

CITY OF MERCER ISLAND

DEVELOPMENT SERVICES GROUP
9611 SE 36TH STREET | MERCER ISLAND, WA 98040
PHONE: 206.275.7605 | www.mercergov.org



INSPECTION REQUESTS:



voicemail: (206) 275-7730

NOTE: ALL RECORDS AND DRAWINGS ARE SUBJECT TO PUBLIC DISCLOSURE AS REQUIRED BY RCW 42.56

CONTACT INFORMATION:

Applicant is to complete the following information.

Applicant Contact information prior to permit issuance: Name: S. Joshua Brincko, Address: 5406 SW BEACH DRIVE TER, Phone: (206) 708-9933, Email: JOSH@JOSHARCH.COM

REQUIRED SPECIAL INSPECTIONS / STRUCTURAL OBSERVATIONS:

It is the Engineer of Record's responsibility to specify all required Special Inspections or Structural Observation (check items below). The owner is responsible for hiring an approved private Special Inspector for the checked inspections noted below.

STRUCTURAL OBSERVATION BY ENGINEER OF RECORD (EOR): Engineer of Record: _____ Company: _____ Phone: _____

SOILS / GEOTECHNICAL: Special Inspector: _____ Company: _____ Phone: _____

REINFORCED CONCRETE: Special Inspector: _____ Company: _____ Phone: _____

STRUCTURAL STEEL: Special Inspector: _____ Company: _____ Phone: _____

STRUCTURAL MASONRY: Special Inspector: _____ Company: _____ Phone: _____

WOOD: Special Inspector / Engineer of Record: _____ Company: _____ Phone: _____

OTHER SPECIAL INSPECTIONS: Special Inspector: _____ Company: _____ Phone: _____

DEFERRED SUBMITTALS:

The Applicant is required to select all deferred submittals / shop drawings for submittal to the City for review and approval prior to item fabrication / construction.

Connector plate wood trusses, Metal joist / metal trusses, Premanufactured structures (stairs, etc.), Precast concrete elements, Other: _____

ENERGY CODE COMPLIANCE INFORMATION:

Indicate where the following information is located in the drawing set. Alternatively, incorporate or include the Residential Energy Code Prescriptive Compliance (REPC) Form into the drawing set.

Building envelope, Whole house ventilation, Energy Credit Information, REPC Form Information, Air Leakage Testing, Duct Leakage Testing, Postconstruction Test, Rough-in Test.

TO BE COMPLETED BY DSG

PROJECT ALERTS: Construction of the project shall be from approved plans only. No deviation from the approved project plans is allowed without prior approval from the City of Mercer Island.

TREE PROTECTION REQUIREMENTS: Tree protection as shown on approved drawings shall be installed at tree dripline prior to start of any site work and must remain in place throughout the project.

FIRE PROTECTION REQUIREMENTS: Separate Permits are required for ALL fire protection systems. Fire Sprinkler, Monitored Household Fire Alarm, Monitored Sprinkler, Water Flow Alarm, Other: _____

WATER SUPPLY REQUIREMENTS: Fire sprinkler design calculations must be provided prior to determining water supply system requirements. City Installation, Applicant Installation, Required Service Line Size, Required Supply Line Size, Required Meter Size.

DRAINAGE REQUIREMENTS: On site detention system required, Direct discharge into the lake, On site infiltration system required, No Storm Water permit required, As-built Utility drawings required, Connection to public storm drainage conveyance system req'd.

SIDE SEWER REQUIREMENTS: Side sewer requires a backflow preventer when connecting to the lake line or when the elevation of the lowest plumbing fixture is lower than the elevation of the upstream manhole rim.

APPROVED CODE ALTERNATIVES: Code alternatives must be inspected. Refer to the Inspection Checklist. CA1: _____ CA2: _____

SURVEY REQUIREMENTS (The following survey information must be submitted when checked): Surveyor shall verify points chosen for height calculations and point verification shall be submitted at the time of City foundation inspection.

MAXIMUM 40 PERCENT ALTERATION INSPECTION: A Building Inspection prior to demolition is required for all legally nonconforming single family dwelling to ensure no more than 40 percent of the dwelling's exterior walls are structurally altered.

GEOTECHNICAL INFORMATION: Land clearing, grading, filling and foundation work within geologic hazard areas is NOT PERMITTED between October 1 and April 1 without an approved Seasonal Development Limitation Waiver.

SEASONAL DEVELOPMENT LIMITATION RESTRICTION: Applies (Geologic Hazard area). Grading not permitted between October 1 through April 1.

Geotechnical Engineer: _____ Phone: _____

TO BE COMPLETED BY DSG

TO BE COMPLETED BY DSG

REQUIRED CONSTRUCTION INSPECTIONS: It is the applicant's responsibility to contact DSG to schedule ALL inspections appropriate for the project. Request inspections online at www.MyBuildingPermit.com or by calling the Inspection Hotline at (206) 275-7730.

TO BE COMPLETED BY DSG

Final Inspection: Tree Restoration, Final Inspection: Fire protection, including (but not limited to): Sprinkler, Access Road, Fire Code Alternatives (see below).

90 DAY TEMPORARY CERTIFICATE OF OCCUPANCY (TCO): Applicant option. Additional fees will be required and must be approved prior to occupancy.

ADDITIONAL REQUIRED CITY INSPECTIONS: Call the appropriate contact to arrange the inspection.

IMPACT FEES: If applicable. Impact fees apply and are due prior to Final Inspection or on _____, whichever occurs first.

PLAN REVIEW APPROVALS: Not all review disciplines may be required to review the documents. N/A Building, N/A Planning, N/A Engineering, N/A Tree, N/A Fire.

TO BE COMPLETED BY APPLICANT

TO BE COMPLETED BY APPLICANT

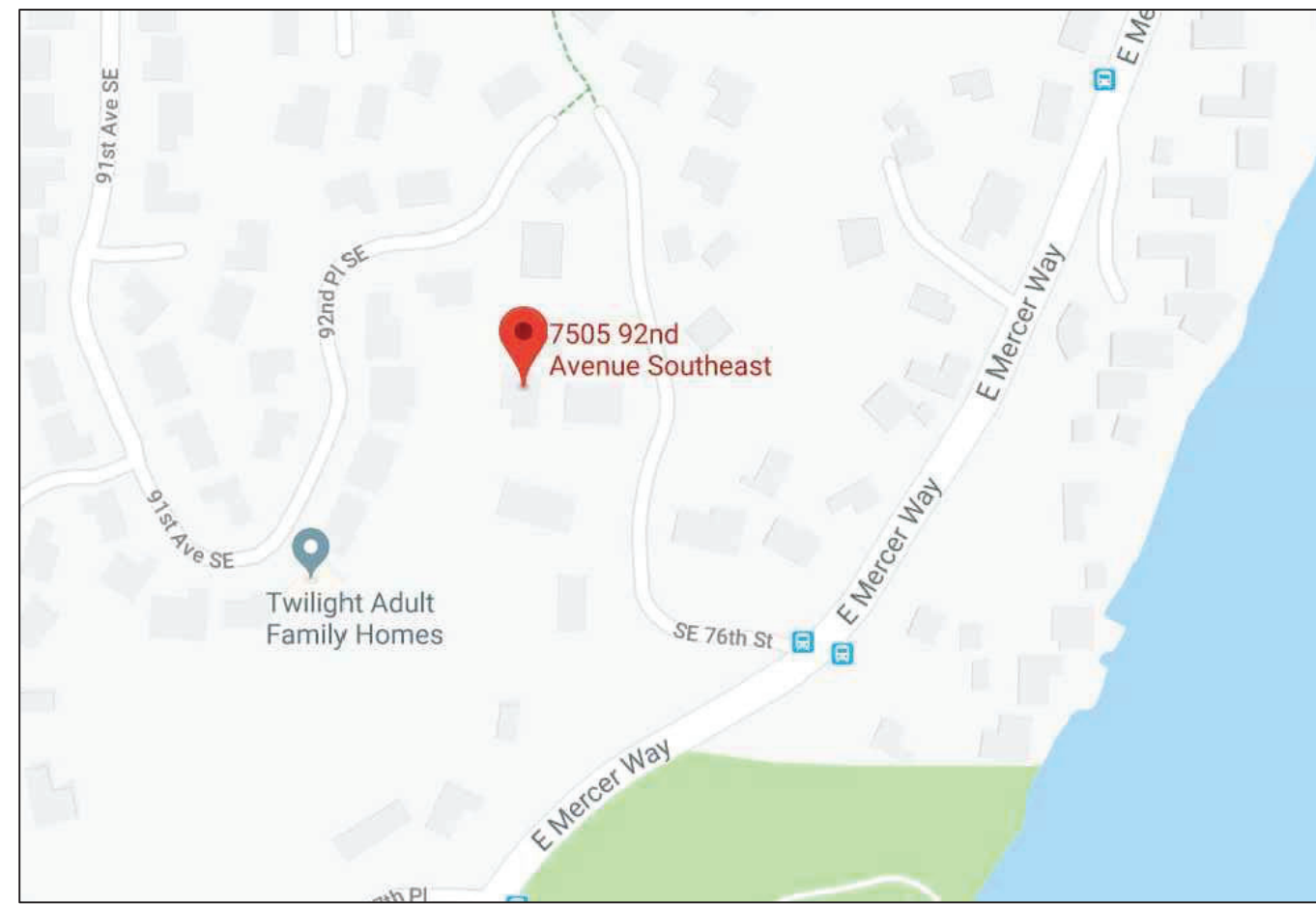


CERTIFICATE OF OCCUPANCY Issued after all required inspections have been performed and approved.

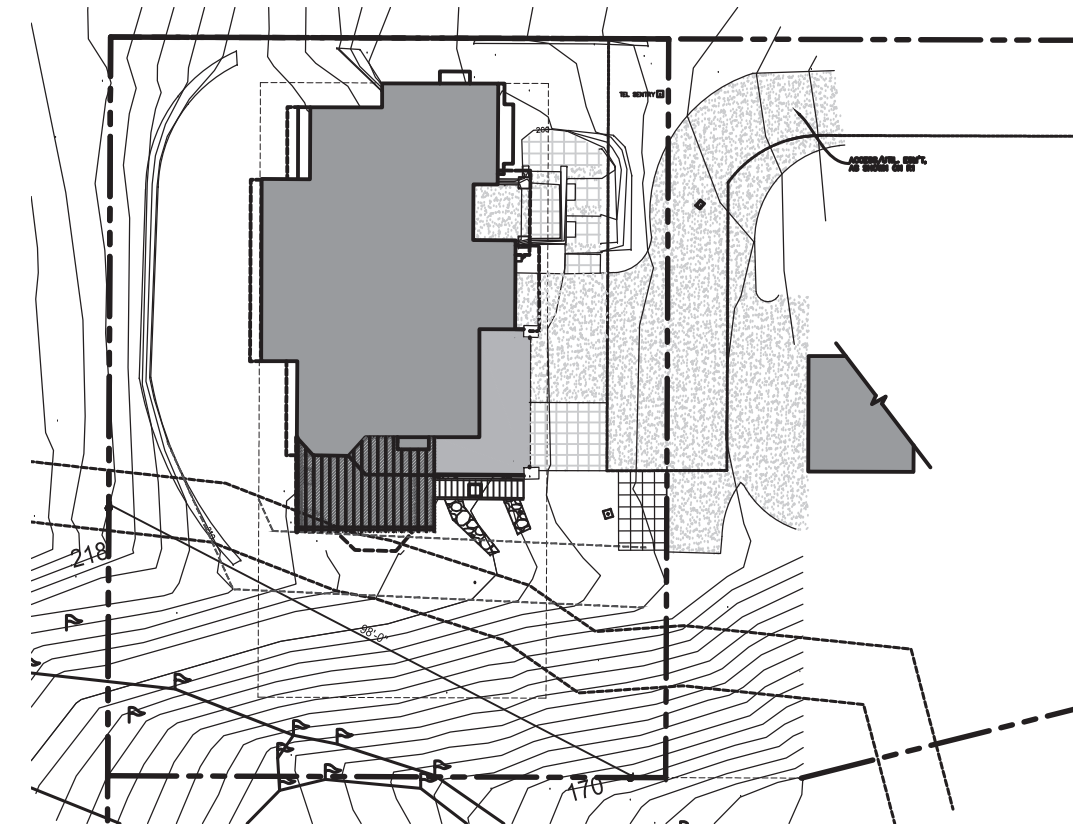
PROJECT NAME: PROJECT ADDRESS:

APPROVED DRAWINGS MUST BE KEPT ON THE BUILDING SITE AT ALL TIMES REVIEWED FOR CODE COMPLIANCE

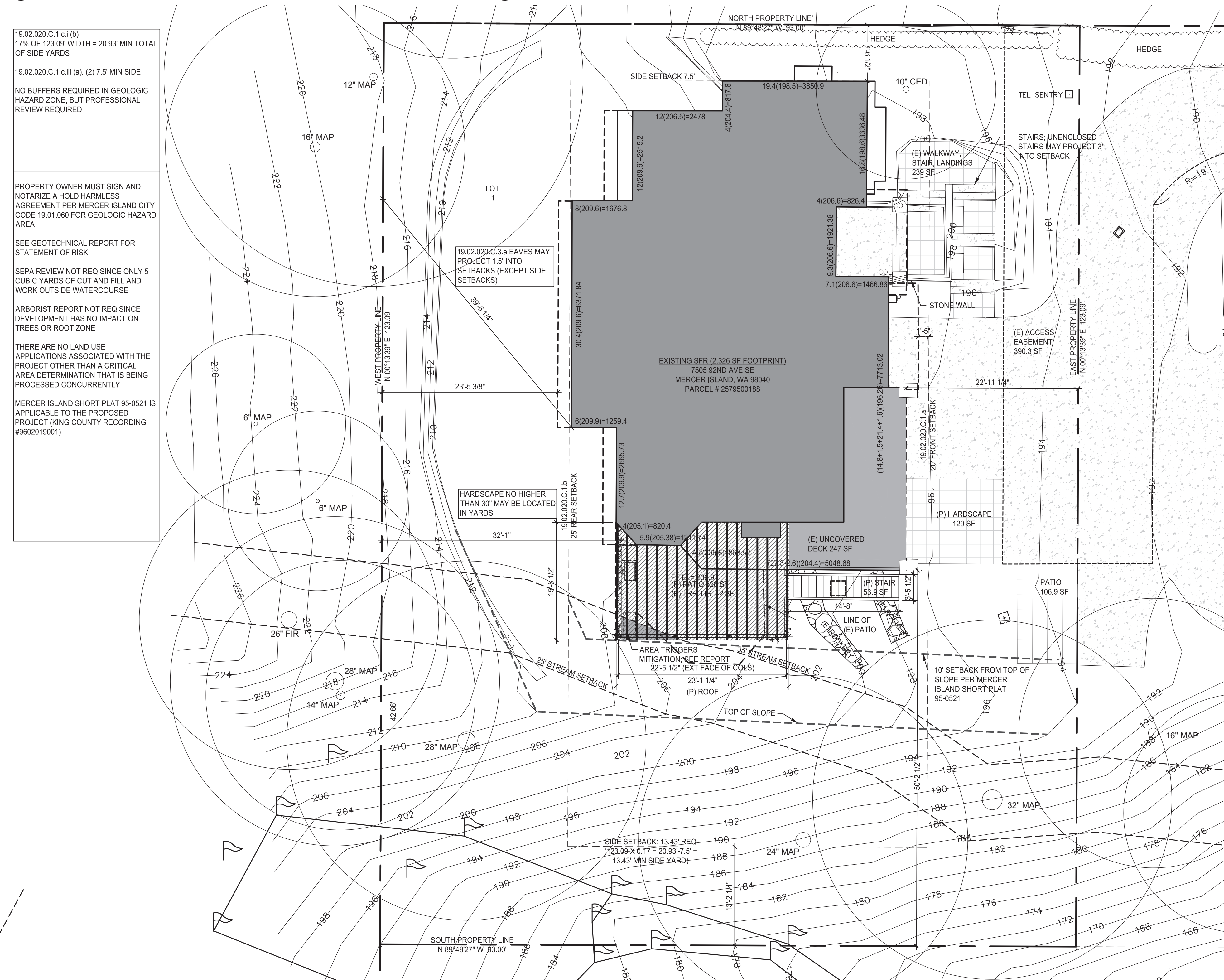
PROJECT DATA	PROPERTY DATA	ENERGY DATA																		
OWNER LAI JONATHAN.L@DCLMANAGEMENT.COM 7505 92ND AVE SE MERCER ISLAND, WA 98040 ARCHITECT JOSH PS 5406 SW BEACH DRIVE TER SEATTLE, WA 98116 SDCI ID: AC58960 CONTACT: S. JOSHUA BRINCKO (206 708 9933) JOSH@JOSHARCH.COM STRUCTURAL ENGINEER SWENSON SAY FAGET 2124 3RD AVE #100 SEATTLE, WA 98121 CONTACT: KARL ROSMAN (206 443 6212) KROSMAN@SWENSONSAYFAGET.COM CONTRACTOR OWNER GEOTECHNICAL ENGINEER PANGELO 3213 EASTLAKE AVE E, SUITE B SEATTLE, WA 98102 CONTACT: SIEW L. TAN, P.E. (206 262 0370)	PROJECT ADDRESS 7505 92ND AVE SE MERCER ISLAND, WA 98040 ZONING DESIGNATION R-9.6 19.02.020.E HEIGHT LIMIT 30' FROM AVERAGE GRADE TO HIGHEST POINT OF ROOF (5' BONUS FOR CHIMNEYS ETC.) *FENCES MAX 72" HIGH (60" LATTICE ALLOWED UP TO 90") SETBACKS FRONT: 20' NORTH SIDE: 7.5' SOUTH SIDE: 13.43' REAR: 25' LOT AREA 11447 SF ASSESSOR'S TAX NUMBER 257950-0188 LEGAL DESCRIPTION FLOODS LAKE SIDE TRS LOT "1" MERCER ISLAND SHORT PLAT NO 95-0521 REC NO 9602019001 SD SHORT PLAT DAF - POR OF LOT 2 BLK 5 OF FLOODS LAKE SIDE TRS - AKA LOT 4 OF THE SULLIVAN SEGREGATION APPROVED SUBD 03-22-63 OF CITY OF MERCER ISLAND REC NO 6903100404 PLAT BLOCK: 5 PLAT LOT: 2	PRESCRIPTIVE OPTION (ENERGY CREDIT 1A) INSULATION VALUES SLAB PERIMETER (FIRST 24") R-10 BELOW GRADE WALLS (EXTERIOR) R-10 BELOW GRADE WALLS (INTERIOR) R-21 ABOVE GRADE WALLS R-21 FLOORS ATTICS SW 1" CLEAR VENT SPACE R-49 ADV FRAMED ATTICS W/ 1" CLEAR VAULTED JOISTS/RAFTERS R-38 FENESTRATION OVERHEAD GLAZING U-0.28 U-0.50 *ALL NEW FENESTRATION TO BE NFRC CERTIFIED																		
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AVG GRADE CALC: WEIGHTED MIDPOINT SUM = 3850.9+3336.48+862.4+1921.38+1466.86+7713.02+5048.68+863.52 +1211.74+820.4+2665.73+1259.4+6371.84+1676.8+2515.2+2478+817.6 = 44,879.95 TOTAL LENGTH = 19.4+16.8+4+9.3+7.1+39.3+24.7+4.2+5.9+4+12.7+6+30.4+8+12+12+4 = 219.8 WEIGHTED SUM/LENGTH = 44879.95/219.8 = 204.19' AVERAGE GRADE																				



1 VICINITY MAP
NOT TO SCALE



3 SLOPE DIAGRAM/CALC
SCALE: 1/32" = 1'-0"



2 SITE PLAN (TO BE VERIFIED IN FIELD)
SCALE: 1/8" = 1'-0"

All drawings, specifications, plans, ideas, arrangements, and design solutions represented or referred to are the property of and owned by Josh PS whether the project for which they are made is executed or not. They were created, evolved, developed and produced for the sole use on and in connection with this project and none of the above may be disclosed or given to or used by any person, firm, or corporation for any use or purpose whatsoever, including any other project, except upon written permission of Josh PS.

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JOSH PS

9388 REGISTERED ARCHITECT
S. JOSHUA BRINCKO
STATE OF WASHINGTON

DESIGN SJB
DRAWN CEC
CHECKED SJB
DATE [2019-0114 DESIGN]
[2019-0621 PERMIT]
[2020-0211 REV 1]

