND THE DEPARTMENT OF PUBLIC WORK'S STANDARD DETAILS, SEPTEMBER 1984, AND CURRENT COUNTY PRACTICES.
3. THE CONTRACTOR SHALL NOTIFY THE COUNTY PRIOR TO COMMENCEMENT OF SEWER WORK. THE CONTRACTOR SHALL PAY FOR ALL INSPECTION COSTS.
4. THE UNDERGROUND PIPES, CABLES OR DUCT-LINES KNOWN TO EXIST BY THE ENGINEER FROM HIS RESEARCH OF RECORDS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF THE FACILITIES, INCLUDING AND AFFECTING SEWER LINES, IN THE PRESENCE OF THE WASTEWATER INSPECTOR AND EXERCISE PROPER CARE IN EXCAVATING THE AREA. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL PAY FOR ALL DAMAGED UTILITIES.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONTINUOUS SEWER SERVICE TO ALL AFFECTED AREAS DURING CONSTRUCTION.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY SEWAGE SPILLS CAUSED BY CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL NOTIFY THE STATE DEPARTMENT OF HEALTH (DOH) AND UTILIZE APPROPRIATE SAMPLING AND ANALYZING PROCEDURES AS REQUIRED BY THE DEPARTMENT OF HEALTH. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PUBLIC NOTIFICATION AND PRESS RELEASES.
7. CRUSHED ROCK CRADLE IS PERMITTED WHERE SOIL IS STABLE. IN AREAS OF UNSTABLE SOIL, THE CONSTRUCTION ENGINEER WILL DETERMINE THE PIPE SUPPORT REQUIRED.
8. TREES SHALL BE SITUATED A MINIMUM OF 6'-0" FROM SEWER LINES.
9. SLOPE FOR SEWER LATERALS SHALL BE AT A MINIMUM OF 1.00% UNLESS OTHERWISE NOTED.
10. BUILDING PLUMBING FACILITIES SHALL BE CONTROLLED BY SEWER LATERAL INVERTS.
11. THE CONTRACTOR SHALL INSTALL "RAINSTOPPER" MANHOLE INSERTS IN ALL SEWER MANHOLES WITH TYPE "SA" FRAME AND COVER.
12. WHEN CONNECTING TO A LIVE SEWER LINE, THE CONTRACTOR SHALL ABIDE BY ALL CONDITIONS THAT THE STATE DEPARTMENT OF HEALTH SETS FORTH TO MITIGATE ANY WASTEWATER SPILL THAT MAY OCCUR. THE CONTRACTOR SHALL INFORM THE COUNTY INSPECTOR FIVE (5) WORKING DAYS PRIOR TO THE ACTUAL CONNECTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FINES AND PENALTIES DUE TO ANY SPILLS RESULTING FROM THE CONNECTION.
13. IF THE CLEARANCE BETWEEN A WASTEWATER LINE AND A NEW OR EXISTING WATERLINE IS EIGHTEEN INCHES (18") OR LESS, THE WASTEWATER LINE SHALL BE CONCRETE-JACKETED IN ACCORDANCE WITH THE STANDARD DETAILS OF PUBLIC WORKS CONSTRUCTION DATED SEPTEMBER 1984.
14. AT ALL SEWERLINE AND DRAINLINE CROSSINGS OR SEWERLINE AND WATERLINE CROSSINGS, THE MINIMUM VERTICAL CLEARANCE SHALL BE 18 INCHES, UNLESS OTHERWISE NOTED. IF THE SEWERLINE IS LOCATED ABOVE THE WATERLINE, THE WATERLINE MUST BE CONCRETE JACKETED A MIN. OF 5' ON EACH SIDE OF THE CROSSING.
15. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS TO PROVIDE A COMPLETE INSTALLATION. SHOULD THERE BE OMISSIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE AND INSTALL FITTINGS, APPURTENANCES AND MATERIALS AS REQUIRED TO PROVIDE A COMPLETE FUNCTIONAL UTILITY SYSTEM CONFORMING TO ALL APPLICABLE STANDARDS AND REQUIREMENTS.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL WATER LINES DURING CONSTRUCTION. THE CONTRACTOR SHALL BE ESPECIALLY CAREFUL WHEN EXCAVATING BEHIND WATER LINE TEES AND BENDS WHEREVER THERE IS A POSSIBILITY OF WATER LINE MOVEMENT DUE TO REMOVAL OF THE SUPPORTING EARTH BEYOND THE EXISTING REACTION BLOCKS. THE CONTRACTOR SHALL TAKE WHATEVER MEASURES NECESSARY TO PROTECT THE WATER LINE, SUCH AS CONSTRUCTING SPECIAL REACTION BLOCKS (WITH THE DEPARTMENT OF WATER SUPPLY APPROVAL) AND/OR MODIFYING THE CONSTRUCTION METHOD.
17. AT ALL SEWERLINE AND WATER SERVICE LINE OR WATERLINE AND WATER SERVICE LINE CROSSINGS, THE WATER SERVICE LINE SHALL BE LOCATED ABOVE THE SEWERLINE OR WATERLINE AND MINIMUM VERTICAL CLEARANCE SHALL BE 18 INCHES.
18. AT ALL WATERLINE AND DRAINLINE OR FIRELINE AND DRAINLINE CROSSINGS, THE MINIMUM VERTICAL CLEARANCE SHALL BE 12 INCHES, UNLESS OTHERWISE NOTED.

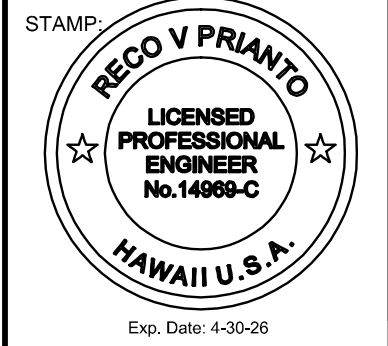
STANDARD BEST MANAGEMENT PRACTICES NOTES

1. SOLID AND DEMOLITION WASTE MANAGEMENT: PROVIDE DESIGNATED WASTE COLLECTION AREAS AND CONTAINERS ON SITE AWAY FROM STREETS, GUTTERS, STORM DRAINS, AND WATERWAYS, AND ARRANGE FOR REGULAR DISPOSAL. WASTE CONTAINERS MUST BE WATERTIGHT AND COVERED AT ALL TIMES EXCEPT WHEN WASTE IS DEPOSITED.
 2. HAZARDOUS WASTE MANAGEMENT: PROVIDE PROPER HANDLING AND DISPOSAL OF HAZARDOUS WASTES BY A LICENSED HAZARDOUS WASTE MATERIAL HAULER. HAZARDOUS WASTES SHALL BE STORED AND PROPERLY LABELED IN SEALED CONTAINERS CONSTRUCTED OF SUITABLE MATERIALS.
 3. SPILL PREVENTION AND CONTROL: PROVIDE PROPER STORAGE AREAS FOR LIQUID AND SOLID MATERIALS, INCLUDING CHEMICALS AND HAZARDOUS SUBSTANCES, AWAY FROM STREETS, GUTTERS, STORM DRAINS, AND WATERWAYS. SPILL CONTROL MATERIALS MUST BE KEPT ON SITE WHERE READILY ACCESSIBLE. SPILLS MUST BE CLEANED UP IMMEDIATELY AND CONTAMINATED SOIL DISPOSED PROPERLY.
 4. VEHICLE AND CONSTRUCTION EQUIPMENT SERVICE AND STORAGE: AN AREA SHALL BE DESIGNATED FOR THE MAINTENANCE, WHERE ON-SITE MAINTENANCE IS REQUIRED, AND STORAGE OF EQUIPMENT THAT IS PROTECTED FROM STORMWATER RUN-ON AND RUNOFF. MEASURES SHALL BE PROVIDED TO CAPTURE ANY WASTE OILS, LUBRICANTS, OR OTHER POTENTIAL POLLUTANTS AND THESE WASTES SHALL BE PROPERLY DISPOSED OF OFF-SITE. FUELING AND MAJOR MAINTENANCE/REPAIR, AND WASHING SHALL BE CONDUCTED OFF-SITE WHENEVER FEASIBLE.
 5. MATERIAL DELIVERY, HANDLING AND STORAGE: IN GENERAL, MATERIALS SHOULD NOT BE STOCKPILED ON SITE. WHERE TEMPORARY STOCKPILES ARE NECESSARY AND APPROVED BY THE COUNTY, THEY SHALL BE COVERED WITH SECURED PLASTIC SHEETING OR TARP AND LOCATED IN DESIGNATED AREAS NEAR CONSTRUCTION ENTRANCES AND AWAY FROM DRAINAGE PATHS AND WATERWAYS. BARRIERS SHALL BE PROVIDED AROUND STORAGE AREAS WHERE MATERIALS ARE POTENTIALLY IN CONTACT WITH RUNOFF.
 6. HANDLING AND DISPOSAL OF CONCRETE AND CEMENT: WHEN CONCRETE TRUCKS AND EQUIPMENT ARE WASHED ON-SITE, CONCRETE WASTEWATER SHALL BE CONTAINED IN DESIGNATED CONTAINERS OR IN A TEMPORARY LINED AND WATERTIGHT PIT WHERE WASTED CONCRETE CAN HARDEN FOR LATER REMOVAL. IF POSSIBLE HAVE CONCRETE CONTRACTOR REMOVE CONCRETE WASH WATER FROM SITE. IN NO CASE SHALL FRESH CONCRETE BE WASHED INTO THE ROAD RIGHT-OF-WAY.
 7. PAVEMENT CONSTRUCTION MANAGEMENT: PREVENT OR REDUCE THE DISCHARGE OF POLLUTANTS FROM PAVING OPERATIONS, USING MEASURES TO PREVENT RUN-ON AND RUNOFF POLLUTION AND PROPERLY DISPOSING OF WASTES. AVOID PAVING IN THE WET SEASON AND RESCHEDULE PAVING WHEN RAIN IS IN THE FORECAST. RESIDUE FROM SAW-CUTTING SHALL BE VACUUMED FOR PROPER DISPOSAL.
 8. CONTAMINATED SOIL AND WATER MANAGEMENT: INSPECTIONS TO IDENTIFY CONTAMINATED SOILS SHOULD OCCUR PRIOR TO CONSTRUCTION AND AT REGULAR INTERVALS DURING CONSTRUCTION. REMEDIATING CONTAMINATED SOIL SHOULD OCCUR PROMPTLY AFTER IDENTIFICATION AND BE SPECIFIC TO THE CONTAMINANT IDENTIFIED, WHICH MAY INCLUDE HAZARDOUS WASTE REMOVAL.
 9. SANITARY/SEPTIC WATER MANAGEMENT: TEMPORARY SANITARY FACILITIES SHOULD BE LOCATED AWAY FROM DRAINAGE PATHS, WATERWAYS, AND TRAFFIC AREAS. ONLY LICENSED SANITARY AND SEPTIC WASTE HAULERS SHOULD BE USED. SECONDARY CONTAMNMENT SHOULD BE PROVIDED FOR ALL SANITARY FACILITIES.
 10. INSPECTION AND MAINTENANCE: AREAS OF MATERIAL AND EQUIPMENT STORAGE SITES AND TEMPORARY SANITARY FACILITIES MUST BE INSPECTED WEEKLY. PROBLEM AREAS SHALL BE IDENTIFIED AND APPROPRIATE ADDITIONAL AND/OR ALTERNATIVE CONTROL MEASURES IMPLEMENTED IMMEDIATELY, WITHIN 24 HOURS OF THE PROBLEM BEING IDENTIFIED.
- STANDARD EROSION CONTROL NOTES**
1. SEDIMENT CONTROL MANAGEMENT: TRACKING PREVENTION & CLEAN UP: ACTIVITIES SHALL BE ORGANIZED AND MEASURES TAKEN AS NEEDED TO PREVENT OR MINIMIZE TRACKING OF SOIL ONTO THE PUBLIC STREET SYSTEM. A GRAVEL OR PROPRIETARY DEVICE CONSTRUCTION ENTRANCE/EXIT IS REQUIRED FOR ALL SITES. CLEAN UP OF TRACKED MATERIAL SHALL BE PROVIDED BY MEANS OF A STREET SWEEPER PRIOR TO AN APPROACHING RAIN EVENT, OR AT LEAST ONCE AT THE END OF EACH WORKDAY THAT MATERIAL IS TRACKED, OR, MORE FREQUENTLY AS DETERMINED BY THE COUNTY INSPECTOR.
 2. STORM DRAIN INLET AND CATCH BASIN INLET PROTECTION: ALL INLETS WITHIN THE VICINITY OF THE PROJECT AND WITHIN THE PROJECT LIMITS SHALL BE PROTECTED WITH GRAVEL BAGS PLACED AROUND INLETS OR OTHER INLET PROTECTION. AT LOCATIONS WHERE EXPOSED SOILS ARE PRESENT, STAKED FIBER ROLLS OR STAKED SILT FENCES CAN BE USED. INLET FILTERS ARE NOT ALLOWED DUE TO CLOGGING AND SUBSEQUENT FLOODING.
 3. STORM WATER RUNOFF: NO STORM WATER RUNOFF SHALL BE ALLOWED TO DRAIN IN TO THE EXISTING AND/OR PROPOSED UNDERGROUND STORM DRAIN SYSTEM OR OTHER ABOVE GROUND WATER COURSES UNTIL APPROPRIATE EROSION CONTROL MEASURES ARE FULLY INSTALLED.
 4. DUST CONTROL: THE CONTRACTOR SHALL PROVIDE DUST CONTROL IN GRADED AREAS AS REQUIRED BY PROVIDING WET SUPPRESSION OR STABILIZATION OF EXPOSED SOILS, PROVIDING FOR RAPID CLEAN UP OF SEDIMENTS DEPOSITED ON PAVED ROADS, FURNISHING CONSTRUCTION ROAD ENTRANCES AND VEHICLE WASH DOWN AREAS, AND LIMITING THE AMOUNT OF AREAS DISTURBED BY CLEARING AND EARTH MOVING OPERATIONS. BY SCHEDULING THESE ACTIVITIES IN PHASES, STOCKPILING EXCAVATED SOILS SHALL NOT BE PLACED IN STREETS OR ON PAVED AREAS. BORROW AND TEMPORARY STOCKPILES SHALL BE PROTECTED WITH APPROPRIATE EROSION CONTROL MEASURES TARPS, STRAW BALES, SILT FENCES, ETC.) TO ENSURE SILT DOES NOT LEAVE THE SITE OR ENTER THE STORM DRAIN SYSTEM OR NEIGHBORING WATERCOURSE.
 5. EROSION CONTROL: ALL DISTURBED AREAS MUST INCLUDE AN EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROL. IT IS REQUIRED THAT TEMPORARY EROSION CONTROL MEASURES ARE APPLIED TO ALL DISTURBED SOIL AREAS PRIOR TO A RAIN EVENT. EROSION CONTROL MEASURES MUST BE APPLIED SUFFICIENTLY TO CONTROL WIND EROSION AT THE SITE.
 6. INSPECTION & MAINTENANCE: DISTURBED AREAS OF THE PROJECT'S SITE, LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE, AND ALL EROSION AND SEDIMENT CONTROLS THAT ARE IDENTIFIED AS PART OF THE EROSION CONTROL PLANS MUST BE INSPECTED BY THE CONTRACTOR BEFORE, DURING, AND AFTER STORM EVENTS, AND AT LEAST WEEKLY DURING SEASONAL WET PERIODS. PROBLEM AREAS SHALL BE IDENTIFIED AND APPROPRIATE ADDITIONAL AND/ OR ALTERNATIVE CONTROL MEASURES IMPLEMENTED IMMEDIATELY, WITHIN 24 HOURS OF THE PROBLEM BEING IDENTIFIED.
 7. PROJECT COMPLETION: PRIOR TO PROJECT COMPLETION AND SIGNOFF BY THE COUNTY INSPECTOR, ALL DISTURBED AREAS SHALL BE RE-SEEDED, PLANTED, OR LANDSCAPED TO MINIMIZE THE POTENTIAL FOR EROSION ON THE SUBJECT SITE.
 8. IT SHALL BE THE OWNER'S/CONTRACTOR'S RESPONSIBILITY TO MAINTAIN CONTROL OF THE ENTIRE CONSTRUCTION OPERATION AND TO KEEP THE ENTIRE SITE IN COMPLIANCE WITH THE EROSION CONTROL PLAN.
 9. EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES SHALL BE OPERABLE YEAR ROUND OR UNTIL VEGETATION IS FULLY ESTABLISHED ON LANDSCAPED SURFACES.
 10. EXPOSED SLOPES SHALL BE PROTECTED WITH JUTE NET AND/OR HYDROSEED. HYDROSEED SHALL BE A HOMOGENEOUSLY MIX OF SLURRY CONTAINING NOT LESS THAN 44 LBS ORGANIC MULCHING AMENDMENT PLUS FERTILIZER, CHEMICAL ADDITIVES AND SOILS FOR EACH 100 GALLONS OF WATER.



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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 in Hawaii Administrative Rules, Title 16, Chapter 115, Section 16-115-2.

Reco V Prianto
Signature

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LANIKEHA PH-J - LOT 4
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CIVIL NOTES SHEET

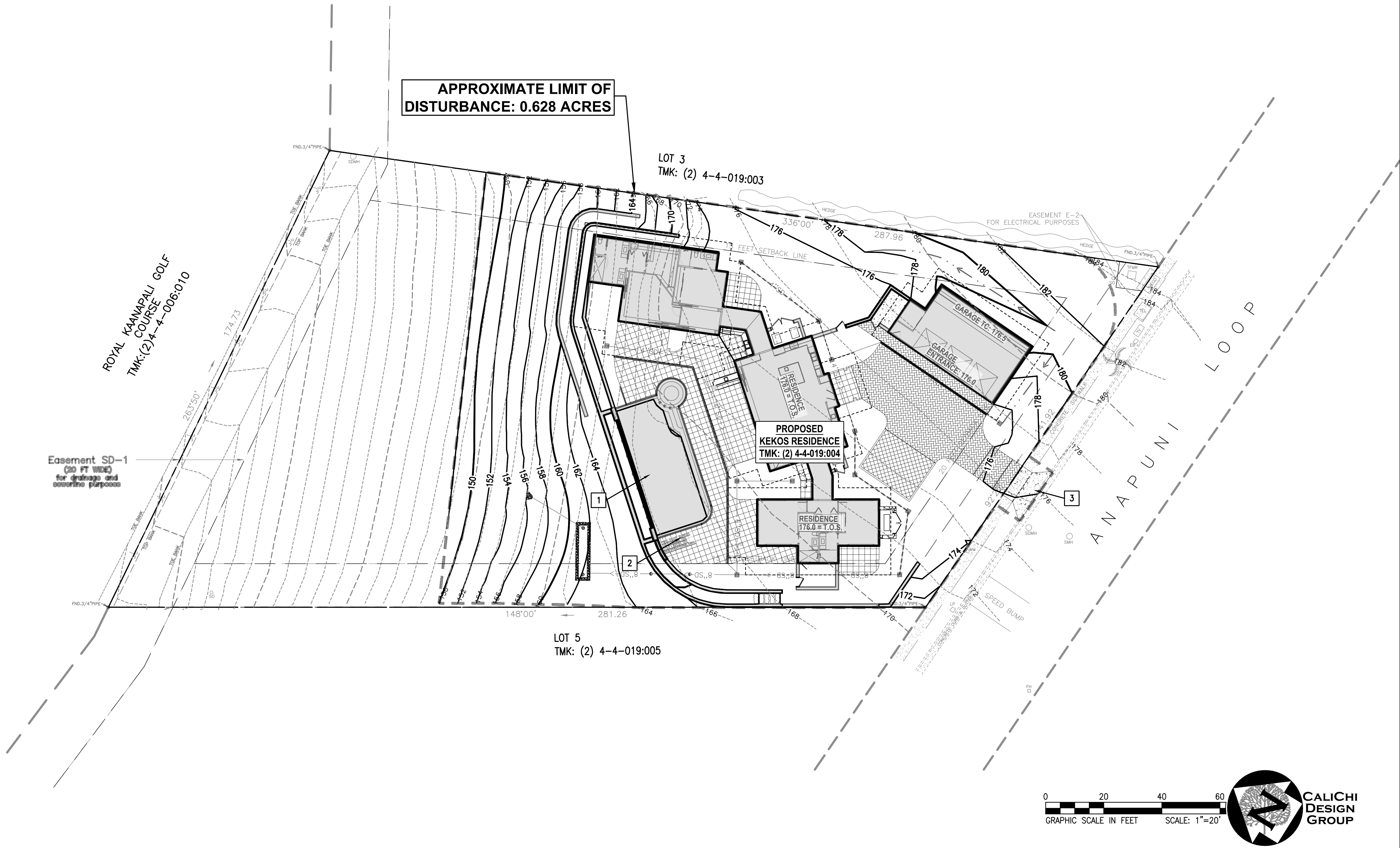
Date: 02/06/2025

Phase: Permit

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PROPOSED	LEGEND	EXISTING
— 8 —	PROPERTY LINE	---
— 10 —	EASEMENT LINE	---
---	2-FOOT CONTOUR	---
---	10-FOOT CONTOUR	---
---	APPROXIMATE LIMIT OF DISTURBANCE	---
---	SANITARY SEWER	---
---	STORM DRAIN LINE	---
---	WATER LINE	---
---	TREE	---
---	WATER VALVE/ FIRE HYDRANT	---
---	WATER METER	---
---	STORM DRAIN MANHOLE/INSPECTION PORT	---
---	STORM DRAIN CATCH BASIN	---
---	ELECTRIC VAULTS/BOX	---
---	STUB OUT	---
---	CLEANOUT	---
---	SANITARY SEWER MANHOLE	---
---	TRENCH DRAIN (TD)	---
---	PROPOSED CONCRETE PAVEMENT. SEE DETAIL 2 ON SHEET C3.0.	---
---	PROPOSED VEHICULAR PAVERS. SEE LANDSCAPE PLANS FOR DETAILS.	---
---	PROPOSED PEDESTRIAN PAVERS. SEE LANDSCAPE PLANS FOR DETAILS.	---
---	PROPOSED VEHICULAR GRASS-CRETE. SEE LANDSCAPE PLANS FOR DETAILS.	---

SITE KEY NOTES

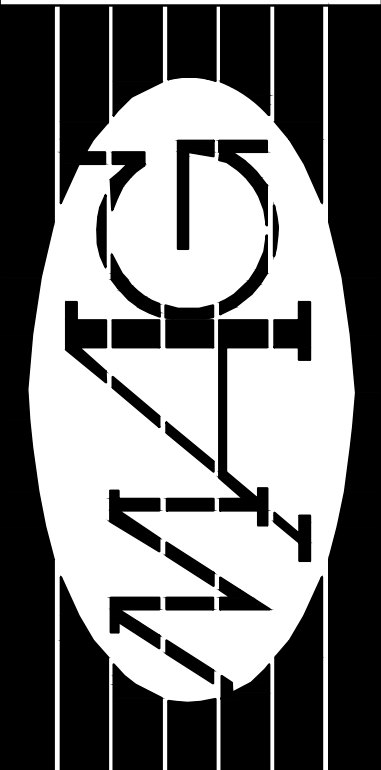
1. PROPOSED SWIMMING POOL AND SPA - SEE STRUCTURAL PLANS.
2. PROPOSED POOL EQUIPMENT BUNKER. SEE STRUCTURAL PLANS FOR DETAILS. INTERIOR FINISH FLOOR ELEVATION PER PLAN. INTERIOR CLEARANCE HEIGHT: 6' MINIMUM.
3. PROPOSED HEAVY DUTY CONCRETE DRIVEWAY APRON PER COUNTY OF MAUI STANDARD DETAILS R-49 AND R-62. CURB HEIGHT AND GUTTER TO CONFORM TO EXISTING GRADE AT EDGES. EXISTING GUTTER FLOW LINE ELEVATION AND RUNNING FLOW-LINE SLOPE TO REMAIN AS EXISTING. EXISTING TREE OR UTILITY BOXES TO BE RELOCATED AS REQUIRED.

GRADING NOTES

1. MAXIMUM FINISHED GRADING SLOPE IS 3:1.
2. FINISH SPOT ELEVATIONS AND FINISH CONTOURS, AS SHOWN ON PLAN REPRESENT FINISH GRADING. THE SITEMARK CONTRACTOR SHALL COORDINATE WITH THE LANDSCAPE CONTRACTOR THE LOCATION AND DEPTH OF TOPSOIL. THE FINISH SUBGRADE SHALL REFLECT THE FINISH GRADE LESS SPECIFIED TOPSOIL DEPTH.
3. THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN THE MEASURES OF "THE CONSTRUCTION BEST MANAGEMENT PRACTICE (BMP) FOR THE COUNTY OF MAUI" DATED MAY 2001. ALL GRADING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE WATER POLLUTION CONTROL AND WATER QUALITY STANDARDS CONTAINED IN THE PUBLIC HEALTH REGULATIONS, STATE DEPARTMENT OF HEALTH, ON WATER POLLUTION CONTROL AND WATER QUALITY STANDARDS.
4. CONSTRUCTION DEBRIS AND WASTES SHALL BE DEPOSITED AT AN APPROPRIATE SITE. THE CONTRACTOR SHALL INFORM THE ENGINEER OF THE LOCATION OF DISPOSAL SITES. THE DISPOSAL SITE MUST ALSO FULFILL REQUIREMENTS OF THE GRADING ORDINANCES.
5. 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.
6. ALL GRADING WORK SHALL BE DONE IN ACCORDANCE WITH THE COUNTY OF MAUI GRADING ORDINANCES AND THIS PROJECT'S "SOILS INVESTIGATION REPORT". CUT AND FILL SLOPE SHALL BE IN ACCORDANCE WITH THE RECOMMENDATION LETTER, IF APPLICABLE.
7. ALL GRADING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE WATER QUALITY AND WATER POLLUTION CONTROL STANDARDS CONTAINED IN HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 54, "WATER QUALITY STANDARDS" AND TITLE 11, CHAPTER 55, "WATER POLLUTION CONTROL" AND THE NPDES PERMIT FOR THE PROJECT.
8. ALL GRADING AND CONSTRUCTION WORK SHALL IMPLEMENT MEASURES TO ENSURE THAT THE DISCHARGE OF POLLUTANTS FROM THE CONSTRUCTION SITE WILL BE REDUCED TO THE MAXIMUM EXTENT PRACTICABLE AND WILL NOT CAUSE OR CONTRIBUTE TO AN EXCEEDANCE OF WATER QUALITY STANDARDS.
9. FOR ALL PROJECTS, WHICH WILL DISTURB ONE (1) ACRE OR MORE OF LAND, THE CONTRACTOR SHALL NOT START CONSTRUCTION UNTIL A NOTICE OF GENERAL PERMIT COVERAGE (NGPC) IS RECEIVED FROM THE DEPARTMENT OF HEALTH, STATE OF HAWAII, AND HAS SATISFIED ANY OTHER APPLICABLE REQUIREMENTS OF THE NPDES PERMIT PROGRAM.
10. SOIL STABILIZATION WITH HYDRO MULCHING AND/OR APPROPRIATE VEGETATIVE COVER SHALL BE APPLIED IMMEDIATELY TO AREAS WHERE GRADING AND/OR CONSTRUCTION HAVE BEEN COMPLETED.

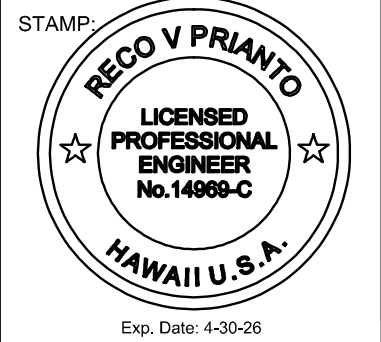
UTILITY NOTES:

1. EXISTING WATERLINES SHALL BE PROTECTED THROUGHOUT THE COURSE OF CONSTRUCTION.
2. SEE PLUMBING PLANS AND DETAILS FOR WET UTILITY ROUTING CONTINUATION AND ADDITIONAL WATER OR SANITARY SEWER UTILITY DESIGN INFORMATION.
3. STORM DRAIN OUTLET PIPING SHALL NOT DISCHARGE IN A MANNER THAT MAY CAUSE EROSION OR OTHER ADVERSE IMPACT TO THE SURROUNDING OR DOWNSTREAM AREAS, INCLUDING ADJACENT ROADS.
4. EXISTING OFF-SITE UTILITY LOCATIONS ARE APPROXIMATE AND BASED ON RECORD DRAWINGS OR AS-BUILT INFORMATION.
5. EXISTING ON-SITE LOCATIONS OF UNDERGROUND UTILITIES HAVE NOT BEEN SURVEYED AND ARE SHOWN BASED ON LOCATIONS OF EXISTING VISIBLE UTILITY STRUCTURES SURVEYED IN THE FIELD. EXACT LOCATIONS OF ALL UTILITIES MUST BE LOCATED IN THE FIELD BY THE CONTRACTOR AND ANY DISCREPANCIES REPORTED TO THE ENGINEER PRIOR TO STARTING CONSTRUCTION.
6. UNLESS NOTED OTHERWISE, ALL RAIN WATER LEADERS TO SPLASH ONTO PAVED SURFACE OR SPLASH BLOCK TO PREVENT EROSION. IF RAINWATER LEADER TERMINATES IN A LANDSCAPE AREA, CONTRACTOR TO INSTALL SPLASH BLOCK OR APPROVED EQUIVALENT. SEE ARCHITECTURAL PLANS FOR RAIN WATER LEADER LOCATIONS.
7. WATER UTILITY NOTE: THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING FLOW TEST RESULTS PRIOR TO PURCHASING ANY WATER SYSTEM OR FIRE PROTECTION SYSTEM PIPING, EQUIPMENT, OR APPURTENANCES TO BE REVIEWED AS A SUBMITTAL BY THE OWNER AND ENGINEER. ALL BACKFLOW PREVENTION DEVICES REQUIRED ARE TO BE REVIEWED AND APPROVED BY MEP, CIVIL ENGINEER, AND OWNER PRIOR TO CONSTRUCTION.



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OVERALL SITE AND GRADING PLAN

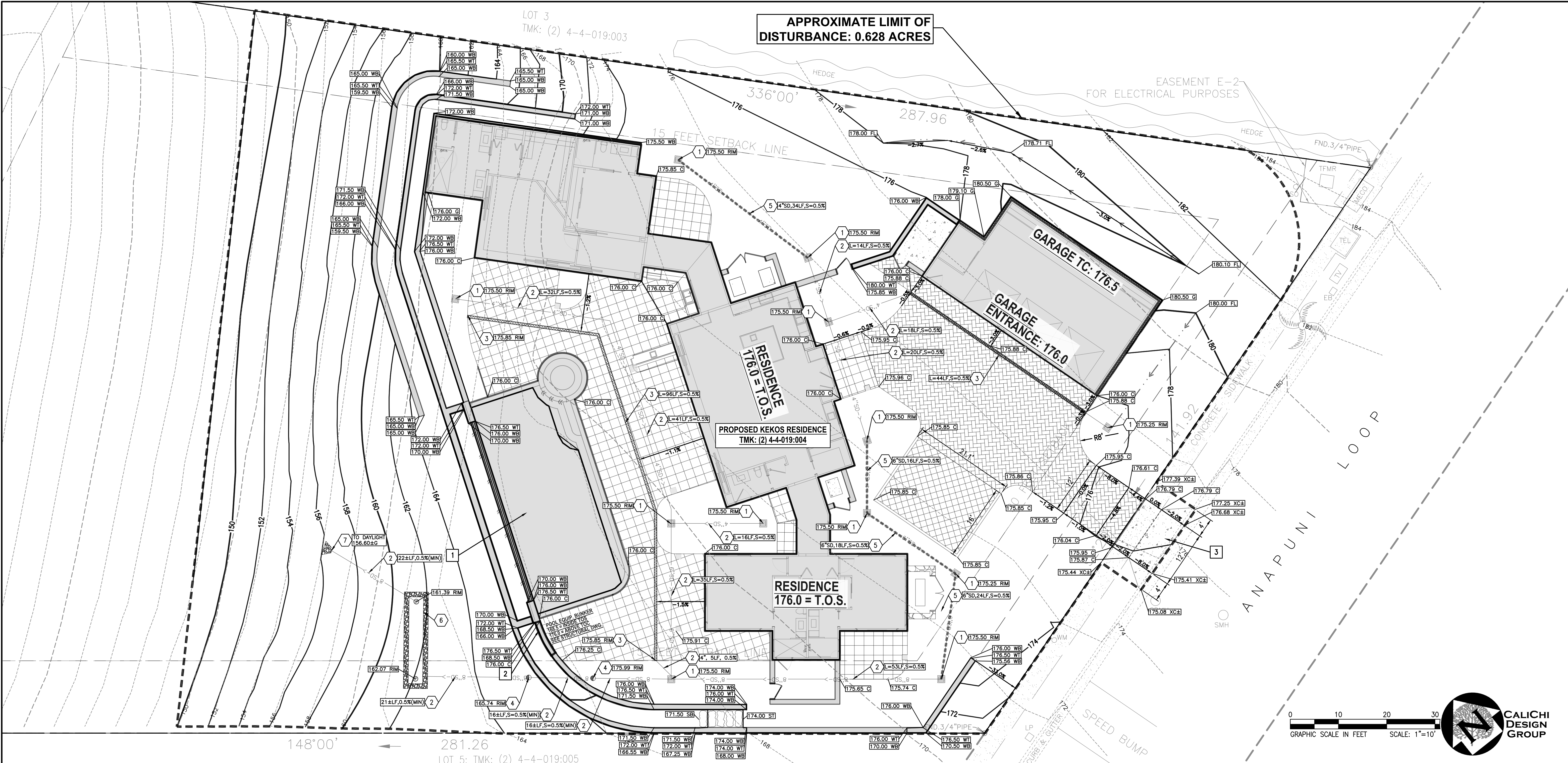
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GRADING NOTES

1. MAXIMUM FINISHED GRADING SLOPE IS 3H:1V.
2. FINISH SPOT ELEVATIONS AND FINISH CONTOURS, AS SHOWN ON PLAN REPRESENT FINISH GRADING. THE SITEWORK CONTRACTOR SHALL COORDINATE WITH THE LANDSCAPE CONTRACTOR THE LOCATION AND DEPTH OF TOPSOIL. THE FINISH SUBGRADE SHALL REFLECT THE FINISH GRADE LESS SPECIFIED TOPSOIL DEPTH.
3. THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN THE MEASURES OF "THE CONSTRUCTION BEST MANAGEMENT PRACTICE (BMP) FOR THE COUNTY OF MAUI" DATED MAY 2001. ALL GRADING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE WATER POLLUTION CONTROL AND WATER QUALITY STANDARDS CONTAINED IN THE PUBLIC HEALTH REGULATIONS, STATE DEPARTMENT OF HEALTH, ON WATER POLLUTION CONTROL AND WATER QUALITY STANDARDS.
4. CONSTRUCTION DEBRIS AND WASTES SHALL BE DEPOSITED AT AN APPROPRIATE SITE. THE CONTRACTOR SHALL INFORM THE ENGINEER OF THE LOCATION OF DISPOSAL SITES. THE DISPOSAL SITE MUST ALSO FULFILL REQUIREMENTS OF THE GRADING ORDINANCES.
5. 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.
6. ALL GRADING WORK SHALL BE DONE IN ACCORDANCE WITH THE COUNTY OF MAUI GRADING ORDINANCES AND THIS PROJECT'S "SOILS INVESTIGATION REPORT". CUT AND FILL SLOPE SHALL BE IN ACCORDANCE WITH THE RECOMMENDATION LETTER, IF APPLICABLE.
7. ALL GRADING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE WATER QUALITY AND WATER POLLUTION CONTROL STANDARDS CONTAINED IN HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 54, "WATER QUALITY STANDARDS" AND TITLE 11, CHAPTER 55, "WATER POLLUTION CONTROL" AND THE NPDES PERMIT FOR THE PROJECT.
8. ALL GRADING AND CONSTRUCTION WORK SHALL IMPLEMENT MEASURES TO ENSURE THAT THE DISCHARGE OF POLLUTANTS FROM THE CONSTRUCTION SITE WILL BE REDUCED TO THE MAXIMUM EXTENT PRACTICABLE AND WILL NOT CAUSE OR CONTRIBUTE TO AN EXCEEDANCE OF WATER QUALITY STANDARDS.
9. FOR ALL PROJECTS, WHICH WILL DISTURB ONE (1) ACRE OR MORE OF LAND, THE CONTRACTOR SHALL NOT START CONSTRUCTION UNTIL A NOTICE OF GENERAL PERMIT COVERAGE (NGPC) IS RECEIVED FROM THE DEPARTMENT OF HEALTH, STATE OF HAWAII, AND HAS SATISFIED ANY OTHER APPLICABLE REQUIREMENTS OF THE NPDES PERMIT PROGRAM.
10. SOIL STABILIZATION WITH HYDRO MULCHING AND/OR APPROPRIATE VEGETATIVE COVER SHALL BE APPLIED IMMEDIATELY TO AREAS WHERE GRADING AND/OR CONSTRUCTION HAVE BEEN COMPLETED.

DRAINAGE STATEMENT & REQUIREMENTS:

THE DRAINAGE DESIGN FOR THIS PROJECT IS DESIGNED TO MEET THE COUNTY OF MAUI DRAINAGE DESIGN STANDARDS AND TITLE MC-15, "RULES FOR THE DESIGN OF STORM DRAINAGE SYSTEMS IN THE COUNTY OF MAUI" SUCH THAT THE PROPOSED PROJECT WILL HAVE NO ADVERSE IMPACTS TO EXISTING DRAINAGE WAYS OR TO ADJACENT OR DOWNSTREAM PROPERTIES. THE METHODOLOGY USED FOR THIS SITE INCLUDES THE RATIONAL METHOD, WHERE THE INCREASE IN PEAK FLOW IS A FUNCTION OF THE INCREASE IN IMPERVIOUS AREAS ASSOCIATED WITH THE PROPOSED IMPROVEMENTS. THE NET CHANGE IN RUNOFF FROM THE PROPOSED PROJECT IS AN INCREASE FROM THE EXISTING CONDITION. THE PROPOSED SYSTEM WILL PROVIDE ADEQUATE DETENTION VOLUME SUCH THAT STORMWATER RUNOFF WILL BE SUFFICIENTLY CONTROLLED IN THE POST-DEVELOPMENT CONDITION. IN THE SCENARIO THAT A STORM EVENT EXCEEDS THE 50YR-1HR STORM, STORMWATER OVERFLOW FROM THE SUBSURFACE DETENTION IS PROVIDED THAT SAFELY DIRECTS THIS STORMWATER OFFSITE.

EARTHWORK QUANTITIES:

TOTAL GROSS CUT = 293± CY
TOTAL GROSS FILL = 2,467± CY
NET CUT/FILL = 2,174± CY (FILL)
TOTAL GRADED AREA = 27,358± SF = 0.628 ACRES
MAXIMUM HEIGHT OF CUT OR FILL = 13.0 FT (FILL)

* EARTHWORK QUANTITIES REFLECT CUT AND FILL TO FINISHED GRADE ELEVATIONS AND INCLUDE VOLUMES FOR BUILDING FOUNDATION, PAVING, AND POOLS. FOR FOUNDATION VOLUMES, ASSUME 1-FT FOUNDATION SECTION BELOW FINISH FLOOR ELEVATION. REFER TO STRUCTURAL DRAWINGS FOR DETAILS. FOR PAVED AREAS ASSUME 6-INCH PAVING SECTION UNLESS SPECIFIED OTHERWISE.

STORM DRAIN KEY NOTES

1. PROPOSED AREA DRAIN INLET OR CATCH BASIN. RIM AND INVERT PER PLAN. SEE DETAIL 3 ON SHEET C3.0.
2. PROPOSED PVC STORM DRAIN PIPE. SIZE, LENGTH, AND SLOPE PER PLAN. SEE DETAIL 1 ON SHEET C3.0.
3. PROPOSED TRENCH DRAIN. RIM AND INVERT PER PLAN. SEE DETAIL 6 ON SHEET C3.0.
4. PROPOSED STORM DRAIN CLEANOUT. SIZE, RIM, AND INVERT PER PLAN. SEE DETAIL 4 ON SHEET C3.0.
5. PROPOSED PERFORATED DRAIN PIPE & GRAVEL TRENCH WRAPPED IN FILTER FABRIC FOR STORMWATER MANAGEMENT. SIZE, LENGTH, AND SLOPE PER PLAN. SEE DETAIL 5 ON SHEET C3.0.
6. PROPOSED UNDERGROUND STORMWATER DETENTION SYSTEM. PIPE SIZES, INVERTS, AND DIMENSIONS PER PLAN. 36" DIAMETER PERFORATED PIPE IN CRUSHED ROCK TRENCH WITH MIRAFI-140N GEOTEXTILE FABRIC WRAP AND OVERFLOW CONTROL. IN THE EVENT OF STORM GREATER THAN 50Y-1HR, OVERFLOW FROM STORMWATER DETENTION IS TO DRAIN SAFELY OFF-SITE INTO EXISTING STORM DRAIN SYSTEM. SEE DETAIL 7 ON SHEET C3.0.
7. PROPOSED STORM DRAIN OVERFLOW PIPE. OVERFLOW OUTLET TO DAYLIGHT INTO EROSION CONTROL RIP-RAP FOR SAFE DISPERSION OF OVERFLOW. SEE DETAIL 8 ON SHEET C3.0

SITE KEY NOTES

1. PROPOSED SWIMMING POOL AND SPA - SEE STRUCTURAL PLANS.
2. PROPOSED POOL EQUIPMENT BUNKER. SEE STRUCTURAL PLANS FOR DETAILS. INTERIOR FINISH FLOOR ELEVATION PER PLAN. INTERIOR CLEARANCE HEIGHT: 6' MINIMUM.
3. PROPOSED HEAVY DUTY CONCRETE DRIVEWAY APRON PER COUNTY OF MAUI STANDARD DETAILS R-49 AND R-62. CURB HEIGHT AND GUTTER TO CONFORM TO EXISTING GRADE AT EDGES. EXISTING GUTTER FLOW LINE ELEVATION AND RUNNING FLOW-LINE SLOPE TO REMAIN AS EXISTING. 2.0% MAX CROSS-SLOPE ACROSS PEDESTRIAN SIDEWALKS.

SPOT GRADING LEGEND

- 80.00 ST INDICATES ELEVATION AT TOP OF STEPPING STONE
- 80.00 SB INDICATES ELEVATION AT BOTTOM OF STEPPING STONE
- 80.00 FF INDICATES ELEVATION AT BUILDING FINISHED FLOOR
- 80.00 FW INDICATES ELEVATION AT BOTTOM OF WALL
- 80.00 WT INDICATES ELEVATION AT TOP OF WALL
- 80.00 C INDICATES ELEVATION AT CONCRETE
- 80.00 TC INDICATES ELEVATION AT TOP OF CURB
- 80.00 G INDICATES ELEVATION AT FINISH GROUND
- PROPOSED BUILDING FINISH FLOOR ELEVATION BOUNDARY
- PROPOSED WALL OR RETAINING CURB
- PROPOSED SWALE FLOW LINE

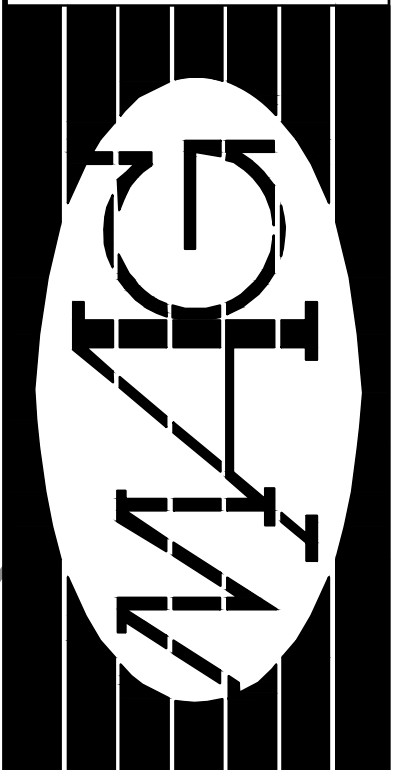
PROPOSED

- 8 2-FOOT CONTOUR
- 10 10-FOOT CONTOUR
- APPROXIMATE LIMIT OF DISTURBANCE
- SANITARY SEWER
- STORM DRAIN LINE
- WATER LINE
- TREE
- WATER VALVE/ FIRE HYDRANT
- WATER METER
- STORM DRAIN MANHOLE/INSPECTION PORT
- STORM DRAIN CATCH BASIN
- ELECTRIC VAULTS/BOX
- STUB OUT
- CLEANOUT
- SANITARY SEWER MANHOLE
- TRENCH DRAIN (TD)

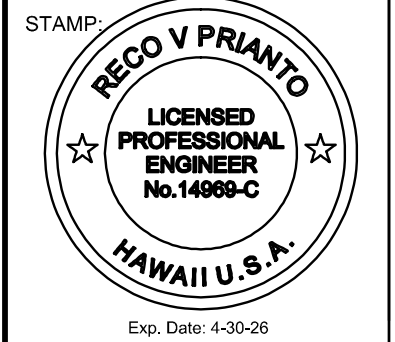
LEGEND

EXISTING

- PROPOSED CONCRETE PAVEMENT. SEE DETAIL 2 ON SHEET C3.0.
- PROPOSED VEHICULAR PAVERS. SEE LANDSCAPE PLANS FOR DETAILS.
- PROPOSED PEDESTRIAN PAVERS. SEE LANDSCAPE PLANS FOR DETAILS.
- PROPOSED VEHICULAR GRASS-CRETE. SEE LANDSCAPE PLANS FOR DETAILS.



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Signature

KEKOS RESIDENCE
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SITE, GRADING, AND DRAINAGE PLAN

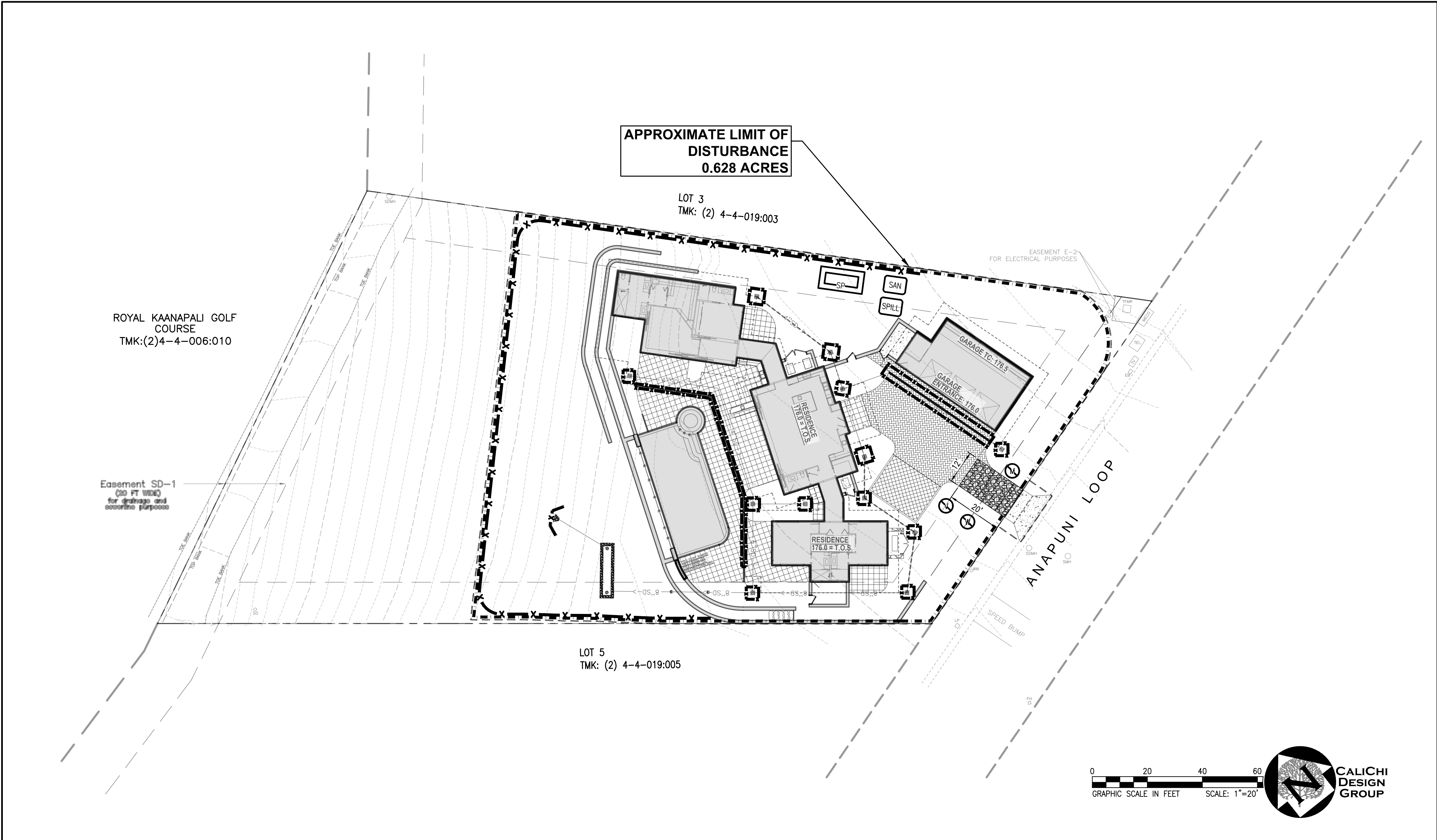
Date: 02/06/2025

Phase: Permit

Sheet Number:

C1.1

Sheet: Of:



PROPOSED	LEGEND	EXISTING
— 8 —	PROPERTY LINE	— — — — —
— 10 —	EASEMENT LINE	— — — — — 8
— — — — —	2-FOOT CONTOUR	— — — — — 10
— — — — —	10-FOOT CONTOUR	
— — — — —	APPROXIMATE LIMIT OF DISTURBANCE	
— — — — —	SANITARY SEWER	
— — — — —	STORM DRAIN LINE	
— — — — —	WATER LINE	

●	TREE	○
○	WATER VALVE / FIRE HYDRANT	○
○	WATER METER	○
○	STORM DRAIN MANHOLE/INSPECTION PORT	○
○	STORM DRAIN CATCH BASIN	○
○	ELECTRIC VAULTS/BOX	○
○	STUB OUT	○
○	CLEANOUT	○
○	SANITARY SEWER MANHOLE	○
○	TRENCH DRAIN (TD)	○
○	PROPOSED CONCRETE PAVEMENT. SEE DETAIL 2 ON SHEET C3.0.	
○	PROPOSED VEHICULAR PAVERS. SEE LANDSCAPE PLANS FOR DETAILS.	
○	PROPOSED PEDESTRIAN PAVERS. SEE LANDSCAPE PLANS FOR DETAILS.	
○	PROPOSED VEHICULAR GRASS-CRETE. SEE LANDSCAPE PLANS FOR DETAILS.	

