



Staff Report to the Zoning Administrator

Application Number: **231176**

Applicant: Toby & Korina Hargreaves

Agenda Date: October 20, 2023

Owner: Hargreaves

Agenda Item #: 1

APN: 063-141-23

Time: After 9:00 a.m.

Site Address: (No situs) Cathedral Park Drive, Bonny Doon

Project Description: Proposal to construct a single-family dwelling and detached non-habitable accessory structure (workshop) with Accessory Dwelling Unit above.

Location: Property located on the south side of Cathedral Park Drive approximately 700 feet west of Blessing Lane in Bonny Doon (121 Cathedral Park Drive).

Permits Required: Coastal Development Permit, Residential Development Permit

Supervisory District: 3rd District (District Supervisor: Cummings)

Staff Recommendation:

- Determine that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.
- Approval of Application 231176, based on the attached findings and conditions.

Project Description & Setting

The proposed project is to construct a single-family dwelling and detached non-habitable workshop with an Accessory Dwelling Unit (ADU) above. The project is proposed on a vacant lot (improved with fencing) located on the south side of Cathedral Park Drive in Bonny Doon.

The subject property slopes downward to the south from the roadway. The landscape is fairly open with trees along the roadway and at the sides of the parcel. The property is located within a rural residential neighborhood of homesites on parcels ranging from one to ten acres in size.

Requires a Coastal Development Permit for the construction of new structures on an undeveloped site located within the coastal zone.

Requires a Residential Development Permit for a Non-Habitable Accessory Structure over 1,000 square feet in floor area.

Zoning & General Plan Consistency

The subject property is a 2.29 acre parcel, located in the RR (Rural Residential) zone district, a designation which allows residential uses. The southern portion of the site is zoned RA (Residential Agriculture). No structures are proposed in that RA zoned area (only drainage improvements). The proposed residence and accessory structure are considered as a principal permitted use within the zone district and the zoning is consistent with the site's R-R (Rural Residential) General Plan designation.

The proposed residence and workshop with ADU above are located on the site in compliance with the required site standards for the RR zone district, as indicated in the chart below:

	RR Site Standards	Proposed
Front yard setback	40'	57' to residence 53' to workshop
Rear yard setback	20'	200'+ to structures
Side yard setbacks	20' & 20'	63' to residence (east) 23' to workshop (west)
Maximum height	28'	20' residence 26'-4" workshop
Maximum % lot coverage	10%	4.7%
Maximum Floor Area Ratio	N/A	N/A

Adequate parking for the proposed single family dwelling and ADU (4 spaces) will be provided on the project site.

Residential Development Permit

The proposal includes a 1,650 square foot detached non-habitable accessory structure (labeled as a workshop). A Residential Development Permit is required for a non-habitable accessory structure in excess of 1,000 square feet in floor area. The proposed workshop includes toilet facilities, which are allowed within non-habitable accessory structures. An ADU is proposed to be located on top of one side of the workshop, with indoor staircase access adjacent to the workshop below.

The proposed non-habitable accessory structure would comply with all applicable site standards for the zone district and would not result in an increased visual impact to surrounding properties.

No commercial use of the workshop structure or outdoor areas on the subject property is authorized by this permit. The use of the workshop will be limited to the occupants of dwellings on site and any commercial use of the property will be subject to the limitations of the Home Occupation ordinance (County Code section 13.10.613) for properties without a separate Home Occupation approval.

Over-height Fence Certification

Fencing has been installed along the front property boundary adjacent to the Cathedral Park Drive right of way. Fencing of vacant properties is allowed, but fencing in excess of three feet in height within the required front yard setback requires approval of an over-height fence. The

fencing installed is eight feet in height, but is located two feet below the grade of the roadway. With six feet of fencing projecting above the roadway, the fencing qualified for an Over-height Fence Certification. Over-height Fence Certification 231331 was issued on 8/9/23 for fencing installed within the front yard setback.

Design Review

The proposed residence and accessory structure comply with the requirements of the County Design Review Ordinance, in that the proposed project will incorporate site and architectural design features such as articulated wall and roof planes and varied exterior materials to reduce the visual impact of the proposed development on surrounding land uses and the natural landscape.

Local Coastal Program Consistency

The proposed residence and accessory structure are in conformance with the County's certified Local Coastal Program, in that the structures are sited and designed to be visually compatible, in scale with, and integrated with the character of the surrounding neighborhood. Developed parcels in the area contain single family dwellings and detached outbuildings. Size and architectural styles vary in the area, and the design submitted is consistent with the existing range of styles. The project site is not located between the shoreline and the first public road and is not identified as a priority acquisition site in the County's Local Coastal Program. Consequently, the proposed project will not interfere with public access to the beach, ocean, or other nearby body of water.

Conclusion

As proposed and conditioned, the project is consistent with all applicable codes and policies of the Zoning Ordinance and General Plan/LCP. Please see Exhibit "B" ("Findings") for a complete listing of findings and evidence related to the above discussion.

Staff Recommendation

- Determine that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.
- **APPROVAL** of Application Number **231176**, based on the attached findings and conditions.

Supplementary reports and information referred to in this report are on file and available for viewing at the Santa Cruz County Planning Division, and are hereby made a part of the administrative record for the proposed project.

The County Code and General Plan, as well as hearing agendas and additional information are available online at: www.sccoplanning.com

Report Prepared By: Randall Adams
Santa Cruz County Planning

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Exhibits

- A. Categorical Exemption (CEQA determination)
- B. Findings
- C. Conditions
- D. Project plans
- E. Assessor's, Location, Zoning and General Plan Maps
- F. Parcel information
- G. Comments & Correspondence

CALIFORNIA ENVIRONMENTAL QUALITY ACT

NOTICE OF EXEMPTION

The Santa Cruz County Planning Division has reviewed the project described below and has determined that it is exempt from the provisions of CEQA as specified in Sections 15061 - 15332 of CEQA for the reason(s) which have been specified in this document.

Application Number: 231176

Assessor Parcel Number: 063-141-23

Project Location: (No situs) Cathedral Park Drive, Bonny Doon

Project Description: Proposal to construct a single family dwelling, non-habitable accessory structure, and accessory dwelling unit.

Person or Agency Proposing Project: Toby & Korina Hargreaves

Contact Phone Number: 510-316-3301

- A. ☐ The proposed activity is not a project under CEQA Guidelines Section 15378.
B. ☐ The proposed activity is not subject to CEQA as specified under CEQA Guidelines Section 15060 (c).
C. ☐ **Ministerial Project** involving only the use of fixed standards or objective measurements without personal judgment.
D. ☐ **Statutory Exemption** other than a Ministerial Project (CEQA Guidelines Section 15260 to 15285).
E. ☒ **Categorical Exemption**

Specify type: Class 3 - New Construction or Conversion of Small Structures (Section 15303)

F. Reasons why the project is exempt:

Construction of a single family dwelling and accessory structure in an area designated for residential uses.

In addition, none of the conditions described in Section 15300.2 apply to this project.

Randall Adams, Project Planner

Date:_____

Coastal Development Permit Findings

1. That the project is a use allowed in one of the basic zone districts that are listed in LCP Section 13.10.170(D) as consistent with the LCP Land Use Plan designation of the site.

This finding can be made, in that the property is zoned RR (Rural Residential), a designation which allows residential uses. The proposed residential use is a principal permitted use within the zone district, and the zoning is consistent with the site's R-R (Rural Residential) General Plan designation.

2. That the project does not conflict with any existing easement or development restrictions such as public access, utility, or open space easements.

This finding can be made, in that no such easements or restrictions are known to encumber the project site.

3. That the project is consistent with the design criteria and special use standards and conditions of this chapter pursuant to SCCC 13.20.130 and 13.20.140 et seq.

This finding can be made, in that the development is consistent with the surrounding neighborhood in terms of architectural style; the site is surrounded by lots developed with rural residential homesites; the colors and materials will be natural in appearance and complementary to the site.

4. That the project conforms with the public access, recreation, and visitor-serving policies, standards and maps of the LCP Land Use Plan, including Chapter 2: Section 2.5 and Chapter 7.

This finding can be made, in that the project site is not identified as a priority acquisition site in the County Local Coastal Program. The ocean is located approximately three miles south of the subject property and public beach access is available at Bonny Doon State Beach.

5. That the project conforms to all other applicable standards of the certified LCP.

This finding can be made, in that the structure is sited and designed to be visually compatible and integrated with the character of the surrounding neighborhood. Additionally, residential uses are allowed uses in the RR (Rural Residential) zone district, as well as the General Plan and Local Coastal Program land use designation. Developed parcels in the area contain rural residential homesites with single family dwellings and accessory structures. Size and architectural styles vary in the area, and the design submitted is consistent with the pattern of development within the surrounding neighborhood.

6. If the project is located between the nearest through public road and the sea or the shoreline of any body of water located within the Coastal Zone, that the project conforms to the public access and public recreation policies of Chapter 3 of the Coastal Act.

This finding can be made, in that the project site is not located between the shoreline and the first public road. The ocean is located approximately three miles south of the subject property and public beach access is available at Bonny Doon State Beach. Consequently, the proposed project will not interfere with public access to the beach, ocean, or any nearby body of water. Further, the project site is not identified as a priority acquisition site in the County Local Coastal Program.