LAI
7505 92ND AVE SE
MERCER ISLAND WA 98040

PERMIT

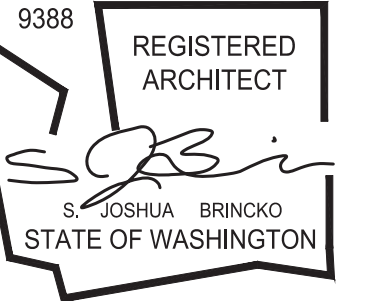
SITE PLAN
PROJECT INFORMATION



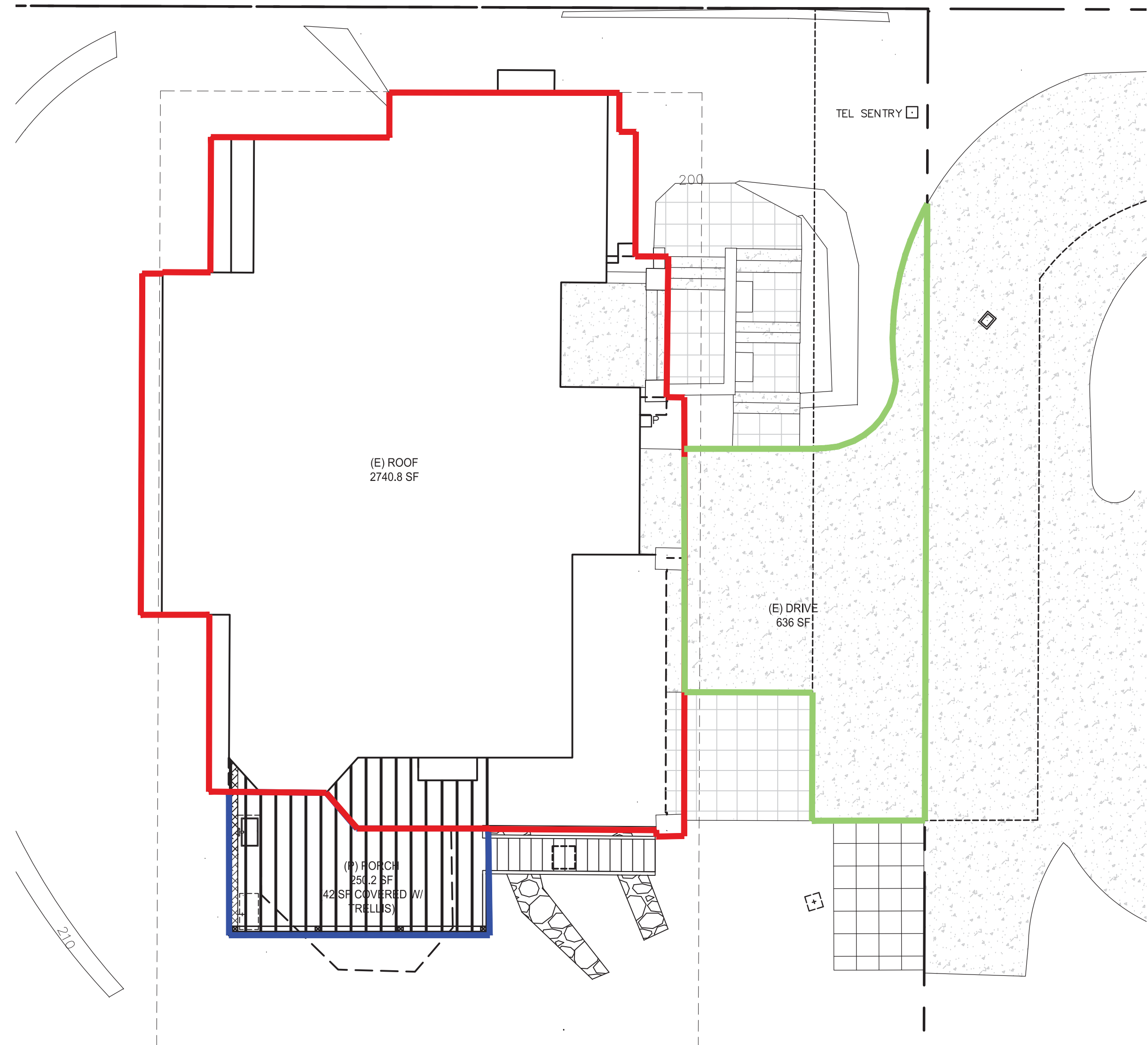
A1.0

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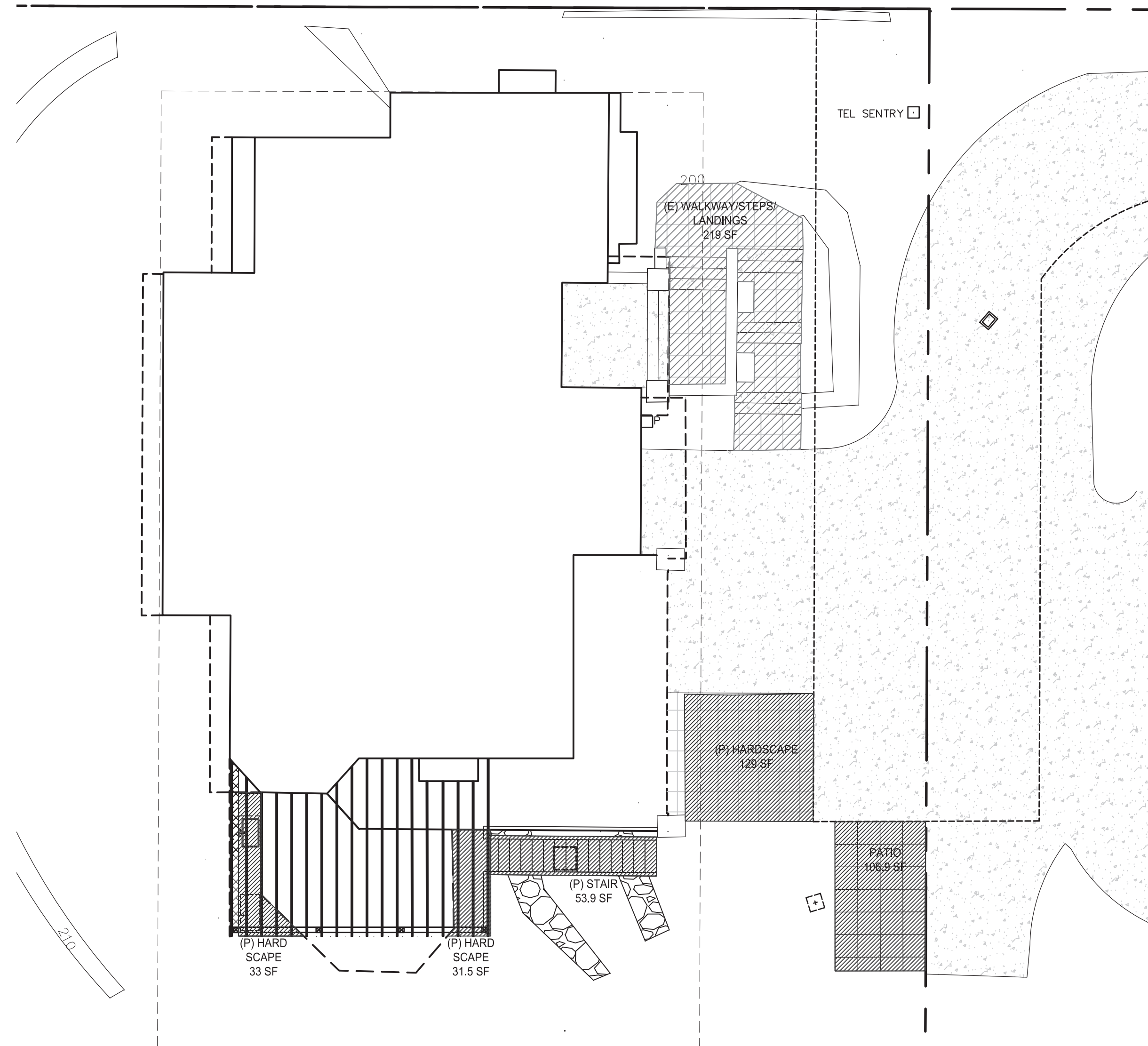
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CONSTRUCTION DATA	
LOT COVERAGE	
(E) ROOFS	2740.8 SQ FT
(P) TRELLIS	42 SQ FT
(E) DRIVEWAY	636 SQ FT
TOTAL	3418.8 SQ FT
LOT AREA 11447 SQ FT	
19.02.020.F.3.a LOT COVERAGE CALC. FOR LOTS SLOPED 30-50%, MAX 30% LOT COVERAGE (INCLUDING HOUSE, DRIVEWAY, ACCESSORY BUILDINGS) SEE DIAGRAM	
ALLOWABLE COVERAGE (.30X11447)=3,434.1 SF	
PROPOSED COVERAGE =	3418.8 SQ FT
NET LOT AREA: 11,447-390.3 ACCESS EASEMENT = 11,056.7 SF	
19.02.020.F.3.b.i MAX HARDSCAPE AREA: 9% (11,056.7 NET LOT AREA) = 995.1 SF ALLOWED EXISTING (INCLUDING DECKS, GRAVEL, WALKS, PATIOS - NOT BUILDINGS OR DRIVING SURFACES)	
(E) PATIO	106.9 SQ FT
(E) WALKWAYS, STAIRS & LANDINGS	219 SQ FT
(P) HARDSCAPE	193.5 SQ FT
(P) STAIR	53.9 SQ FT
TOTAL	573.3 SQ FT
SOFTSCAPE AND DRIVEWAY	
DRIVE =	636 SQ FT
19.02.020.F.3.c LANDSCAPE AREA: MIN 70% (11447) = 8,012.9 SF MIN	
PROPOSED LANDSCAPE =	11,447 SF LOT AREA - 3434.1 SF COVERAGE = 8012.9 SF
(INCLUDES SOFTSCAPE AND HARDSCAPE - NOT INCLUDING DRIVEWAYS)	
19.02.020.G PARKING REQUIREMENTS: 3 REQUIRED (MIN 2 COVERED) 3 COVERED EXISTING CHANGED TO 2 COVERED	
MAX ACCESSORY AREA: MAX 25% OF GROSS FLOOR AREA 25%(4578.8)= 1144.7 SF INCLUDES SOFTSCAPE AND HARDSCAPE - NOT INCLUDING DRIVEWAYS (MAX 17' HIGH ABOVE AVERAGE GRADE)	
ALLWBLE BUILDING PAD (SHRT PLAT)	3470 SF



1 LOT COVERAGE DIAGRAM
SCALE: 1/8" = 1'-0"



2 HARDSCAPE DIAGRAM
SCALE: 1/8" = 1'-0"



DESIGN	SJB
DRAWN	CEC
CHECKED	SJB
DATE	[2019-0114 DESIGN]
	[2019-0621 PERMIT]
	[2020-0211 REV 1]

LAI
7505 92ND AVE SE
MERCER ISLAND WA 98040

PERMIT

HARDSCAPE AND
LOT COVERAGE
DIAGRAMS



A1.0a

GENERAL NOTES

- 1. ALL WORK TO COMPLY WITH '2015 INTERNATIONAL RESIDENTIAL CODE' WITH JURISDICTION AMENDMENTS WHERE APPLICABLE.
2. ALL APPLICABLE CODES, ORDINANCES AND MINIMUM STRUCTURAL REQUIREMENTS TAKE PRECEDENCE OVER ALL DRAWINGS, NOTES AND SPECIFICATIONS.
3. CONTRACTOR MUST CONTACT ARCHITECT IMMEDIATELY FOR ANY DISCREPANCIES IN CONTRACT DOCUMENTS OR EXISTING CONDITIONS PRIOR TO PROCEEDING WITH WORK.
4. CONTRACTOR MUST CONTACT ARCHITECT IMMEDIATELY FOR ANY DISCREPANCIES BETWEEN CONTRACT DOCUMENTS AND APPLICABLE CODES PRIOR TO PROCEEDING WITH WORK.
5. CONTRACTOR TO VERIFY ALL DIMENSIONS, GRADES, AND EXISTING CONDITIONS BEFORE PROCEEDING WITH WORK.
6. CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF/HERSELF WITH ALL ASPECTS OF THE WORK PRIOR TO CONTRACTING WITH THE OWNER TO PERFORM THE WORK.
7. CONTRACTOR SHALL VERIFY CONFORMANCE OF ACTUAL SOIL CONDITIONS WITH SOILS REPORT AND DESIGN ASSUMPTIONS.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL NECESSARY PERMITS FOR THE WORK, EXCEPT FOR THE BUILDING PERMIT WHICH IS THE RESPONSIBILITY OF THE ARCHITECT.
9. CONTRACTOR'S GUARANTEE ON ALL MATERIALS AND WORKMANSHIP TO BE (1) YEAR FROM DATE OF COMPLETION UNLESS NOTED OTHERWISE IN CONTRACT.
10. REPETITIVE FEATURES MAY BE DRAWN ONLY ONCE, BUT SHALL BE PROVIDED AS IF DRAWN IN FULL. REPETITIVE NOTES MAY BE CALLED OUT ONLY ONCE AND INDICATED AS TYPICAL (TYP).
11. DIMENSIONS ARE TO FACE OF STUD OR FACE OF CONCRETE OR CENTERLINE OF INTERIOR COLUMNS UNLESS NOTED OTHERWISE.
12. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING MECHANICAL, ELECTRICAL, AND PLUMBING CONTRACTORS AND NOTIFYING THE ARCHITECT OF ANY DISCREPANCIES IN FRAMING PRIOR TO PROCEEDING WITH WORK.
13. THESE DRAWINGS ARE DESIGN-BUILD IN THE AREAS OF MECHANICAL, ELECTRICAL, AND PLUMBING.
14. THE GENERAL CONTRACTOR AND OTHER PARTIES DOING WORK ON BEHALF OF THE GENERAL CONTRACTOR INCLUDING BUT NOT LIMITED TO SUBCONTRACTORS AND ALL STAFF ARE REQUIRED TO BECOME FAMILIAR WITH ALL REGULATIONS REGARDING THE CONSTRUCTION, DEMOLITION, AND RELATED ACTIVITIES FOR THE PROJECT. ANY VIOLATIONS TO APPLICABLE REGULATIONS CAUSED BY THE PARTIES HEREIN SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
15. VISIBLE OVERLAPPING MATERIALS SUCH AS FLASHING TO BE LAPPED SUCH THAT SEAM IS NOT FACING STREET OR DOMINANT VIEW.
16. VENTS AND PENETRATIONS TO BE HIDDEN FROM VIEW FROM STREET OR DOMINANT VIEW.
17. THE GENERAL CONTRACTOR IS REQUIRED TO ORGANIZE A MEETING ON SITE WITH THE ARCHITECT AND ACTUAL LABORERS INSTALLING SIDING TO CONFIRM LOCATIONS OF EACH SIDING MATERIAL.

JOB SITE SAFETY

- 1. THE ARCHITECT HAS NOT BEEN RETAINED OR COMPENSATED TO PROVIDE DESIGN AND/OR CONSTRUCTION REVIEW SERVICES RELATING TO THE CONTRACTOR'S SAFETY PRECAUTIONS.
2. PERIODIC SITE VISITS PERFORMED BY THE ARCHITECT SHALL NOT BE CONSTRUED AS SUPERVISION OF ACTUAL CONSTRUCTION SAFETY PRECAUTIONS.
3. THE ARCHITECT IS NOT RESPONSIBLE FOR PROVIDING A SAFE PLACE FOR THE PERFORMANCE OF WORK BY THE CONTRACTOR OR THE CONTRACTOR'S EMPLOYEES OR EMPLOYEES OF SUPPLIERS OR SUBCONTRACTORS, OR FOR ACCESS, VISITS, USE, WORK, TRAVEL OR OCCUPANCY BY ANY PERSON.

SITE WORK

- 1. ALL EXCAVATION AND FILL SHALL BE STORED AND PROTECTED SUCH AS TO PREVENT RUN OFF OF MATERIAL TO ADJACENT PROPERTIES.
2. FOOTING DRAIN TO BE SEPARATE FROM ROOF AND IMPERVIOUS AREA DRAINS.
3. DOWNSPOUT DRAIN TO BE 4" DIAMETER TIGHTLINE UNLESS NOTED OTHERWISE.
4. FOOTING DRAIN TO BE 4" DIAMETER PERFORATED PIPE WRAPPED IN GEOTEXTILE FABRIC UNLESS NOTED OTHERWISE
5. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH REQUIRED SEPTIC AND/OR STORM WATER DETENTION SYSTEMS.
6. SUBSTANTIAL COMPLETION SHALL BE DEFINED AS A POINT IN WHICH ALL INSPECTIONS ARE APPROVED, AND THE BUILDING MAY BE USED FOR ITS INTENDED PURPOSE. THE BUILDER SHALL PRESENT A FINAL APPLICATION FOR PAYMENT TO THE OWNER AT THE POINT OF SUBSTANTIAL COMPLETION. ONCE THE FINAL APPLICATION FOR PAYMENT IS RECEIVED, THE OWNER SHALL PRESENT A PUNCHLIST TO THE GENERAL CONTRACTOR TO FINALIZE ANY MINOR ITEMS THAT MAY NEED REPAIRED, BUILT, ALTERED, OR OTHERWISE ADDRESSED TO BRING THE BUILDING IN CONFORMANCE WITH THE CONSTRUCTION DRAWINGS, CODE REQUIREMENTS, AND ORDINARY STANDARD OF CONSTRUCTION QUALITY. ONCE THE PUNCHLIST IS DELIVERED TO THE BUILDER, THE OWNER ACCEPTS RESPONSIBILITY FOR THE BUILDING AND UTILITIES AND MAY OCCUPY THE BUILDING FOR ITS INTENDED USE ONCE APPROVED BY THE BUILDER. THE WARRENTY PERIOD SHALL BEGIN AT THE TIME THE OWNER OCCUPIES THE BUILDING.

VENTILATION NOTES

- 1. ALL WORK TO COMPLY WITH THE 2015 IRC CHAPTER 15 WITH JURISDICTION AMENDMENTS.
2. SOURCE SPECIFIC FANS SHALL BE LOCATED IN ALL KITCHENS, BATHROOMS, WATER CLOSETS AND LAUNDRY FACILITIES. VENTILATION CAPACITY SHALL BE AT LEAST 50 C.F.M. FOR BATHROOMS AND LAUNDRY ROOMS (Intermittent use) AND 100 C.F.M. FOR KITCHENS (Intermittent use). DUCTING SHALL TERMINATE OUTSIDE THE BUILDING AND SHALL BE EQUIPPED WITH BACKDRAFT DAMPERS.
3. WHOLE HOUSE VENTILATION SYSTEM SHALL BE CAPABLE OF .35 AIR EXCHANGES PER HOUR BUT NO MORE THAN .50 AIR EXCHANGES PER HOUR UNDER NORMAL OPERATING CONDITIONS. OUTDOOR AIR SHALL BE PROVIDED TO ALL HABITABLE ROOMS. FAN SHALL HAVE A SONE RATING OF 1.5 OR LESS MEASURED AT 0.1 INCHES WATER GAUGE.
4. DUCT WORK SHALL CONFORM TO TABLE M1508.6.2 AND M1506.1 OF THE '2015 IRC CHAPTER 15' WITH JURISDICTION AMENDMENTS.
5. INSULATE DUCTS WITH MIN. R8 INSULATION. ALTHOUGH NO INSULATION IS REQUIRED IF THE DUCTS AND EQUIPMENT COMPLETELY ENCLOSED WITHIN THE BUILDING ENVELOPE
6. PROVIDE A MINIMUM NET AREA OF 1 SQUARE FOOT OF VENTILATION AREA FOR EACH 150 SQUARE FEET OF CRAWLSPACE AREA. PLACE OPENINGS AS NEAR AS TO CORNERS AS PRACTICABLE AND SHALL PROVIDE CROSS VENTILATION.
7. ALL CRAWLSPACE VENTS TO BE PROVIDED WITH 1/4" NON-CORROSIVE WIRE MESH.
8. PROVIDE A MINIMUM NET AREA OF 1 SQUARE FOOT OF VENTILATION AREA FOR EVERY 150 SQUARE FEET OF ATTIC AREA. PROVIDE A CONTINUOUS 1 INCH MINIMUM AIR SPACE ABOVE INSULATION FOR CROSS VENTILATION.ALL ROOFS TO BE CROSS-VENTED U.N.O.
9. ALL ATTIC VENTS TO BE PROVIDED WITH 1/4" NON-CORROSIVE WIRE MESH OR APPROVED SOFFIT VENTS.
10. OUTDOOR AIR INLETS SHALL BE INSTALLED WITHIN EACH HABITABLE SPACE WITH NOT LESS THAN 4 SQUARE INCHES OF INLET AREA EACH WITH SCREENS AND CONTROLLABLE OPENINGS NOT WITHIN 10' OF AN APPLIANCE VENT OR PLUMBING DRAIN VENT OUTLET, NOT WITHIN A ROOM WITH FUEL BURNING APPLIANCES, NOT WITHIN ATTICS, CRAWLSPACES, OR GARAGES AND NOT WITHIN UNSANITARY OR ORDOROUS AREAS PER IRC M1507.3.4.4
11. PER SRC M1501.1 EXHAUST FAN VENTS SHALL TERMINATE OUTDOORS AND NOT IN ATTICS, SOFFITES, RIDGE VENTS, OR CRAWL SPACES. TERMINATIONS TO EXIT THE STRUCTURE WITH CLEARANCES MEETING SRC M1506.3. NOT LESS THAN 3 FEET FROM PROPERTY LINES, 3 FEET FROM OPERABLE OPENINGS INTO TO THE BUILDING AND 10 FEET FROM MECHANICAL AIR INTAKES.

MOISTURE PROTECTION

- 1. PROVIDE PRESSURE TREATED PLATES BETWEEN CONCRETE AND FRAMING.
2. PROVIDE A MINIMUM OF 12" CLEAR BETWEEN WOOD GIRDERS AND EARTH.
3. PROVIDE A MINIMUM OF 18" CLEAR BETWEEN WOOD JOISTS AND EARTH.
4. PROVIDE A MINIMUM OF 8" CLEAR BETWEEN WOOD POSTS AND EARTH.
5. PROVIDE A MINIMUM OF 1" CLEAR BETWEEN WOOD POSTS AND CONCRETE FLOORS.
6. CAULK ALL OPENINGS THOROUGHLY.
7. FLASH ALL OPENINGS WITH A MINIMUM OF 26 GAUGE GALVANIZED STEEL TO ACCEPTABLE INDUSTRY STANDARDS.
8. METAL COPING AT PARAPET TO BE A MINIMUM OF 22 GAUGE GALVANIZED STEEL.
9. JOSH RECOMMENDS WET SEAL AND WET FLASH LIQUID APPLIED WEATHERPROOFING IN LIEU OF BUILDING PAPER OR HOUSEWRAP.

FIRE PROTECTION

- 1. THE GARAGE SHALL BE SEPERATED FROM THE RESIDENCE AND IT'S ATTIC BY NOT LESS THAN THE FOLLOWING:
- NOT LESS THAN (1) LAYER OF 5/8" TYPE "X" GYPSUM WALLBOARD APPLIED TO ALL GARAGE WALLS. NOT LESS THAN (2) LAYERS OF 5/8" TYPE "X" GYPSUM WALLBOARD AT CEILINGS.
- 1-3/8" MINIMUM THICK, SOLID CORE, OR HONEYCOMB CORE STEEL DOOR, OR A 20-MIN. FIRE-RATED DOOR.
- DUCTS PIERCING FIRE SEPARATION TO BE A MINIMUM OF 26 GAUGE, AND HAVE NO OPENINGS INTO THE GROUP "U" OCCUPANCY.
2. FIRE SEPARATION TO BE HORIZONTAL AND VERTICAL INCLUDING ALL STRUCTURAL MEMBERS SUPPORTING THE FIRE SEPARATION.
3. ALL ENCLOSED USEABLE SPACE UNDER STAIRWAYS SHALL BE (1) LAYER OF 5/8" TYPE 'X' GYPSUM WALLBOARD ON ENCLOSED SIDE.
4. SMOKE DETECTORS SHALL BE HARD WIRED TO BUILDING POWER AND SHALL HAVE BATTERY BACKUP.
5. SMOKE DETECTORS SHALL BE AUDIBLE IN ALL SLEEPING ROOMS, AND OUTSIDE EACH SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
6. A MINIMUM OF (1) SMOKE DETECTOR SHALL BE INSTALLED ON EACH FLOOR INCLUDING THE GARAGE.
7. FIRESTOPPING AND DRAFTSTOPPING SHALL CONSIST OF 2" NOMINAL LUMBER.
8. FIRESTOPPING AND DRAFTSTOPPING IS REQUIRED IN THE FOLLOWING PLACES:
- CONCEALED SPACES AT ALL FLOOR AND CEILING LEVELS AND AT 10 FOOT INTERVALS ALONG THE LENGTH OF THE WALL.
- INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES (i.e. Soffits)
- CONCEALED SPACES BETWEEN STAIR STRINGERS AT TOP AND BOTTOM OF THE RUN.
9. ROCK WOOL AROUND ALL OPENINGS FOR VENTS, PIPES, DUCTS, ETC.
10. EMERGENCY EGRESS WINDOWS SHALL MEET THE FOLLOWING REQUIREMENTS:
CLEAR OPEN WIDTH 20" (Minimum)
CLEAR OPEN HEIGHT 24" (Minimum)
CLEAR OPEN AREA 5.7 s.f. (Minimum)
SILL HEIGHT 44" (Maximum)
11. PREFABRICATED FIREPLACES SHALL BEAR U.L. OR I.C.B.O. SEAL OF APPROVAL AND SHALL BE INSTALLED PER MANUFACTURER INSTRUCTIONS.
12. APPLIANCE GENERATING A GLOW, A SPARK, OR FLAME MAY BE INSTALLED IN THE GARAGE PROVIDED THE HEATING ELEMENTS AND SWITCHES ARE 18" ABOVE THE FLOOR.
13. GARAGE FLOOR TO BE CONSTRUCTED OF NON COMBUSTIBLE MATERIAL (CONCRETE).

SHOP DRAWINGS

- 1. SHOP DRAWINGS ARE REVIEWED FOR DESIGN INTENT ONLY.
2. THE CONTRACTOR IS TO REVIEW AND APPROVE ALL SHOP DRAWINGS PRIOR TO SUBMITTING TO ARCHITECT OR STRUCTURAL ENGINEER.
3. SEE STRUCTURAL NOTES AND PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND CLARIFICATIONS REGARDING SHOP DRAWINGS.

EARTH WORK

- 1. EXTEND EXCAVATION DOWN TO UNDISTURBED SOIL OF THE SPECIFIED STRENGTH WITH A MINIMUM OF 18" BELOW LOWEST ADJACENT FINISH GRADE.
2. COMPACTED FILL TO BE WELL GRADED AND GRANULAR WITH NOT MORE THAN 5% PASSING A 200 SIEVE. PLACE IN 8" LOOSE LIFTS AND COMPACT TO 95% MODIFIED AASHO DENSITY AT OPTIMUM MOISTURE CONTENT.
3. BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE AS NOTED IN THE SOILS REPORT.

SAFETY AND SECURITY

- 1. DEADBOLTS WITH A MINIMUM THROW OF 1/2" AND A VIEWPORT ARE REQUIRED AT ALL EXTERIOR DOORS.
2. DEADBOLTS OR APPROVED LOCKING DEVICES ARE REQUIRED ON ALL SLIDING DOORS.
3. ALL LOCKS SHALL BE OPENABLE WITHOUT ANY SPECIAL KNOWLEDGE OR EFFORT.
4. WINDOWS WITHIN 10'-0" OF FINISHED GRADE SHALL BE PROVIDED WITH LATCHING DEVICES.
5. STAIRWAYS TO MEET THE FOLLOWING REQUIREMENTS: OCCUPANCIES LESS THAN 10
STAIR WIDTH 36" (Minimum)
TREAD WIDTH 10" (Minimum), 6" Minimum for Winders
RISER HEIGHT 7 3/4" (Maximum)
HEADROOM 80" (Minimum)
HANDRAIL HEIGHT 34" to 38" above nosing
HANDRAIL GRASP 1-1/4"(Min) to 2" (Max)
6. HANDRAIL INTERMEDIATE MEMBERS SHALL BE CONFIGURED AS TO PROHIBIT PASSING A 4" DIAMETER SPHERE THROUGH ANY OPENING.
7. GUARDRAILS SHALL BE A MINIMUM OF 36" ABOVE FINISH FLOOR.
8. GUARDRAIL INTERMEDIATE MEMBERS SHALL BE CONFIGURED AS TO PROHIBIT PASSING A 4" DIAMETER SPHERE THROUGH ANY OPENING.

GLAZING NOTES

- 1. ALL GLAZING TO BE (2) PANE INSULATED GLASS OR BETTER UNLESS NOTED OTHERWISE.
2. SLIDING DOORS TO BE SAFETY GLASS, LAMINATED GLASS, OR TEMPERED GLASS.
3. SHOWER DOORS AND ENCLOSURES TO BE SAFETY GLASS, LAMINATED GLASS, OR TEMPERED GLASS.
4. REFER TO WINDOW SCHEDULE FOR ADDITIONAL REQUIREMENTS.
5. JOSH RECOMMENDS CARDINAL GLASS W/ COATINGS AS SPECIFIED IN SHOP DRAWINGS.

BATHROOM NOTES

- 1. WALL COVERINGS IN SHOWERS TO BE MOISTURE RESISTANT MATERIAL TO 72" (Minimum) ABOVE DRAIN INLET.
2. TOILET TO HAVE CLEAR SPACE OF 30" WIDE (Minimum) AND 24" CLEAR (Minimum) IN FRONT OF STOOL.

INSPIRATIONAL COMMENTS

- 1. THIS PROJECT IS NOT A SPEC HOME. WE TAKE A LOT OF PRIDE IN CREATING A SPECIAL BUILDING CUSTOMIZED FOR THIS CLIENT, AND WE HOPE YOU WILL DO THE SAME. LETS WORK TOGETHER TO DO SOMETHING SPECIAL.
2. ALL WORK IS REQUIRED TO EXCEED YOUR ORDINARY LEVEL OF SATISFACTION. WE ARE EXCITED TO SHOW THIS PROJECT TO OUR FRIENDS AND FAMILY, AND WE HOPE YOU WILL SHARE THAT EXCITEMENT.
3. JUST BECAUSE SOMETHING WAS BUILT A CERTAIN WAY BEFORE, DOES NOT MEAN IT NEEDS TO BE BUILT A CERTAIN WAY NOW. THINK A LITTLE DIFFERENTLY, AND BE CREATIVE. EVERY CIRCUMSTANCE IS DIFFERENT, BUILD UPON YOUR PREVIOUS EXPERIENCES TO DO BETTER AND HONE YOUR SKILLS EVEN MORE. EVERY DETAIL IS A CHANCE TO PUSH YOUR LIMITS.
4. BE WILLING TO LEARN SOMETHING NEW AND TEACH SOMETHING NEW SINCE WE ARE ALL LEARNING AT ALL TIMES.

DRAWING LEGEND table with columns: SYMBOL, DESCRIPTION, REMARKS. Includes symbols for window, door, space number, grid line, match line, vertical datum point, surface material change, detail reference, section cut reference, and interior elevation reference.

MATERIAL SYMBOL LEGEND table with columns: SYMBOL, DESCRIPTION, SYMBOL, DESCRIPTION. Includes symbols for earth/compact fill, gravel/porous fill, concrete, CMU/brick/stone veneer, gypsum wall board/plaster, steel/other metals, and natural stone.

ABBREVIATION LIST

ABBREVIATION LIST table with columns: ABBREVIATION, DESCRIPTION, ABBREVIATION, DESCRIPTION. Lists abbreviations for building components, materials, and construction terms.