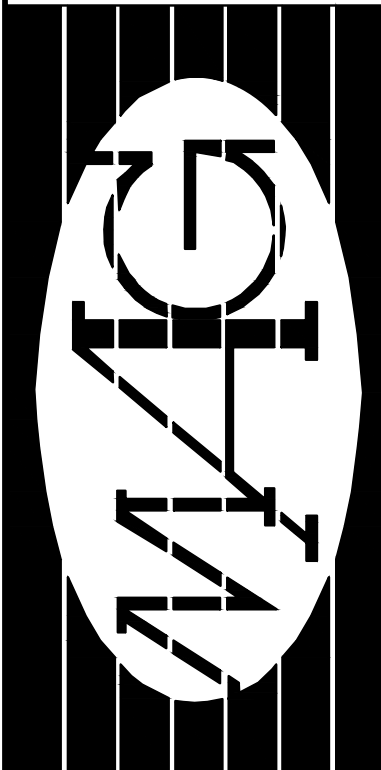
EROSION CONTROL LEGEND

— x — x — x —	SILT FENCE. SEE DETAIL 3, THIS SHEET
— — — — —	DUST FENCE. SEE DETAIL 4, THIS SHEET
○	TIRE CLEANING PAD / TEMPORARY STABILIZED CONSTRUCTION ENTRANCE. SEE DETAIL 1, THIS SHEET.
○	TEMPORARY SANITARY FACILITIES. CONTRACTOR TO LOCATE AS PROJECT CONSTRUCTION REQUIRES.
○	STOCKPILE MANAGEMENT STAGING AREA. CONTRACTOR TO LOCATE AS PROJECT CONSTRUCTION REQUIRES.
○	VEHICLE AND EQUIPMENT CLEANING, FUELING, AND MAINTENANCE STAGING AREA. CONTRACTOR TO LOCATE AS CONSTRUCTION REQUIRES.
○	MATERIAL DELIVERY AND STORAGE STAGING AREA. CONTRACTOR TO LOCATE AS PROJECT CONSTRUCTION REQUIRES.
○	SPILL PREVENTION MATERIALS STAGING AREA. CONTRACTOR TO LOCATE AS PROJECT CONSTRUCTION REQUIRES.
○	WASTE STORAGE AREA. CONTRACTOR TO LOCATE AS PROJECT CONSTRUCTION REQUIRES.
○	STORM DRAIN INLET PROTECTION BARRIER. ROCK BAG OR BIO-SOCK BARRIER. SEE DETAIL 2 ON THIS SHEET.

COUNTY OF MAUI EROSION AND SEDIMENT CONTROL NOTES: 20.08.035 - MINIMUM BMPS

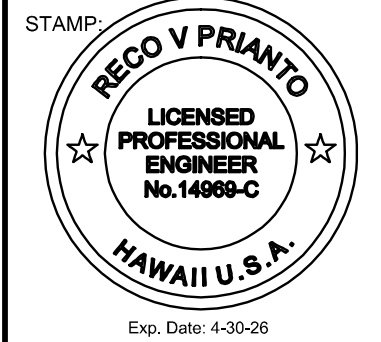
1. DRAINAGE. ON-SITE DRAINAGE SHALL BE HANDLED IN SUCH A WAY TO AS TO CONTROL EROSION, PREVENT DAMAGE TO DOWNSTREAM PROPERTIES AND TO RETURN WATERS TO THE NATURAL DRAINAGE COURSE IN A MANNER WHICH MINIMIZES SEDIMENTATION OR OTHER POLLUTION TO THE MAXIMUM EXTENT PRACTICABLE.
2. DUST CONTROL. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL CONTROL DUST EMISSIONS TO THE MAXIMUM EXTENT PRACTICABLE THROUGH THE APPLICATION OF BMPS, THAT MAY INCLUDE WATERING WITH TRUCKS OR SPRINKLERS, ERECTION OF DUST FENCES, LIMITING THE AREA OF DISTURBANCE, AND TIMELY GRASSING OF FINISHED AREAS.
3. VEGETATION. WHENEVER FEASIBLE, NATURAL VEGETATION, ESPECIALLY GRASSES, SHOULD BE RETAINED. IF IT IS NECESSARY TO BE REMOVED, TREES, PLANTS, SHRUBBERY AND OTHER WOODY VEGETATION, AFTER BEING UPROOTED, DISPLACED OR DISLODGED FROM THE GROUND BY EXCAVATION, CLEARING OR GRUBBING, SHALL NOT BE STORED IN OR DEPOSITED ALONG THE BANKS OF ANY STREAM, RIVER OR NATURAL WATERCOURSE. THE DIRECTOR MAY REQUIRE THE REMOVAL AND DISPOSAL OF SUCH VEGETATION FROM THE SITE WITHIN A REASONABLE TIME BUT NOT TO EXCEED THREE MONTHS.
4. EROSION CONTROLS. ALL DISTURBED AREAS SHALL BE STABILIZED WITH EROSION CONTROL MEASURES THAT MAY INCLUDE: STAGING CONSTRUCTION; CLEARING ONLY AREAS ESSENTIAL FOR CONSTRUCTION; LOCATING POTENTIAL NONPOINT POLLUTANT SOURCES AWAY FROM STEEP SLOPES, WATER BODIES, AND CRITICAL AREAS; ROUTING CONSTRUCTION TRAFFIC TO AVOID EXISTING OR NEWLY PLANTED VEGETATION; PROTECTING NATURAL VEGETATION WITH FENCING, TREE ARMORING, AND RETAINING WALLS OR TREE WELLS; STOCKPILING TOPSOIL, COVERING THE STOCKPILE TO PREVENT DUST, AND REAPPLYING THE TOPSOIL COVERING OR STABILIZING ALL SOIL STOCKPILES; USING WIND EROSION CONTROL; INTERCEPTING RUNOFF ABOVE DISTURBED SLOPES AND CONVEYING IT TO A PERMANENT CHANNEL OR STORM DRAIN; CONSTRUCTING BENCHES, TERRACES, OR DITCHES AT REGULAR INTERVALS TO INTERCEPT RUNOFF ON LONG OR STEEP DISTURBED OR MAN-MADE SLOPES; PROVIDING LININGS OR OTHER METHOD TO PREVENT EROSION OF STORM WATER CONVEYANCE CHANNELS; USING CHECK DAMS WHERE NEEDED TO SLOW FLOW VELOCITIES; USING SEEDING AND FERTILIZING, MULCHING, SOILING, MATTING, BLANKETS, BONDED FIBER MATRICES, OR OTHER EFFECTIVE SOIL EROSION CONTROL TECHNIQUE; AND PROVIDING VEHICLE WHEEL WASH FACILITIES FOR VEHICLES BEFORE THEY LEAVE THE SITE.
5. SEDIMENT CONTROL. IN ADDITION TO THE EROSION CONTROL MEASURES OF THIS SECTION, PROVIDING PRACTICES TO CAPTURE SEDIMENT THAT IS TRANSPORTED IN RUNOFF TO MINIMIZE THE SEDIMENT FROM LEAVING THE SITE. FILTRATION AND DETENTION (GRAVITATIONAL SETTLING) ARE THE MAIN PROCESSES USED TO REMOVE SEDIMENT FROM CONSTRUCTION SITE RUNOFF. SEDIMENT CONTROL MEASURES INCLUDE SEDIMENT BASINS; SEDIMENT TRAPS; FILTER FABRIC SILT FENCES; STRAW BALE, SAND BAG, OR GRAVEL BAG BARRIERS; INLET PROTECTION; STABILIZED CONSTRUCTION ENTRANCES, AND OTHER MEASURES TO MINIMIZE OFF SITE TRACKING OF SEDIMENT BY CONSTRUCTION VEHICLES; AND VEGETATED FILTER STRIPS.
6. MATERIAL AND WASTE MANAGEMENT. MEASURES TO INSURE THE PROPER STORAGE OF TOXIC MATERIAL AND PREVENT THE DISCHARGE OF POLLUTANTS ASSOCIATED WITH CONSTRUCTION MATERIALS AND WASTES SHALL BE IMPLEMENTED.
7. TIMING OF CONTROL MEASURE IMPLEMENTATION. TIMING OF CONTROL MEASURE IMPLEMENTATION SHALL BE IN ACCORDANCE WITH THE APPROVED EROSION CONTROL PLAN IF SUCH PLAN IS REQUIRED. AT A MINIMUM DISTURBED AREAS OF CONSTRUCTION SITES THAT WILL NOT BE REDISTURBED FOR TWENTY-ONE DAYS OR MORE WILL BE STABILIZED (GRASSES OR GRAVELED) BY NO LATER THAN THE FOURTEENTH DAY AFTER LAST DISTURBANCE.
8. IF APPLICABLE, THE USE OF SOY AS FILL IS PROHIBITED WITHIN ANY SHORELINE AREA, AS DEFINED BY CHAPTER 205A-41, HAWAII REVISED STATUTES, EXCEPT FOR SAND AS DEFINED IN SECTION 20.08.020.
9. IF APPLICABLE, ANY GRADING OF A COASTAL DUNE WITHIN THE SHORELINE AREA OR A FRONTAL DUNE, IS PROHIBITED EXCEPT THAT SAND MAY BE IMPORTED AND PLACED ON THE AREA OF THE COASTAL DUNE MAUKA OF THE SHORELINE, WITH A GRADING PERMIT REQUIRED BY SECTION 20.08.040 FOR THE PURPOSES OF REBUILDING OR ENHANCING THE PROTECTIVE CAPACITY AND ENVIRONMENTAL QUALITY OF THE COASTAL DUNE.
10. IF APPLICABLE, UPON PRIOR APPROVAL OF THE DIRECTOR, SAND THAT IS BLOCKING A DRAINAGE OUTLET MAY BE REMOVED TO THE MINIMUM DEPTH NECESSARY TO ALLOW FOR THE PASSAGE OF FLOOD WATERS. ANY SAND REMOVED SHALL BE PLACED ON THE ADJACENT SHORELINE.

SEE CIVIL NOTES SHEET C0.2 FOR CONTINUATION OF EROSION CONTROL AND BMP NOTES.



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Signature
Signature

KEKOS RESIDENCE LANIKEHA PH-I - LOT 4
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No.	Revision

BMP PLAN - SEDIMENT AND EROSION CONTROL PLAN

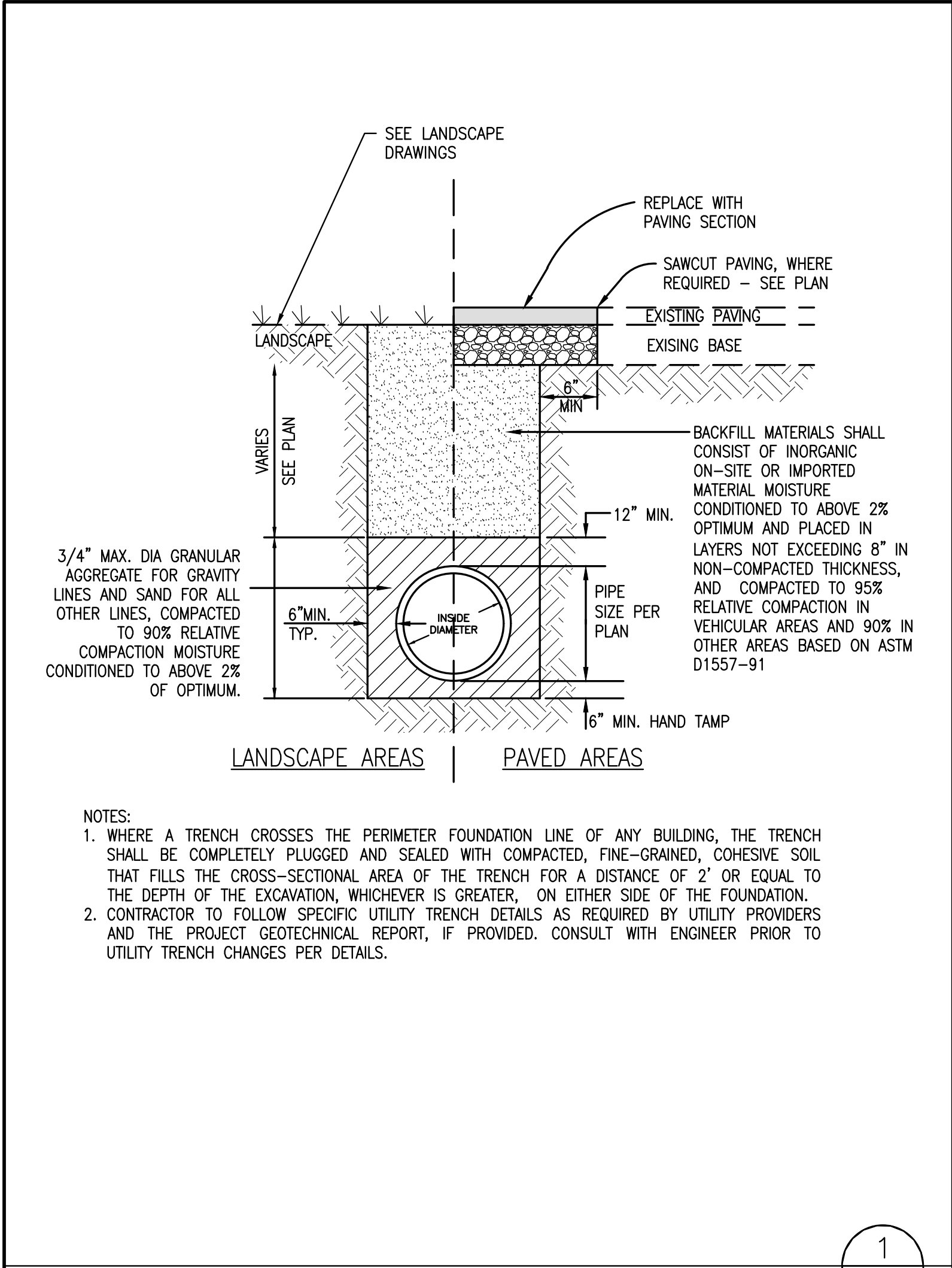
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Phase: Permit

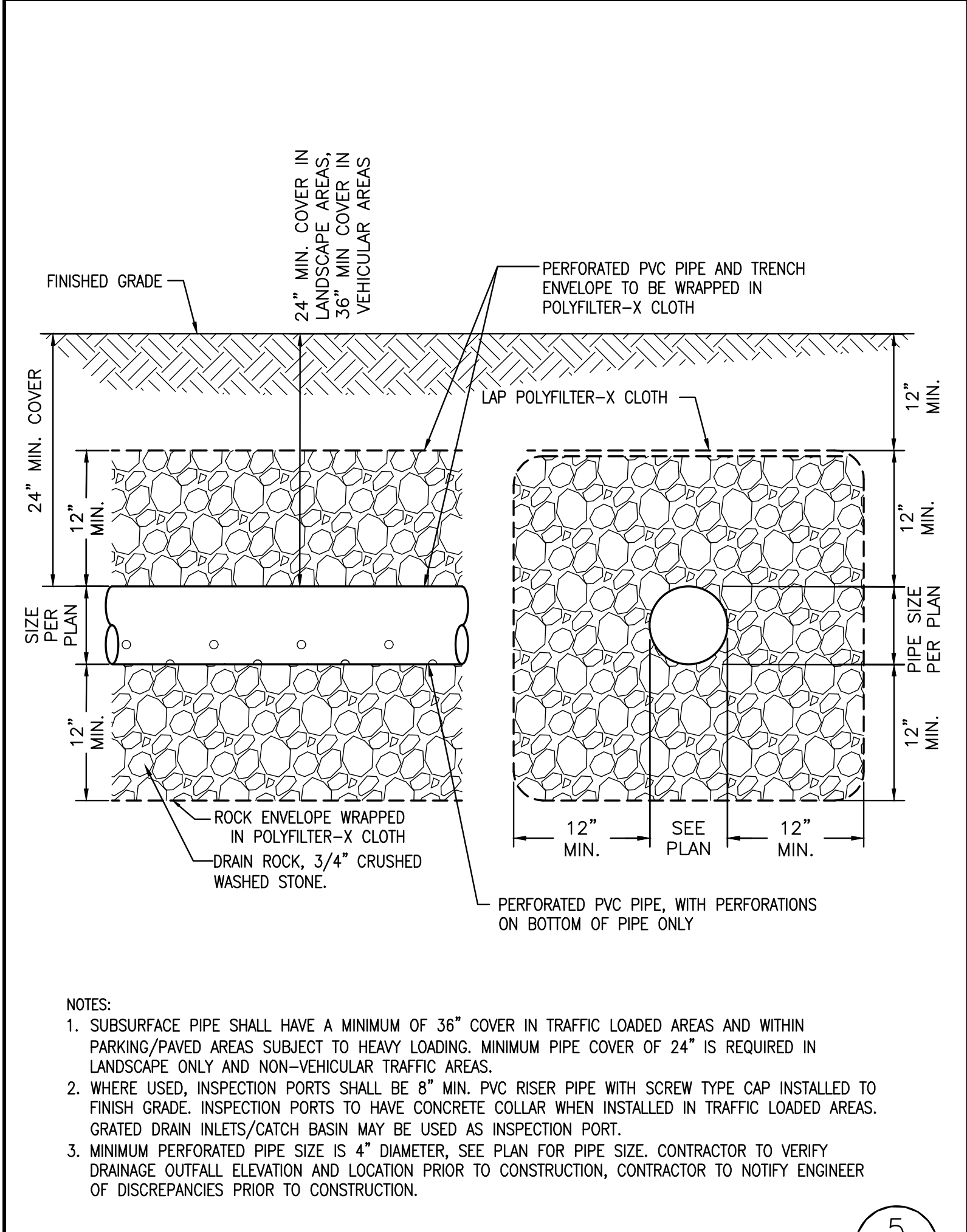
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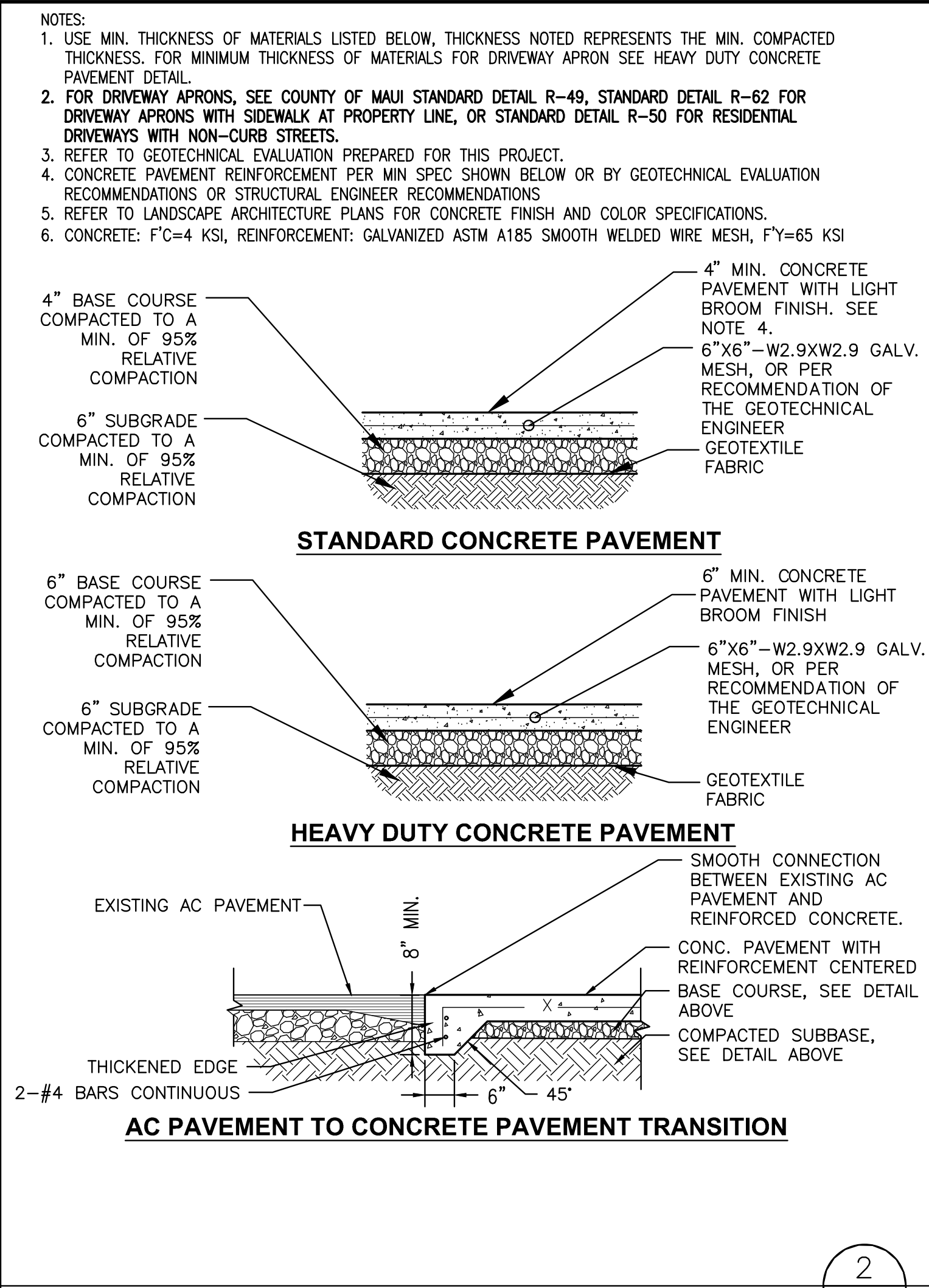
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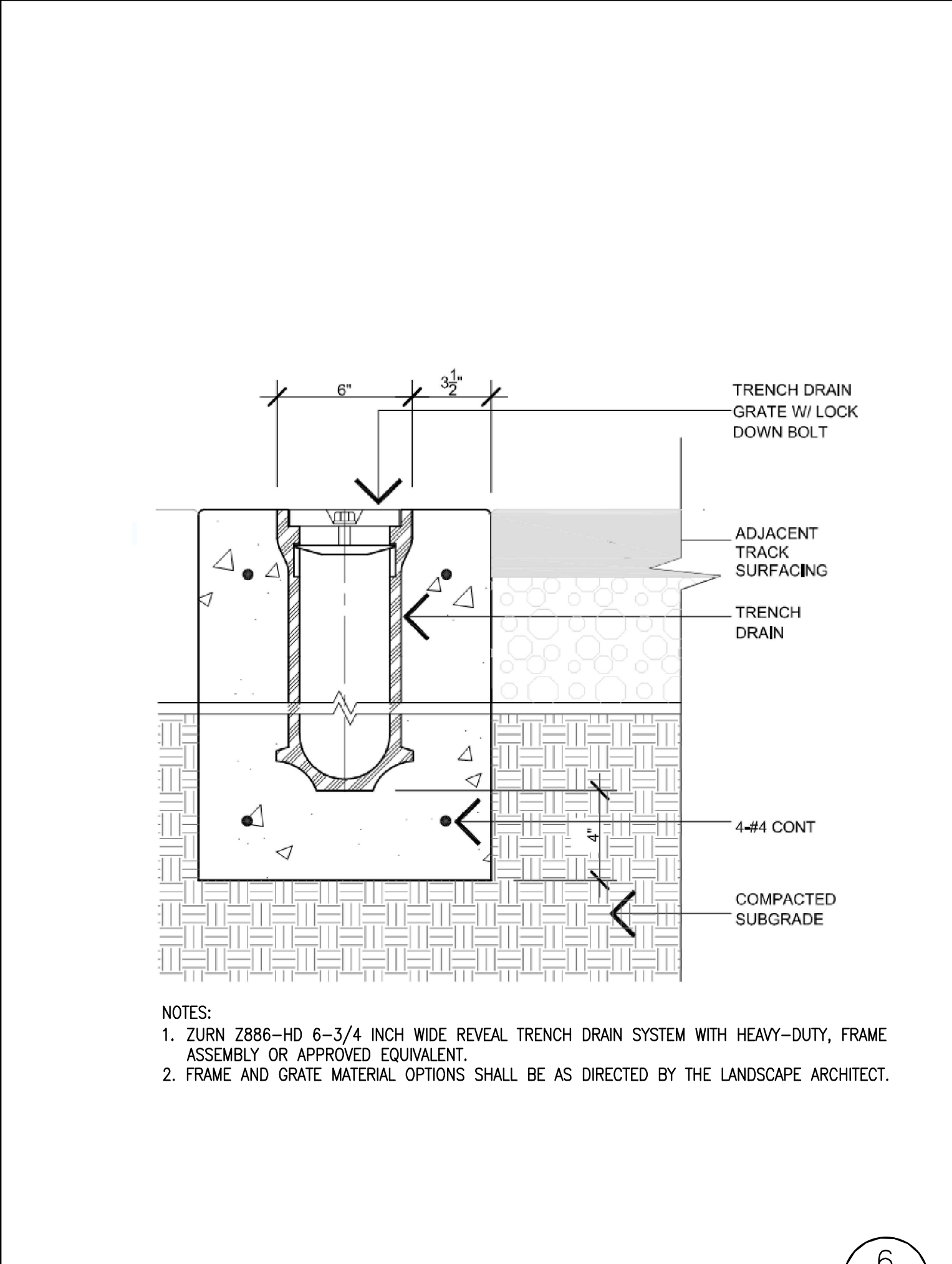
PRIVATE-USE UTILITY LATERAL TRENCH DETAIL



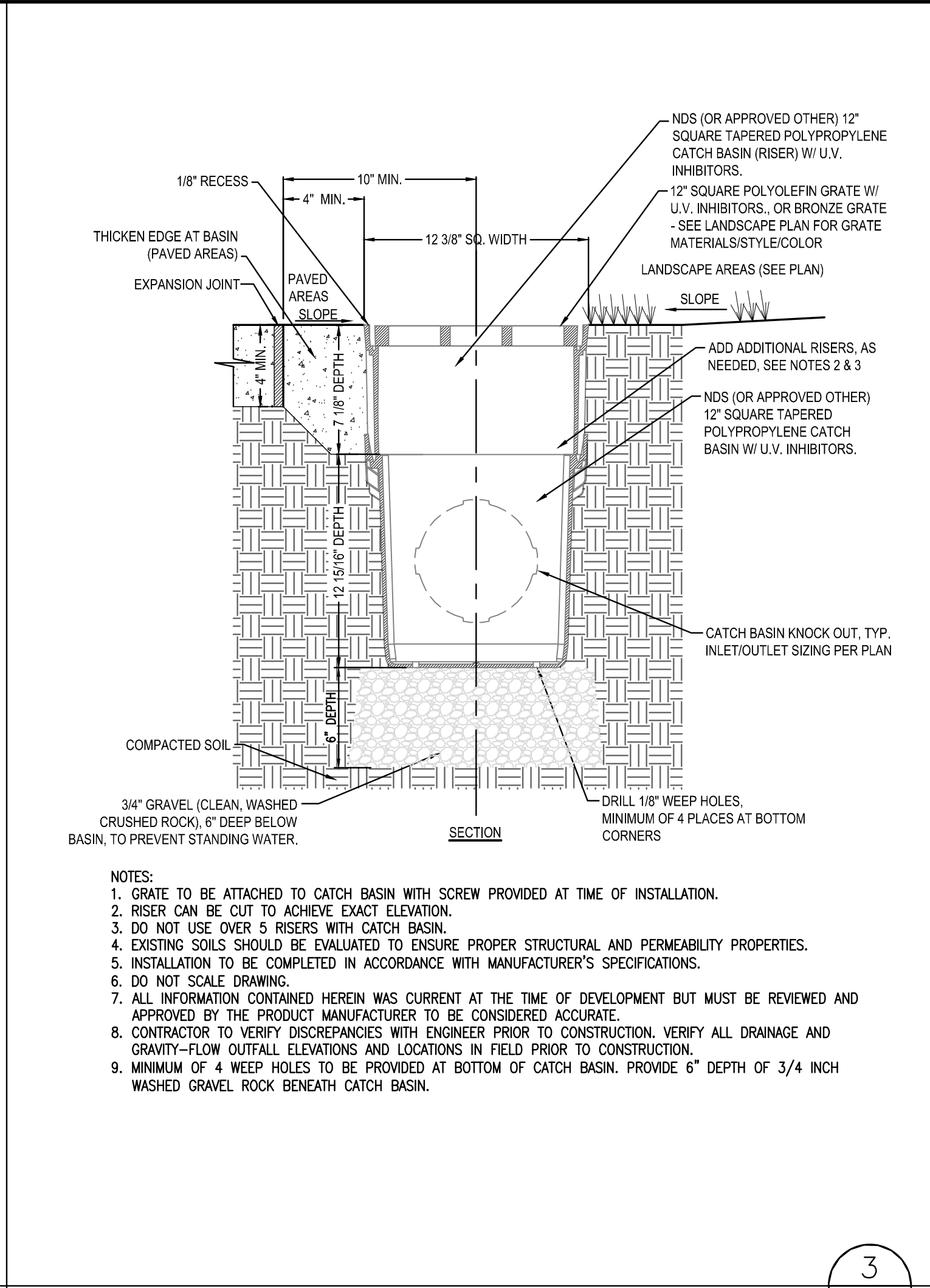
PERFORATED DRAIN PIPE TRENCH DETAIL



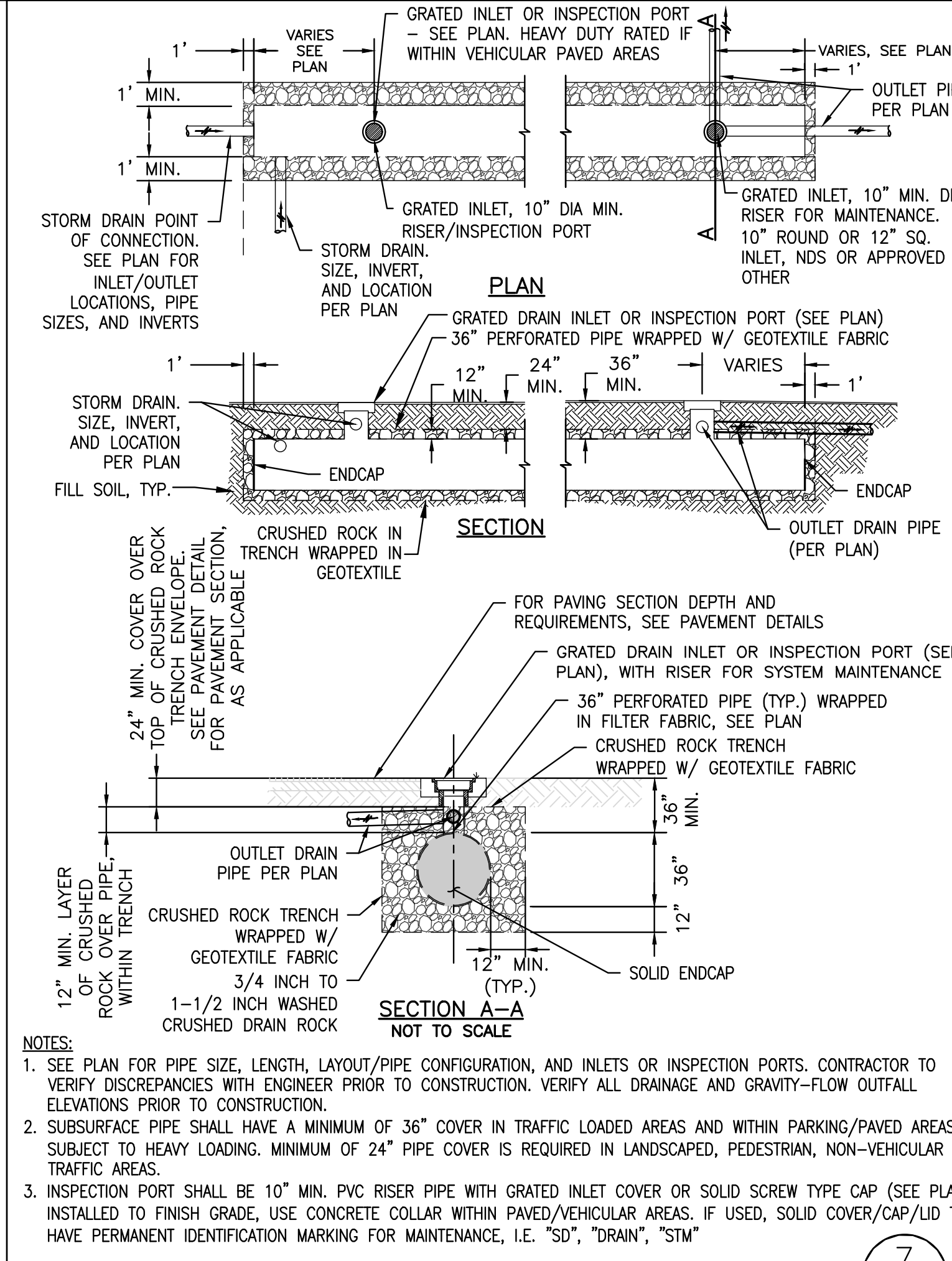
CONCRETE PAVEMENT DETAIL



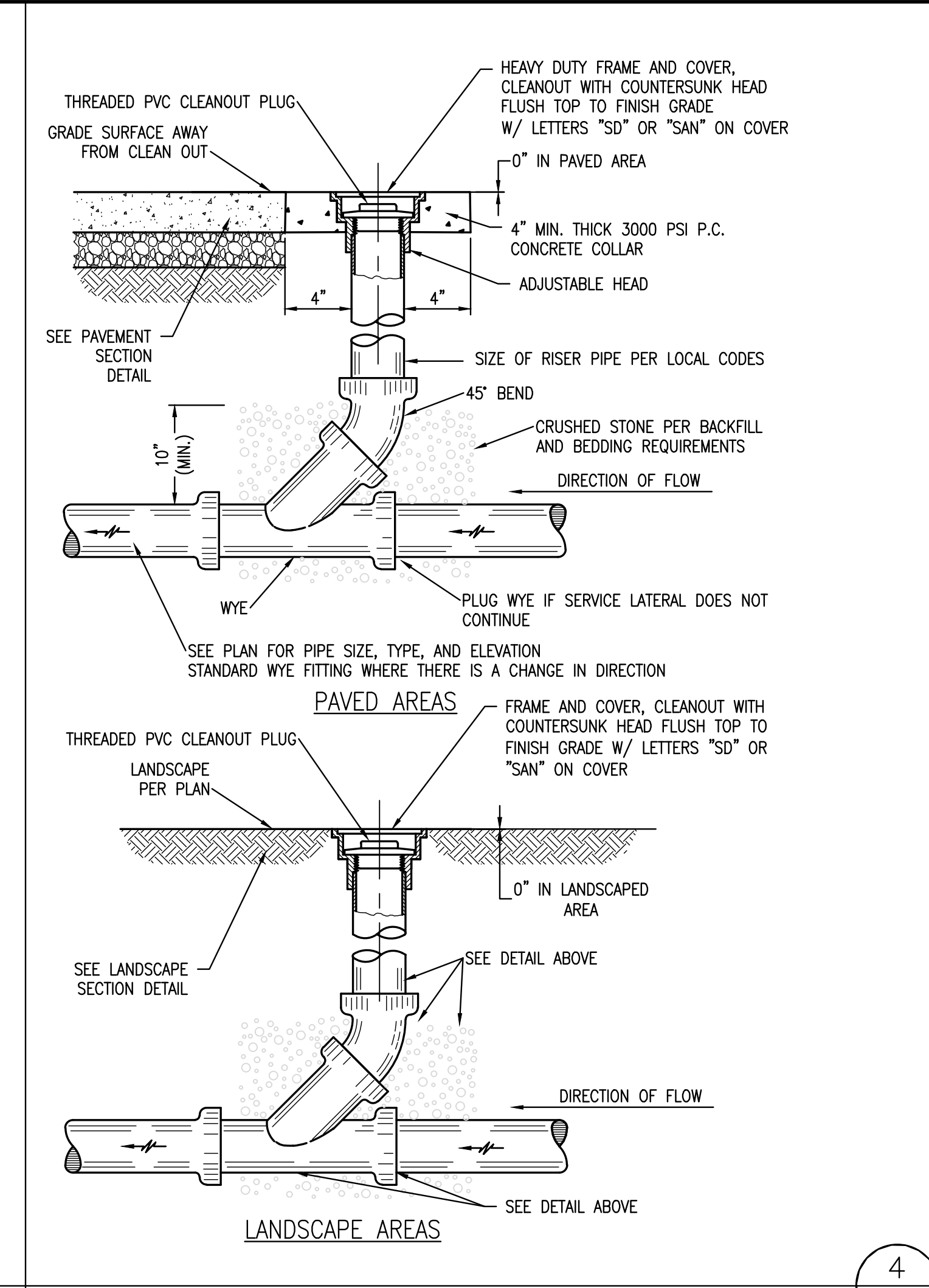
TRENCH DRAIN DETAIL



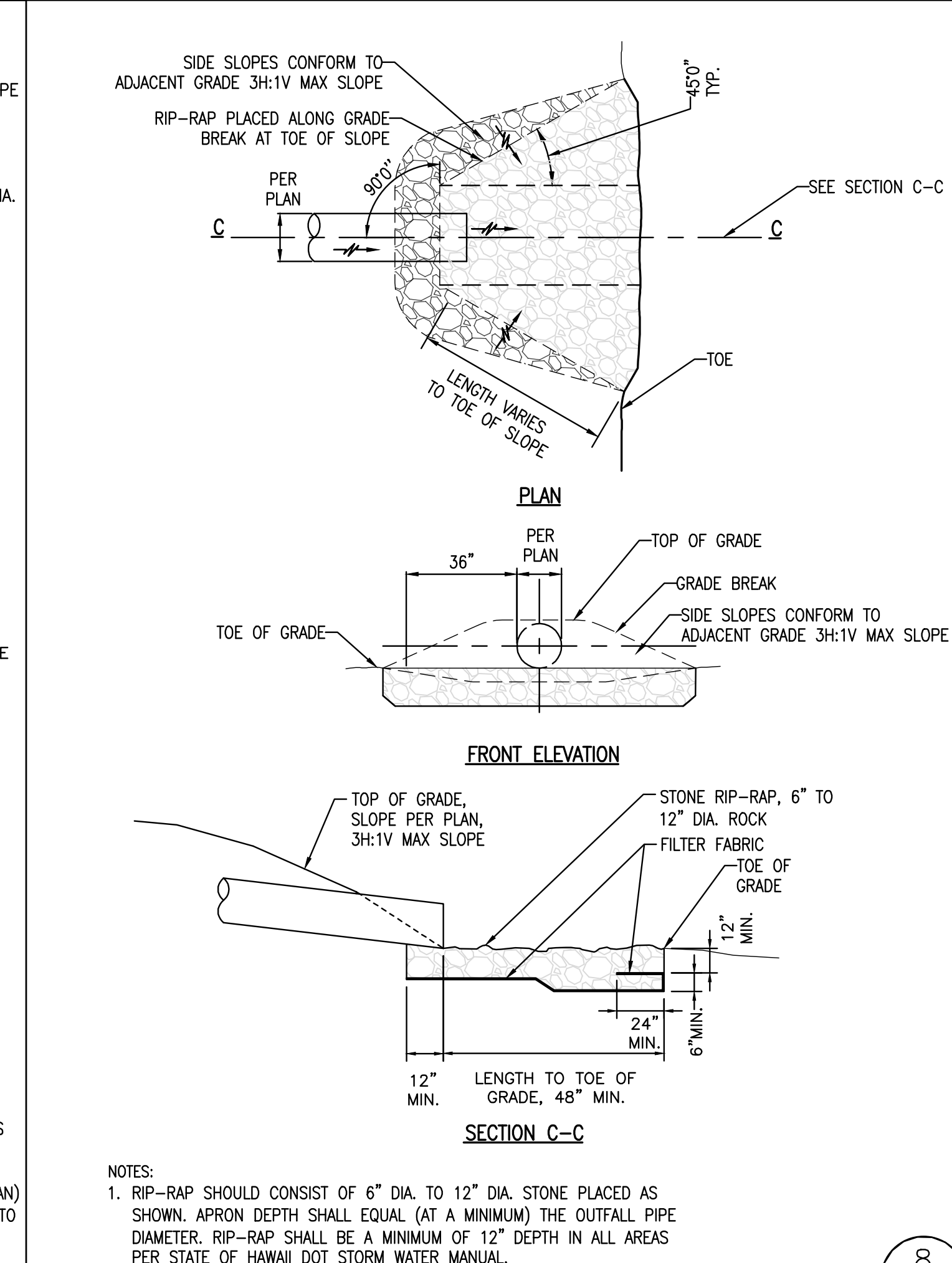
GRADED CATCH BASIN DETAIL



SUBSURFACE DETENTION DETAIL



CLEANOUT DETAIL



EROSION CONTROL RIP RAP DETAIL

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STAMP:

Exp. Date: 4-30-26

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Reco V Prianto
Signature

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No.	Revision

CIVIL CONSTRUCTION DETAILS SHEET

Date: 02/06/2025

Phase: Permit

Sheet Number:

C3.0

Sheet: Of:

General

- ## Foundations

- ## Concrete

- ## Patching of Concrete

Reinforcing Steel

- CMU

- # 4 REINFORCEMENT LAP SPLICE LENGTHS IN CMU



2 SECTION AT POOL EQUIPMENT ROOM
RW-2 SCALE: 1" = 1'-0"

RW-2 SCALE: 1" = 1'-0"

-
- PROPERTY LINE
- FIN GRADE PER CIVIL
- (2) #4 TOP
- #5 @ 32" OC
- #6 @ 16" OC
- 8'-0" MAX
- 2'-0"
- DWL TO MATCH VERT W/ 12" HOOK
- #6 @ 16" OC W/ 24" HOOK
- SEE 1/RW-1 FOR TYPICAL HYDROSTATIC MEASURES
- #5 @ 16" OC
- 1'-0"
- 4"
- 1'-0"
- 4'-0"
- SECTION 3
- RW-2
- SCALE: 1" = 1'-0"
- NOTES:
1. GEOTECHNICAL ENGINEER MUST BE PRESENT FOR BACKFILL AND COMPACTION.

3. SECTION

SECTION

SCALE: 1" = 1'-0"

NOTES:

1. GEOTECHNICAL ENGINEER MUST BE PRESENT FOR BACKFILL AND COMPACTION.


Signature

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No.	Revision

RETAINING
WALL SECTION

Date: 02/03/2025

Phase: PERMIT SET

Sheet Number:

RW-2

Sheet: 2 Of: 3

GENERAL NOTES

General

- A. These notes apply to all drawings and govern unless otherwise noted or specified.
- B. Verify all existing conditions and proposed dimensions at the job site. Compare structural drawings with architectural, and civil drawings before commencing work. Notify Architect of any discrepancies and do not proceed with affected work until they are resolved. Do not scale drawings.
- C. Unless otherwise shown or noted, all typical details shall be used where applicable.
- D. All details shall be considered typical at similar conditions.
- E. Safety Measures: At all times, the Contractor shall be solely and completely responsible for the conditions of the job site including safety of the persons and property, and for all necessary independent engineering reviews of these conditions. The Architect's or Engineer's job site visits are not intended to include review of the adequacy of the Contractor's safety measures.
- F. The Contractor shall provide adequate bracing and shoring for all structural members during every phase on construction.
- G. Shop drawings shall be submitted and reviewed by the Architect, before fabrication, for the following items:
- Concrete formwork - taper tie patterns and location

Foundations

- A. The foundation design is based on an assumed soil bearing pressure of 2,450 PSF, as stated in the Geotechnical Investigation Report, performed by Hawaii Geotechnical Consulting, Inc. dated April 17, 2024. The contractor shall obtain a copy of the Geotechnical Report from the Architect. The Geotechnical report is considered part of these design drawings.
- B. The subgrade soil shall be moisture conditioned to within 0 & 3 percent of the wet-side of optimum moisture content and compacted to a minimum 95% of the maximum dry density (as determined by the ASTM D 1557 test procedure)
- C. Except where otherwise shown, excavations shall be made as near as possible to the neat lines required by the size and shape of the structure. All foundations shall be poured without the use of side forms wherever possible. If the trenches cannot stand, fully form sides to dimensions shown.
- D. Do not allow water to stand in the trenches. If bottoms of trenches become softened due to rain or other water before concrete is cast, excavate softened material and replace with properly compacted backfill or concrete at no additional cost to the Owner.
- E. All excavations, forms and reinforcing are to be inspected by the local Building Inspector prior to placing concrete.
- F. Treat ground for termites prior to pouring concrete by a licensed and qualified applicator. Chemicals shall be approved by EPA. Treatment should be performed in accordance with the manufacturers recommendations, including site preparation, weather conditions, etc.
- G. If a footing is located next to a utility line, it should extend to the bottom of the utility trench to reduce footing settlement due to settlement of the trench backfill.
- H. A Geotechnical engineer shall be retained to test and inspect the placement and compaction of structural fill.
- I. The General Contractor shall notify the Geotechnical Engineer of the need for inspections a minimum of 48 hours prior to the date for which the inspection is requested.

Concrete

- A. Reinforce all concrete. Install all inserts, bolts, anchors, and reinforcing bars and securely tie prior to placing concrete.
- B. Concrete shall be hardrock concrete and shall attain the following ultimate compressive strength at 28 days.

Location	28 Day Strength
Foundations and Slabs on Grade (2,500 used for design)	3,000 psi

- C. Concrete shall be placed continuously between predetermined construction joints.
- D. Remove all debris from forms prior to pouring
- E. A pre-construction meeting shall be held between the General Contractor, Redi-Mix concrete supplier, Architect, and Engineer to discuss concrete mix designs. A high-slump and/or self-consolidating concrete mix will need to be used in order to avoid segregation of aggregate.
- F. Concrete shall be continuously cured for 7 days after placement via sprinkling on a continuous basis. Do not allow concrete to dry out between soakings. Footings are exempt from this requirement.
- G. Work may commence on the concrete slab-on-grade, after 10 days of cure time.

Patching of Concrete

All insert holes, bracing inserts, etc., and other imperfections on the surfaces of the concrete shall be filled with grout, brushed, and sanded to a uniform finish.