Development Permit Findings

1. That the proposed location of the project and the conditions under which it would be operated or maintained will not be detrimental to the health, safety, or welfare of persons residing or working in the neighborhood or the general public, and will not result in inefficient or wasteful use of energy, and will not be materially injurious to properties or improvements in the vicinity.

This finding can be made, in that the project is located in an area designated for residential uses. Construction will comply with prevailing building technology, the California Building Code, and the County Building ordinance to ensure the optimum in safety and the conservation of energy and resources.

2. That the proposed location of the project and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the zone district in which the site is located.

This finding can be made, in that the proposed location of the residence and accessory structure and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the RR (Rural Residential) zone district as the primary use of the property will be a single family residence that meets all current site standards for the zone district.

The use of the workshop will be limited to the occupants of dwellings on the subject property and not utilized for commercial uses in excess of what is allowed under the Home Occupation ordinance (SCCC 13.10.613) without a development permit.

3. That the proposed use is consistent with all elements of the County General Plan and with any specific plan which has been adopted for the area.

This finding can be made, in that the proposed residential use is consistent with the use and density requirements specified for the R-R (Rural Residential) land use designation in the County General Plan.

The proposed residence and accessory structure will not adversely impact the light, solar opportunities, air, and/or open space available to other structures or properties, and meets all current site and development standards for the zone district as specified in Policy 8.1.3 (Residential Site and Development Standards Ordinance), in that the residence and accessory structure will not adversely shade adjacent properties, and will meet current setbacks for the zone district.

The proposed residence and accessory structure will be properly proportioned to the parcel size and the character of the neighborhood as specified in General Plan Policy 8.6.1 (Maintaining a Relationship Between Structure and Parcel Sizes), in that the proposed residence and accessory structure will comply with the site standards for the RR zone district (including setbacks, lot coverage, height, and number of stories) and will result in a structure consistent with a design that could be approved on any similarly sized lot in the vicinity.

A specific plan has not been adopted for this portion of the County.

4. That the proposed use will not overload utilities, and will not generate more than the acceptable level of traffic on the streets in the vicinity.

This finding can be made, in that the proposed residence and accessory structure is to be constructed on an existing undeveloped lot. The expected level of traffic generated by the proposed project is anticipated to be only peak trip per day (1 peak trip per primary dwelling unit), such an increase will not adversely impact existing roads or intersections in the surrounding area.

5. That the proposed project will complement and harmonize with the existing and proposed land uses in the vicinity and will be compatible with the physical design aspects, land use intensities, and dwelling unit densities of the neighborhood.

This finding can be made, in that the proposed structure is located in a mixed neighborhood containing a variety of architectural styles, and the proposed residence and accessory structure is consistent with the land use intensity and density of the neighborhood.

6. The proposed development project is consistent with the Design Standards and Guidelines (sections 13.11.070 through 13.11.076), and any other applicable requirements of this chapter.

This finding can be made, in that the proposed residence and accessory structure will be of an appropriate scale and type of design that will enhance the aesthetic qualities of the surrounding properties and will not reduce or visually impact available open space in the surrounding area.

Conditions of Approval

Exhibit D: Project plans, prepared by Toby Hargreaves, revised 7/13/23.

- I. This permit authorizes the construction of a single family dwelling, non-habitable accessory structure, and accessory dwelling unit as indicated on the approved Exhibit "D" for this permit. This approval does not confer legal status on any existing structure(s) or existing use(s) on the subject property that are not specifically authorized by this permit. Prior to exercising any rights granted by this permit including, without limitation, any construction or site disturbance, the applicant/owner shall:
 - A. Sign, date, and return to Santa Cruz County Planning one copy of the approval to indicate acceptance and agreement with the conditions thereof.
 - B. Obtain a Building Permit from the Santa Cruz County Building Official.
 1. Any outstanding balance due to Santa Cruz County Planning must be paid prior to making a Building Permit application. Applications for Building Permits will not be accepted or processed while there is an outstanding balance due.
 - C. Obtain a Grading Permit from the Santa Cruz County Building Official.
- II. Prior to issuance of a Building Permit the applicant/owner shall:
 - A. Submit final architectural plans for review and approval by Santa Cruz County Planning. The final plans shall be in substantial compliance with the plans marked Exhibit "D" on file with Santa Cruz County Planning. Any changes from the approved Exhibit "D" for this development permit on the plans submitted for the Building Permit must be clearly called out and labeled by standard architectural methods to indicate such changes. Any changes that are not properly called out and labeled will not be authorized by any Building Permit that is issued for the proposed development. The final plans shall include the following additional information:
 1. A copy of the text of these conditions of approval incorporated into the full size sheets of the architectural plan set.
 2. One elevation shall indicate materials and colors as they were approved by this Discretionary Application. If specific materials and colors have not been approved with this Discretionary Application, in addition to showing the materials and colors on the elevation, the applicant shall supply a color and material sheet in 8 1/2" x 11" format for Santa Cruz County Planning review and approval.
 3. Grading, drainage, and erosion control plans.
 4. The building plans must include a roof plan and a surveyed contour map

of the ground surface, superimposed and extended to allow height measurement of all features. Spot elevations shall be provided at points on the structure that have the greatest difference between ground surface and the highest portion of the structure above. This requirement is in addition to the standard requirement of detailed elevations and cross-sections and the topography of the project site which clearly depict the total height of the proposed structure. Maximum height is 28 feet.

5. Details showing compliance with fire department requirements. If the proposed structure(s) are located within the State Responsibility Area (SRA) the requirements of the Wildland-Urban Interface code (WUI), California Building Code Chapter 7A, shall apply.
6. A Water Efficient Landscape Plan prepared in accordance with the requirements of the Water Efficient Landscape Ordinance (County Code Chapter 13.13) by a certified/licensed landscape architect, landscape contractor, civil engineer, landscape irrigation designer, landscape irrigation auditor, or water manager. WELO-exempt projects, residential projects of up to two units, or landscapes where at least 30% of the water use is provided by graywater, recycled water or captured rainwater may provide either a signed Water Efficient Landscape Checklist or a Water Efficient Landscape Plan.
 - a. Any landscape plan submitted to comply with SCCC Ch. 13.13 shall include a Water Efficient Landscape Plan Submittal Compliance Statement.
- B. Meet all requirements of the County Department of Public Works, Stormwater Management. Drainage fees will be assessed on the net increase in impervious area.
- C. Obtain an Environmental Health Clearance for this project from the County Department of Environmental Health Services.
- D. Meet all requirements of the Environmental Planning section of Santa Cruz County Planning.
- E. Meet all requirements and pay any applicable plan check fee of CalFire (County Fire Department).
- F. Submit 3 copies of plan review letters prepared and stamped by the project Geotechnical Engineer.
- G. Pay the current fees for Parks mitigation. Currently, these fees are \$4.51 per square foot for single family dwellings.
- H. Pay the current fees Child Care mitigation. Currently, these fees are \$0.74 per square foot for single family dwellings.

- I. Pay the current Affordable Housing Impact Fee. The fees are based on unit size and the current fee for a dwelling between 2,001-2,500 square feet is \$3 per square foot.
 - J. Provide required off-street parking for 4 cars. Parking spaces must be 8.5 feet wide by 18 feet long and must be located entirely outside vehicular rights-of way. Parking must be clearly designated on the plot plan.
 - K. Submit a written statement signed by an authorized representative of the school district in which the project is located confirming payment in full of all applicable developer fees and other requirements lawfully imposed by the school district.
- III. All construction shall be performed according to the approved plans for the Building Permit. Prior to final building inspection, the applicant/owner must meet the following conditions:
- A. All site improvements shown on the final approved Building Permit plans shall be installed.
 - B. All inspections required by the building permit shall be completed to the satisfaction of the County Building Official.
 - C. The project must comply with all recommendations of the approved soils reports.
 - D. A Landscape Installation Certificate prepared in accordance with the Water Efficient Landscape Ordinance (County Code Chapter 13.13) shall be provided.
 - E. Pursuant to Sections 16.40.040 and 16.42.080 of the County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this development, any artifact or other evidence of an historic archaeological resource or a Native American cultural site is discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the Sheriff-Coroner if the discovery contains human remains, or the Planning Director if the discovery contains no human remains. The procedures established in Sections 16.40.040 and 16.42.080, shall be observed.
- IV. Operational Conditions
- A. No commercial use of the workshop structure or outdoor areas on the subject property is authorized by this permit.
 - 1. The use of the workshop will be limited to the occupants of dwellings on site and any commercial use of the property will be subject to the limitations of the Home Occupation ordinance (County Code section 13.10.613) for properties without a separate Home Occupation approval.
 - B. In the event that future County inspections of the subject property disclose

noncompliance with any Conditions of this approval or any violation of the County Code, the owner shall pay to the County the full cost of such County inspections, including any follow-up inspections and/or necessary enforcement actions, up to and including permit revocation.

V. Indemnification

The applicant/owner shall indemnify, defend with counsel approved by the COUNTY, and hold harmless the COUNTY, its officers, employees, and agents from and against any claim (including reasonable attorney's fees, expert fees, and all other costs and fees of litigation), against the COUNTY, its officers, employees, and agents arising out of or in connection to this development approval or any subsequent amendment of this development approval which is requested by the applicant/owner, regardless of the COUNTY's passive negligence, but excepting such loss or damage which is caused by the sole active negligence or willful misconduct of the COUNTY. Should the COUNTY in its sole discretion find the applicant's/owner's legal counsel unacceptable, then the applicant/owner shall reimburse the COUNTY its costs of defense, including without limitation reasonable attorney's fees, expert fees, and all other costs and fees of litigation. The applicant/owner shall promptly pay any final judgment rendered against the COUNTY (and its officers, employees, and agents) covered by this indemnity obligation. It is expressly understood and agreed that the foregoing provisions are intended to be as broad and inclusive as is permitted by the law of the State of California and will survive termination of this development approval.