JOSH PS POLICIES

- 1. DO NOT USE BIFOLD DOORS FOR CLOSETS
2. DO NOT USE MATERIALS WITH WOOD GRAIN UNLESS THE MATERIAL IS WOOD
3. DO NOT USE GLASS BLOCK
4. METAL FABRICATION ONLY TO BE DONE BY GEORGETOWN METALWORKS UNLESS APPROVED OTHERWISE
5. DO NOT USE WHITE WINDOWS UNLESS APPROVED OTHERWISE
6. DO NOT PURCHASE APPLIANCES, DOORS, OR WINDOWS (OR ANY MATERIAL) WITHOUT JOSH APPROVAL
7. DO NOT TEAR DOWN ANY BUILDING OR LANDSCAPING UNLESS APPROVED OTHERWISE
8. DO NOT PUT STRUCTURE (JOISTS/RAFTERS/BEAMS) IN THE CENTER OF A HALL OR ROOM - WE PUT LIGHTING THERE
9. DO NOT USE ELECTROLUX OR FRIGIDAIRE APPLIANCES
10. DO NOT BEGIN CONSTRUCTION UNTIL THE FINAL PLANS HAVE BEEN REVIEWED WITH JOSH ARCHITECTS
11. INSTALL J BOXES FOR AN ELECTRICAL WALK-THROUGH WITH JOSH AND CLIENT PRIOR TO RUNNING WIRES
12. DO NOT LEAVE SPACES LESS THAN 2" BETWEEN TRIM(S) AND OTHER OBJECTS - WE WILL DESIGN WIDER TRIM OR SOME OTHER SOLUTION.
13. DO NOT TALK WITH THE BUILDING DEPARTMENT UNLESS YOU HAVE FIRST CONSULTED WITH JOSH
14. AESTHETICS OR STYLE ARE NOT PART OF OUR DESIGN PROCESS. SO PLEASE BASE DECISIONS ON PRACTICAL SOLUTIONS
15. THE BUILDER IS ENCOURAGED TO WEIGH-IN ON MORE EFFECTIVE AND EFFICIENT CONSTRUCTION METHODS AND SUGGEST BETTER WAYS OF BUILDING TO THE ARCHITECT
16. DIFFERENT MATERIALS MAY NOT BE COPLANAR (FLUSH)
17. BUILDING PAPER (OR HOUSE WRAP) MAY NOT BE EXPOSED FOR LONGER THAN A WEEK, OR IT SHOULD BE REPLACED
18. LIQUID APPLIED WATERPROOFING (PROSOCCO OR SIMILAR) IS HIGHLY RECOMMENDED OVER PAPER WEATHER BARRIERS
19. DO NOT INSTALL SOLAR PANELS UNTIL THE BUILDING HAS FIRST BEEN SUPER-INSULATED AND WRAPPED WITH INSULATION BOARD (REFLECTIVE SIDE FACING INTERIOR) WITH TAPED SEAMS
20. DISCUSS ANY UNCLER INFORMATION WITH JOSH AS SOON AS POSSIBLE, BE RESPONSIVE, AND BE A TEAM PLAYER
21. ROOF FASCIAS NOT TO EXCEED 10" IN HEIGHT

CODES REFERENCED table listing 2015 INTERNATIONAL RESIDENTIAL CODE (IRC), 2015 INTERNATIONAL BUILDING CODE (IBC), 2015 INTERNATIONAL MECHANICAL CODE (IMC), and 2015 WASHINGTON STATE ENERGY CODE (WSEC).



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Revision table with columns: DESIGN, CHECKED, DATE, and revision details (SJB, SJB, SJB, [2019-0114 DESIGN], [2019-0621 PERMIT], [2020-0211 REV 1]).

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GENERAL NOTES

A1.1

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STATE OF WASHINGTON



DESIGN SJB
DRAWN CEC
CHECKED SJB
DATE [2019-0114 DESIGN]
[2019-0621 PERMIT]
[2020-0211 REV 1]

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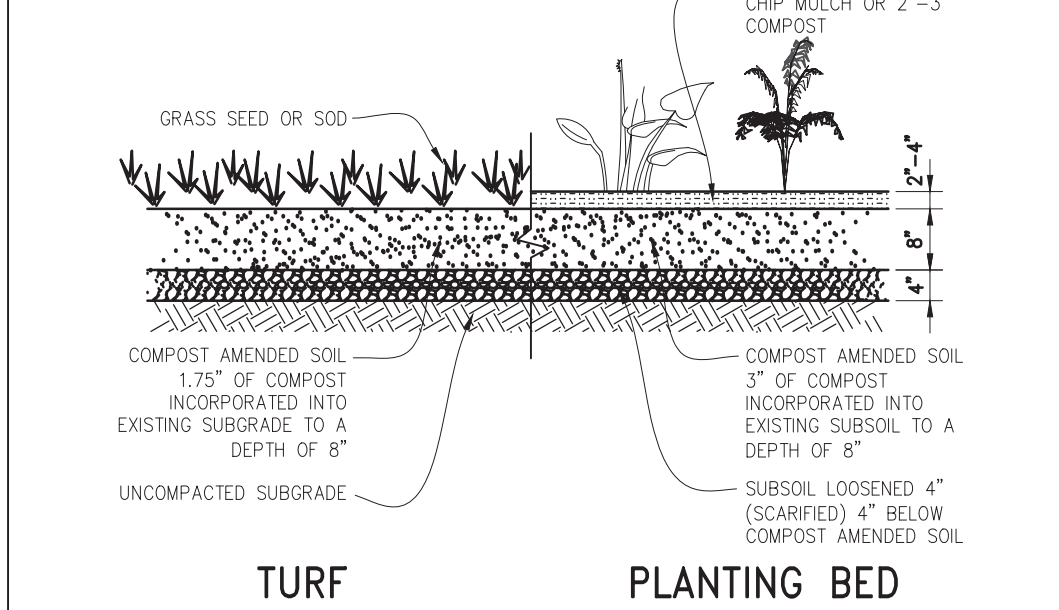
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CSC

A1.2

CONSTRUCTION STORMWATER CONTROL STANDARD DETAILS

SOIL AMENDMENT

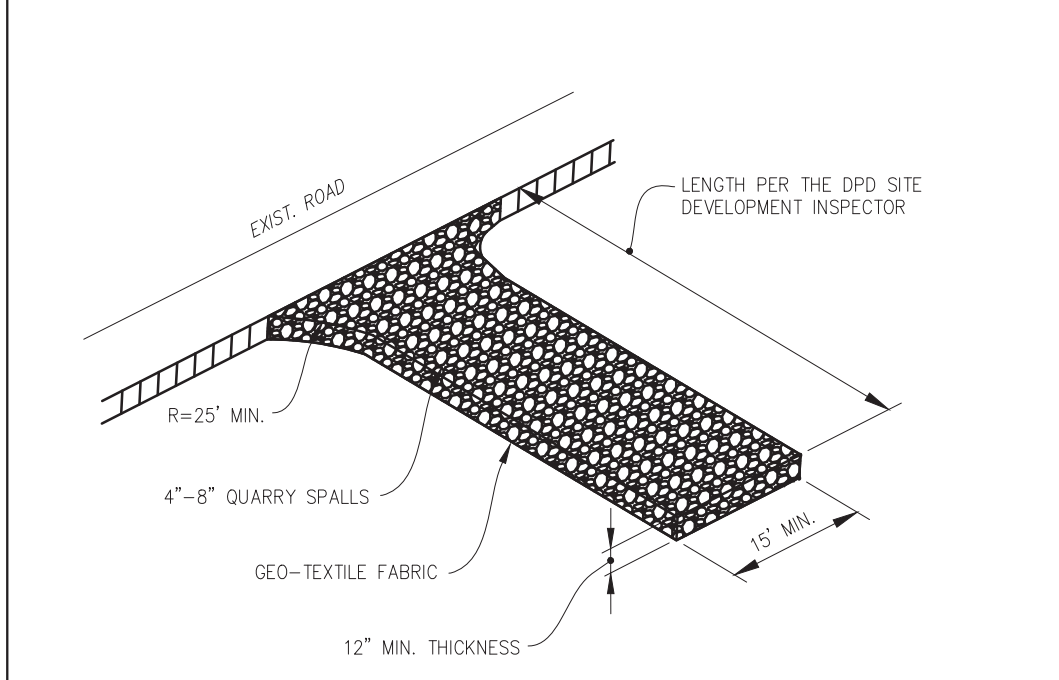


TURF **PLANTING BED**

NOTES:
1. POST CONSTRUCTION SOIL AMENDMENT IS REQUIRED ON ALL AREAS NOT COVERED BY IMPERVIOUS SURFACE WHERE SOIL IS DISTURBED DURING CONSTRUCTION.
2. SOIL AMENDMENT CALCULATIONS SHALL BE SHOWN ON THE POST-CONSTRUCTION SOIL AMENDMENT PLAN SHEET.
3. SOIL AMENDMENT MUST PASS A 12 INCH MINIMUM PROBE TEST.

SYMBOL: (1) (2) AND/OR (3)

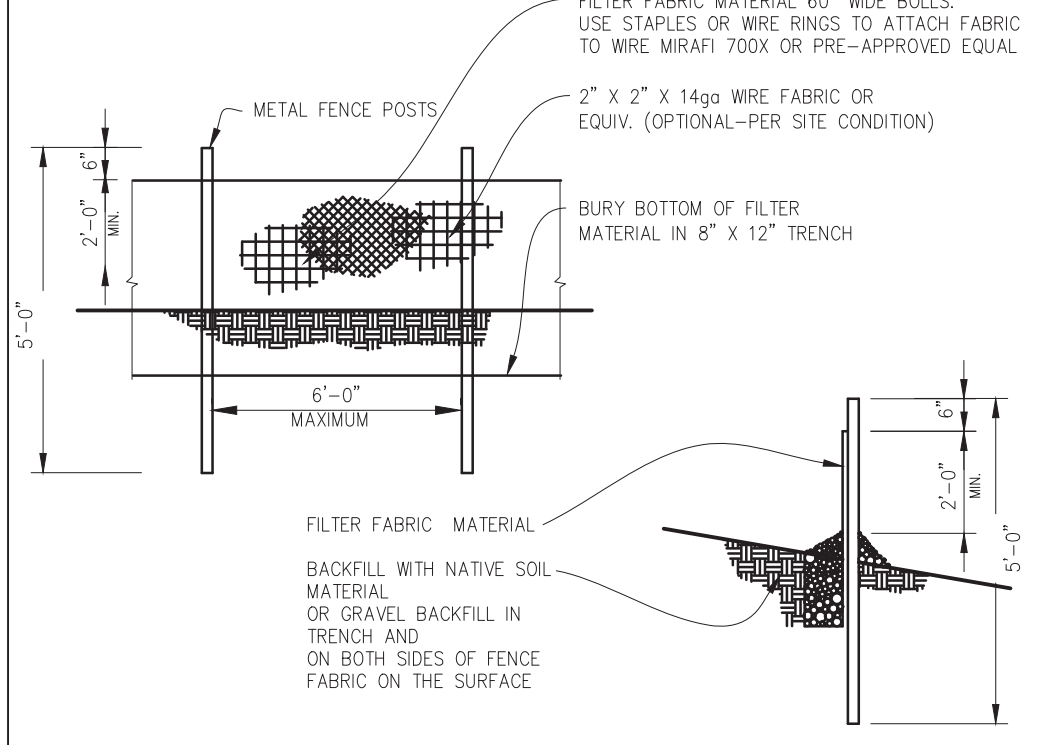
STABILIZED CONSTRUCTION ACCESS



STABILIZED ACCESS SHALL BE USED IN ALL AREAS OF THE SITE WITH VEHICLE TRAFFIC AND PARKING, INCLUDING PLANTING STRIPS.

SYMBOL: (4)

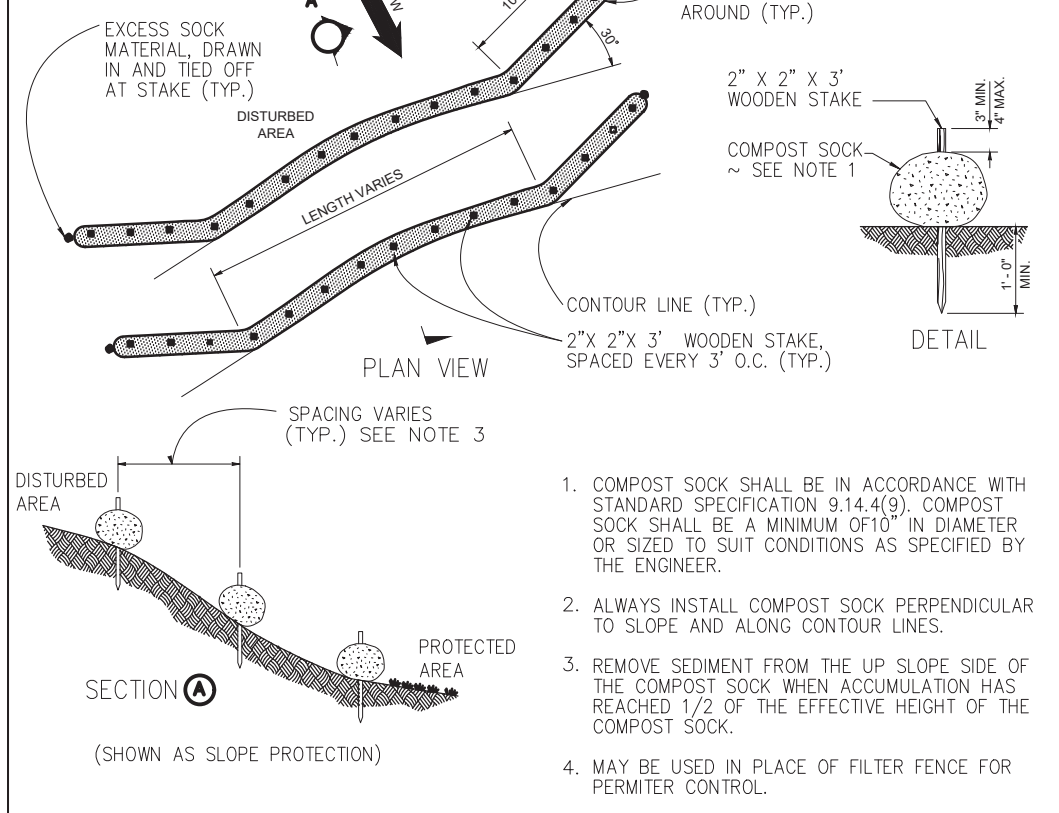
FILTER FENCE



NOTE: ANGLE SILT FENCE BACK UP THE SLOPE AT THE END OF RUN.

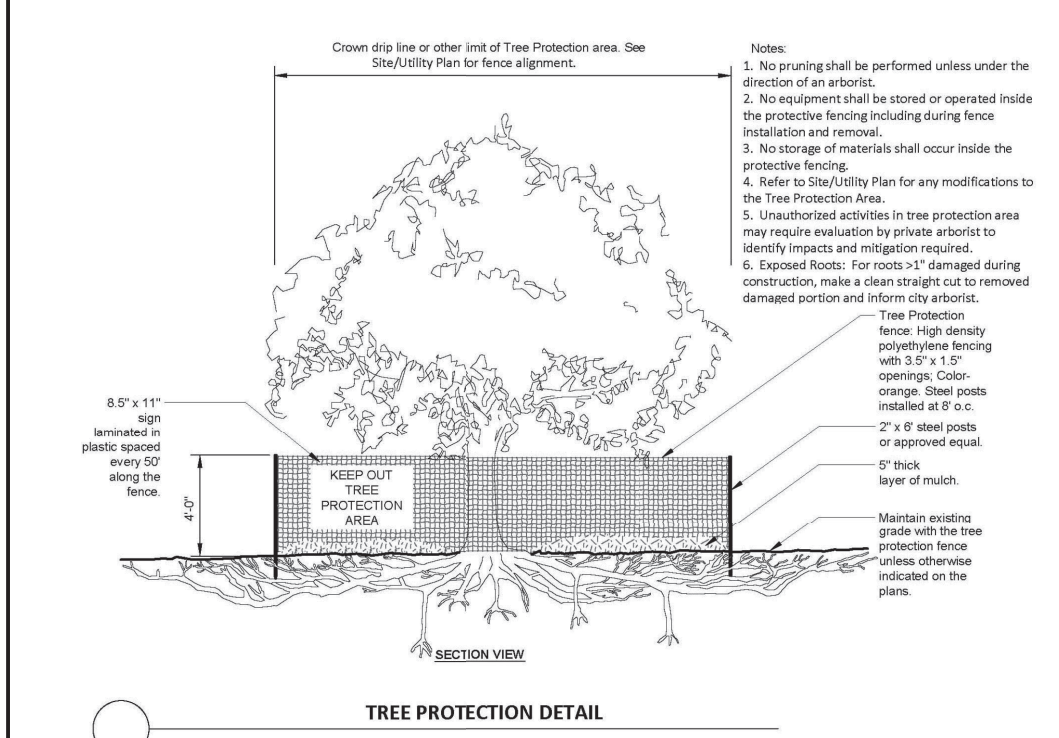
SYMBOL: (5)

COMPOST SOCK

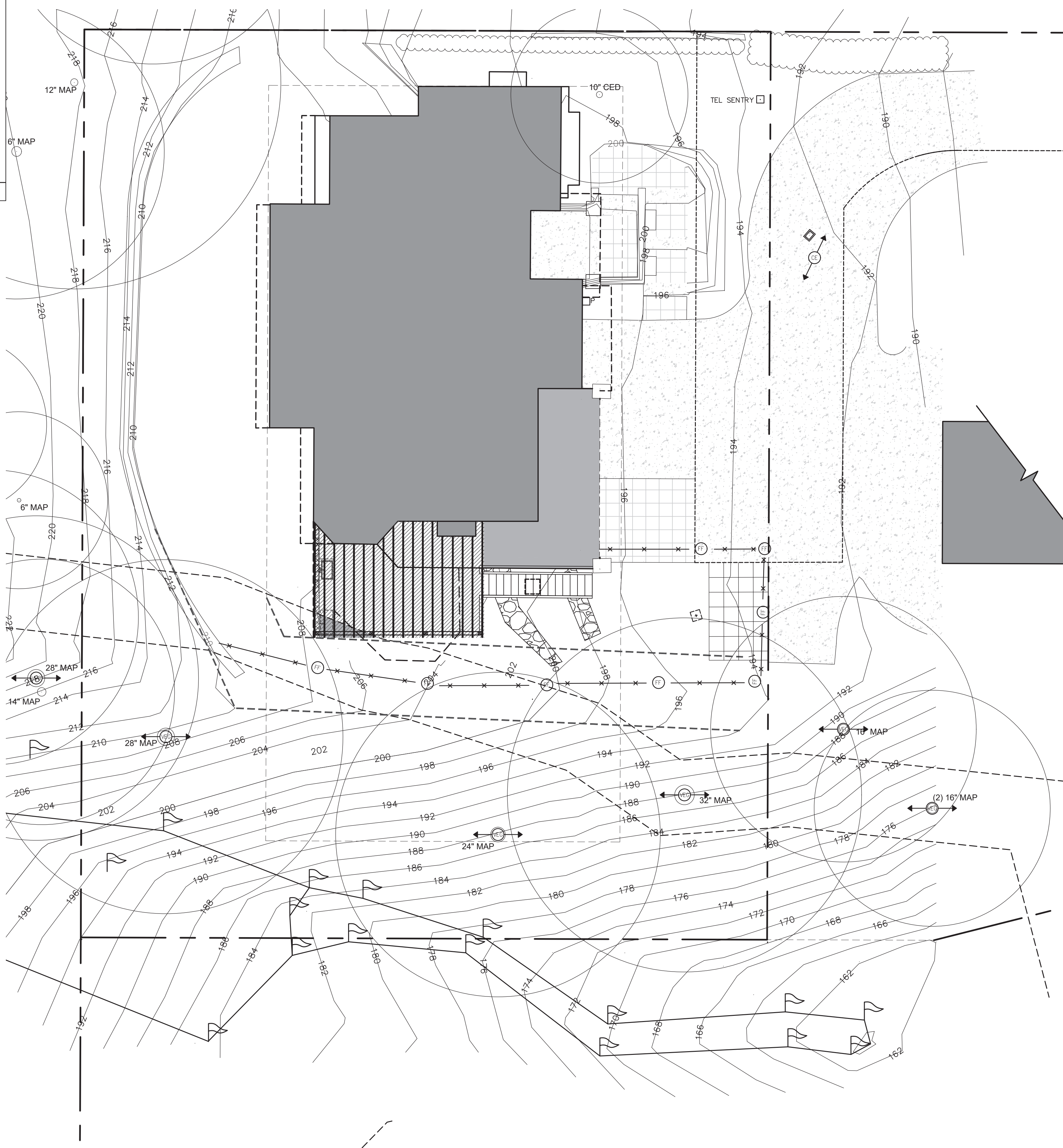


1. COMPOST SOCK SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION 8114-410. COMPOST SOCK SHALL BE A MINIMUM OF 18 INCH DIAMETER OR SIZED TO SUIT CONDITIONS AS SPECIFIED BY THE ENGINEER.
2. ALWAYS INSTALL COMPOST SOCK PERPENDICULAR TO SLOPE AND ALONG CONTOUR LINES.
3. REMOVE SEDIMENT FROM THE UP SLOPE SIDE OF THE COMPOST SOCK WHEN ACCUMULATION HAS REACHED 1/2 OF THE EFFECTIVE HEIGHT OF THE COMPOST SOCK.
4. MAY BE USED IN PLACE OF FILTER FENCE FOR PERIMETER CONTROL.

SYMBOL: (6)



SYMBOL: (7)



CONSTRUCTION STORMWATER CONTROL & POST CONSTRUCTION SOIL MANAGEMENT PLAN: SCALE 1/8" = 1'-0"

NOTE: THIS PLAN IDENTIFIES THE MINIMUM MEASURES REQUIRED; ADDITIONAL MEASURES MAY BE REQUIRED BASED ON CONSTRUCTION METHODS AND ACTUAL AREA OF DISTURBANCE.

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FLOOR PLAN LEGEND		
SYMBOL	DESCRIPTION	REMARKS
	EXHAUST FAN	See Mechanical Plans
	SMOKE ALARM	See Sheet A-C General Notes Fire Protection Section
	NEW WALL (Line of Studs)	2x studs @ 16" O.C.
	NEW SOUND WALL	Staggered 2x studs with rock wool sound batts
	EXISTING TO REMAIN	
	EXISTING TO REMOVE	

GENERAL PROPOSED NOTES	
(D) = DEMOLITION	
(E) = EXISTING	
(P) = PROPOSED	
- (P) HEATER	
- (P) MOTORIZED SCREENS	
- (P) RAILING CONSISTENT WITH STYLE OF EXISTING	
- (P) CEDAR CEILING WITH RECESSED CANS TO MATCH (E) ENTRY	

GENERAL DEMOLITION NOTES	

PAVER PEDESTAL SPEC:

Blackjack® Component

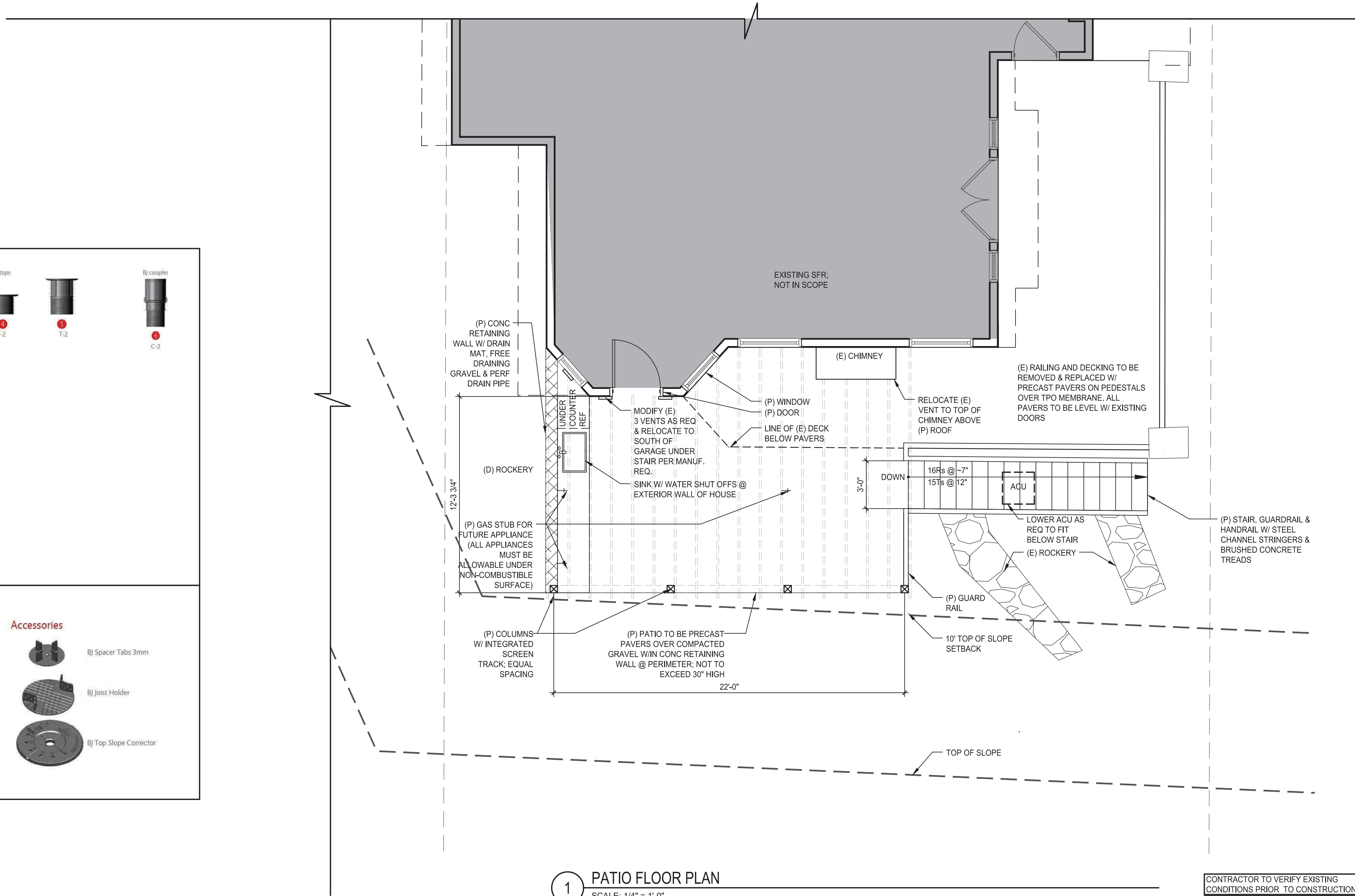
Blackjack® Height Chart

Technical Specifications

Material	Recycled Polypropylene
Height Range	2.7" - 40" (74mm - 1016mm)
Ultimate Compressive Strength*	15 MN (3372 lbf)
Design Compressive Strength*	11 MN (2472 lbf)
Slope correction	0% to 5% @ 1% increment
Base Diameter	7 1/2" (189mm) B-1 8" (203mm) B-2
Spacer Tab Height	5/8" (15mm)
Spacer Tab Thickness	1/8" (3mm) gap between tabs
Joist Holder	1 3/4" to 3 1/8" (35mm to 80mm) joist width

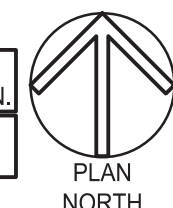
Accessories

- Bj Spacer Tabs 3mm
- Bj Joist Holder
- Bj Top Slope Corrector



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

CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR TO CONFIRM FINISHES TO BE MOCKED UP WITH ARCHITECT.