Reinforcing Steel

- A. All reinforcing steel bars shall conform with the standard specifications for deformed billet-steel for concrete reinforcement, ASTM designation A615-82 Grade 60 unless noted otherwise.
- B. Wire mesh shall conform with ASTM A185-79.
- C. Lap splice all bars a minimum of 30 bar diameters, unless noted otherwise. See Development Length Table for additional information.
- D. Rebar cover: All dimensions showing the location of reinforcing steel not noted as "clear" are to center of steel. Minimum rebar cover for nonprestressed concrete shall be as follows:

Minimum Cover	
Cast-in-place Concrete	
Cast against and permanently exposed to earth:	3"
Exposed to earth or weather:	
No. 5 and smaller	1 1/2"
No. 6 and larger	2"
Concrete not exposed to weather or in contact with ground	
Slabs, walls, joists	
No. 11 and smaller	3/4"
Beams, columns	
Primary reinforcement,	
Ties, stirrups, spirals	1 1/2"

- E. Tolerances for rebar placement: Tolerances for longitudinal locations of bends and ends of reinforcement shall be plus or minus 2 inches, except at discontinuous ends of members where tolerance shall be plus or minus 1/2 inch.

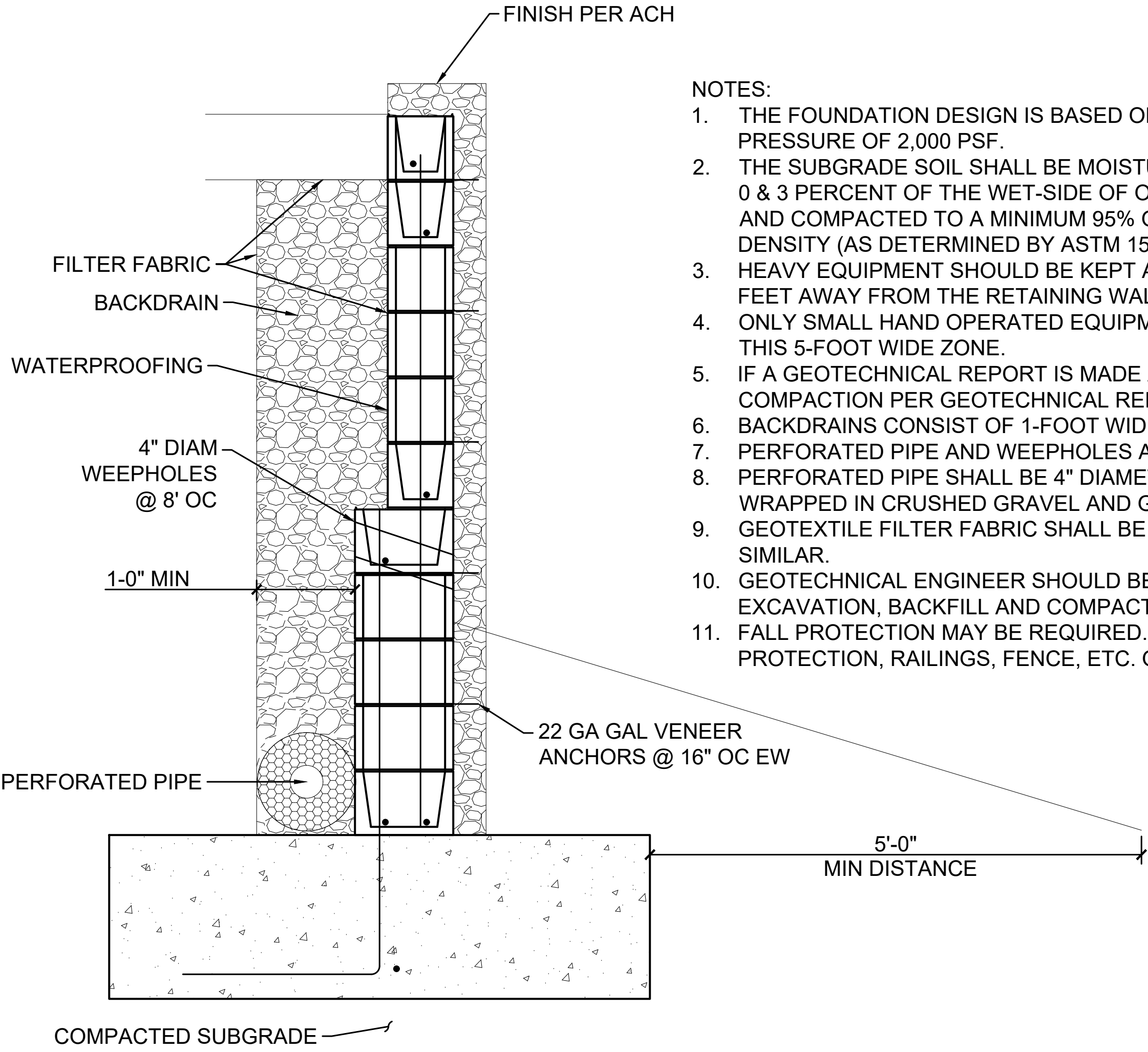
CMU

- A. Concrete Masonry Units (CMU): Load bearing = 1350 psi
- B. Mortar shall be 1 part masonry cement to 2.5 parts sand.
- C. Grout shall be 2,500 psi pump mix concrete per State of Hawaii specifications.
- D. Use knock-out blocks at horizontal steel locations. Knock-out blocks require saw cutting to create required clearances for reinforcing steel.
- E. Place bond beam with (2) horizontal bars at top of wall.
- F. Place an extra bar (2) total bars) at all wall ends and corners, size to match typical wall bars.
- G. When height of pour exceeds 5'-4", provide cleanouts at the bottom of all cells containing vertical reinforcing or 32" on center maximum. Special inspection is required for all grout pours exceeding 5'-4".
- H. Provide a horizontal construction joint between grout pours by stopping all wythes at the same elevation and with the grout stopping 1 1/2" below a mortar joint. At bond beams, stop the grout pour 1/2" below the top of masonry.
- I. Fill all cells solid with grout unless noted otherwise. Mechanically vibrate grout with electric vibrators, of size to reach the lowest level of grout pour.

MINIMUM LAP SPLICE LENGTH, (IN)				
BAR IN CENTER OF:		2" FROM EDGE OF CMU		
BAR SIZE	8" CMU	12" CMU	8" CMU	12" CMU
NO 3	16	16	15	15
NO 4	21	21	26	26
NO 5	26	26	40	40
NO 6	43	40	54	54
NO 7	60	46	63	63

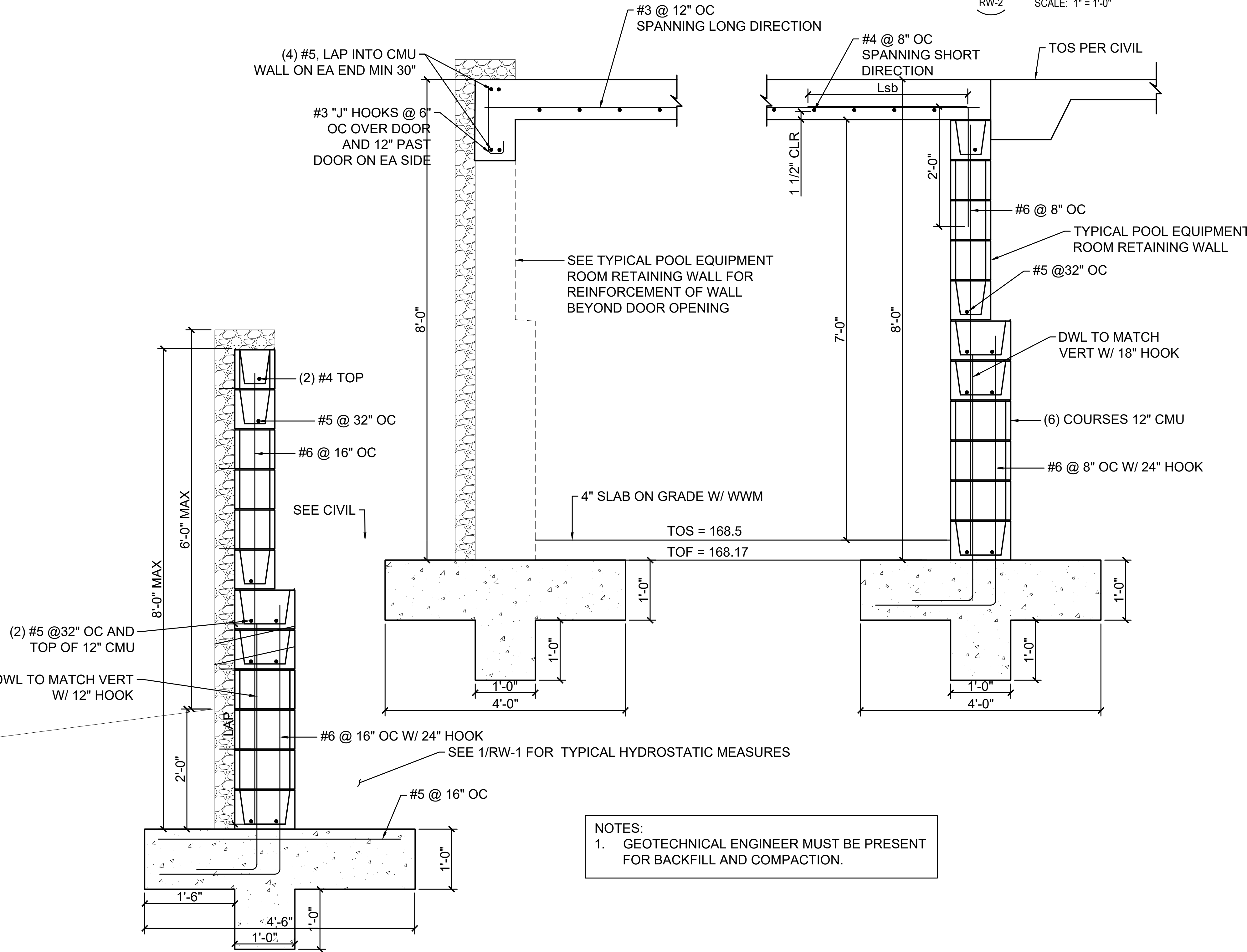
REINFORCEMENT LAP SPLICE LENGTHS IN CMU

SCALE: NONE



TYPICAL CMU RETAINING WALL DETAIL

SCALE: 1" = 1'-0"

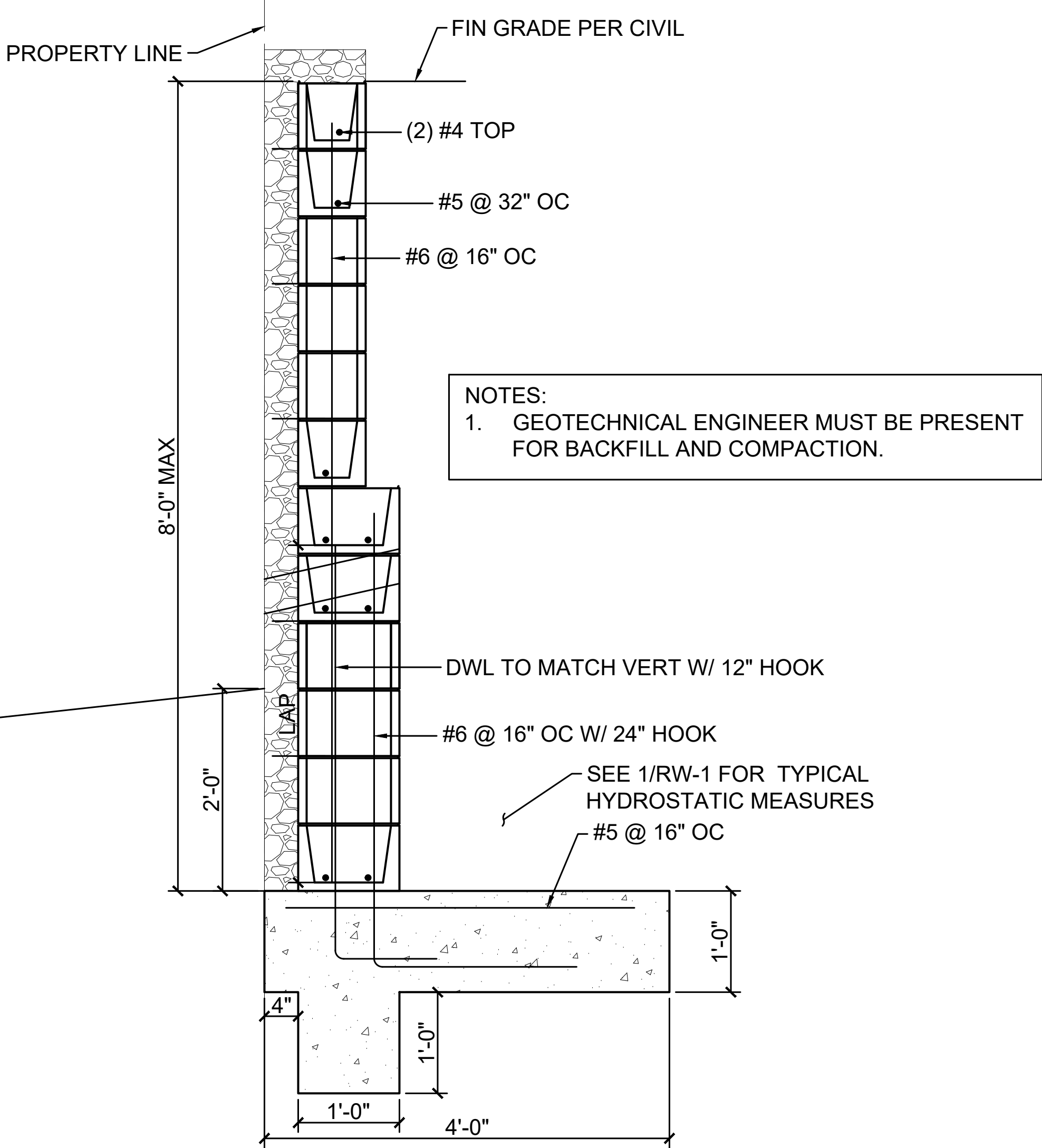


SECTION AT POOL EQUIPMENT ROOM

SCALE: 1" = 1'-0"

NOTES:

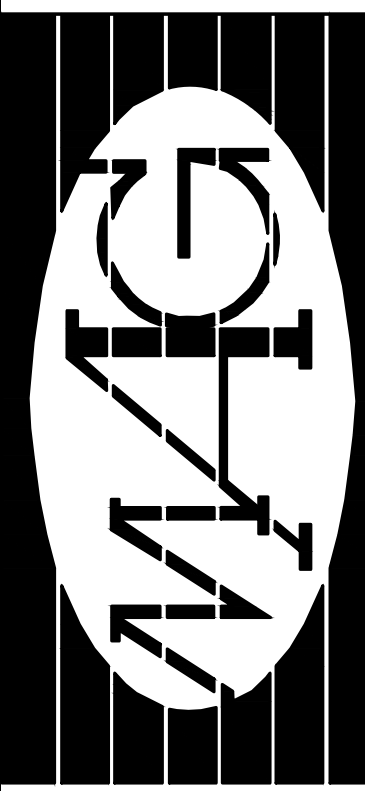
- THE FOUNDATION DESIGN IS BASED ON AN ASSUMED SOIL BEARING PRESSURE OF 2,000 PSF.
- THE SUBGRADE SOIL SHALL BE MOISTURE CONDITIONED TO WITHIN 0 & 3 PERCENT OF THE WET-SIDE OF OPTIMUM MOISTURE CONTENT AND COMPACTED TO A MINIMUM 95% OF THE MAXIMUM DRY DENSITY (AS DETERMINED BY ASTM 1557 TEST PROCEDURE)
- HEAVY EQUIPMENT SHOULD BE KEPT A MINIMUM OF 5 LATERAL FEET AWAY FROM THE RETAINING WALLS DURING CONSTRUCTION. ONLY SMALL HAND OPERATED EQUIPMENT MAY BE USED WITHIN THIS 5-FOOT WIDE ZONE.
- IF A GEOTECHNICAL REPORT IS MADE AVAILABLE, BACKFILL AND COMPACTION PER GEOTECHNICAL REPORT.
- BACKDRAINS CONSIST OF 1-FOOT WIDE ZONE OF FILTER ROCK. PERFORATED PIPE AND WEEPHOLES ARE BOTH REQUIRED.
- PERFORATED PIPE SHALL BE 4" DIAMETER PVC FOOTING DRAIN WRAPPED IN CRUSHED GRAVEL AND GEOTEXTILE FILTER FABRIC.
- GEOTEXTILE FILTER FABRIC SHALL BE PROPEX GEOTEX 601 OR SIMILAR.
- GEOTECHNICAL ENGINEER SHOULD BE PRESENT DURING EXCAVATION, BACKFILL AND COMPACTION.
- FALL PROTECTION MAY BE REQUIRED. SEE ARCH FOR ALL FALL PROTECTION, RAILINGS, FENCE, ETC. ON TOP OF RETAINING WALLS.



SECTION

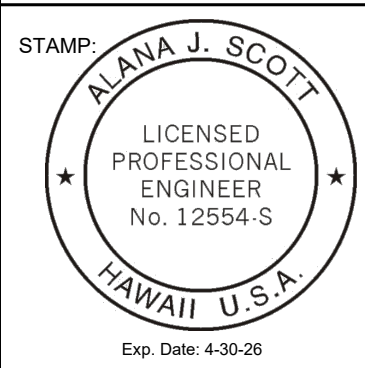
SCALE: 1" = 1'-0"

- NOTES:
- GEOTECHNICAL ENGINEER MUST BE PRESENT FOR BACKFILL AND COMPACTION.



scott **ENGINEERING, LLC**

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Signature: *Alana J. Scott*

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No.	Revision

RETAINING WALL SECTION

Date: 02/03/2025

Phase: PERMIT SET

Sheet Number:

RW-2

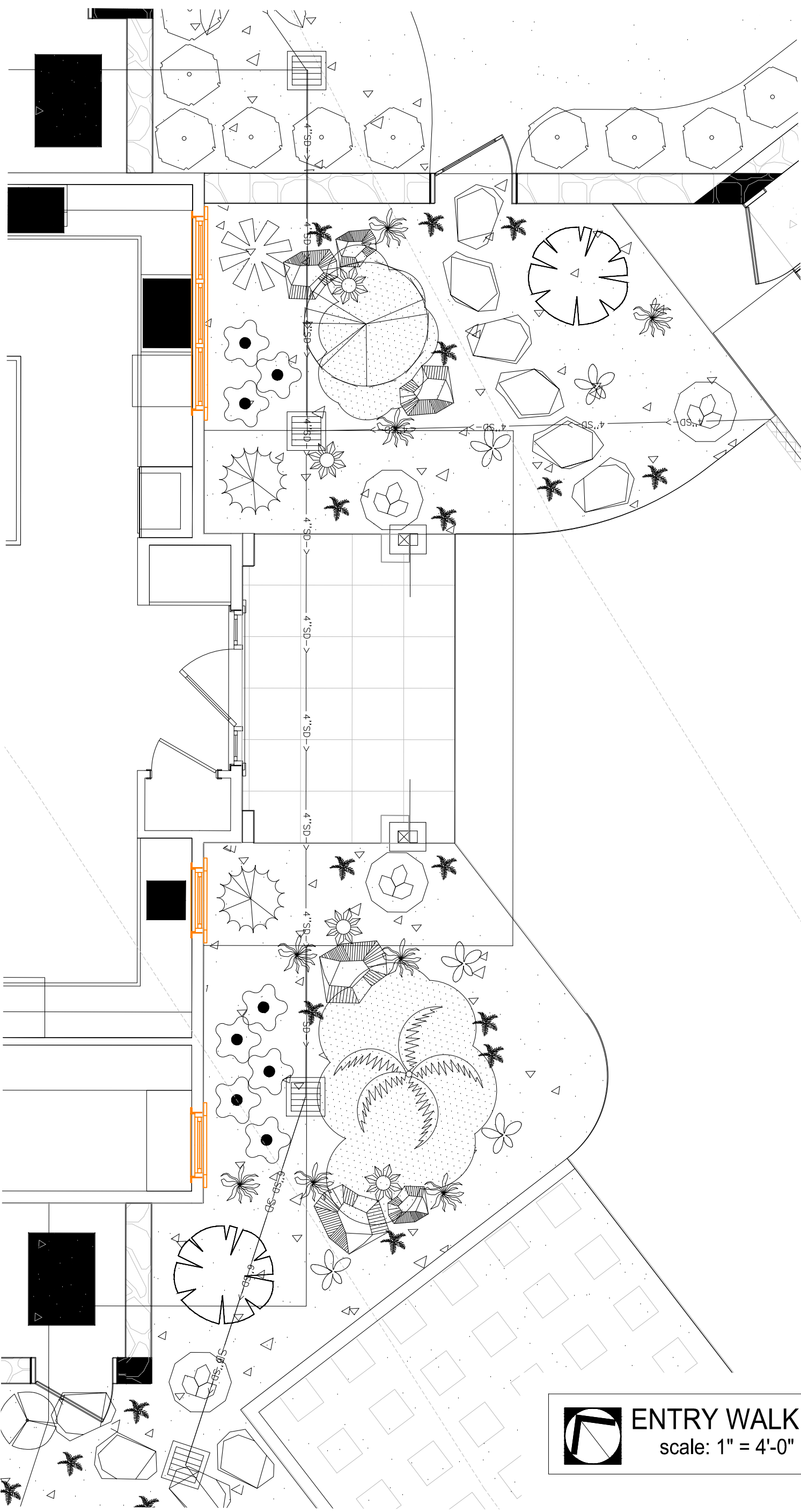
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RETAINING WALL SECTIONS

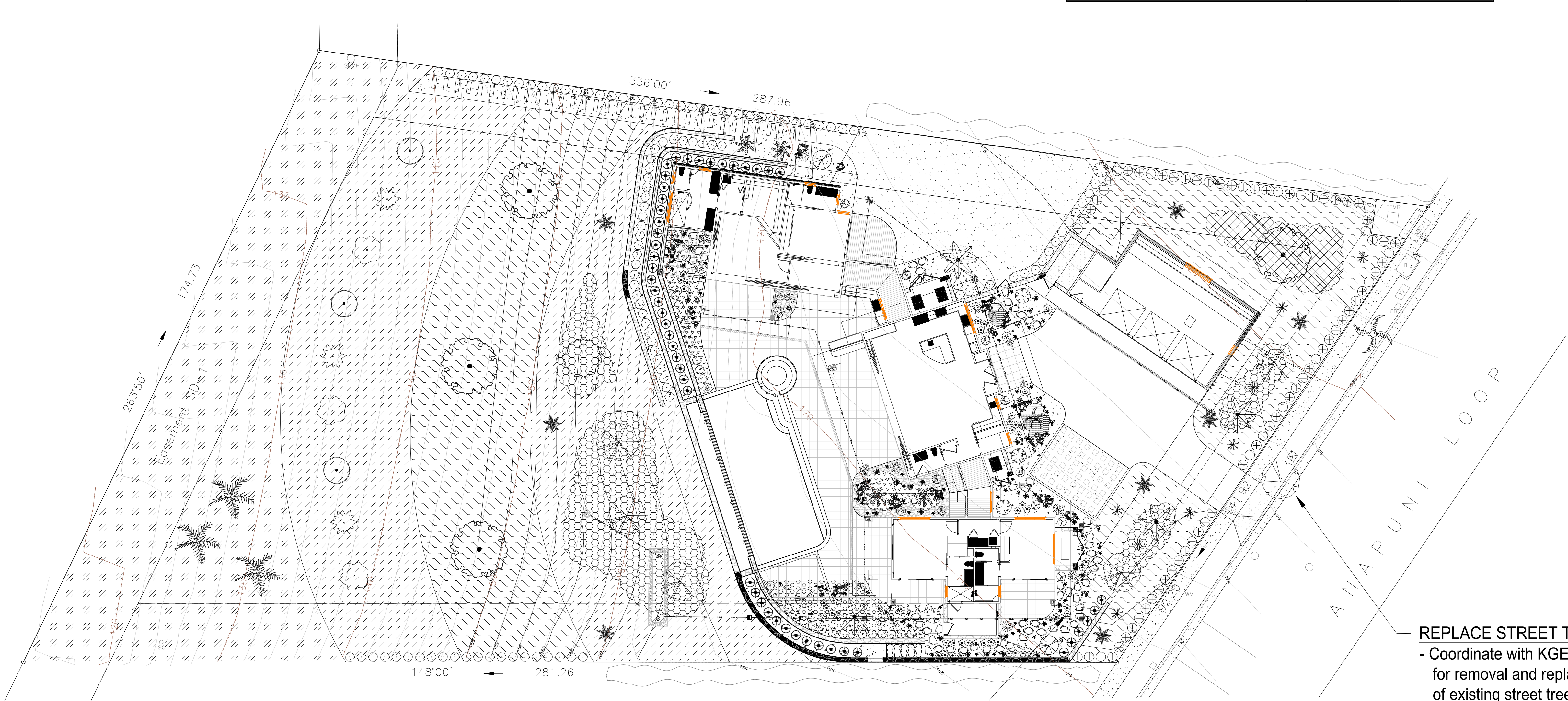
Sheet Number:

RW-3



- DWARF MONDO GRASS, BOULDERS, PAVERS
 - BLACK LAVA CINDER BASE IN ALL AREAS
 - TROPICAL PLANTINGS AT FRONT DOOR AREA
- LIPSTICK PALM, PHILODENDRON, DWARF PLUMERIA
HEAVENLY BAMBOO, GARDENIA, FERNS, TARO
GINGER, TI PLANT

- NOTES:
- 1 - ALL AREAS CALLED OUT AS RIVER ROCK TO BE INSTALLED AS BASE MATERIALS FOR GROUNDCOVERS & SHRUBS.
 - 2 - ALL LANDSCAPE MATERIAL TO BE WATERED USING AN AUTOMATIC IRRIGATION SYSTEM.
 - 3 - 4" TOPSOIL TO BE INSTALLED IN ALL LAWN AREAS TOPSOIL TO BE "CINDER SOIL"
 - 1/2 TOPSOIL - 1/2 CINDER - 1/2 ORGANIC COMPOST
 - 4 - AMEND ALL OTHER GROUNDCOVER AREAS WITH ORGANIC COMPOST
 - 5 - ALL HEADERS TO BE 1X6 PLASTIC LUMBER HEADERS.



- TYPICAL BUILDING PLANTING:
- LAVA CINDER THROUGH
 - DWARF LAUAE FERN
 - PLANTED IN DRIFTS
 - PAVER ACCESS
 - FERNS
 - GINGER
 - TARO

REPLACE STREET TREE:
- Coordinate with KGE
for removal and replacment
of existing street tree

KGE - REQUIRED TREE SPECIFICATIONS			
Common Name	Size	Quantity	Required
SHADE / CANOPY TREES			
HONG KONG ORCHID	FIELD STOCK	4	
SHADE / CANOPY TREES & MAJOR PALMS			
FOXTAIL PALM	6" MIN TRUNK HT.	4	8
SINGAPORE PLUMERIA	15 GALLON	5	
COCONUT PALM	10' PLANTED HT.	3	
PINK TECOMA	25 GALLON	2	
PALMS / SMALL FLOWERING TREES			
PLUMERIA / EUPHORBIA	15 GALLON	15	
PIGMY DATE / RHAPIS	15 GALLON	15	
TOTAL LANDSCAPE AREA (SQ. FT.)		20,000	
TOTAL LOT AREA (SQ. FT.)		40,030	

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Kevin T. Tanaka
Signature

Kekos Residence
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PLANTING LEGEND

TREES

- JAPANESE FERN TREE
- SINGAPORE PLUMERIA
- DWARF PLUMERIA
- BRONZE EUPHORBIA

PALMS / FRUITS

- FOXTAIL PALM
- RHAPIS PALM
- PIGMY DATE PALM
- SEALING WAX PALM
- CITRUS
- PAPAYA

SHRUBS

- HEAVENLY BAMBOO
- RED GINGER
- RED & GREEN TI
- CROTON
- GARDENIA
- QUEEN EMMA LILY
- HAWAIIAN TREE FERN
- BIRD OF PARADISE
- TARO...small varieties
- FERNS...various species
- PHILODENDRON
- BOUGANVILLEA
- NATAL PLUM
- HIBISCUS - Yellow, Red
- GOLDEN DURANTA
- ORCHID

GROUNDCOVERS

- POHINAHINA
- GOLDEN GLORY
- HEARTS & FLOWERS
- DWARF LAUAE FERN
- DWARF MONDO GRASS
- BLACK LAVA CINDER
- ARROWHEAD VINE
- LANTANA - Orange

'DRIFTS'...

- PLUMBAGO
- FIRECRACKER
- AKI AKI GRASS
...north lower gulch area

No. Revision

Planting Plan

Date: 12/15/2024

Phase: Final Review Set

Sheet Number:

L-1

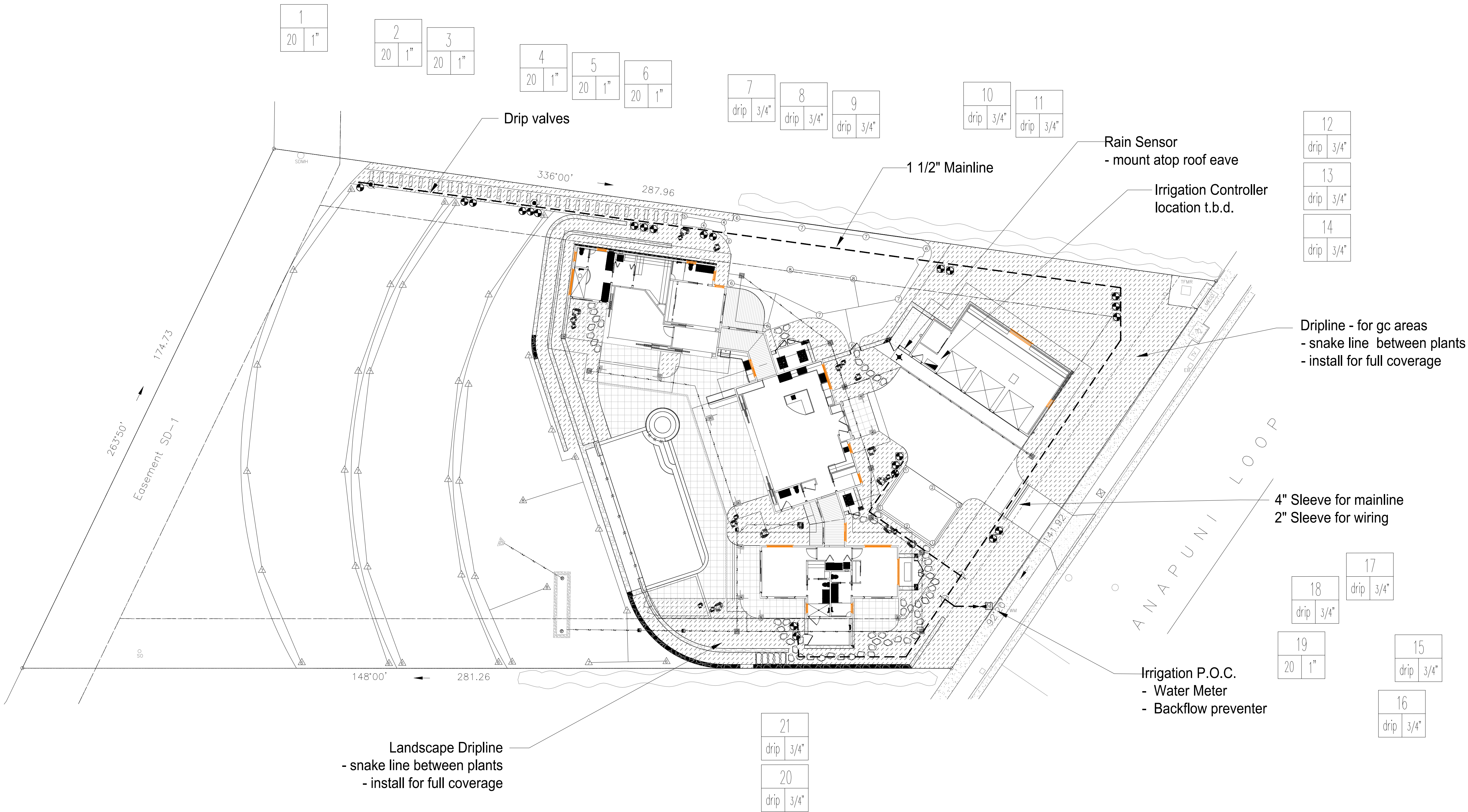
Sheet 1 Of 4

FOR KGE FINAL REVIEW - NOT FOR CONSTRUCTION

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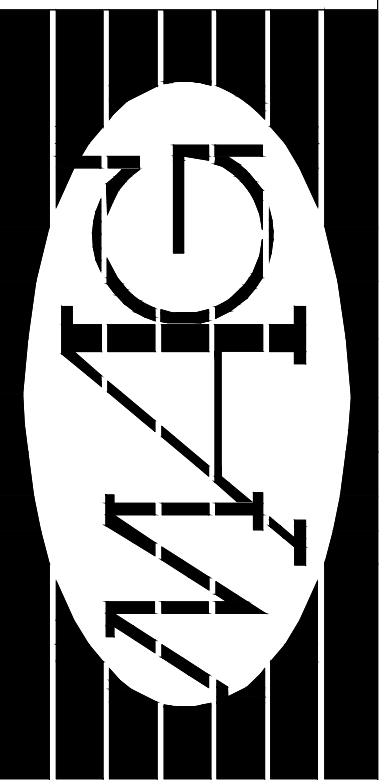
 IRRIGATION PLAN
scale: 1" = 16'-0"

NOTES:

- SLEEVE TO DRIVEWAY AND ENTRY WALK FOR IRRIGATION LINES
- IRRIGATION LINES ARE DIAGRAMMATIC, INSTALL WITHIN LANDSCAPED AREAS
- BURY DRIPLINES THROUGH CINDER/GRAVEL AREAS
- IRRIGATION P.O.C. TIE IN AFTER WATER METER
- INSTALL BACKFLOW PREVENTER
- HIDE WITH PLANTINGS
- ALL BUILDING PLANTINGS TO BE WATERED BY DRIPLINES
- SNAKE LINES BETWEEN PLANTINGS FOR FULL COVERAGE
- ADD 'MICRO-SPRAYS' AS NECESSARY FOR COVERAGE
- ALL LAWN AREAS TO BE WATERED BY POP UP SPRINKLERS & ROTORS
- INSTALL GATE VALVES AT ALL "T"'s IN MAINLINE

IRRIGATION LEGEND:

- IRRIG.EQUIPMENT
- PVC SLEEVE
 - 1 1/2" sch. 40 PVC MAINLINE
 - RAINBIRD DRIP VALVE
 - BACKFLOW PREVENTER
 - GATE VALVE - line size
 - RAINBIRD 24 STA. CONTROLLER - mount in garage
 - RAINBIRD - 'Rain-Check' sensor - mount to of garage
- DRIP IRRIGATION
- Rainbird Dripline Tubing
 - Snake line thru plant material
 - install as for full coverage
 - Bury all lines under cinder
- IRRIG. HEADS
- ⊙ ⊙ ⊙ Rain Bird - 1800 Spray, 12' radius
 - ⊙ ⊙ Rain Bird - 1800 Spray, 4'x14'
 - ⊙ ⊙ ⊙ Rain Bird - 3500 - 4" Pop-Up Rotors



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No.	Revision

Irrigation Plan

Date: 12/15/2024

Phase: Final Review Set

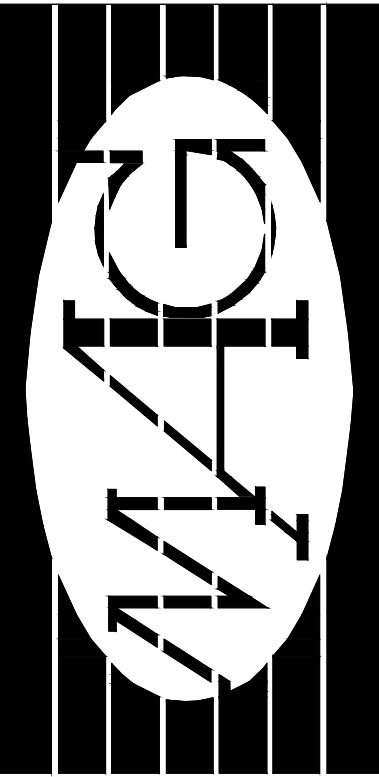
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L-2

Sheet: 2 Of: 4

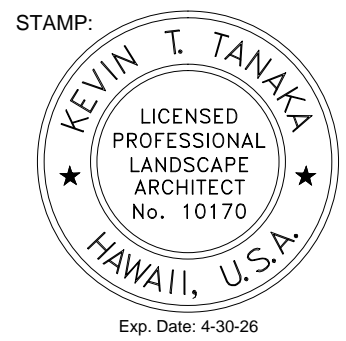
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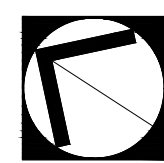
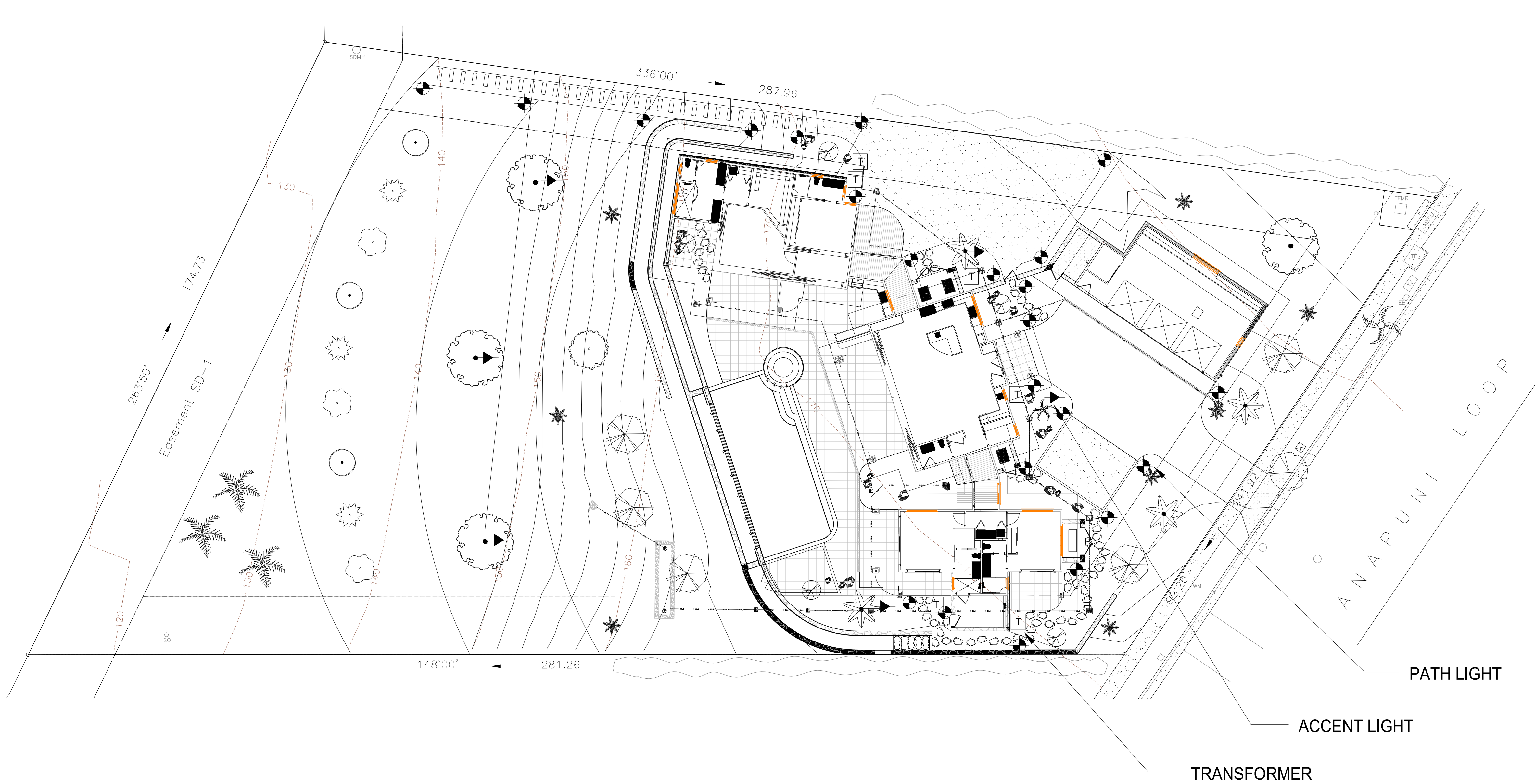
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Signature

Kekos Residence
Phase I - Lot 4
Lahaina, Hawaii 96761
TMK: (2) 4-4-019 : 004



CONCEPTUAL LANDSCAPE LIGHTING PLAN

scale: 1" = 16'-0"

* LED Replacement - 'or equal'

MANUFACTURER PRODUCTS:

Pathlight
- 12 volt FX - RSL G-20, 20-Watt Bulbs

Accent
- 12 volt FX - RSL F-450, 50-Watt Bulbs

Transformer 12-volt, with timer
- to be coordinated
with ELECTRICAL CONTRACTOR

Install regulators at each fixture
to maximize 12V efficiency.

LIGHTING LEGEND

LED - 'or equal'



ACCENT 12-V.



PATHLIGHT 12-V.



TRANSFORMER



PVC SLEEVEING

NOTES:

ALL LIGHTING FIXTURES
SHALL BE SHEILDED
- light source shall not be visible
from public r.o.w. and other
line of sight lots/adjacent lots.
- lighting to be directed downward
- lighting to be indirect

ALL TRANSFORMERS SHALL
BE HIDDEN WITH PLANTINGS

ALL WIRING TO BE DIRECT BURY

WIRE RUNS ARE DIAGRAMMATIC
- RUN LINES IN LANDSCAPE

ALL MATERIALS SHALL BE
INSTALLED AS PER
MANUFACTURERS SPECS.

No.	Revision

LV Lighting Plan

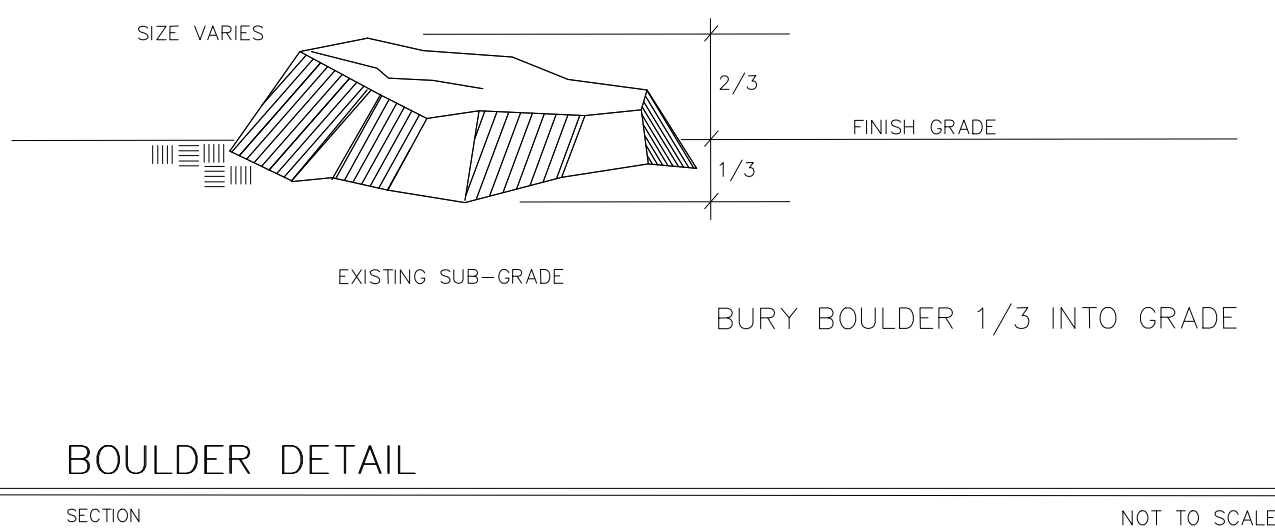
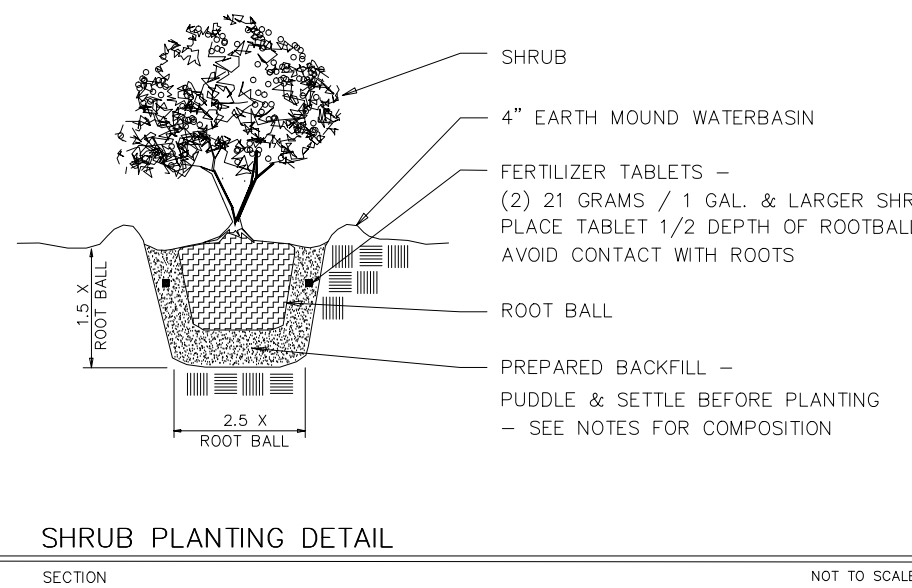
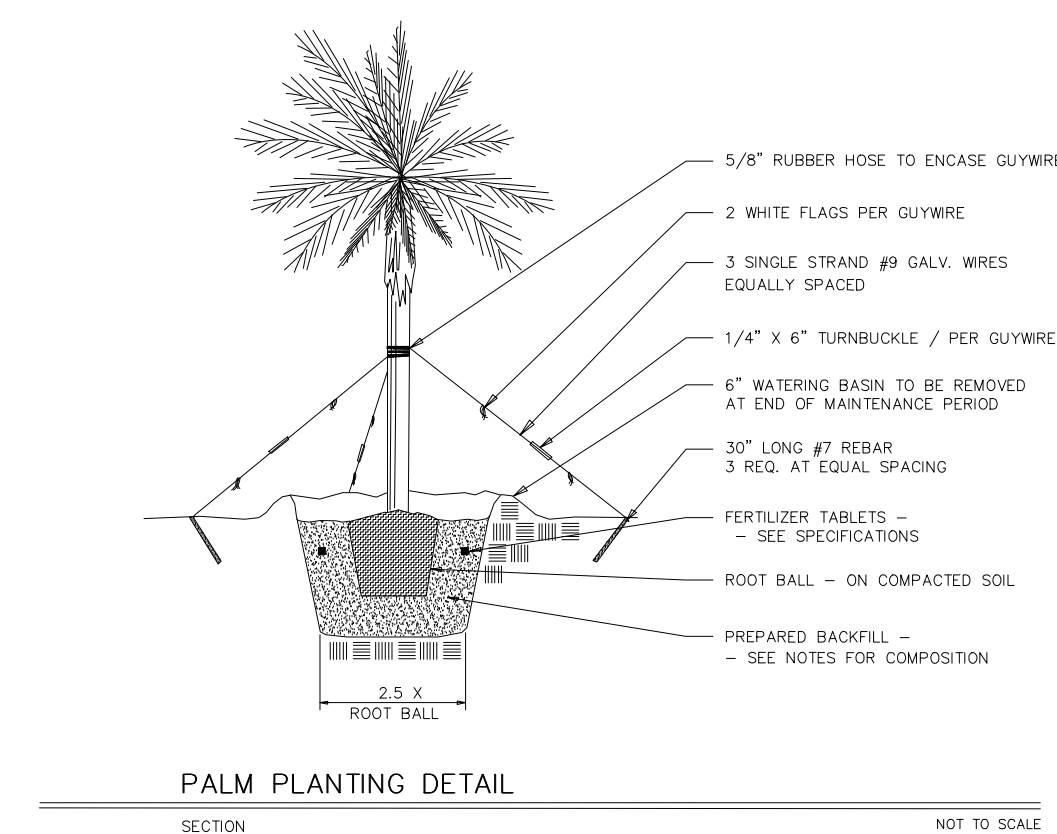
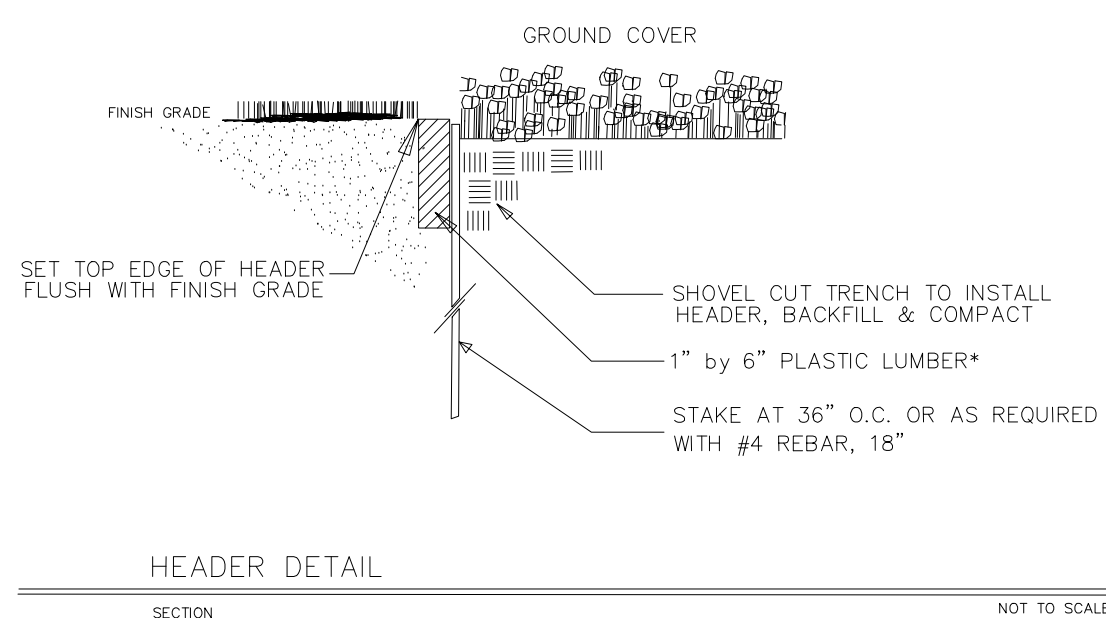
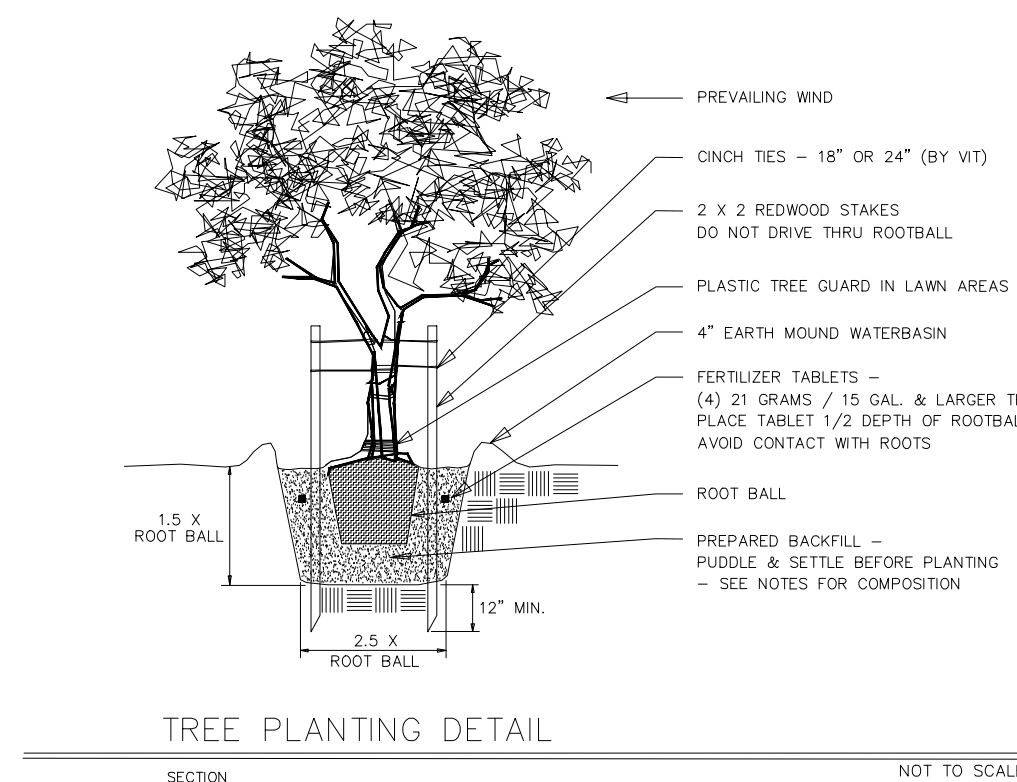
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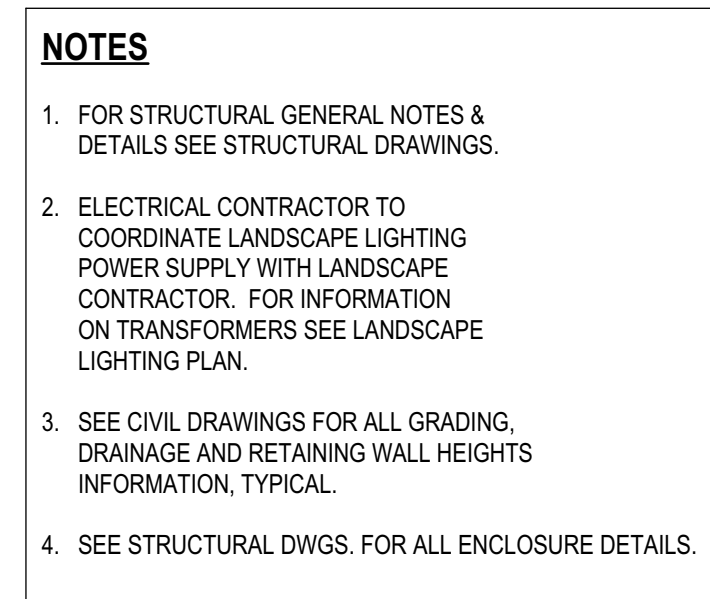
Phase: Final Review Set

Sheet Number:

L-3

Sheet: 3 Of: 4





LEGEND:

□ ELECTRIC METER LOCATION.