- A. The COUNTY shall promptly notify the applicant/owner of any claim, action, or proceeding against which the COUNTY seeks to be defended, indemnified, or held harmless. The COUNTY shall cooperate fully in such defense.
- B. Nothing contained herein shall prohibit the COUNTY from participating in the defense of any claim, action, or proceeding if both of the following occur:
 - 1. COUNTY bears its own attorney's fees and costs; and
 - 2. COUNTY defends the action in good faith.
- C. Settlement. The applicant/owner shall not be required to pay or perform any settlement unless such applicant/owner has approved the settlement. When representing the COUNTY, the applicant/owner shall not enter into any stipulation or settlement modifying or affecting the interpretation or validity of any of the terms or conditions of the development approval without the prior written consent of the COUNTY.
- D. Successors Bound. The "applicant/owner" shall include the applicant and/or the owner and the successor(s) in interest, transferee(s), and assign(s) of the applicant and/or the owner.

Application #: 231176
APN: 063-141-23
Owner: Hargreaves

Minor variations to this permit which do not affect the overall concept or density may be approved by the Planning Director at the request of the applicant or staff in accordance with Chapter 18.10 of the County Code.

Please note: This permit expires three years from the effective date listed below unless a building permit (or permits) is obtained for the primary structure described in the development permit (does not include demolition, temporary power pole or other site preparation permits, or accessory structures unless these are the primary subject of the development permit). Failure to exercise the building permit and to complete all of the construction under the building permit, resulting in the expiration of the building permit, will void the development permit, unless there are special circumstances as determined by the Planning Director.

Approval Date: _____

Effective Date: _____

Expiration Date: _____

Deputy Zoning Administrator

Appeals: Any property owner, or other person aggrieved, or any other person whose interests are adversely affected by any act or determination of the Zoning Administrator, may appeal the act or determination to the Planning Commission in accordance with chapter 18.10 of the Santa Cruz County Code.

HARGREAVES RESIDENCE, WORKSHOP AND ADU
121 CATHEDRAL PARK DRIVE
BONNY DOON, CA 95060
APN 063-141-23

CONTACTS

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CODE COMPLIANCE

ALL WORKSHALL BE PERFORMED IN
CONFORMANCE WITH ALL LOCAL, COUNTY,
STATE AND FEDERAL CODES, LAWS,
ORDINANCES, AND REGULATIONS AS FOLLOWS:
2019 CALIFORNIA RESIDENTIAL CODE
2019 CALIFORNIA FIRE CODE
2019 CALIFORNIA ELECTRICAL CODE
2019 CALIFORNIA PLUMBING CODE
2019 CALIFORNIA ENERGY CODE
CALIFORNIA HEALTH & SAFETY CODE
WILDLANDS URBAN INTERFACE REQUIREMENTS

2019 BUILDING CODE (CRC)
2019 CALIFORNIA GREEN BUILDING CODE
(CALGREEN)
2019 CALIFORNIA MECHANICAL CODE(CMC)
SANTA CRUZ COUNTY AMMENDMENTS

DEFERRED SUBMITTALS

FIRE SPRINKLERS
WATER TANK AND HYDRANT PLAN
SOLAR PHOTOVOLTAIC SYSTEM

PROJECT DATA
A DEVELOPMENT OF VACANT PARCEL INCLUDING SEPTIC SYSTEM, DRIVEWAY,
DRAINAGE, A NEW SINGLE FAMILY DWELLING AND WORKSHOP WITH SECOND STORY ADU

OCCUPANCY TYPE: R-3, U

CONSTRUCTION TYPE: V-B, SPRINKLERED

SRA ZONE: HIGH
LOT SIZE: 2.29 ACRES (99,752 SQ FT)
PERCENTAGE OF LOT COVERAGE WITH PROPOSED STRUCTURES:
4,693/99,752 = 4.7%
RESIDENCE HABITABLE AREA: 2,295 SQ FT
COVERED PORCHES AREA: 333 SQ FT
RESIDENCE NON HABITABLE ATTIC AREA: 805 SQ FT

WORKSHOP NON HABITABLE AREA: 1,650 SQ FT
WORKSHOP COVERED PORCH AREA: 361 SQ FT
SECOND STORY ADU AREA: 437 SQ FT

PROPERTY LINE SETBACKS:
FRONT 40 FEET, SIDES AND BACK 20 FEET

SHEET INDEX

ARCHITECTURAL
A.0 COVER PAGE

A.0.1 PROPERTY SITE PLAN, SETBACKS, AND FENCING
A.0.2 FENCING ELEVATIONS AND SECTIONS

A.01 RESIDENCE ELEVATIONS
A.02 RESIDENCE SECTIONS
A.03 RESIDENCE FLOOR PLAN
A.04 RESIDENCE ELECTRICAL/MECHANICAL
A.05 RESIDENCE SPEC SHEETS
A.06 PERSPECTIVES, TIMBERFRAME ISOMETRIC

A.07 WORKSHOP/ADU ELEVATIONS
A.08 WORKSHOP/ADU SECTIONS
A.09 WORKSHOP/ADU FLOOR PLAN
A.10 WORKSHOP/ADU ELECTRICAL/MECHANICAL/SPECS
A.11 WORKSHOP/ADU PERSPECTIVES, TIMBERFRAME ISOMETRIC

A.12 COLORS, TRIM, EXTERIOR COVERINGS

STRUCTURAL
S.01 RESIDENCE FOUNDATION PLAN
S.02 RESIDENCE CEILING AND ROOF FRAMING PLANS
S.03 RESIDENCE TIMBERFRAME DETAILS
S.04 RESIDENCE FRAMING DETAILS

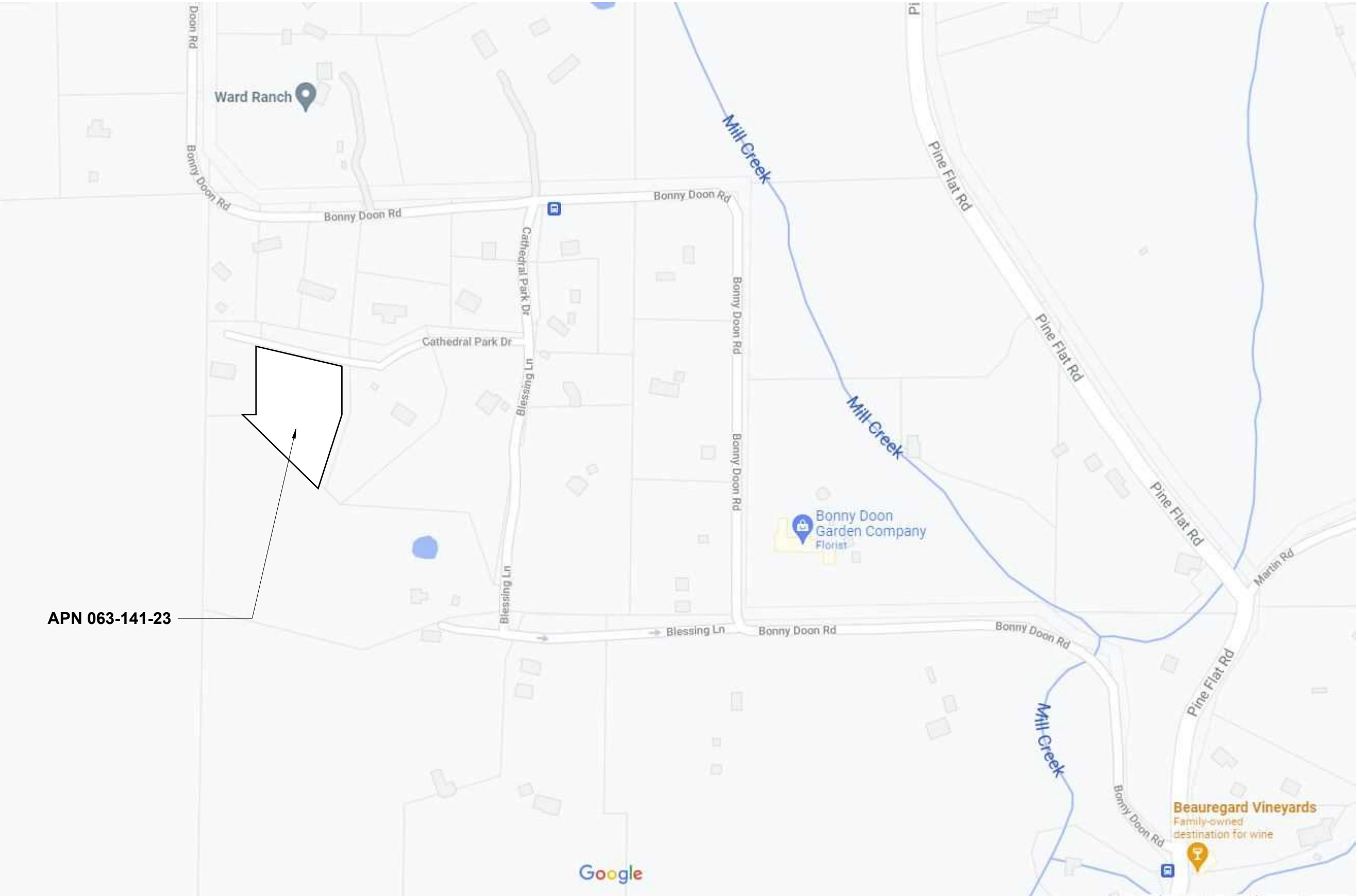
S.05 WORKSHOP/ADU FOUNDATION AND FLOOR PLAN
S.06 WORKSHOP/ADU FOUNDATION DETAILS
S.07 WORKSHOP/ADU ROOF FRAMING PLAN
S.08 WORKSHOP/ADU TRUSS AND FRAMING DETAILS
S.09 WORKSHOP/ADU FRAMING DETAILS