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MAIN FLOOR PLAN

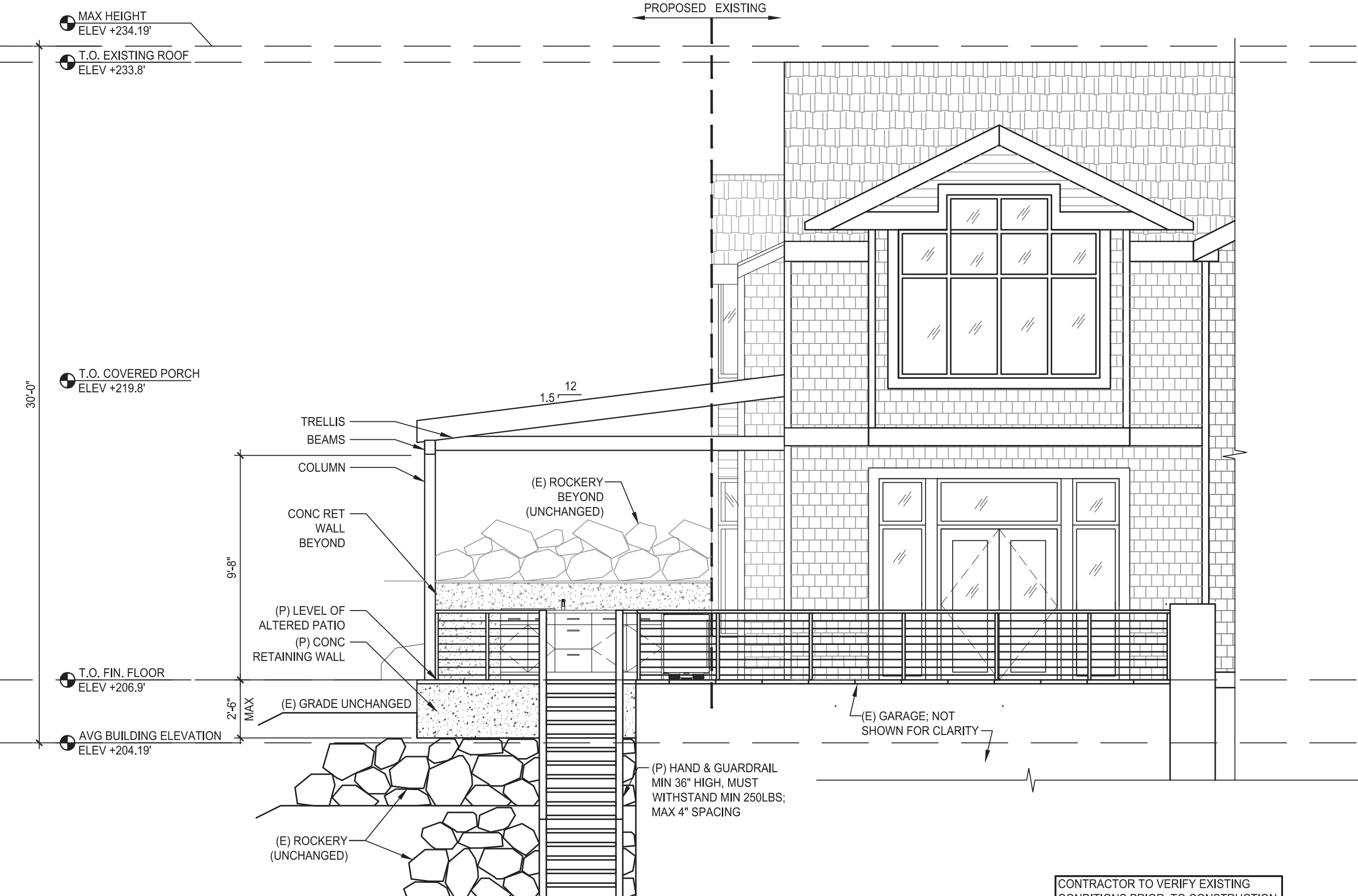
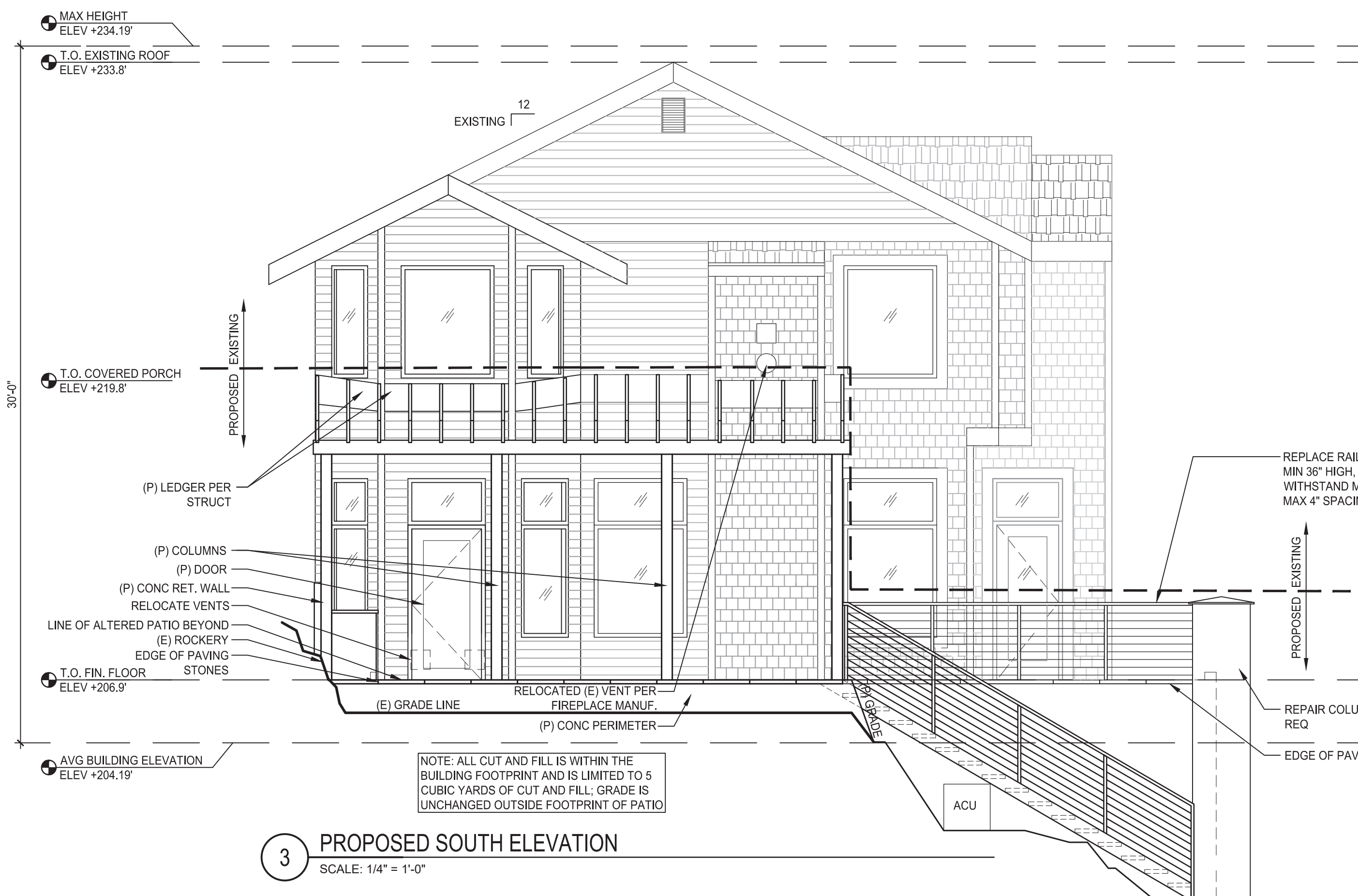
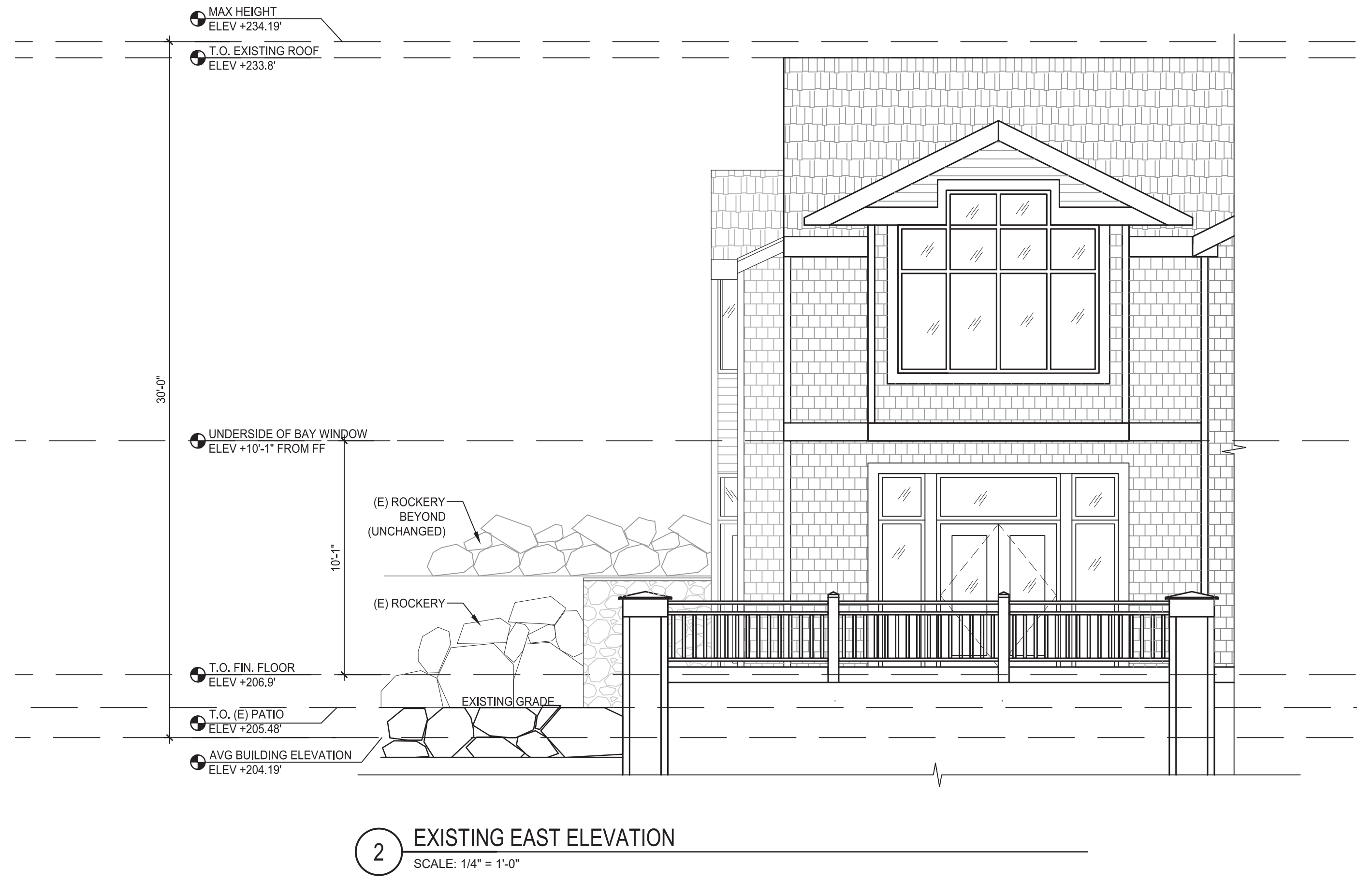
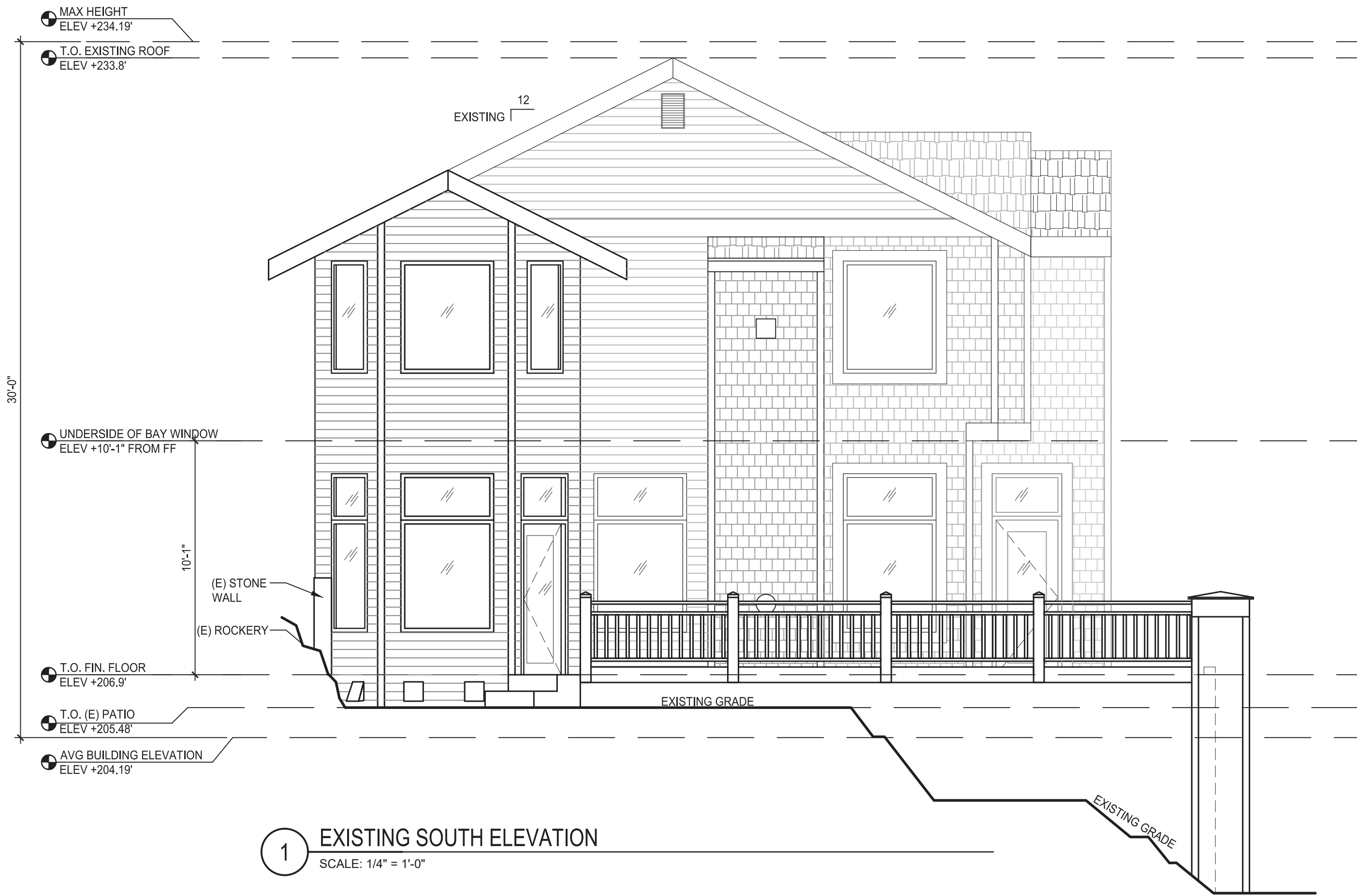
A2.0

ARCHITECT REQUIRES A MEETING WITH THE LABORERS INSTALLING SIDING AT THE BEGINNING OF THE FIRST WORKDAY TO EXPLAIN SIDING DETAILS AND SUBSEQUENT MEETINGS FOR EACH DIFFERENT SIDING MATERIAL TO BE INSTALLED.

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ELEVATIONS

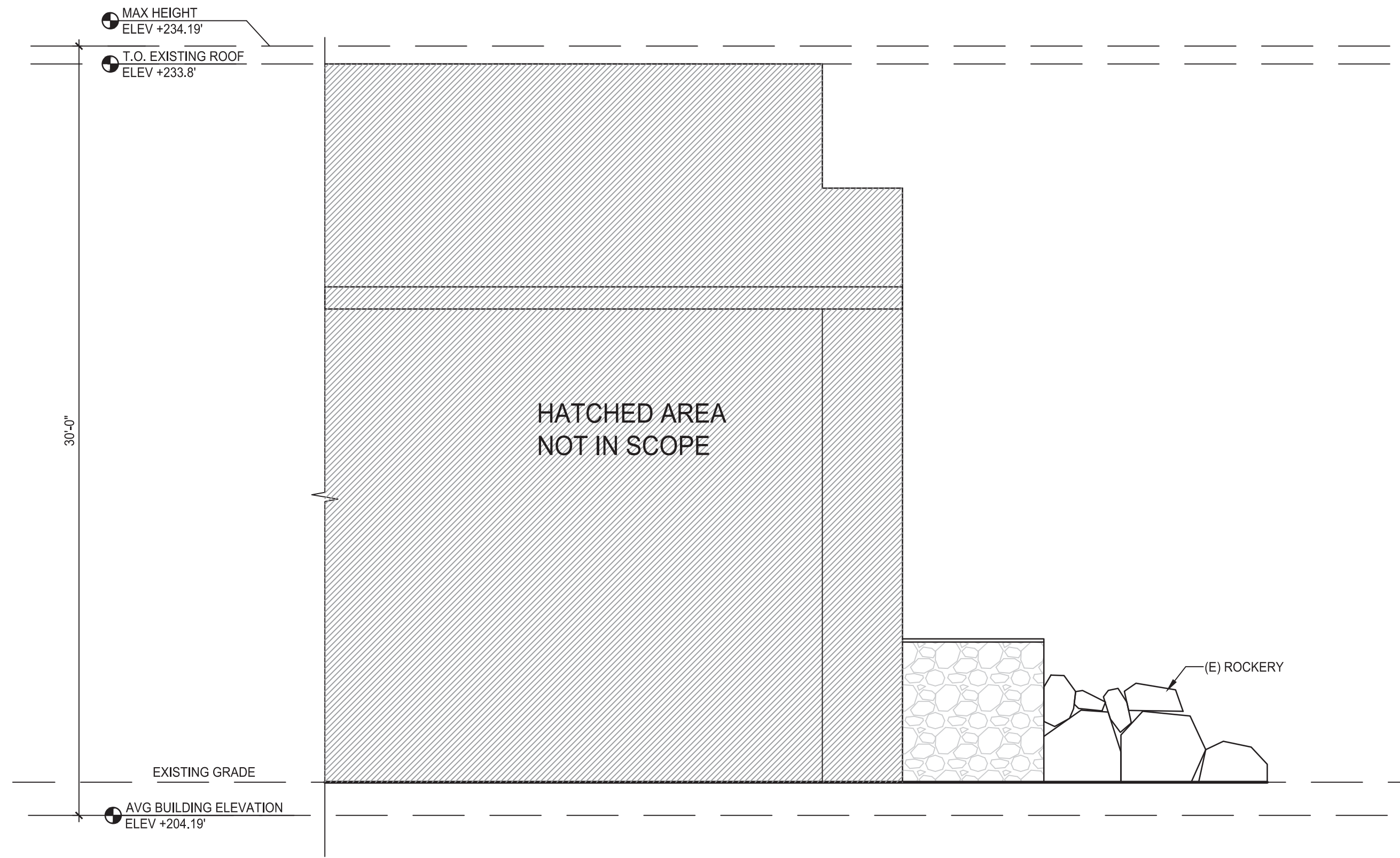
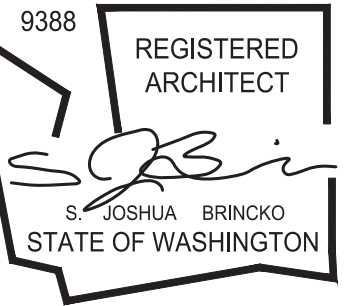
CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR TO CONFIRM FINISHES TO BE MOCKED UP WITH ARCHITECT.

A3.0

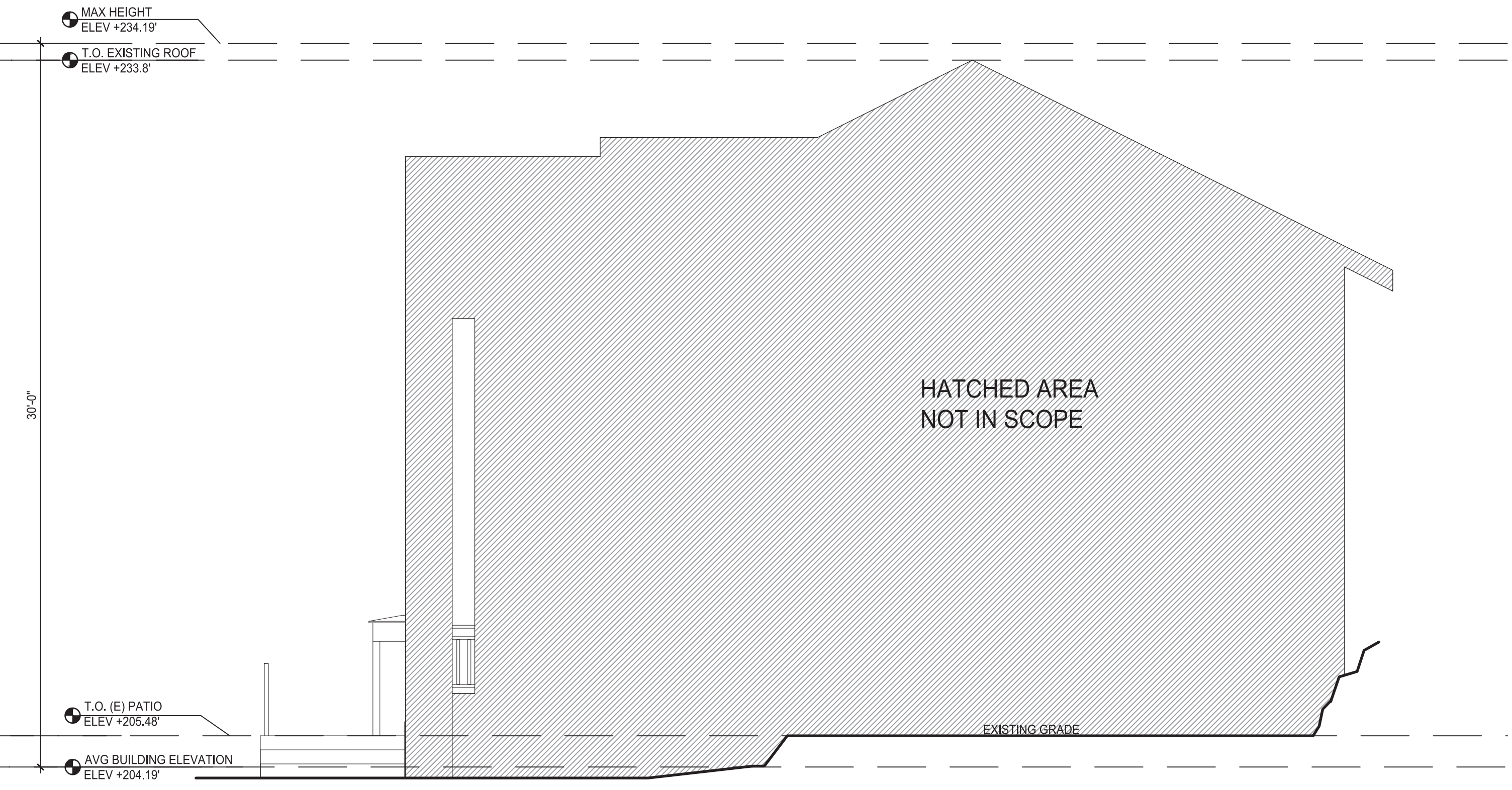
ARCHITECT REQUIRES A MEETING WITH THE LABORERS INSTALLING SIDING AT THE BEGINNING OF THE FIRST WORKDAY TO EXPLAIN SIDING DETAILS AND SUBSEQUENT MEETINGS FOR EACH DIFFERENT SIDING MATERIAL TO BE INSTALLED.