LOT COVERAGE CALCULATIONS



1. Lot Area = 40,430 sq. ft.
2. Allowable Lot Coverage = 12,129 sq. ft. (30% of Lot Area)
2. Proposed Building Footprint = 5,216 sq. ft.

NOTES:

1. This map is based from a survey performed on June 1, 2022.
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..

T.M.K.: (2) 4-4-019:004

LEGEND:

WM=WATER METER
FH=FIRE HYDRANT
SMH=SEWER MANHOLE
SDMH=STORM DRAIN MANHOLE
SO=STUB OUT
LP=LIGHT POST
EB=ELECTRIC BOX
=COCONUT
=TREE

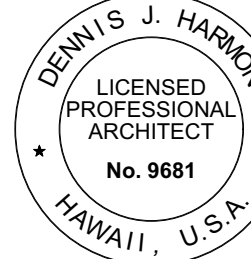
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Klein, J. H.

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No.	Revision

Site Plan

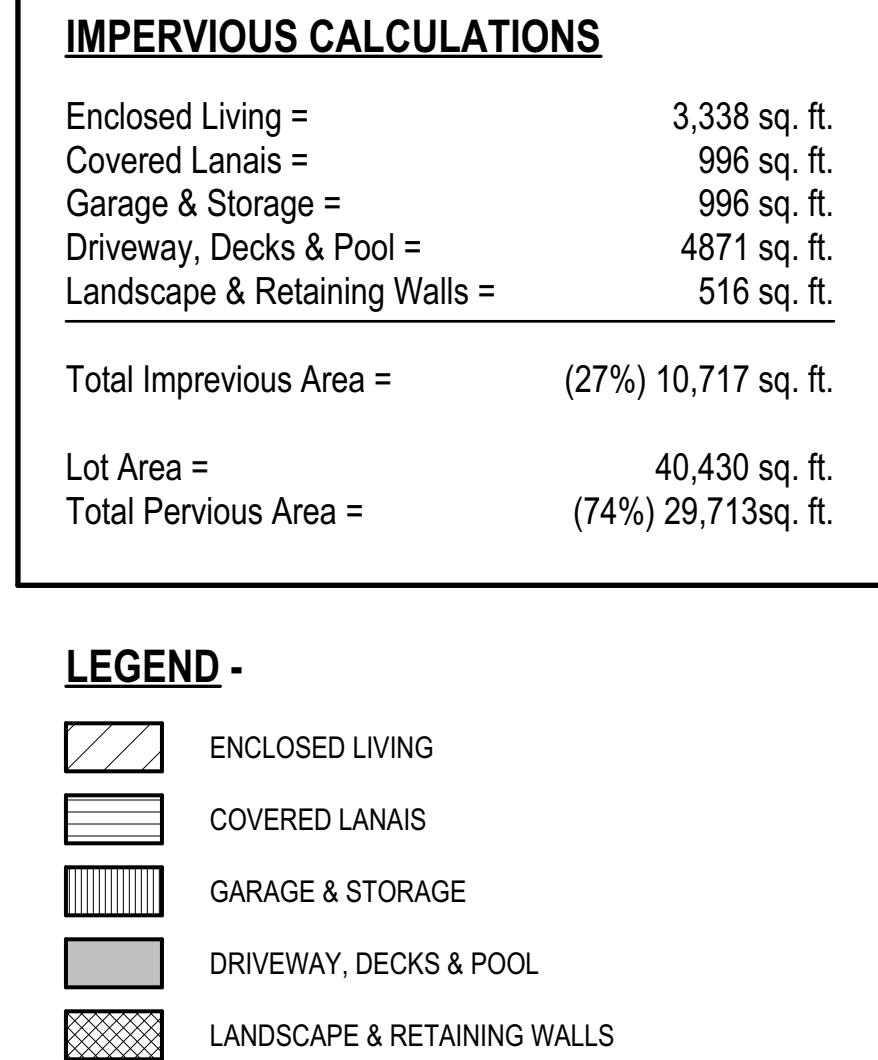
Date: Februrary 14, 202

Phase: PERMIT SET

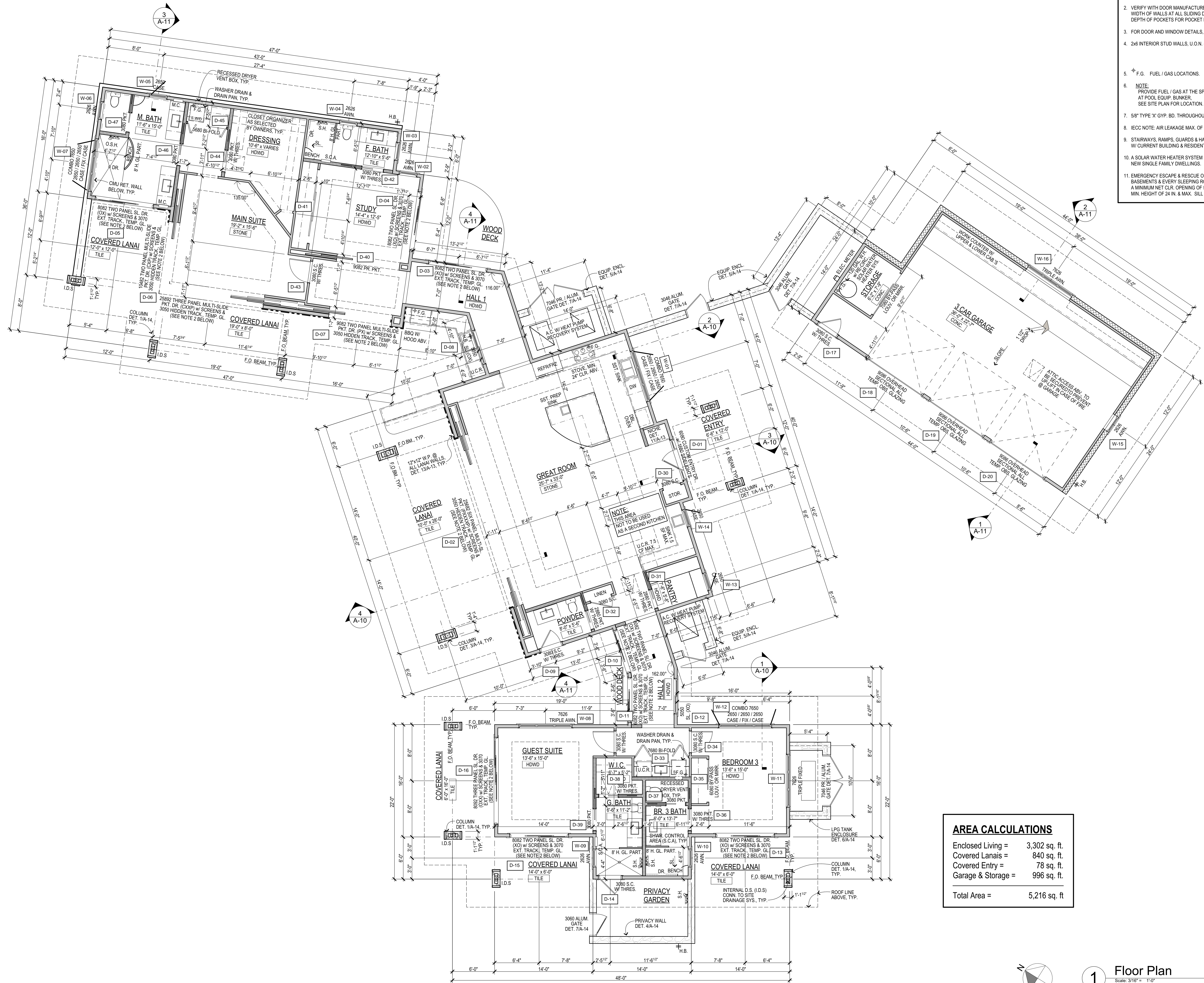
Sheet Number:

A-1

Sheet: _____ Of _____



No.	Revision
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Sheet:	Of:



- NOTES:**
1. PROVIDE EPOXY GROUT & BASALTIC TERMITE BARRIER AT ALL BATH TUB AND SHOWER BLOCKOUTS.
 2. VERIFY WITH DOOR MANUFACTURER THE REQUIRED WIDTH OF WALLS AT ALL SLIDING DOORS, AND REQUIRED DEPTH OF POCKETS FOR POCKET DOORS.
 3. FOR DOOR AND WINDOW DETAILS, SEE SHT. A-13.
 4. 2x6 INTERIOR STUD WALLS, U.O.N. - 2x6 @ 16" O.C., TYP., U.O.N.
 5. F.G. FUEL / GAS LOCATIONS.
 6. NOTE: PROVIDE FUEL / GAS AT THE SPA (HEATER) AT POOL EQUIP. BUNKER, SEE SITE PLAN FOR LOCATION.
 7. 5/8" TYPE 'X' GYP. BD. THROUGHOUT
 8. IECC NOTE: AIR LEAKAGE MAX. OF 5 A.C.H. 50.
 9. STAIRWAYS, RAMPS, GUARDS & HANDRAILS SHALL COMPLY W/ CURRENT BUILDING & RESIDENTIAL CODES.
 10. A SOLAR WATER HEATER SYSTEM IS REQUIRED FOR ALL NEW SINGLE FAMILY DWELLINGS.
 11. EMERGENCY ESCAPE & RESCUE OPENINGS ARE REQUIRED IN BASEMENTS & EVERY SLEEPING ROOM. WINDOWS SHALL HAVE A MINIMUM NET CLR. OPENING OF 5.7 SF. MIN. WIDTH OF 20 IN., MIN. HEIGHT OF 24 IN. & MAX. SILL HEIGHT OF 44 IN.

AREA CALCULATIONS

Enclosed Living =	3,302 sq. ft.
Covered Lanais =	840 sq. ft.
Covered Entry =	78 sq. ft.
Garage & Storage =	996 sq. ft.
Total Area =	5,216 sq. ft.

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LICENSED PROFESSIONAL ARCHITECT
No. 9681
HAWAII, U.S.A.
Exp. Date 4-30-26

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Dawis J. Harken

Residence at Lanikeha
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Lahaina, Hawaii 96761
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No.	Revision

Floor Plan

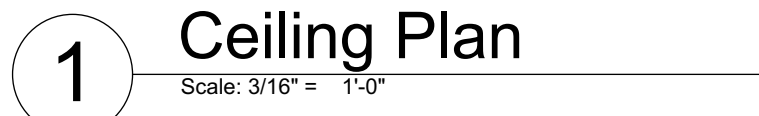
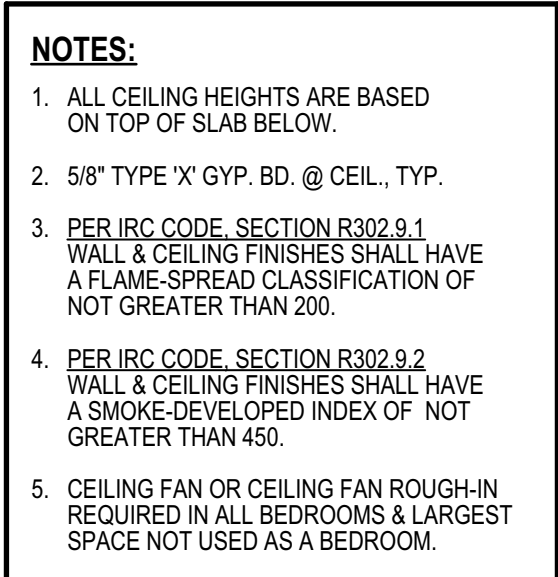
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Phase: PERMIT SET


Sheet Number:

A-3

Sheet: Of:



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Klein, J. H.

Residence at Lanikeha
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No.	Revision

Ceiling Plan

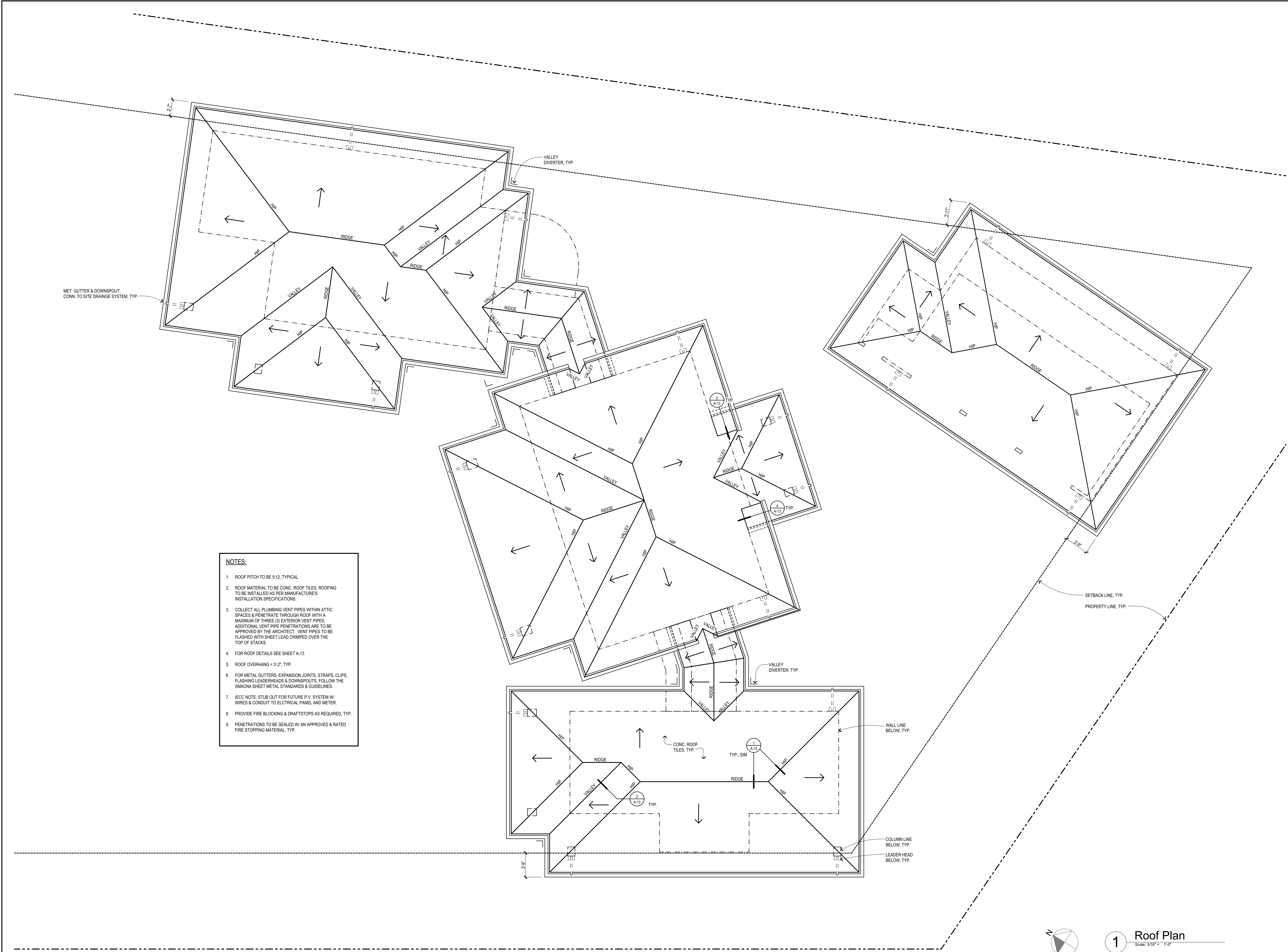
Date: Februrary 14, 20

Phase: PERMIT SET

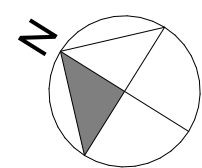
Sheet Number

A-4

Sheet: C



- NOTES:
1. ROOF PITCH TO BE 5:12, TYPICAL.
 2. ROOF MATERIAL TO BE CONC. ROOF TILES, ROOFING TO BE INSTALLED AS PER MANUFACTURE'S INSTALLATION SPECIFICATIONS.
 3. COLLECT ALL PLUMBING VENT PIPES WITHIN ATTIC SPACES & PENETRATE THROUGH ROOF WITH A MAXIMUM OF THREE (3) EXTERIOR VENT PIPES. ADDITIONAL VENT PIPE PENETRATIONS ARE TO BE APPROVED BY THE ARCHITECT. VENT PIPES TO BE FLASHED WITH SHEET LEAD CRIMPED OVER THE TOP OF STACKS.
 4. FOR ROOF DETAILS SEE SHEET A-13.
 5. ROOF OVERHANG = 3'-2", TYP.
 6. FOR METAL GUTTERS, EXPANSION JOINTS, STRAPS, CLIPS, FLASHING LEADERHEADS & DOWNSPOUTS, FOLLOW THE SMACNA SHEET METAL STANDARDS & GUIDELINES.
 7. IECC NOTE: STUB OUT FOR FUTURE P.V. SYSTEM W/ WIRES & CONDUIT TO ELECTRICAL PANEL AND METER.
 8. PROVIDE FIRE BLOCKING & DRAFTSTOPS AS REQUIRED, TYP.
 9. PENETRATIONS TO BE SEALED W/ AN APPROVED & RATED FIRE STOPPING MATERIAL, TYP.



1 Roof Plan
Scale: 3/16" = 1'-0"

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LICENSED PROFESSIONAL ARCHITECT
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Signature

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No.	Revision

Roof Plan

Date: February 14, 2025

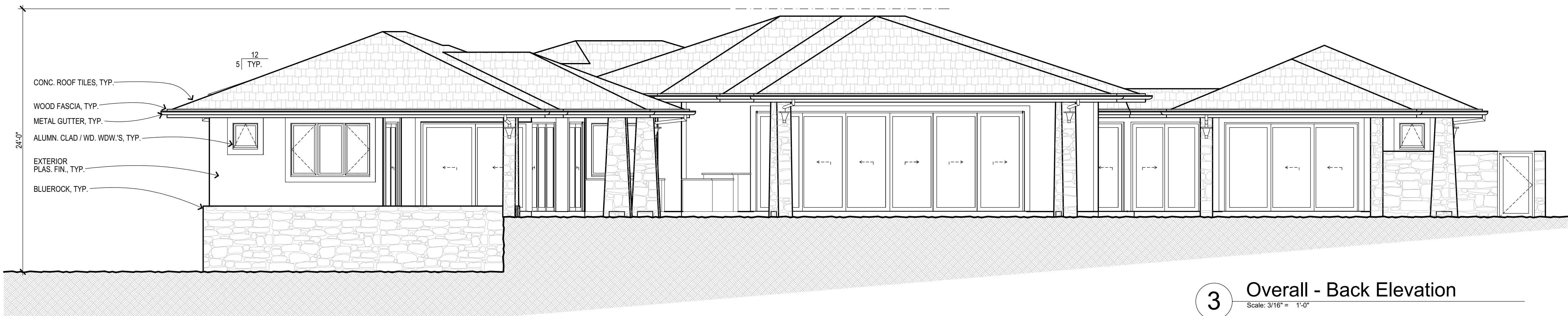
Phase: PERMIT SET

Sheet Number: A-5

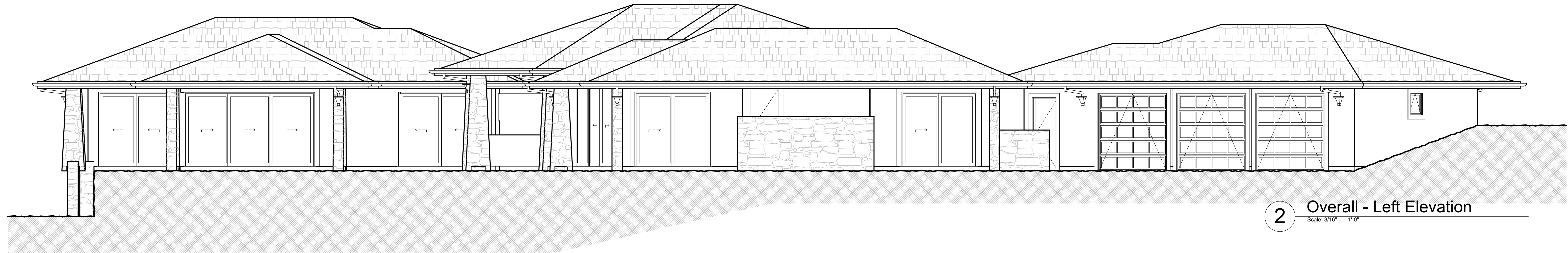
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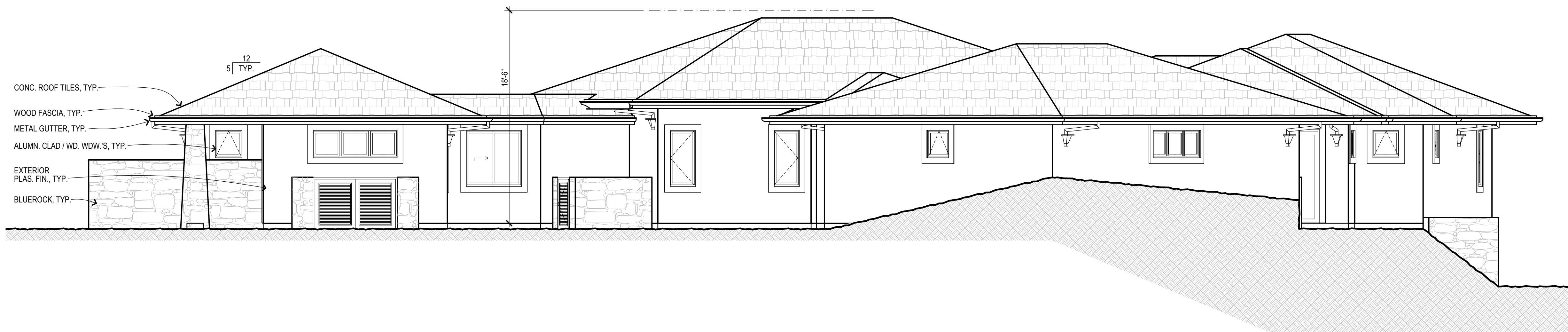
4 Overall - Right Elevation
Scale: 3/16" = 1'-0"



3 Overall - Back Elevation
Scale: 3/16" = 1'-0"



2 Overall - Left Elevation
Scale: 3/16" = 1'-0"



1 Overall - Front Elevation
Scale: 3/16" = 1'-0"

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No.	Revision

Overall Exterior
Elevations

Date: February 14, 2025

Phase: PERMIT SET

Sheet Number:

A-6

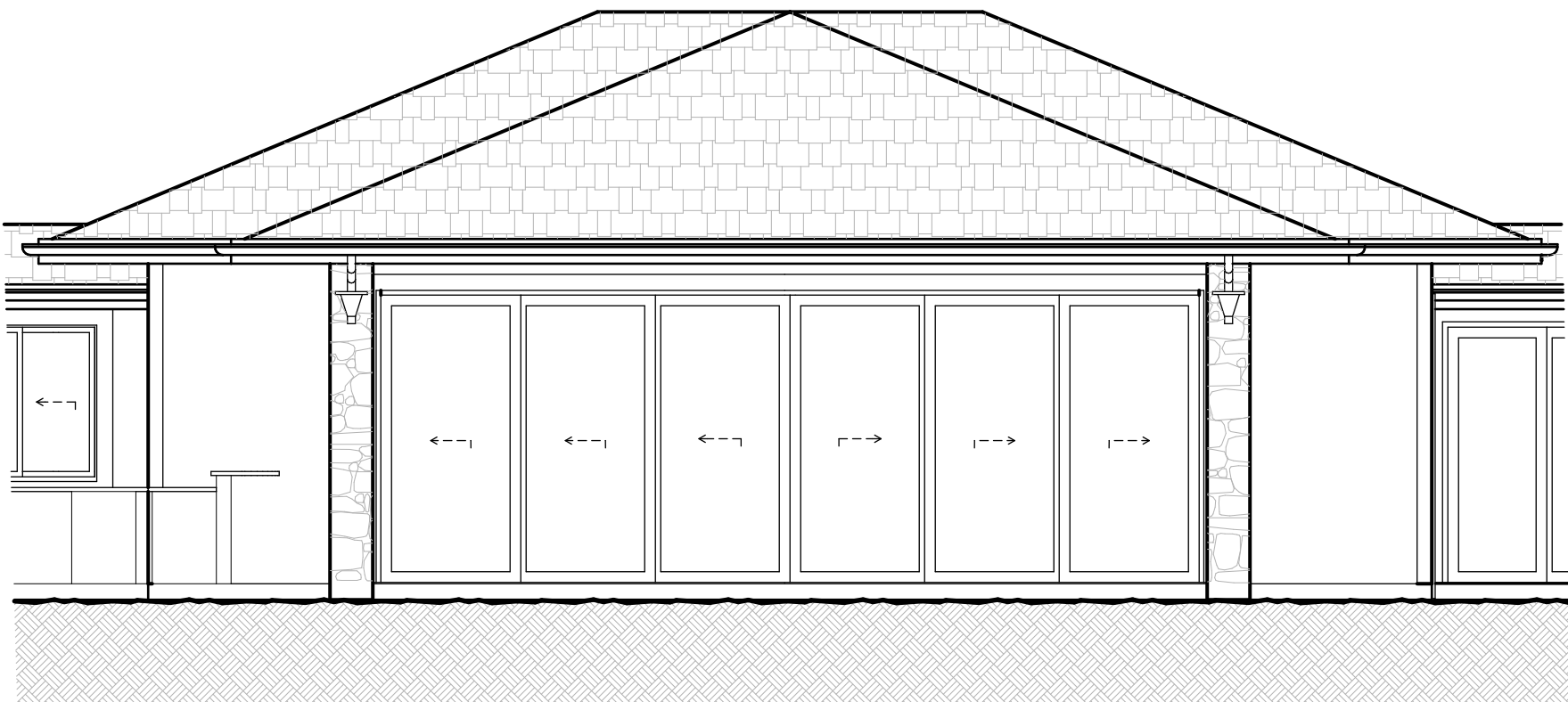
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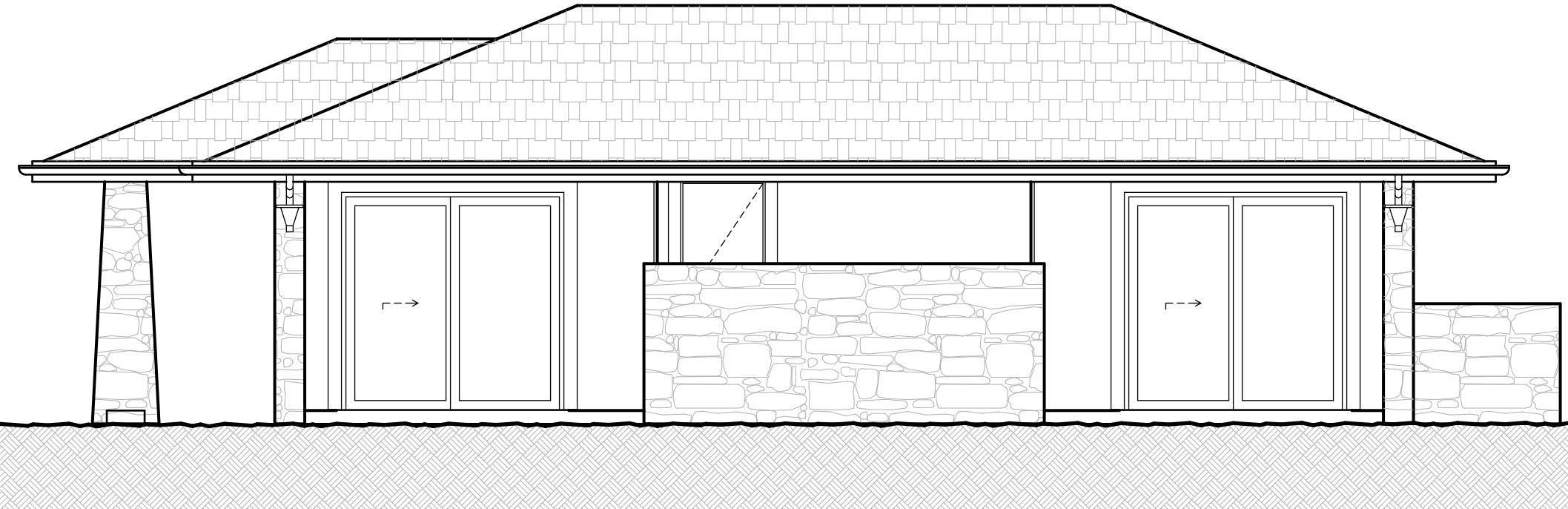
Great Rm - Right Side



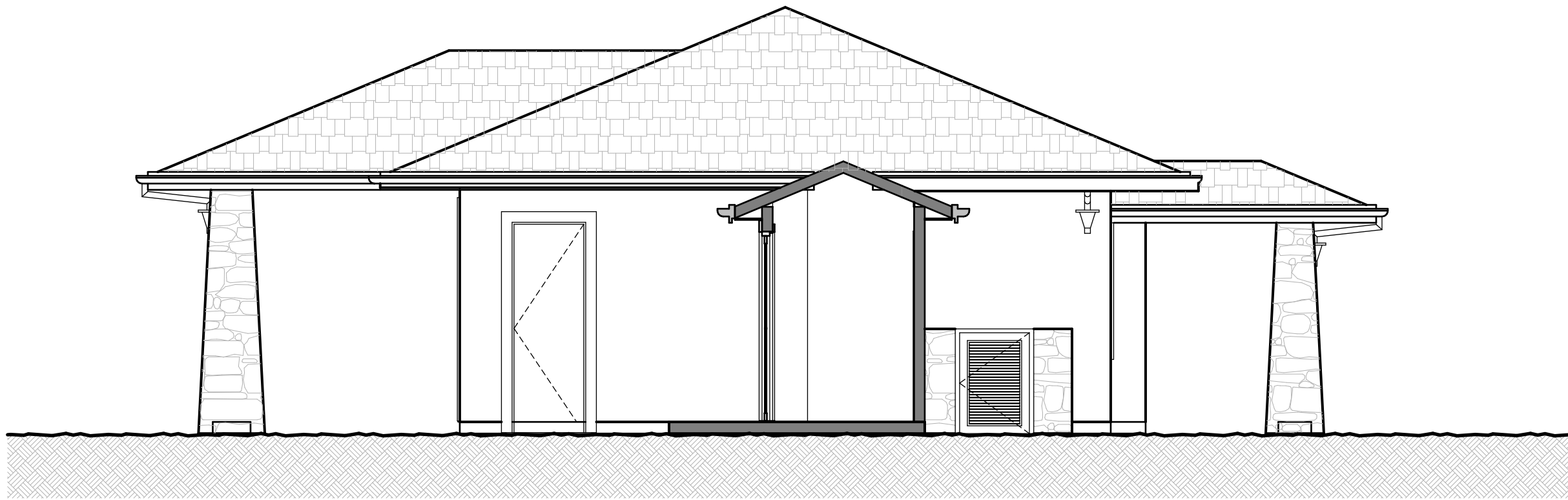
Guest Suites - Right Side



Great Rm - Rear



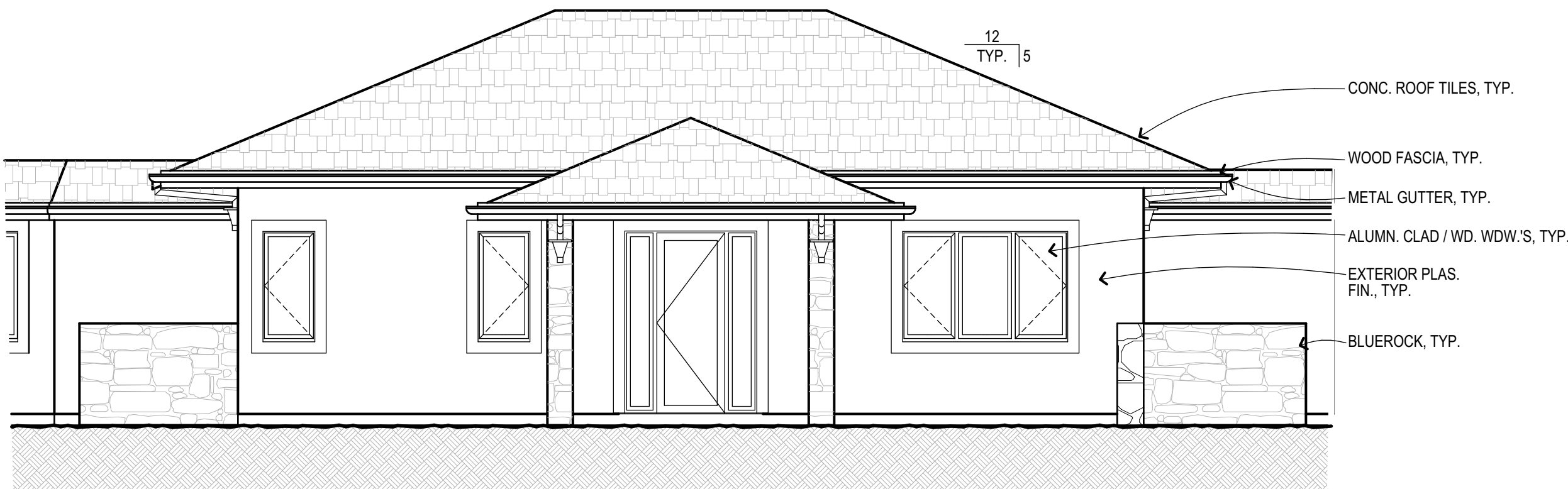
Guest Suites - Rear



Great Rm - Left Side

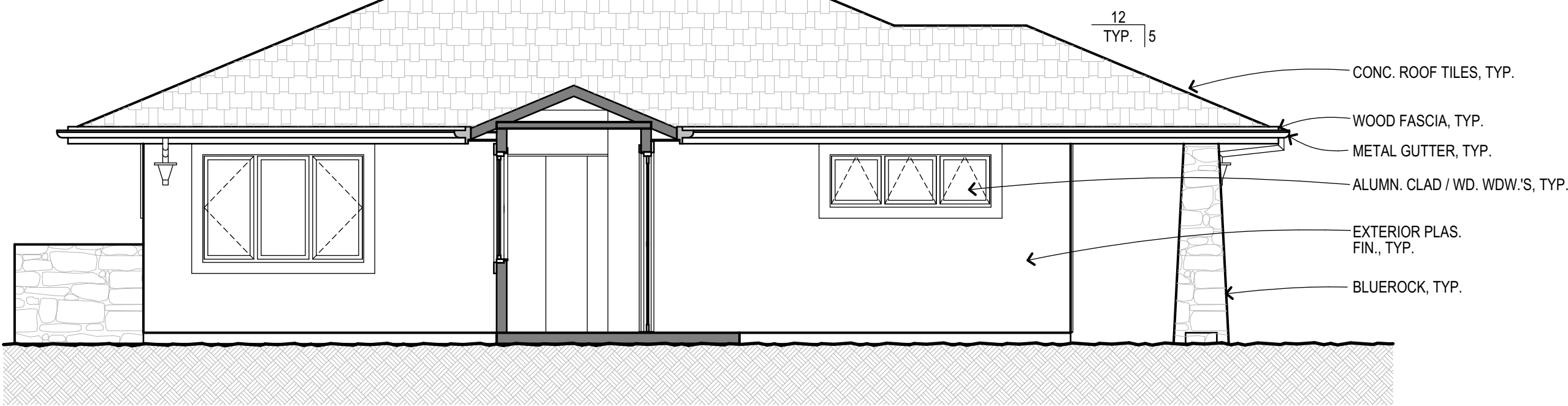


Guest Suites - Left Side



2 Great Rm / Entry - Front

Scale: 3/16" = 1'-0"



1 Guest Suites - Front

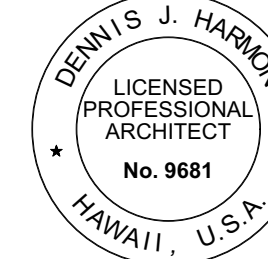
Scale: 3/16" = 1'-0"

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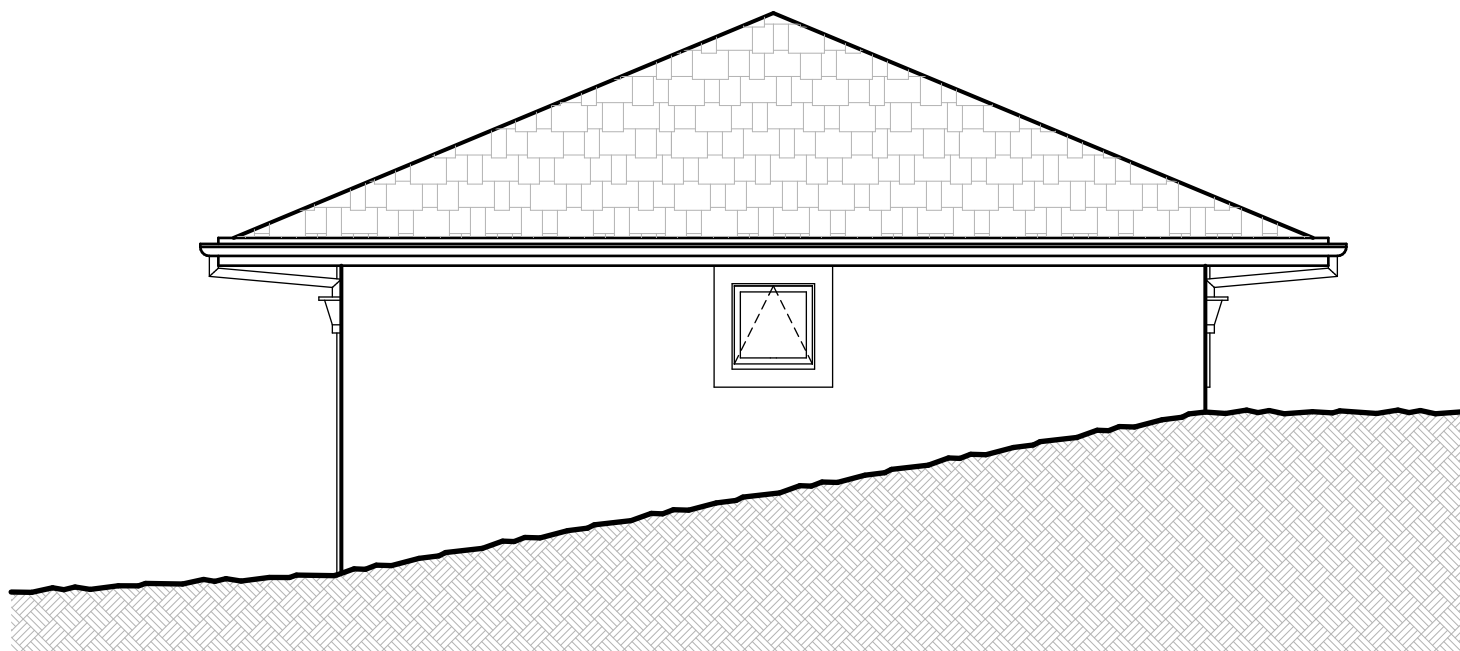
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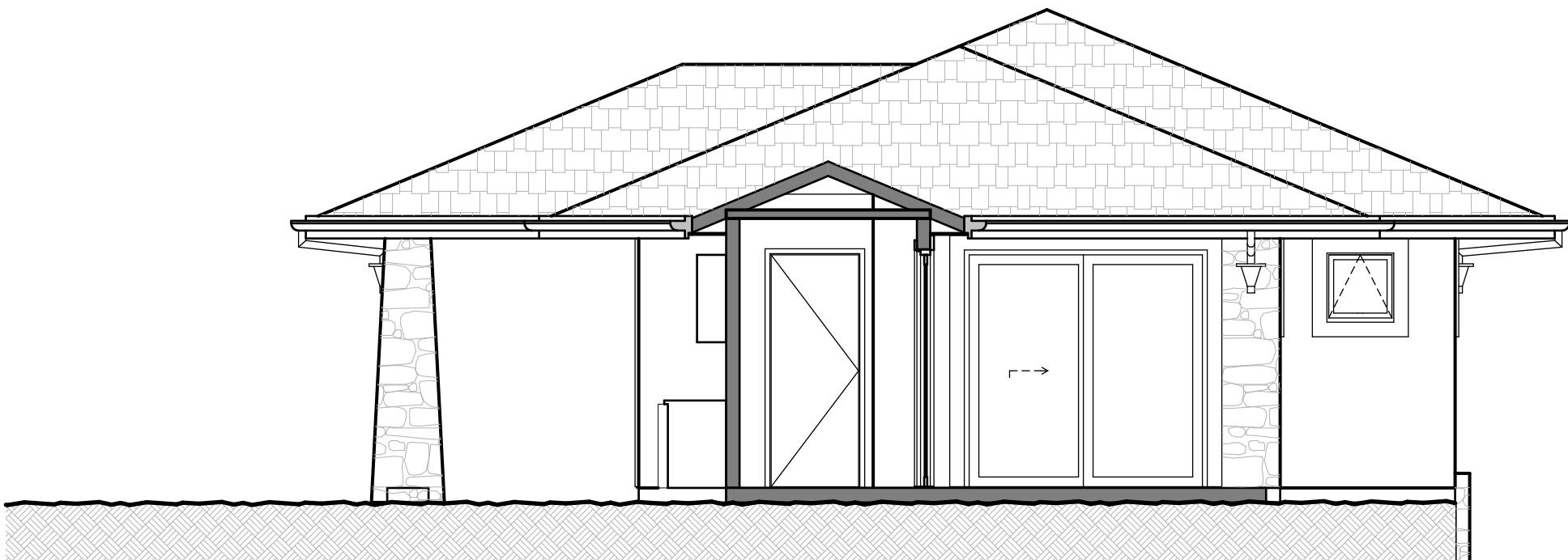
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(2) 4-4-019 : 004