SD1 GENERIC CONCRETE DETAILS
SD2 GENERIC CONCRETE DETAILS
SD3 RESIDENTIAL NAILING SCHEDULE
SD4 GENERIC WOOD DETAILS
SD5 GENERIC CONCRETE DETAILS
SD6 GENERIC STAIR AND GUARDRAIL DETAILS
SD7 SHEAR TRANSFER DETAILS

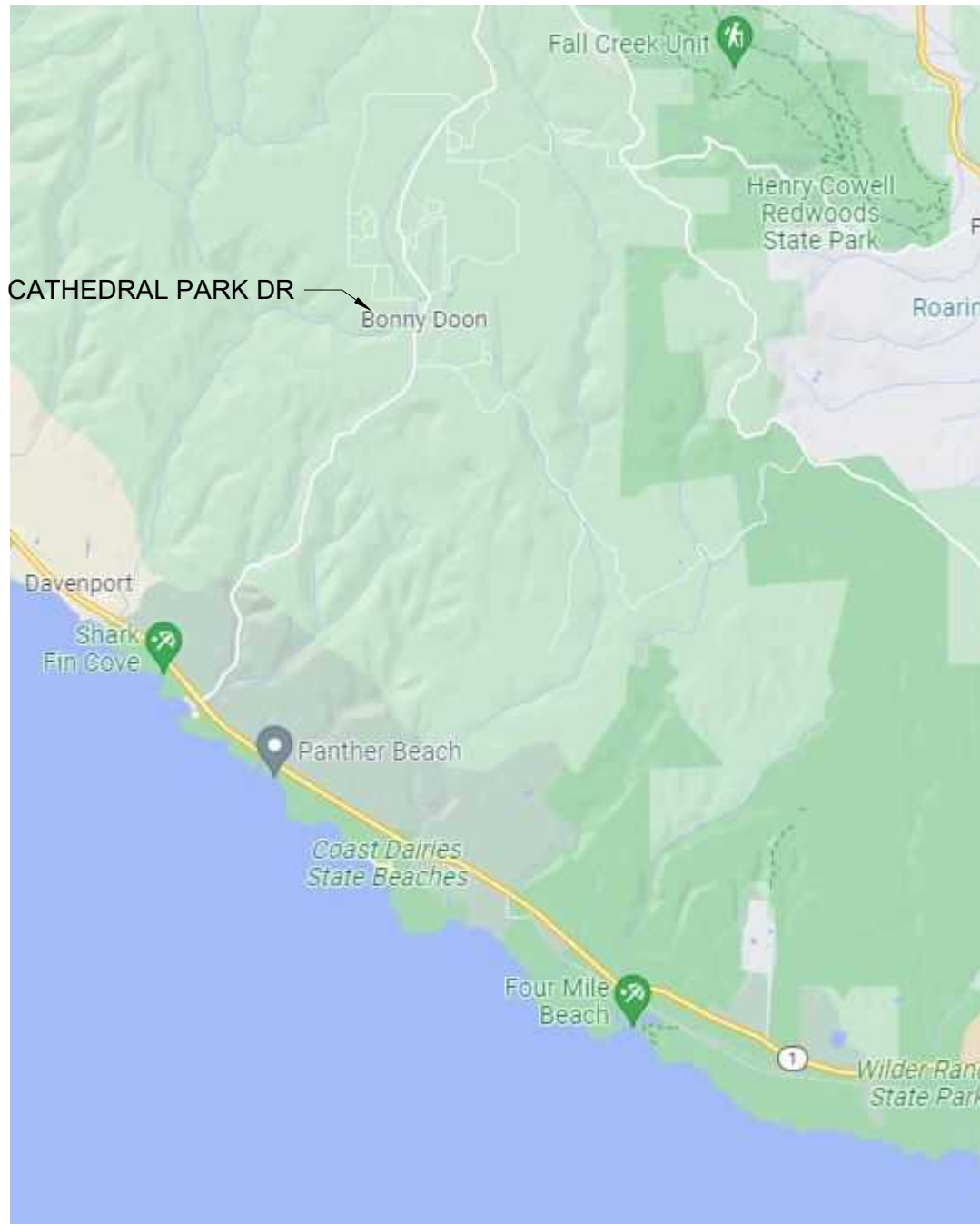
GRADING AND DRAINAGE
C1 NOTES, EARTHWORK ESTIMATE, DRAINAGE ANALYSIS
C2 EXISTING SITE SUVEY
C3 GRADING AND DRAINAGE PLAN
C4 GRADING AND DRAINAGE PLAN
C5 SITE CROSS SECTIONS
C6 DRIVEWAY PROFILE, SECTION
C7 EROSION CONTROL AND STORMWATER POLLUTION PREVENTION PLAN
C8 EROSION CONTROL AND STORMWATER POLLUTION PREVENTION PLAN

ENERGY
EN1 RESIDENCE ENERGY COMPLIANCE
EN2 RESIDENCE ENERGY COMPLIANCE
EN3 WORKSHOP/ADU ENEGRY COMPLIANCE
EN4 WORKSHOP/ADU ENEGRY COMPLIANCE

SEPTIC SYSTEM
ONSITE WATER STREATMENT SYSTEM PLAN



1 VICINITY MAP
A00



2 VICINITY MAP
A00

SPECIAL INSPECTIONS

SEE SUPPLEMENTAL PAGE PLG-240 FOR FURTHER DETAIL

STRUCTURAL ENGINEERING

1. REINFORCING STEEL (CONCRETE 1)
2. ANCHORS CAST IN CONCRETE (CONCRETE 3)
3. ANCHORS INSTALLED IN POST-HARDENED CONCRETE (CONCRETE 4b)
4. VERIFY USE OF REQUIRED DESIGN MIX (CONCRETE 5)
5. MAINTENANCE OF SPECIFIED CURING TEMPERATURES AND TECHNIQUES (CONCRETE 8)

SOILS ENGINEERING

1. VERIFY MATERIALS BELOW SHALLOW FOOTINGS ARE ADEQUATE TO ACHIEVE DESIGNED BEARING CAPACITY (SOILS 1)
2. VERIFY EXCAVATIONS HAVE REACHED PROPER DEPTH AND HAVE REACHED PROPER MATERIAL (SOILS 2)
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS (SOILS 3)
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL (SOILS 4)
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY. (SOILS 5)

ENERGY COMPLIANCE

FIELD VERIFICATION IS REQUIRED FOR THE ITEMS LISTED ON THE "HERS FEATURE SUMMARY" ON PAGE 3 OF 11 OF THE CF1R-PRF-01E. [CA ADMINISTRATIVE CODE 10-103(b)3]

TOBY AND KORI HARGREAVES
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510-316-3301