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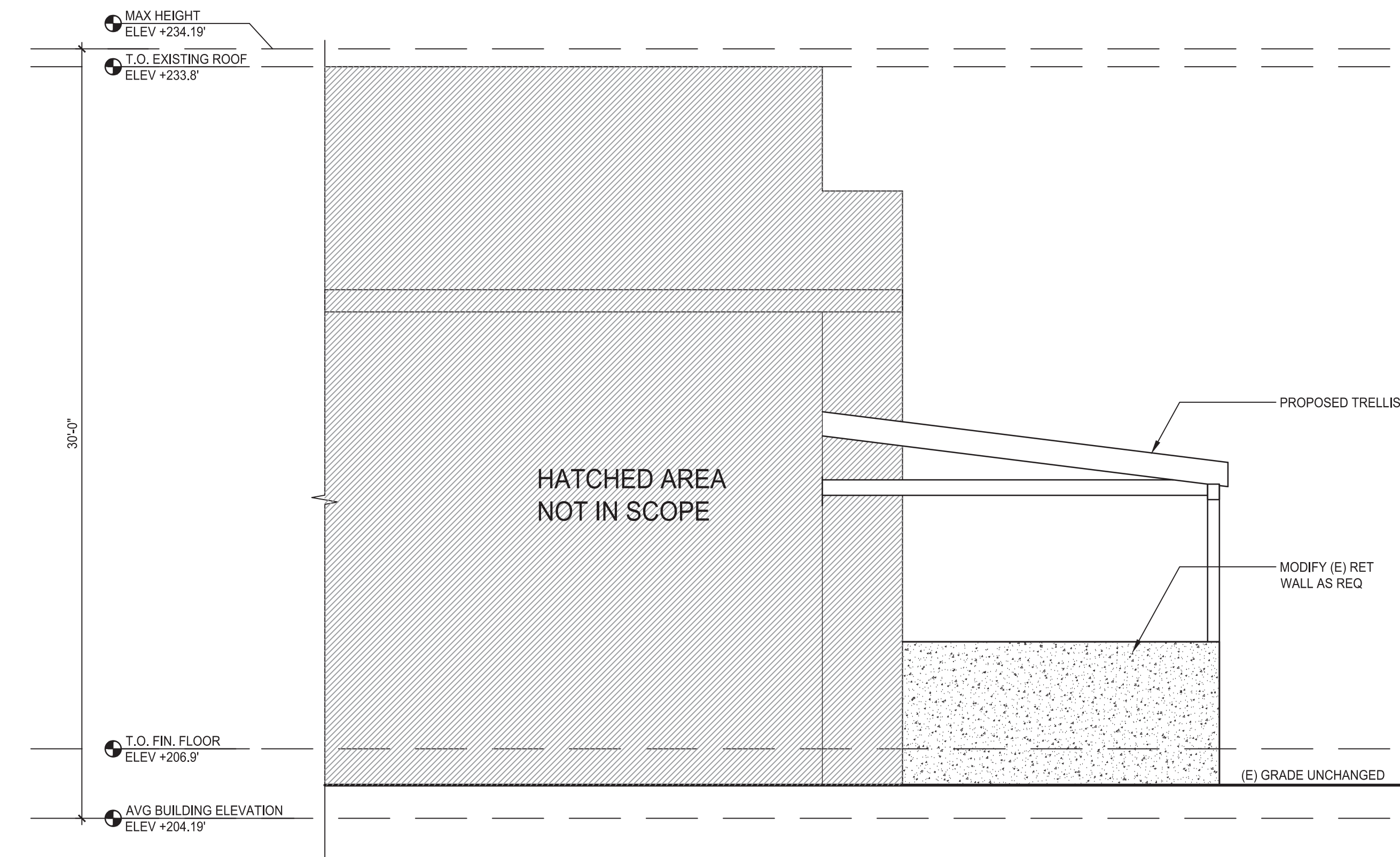
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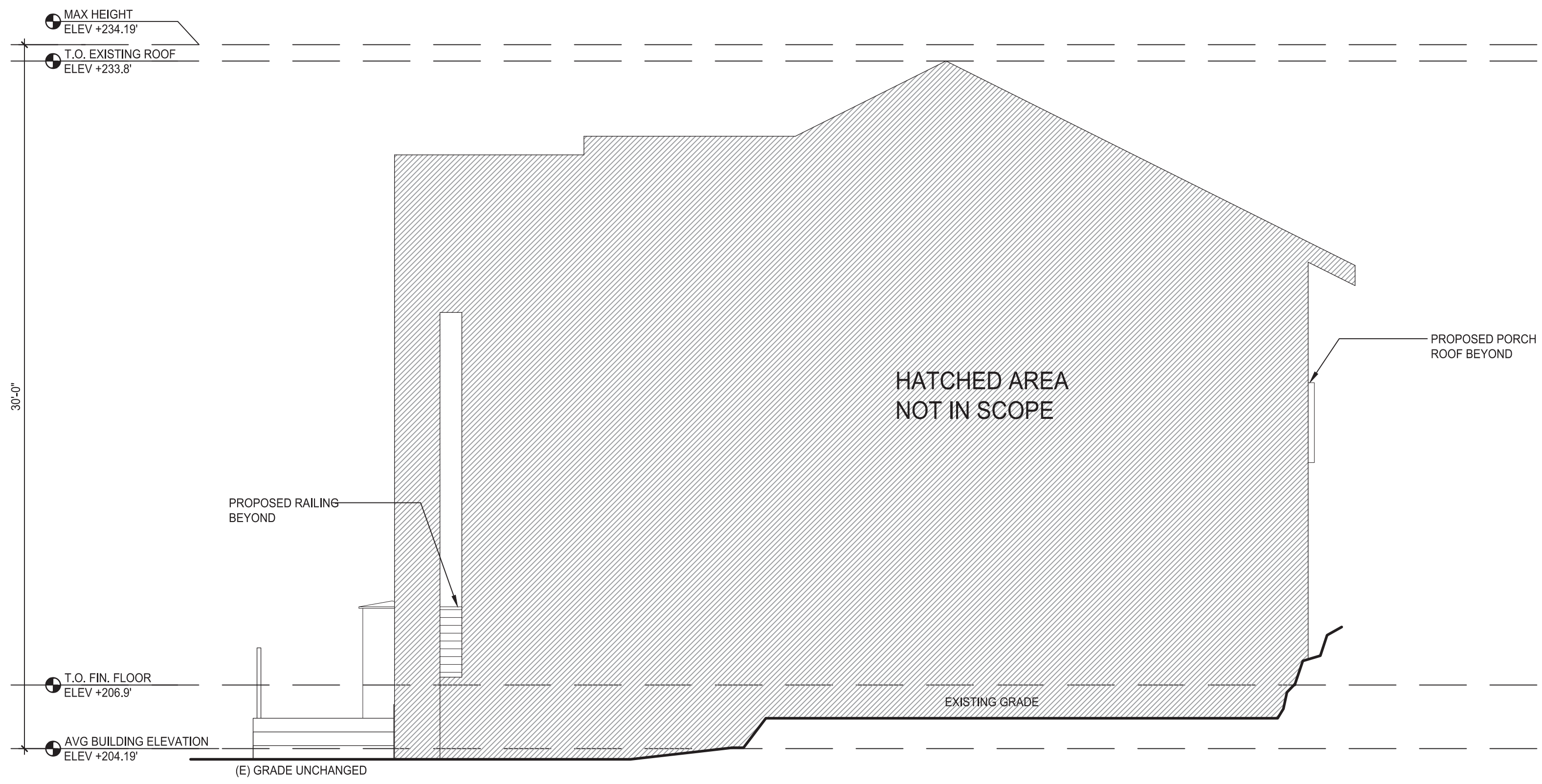
1 EXISTING WEST ELEVATION
SCALE: 1/4" = 1'-0"



2 EXISTING NORTH ELEVATION
SCALE: 1/4" = 1'-0"



4 PROPOSED WEST ELEVATION
SCALE: 1/4" = 1'-0"



3 PROPOSED NORTH ELEVATION
SCALE: 1/4" = 1'-0"

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CONTRACTOR TO CONFIRM FINISHES TO BE MOCKED UP WITH ARCHITECT.

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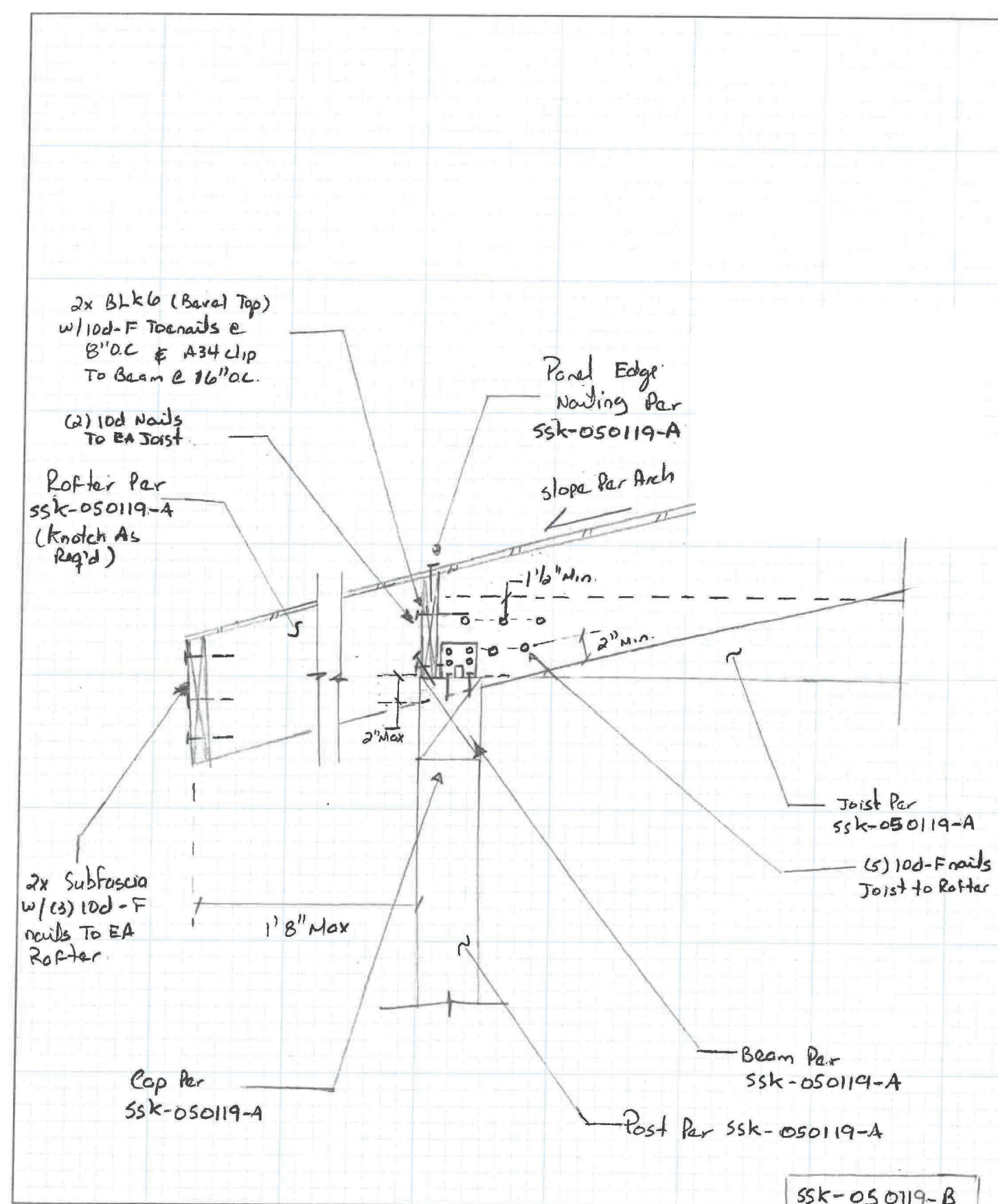
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A3.0

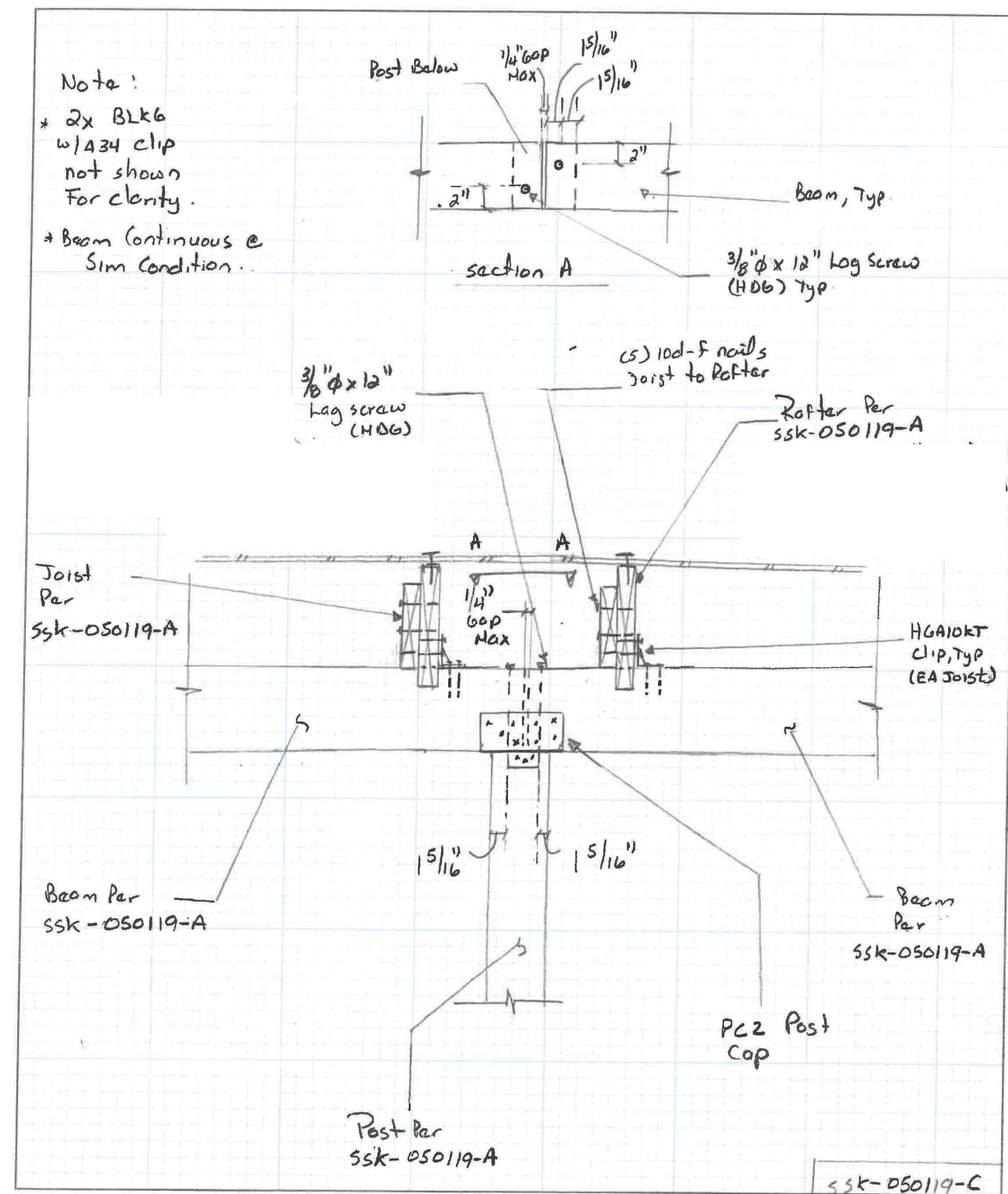
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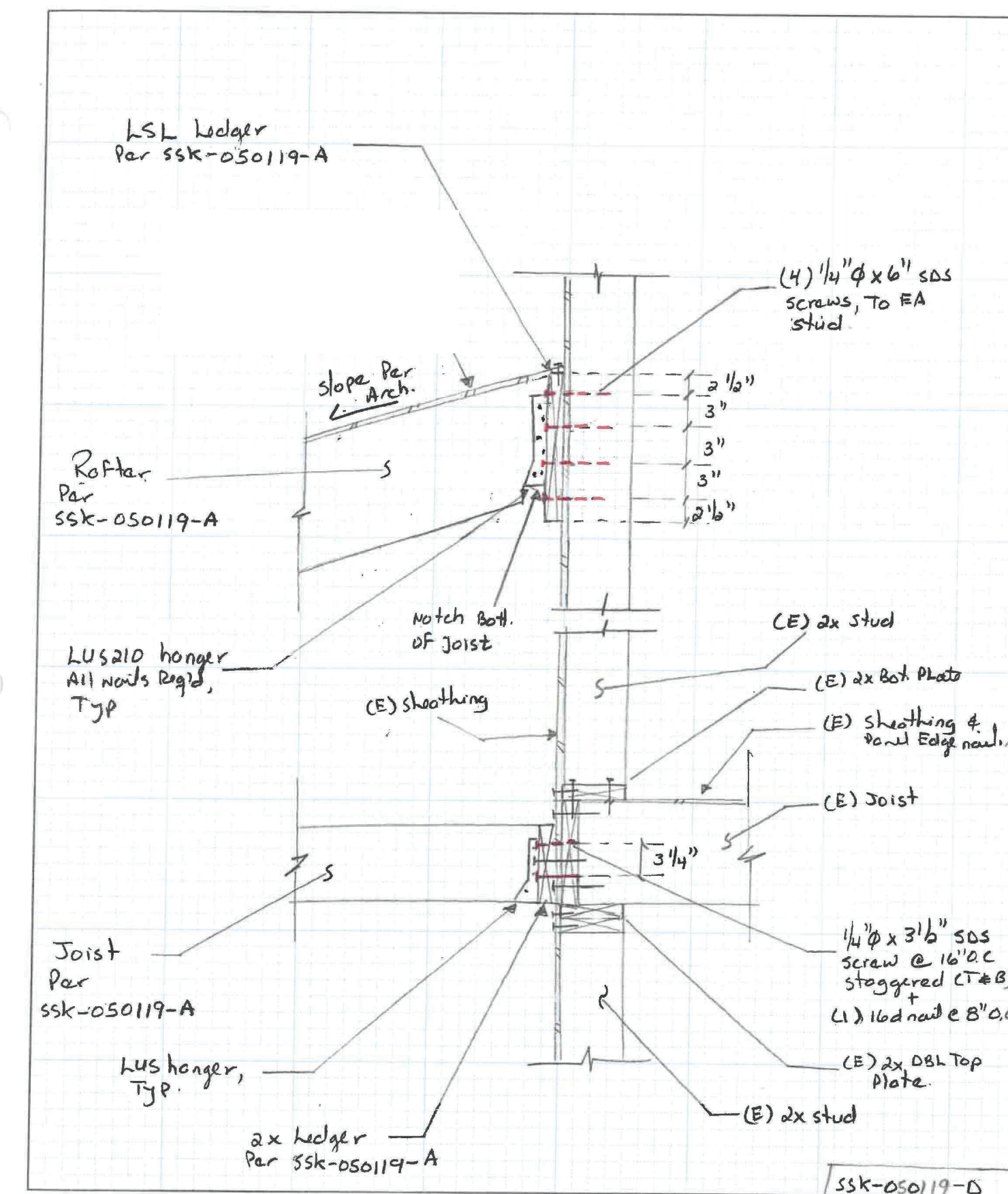
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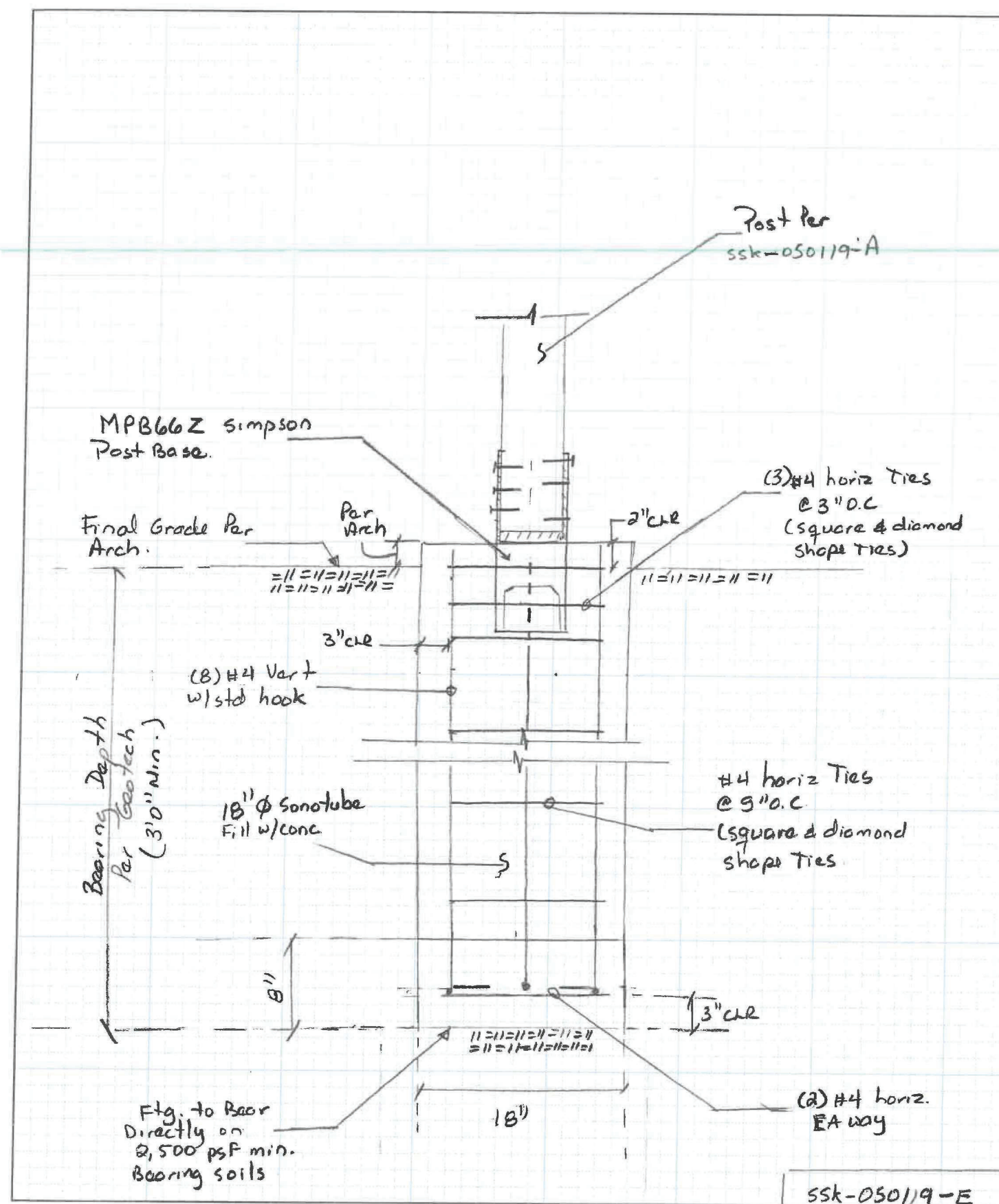
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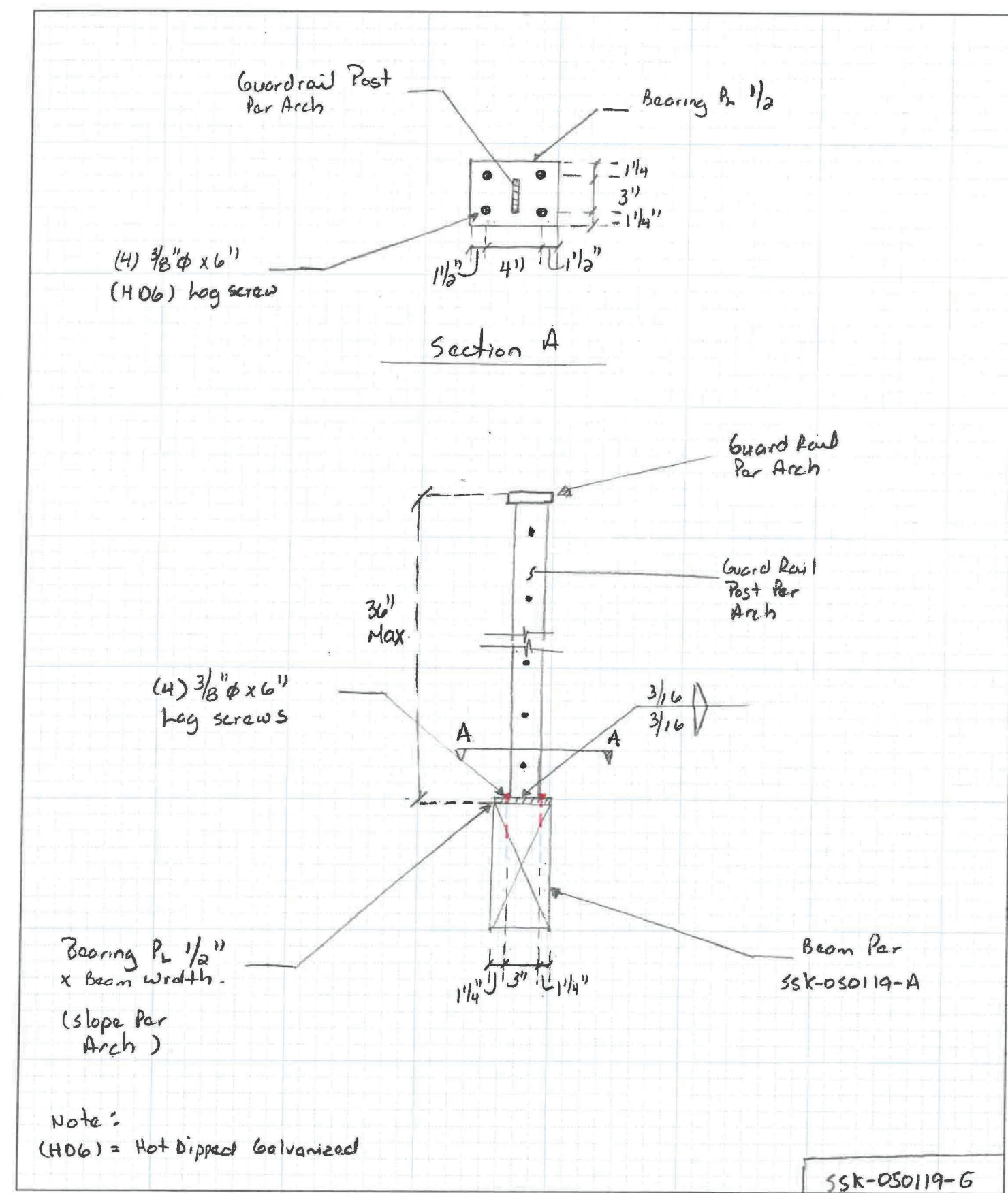
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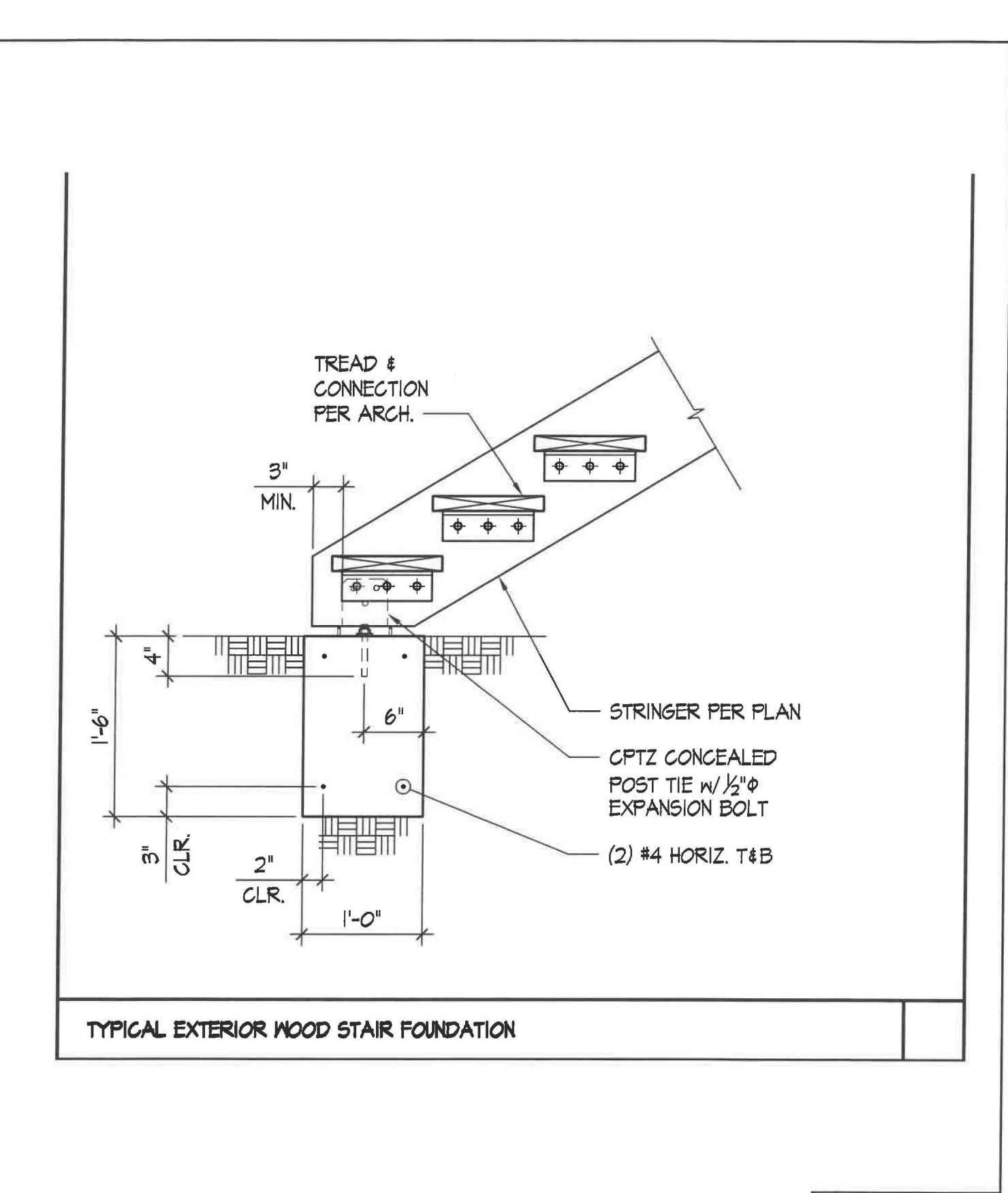
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QUANTUM CONSULTING ENGINEERS project: Lai Deck Roof Addition date: 04/23/2019 sheet: 19175.01 designer: MDA SSK-050119-E sheet Josh Artisan + Arch.