No.	Revision

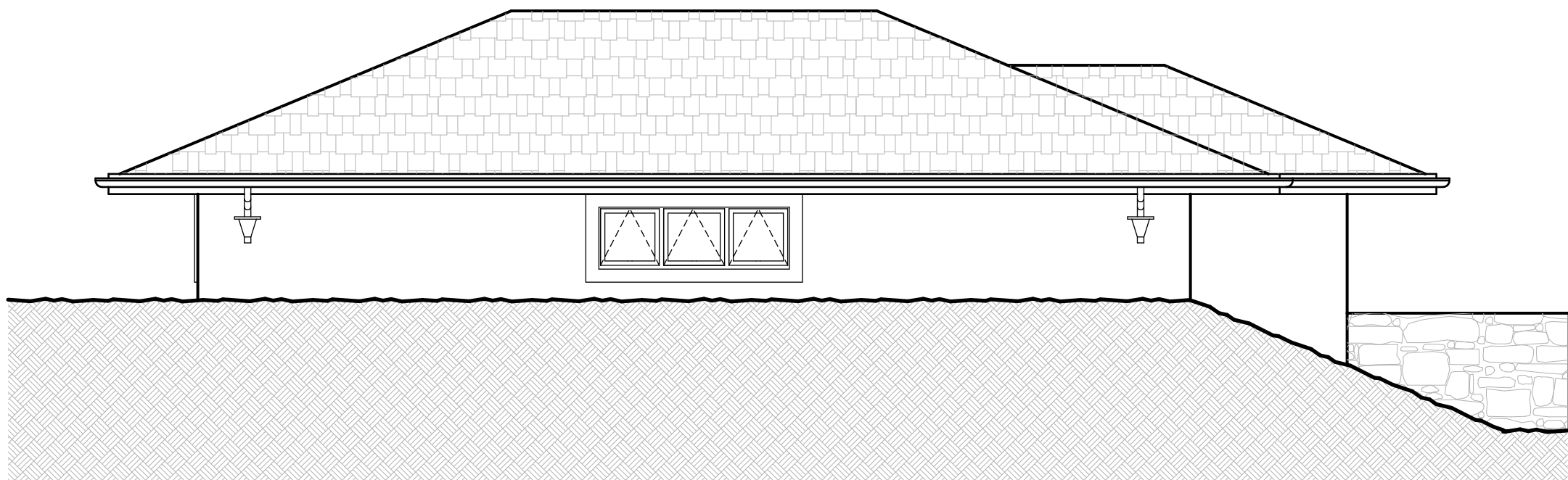
Exterior Elevations
2
Date: February 14, 2025
Phase: PERMIT SET
Sheet Number:
A-7
Sheet: Of:



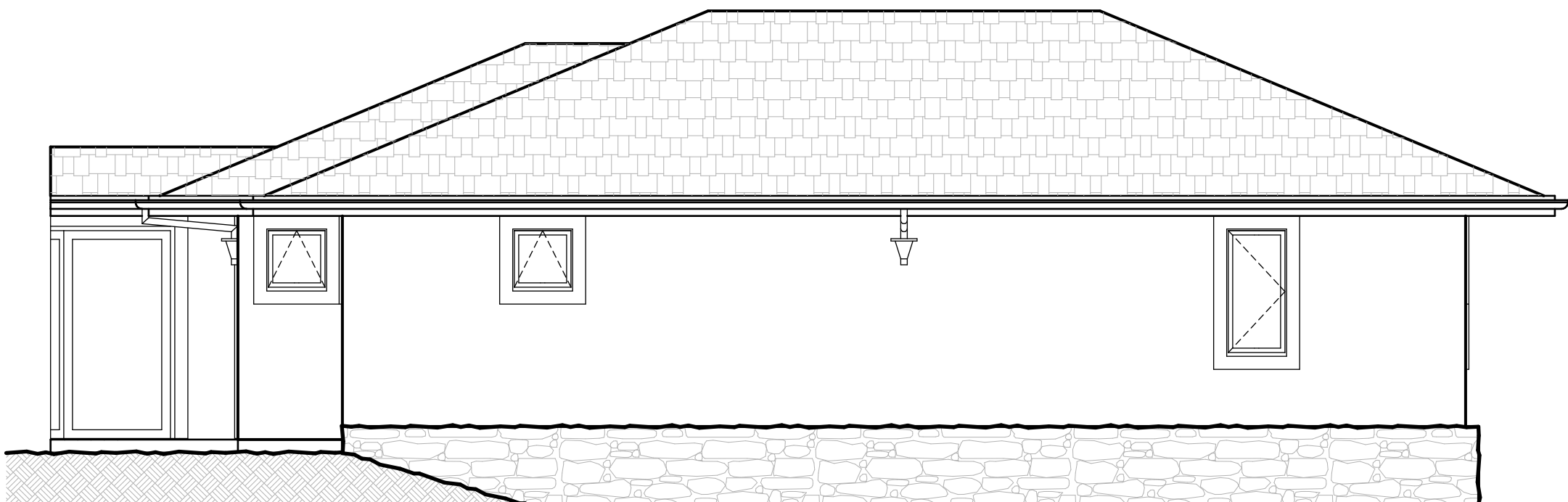
Garage - Right Side



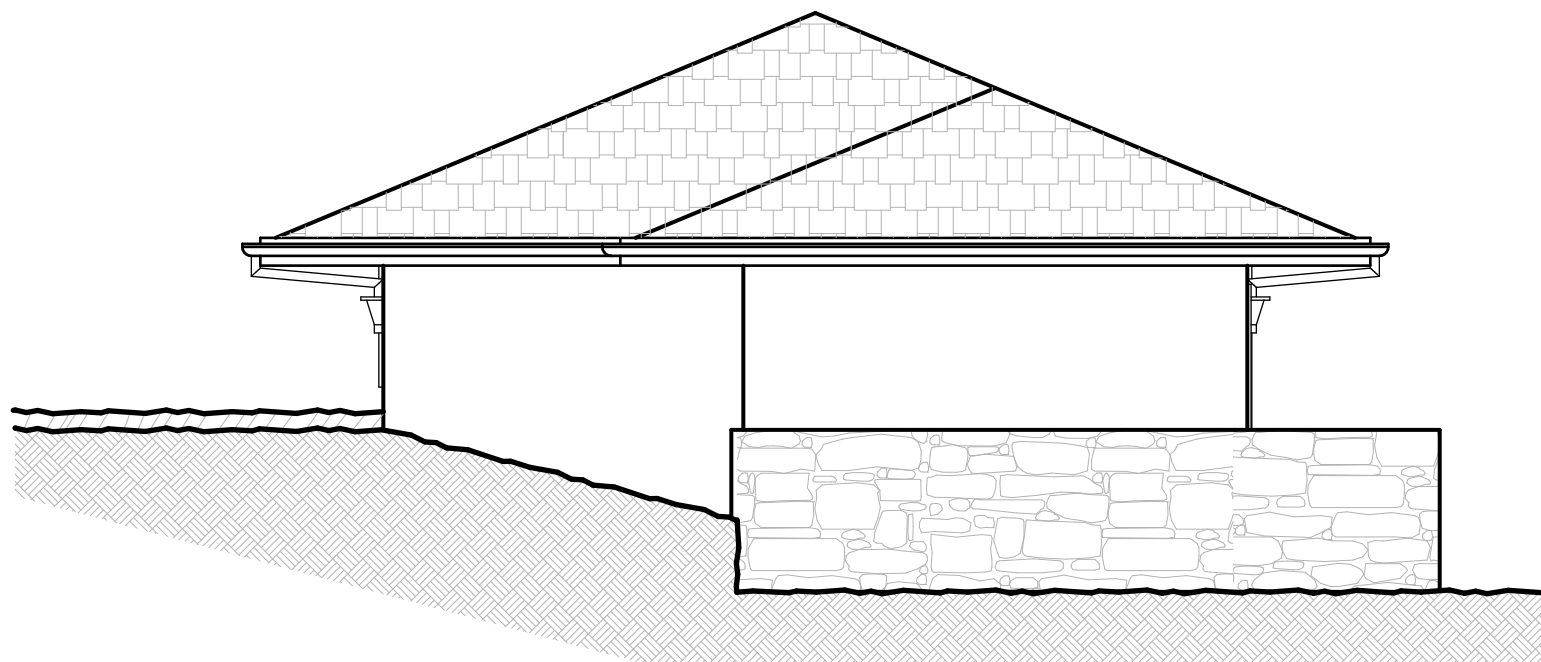
Main Suite - Right Side



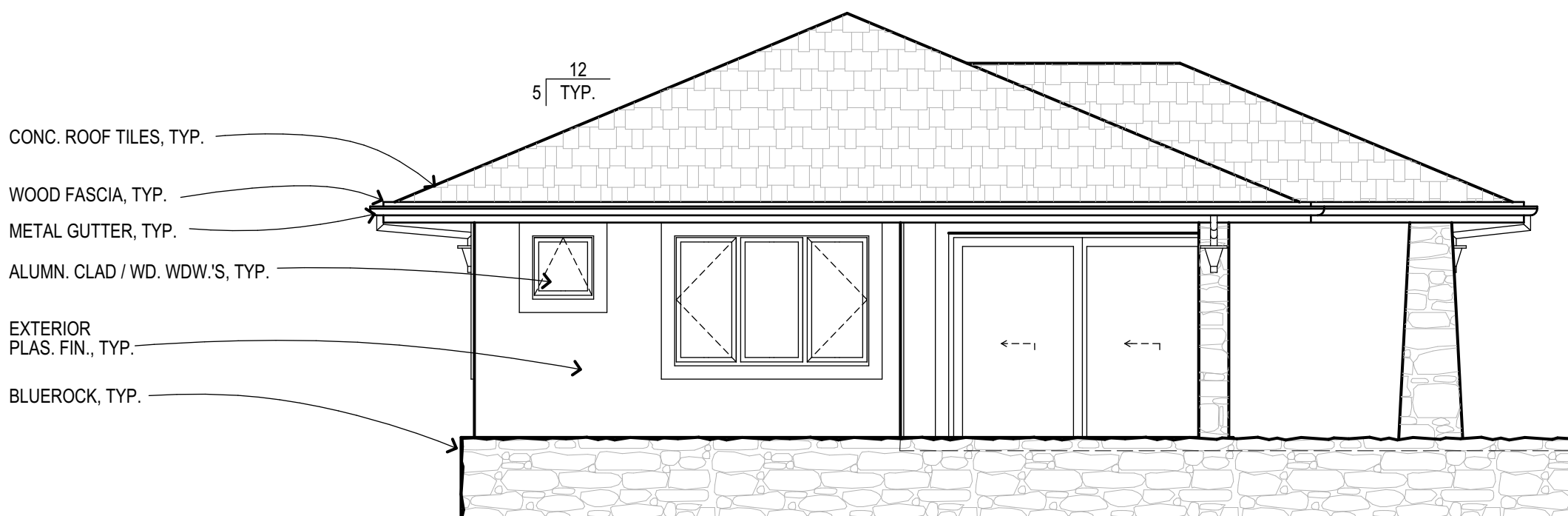
Garage - Rear



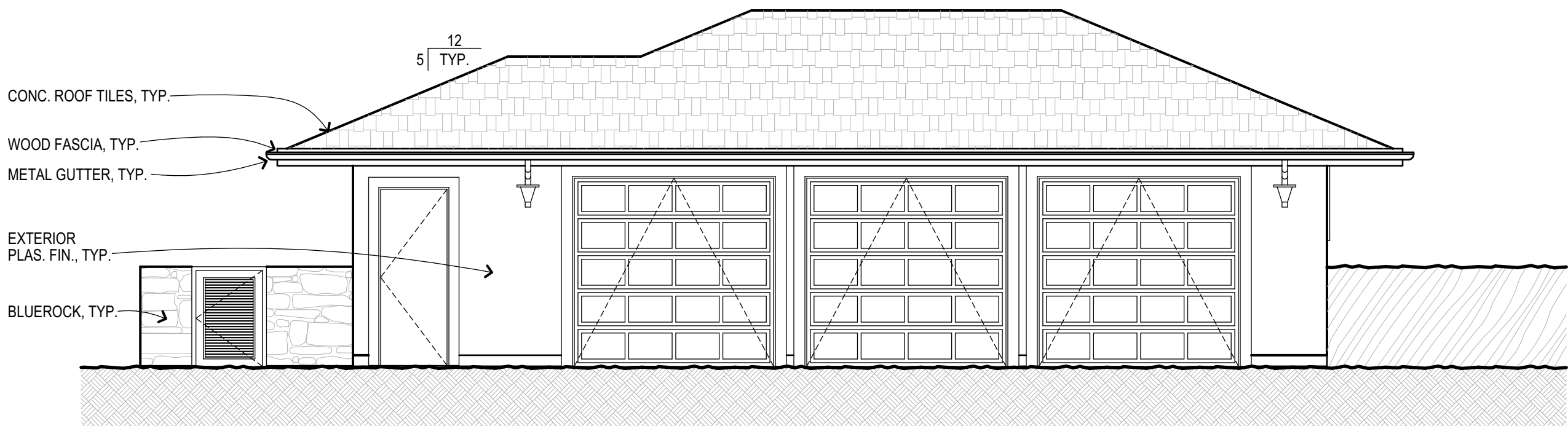
Main Suite - Rear



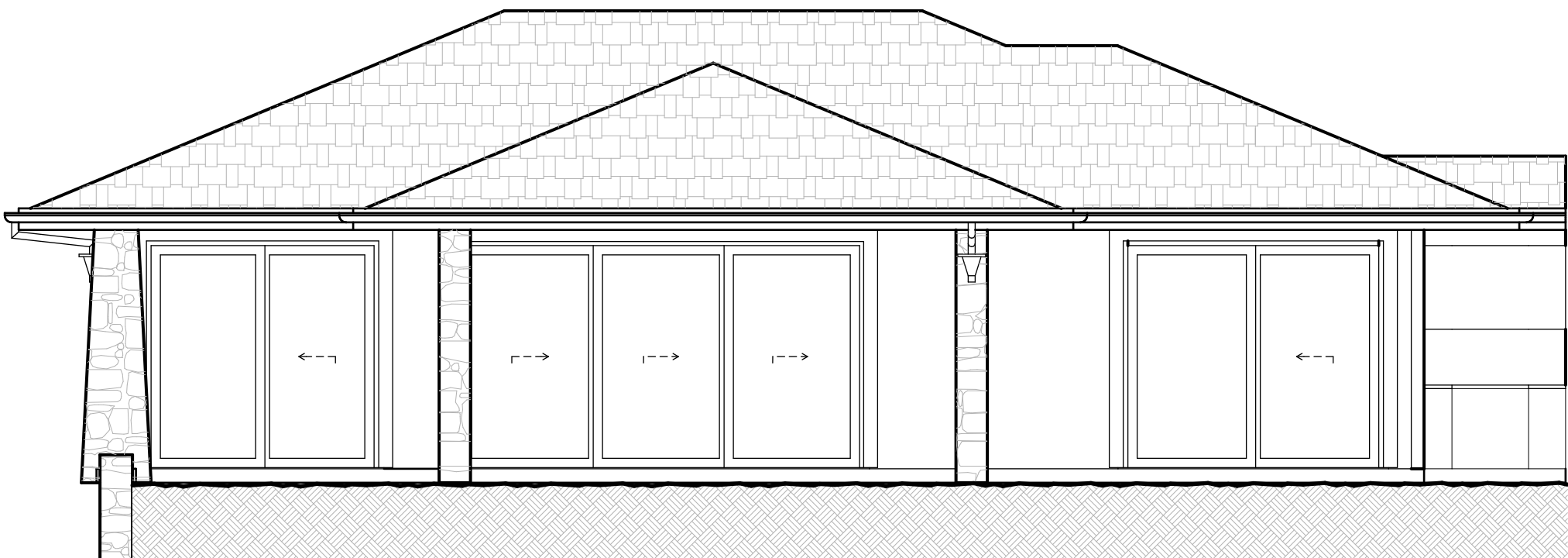
Garage - Left Side



Main Suite - Left Side



2 Garage - Front
Scale: 3/16" = 1'-0"



1 Main Suite - Front
Scale: 3/16" = 1'-0"

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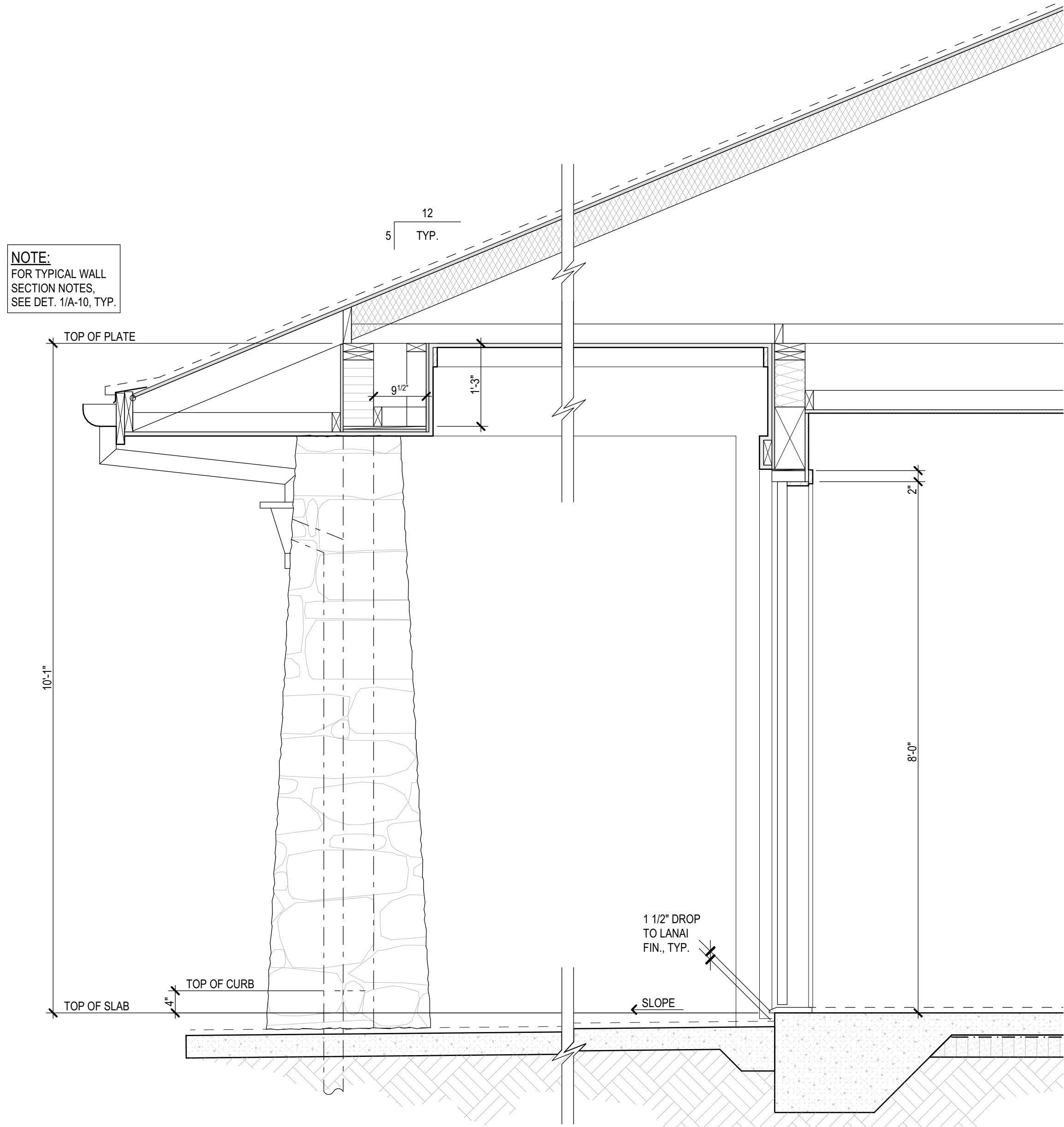
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Signature

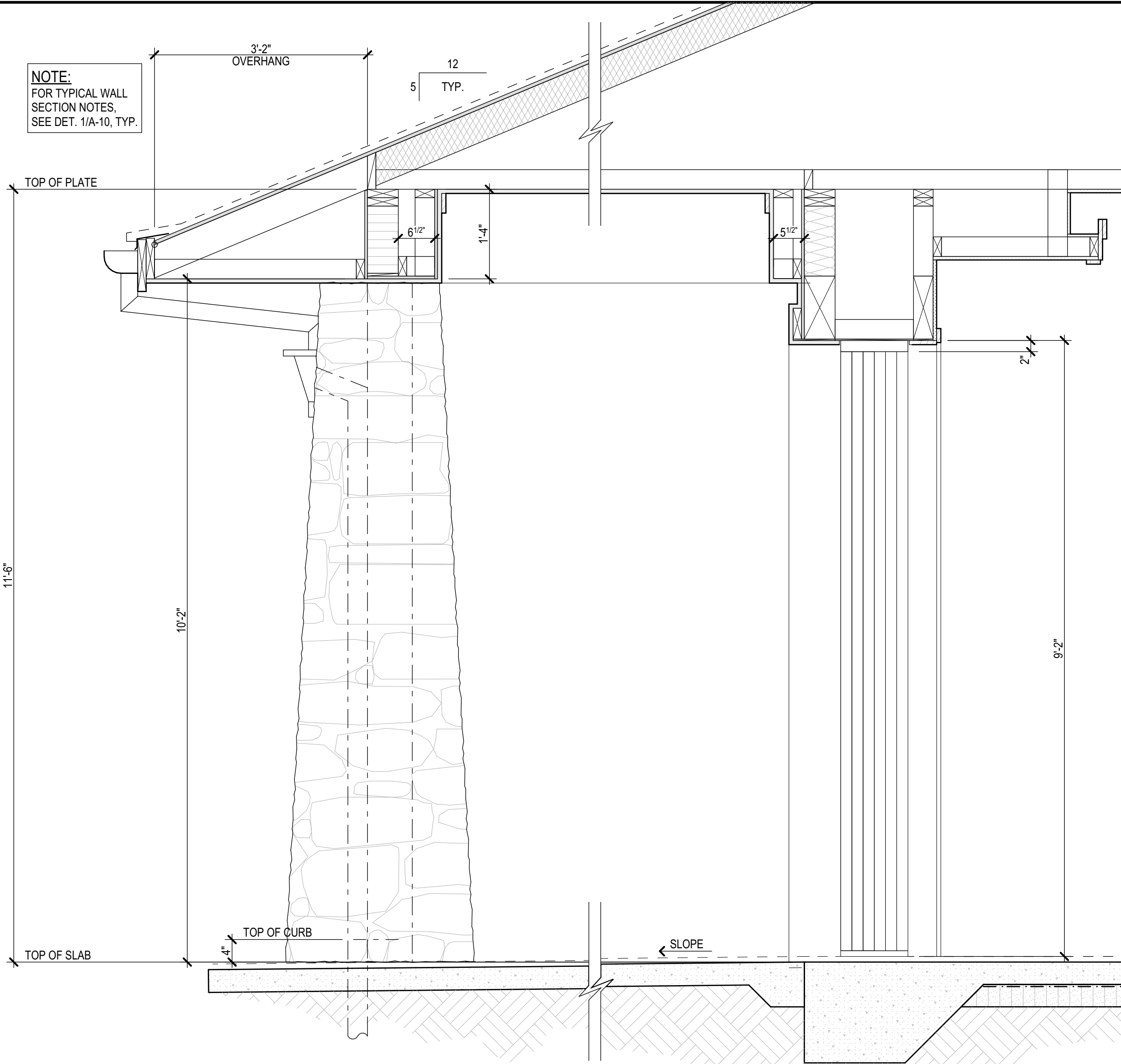
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Lahaina, Hawaii 96761
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No.	Revision

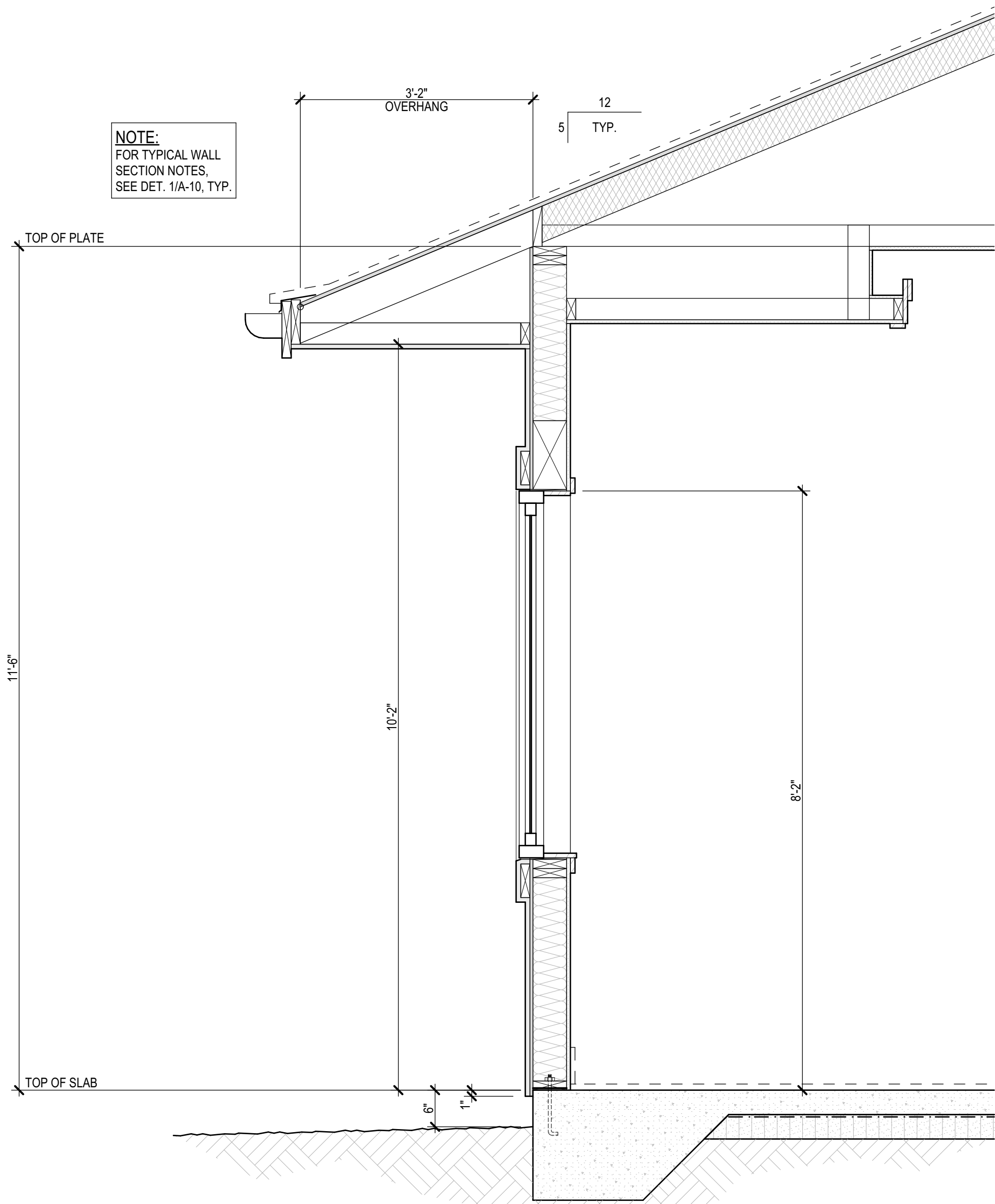
Exterior Elevations
3
Date: February 14, 2025
Phase: PERMIT SET
Sheet Number:
A-8
Sheet: Of:



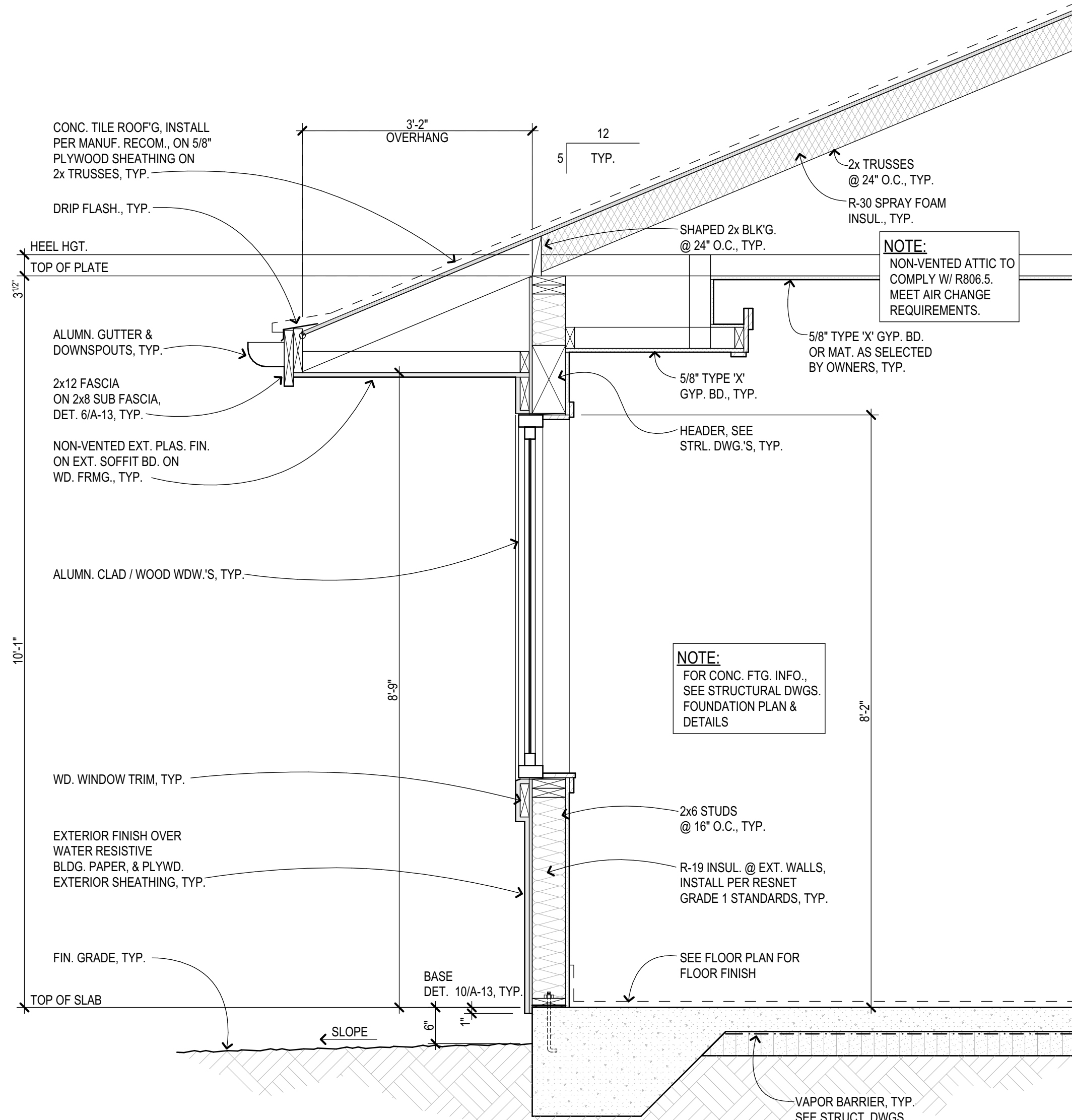
3 Wall Section @ Covered Entry
Scale: 3/4\"/>



4 Wall Section @ Covered Lanai
Scale: 3/4\"/>



2 Wall Section @ Raised Plate
Scale: 3/4\"/>



1 Wall Section @ Typical
Scale: 3/4\"/>

- GENERAL NOTES:**
1. PROVIDE FIRE BLOCKING & DRAFTSTOPS AS REQUIRED, TYP.
 2. PENETRATIONS TO BE SEALED W/ AN APPROVED & RATED FIRE STOPPING MATERIAL, TYP.
 3. ROOFING TO BE INSTALLED AS PER MANUFACTURE'S INSTALLATION SPECIFICATIONS.
 4. STAIRWAYS, RAMPS, GUARDS & HANDRAILS SHALL COMPLY W/ CURRENT BUILDING & RESIDENTIAL CODES.
 5. CONSTRUCTION SHALL BE APPROVED BY AN ARCHITECT OR STRUCTURAL ENGINEER WHEN REQUESTED BY THE BUILDING INSPECTOR.
 6. PROVIDE EARTH TO WOOD SEPERATION & DRAINAGE AWAY FROM BUILDING PER CURRENT BUILDING & RESIDENTIAL CODES.
 7. A SOLAR WATER HEATER SYSTEM IS REQUIRED FOR ALL NEW SINGLE FAMILY DWELLINGS.
 8. 2018 IRC, SECTION R301.2.1.2 PROTECTION OF OPENINGS ALL GLAZING SHALL BE PROTECTED WITH 7/16\"/>
 9. NON-VENTED ATTIC SPACE TO COMPLY W/ R806.5. MEET ATTIC AIR CHANGE REQUIREMENTS.

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Signature

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No.	Revision
Wall Sections 1	
Date:	February 14, 2025
Phase:	PERMIT SET
Sheet Number:	A-10
Sheet:	Of:

3 Wall Section @ Stem Wall
Scale: 3/4" = 1'-0"

2 Wall Section @ Garage Stem Wall
Scale: 3/4" = 1'-0"

1 Wall Section @ Garage Door
Scale: 3/4" = 1'-0"

4 Wall Section @ Halls




Signature

(2) 4-4-019: 004

D.	Revision
Wall Sections 2	
Date:	February 14, 2025
Issue:	PERMIT SET
Sheet Number:	
Sheet:	Of:
A-11	

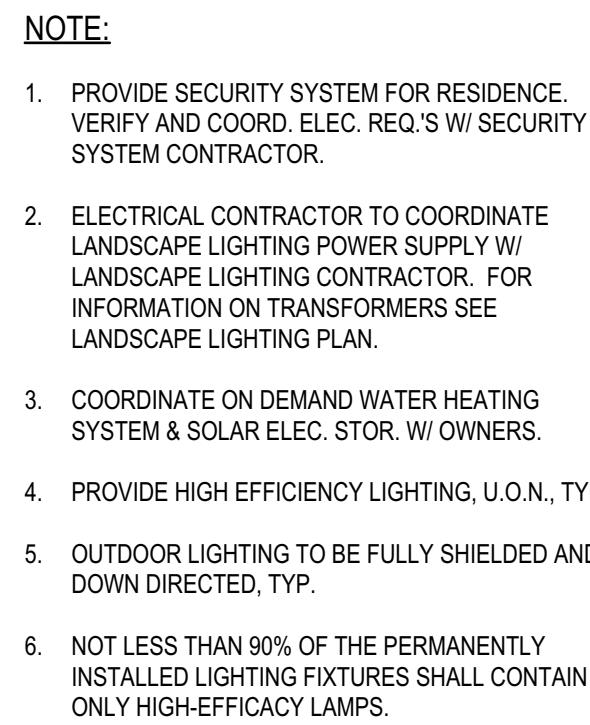
To the best of my knowledge, this project's design substantially conforms to the Energy code:

Signature:  Date: 2/14/2025

Name: DENNIS J. HARMON

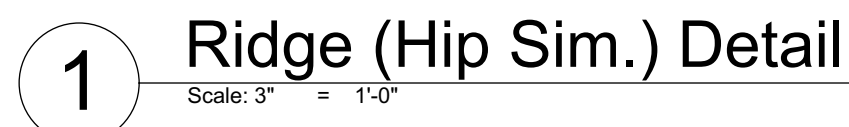
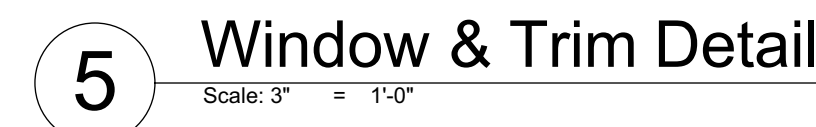
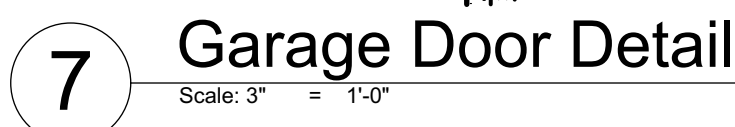
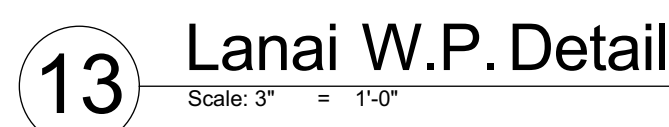
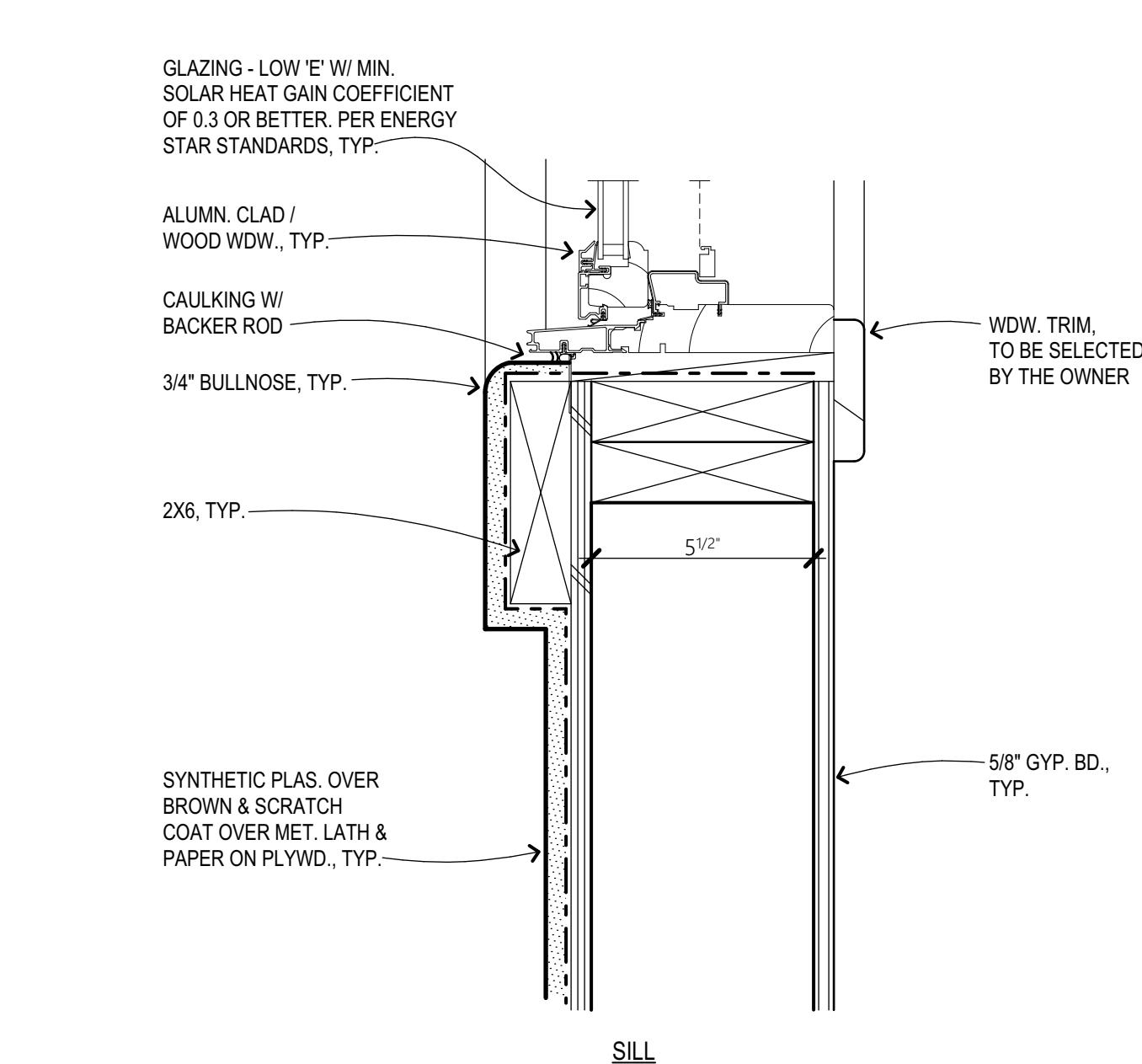
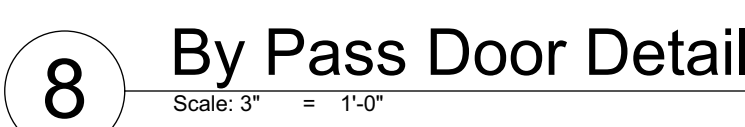
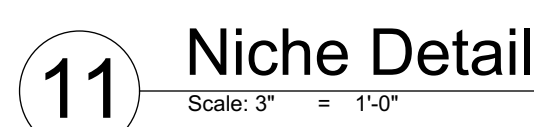
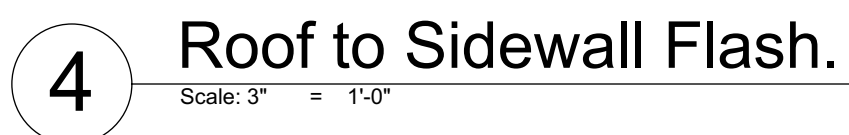
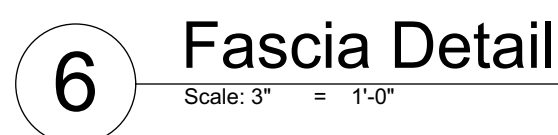
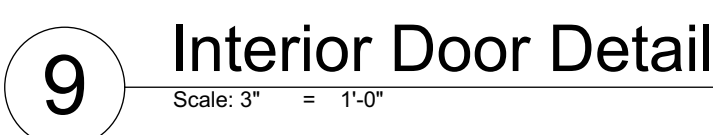
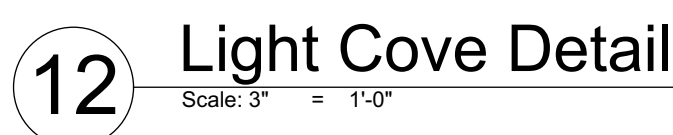
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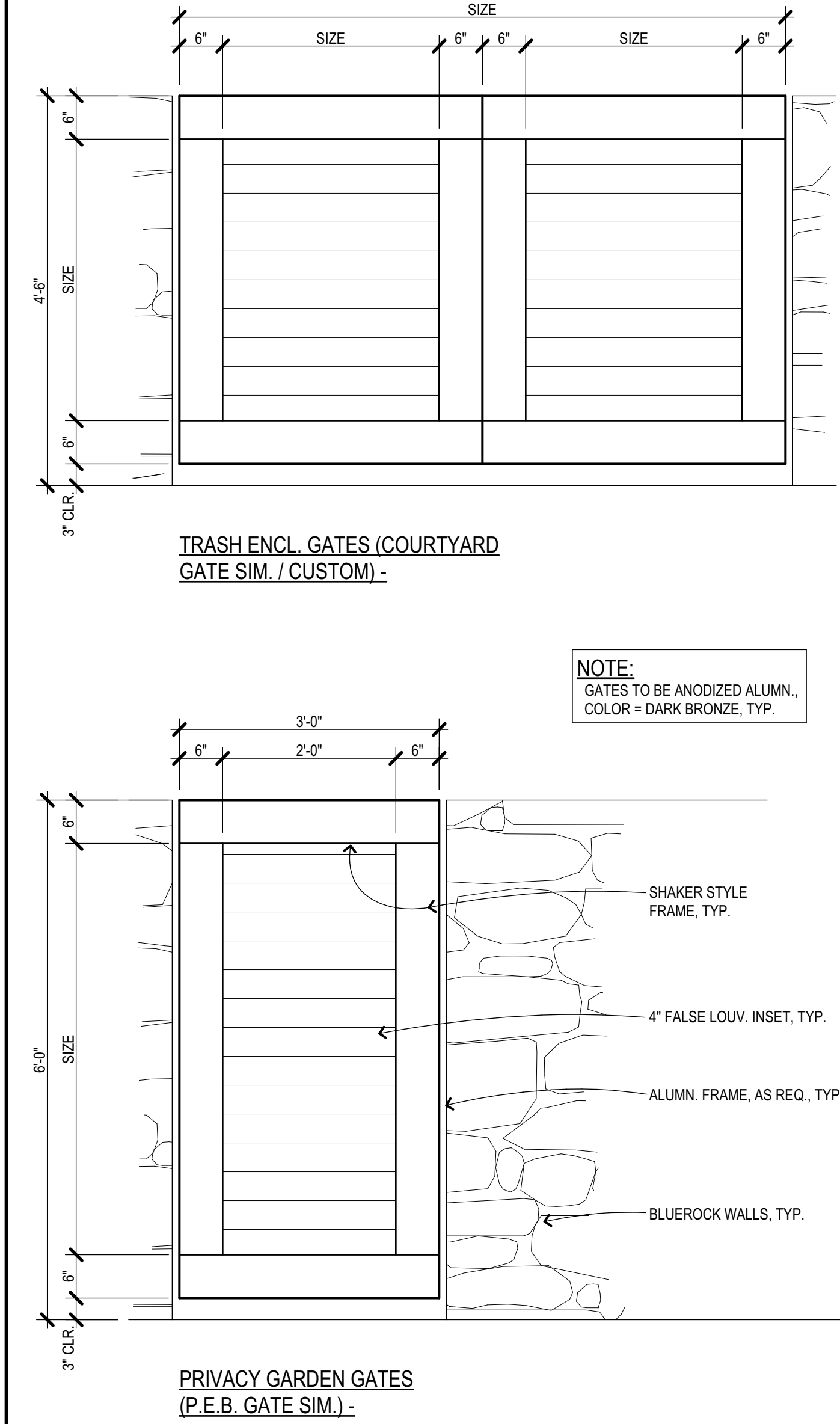
License No: 9681