HARGREAVES RESIDENCE, WORKSHOP AND ADU
PROJECT ADDRESS
121 CATHEDRAL PARK DRIVE, BONNY DOON, CA 95060
APN: 063-141-23

DESIGNER/CONTRACTOR
TOBY HARGREAVES
510-316-3301

REVISION
1 2/16/23
2 4/25/23
3 6/7/23
4 7/16/23

DRAWN BY: TOBY HARGREAVES

ISSUE
7/27/2022

EXHIBIT D

A.0

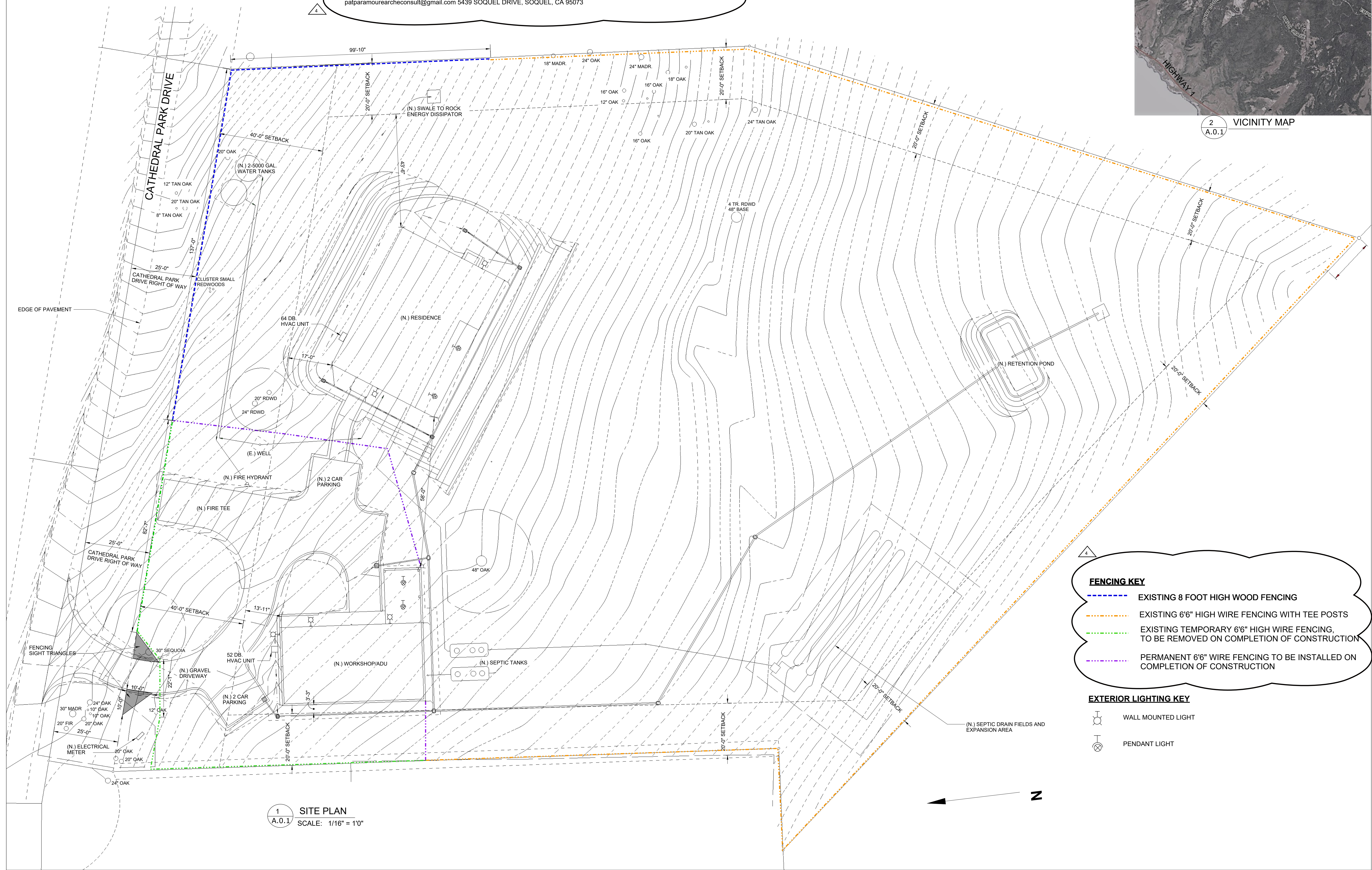
SITE PLAN NOTES
1. SEE CIVIL PAGES C3, C4 FOR TREES TO BE REMOVED AND TREE PROTECTION MEASURES AS PER ARBORIST REPORT.
2. SEE CIVIL PAGES FOR ALL EARTHWORK AND DRAINAGE NOTES, DETAILS AND CALCULATIONS, AND BUILDING ELEVATIONS.

ARCHAEOLOGY NOTES
1. PURSUANT TO SECTIONS 16.40.040 AND 16.42.080 OF THE COUNTY CODE, IF AT ANY TIME DURING SITE PREPARATION, EXCAVATION, OR OTHER GROUND DISTURBANCE ASSOCIATED WITH THIS DEVELOPMENT, ANY ARTIFACT OR OTHER EVIDENCE OF AN HISTORIC ARCHAEOLOGICAL RESOURCE OR A NATIVE AMERICAN CULTURAL SITE IS DISCOVERED, THE RESPONSIBLE PERSONS SHALL IMMEDIATELY CEASE AND DESIST FROM ALL FURTHER SITE EXCAVATION AND NOTIFY THE SHERIFF-CORONER IF THE DISCOVERY CONTAINS HUMAN REMAINS, OR THE PLANNING DIRECTOR IF THE DISCOVERY CONTAINS NO HUMAN REMAINS. THE PROCEDURES ESTABLISHED IN SECTION 16.40.040 AND 16.42.080 SHALL BE OBSERVED.
2. ALL CONSTRUCTION MUST COMPLY WITH THE RECOMMENDATIONS OF THE ARCHAEOLOGICAL REPORT BY PATRICIA PARAMOURE, ARCHAEOLOGICAL CONSULTANT, DATED 12/29/22
3. ARCHAEOLOGIST OF RECORD: PATRICIA PARAMOURE, ARCHAEOLOGICAL CONSULTANT, (408)891-9678, patparamourearcheconsult@gmail.com 5439 SOQUEL DRIVE, SOQUEL, CA 95073

121 CATHEDRAL PARK DRIVE
NEAREST CROSS STREET IS
BONNY DOON ROAD



2
A.0.1 VICINITY MAP



FENCING KEY

- EXISTING 8 FOOT HIGH WOOD FENCING
- EXISTING 6'6" HIGH WIRE FENCING WITH TEE POSTS
- EXISTING TEMPORARY 6'6" HIGH WIRE FENCING, TO BE REMOVED ON COMPLETION OF CONSTRUCTION
- PERMANENT 6'6" WIRE FENCING TO BE INSTALLED ON COMPLETION OF CONSTRUCTION