QUANTUM CONSULTING ENGINEERS project: Lai Guard Rail Connection date: 04/23/2019 sheet: 19175.01 designer: MDA SSK-050119-G sheet Josh Artisan + Architect.



QUANTUM CONSULTING ENGINEERS project: Lai Deck Roof Addition date: 04/15/2019 sheet: 19175.01 designer: MDA SSK-050119-F sheet Josh Artisan + Architect.

Table with 2 columns: Action, Name. DESIGN: SJB, DRAWN: CEC, CHECKED: SJB, DATE: [2019-0114 DESIGN], [2019-0621 PERMIT], [2020-0211 REV 1]

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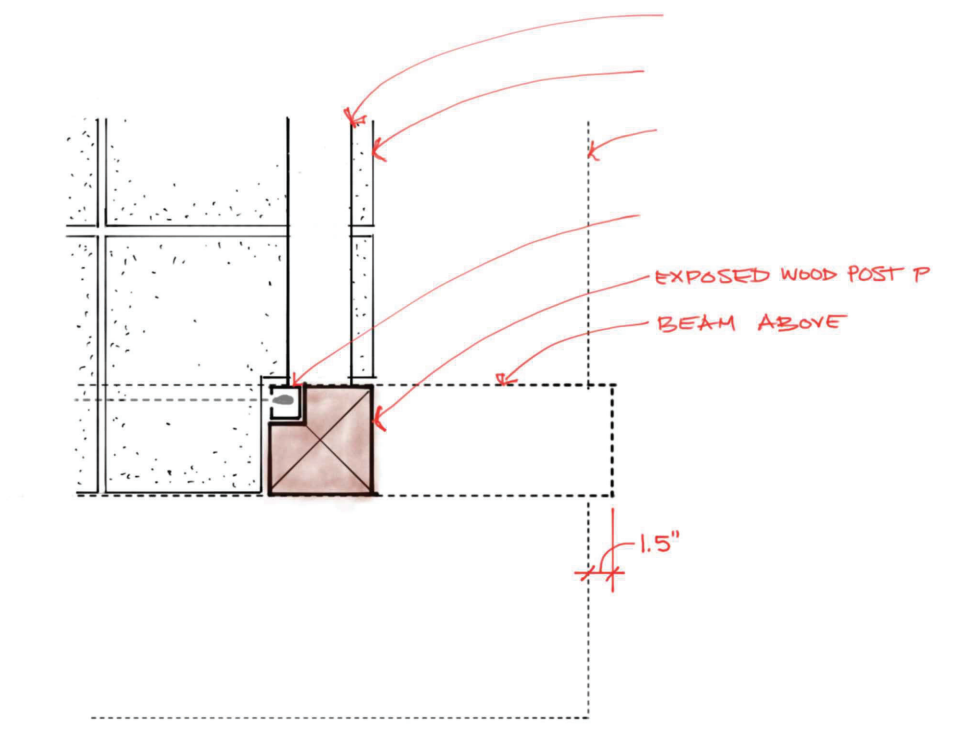
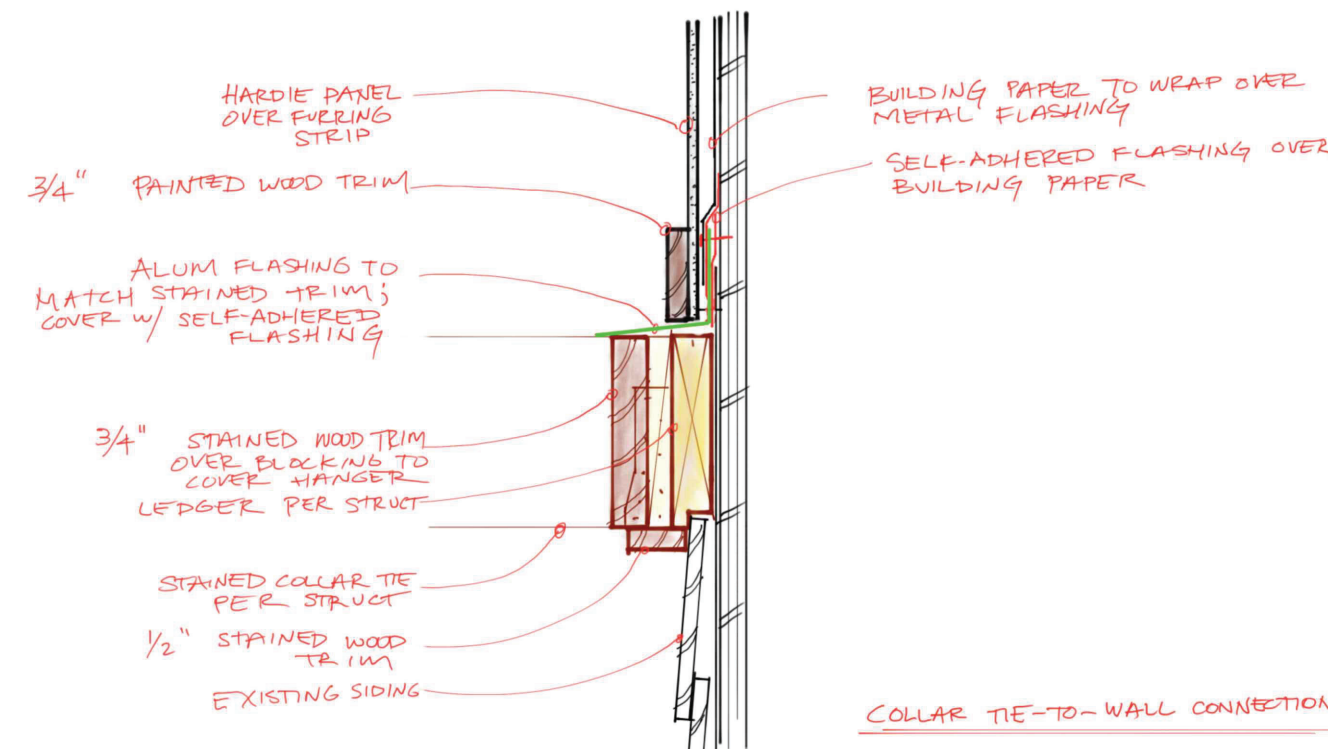
DETAILS

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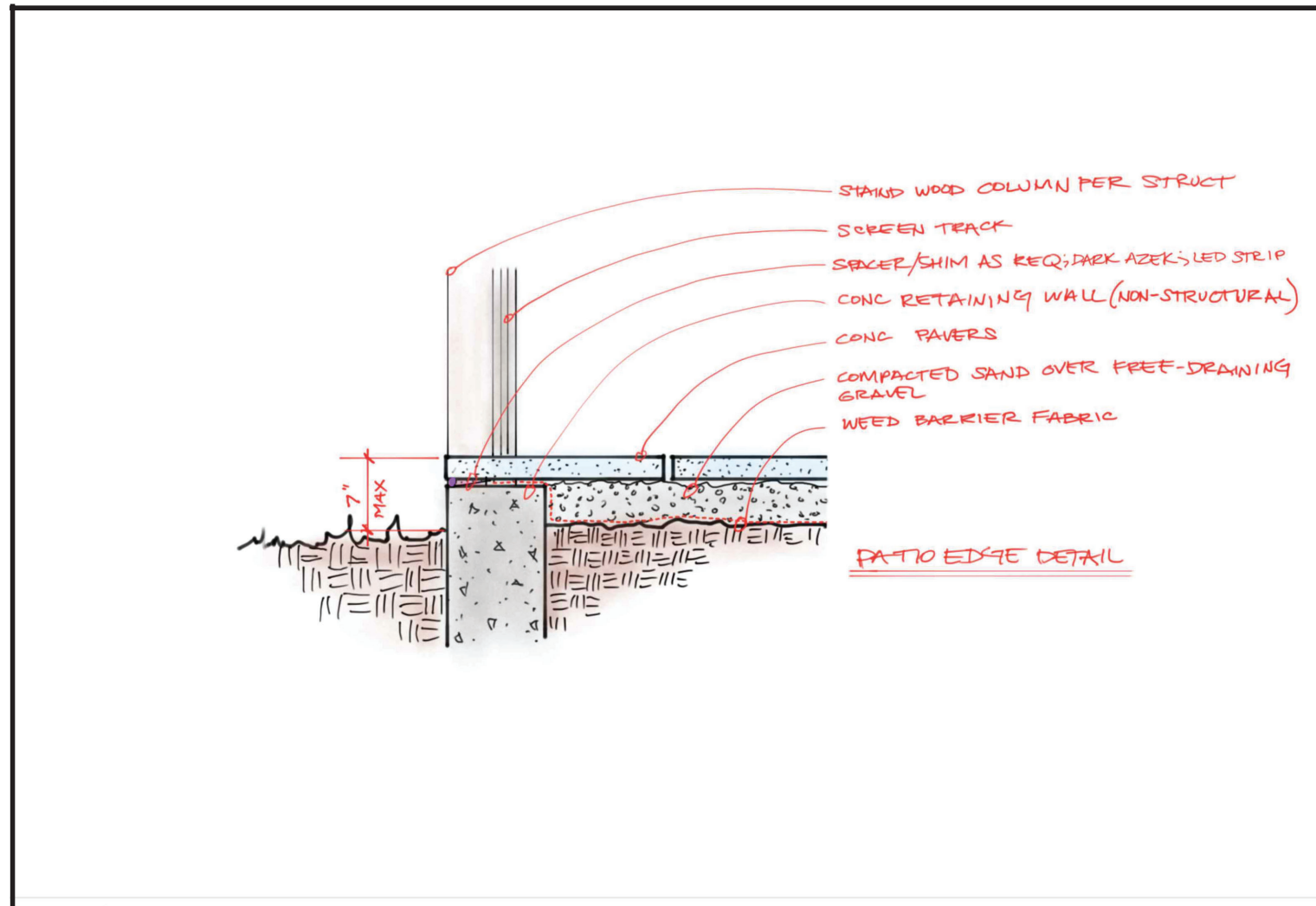
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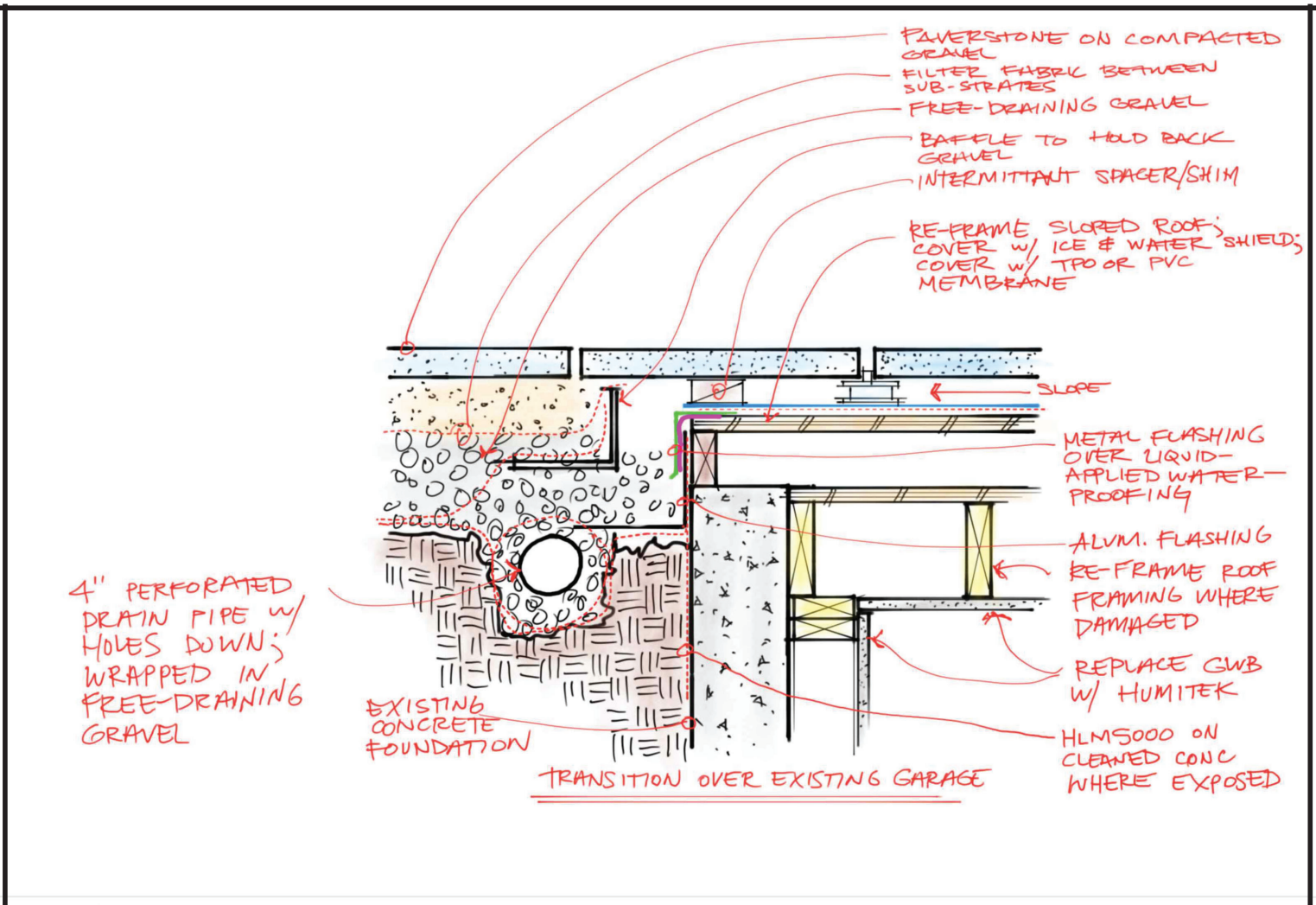
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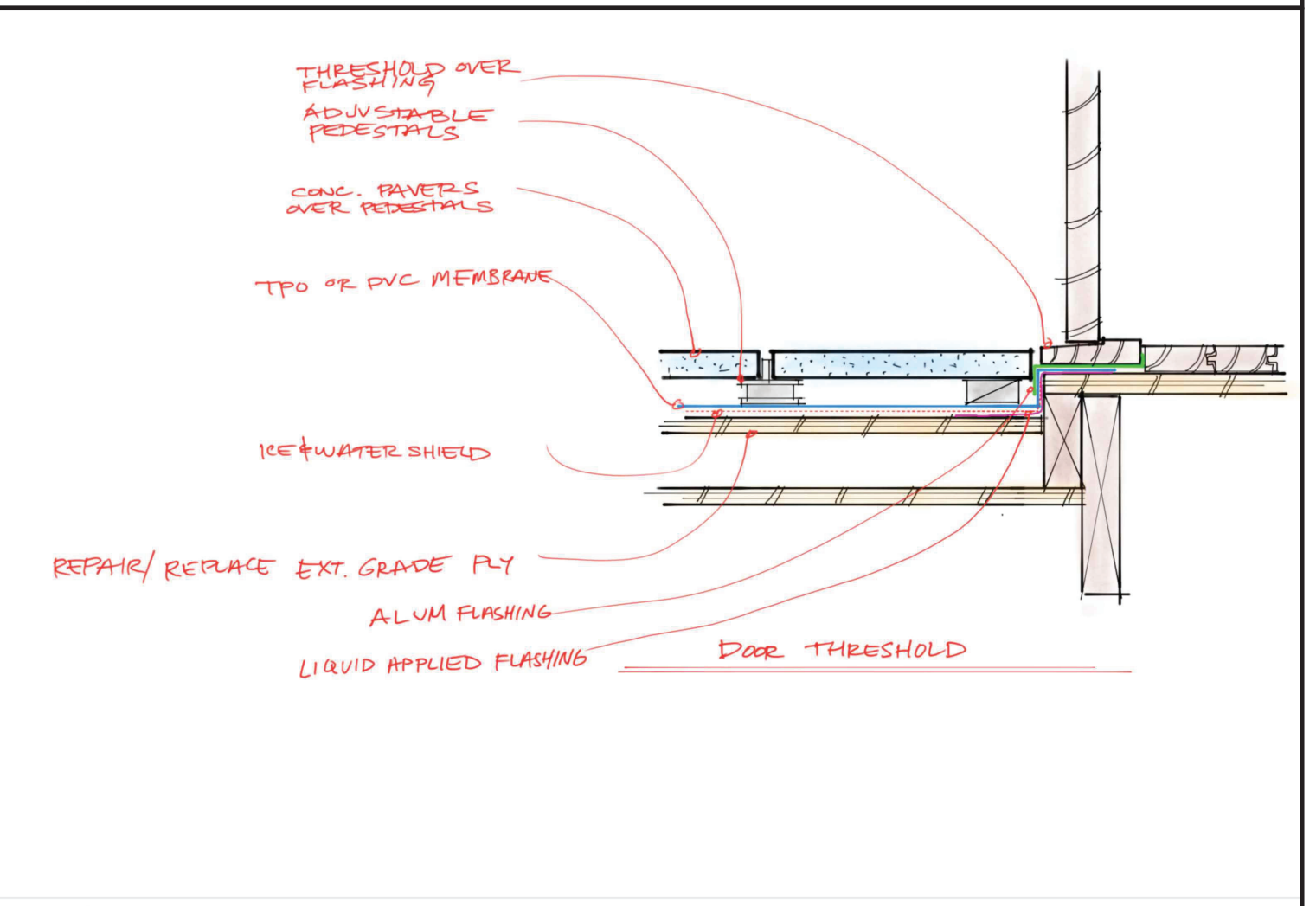
SK3 Lai Deck Josh Architects Jun 11, 2019



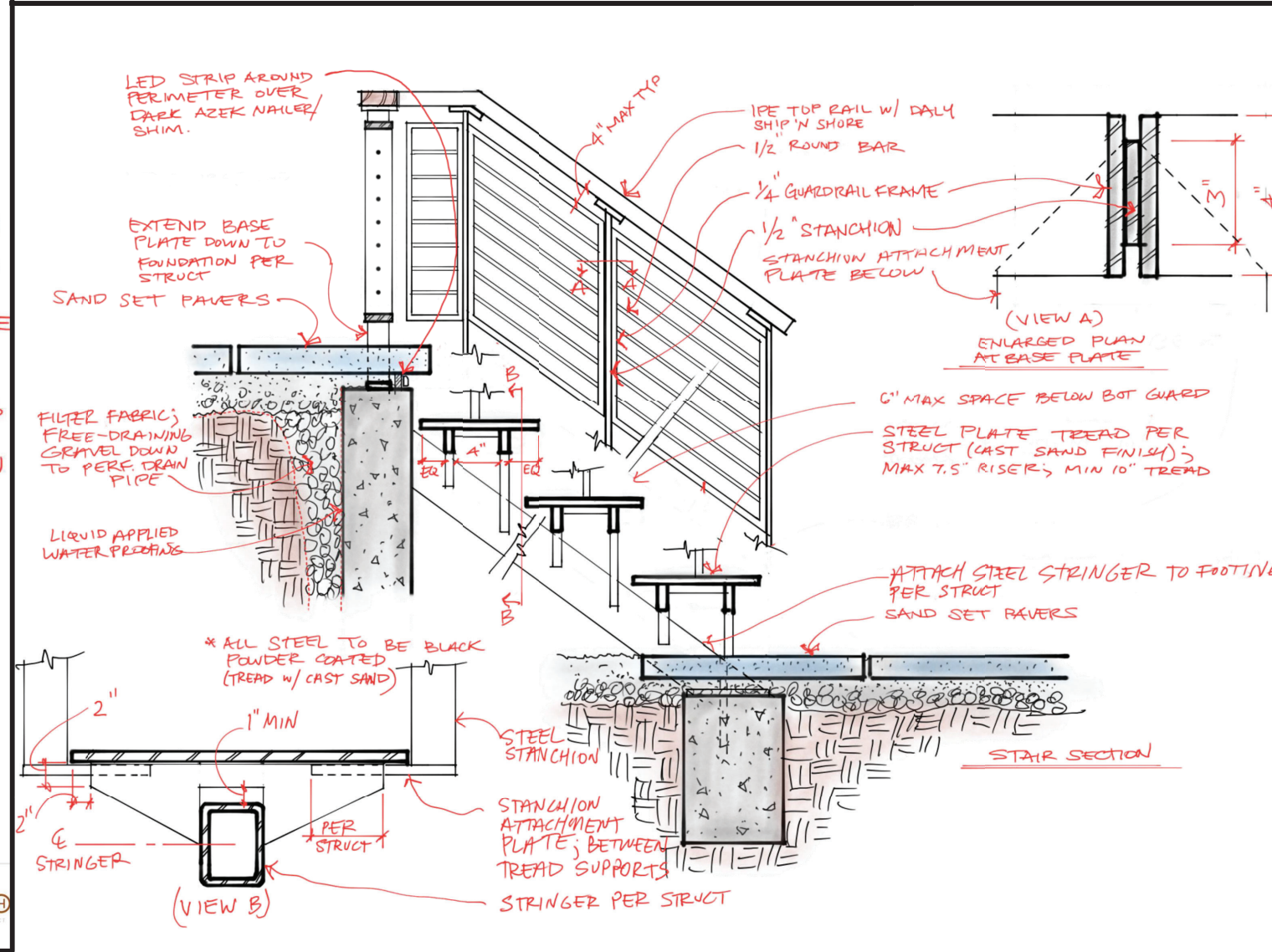
SK5 Lai Deck Josh Architects Jun 11, 2019



SK5 Lai Deck Josh Architects Jun 11, 2019



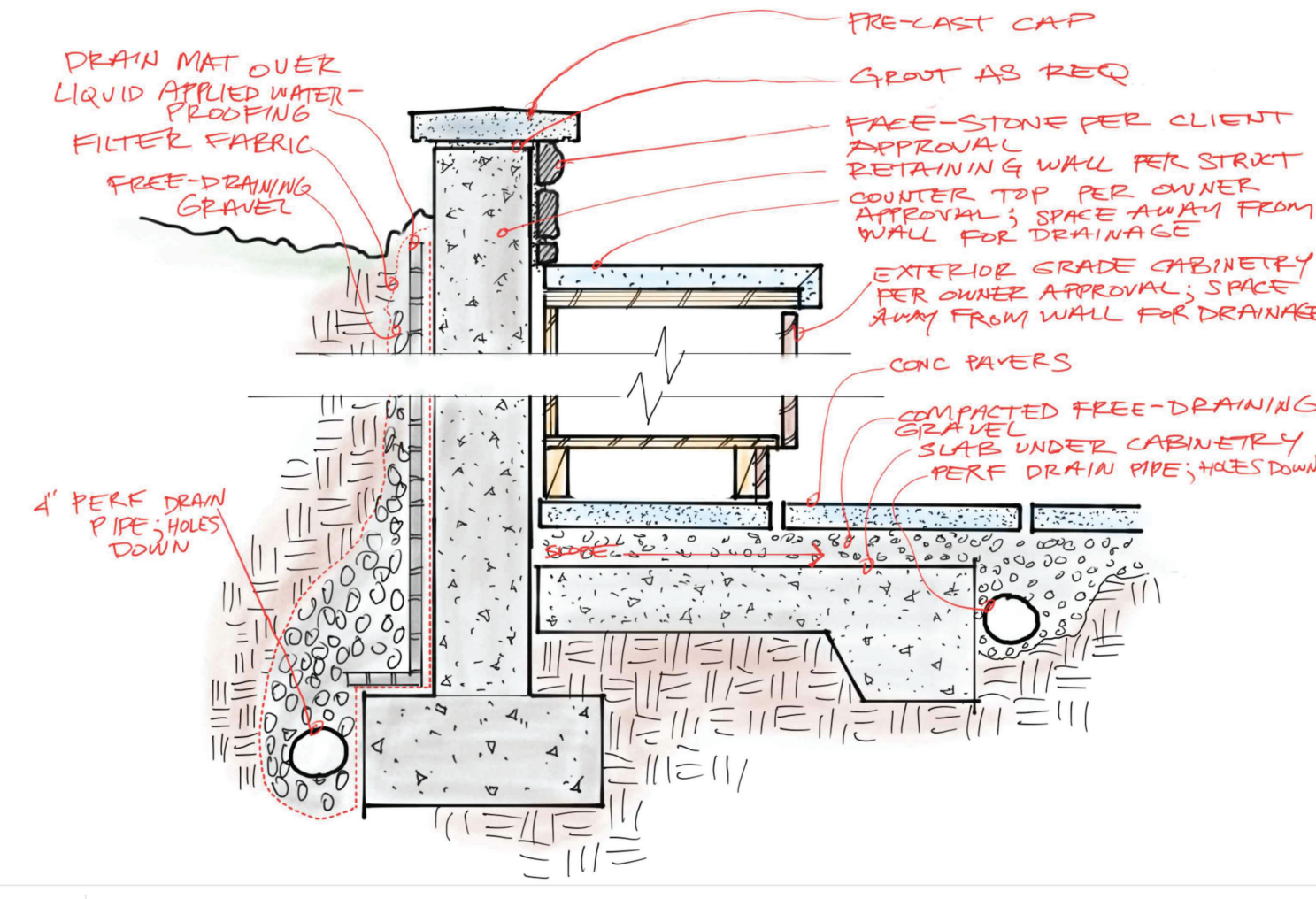
SK7 Lai Deck Josh Architects Jun 11, 2019



SK8 Lai Deck Josh Architects Jun 11, 2019



SK9 Lai Deck Josh Architects Jun 11, 2019



SK10 Lai Deck Josh Architects Jun 11, 2019

DESIGN SJB
DRAWN SJB
CHECKED SJB
DATE [2019-0114 DESIGN]
[2019-0621 PERMIT]
[2020-0211 REV 1]

LAI
7505 92ND AVE SE
MERCER ISLAND WA 98040

PERMIT
TYPICAL DETAILS

A8.1

GENERAL STRUCTURAL NOTES

(The following apply unless shown otherwise on the plans)

CRITERIA

- 1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, THE 2015 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC).
- 2. THIS STRUCTURE DOES NOT CONFORM TO PRESENT EARTHQUAKE CODE REQUIREMENTS. IT HAS BEEN ANALYZED AND REINFORCED FOR MINIMUM MAINTENANCE IN ACCORDANCE WITH THE INTERNATIONAL EXISTING BUILDING CODE (IEBC) SECTIONS 402, 403 & 404 AND IS WITHIN THE CURRENT PRACTICE FOR THE RENOVATION OF EXISTING BUILDINGS OF THIS AGE AND TYPE OF CONSTRUCTION. THIS STRUCTURE HAS NOT BEEN ANALYZED OR DESIGNED FOR A COMPLETE SEISMIC UPGRADE.