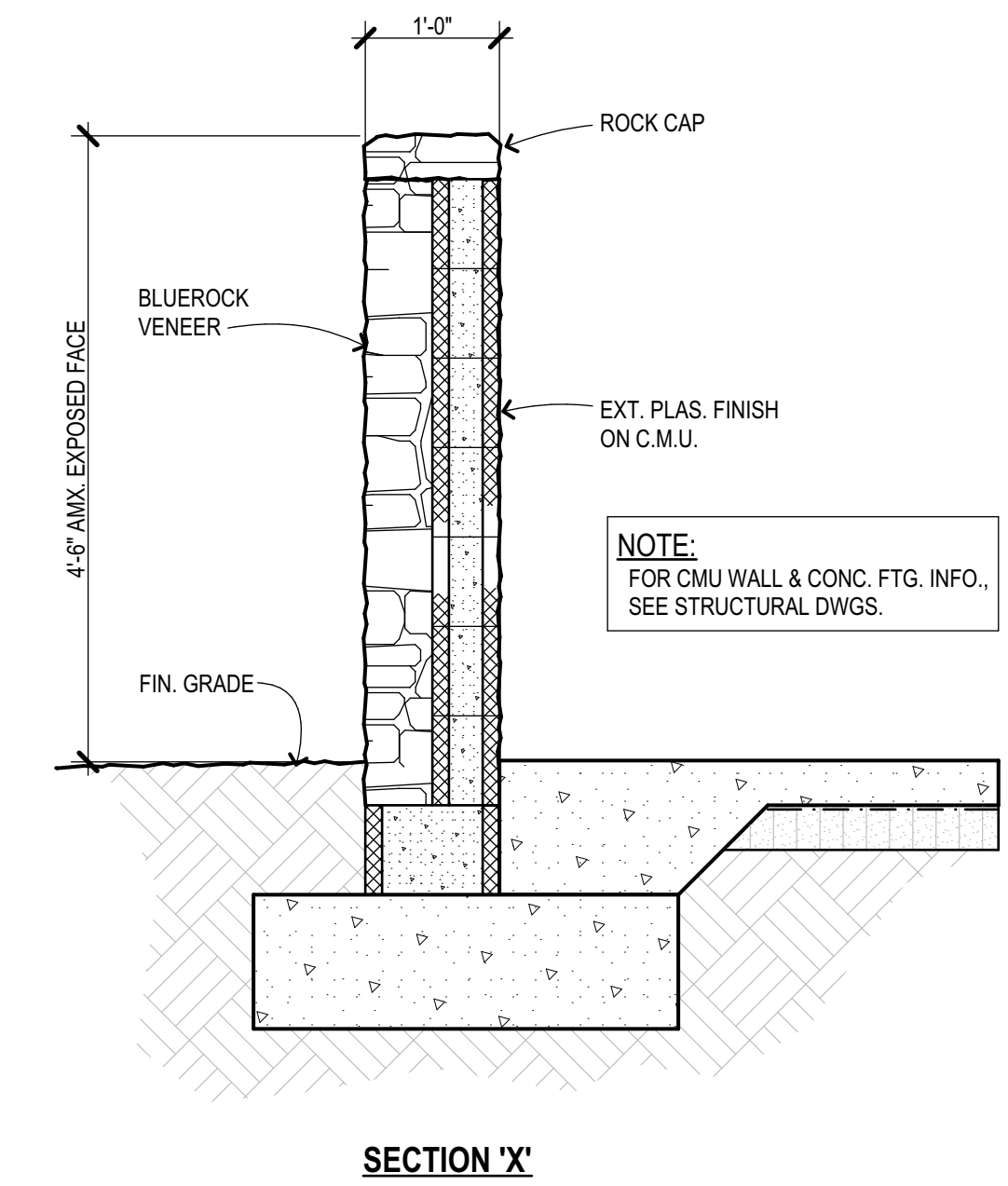
-

1 Electric
Scale: $3/16'' = 1'-0''$

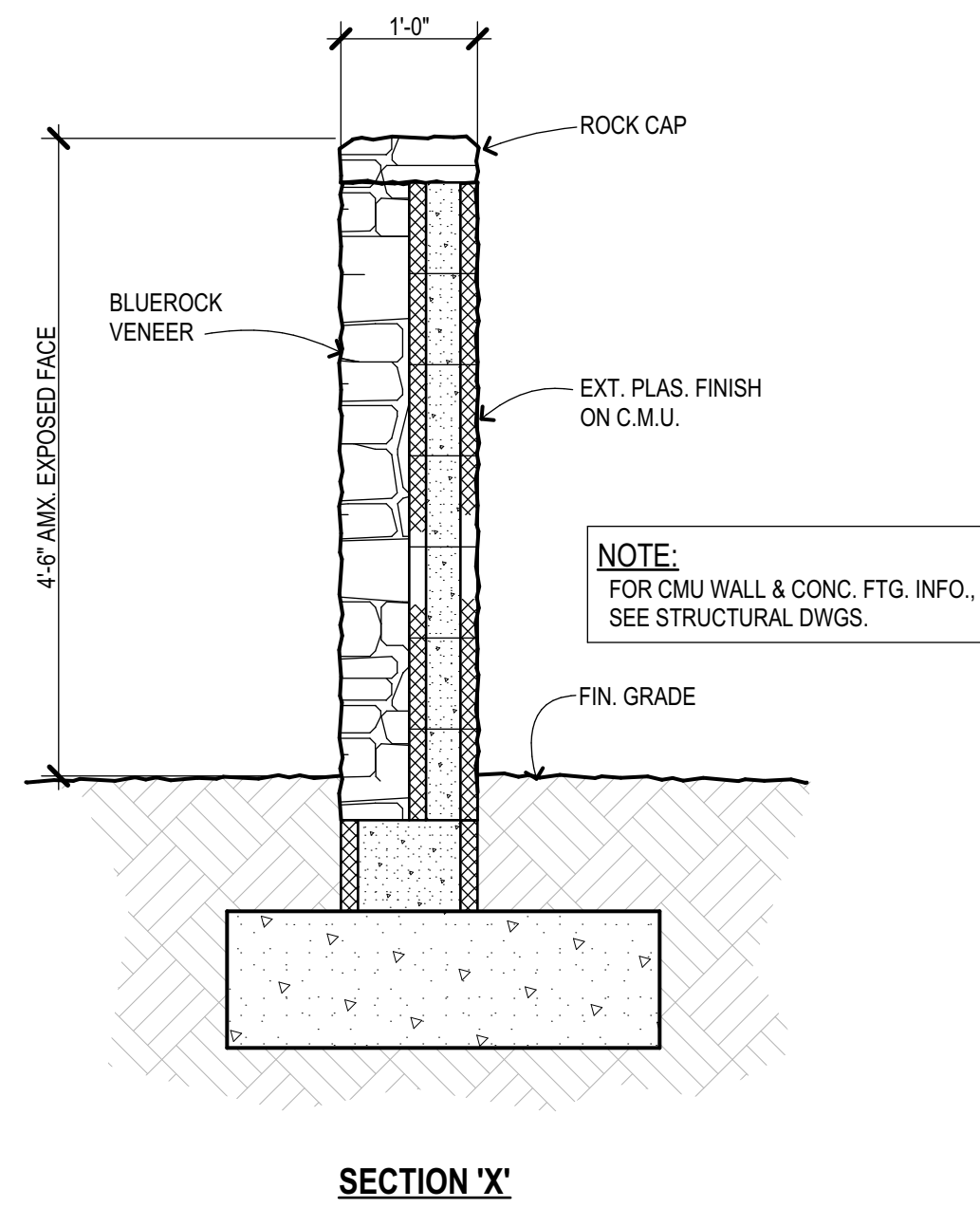




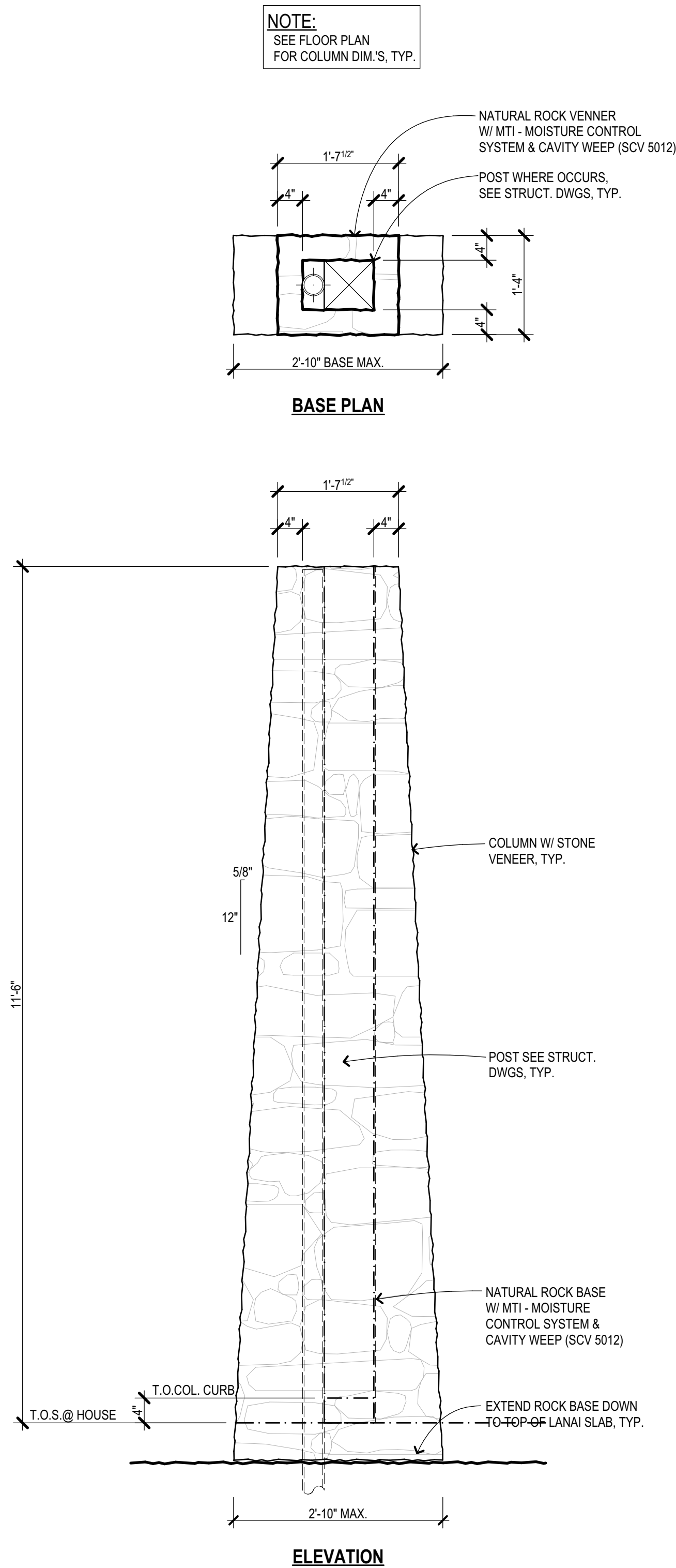
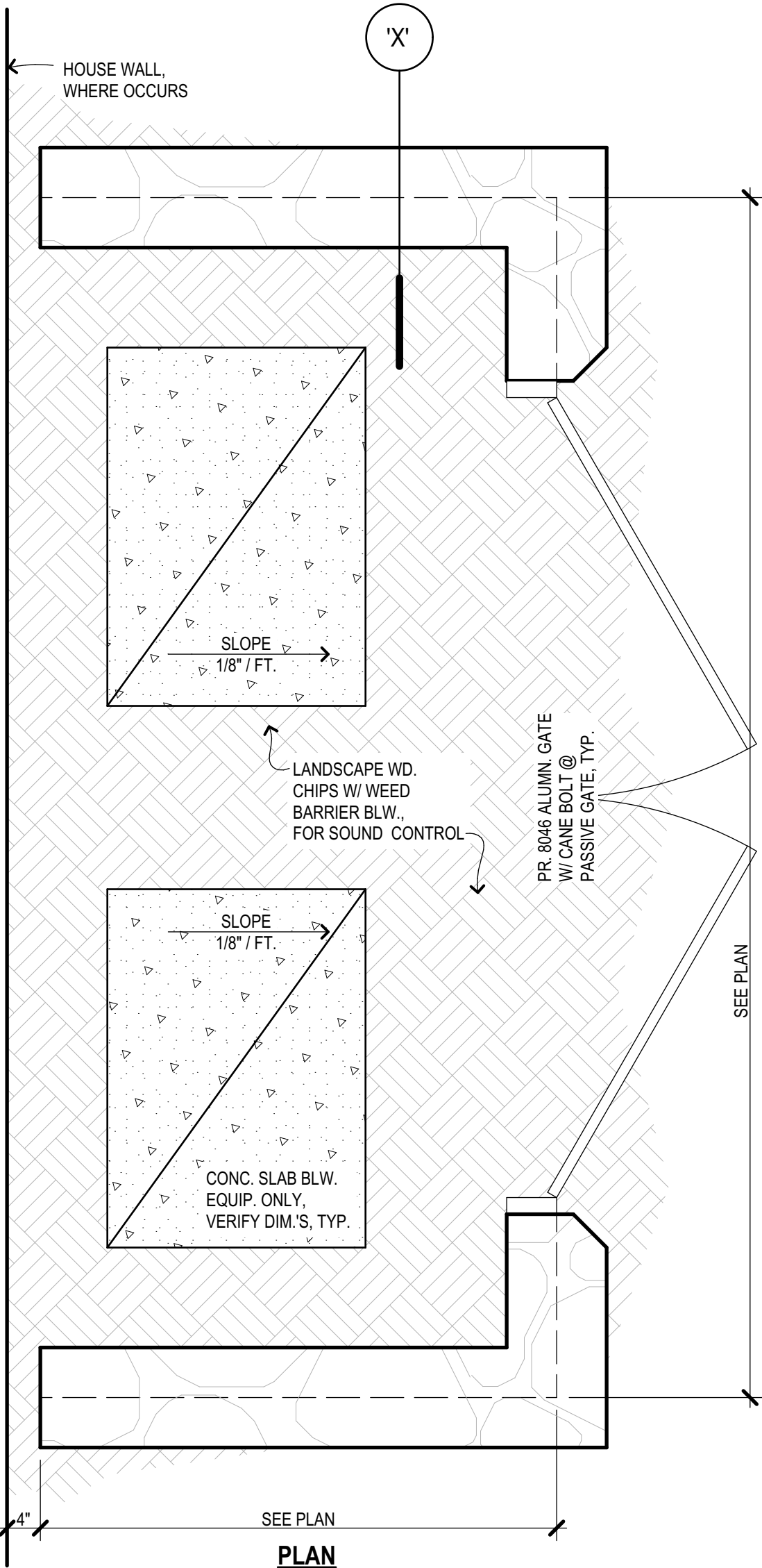
7 Gate Details
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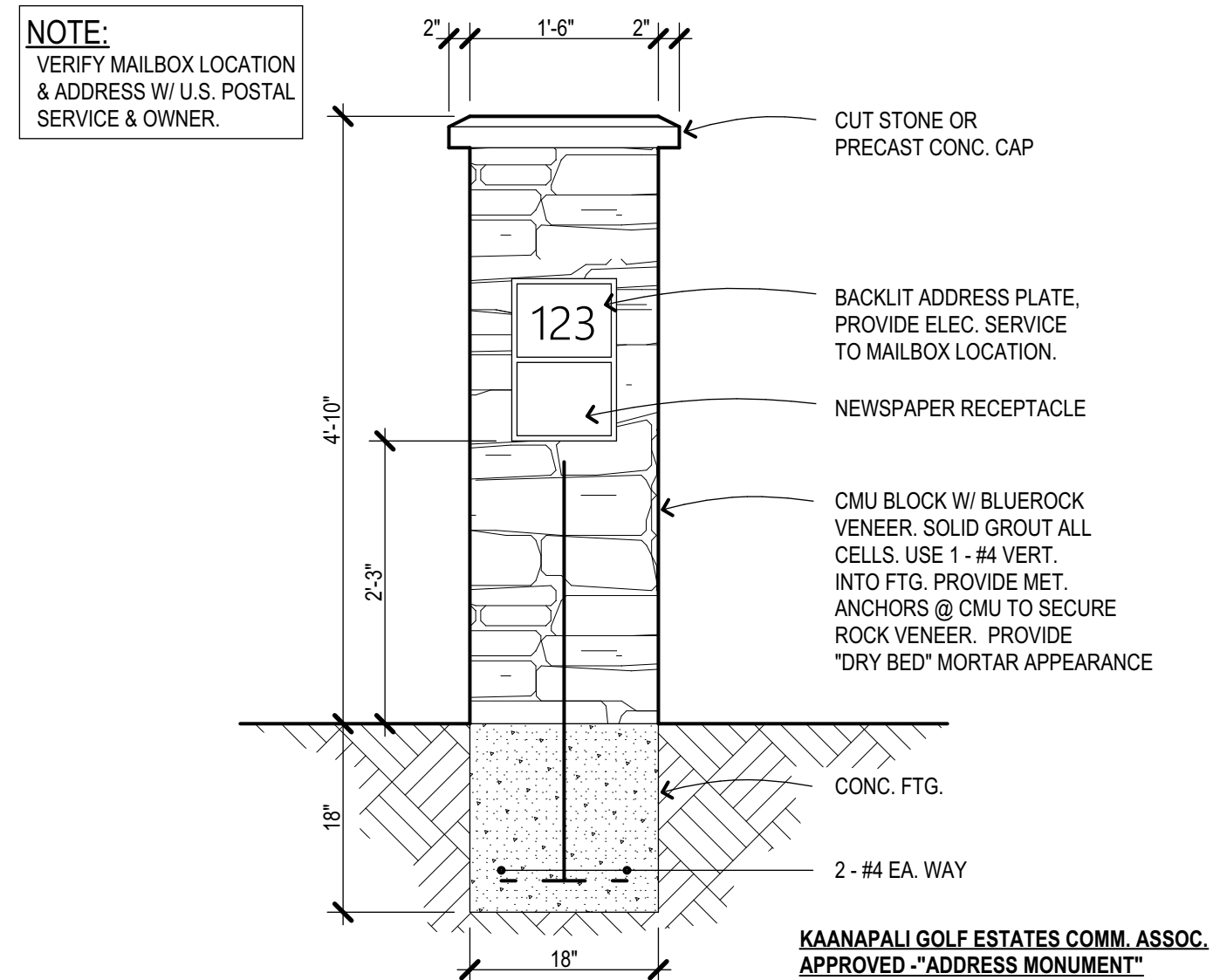
6 LPG Enclosure Detail
Scale: 3/4" = 1'-0"



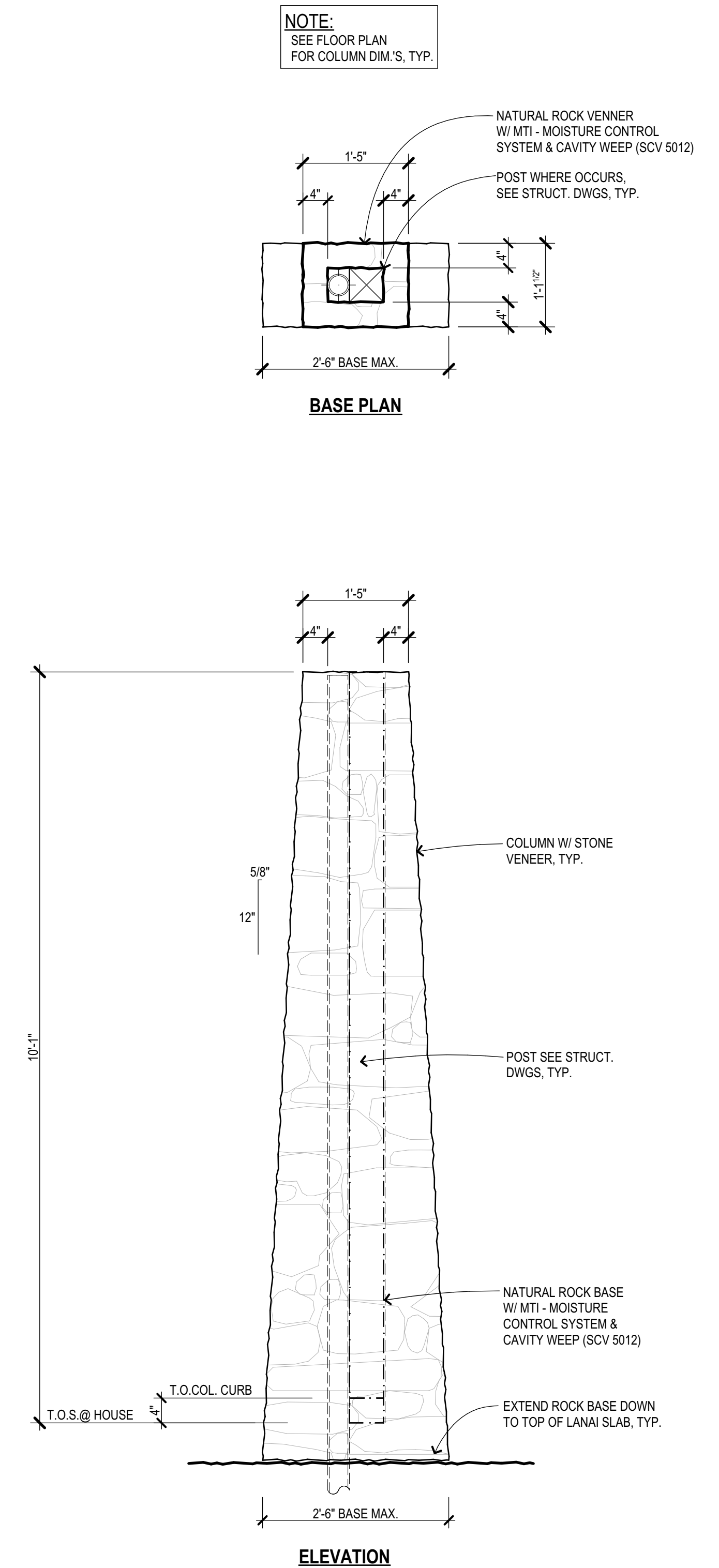
5 Enclosure Detail
Scale: 3/4" = 1'-0"



3 Great Rm. Column Details
Scale: 3/4" = 1'-0"



2 Address Monument
Scale: 3/4" = 1'-0"



1 Suite Column Details
Scale: 3/4" = 1'-0"

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No.	Revision

Architectural Details 2

Date: February 14, 2025

Phase: PERMIT SET

Sheet Number:

A-14

Sheet: Of:

General

- ## Tests and Inspections

- # Basis of Design

- # Foundations

- ## Concrete

- ## Patching of Concrete

Reinforcing Steel

- CMU

- ## Framing Lumber

- ## Plywood

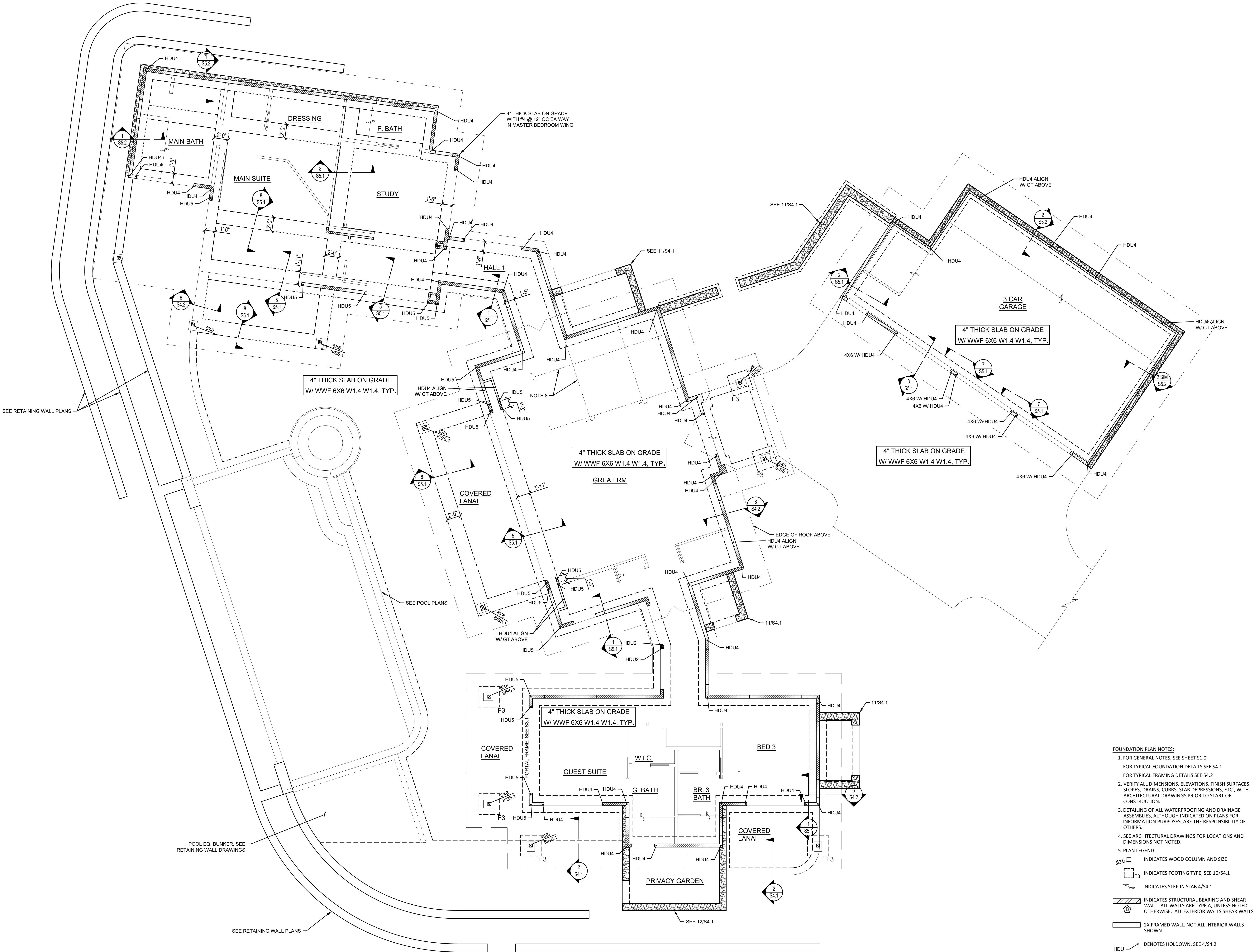
- ## Rough Carpentry

- # Trusses

Structural Observation

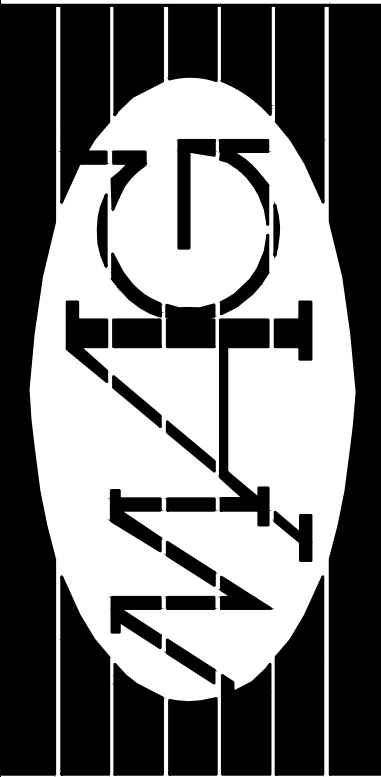
- # SHEET INDEX

Sheet: Of



1 FOUNDATION PLAN
S2.0 SCALE: 1/4" = 1'-0"

- FOUNDATION PLAN NOTES:
1. FOR GENERAL NOTES, SEE SHEET S1.0
FOR TYPICAL FOUNDATION DETAILS SEE S4.1
FOR TYPICAL FRAMING DETAILS SEE S4.2
 2. VERIFY ALL DIMENSIONS, ELEVATIONS, FINISH SURFACES, SLOPES, DRAINS, CURBS, SLAB DEPRESSIONS, ETC., WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
 3. DETAILING OF ALL WATERPROOFING AND DRAINAGE ASSEMBLIES, ALTHOUGH INDICATED ON PLANS FOR INFORMATION PURPOSES, ARE THE RESPONSIBILITY OF OTHERS.
 4. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS AND DIMENSIONS NOT NOTED.
 5. PLAN LEGEND
6X6 INDICATES WOOD COLUMN AND SIZE
 F3 INDICATES FOOTING TYPE, SEE 10/S4.1
 INDICATES STEP IN SLAB 4/S4.1
 INDICATES STRUCTURAL BEARING AND SHEAR WALL. ALL WALLS ARE TYPE A, UNLESS NOTED OTHERWISE. ALL EXTERIOR WALLS SHEAR WALLS
 2X FRAMED WALL. NOT ALL INTERIOR WALLS SHOWN
HDU DENOTES HOLDOWN, SEE 4/S4.2
 6. FOR TYPICAL STEPPED FOOTING DETAIL SEE 6/S4.1
 7. CONTRACTOR TO LAYOUT SLAB ON GRADE JOINTS AND COORDINATE WITH ARCHITECT. SEE DETAIL 1/S4.1.



scott ENGINEERING, LLC
1135 Makawao Ave. #103
PMB #171
Maui, Hawaii 96768
TELEPHONE: (808) 298-7084
Email: alana@scott-engineering.com

STAMP: ALANA J. SCOTT
LICENSED PROFESSIONAL ENGINEER
No. 12554-S
HAWAII U.S.A.
Exp. Date: 4/30/26
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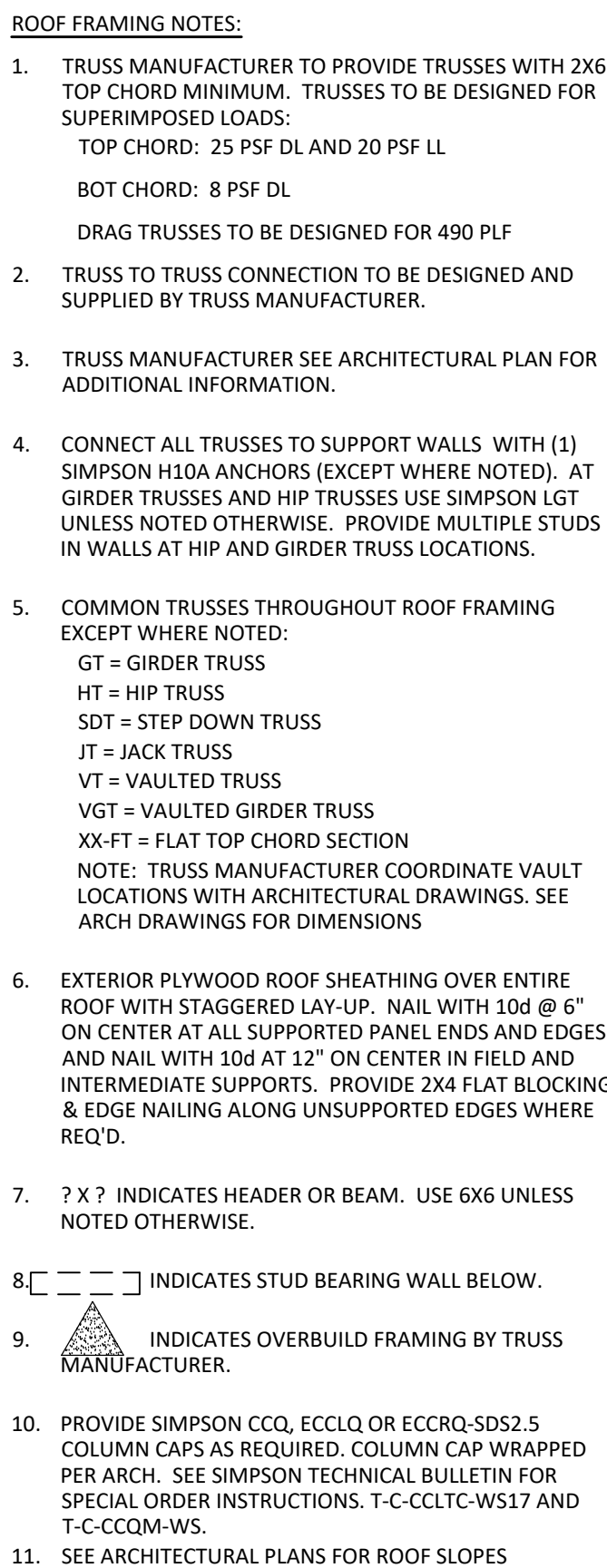
Signature

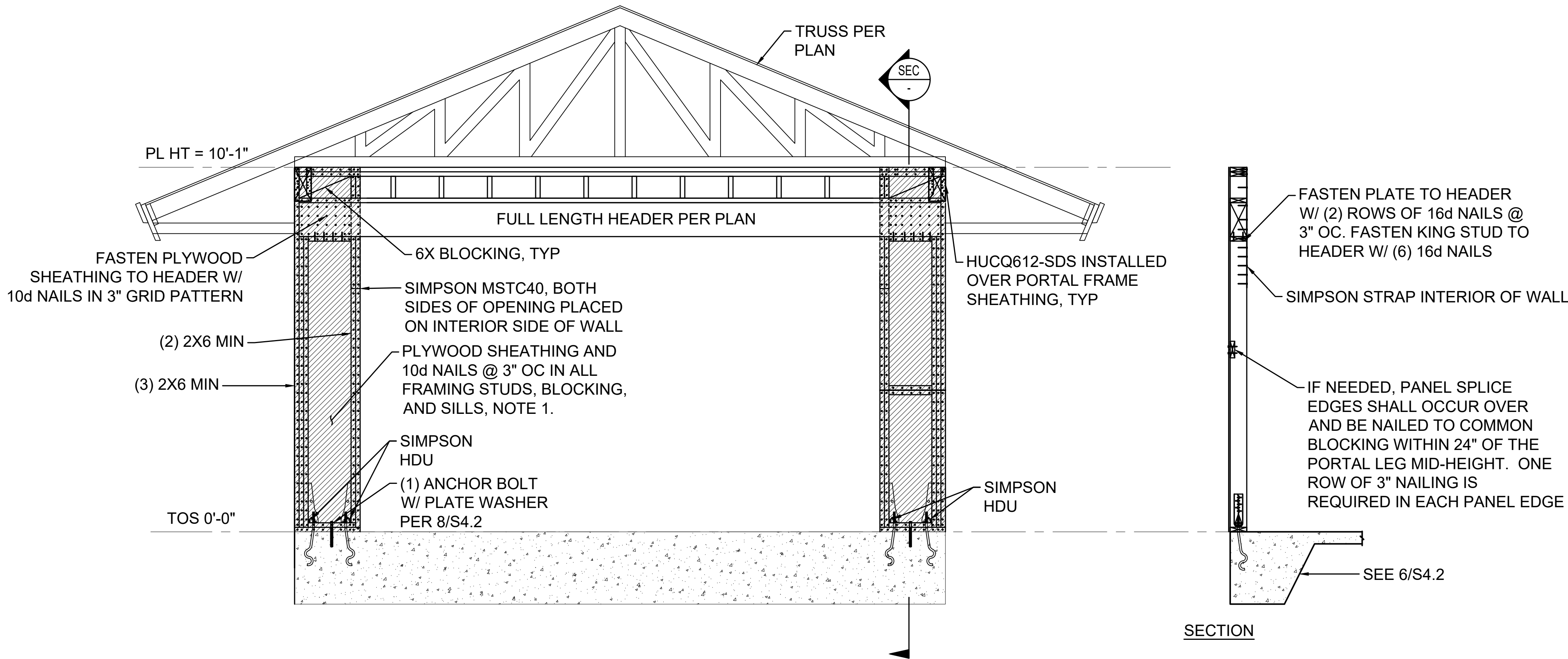
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TMK: (2) 4-4-019:004

No.	Revision

FOUNDATION PLAN

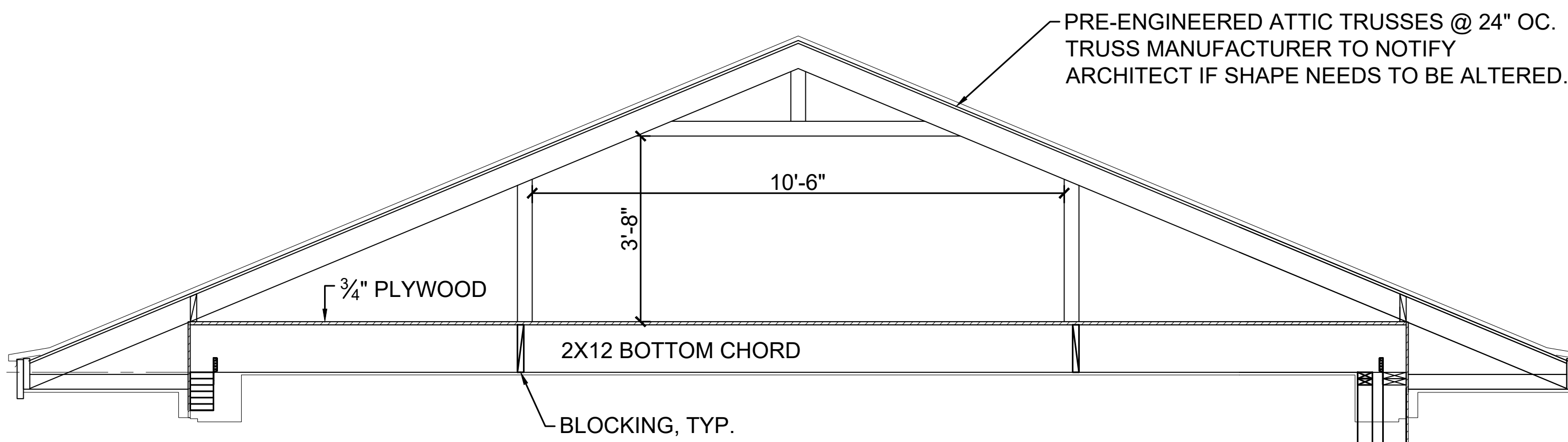
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Phase: PERMIT SET
Sheet Number: S2.0
Sheet: Of:



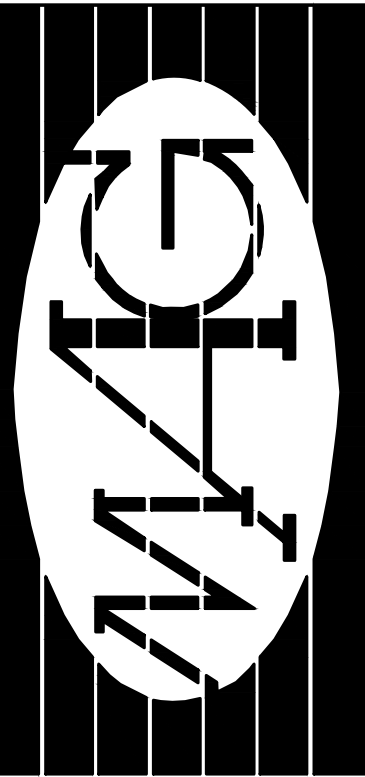


NOTES:
1. SHEATH ENTIRE PORTAL FRAME WALL. WHERE NO SHADING SHOWN NAIL W/ 10d @ 6" OC AT PANEL ENDS AND EDGES AND 12" OC IN THE FIELD.

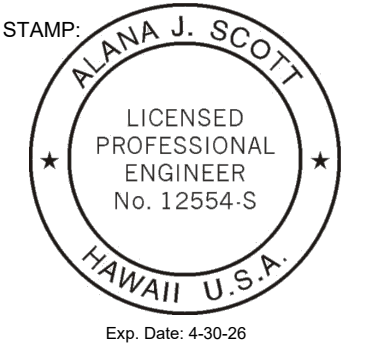
1 TYPICAL PORTAL FRAME CONSTRUCTION
S3.1 SCALE: 1/2" = 1'-0"



2 TYPICAL ATTIC TRUSS SHAPE
S3.1 SCALE: 1/2" = 1'-0"



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Alana J. Scott
Signature

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TMK: (2) 4-4-019:004

No.	Revision

SECTIONS AND DETAILS

Date: 02/05/2025

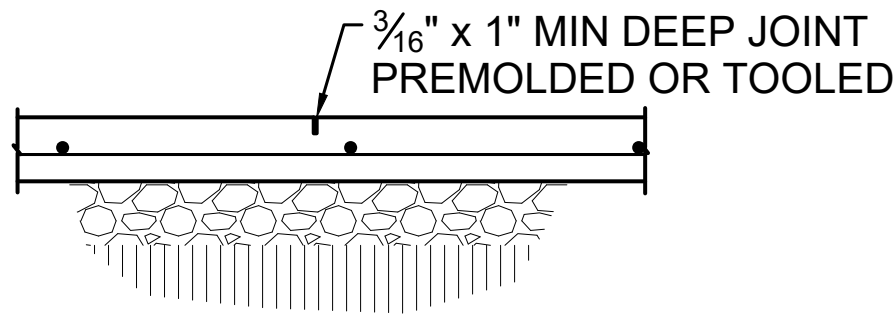
Phase: PERMIT SET

Sheet Number:

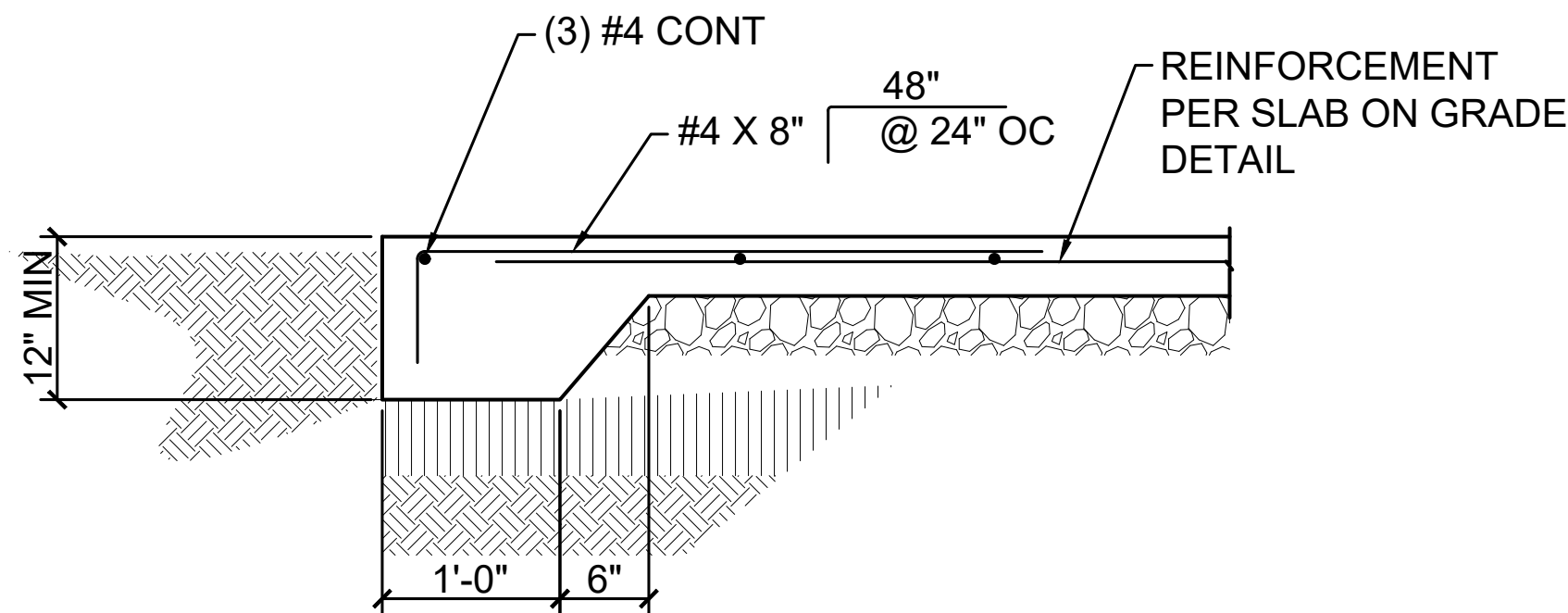
S3.1

Sheet: Of:

- NOTES:
1. FOR SLAB THICKNESS AND REINFORCEMENT SEE PLANS.
 2. REINFORCING SHALL BE CONTINUOUS ACROSS JOINTS UNLESS NOTED OTHERWISE.
 3. SAW CUTS NOT ALLOWED
 4. INTERIOR SLAB JOINTS SHALL BE PREMOLDED AND CAULKED.
 5. EXPOSED SLAB JOINTS (LIKE IN A GARAGE) SHALL BE TOOLED JOINT.
 6. CONTRACTOR TO COORDINATE SLAB JOINT LOCATIONS. JOINTS SHOWN ON PLAN ARE A RECOMMENDATION. JOINTS TO ENCLOSE APPROXIMATELY 200 SQ FT MAX (SAW CUTS AT 12'-0" MAX).

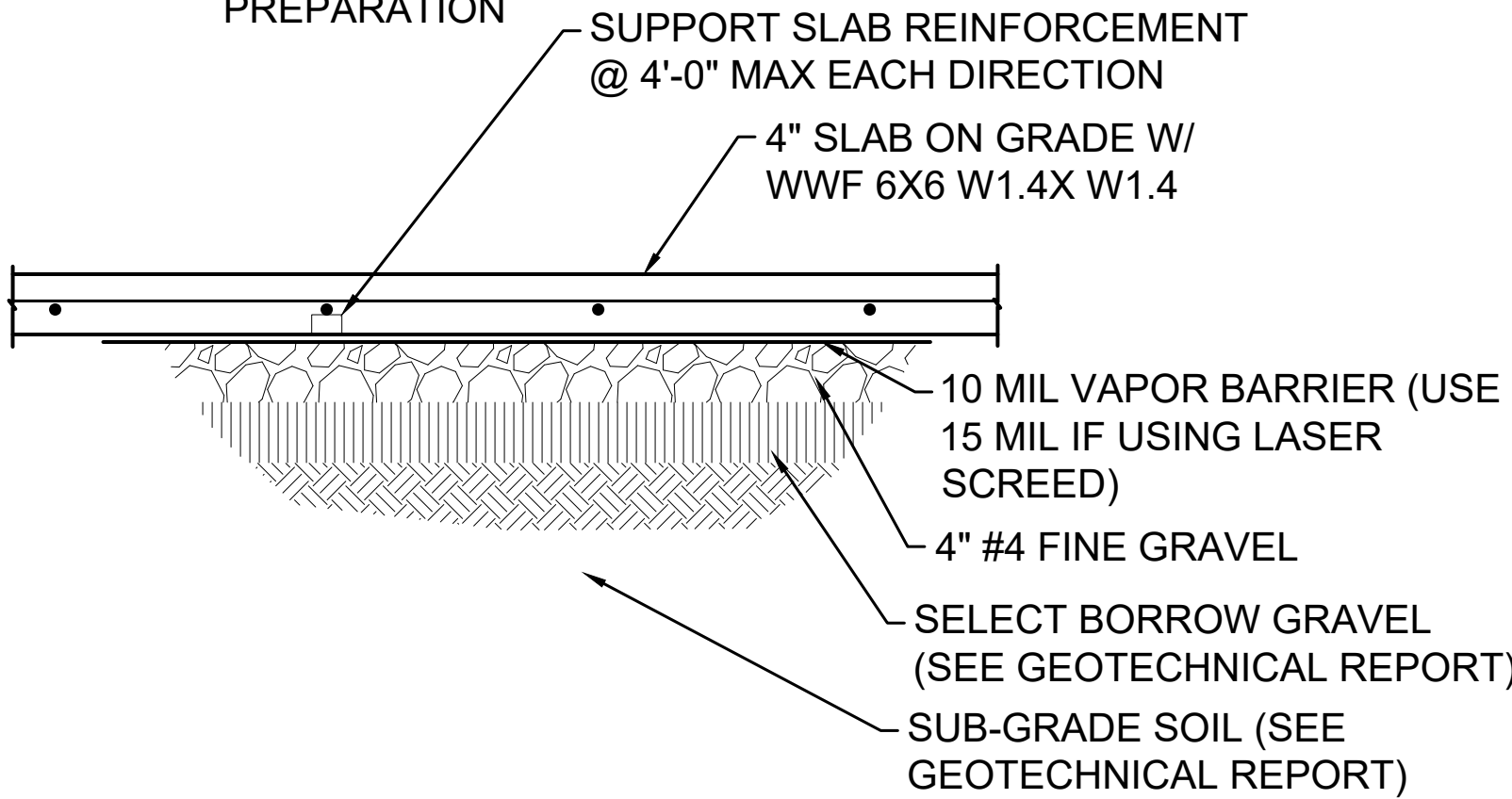


1 TYP S.O.G JOINTS
S4.1 SCALE: NONE

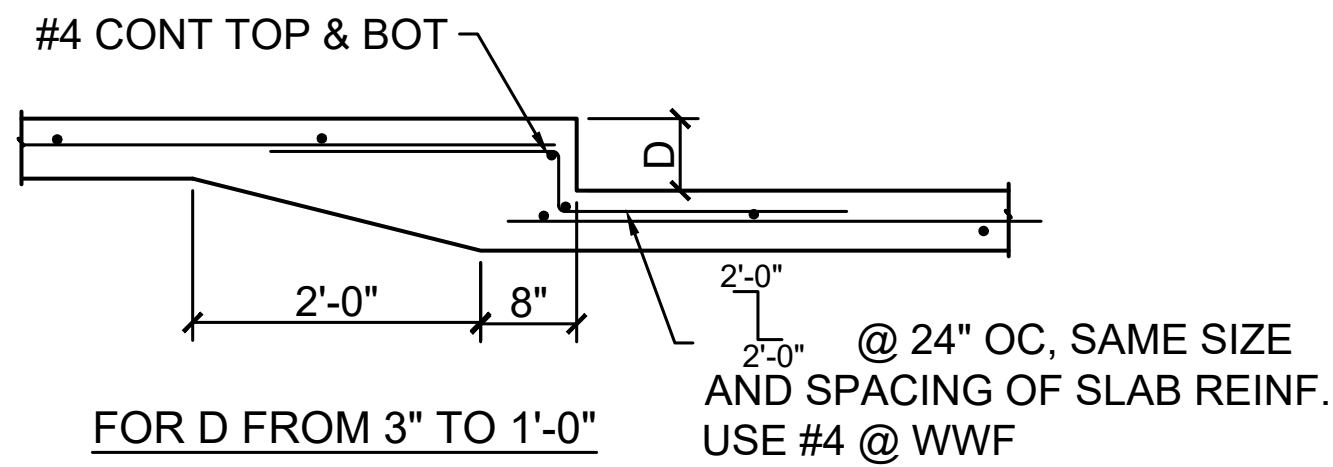


2 TYPICAL EDGE OF SLAB
S4.1 SCALE: NONE

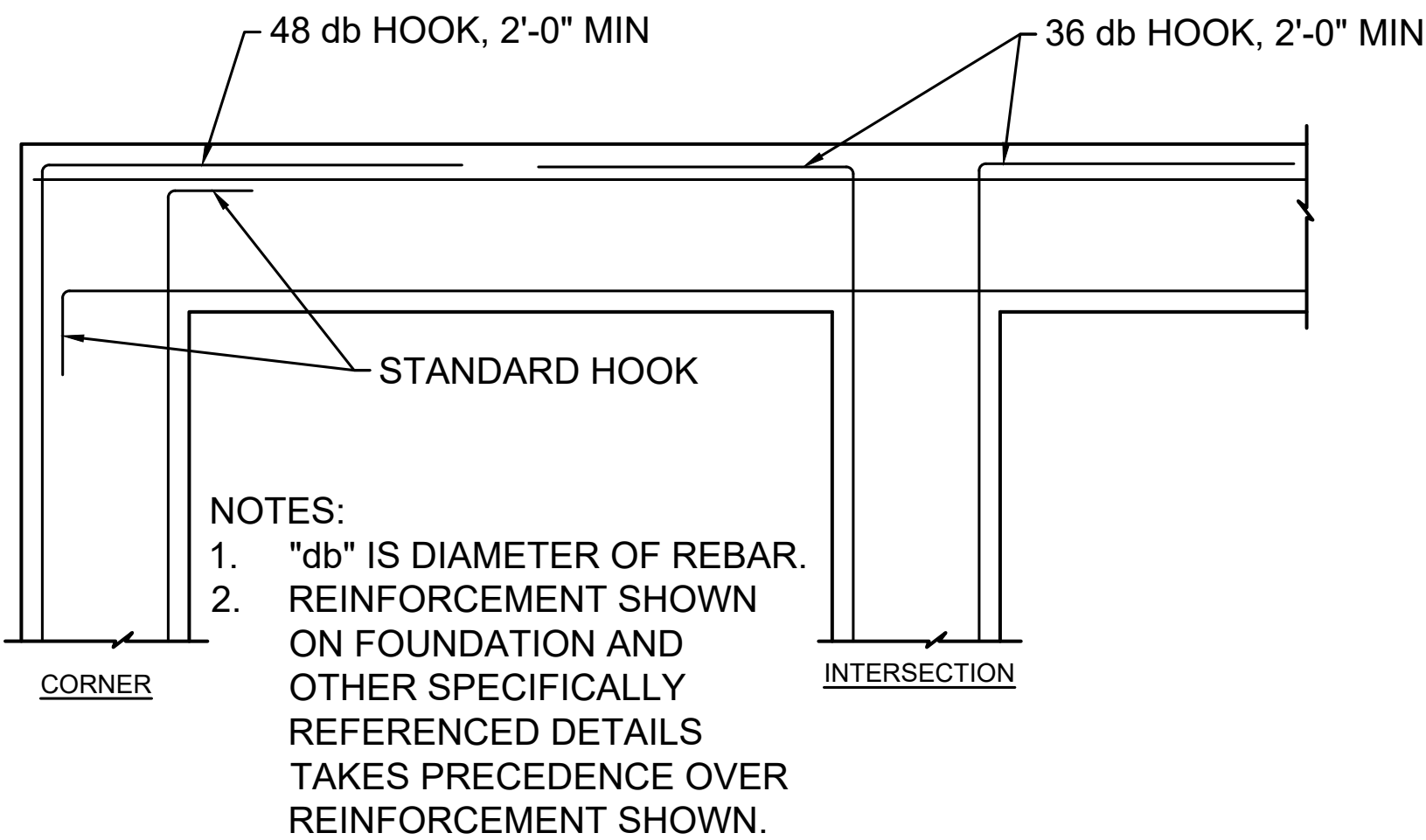
- NOTES:
1. SEE 1/S4.1 FOR TOOLED JOINT REQUIREMENTS.
 2. SEE GEOTECHNICAL REPORT FOR BASE PREPARATION