EXTERIOR LIGHTING KEY

- WALL MOUNTED LIGHT
- PENDANT LIGHT

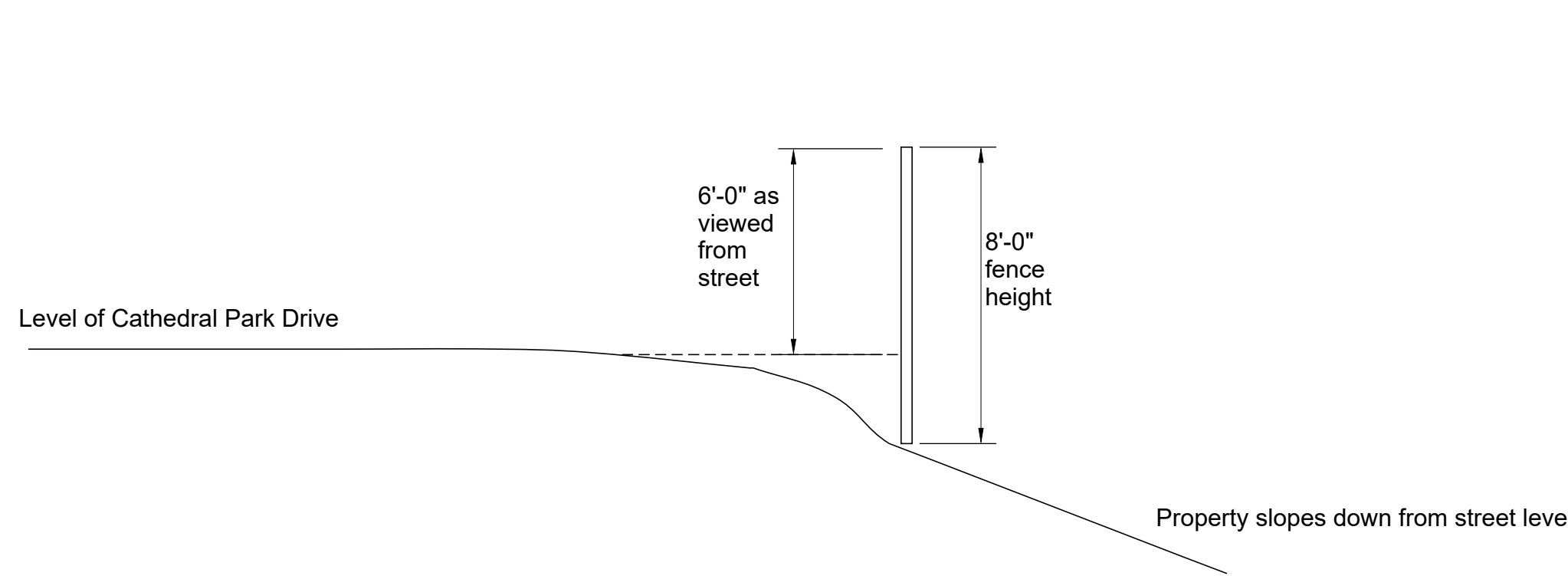
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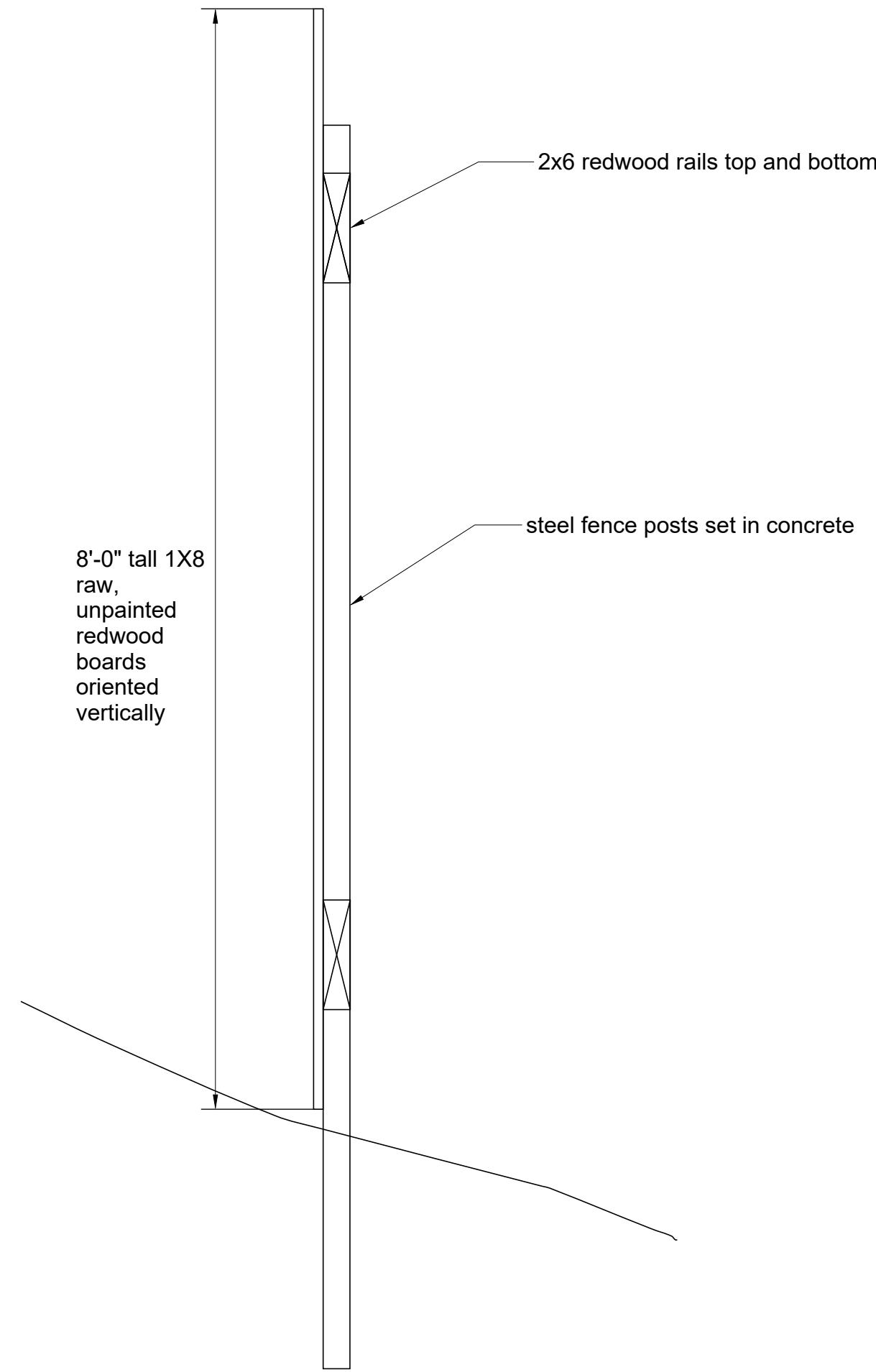
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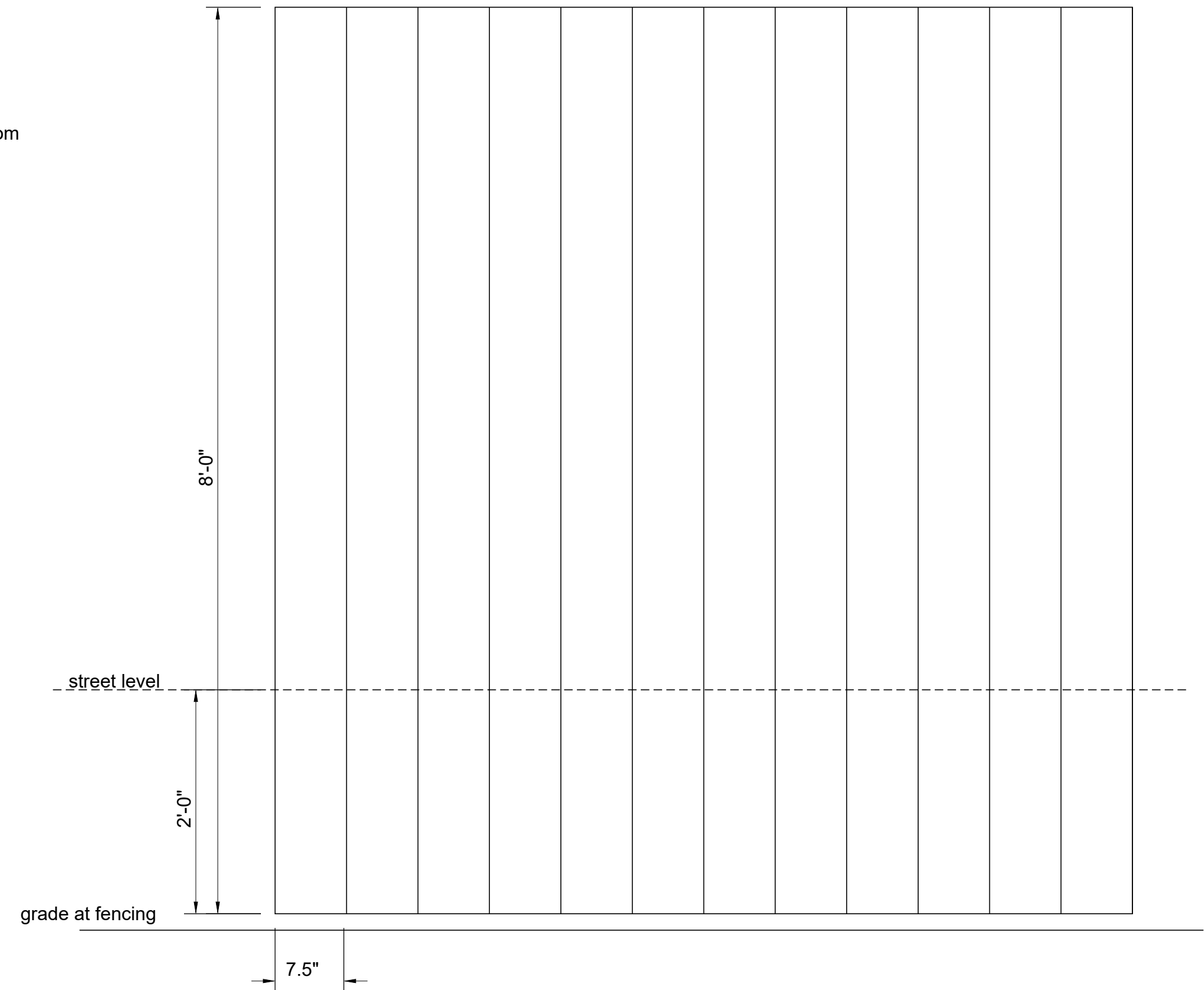
Property Site Plan,
Setbacks, and Fencing



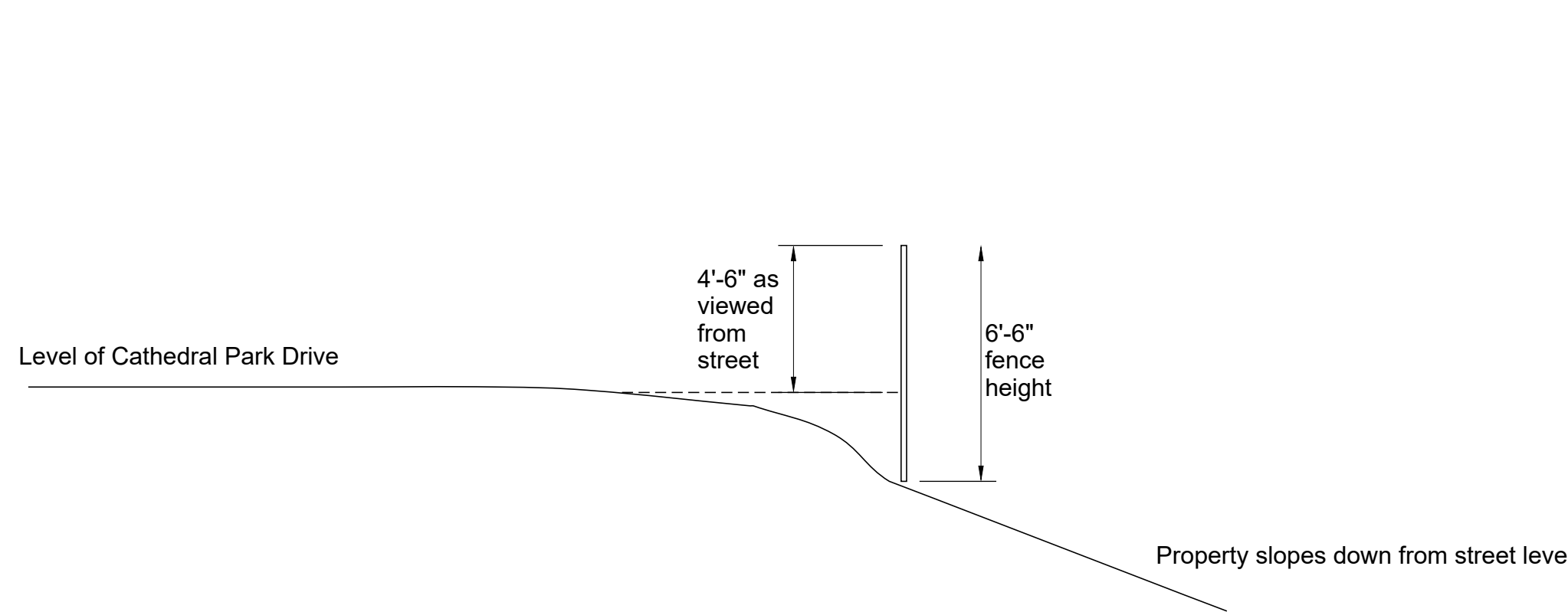
1
A.O.2
WOOD FENCE CROSS
SECTION AT FRONT YARD
SCALE: 1/4" = 1'0"