DESIGN LOADING CRITERIA

GUARDRAILS/BALCONY RAILS (ONE OR TWO UNIT DWELLING) 200 LBS

SNOW ROOF SNOW LOAD = 25 PSF
GROUND SNOW LOAD = 20 PSF
EXPOSURE Ce = 1.00
IMPORTANCE FACTOR Is = 1.00
THERMAL FACTOR Ct = 1.20

WIND ANALYSIS PROCEDURE: ASCE 7-10 CHAPTER 30 "PART V - COMPONENTS AND CLADDING-OPEN STRUCTURES"
RISK CATEGORY II
110 MPH
EXPOSURE 'C'
TOPOGRAPHIC FACTOR Kzt = 1.0

ROOFING DESIGN PRESSURE NOT AT A CORNER (MAX) 54 PSF

THE DESIGN WIND PRESSURES LISTED ABOVE ARE INWARD OR OUTWARD AND ARE BASED ON AN EFFECTIVE WIND AREA OF 10 SQUARE FEET NEAR A BUILDING CORNER, U.O.N. CORNER AND OTHER ZONES ARE DEFINED BY FIGURE 30.5-1 IN ASCE 7-10. REDUCED DESIGN PRESSURES MAY BE CALCULATED USING ASCE 7. NOTE THAT THE DESIGN WIND PRESSURES NOTED ABOVE ARE ULTIMATE VALUES PER THE 2015 IBC AND SHALL BE MULTIPLIED BY 0.6 FOR ALLOWABLE STRESS DESIGN.

SEE PLANS FOR ADDITIONAL LOADING CRITERIA.

- 4. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- 5. CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED.
- 6. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.
- 7. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THEIR WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES OF THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.
- 8. CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.
- 9. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER. WHERE INFORMATION ON THE DRAWINGS IS IN CONFLICT WITH THE SPECIFICATIONS, THE MORE STRINGENT SHALL APPLY, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER. DO NOT SCALE THE DRAWINGS.
- 10. ALL STRUCTURAL SYSTEMS WHICH ARE COMPOSED OF FIELD ERECTED COMPONENTS SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.
- 11. DEFERRED SUBMITTALS OF DESIGN BUILD COMPONENTS SHALL BEAR THE STAMP AND SIGNATURE OF A STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER AND SHALL BE APPROVED BY THE COMPONENT DESIGNER PRIOR TO CURSORY REVIEW BY THE ENGINEER OF RECORD FOR LOADS IMPOSED ON THE BASIC STRUCTURE. THE COMPONENT DESIGNER IS RESPONSIBLE FOR CODE CONFORMANCE AND ALL NECESSARY CONNECTIONS NOT SPECIFICALLY CALLED OUT ON ARCHITECTURAL OR STRUCTURAL DRAWINGS. DEFERRED SUBMITTALS SHALL INDICATE MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON BASIC STRUCTURE AND SHALL INCLUDE DESIGN CALCULATIONS WITH THE ENGINEER'S STAMP.

THE FOLLOWING COMPONENTS SHALL BE DEFERRED SUBMITTALS FOR THIS PROJECT:
GUARDRAILS

- 12. SPECIAL INSPECTION: EXPANSION BOLTS AND THREADED EXPANSION INSERTS, EPOXY GROUTED INSTALLATIONS, SHALL BE SUPERVISED IN ACCORDANCE WITH IBC SECTIONS 1704 & 1705 AND THE PROJECT SPECIFICATIONS BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE OWNER. THE TESTING AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS DIRECTLY TO THE OWNER, ARCHITECT, STRUCTURAL ENGINEER, CONTRACTOR AND BUILDING OFFICIAL. ANY MATERIALS WHICH FAIL TO MEET PROJECT SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.

GEOTECHNICAL

- 13. FOUNDATION NOTES: SUBGRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION, AND FILLING REQUIREMENTS, SHALL CONFORM STRICTLY WITH RECOMMENDATIONS GIVEN IN THE GEOTECHNICAL REPORT OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER. FOOTINGS SHALL BEAR ON SOLID UNDISTURBED EARTH (CONTROLLED, COMPACTED STRUCTURAL FILL OR BOTH) AT LEAST 36" BELOW LOWEST ADJACENT FINISHED GRADE. FOOTING DEPTHS/ELEVATIONS SHOWN ON PLANS (OR IN DETAILS) ARE MINIMUM AND FOR GUIDANCE ONLY; THE ACTUAL ELEVATIONS OF FOOTINGS MUST BE ESTABLISHED BY THE CONTRACTOR IN THE FIELD WORKING WITH THE TESTING LAB AND GEOTECHNICAL ENGINEER. UNLESS OTHERWISE NOTED, FOOTINGS SHALL BE CENTERED UNDER COLUMNS OR WALLS ABOVE.

BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE AS NOTED IN THE GEOTECHNICAL REPORT.

THE STRUCTURAL DESIGN IS BASED ON THE FOLLOWING VALUES FROM THE REFERENCED GEOTECHNICAL REPORT:
ALLOWABLE SOIL PRESSURE 2,500 PSF
PASSIVE SOIL PRESSURE 300 PCF
SOIL COEFFICIENT OF FRICTION 0.35

GEOTECHNICAL REPORT REFERENCE: #19-056 BY PAN GEO, DATED MARCH 19, 2019

RENOVATION

- 14. DEMOLITION: VERIFY ALL EXISTING CONDITIONS BEFORE COMMENCING ANY DEMOLITION. SHORING SHALL BE INSTALLED TO SUPPORT EXISTING CONSTRUCTION AS REQUIRED AND IN A MANNER SUITABLE TO THE WORK SEQUENCES. EXISTING REINFORCING SHALL BE SAVED WHERE AND AS NOTED ON THE PLANS. SAW CUTTING, IF AND WHERE USED, SHALL NOT CUT EXISTING REINFORCING THAT IS TO BE SAVED. DEMOLITION DEBRIS SHALL NOT BE ALLOWED TO DAMAGE OR OVERLOAD THE EXISTING STRUCTURE. LIMIT CONSTRUCTION LOADING (INCLUDING DEMOLITION DEBRIS) ON EXISTING FLOOR SYSTEMS TO 40 PSF.
 - A. ALL NEW OPENINGS THROUGH EXISTING WALLS, SLABS AND BEAMS SHALL BE ACCOMPLISHED BY SAW CUTTING WHEREVER POSSIBLE.
 - B. VERIFY ALL EXISTING CONDITIONS AND LOCATION OF MEMBERS PRIOR TO CUTTING ANY OPENINGS.
 - C. SMALL ROUND OPENINGS SHALL BE ACCOMPLISHED BY CORE DRILLING, IF POSSIBLE.
 - D. WHERE NEW REINFORCING TERMINATES AT EXISTING CONCRETE, REBAR DOWELS EPOXIED INTO THE EXISTING CONCRETE SHALL BE PROVIDED TO MATCH HORIZONTAL REINFORCING, UNLESS OTHERWISE NOTED ON PLANS.

THE RESULTS OF THE TEST ARE TO BE SUBMITTED TO THE MERCER ISLAND BUILDING DEPARTMENT, ALONG WITH A LETTER FROM THE STRUCTURAL ENGINEER OUTLINING THE PROPOSED ALLOWABLE SHEAR STRESS, FACTOR OF SAFETY AND MAXIMUM ACTUAL ANTICIPATED SHEAR STRESS.

- 15. CHECK FOR DRYROT AT ALL EXTERIOR WALLS. ALL ROT SHALL BE REMOVED AND DAMAGED MEMBERS SHALL BE REPLACED OR REPAIRED AS DIRECTED BY THE STRUCTURAL ENGINEER OR ARCHITECT.

CONCRETE

- 16. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 301. CONSTRUCTION TOLERANCES SHALL NOT EXCEED THOSE LISTED IN ACI 117. CONCRETE SHALL ATTAIN A 28 DAY STRENGTH OF $f_c = 2500$ PSI AND MIX SHALL CONTAIN NOT LESS THAN 5-1/2 SACKS OF CEMENT PER CUBIC YARD AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS (BEFORE THE ADDITION OF ADMIXTURES). THE WATER/CEMENT RATIO SHALL NOT EXCEED 0.55 FOR FOOTINGS AND 0.45 FOR ALL SLABS AND EXPOSED CONCRETE UNLESS OTHERWISE NOTED. EXCEPT FOR FOOTINGS AND SLAB ON GRADE, AGGREGATE SIZE SHALL NOT EXCEED 3/4".

THE MINIMUM AMOUNT OF CEMENT AND THE MAXIMUM SLUMP MAY BE CHANGED IF A CONCRETE PERFORMANCE MIX IS SUBMITTED TO THE STRUCTURAL ENGINEER AND THE BUILDING DEPARTMENT OF MERCER ISLAND FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE. (THE W/C RATIO LIMITS STILL APPLY). THE PERFORMANCE MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, CEMENTITIOUS MATERIAL, FINE AND COARSE AGGREGATE, WATER AND ADMIXTURES AS WELL AS THE WATER CEMENT RATIO, SLUMP, CONCRETE YIELD AND SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH ACI 301. CHEMICAL ADMIXTURES AND FLY ASH SHALL CONFORM TO ASTM C444 AND C618 RESPECTIVELY. FLY ASH PERCENTAGE OF TOTAL CEMENTITIOUS MATERIAL SHALL NOT EXCEED 20%. THE USE OF A PERFORMANCE MIX REQUIRES BATCH PLANT INSPECTION, THE COST OF WHICH SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER. REVIEW OF MIX SUBMITTALS BY THE ENGINEER OF RECORD INDICATES ONLY THAT INFORMATION PRESENTED CONFORMS GENERALLY TO CONTRACT DOCUMENTS. CONTRACTOR MAINTAINS FULL RESPONSIBILITY FOR SPECIFIED PERFORMANCE.

ALL CONCRETE WITH SURFACES EXPOSED TO STANDING WATER SHALL BE AIR ENTRAINED WITH AN AIR ENTRAINING AGENT CONFORMING TO ASTM C260. TOTAL AIR CONTENT FOR FROST-RESISTANT CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318-14 TABLE 19.3.1. ALL CONCRETE EXPOSED TO THE WEATHER AND ALL GARAGE SLABS-ON-GRADE SHALL OBTAIN A 28-DAY STRENGTH f_c OF 3,000 PSI IN ACCORDANCE WITH ACI 318 TABLE 19.3.2) AND IBC SECTION 1904.1. THIS INCREASE IN REQUIRED STRENGTH IS FOR DURABILITY ONLY (SPECIAL INSPECTION IS NOT REQUIRED). ALL CONCRETE TO RECEIVE A STEEL TROWELED FINISH SHALL NOT BE AIR-ENTRAINED.

- 17. REINFORCING STEEL SHALL CONSIST OF #4 BARS CONFORMING TO ASTM A615, GRADE 40, $f_y = 40,000$ PSI AND SHALL BE DETAILED (INCLUDING HOOKS AND BENDS) IN ACCORDANCE WITH ACI 315 AND 318. LAP ALL CONTINUOUS REINFORCEMENT 48 BAR DIAMETERS, 2'-0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS, LAP 2'-0" MINIMUM. PROVIDE (2) #4 MIN. U.O.N. TRIM BARS AROUND ALL OPENINGS IN CONCRETE WALLS OR SLABS EXTENDING 2'-0" PAST CORNERS, TYPICAL.

NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER. NO REINFORCING BARS SHALL BE "WET-SET" INTO THE CONCRETE. PROVIDE A 20' LONG REBAR GROUND (IFER GROUND) PER ELECTRICIAN.

- 18. CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:
FOOTINGS AND OTHER UNFORMED SURFACES CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
FORMED SURFACES EXPOSED TO EARTH (i.e. WALLS BELOW GROUND) OR WEATHER 2"
SLABS AND WALLS (INTERIOR FACE) 1"

ANCHORAGE

- 19. EXPANSION BOLTS INTO CONCRETE SHALL BE "STRONG-BOLT 2 WEDGE ANCHOR", AS MANUFACTURED BY SIMPSON STRONG-TIE ANCHOR SYSTEMS. INSTALL IN STRICT ACCORDANCE WITH I.C.C. REPORT NO. ESR-3031 INCLUDING STANDARD EMBEDMENT REQUIREMENTS U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION IS REQUIRED FOR ALL EXPANSION BOLT INSTALLATION.
- 20. EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) INTO CONCRETE SHALL BE INSTALLED USING "SET-36" ADHESIVE ANCHOR AS MANUFACTURED BY SIMPSON STRONG-TIE ANCHOR SYSTEMS. INSTALL IN STRICT ACCORDANCE WITH I.C.C. REPORT NO. ESR-4051, INCLUDING STANDARD EMBEDMENT REQUIREMENTS U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION OF INSTALLATION IS REQUIRED.

WOOD

- 21. FRAMING LUMBER: SHALL BE KILN DRIED OR MC-19 (MOISTURE CONTENT LESS THAN 19%), AND GRADED AND MARKED IN CONFORMANCE WITH N.C.L.I.B. STANDARD NO. 17 GRADING RULES FOR WEST COAST LUMBER. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:
 - JOISTS: (2X, 3X, AND 4X MEMBERS) DOUGLAS FIR NO. 2
 - BEAMS AND STRINGERS: (INCLUDING 6 X AND LARGER MEMBERS) DOUGLAS FIR NO. 1
 - POSTS AND TIMBERS: DOUGLAS FIR NO. 1
 - STUDS, PLATES & MISCELLANEOUS LIGHT FRAMING: DOUGLAS FIR NO. 2 (AS NOTED ON PLANS / DETAILS)
- 22. LAMINATED STRAND LUMBER (LSL) SHALL BE DESIGNED AND MANUFACTURED PER ASTM D5456. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, AND THE INDEPENDENT INSPECTION AGENCY'S LOGO. ALL LAMINATED STRAND LUMBER SHALL BE MANUFACTURED USING A WATERPROOF ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2554. MINIMUM STRUCTURAL PROPERTIES ARE AS FOLLOWS:
 $F_b = 2325$ PSI, E = 1.55×10^6 PSI, $F_v = 310$ PSI

DESIGN SHOWN ON PLANS IS BASED ON MATERIALS MANUFACTURED BY THE MEYERHAEUSER CORPORATION. ALTERNATE MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER.

- 23. WOOD SHEATHING SHALL BE APA RATED, EXTERIOR GLUE, EXPOSURE I, IN CONFORMANCE WITH THE REQUIREMENTS FOR THEIR TYPE IN DOC P5-1 OR P5-2. SEE PLANS FOR THICKNESS, PANEL IDENTIFICATION INDEX AND NAILING REQUIREMENTS.

UNLESS OTHERWISE NOTED ON THE PLANS, ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED TONGUE AND GROOVE JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH (2) 10d-F NAILS AT EACH END, UNLESS OTHERWISE NOTED. AT BLOCKED FLOOR AND ROOF DIAPHRAGMS PROVIDE FLAT 2X BLOCKING AT ALL UNFRAMED PANEL EDGES AND NAIL WITH EDGE NAILING SPACED PER PLANS. WHERE NOT NOTED OTHERWISE, NAIL PANEL EDGES WITH 8d NAILS @ 6" O.C. EDGES, 12" O.C. IN THE FIELD.

- 24. ALL WOOD EXPOSED TO WEATHER, OR BEARING ON UNPROTECTED CONCRETE BELOW GRADE, OR BEARING ON UNPROTECTED CONCRETE LESS THAN 8" FROM EXPOSED EARTH SHALL BE PRESSURE TREATED, U.O.N. PRESURE TREATMENT SHALL BE WITH AN APPROVED PRESERVATIVE AND BRANDED WITH A QUALITY CONTROL AGENCY MARK BY THE AMERICAN WOOD PRESERVERS BUREAU OR EQUAL. ALL METAL HARDWARE IN CONTACT WITH TREATED WOOD SHALL BE PROTECTED WITH A #185 GALVANIZED COATING (ZMAX) OR BETTER. ALL NAILS IN TREATED WOOD SHALL BE HOT-DIP GALVANIZED OR BETTER. PROVIDE 2 LAYERS OF 30# ASPHALT IMPREGNATED BUILDING PAPER BETWEEN NON-PRESSURE-TREATED LEDGERS, BLOCKING, ETC., AND CONCRETE.

- 25. TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NO. C-C-2019. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE I.C.C. OR IAPMO UES APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. CONNECTORS SHALL BE SIZED TO MATCH THE SIZE OF THE FRAMING MEMBERS BEING CONNECTED. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. UNLESS NOTED OTHERWISE, ALL NAILS SHALL BE COMMON. ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED. ALL BOLTS TIGHTENED TO SUG TIGHT.

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PROJECT:

LAI DECK ROOF ADDITION

7505 92ND AVE SE
MERCER ISLAND WA
98040

APPROVAL:

NO.	DESCRIPTION	DATE	BY

PERMIT SET	5/1/19		
NO.	DESCRIPTION	DATE	BY

GENERAL STRUCTURAL NOTES

SHEET NO.

S1.0

File: 175-11010.dwg Plotdate: Tue, 05/03/2019 12:51 pm

GENERAL STRUCTURAL NOTES

(The following apply unless shown otherwise on the plans)

WOOD CONTINUED

26. WOOD FASTENERS:

A. NAIL SIZES SPECIFIED ON DRAWINGS ARE BASED ON THE FOLLOWING SPECIFICATIONS:

- Drawing ID Nail Name Nail Diameter Nail Length
"6d" 6d Common 0.113" 2"
"8d Box" 8d Box 0.113" 2-1/2"
"8d" 8d Common 0.131" 2-1/2"
"10d-F" 10d Framer 0.131" 3"
"10d" 10d Shear 0.148" 2-1/4"
"16d" 16d Sinker 0.148" 3-1/4"

IF CONTRACTOR PROPOSES THE USE OF ALTERNATE NAILS, THEY SHALL SUBMIT NAIL SPECIFICATIONS TO THE STRUCTURAL ENGINEER (PRIOR TO CONSTRUCTION) FOR REVIEW AND APPROVAL.

B. NAILS - SHEATHING FASTENERS TO FRAMING SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED.

C. SCREWS SHALL BE WOOD SCREWS OF THE DIAMETER AND LENGTH NOTED ON THE DRAWINGS. SDS FASTENERS ARE SIMPSON STRONG DRIVE SCREWS.

D. HOT DIPPED GALVANIZED NAILS, BOLTS AND METAL PLATES - ALL NAILS, BOLTS AND METAL PLATES IN CONTACT WITH PRESSURE TREATED (INCLUDING FIRE-RETARDANT TREATED) LUMBER SHALL BE HOT DIPPED GALVANIZED.

27. WOOD FRAMING NOTES: THE FOLLOWING APPLY UNLESS OTHERWISE SHOWN ON THE PLANS:

A. ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE IBC. MINIMUM NAILING, UNLESS OTHERWISE NOTED, SHALL CONFORM TO IBC TABLE 2304.10.1. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. TIGHTEN BOLTS AND LAG SCREWS SNUGLY AGAINST WOOD FRAMING AFTER WOOD HAS REACHED SPECIFIED MOISTURE CONTENT.

B. ROOF FRAMING: PROVIDE DOUBLE JOISTS AROUND ALL OPENINGS IN ROOFS UNLESS OTHERWISE NOTED. PROVIDE SOLID BLOCKING AT ALL BEARING POINTS. NAIL ALL MULTI JOIST BEAMS TOGETHER WITH 10d-F NAILS @ 8' O.C. STAGGERED UNLESS OTHERWISE NOTED.

C. POSITIVE CONNECTIONS: PROVIDE THE FOLLOWING SIMPSON CONNECTORS AT TYPICAL FRAMING UNLESS OTHERWISE NOTED ON PLAN OR DETAIL. PROVIDE CG/ECCO CAPS AND FBS BASES AT POSTS. PROVIDE BC BASE WHERE POST BEARS ON WOOD FRAMING BELOW. PROVIDE LUS SERIES HANGERS FOR 2X FLOOR AND ROOF JOISTS. CONNECTORS SHALL BE SIZED TO MATCH THE SIZE OF THE FRAMING MEMBERS BEING CONNECTED. ALL CONNECTORS EXPOSED TO WEATHER OR IN DIRECT CONTACT WITH PRESSURE TREATED WOOD, SHALL BE HOT DIPPED GALVANIZED.

ABBREVIATIONS

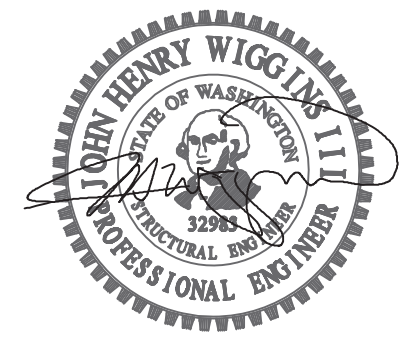
Table listing abbreviations and their corresponding full names. Includes symbols like @, d, phi, A.B., ADDL., ALT., AFFROX., ARCH., B.U., B/, BF, BLK.G., BLD.G., B.M., BOT., BRG., BTWN., C, C to C, CJP, C.J., CL.G., CLR., CMU, CNTR., COL., CONC., CONN., CONST., CONT., CJP, GSK., DBA, DEL., DEG., DET., DF, DIA., DIAG., DIAFH., DIM., DN., DO, DWG., (E), E., EA., EF., EL., ELEV., EMBED., ENGR., E.M., EXP., EXT., FDN., FIN., FLR., FRP, F.S., FT., FTG., GA., GALV., GL, GRD, GNB, HFR, HGR, HORIZ, HSS, HT, I.D., I.F., IN., INFO., INT., JT., KSF, KSI, L, LL, LLH, LLV, LONGIT., LT. WT., MATL., MAX., MECH., MEZZ., MF, MFR., MIN., MISC., MK., N., N.S., NIC, NO., NOM., NTS, O.C., O.D., O.F., O.H., OPNG., OFF., PAF, PC, PERM., PERP., PL or PL, PLF, PLYWD, PJP, PREFAB., PROJ., PSF, PSI, P.T., P/T, RAD., REF., REINF., REQD., REV., R.O., S., SCH. or SCHED., SECT., SHT., SIM., SOG, SPEC., SQ., SQ. FT., SQ. IN., STD., STIFF., STL., STR., SUB., SYM., T/, T&B, T&G, THRU, TEMP., T.O.C., T.O.S., T.O.W., TRANS., TS, TYP., UON or UNO, VERT., VIF, W, W or w/, WD, W.H.S., W/O, WP, W.T.S., WWF, X SECT., X-STR.



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SEAL:



PROJECT:

LAI DECK ROOF ADDITION

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APPROVAL:

Empty table with 5 columns for revision tracking.

Table with columns for PERMIT SET, NO., DESCRIPTION, DATE, BY, ISSUES, REVISIONS, P.M., MDA, P.E., JHW, DRAWN BY, TTH, SCALE, AS SHOWN, DATE, TTH, JOB NO., 19175.01, SHEET TITLE.

GENERAL STRUCTURAL NOTES & ABBREVIATIONS

SHEET NO.