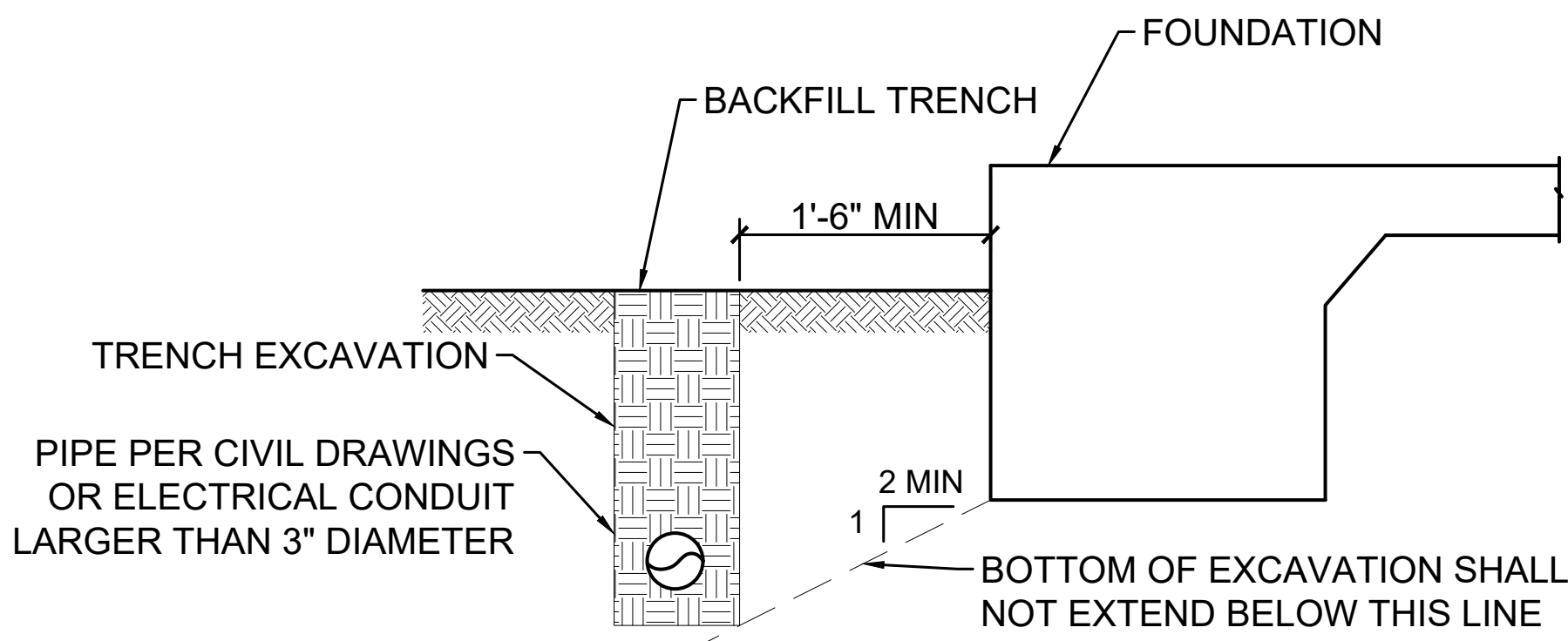
3 TYPICAL SLAB ON GRADE
S4.1 SCALE: NONE



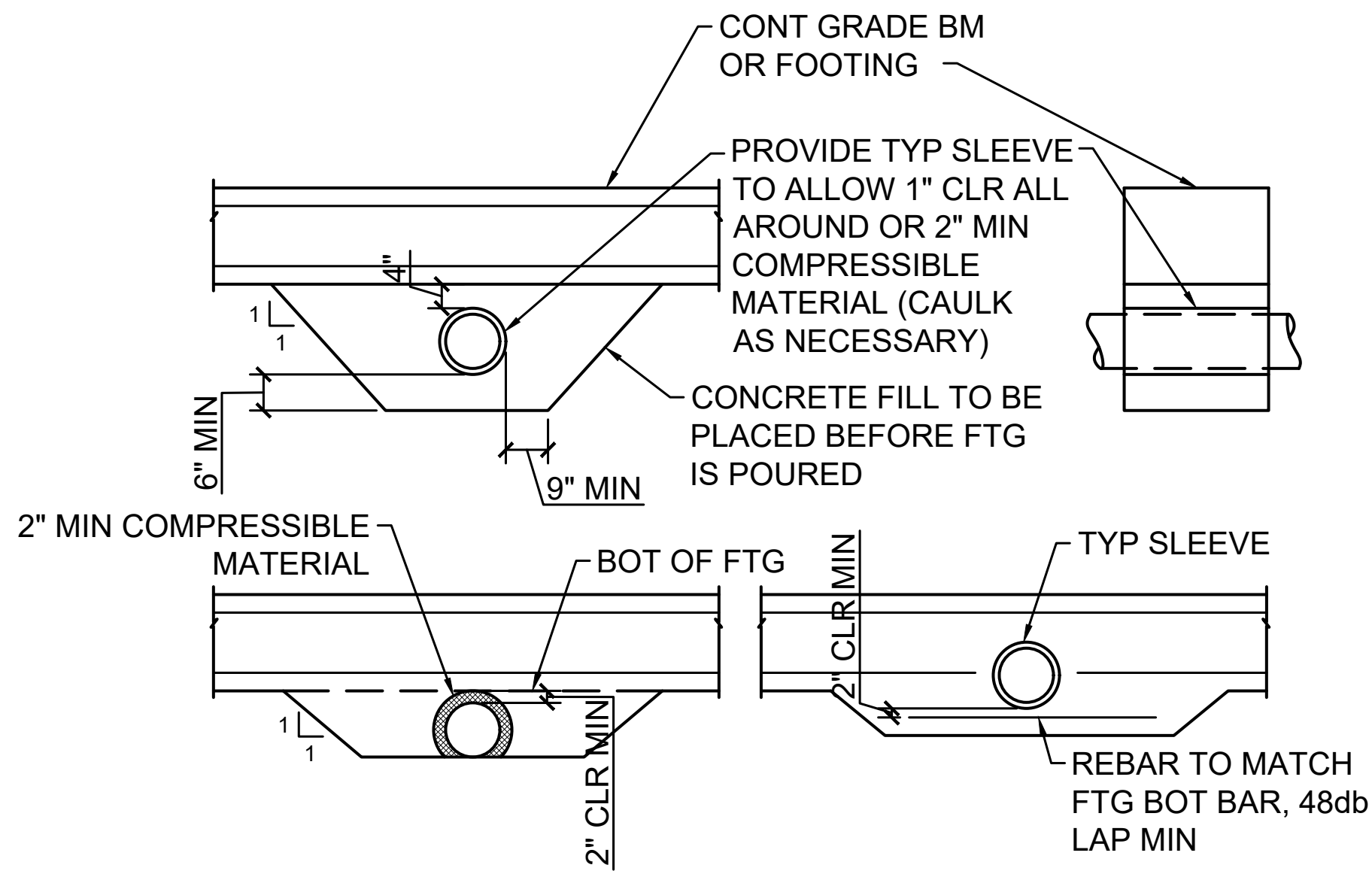
4 TYPICAL SLAB DEPRESSION
S4.1 SCALE: NONE



5 TYPICAL FOOTING REINF.
S4.1 SCALE: NONE



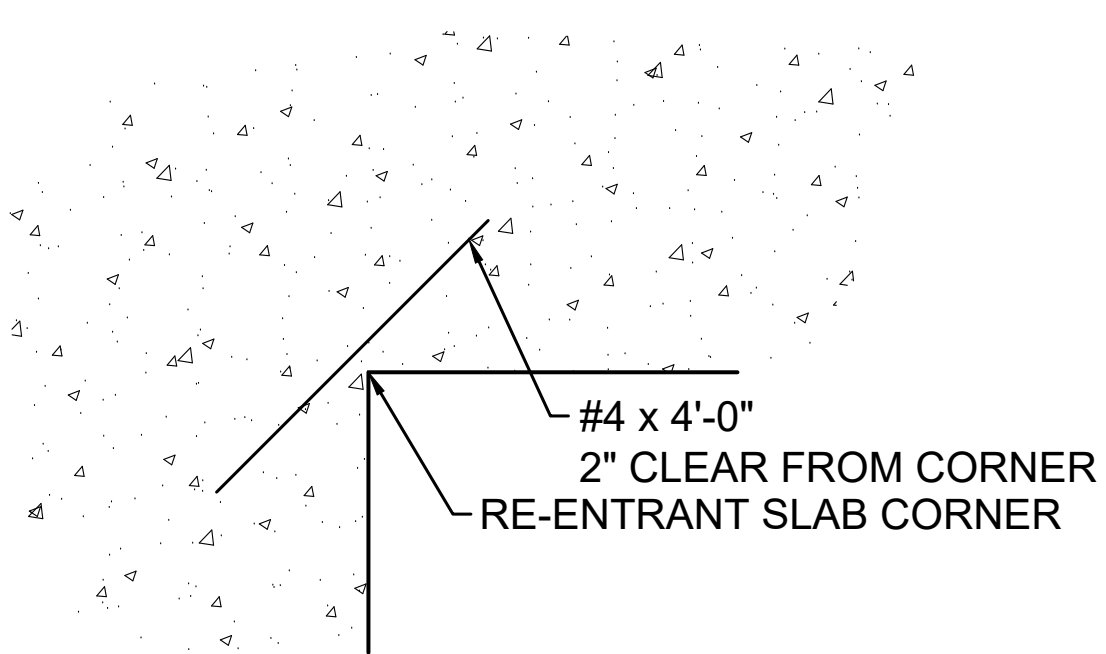
6 TYPICAL STEPPED FOOTING DETAIL
S4.1 SCALE: NONE



7 PIPE/DUCTS AT FOOTING
S4.1 SCALE: NONE

- NOTES:
1. CONTRACTOR SHALL BE RESPONSIBLE FOR SHORING, SHEATHING OR OTHERWISE MAINTAINING THE SIDES OF THE EXCAVATION FROM CAVE-IN AND OTHER HAZARDS UNTIL ALL BACKFILL IS COMPLETED. BACKFILL PER SPECIFICATIONS

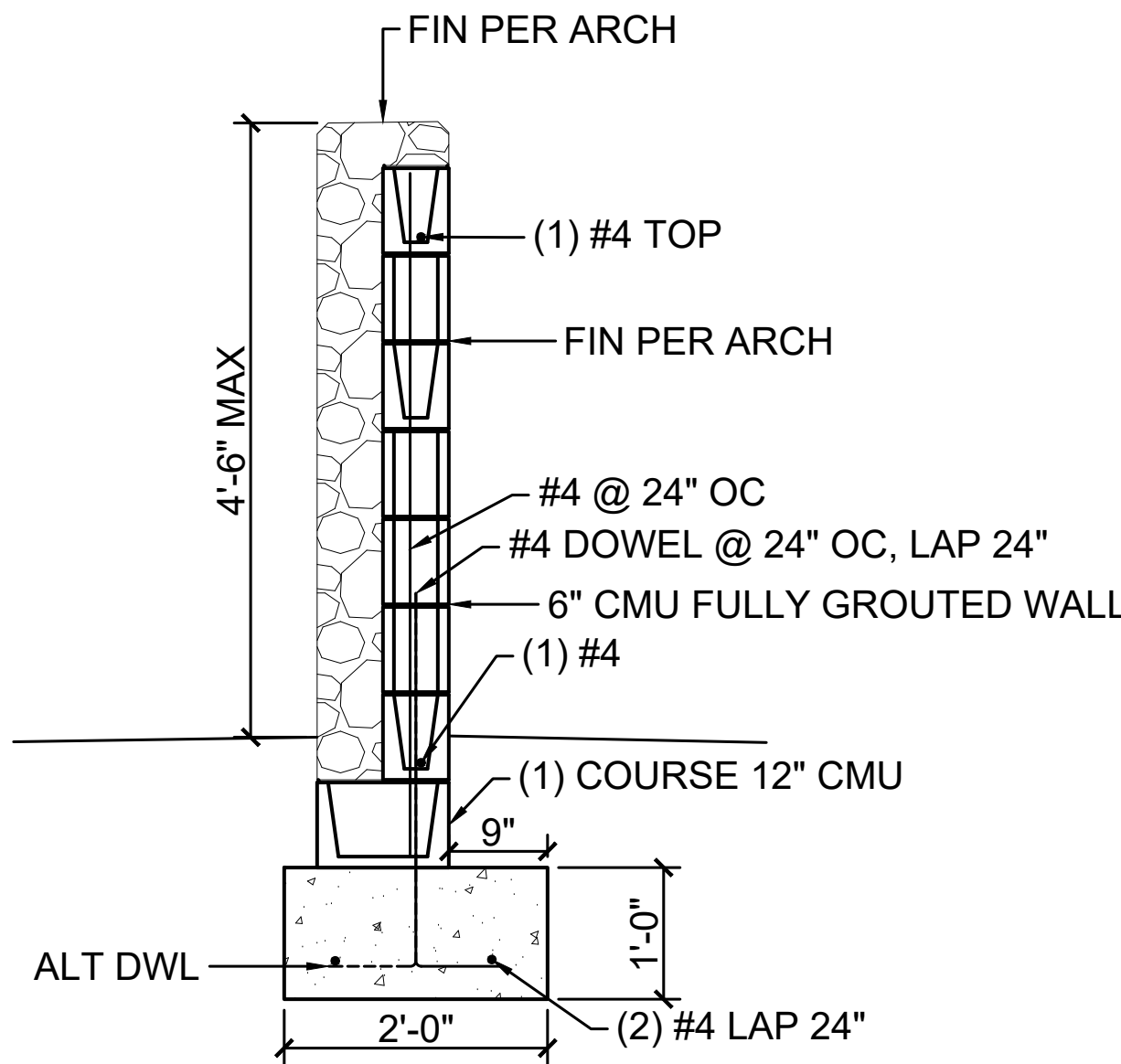
8 TYPICAL TRENCH AT FOOTING
S4.1 SCALE: NONE



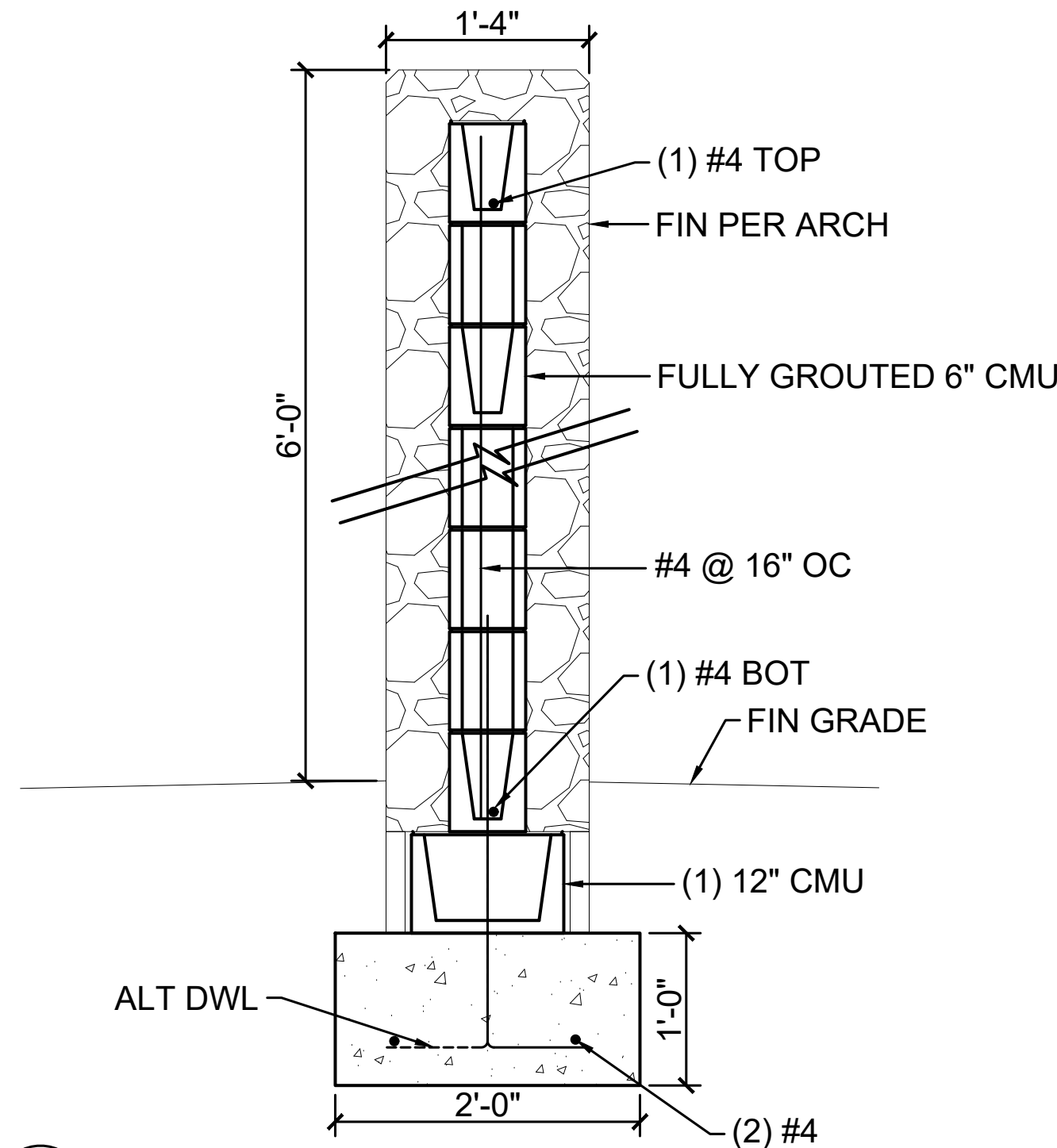
9 REINFORCING AT RE-ENTRANT SLAB CORNER
S4.1 SCALE: NONE

FOOTING SCHEDULE			
MARK	DIMENSIONS W x L x T	REINFORCEMENT	DEAD + LIVE LOAD (2000 PSF BEARING)
F2	2'-0" X 2'-0" X 12"	(4) #4X18" EA WAY BOTTOM	7.0 KIPS MAX
F3	3'-0" X 3'-0" X 18"	(4) #5X30" EA WAY BOTTOM	16 KIPS MAX
F4	4'-0" X 4'-0" X 18"	(6) #5X42" EA WAY BOTTOM	28 KIPS MAX
F5	5'-0" X 5'-0" X 18"	(7) #5X64" EA WAY TOP & BOT	44 KIPS MAX

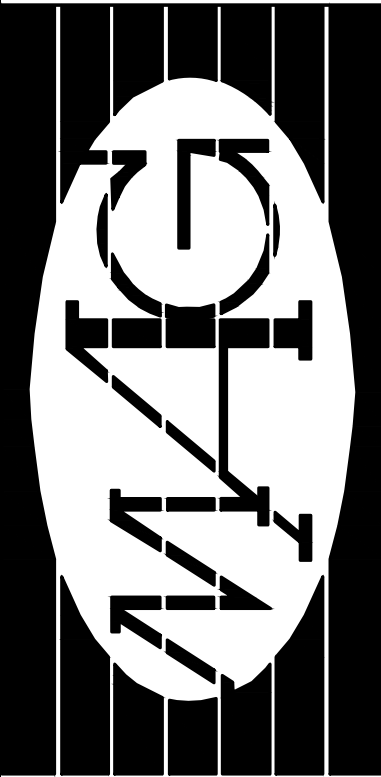
10 TYPICAL WOOD COLUMN FOOTING SCHEDULE
S4.1 1" = 1'-0"



11 MECHANICAL ENCLOSURE DETAIL
S4.1 3/4" = 1'-0"

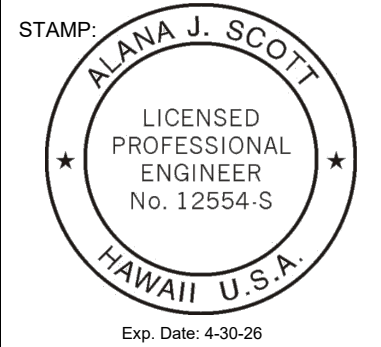


12 PRIVACY WALL
S4.1 SCALE: 1" = 1'-0"



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TYPICAL
CONCRETE
DETAILS

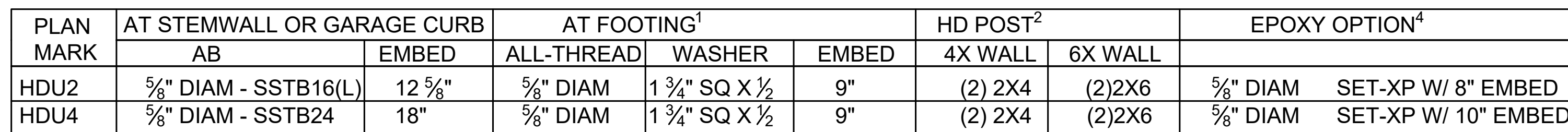
Date: 02/03/2025

Phase: PERMIT SET

Sheet Number:

S4.1

Sheet: Of:



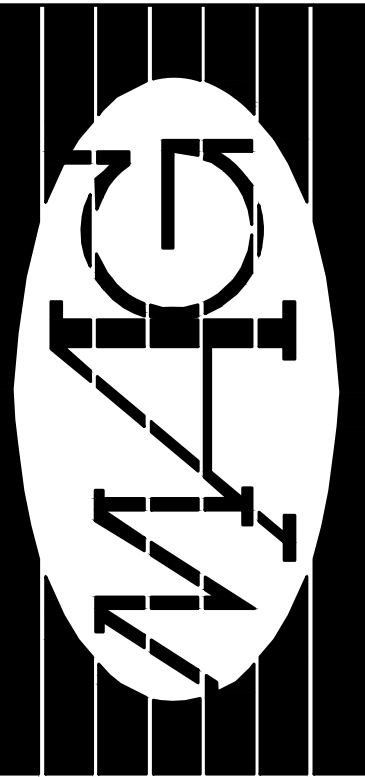
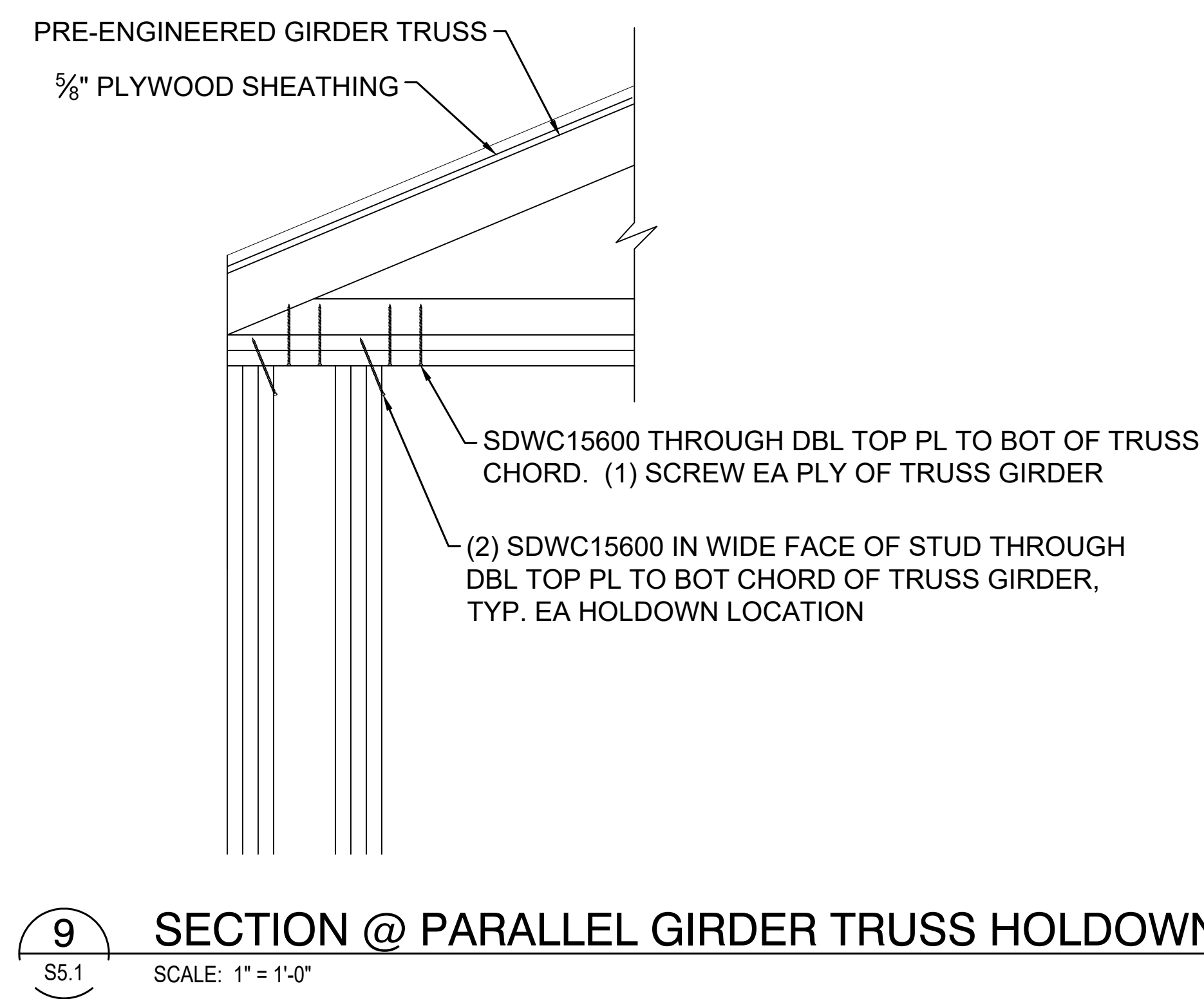
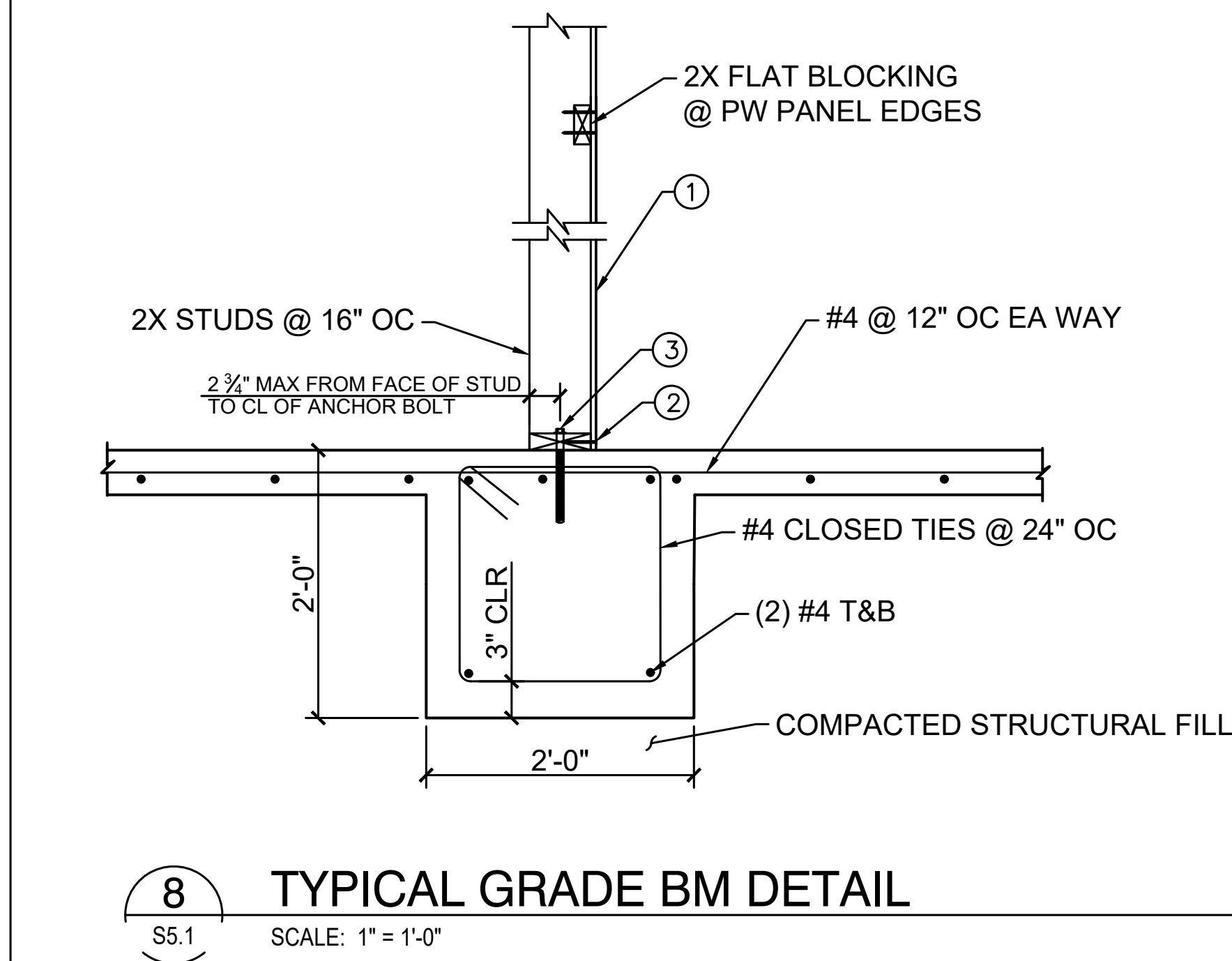
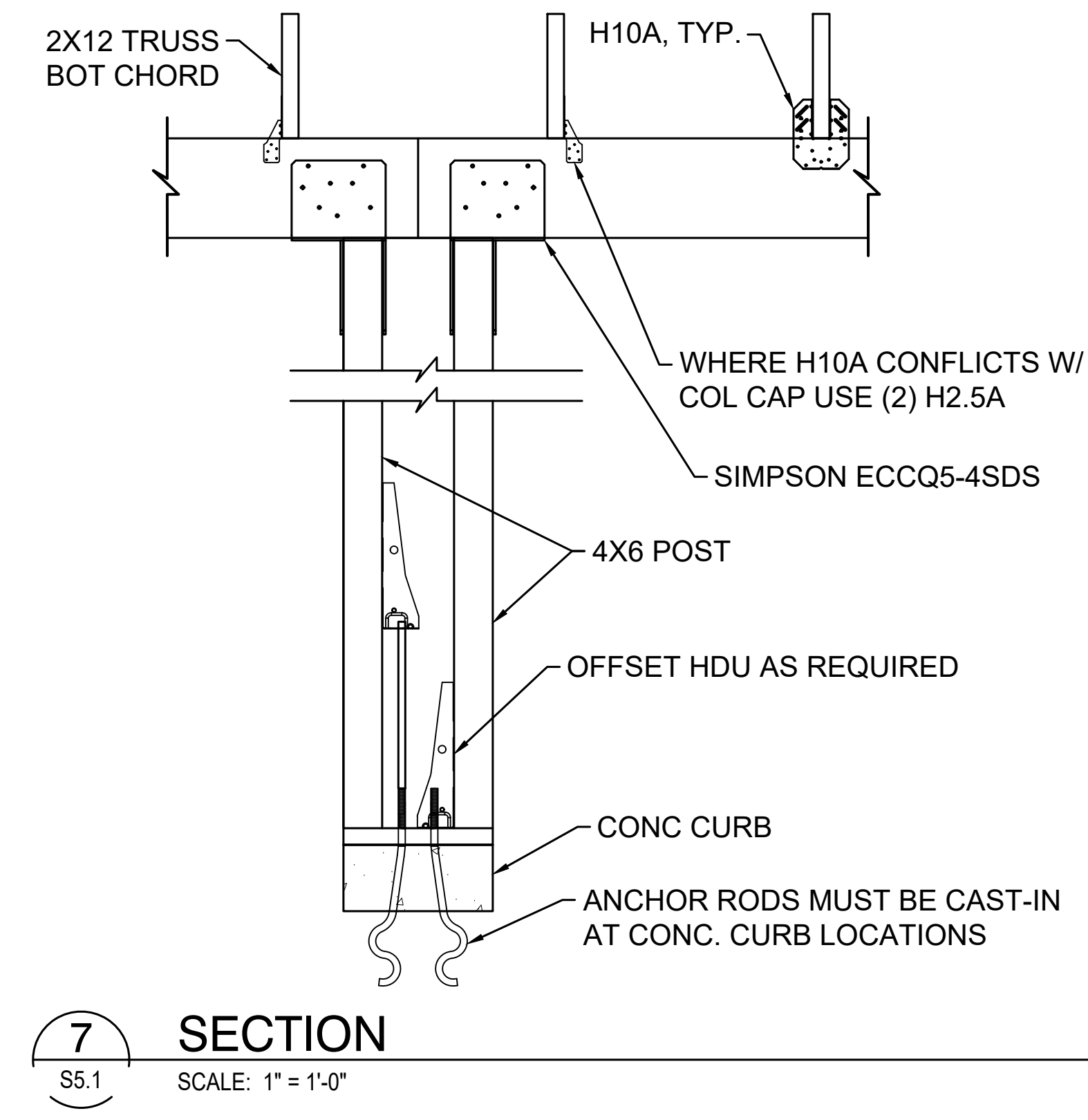
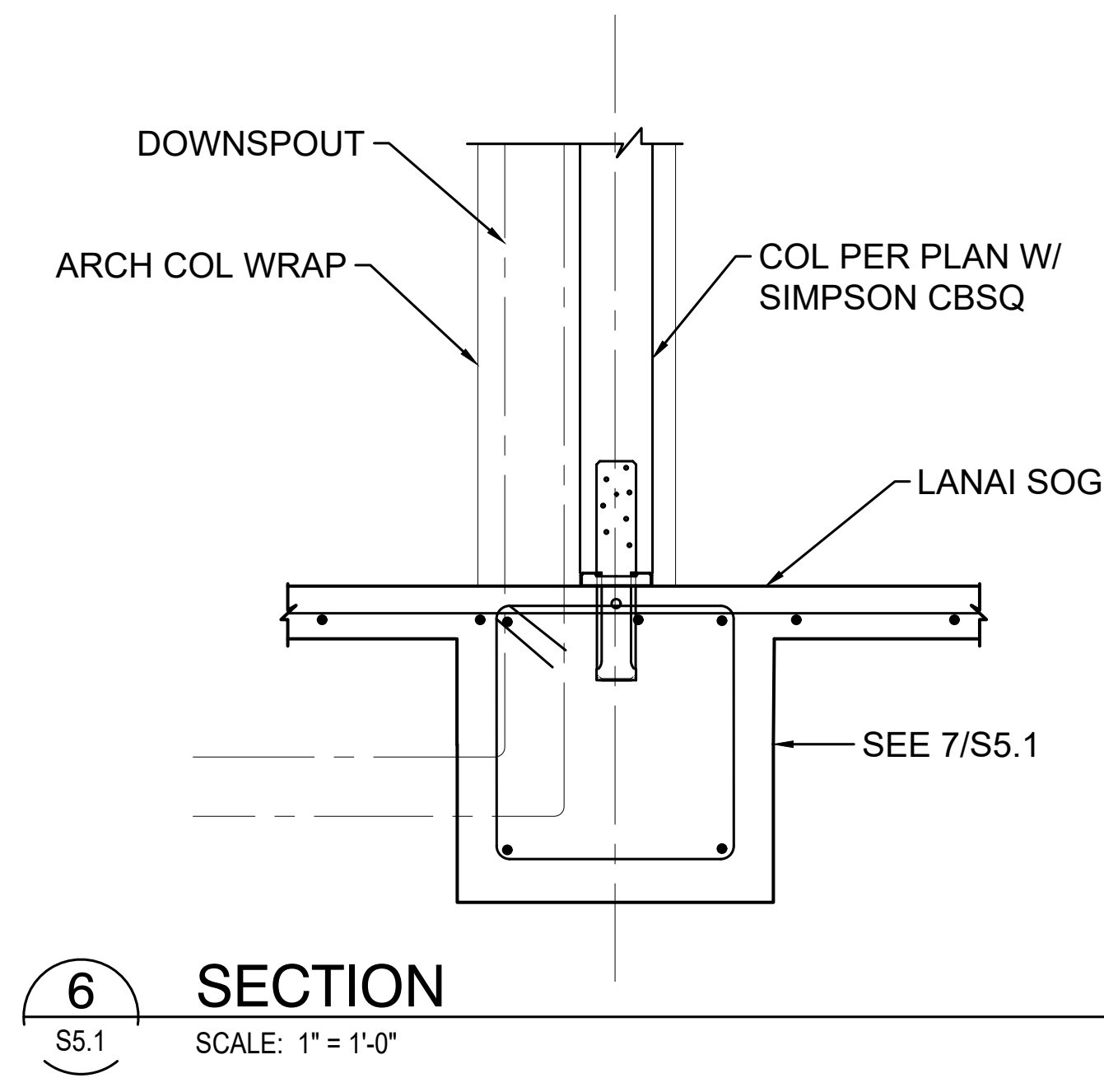
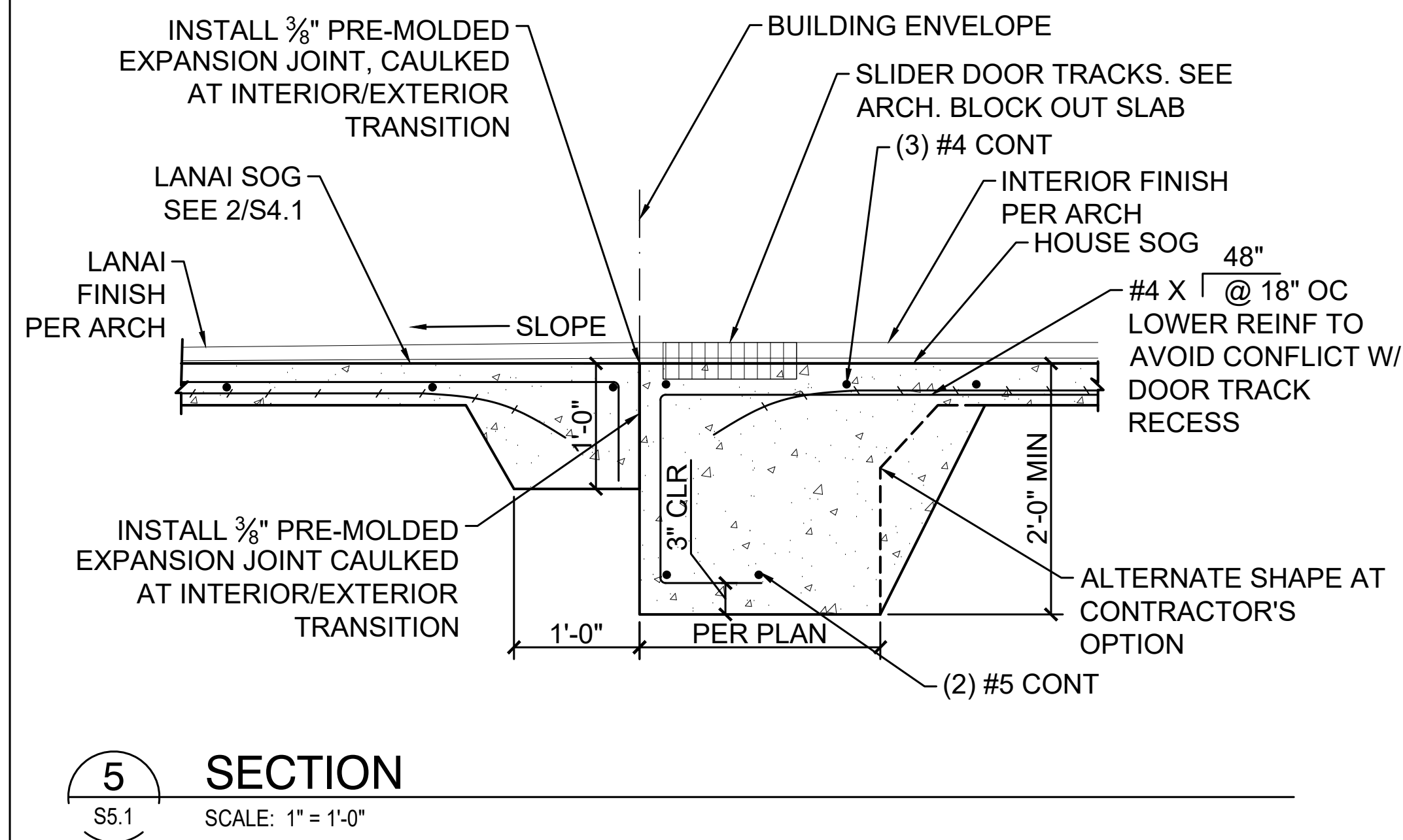
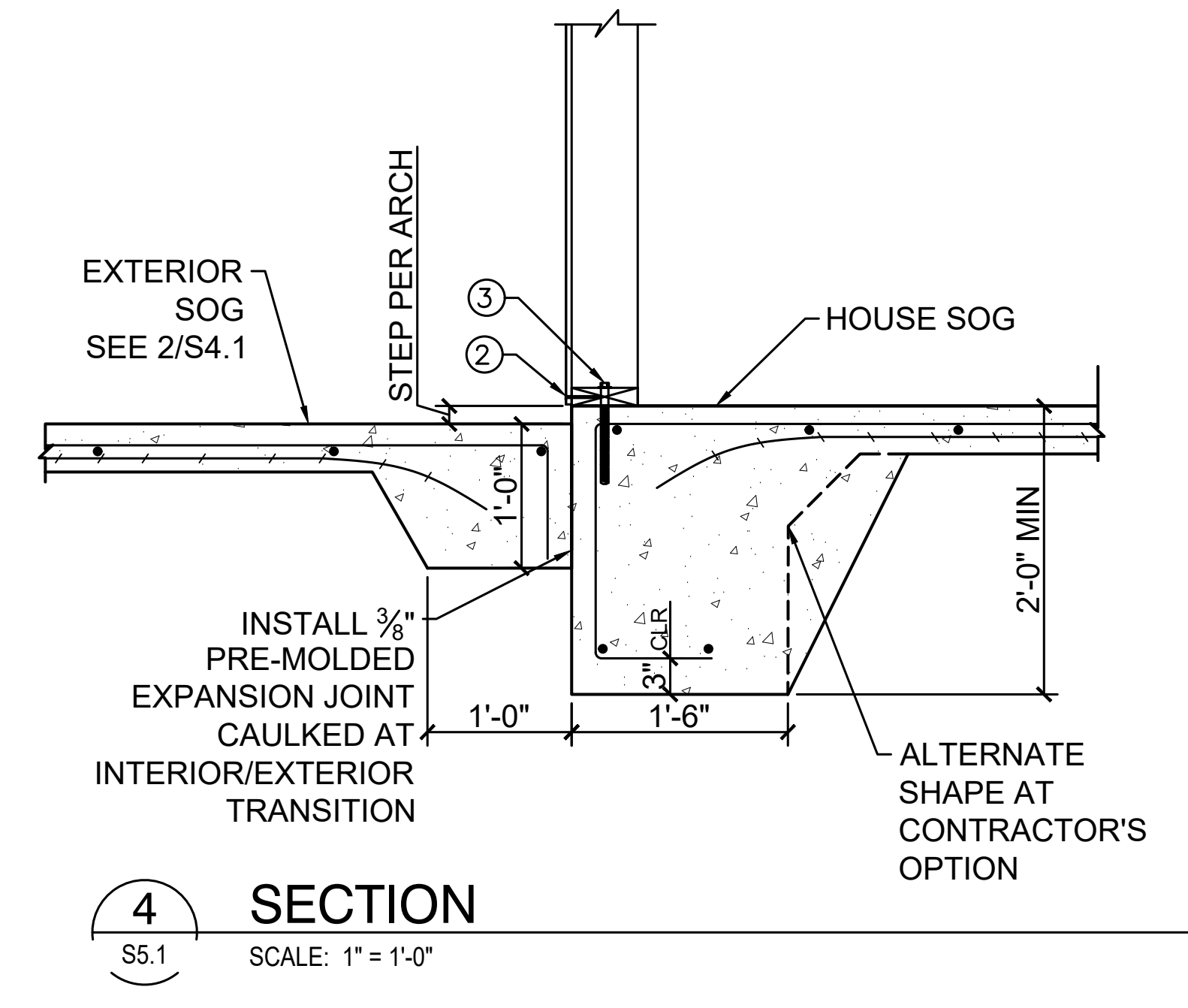
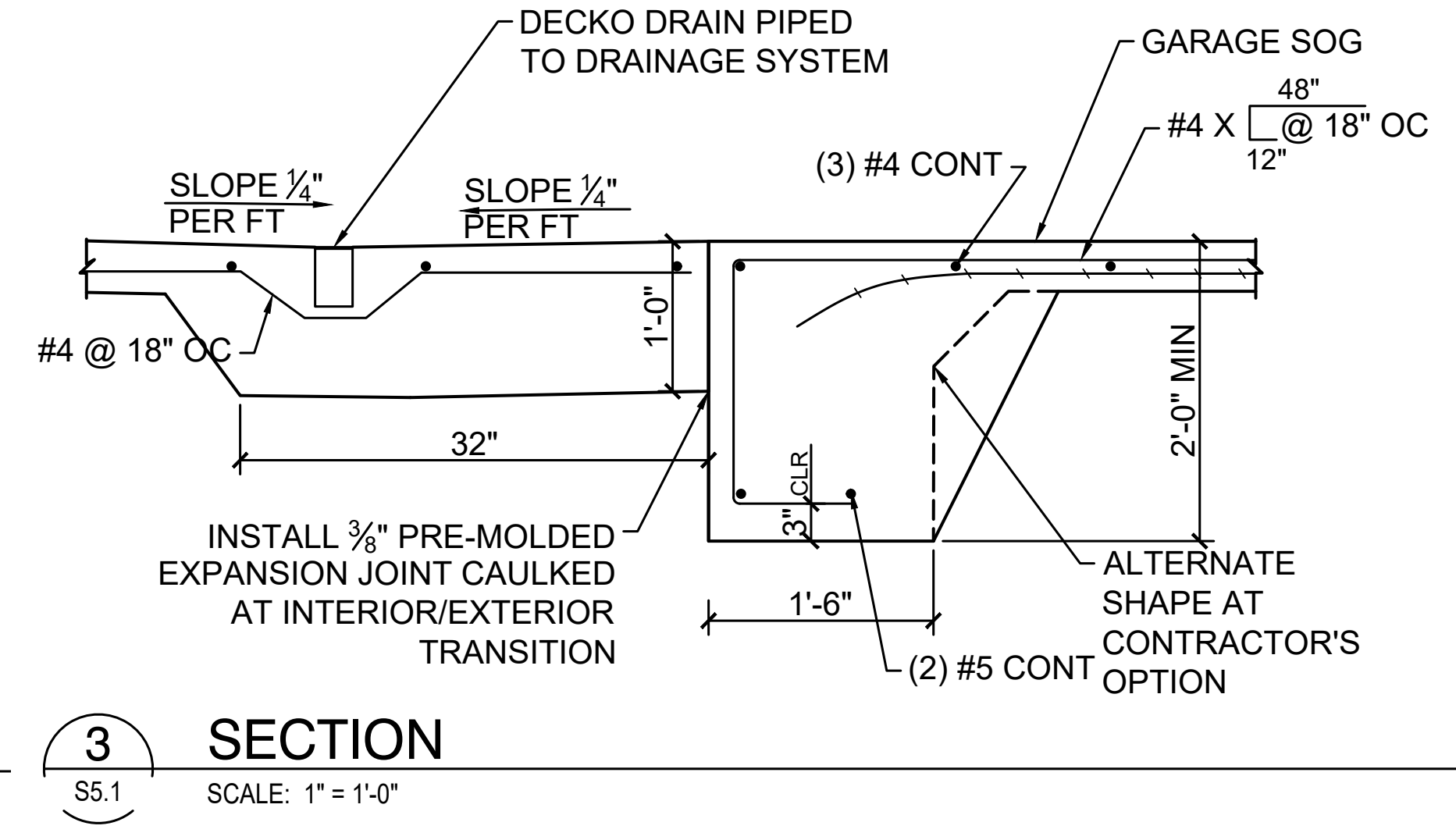
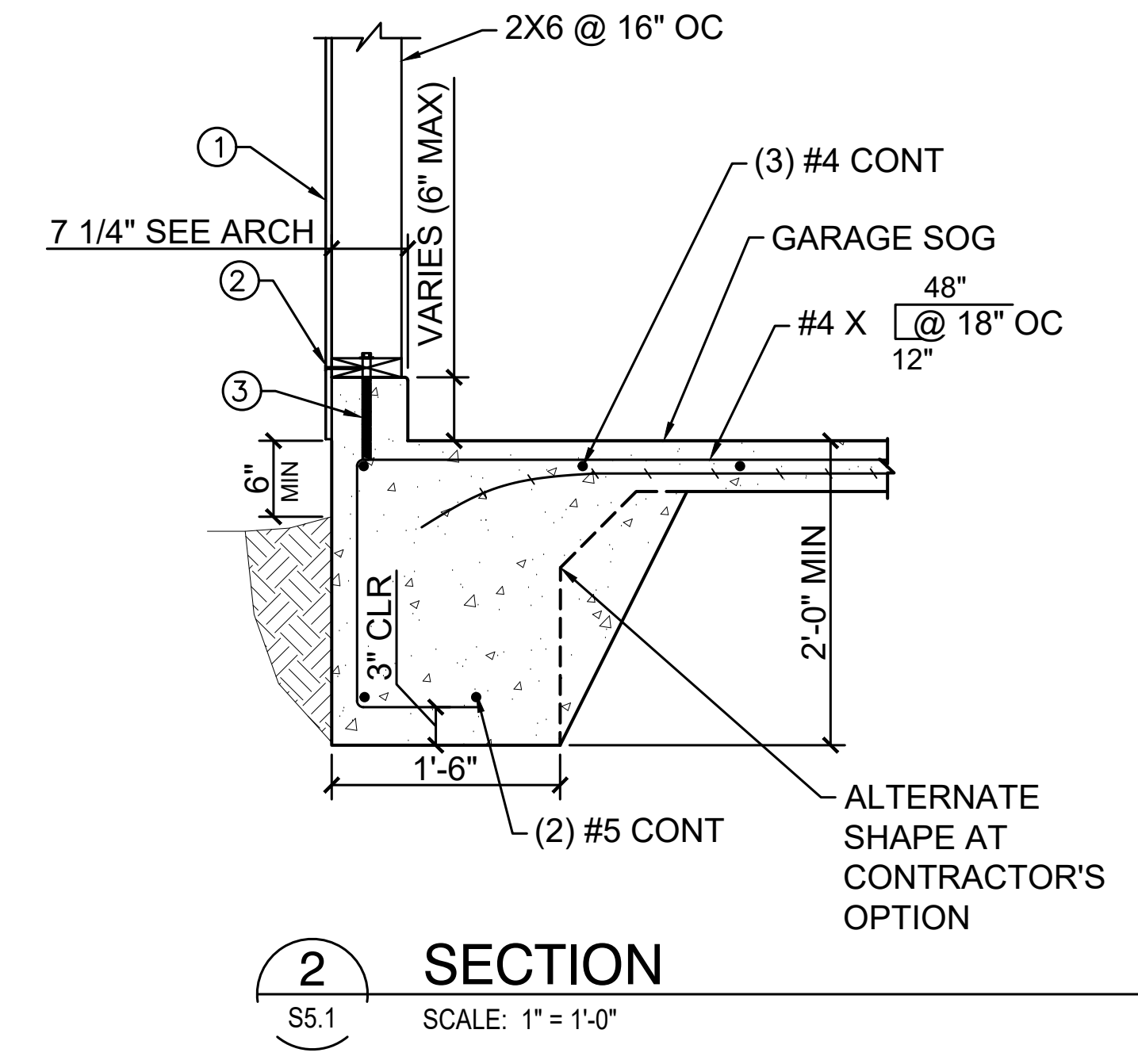
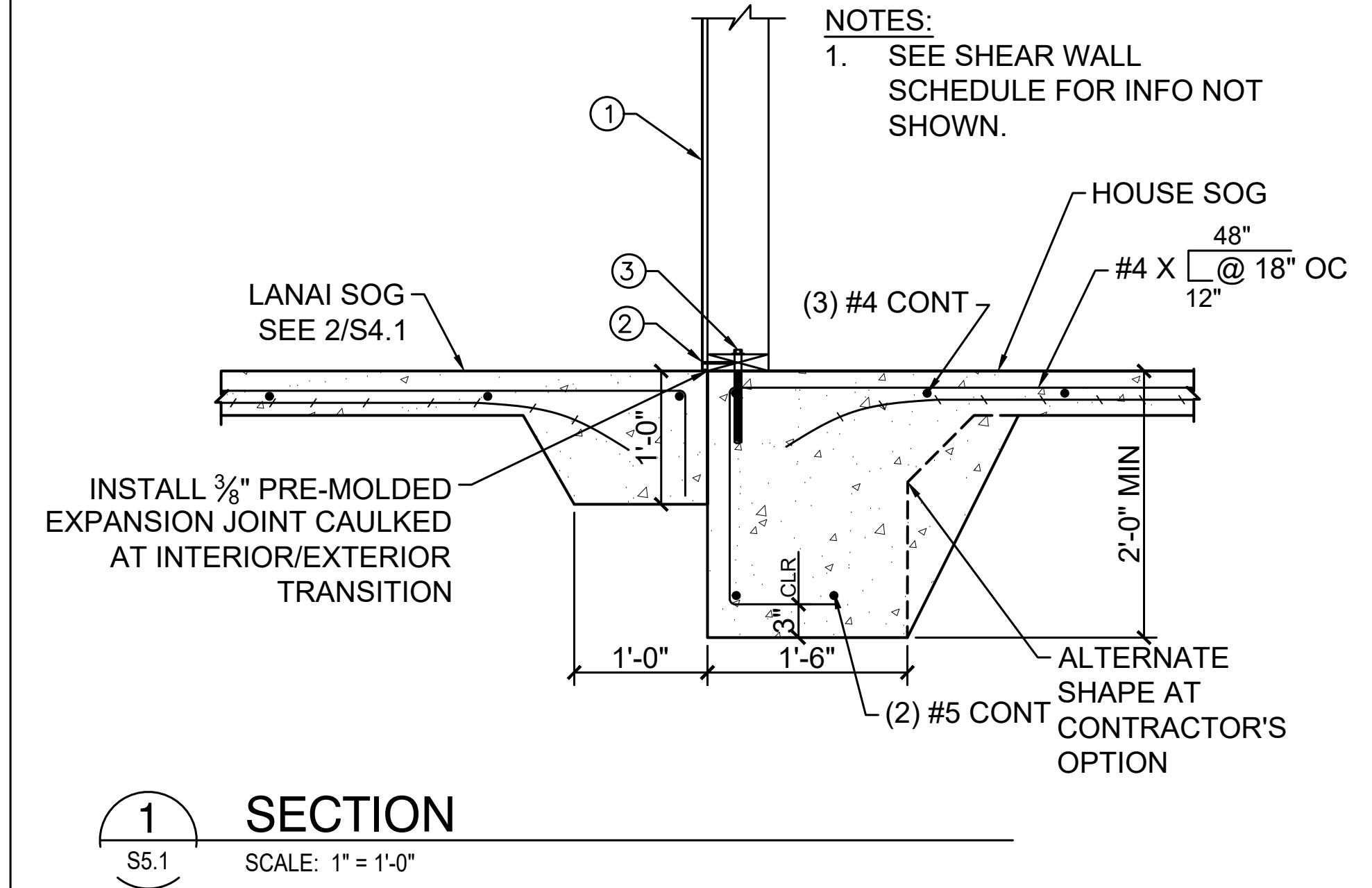
1. A307 ALL-THREAD W/ PLATE WASHER PER SCHEDULE AND DOUBLE NUT BOTTOM OR EQUIVALENT SIMPSON PAB.
2. MINIMUM SIZE OF POST UNLESS NOTED OTHERWISE ON FRAMING PLANS.
3. SEE MANUFACTURER FOR INSTALLATION REQUIREMENTS.
4. EPOXY OPTION NOT ALLOWED AT GARAGE CURB OR STEMWALL LOCATIONS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.