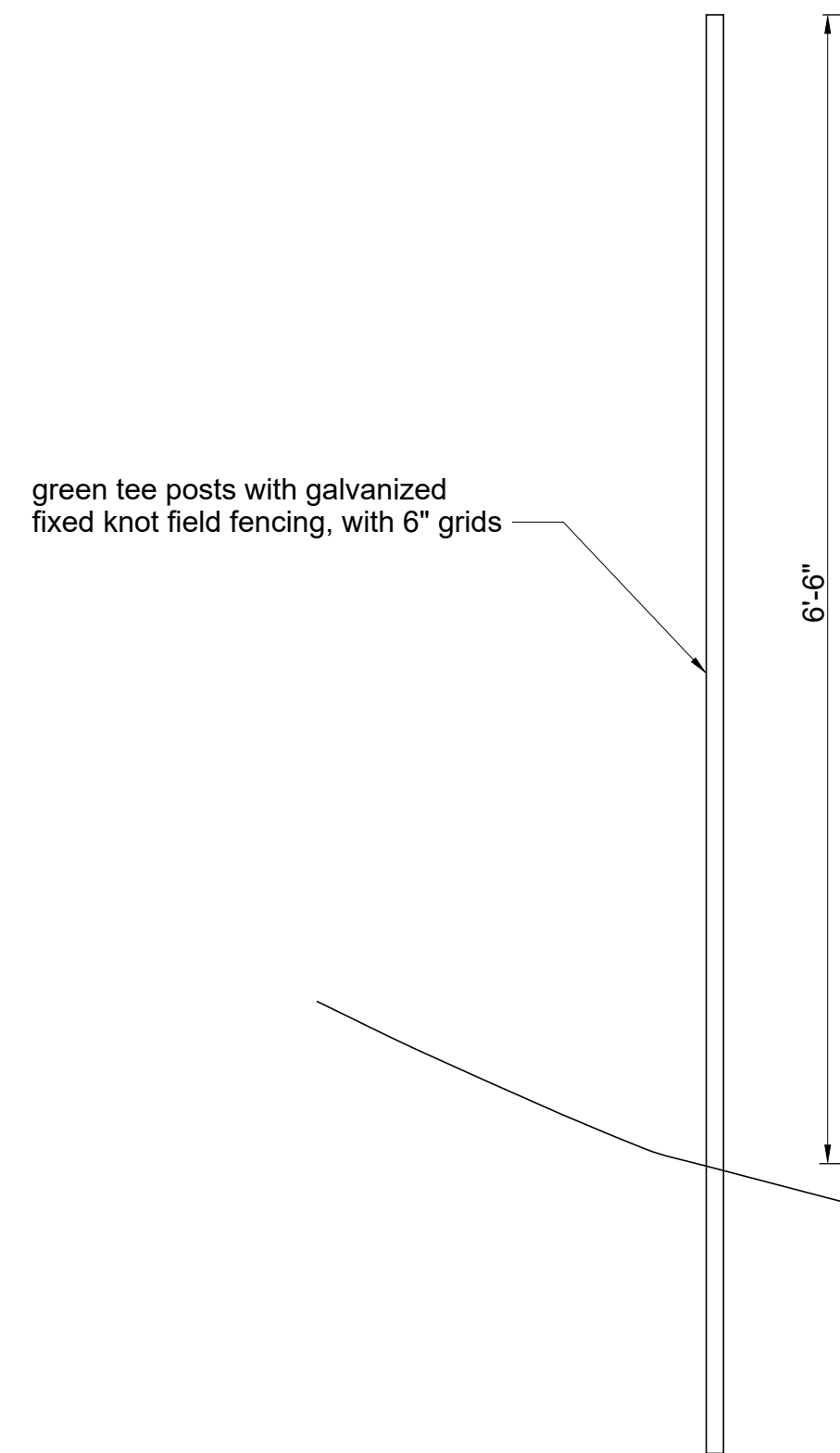
2
A.O.2
WOOD FENCE DETAIL
SCALE: 1" = 1'0"



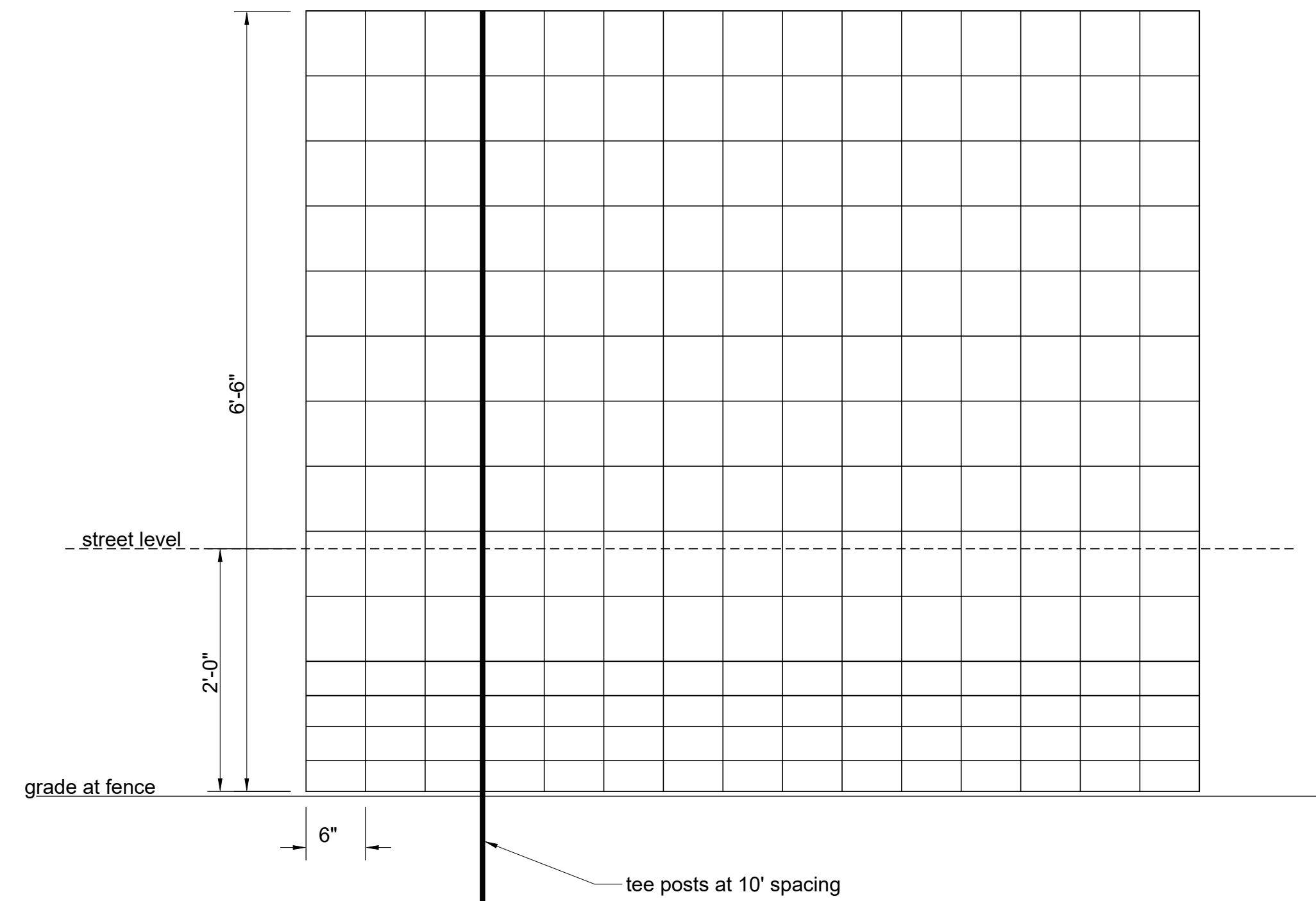
3
A.O.2
WOOD FENCE ELEVATION
SCALE: 1" = 1'0"