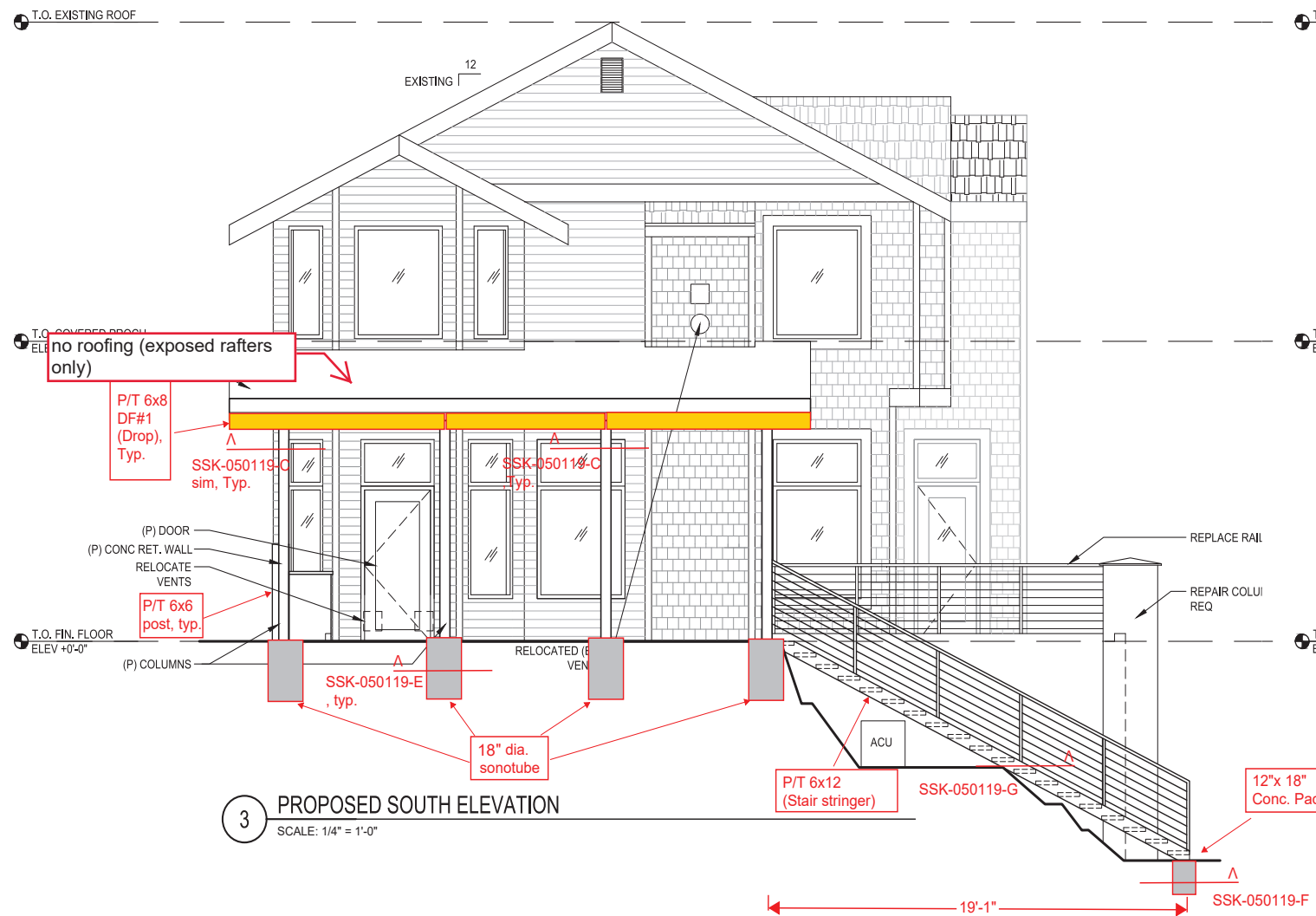
S1.1

FOUNDATION PLAN NOTES:

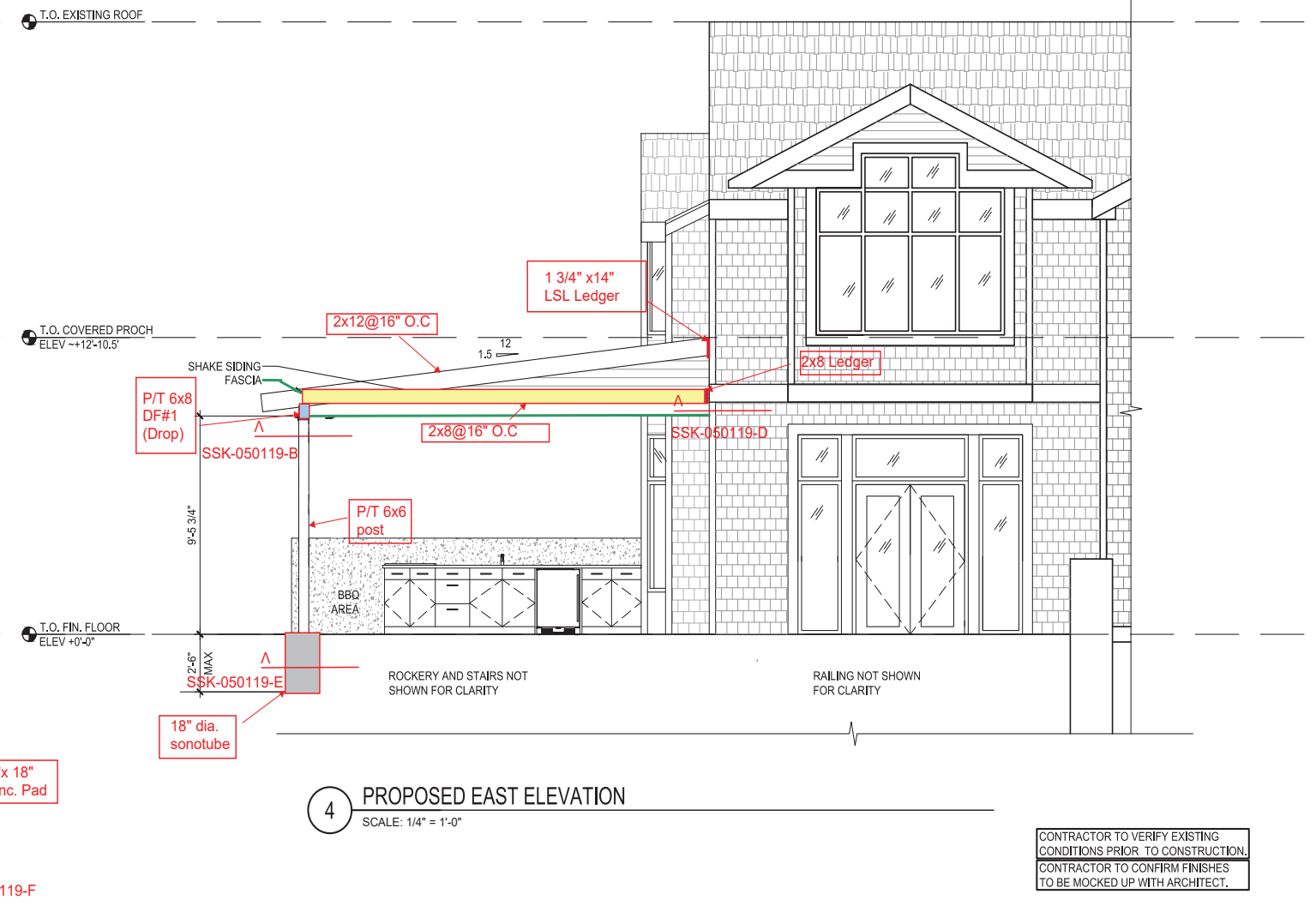
1. ALL DIMENSIONS AND ELEVATIONS ON THE STRUCTURAL PLANS ARE FOR GENERAL INFORMATION ONLY AND SHALL BE VERIFIED BY THE CONTRACTOR WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND MANUFACTURER'S DRAWINGS BEFORE CONSTRUCTION BEGINS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER IMMEDIATELY.
2. ALL EXISTING INFORMATION IS ASSUMED AND SHALL BE FIELD VERIFIED. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER IMMEDIATELY.
3. THE GEOTECHNICAL ENGINEER SHALL REVIEW THE FOUNDATION PLAN BEFORE CONSTRUCTION TO VERIFY COMPLIANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT. THE GEOTECHNICAL ENGINEER SHALL INSPECT THE SUBGRADE BEFORE REINFORCEMENT PLACEMENT TO VERIFY THE SOIL CONDITION.
4. FOR STRUCTURAL GENERAL NOTES AND ABBREVIATIONS SEE SHEETS S1.0 TO S1.1.
5. FOR TYPICAL CONCRETE FOUNDATION DETAILS SEE SSK-042319-D

ROOF FRAMING NOTES:

1. SEE SHEETS S1.0 AND S1.1 FOR GENERAL STRUCTURAL NOTES AND ABBREVIATIONS.
2. TYPICAL ROOF JOIST SHALL BE 2x12 DF#2 @ 24" O.C., U.O.N. HANG JOISTS WITH LSSU FACE MOUNT HANGERS TYPICAL AT FLUSH BEAMS, U.O.N.
3. NAIL ROOF SHEATHING TO FRAMING WITH 8d NAILS (0.131"φ x 2.5" LONG) AT 6" O.C. AT ALL PANELS EDGES AND 8d NAILS AT 12" O.C. AT INTERMEDIATE FRAMING MEMBERS (UNBLOCKED).
4. PROVIDE SOLID BLOCKING BETWEEN EACH ROOF JOIST AT SUPPORTS. PROVIDE AN HGA10KT CLIP AT EVERY MEMBER TO BEAM



3 PROPOSED SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



4 PROPOSED EAST ELEVATION
SCALE: 1/4" = 1'-0"

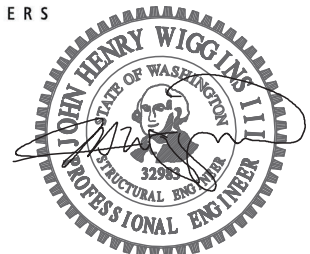
CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
CONTRACTOR TO CONFIRM FINISHES TO BE MOCKED UP WITH ARCHITECT.

SSK - 050119-A



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Lai Deck Roof Addition

project

Josh Artisan + Architect

client

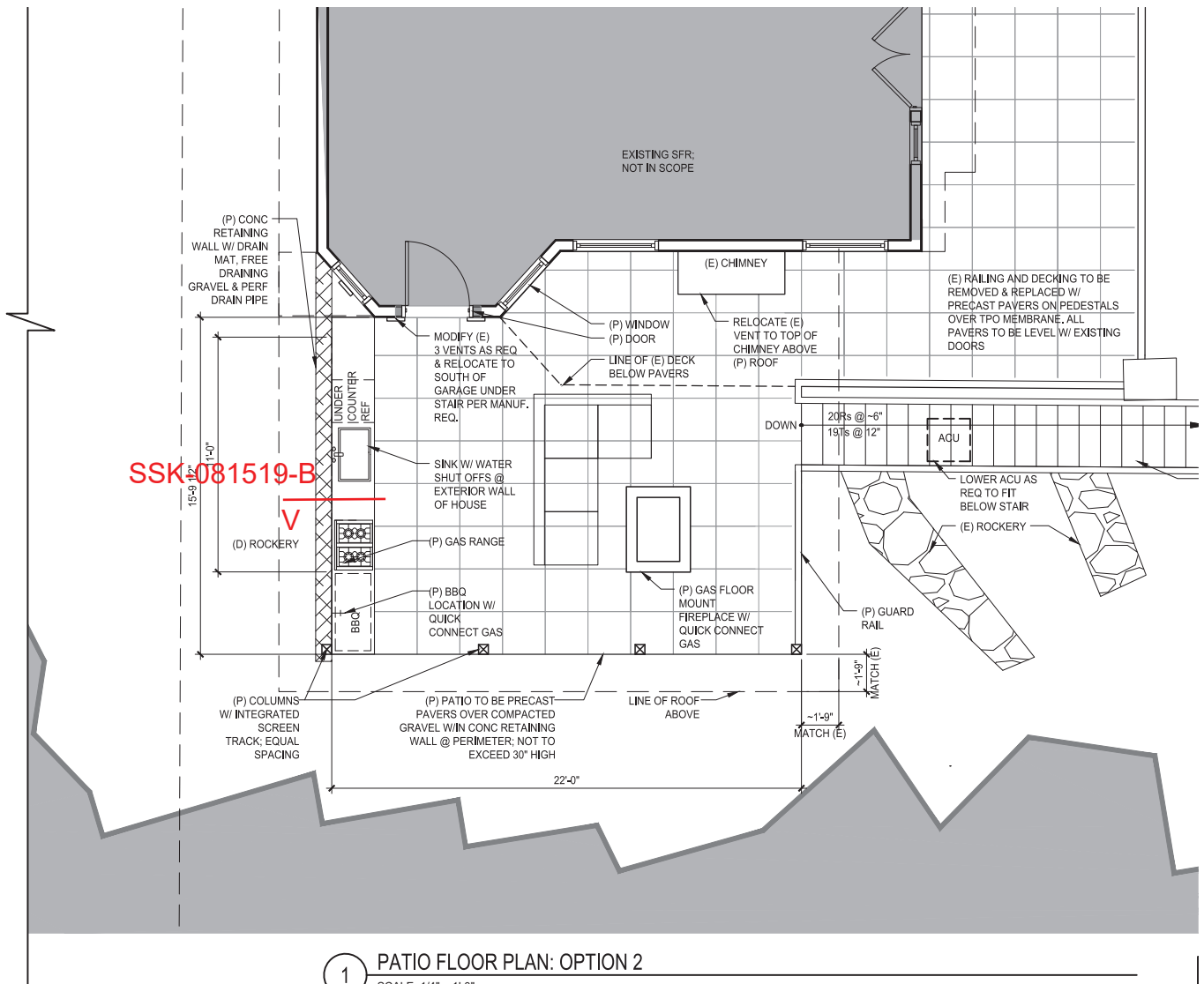
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SSK - 081519-A



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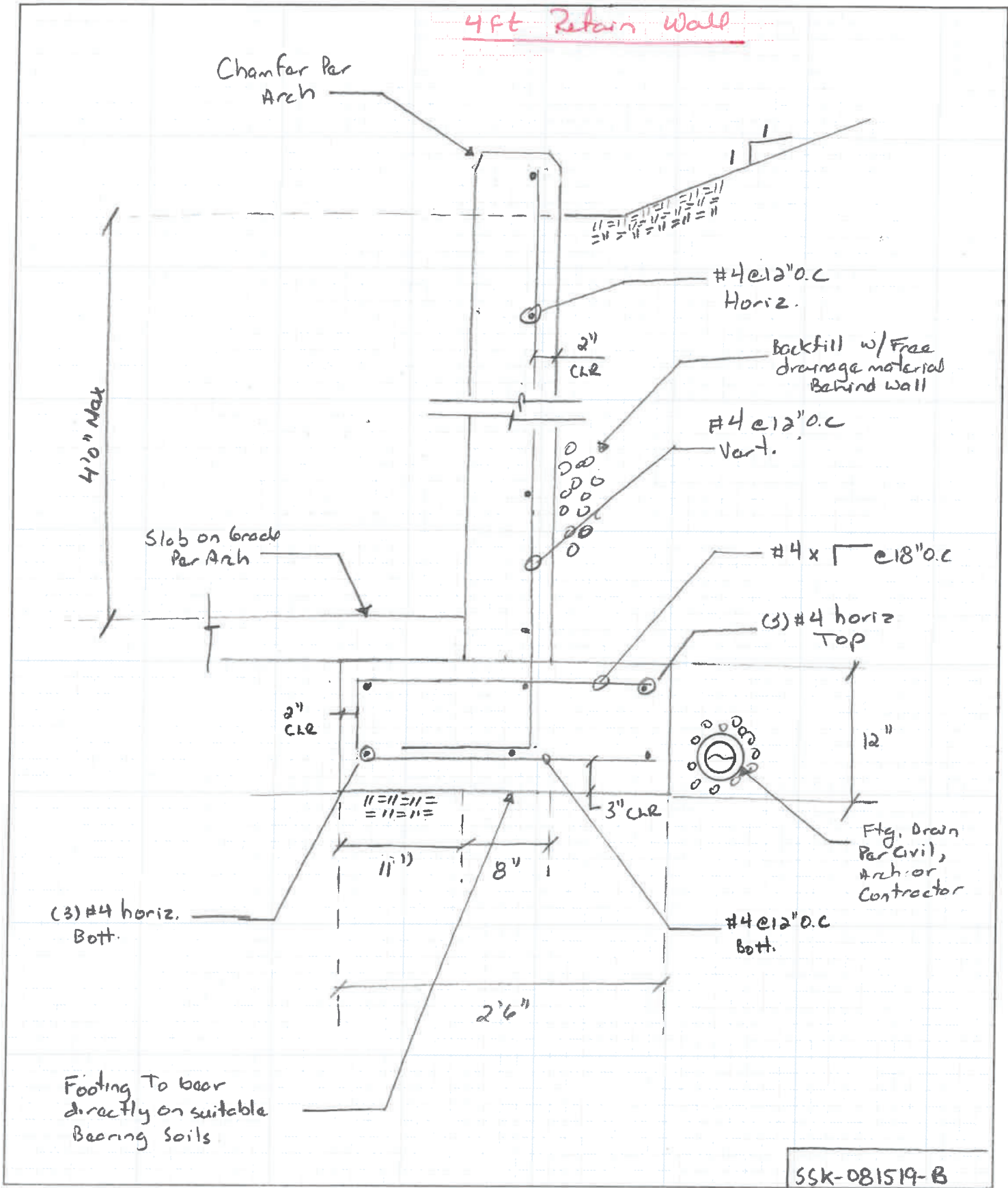
08/15/2019 19175.01

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SSK-081519-B



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project Loi Deck Roof Addition
(Retain Wall)

client Josh Architect.

date 08/15/2019 19175.01 project no.
MOA SSK-081519-B sheet
designer
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August 15, 2019

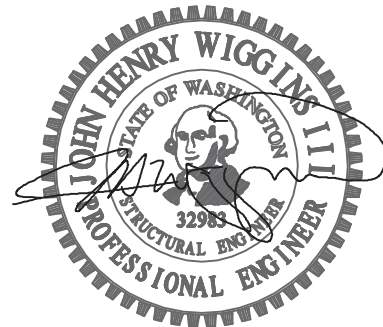
STRUCTURAL CALCULATIONS
(Supplemental permit calcs)

LAI DECK ROOF ADDITION
7505 92nd Ave. SE
Mercer Island, WA 98040

Quantum Job Number: 19175.01

Prepared for:
JOSH ARTISAN +
ARCHITECTURE

Prepared by:
QUANTUM CONSULTING ENGINEERS
1511 Third Avenue, Suite 323
Seattle, WA 98101
TEL 206.957.3900
FAX 206.957.3901





QUANTUM | CONSULTING ENGINEERS

STRUCTURAL DESIGN CRITERIA

LAI DECK ROOF ADDITION
7505 92ND AVE SE,
MERCER ISLAND, WA 98040.

QUANTUM JOB NUMBER: 19175.01

CODE CRITERIA:

BUILDING CODE 2015 INTERNATIONAL BUILDING CODE
BUILDING DEPARTMENT CITY OF MERCER ISLAND
WIND CRITERIA 110 MPH; EXPOSURE "C"
..... RISK CATEGORY = II
..... K_{ZT}= 1.00

SOILS CRITERIA:

ALLOWABLE BEARING PRESSURE (ASSUMED) 2,500 PSF
MINIMUM FOOTING WIDTH CONTINUOUS: 18" MIN., ISOLATED: 24" MIN.
FROST DEPTH 36" MIN.
ACTIVE SOIL PRESSURE (SLOPED SOIL CONDITION) 45 PCF
SEISMIC SURCHARGE 8H PSF
PASSIVE SOIL PRESSURE 300 PCF
COEFFICIENT OF FRICTION 0.35 PCF

MATERIALS CRITERIA:

CONCRETE (28 DAY STRENGTH):

FOUNDATION/S.O.G. F'C=2,500 PSI

REINFORCING STEEL:

GRADE 40 (#4 BAR) FY=40,000 PSI

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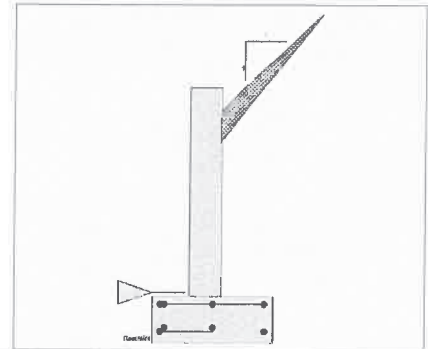
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Cantilevered Retaining Wall

Code: IBC 2015,ACI 318-14,ACI 530-13

Criteria	
Retained Height	= 4.00 ft
Wall height above soil	= 0.50 ft
Slope Behind Wall	= 1.00
Height of Soil over Toe	= 0.00 in
Water height over heel	= 0.0 ft

Soil Data	
Allow Soil Bearing	= 2,500.0 psf
Equivalent Fluid Pressure Method	
Active Heel Pressure	= 45.0 psf/ft
Passive Pressure	= 300.0 psf/ft
Soil Density, Heel	= 120.00 pcf
Soil Density, Toe	= 120.00 pcf
Footing Soil Friction	= 0.350
Soil height to ignore for passive pressure	= 0.00 in



Surcharge Loads	
Surcharge Over Heel	= 0.0 psf
Used To Resist Sliding & Overturning	
Surcharge Over Toe	= 50.0
Used for Sliding & Overturning	

Lateral Load Applied to Stem	
Lateral Load	= 0.0 #/ft
...Height to Top	= 0.00 ft
...Height to Bottom	= 0.00 ft
Load Type	= Wind (W) (Service Level)
Wind on Exposed Stem	= 0.0 psf (Service Level)

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

Axial Load Applied to Stem	
Axial Dead Load	= 0.0 lbs
Axial Live Load	= 0.0 lbs
Axial Load Eccentricity	= 0.0 in

Earth Pressure Seismic Load	
Method	: Uniform
Multiplier Used	= 8.000
(Multiplier used on soil density)	

Uniform Seismic Force	= 40.000
Total Seismic Force	= 200.000

Design Summary	
Wall Stability Ratios	
Overturning	= 2.07 OK
Slab Resists All Sliding !	
Total Bearing Load	= 2,285 lbs
...resultant ecc.	= 3.55 in
Soil Pressure @ Toe	= 1,562 psf OK
Soil Pressure @ Heel	= 265 psf OK
Allowable	= 2,500 psf
Soil Pressure Less Than Allowable	
ACI Factored @ Toe	= 1,391 psf
ACI Factored @ Heel	= 236 psf
Footing Shear @ Toe	= 0.4 psi OK
Footing Shear @ Heel	= 14.2 psi OK
Allowable	= 75.0 psi

Stem Construction		Bottom
Design Height Above Ftg	ft =	Stem OK 0.00
Wall Material Above "Ht"	=	Concrete
Design Method	=	LRFD
Thickness	=	8.00
Rebar Size	=	# 4
Rebar Spacing	=	12.00
Rebar Placed at	=	6 in
Design Data		
fb/FB + fa/Fa	=	0.310
Total Force @ Section		
Service Level	lbs =	
Strength Level	lbs =	736.0
Moment....Actual		
Service Level	ft-# =	
Strength Level	ft-# =	1,088.0
Moment....Allowable	=	3,505.6
Shear.....Actual		
Service Level	psi =	
Strength Level	psi =	10.2
Shear.....Allowable	psi =	75.0
Anet (Masonry)	in2 =	
Rebar Depth 'd'	in =	6.00

Sliding Calcs	
Lateral Sliding Force	= 972.7 lbs

Masonry Data	
f'm	psi =
Fs	psi =
Solid Grouting	=
Modular Ratio 'n'	=
Wall Weight	psf = 100.0
Short Term Factor	=
Equiv. Solid Thick.	=
Masonry Block Type	= Medium Weight
Masonry Design Method	= ASD

Vertical component of active lateral soil pressure IS considered in the calculation of soil bearing pressures.

Load Factors	
Building Code	IBC 2015,ACI
Dead Load	1.200
Live Load	1.600
Earth, H	1.600
Wind, W	1.000
Seismic, E	1.000

Concrete Data	
f'c	psi = 2,500.0
Fy	psi = 40,000.0

Use menu item Settings > Printing & Title Block
to set these five lines of information
for your program.

Title **Lai deck addition-Retain wall**
Job # : Dsgnr: **MDA**
Description....
4 ft retain wall

Page : 2
Date: 15 AUG 2019

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Cantilevered Retaining Wall

Code: IBC 2015,ACI 318-14,ACI 530-13

Concrete Stem Rebar Area Details

Bottom Stem	Vertical Reinforcing	Horizontal Reinforcing	
As (based on applied moment) :	0.0638 in2/ft		
(4/3) * As :	0.0851 in2/ft	Min Stem T&S Reinf Area 0.864 in2	
200bd/fy : 200(12)(6)/40000 :	0.36 in2/ft	Min Stem T&S Reinf Area per ft of stem Height : 0.192 in2/ft	
0.0018bh : 0.0018(12)(8) :	0.1728 in2/ft	Horizontal Reinforcing Options :	
	=====	One layer of :	Two layers of :
Required Area :	0.1728 in2/ft	#4@ 12.50 in	#4@ 25.00 in
Provided Area :	0.2 in2/ft	#5@ 19.38 in	#5@ 38.75 in
Maximum Area :	1.2192 in2/ft	#6@ 27.50 in	#6@ 55.00 in

Footing Dimensions & Strengths

Toe Width	=	0.75 ft
Heel Width	=	1.75
Total Footing Width	=	2.50
Footing Thickness	=	12.00 in
Key Width	=	0.00 in
Key Depth	=	0.00 in
Key Distance from Toe	=	0.00 ft
f'c =	2,500 psi	Fy = 40,000 psi
Footing Concrete Density	=	150.00 pcf
Min. As %	=	0.0018
Cover @ Top	2.00	@ Btm.= 3.00 in

Footing Design Results

		Toe	Heel
Factored Pressure	=	1,391	236 psf
Mu' : Upward	=	359	237 ft-#
Mu' : Downward	=	73	1,947 ft-#
Mu: Design	=	286	1,710 ft-#
Actual 1-Way Shear	=	0.39	14.23 psi
Allow 1-Way Shear	=	40.00	40.00 psi
Toe Reinforcing	=	# 4 @ 12.00 in	
Heel Reinforcing	=	# 4 @ 12.00 in	
Key Reinforcing	=	None Spec'd	

Other Acceptable Sizes & Spacings

Toe: Not req'd: Mu < phi*5*lambda*sqrt(f'c)*Sm
Heel: Not req'd: Mu < phi*5*lambda*sqrt(f'c)*Sm
Key: No key defined

Min footing T&S reinf Area	0.65	in2
Min footing T&S reinf Area per foot	0.26	in2 /ft
If one layer of horizontal bars:		If two layers of horizontal bars:
#4@ 9.26 in		#4@ 18.52 in
#5@ 14.35 in		#5@ 28.70 in
#6@ 20.37 in		#6@ 40.74 in

Summary of Overturning & Resisting Forces & Moments

ItemOVERTURNING.....		RESISTING.....					
	Force lbs	Distance ft	Moment ft-#	Force lbs	Distance ft	Moment ft-#			
Heel Active Pressure	=	832.7	2.03	1,688.4	Soil Over Heel	=	520.0	1.96	1,018.3
Surcharge over Heel	=				Sloped Soil Over Heel	=	70.4	2.14	150.6
Surcharge Over Toe	=				Surcharge Over Heel	=			
Adjacent Footing Load	=				Adjacent Footing Load	=			
Added Lateral Load	=				Axial Dead Load on Stem	=			
Load @ Stem Above Soil	=				* Axial Live Load on Stem	=			
Seismic Earth Load	=	140.0	2.50	350.0	Soil Over Toe	=			
	=				Surcharge Over Toe	=	37.5	0.38	14.1
Total		972.7	O.T.M.	2,038.4	Stem Weight(s)	=	450.0	1.08	487.5
	=				Earth @ Stem Transitions	=			
Resisting/Overturning Ratio			=	2.07	Footing Weighl	=	375.0	1.25	468.8
Vertical Loads used for Soil Pressure =				2,284.8 lbs	Key Weight	=			
					Vert. Component	=	831.9	2.50	2,079.7
					Total =		2,284.8 lbs	R.M.=	4,218.9

If seismic is included, the OTM and sliding ratios
be 1.1 per section 1807.2.3 of IBC 2009 or IBC 201

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

Vertical component of active lateral soil pressure IS considered in the
calculation of Sliding Resistance.

Vertical component of active lateral soil pressure IS considered in the
calculation of Overturning Resistance.

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Cantilevered Retaining Wall

Code: IBC 2015,ACI 318-14,ACI 530-13

Tilt

Horizontal Deflection at Top of Wall due to settlement of soil

(Deflection due to wall bending not considered)

Soil Spring Reaction Modulus	250.0 pci
Horizontal Defl @ Top of Wall (approximate only)	0.078 in

The above calculation is not valid if the heel soil bearing pressure exceeds that of the toe,
because the wall would then tend to rotate into the retained soil.