MARK	SHEATHING ①	EDGE NAIL FIELD NAIL ②	ANCHOR BOLTS TO FOUNDATION ③	RIM JOIST OR TO TOP PLAT SOLID RIM ④	BLOCKING ATTACHMENT TJI RIM	BOTTOM PLATE TO RIM JOIST BELOW ⑤
A	1½" APA RATED SHEATHING EXP 1	10d @ 6" OC 10d @ 12" OC	SIMPSON ⅝" DIA X 8" @ 48" OC	A35 @ 12" OC	16d @ 4" OC	16d @ 4" OC
B	1½" APA RATED SHEATHING EXP 1 BOTH SIDES	10d @ 4" OC 10d @ 12" OC	SIMPSON ⅝" DIA X 8" @ 32" OC	A35 @ 8" OC	N/A USE SOLID RIM	(2) ROWS 16d @ 4" OC
C	SIMPSON STRONG WALL SEE SHEET S4.4					

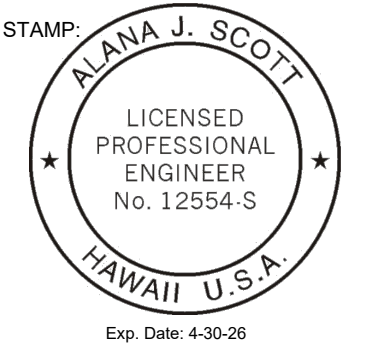
1. 8d NAILS SHALL BE 0.131" DIAMETER X 2 1/2" (COMMON). 16d NAILS SHALL BE 0.135" DIAMETER X 3 1/2" (BOX)
2. USE ANCHOR BOLTS WITH 8" MIN EMBED. ALL ANCHOR BOLTS USE 3"x3"x 1/4" PLATE WASHERS (SIMPSON BP% -3 OR EQUAL).
3. TWO STUDS MINIMUM ARE REQUIRED AT EACH END OF ALL SHEAR WALLS. END STUDS SHALL RECEIVE PANEL EDGE NAILING.
4. BLOCK ALL PANEL EDGES W/ 2X4 FLAT, ATTACH W/ PANEL EDGE NAILING.
5. ALL WALLS TYPE (A) UNLESS NOTED OTHERWISE ON PLAN.
6. SILL SEAL REQUIRED.

8 SHEAR WALL SCHEDULE



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SECTIONS AND
DETAILS

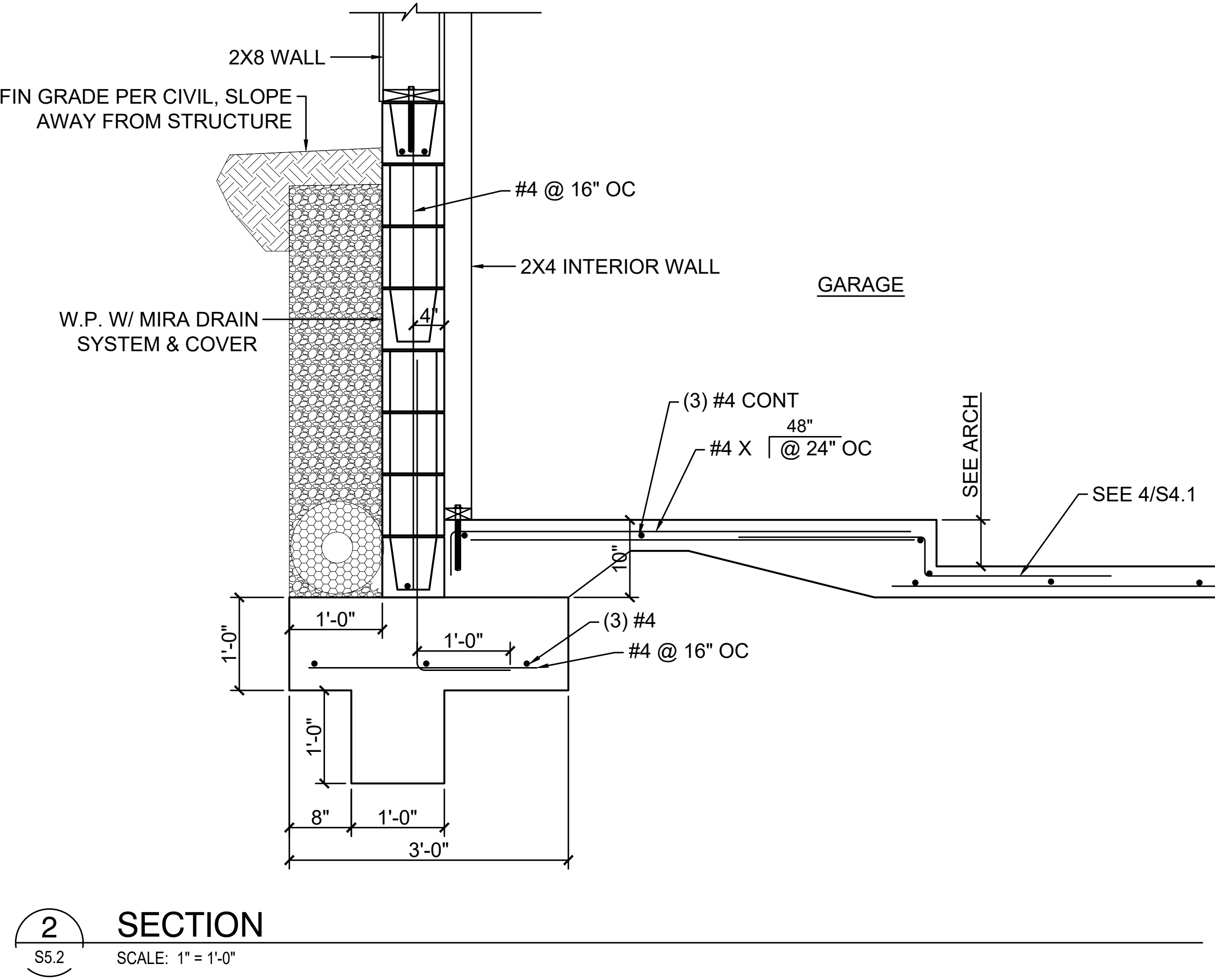
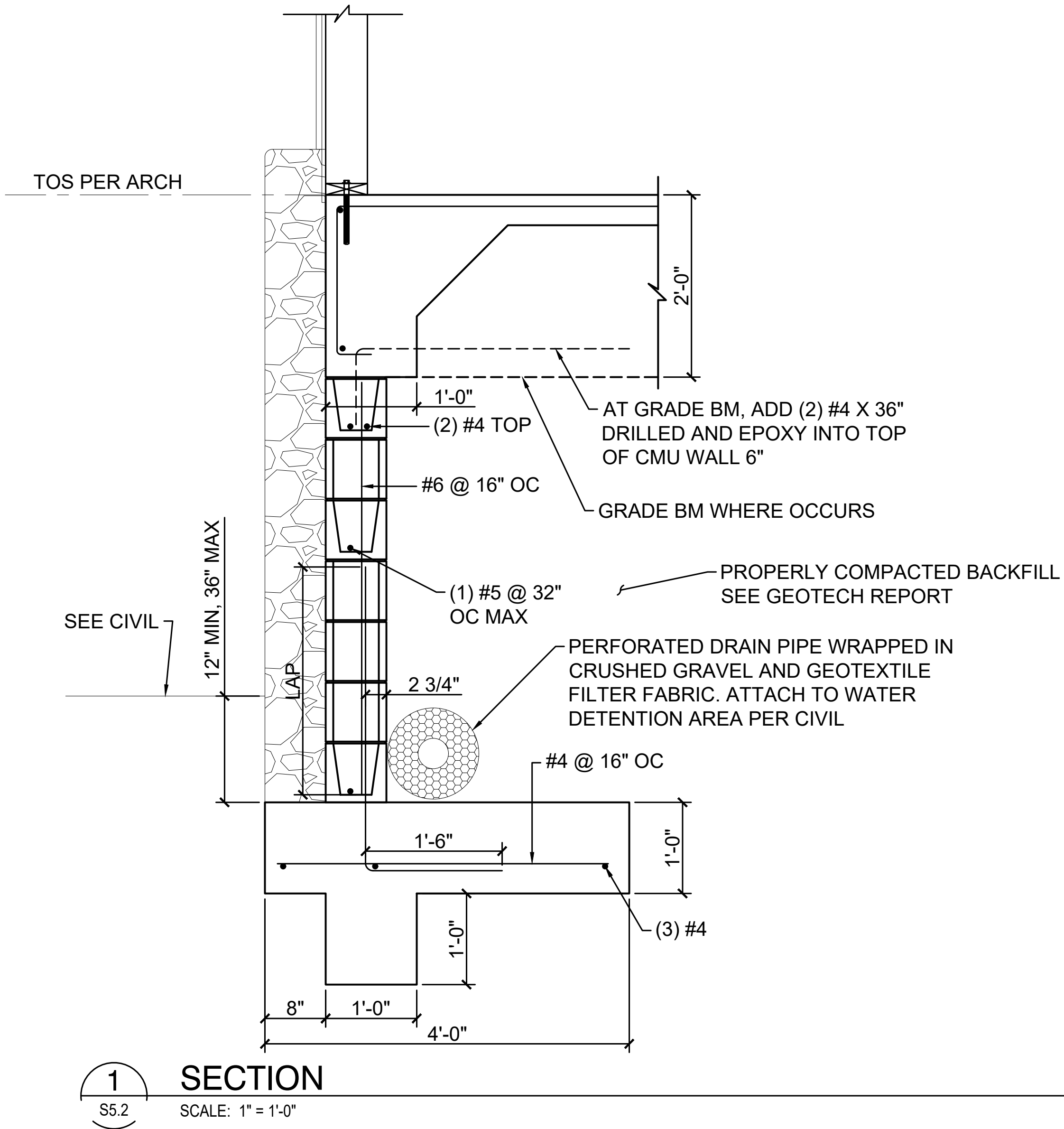
Date: 02/03/2025

Phase: PERMIT SET

Sheet Number:

S5.1

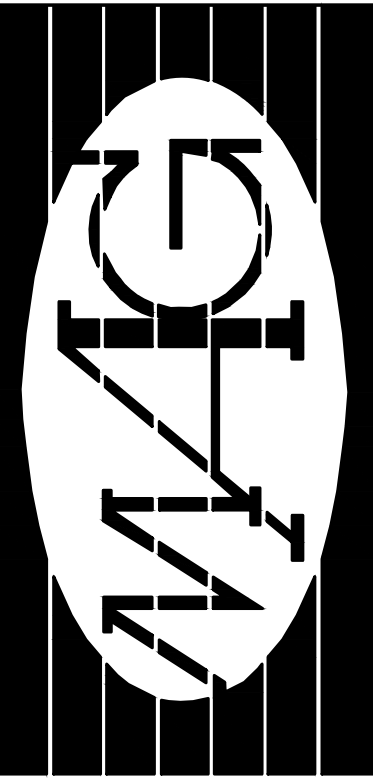
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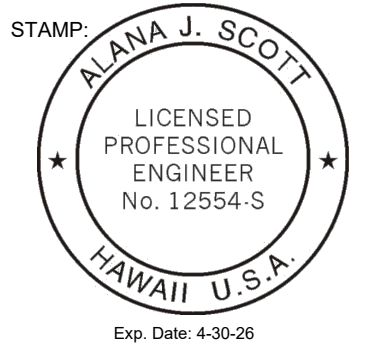
- NOTES:
1. HEAVY EQUIPMENT SHOULD BE KEPT AT A MINIMUM OF 5 LATERAL FEET AWAY FROM THE RETAINING WALL DURING CONSTRUCTION.
 2. ONLY SMALL HANDHELD OPERATED EQUIPMENT MAY BE USED WITHIN 5-FOOT ZONE FROM WALL.
 3. BACKFILL AND COMPACTION PER GENERAL NOTES ON S1.0
 4. BACKDRAIN SHALL CONSIST OF 1-FOOT WIDE ZONE OF CLEAN FILTER ROCK WRAPPED IN GEOTEXTILE FILTER FABRIC.
 5. PERFORATED PIPE SHALL BE 4" DIAMETER PVC FOOTING DRAIN WRAPPED IN CRUSHED GRAVEL AND GEOTEXTILE FILTER FABRIC.
 6. GEOTEXTILE FILTER FABRIC SHALL BE PROPEX GEOTEX 601 OR SIMILAR.

MINIMUM LAP SPLICE LENGTH, (IN)				
BAR IN CENTER OF:		2" FROM EDGE OF CMU		
BAR SIZE	8" CMU	12" CMU	8" CMU	12" CMU
NO 3	16	16	15	15
NO 4	21	21	26	26
NO 5	26	26	40	40
NO 6	43	40	54	54
NO 7	60	46	63	63

3
TICAL RETAINING WALL NOTES AND REBAR LAP LENGTHS
SCALE: 1" = 1'-0"



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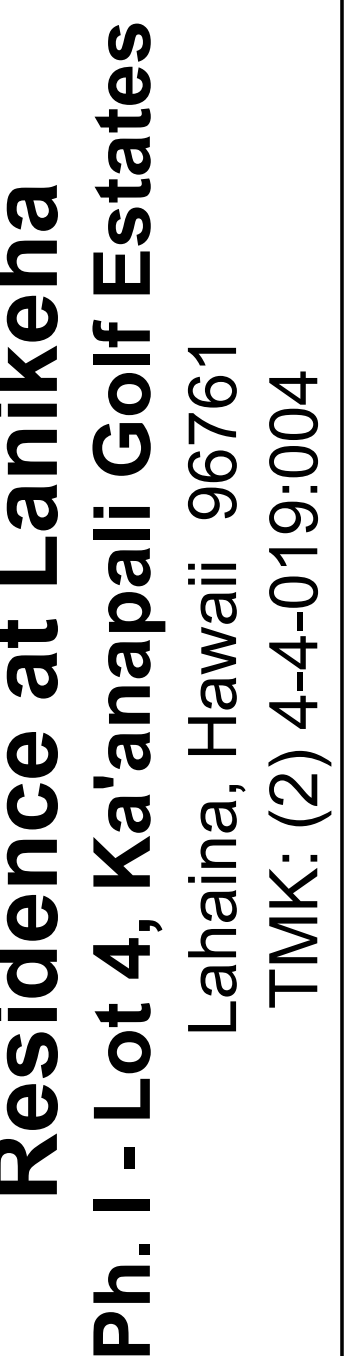
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Date: 02/05/2025
Phase: PERMIT SET
Sheet Number:
S5.2
Sheet: Of:



Issue Date:	02/05/2025
Issue For:	PERMIT SET
Sheet Number:	S5.3
Sheet:	Of:

POOL PLANS FOR:
RESIDENCE AT LANIKEHA
Lanikeha Ph. I - Lot 4, Kaanapali Golf Estates
Lahaina, HI 96761
TMK: (2)4-4-019:004

SHEET INDEX

SHEET	SHEET NAME
P1.0	POOL AND SPA PLAN AND DETAILS
P2.0	POOL AND SPA SECTIONS AND DETAILS

GENERAL NOTES

SHOTCRETE:
All shotcrete (gunite) with fiber mesh is to be minimum 3,500 psi after 28 days.

STEEL REINFORCING:
A. All reinforcing steel bars shall conform with the standard specifications for deformed billet-steel for concrete reinforcement. ASTM designation A615-82 Grade 60 unless noted otherwise.
B. Wire mesh shall conform with ASTM A185-79.
C. Lap splice all bars a minimum of 30 bar diameters, unless noted otherwise. See Development Length Table for additional information.
D. Rebar cover: All dimensions showing the location of reinforcing steel not noted as "clear" are to center of steel. Minimum rebar cover for nonprestressed concrete shall be as follows:

	Minimum Cover
Cast-in-place Concrete Cast against and permanently exposed to earth:	3"
Exposed to earth or weather: No. 5 and smaller No. 6 and larger	1 1/2" 2"
Concrete not exposed to weather or in contact with ground Slabs, walls, joists No. 11 and smaller Beams, columns Primary reinforcement, Ties, stirrups, spirals	3/4" 1 1/2"

E. Tolerances for rebar placement: Tolerances for longitudinal locations of bends and ends of reinforcement shall be plus or minus 2 inches, except at discontinuous ends of members where tolerance shall be plus or minus 1/2 inch.
F. All steel is to be electrically grounded.

ELECTRICAL
A. All electrical work shall conform to the requirements of local code and N.E.C Article 680, latest edition.
B. All equipment shall comply with the N.E.C. and shall be U.L. approved.
C. Bonding and grounding of all equipment to reinforcing steel shall be with A.W.S #8 copper conductor.
D. No electrical attachment, receptacle, or overhead wiring shall be within 10'-0" of the pool or spa.
E. All receptacles located between 10' to 15' from the pool or spa shall be protected by a ground fault circuit interrupter (GFCI)

GENERAL
A. All materials and all workmanship shall comply with all applicable state and local codes and regulations.
B. Pool piping to be schedule 40 P.V.C. min.
C. The drawings shown on these sheets are intended for structural design only. The seal affixed does not accept responsibility in any form for the safety of the design shown.

SWIMMING POOL CONTRACTOR SHALL BE RESPONSIBLE FOR:
1. Obtaining all necessary permits and approvals to install and complete the pool as shown on these plans.
2. Coordinating all work with other trades.
3. Performing all work as per all local and governing codes.

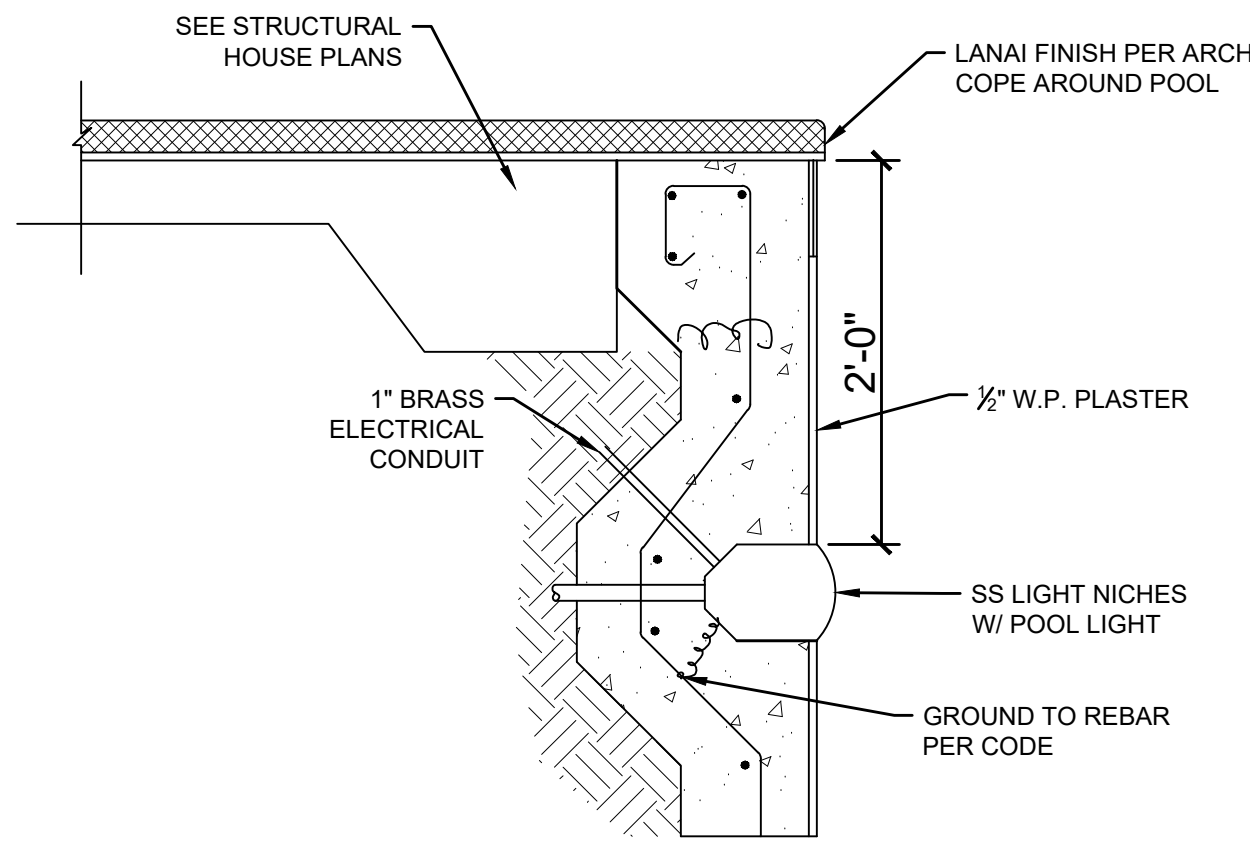
COUNTY OF MAUI ENERGY CODE COMPLIANCE
1. Residential pools shall be provided with energy conserving measures in accordance with Amended Maui County Code, Chapter 16.16A, section 403.7.
2. Pool Heaters shall be equipped with a readily accessible on-off switch to allow shutting off the heater without adjusting the thermostat setting. Pool heaters fired by natural gas shall not have continuously burning pilot lights.
3. Time Switches that can automatically turn off and on heaters and pumps according to preset schedules shall be installed on swimming pool heaters and pumps. Exceptions (1) Where public health standards require 24-hour pump operation. (2) where pumps are required to operate solar- and waste-heat-recovery pool heating systems.
4. Pool Covers: Heated pools shall be equipped with a vapor retardant pool cover on or at the water surface. Pools heated to more than 90-degrees Fahrenheit shall have a pool cover with a minimum insulation value of R-12. Exceptions: Pools deriving over sixty percent of the energy for heating from site-recovered energy or solar energy source.

SAFETY WARNING

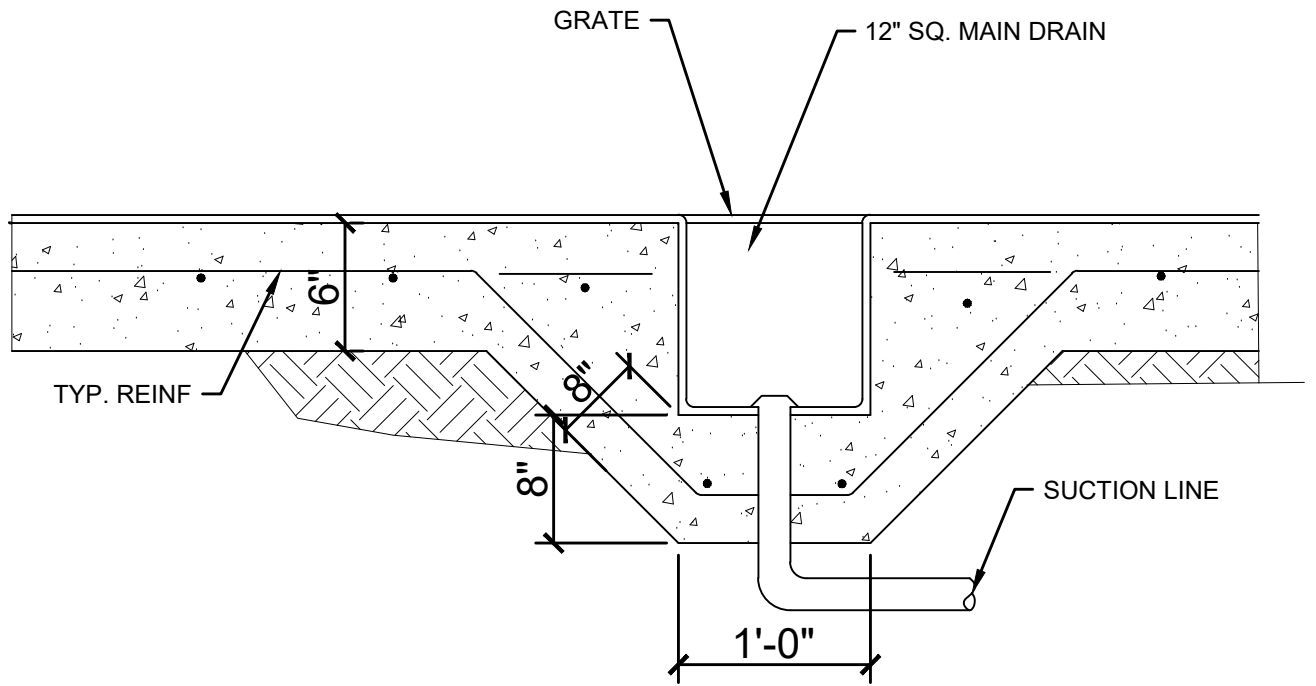
RISK OF DROWNING:
With all swimming pools there is a risk of drowning. Prevent drowning, watch children at all times. Designer not responsible for pool safety.

RISK OF DIVING
Permanent injury and/or death may occur by diving into the pool. Designer not responsible for pool safety.

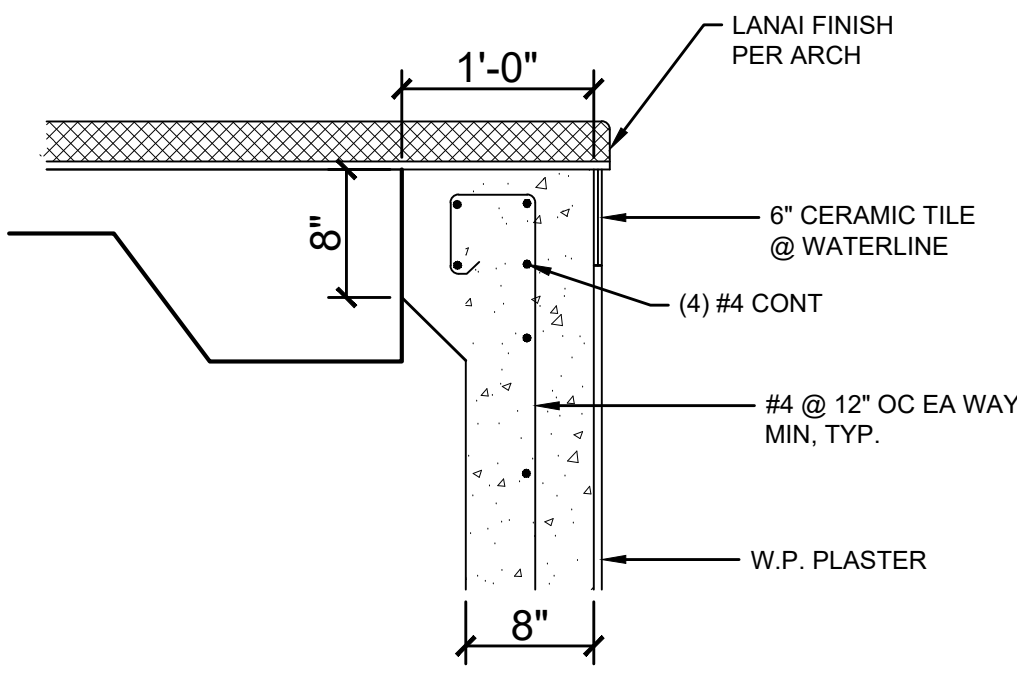
POOL SHALL BE FILLED BY A HOSE BIB



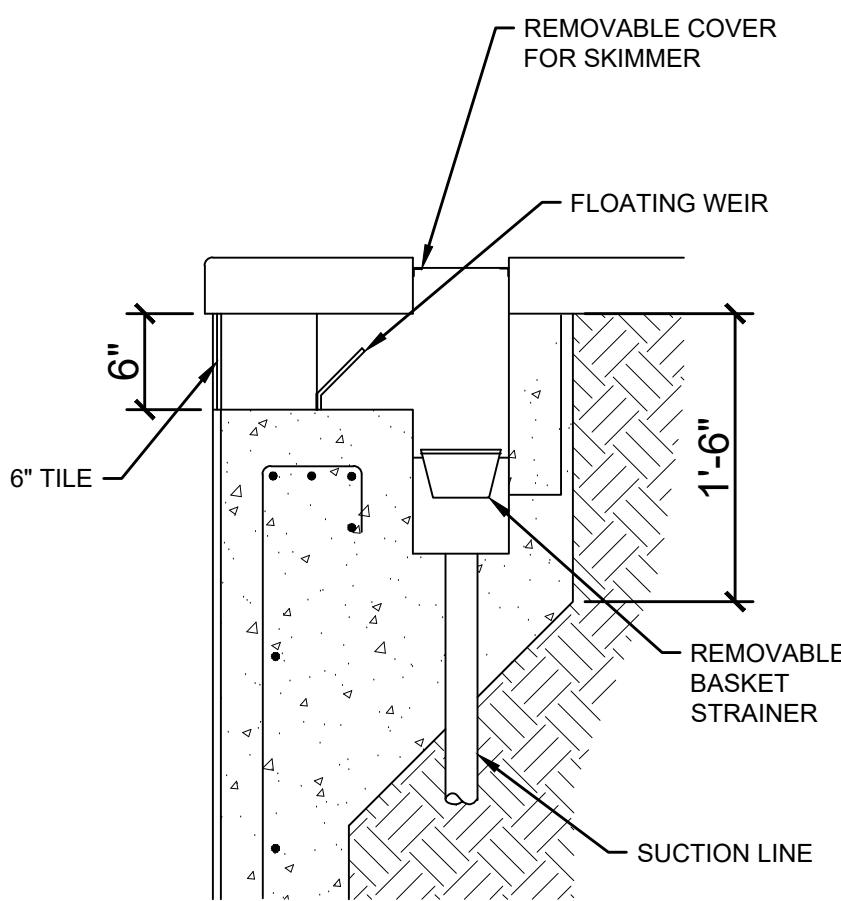
2 TYPICAL LIGHT NICHE DETAIL
SCALE: 1" = 1'-0"



3 TYPICAL MAIN DRAIN DETAIL
SCALE: 1" = 1'-0"



4 TYPICAL POOL REINFORCEMENT DETAIL
SCALE: 1" = 1'-0"



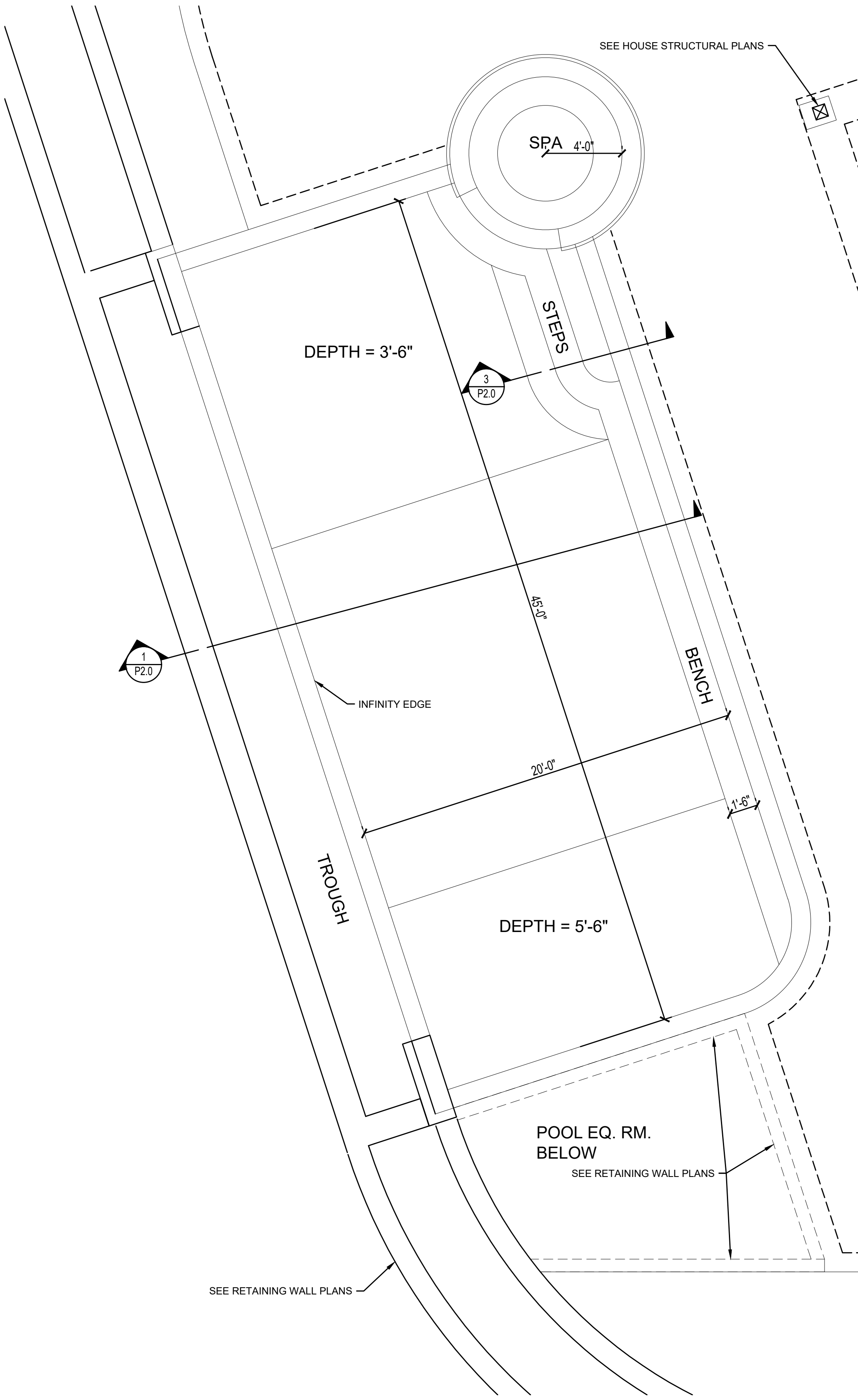
5 TYPICAL SKIMMER DETAIL
SCALE: 1" = 1'-0"

POOL DATA

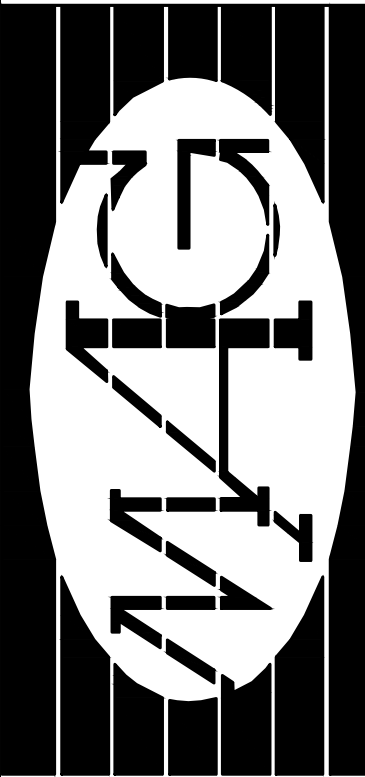
POOL SIZE:	20' x 45'
POOL DEPTH:	3'-6" TO 5'-6"
POOL AREA:	900 SQ FT
PERIMETER:	130 LIN FT
CIRCULATION PUMP:	TBD
BOOSTER PUMP:	TBD
VOLUME:	TBD
TURNOVER:	TBD
RETURNS:	TBD
FILTER:	TBD
SKIMMER:	TBD
SALT SYSTEM:	TBD
OZONE SYSTEM:	TBD
HEATER:	TBD
WATERLINE TILE:	TBD
PLASTER COLOR:	TBD
LIGHT:	(6) 500 WATT ON DIMMER
POOL CLEANER:	STUBBED VAC. FITTING
COPING:	TBD
AUTO-FILL:	N/A

SPA DATA

SPA SIZE:	8' DIAMETER
SPA DEPTH:	3'-6"
SPA AREA:	50 SQ FT
PERIMETER:	25 LIN FT
CIRCULATION PUMP:	1 X 1HP
JET PUMP:	3 X 2HP
VOLUME:	TBD
TURNOVER:	TBD
JETS:	TBD
FILTER:	TBD
SKIMMER:	TBD
SALT SYSTEM:	TBD
OZONE SYSTEM:	TBD
HEATER:	TBD
WATERLINE TILE:	TBD
PLASTER COLOR:	TBD
LIGHT:	(2) 100 WATT ON DIMMER
POOL CLEANER:	STUBBED VAC. FITTING
COPING:	TBD
AUTO-FILL:	N/A

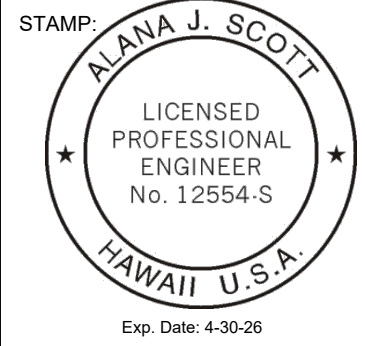


1 POOL PLAN
SCALE: 1/4" = 1'-0"



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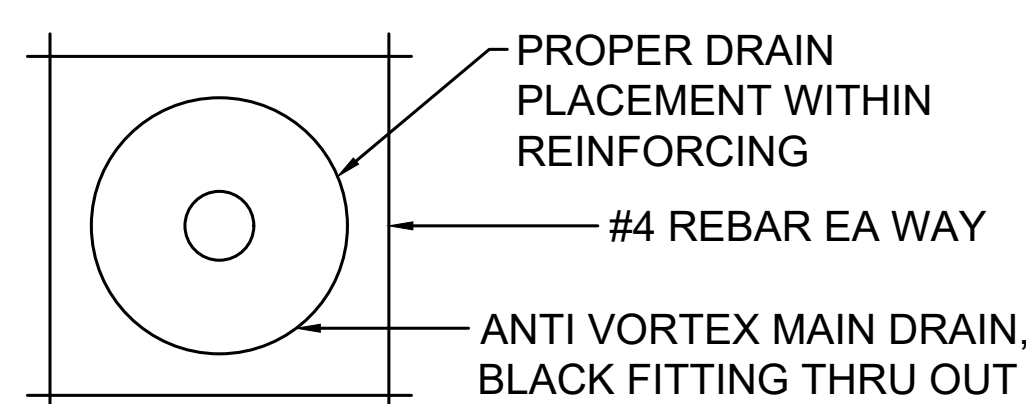
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POOL AND SPA
PLAN AND
DETAILS

Date: 02/03/2025
Phase: PERMIT SET

Sheet Number:
P1.0
Sheet: 1 of: 2



6"

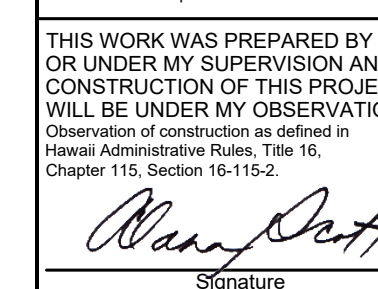
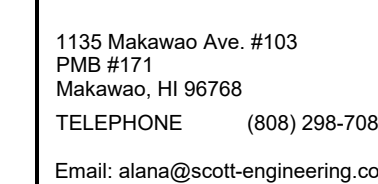
2'-0"

1'-0"

#4 @ 12", TYP.

#4 NOSE BAR

TILE EDGE PER ARCH



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POOL AND
SPA
SECTIONS

Date: 02/03/2025

Phase: PERMIT SET

Sheet Number:

Sheet Number:
P2.0

Sheet: 2 Of: 2