4
A.O.2
WIRE FENCE CROSS SECTION
AT FRONT YARD
SCALE: 1/4" = 1'0"



5
A.O.2
WIRE FENCE DETAIL
SCALE: 1" = 1'0"



6
A.O.2
WIRE FENCE ELEVATION
SCALE: 1" = 1'0"

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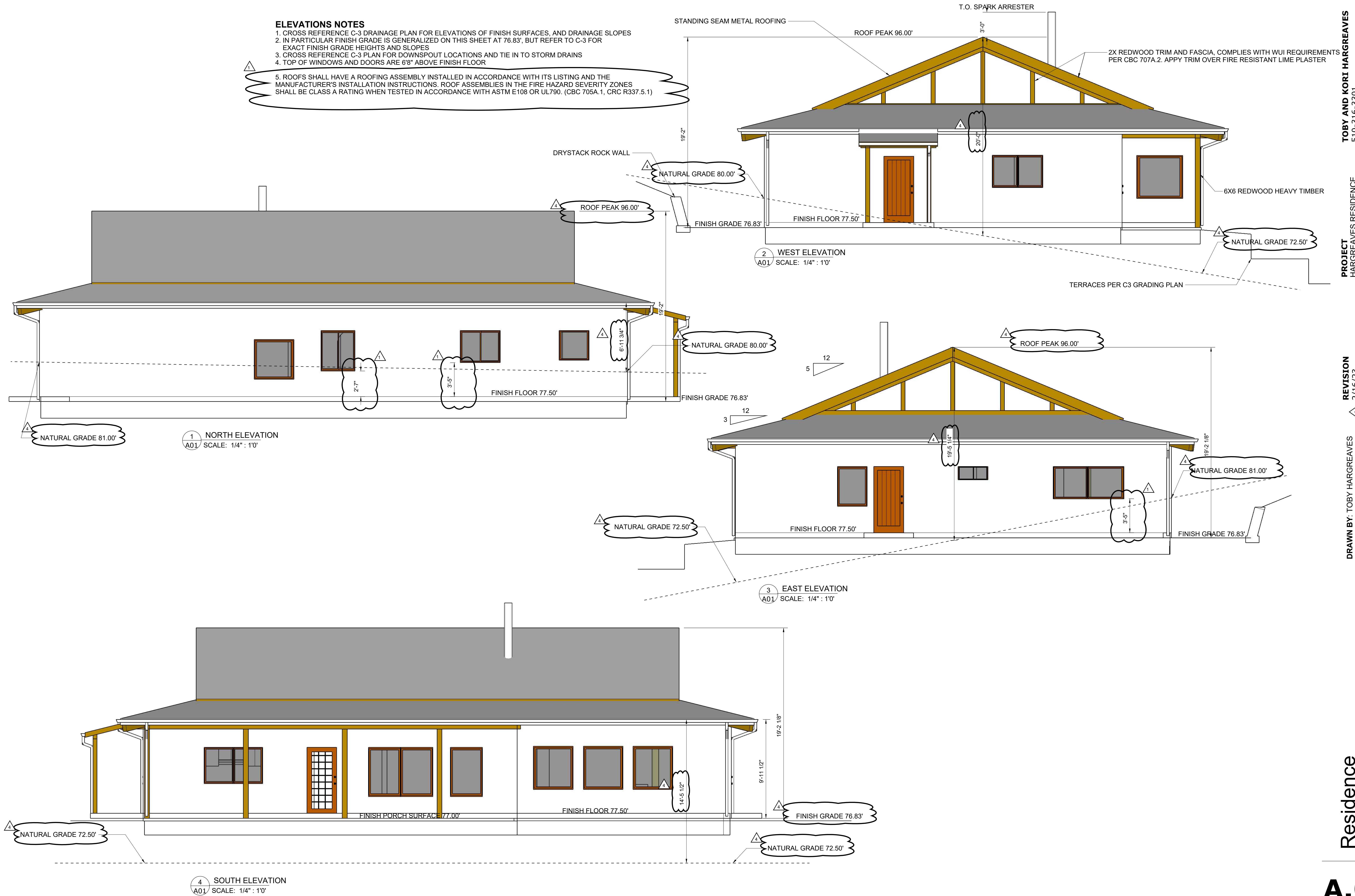
Fencing Elevations
and Sections

A.O.2

ELEVATIONS NOTES

1. CROSS REFERENCE C-3 DRAINAGE PLAN FOR ELEVATIONS OF FINISH SURFACES, AND DRAINAGE SLOPES
2. IN PARTICULAR FINISH GRADE IS GENERALIZED ON THIS SHEET AT 76.83', BUT REFER TO C-3 FOR EXACT FINISH GRADE HEIGHTS AND SLOPES
3. CROSS REFERENCE C-3 PLAN FOR DOWNSPOUT LOCATIONS AND TIE IN TO STORM DRAINS
4. TOP OF WINDOWS AND DOORS ARE 6" ABOVE FINISH FLOOR

5. ROOFS SHALL HAVE A ROOFING ASSEMBLY INSTALLED IN ACCORDANCE WITH ITS LISTING AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. ROOF ASSEMBLIES IN THE FIRE HAZARD SEVERITY ZONES SHALL BE CLASS A RATING WHEN TESTED IN ACCORDANCE WITH ASTM E108 OR UL790. (CBC 705A.1, CRC R337.5.1)



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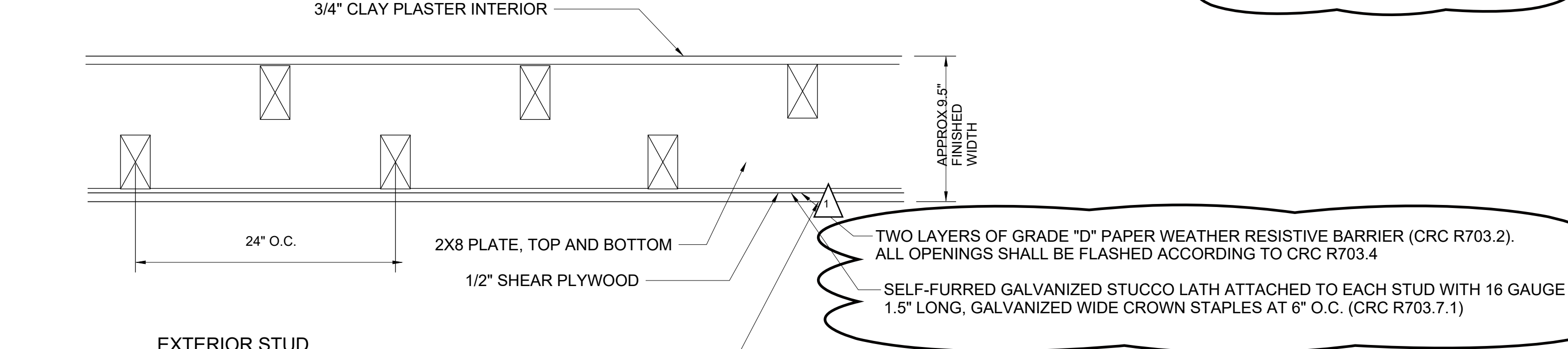
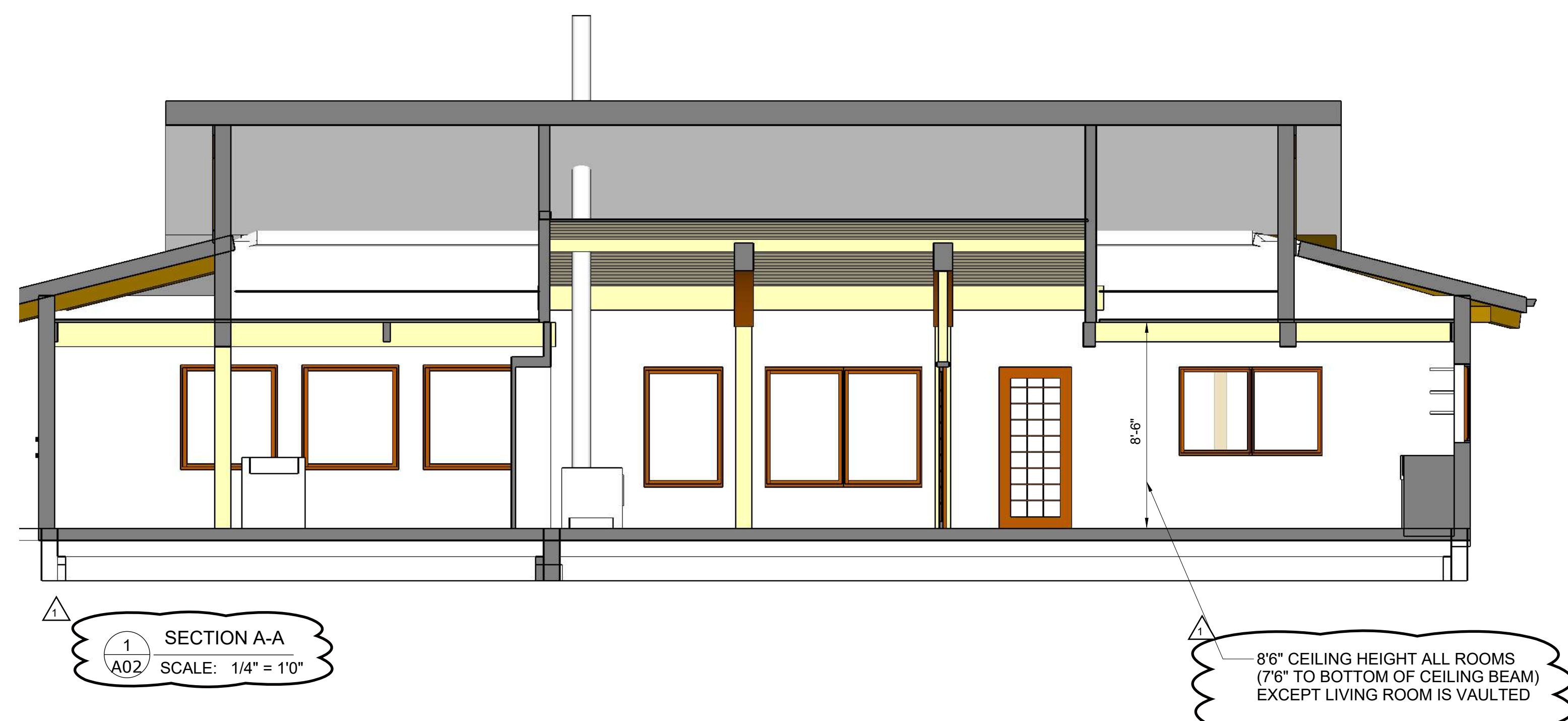
PROJECT
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**Residence
Elevations**

A.01



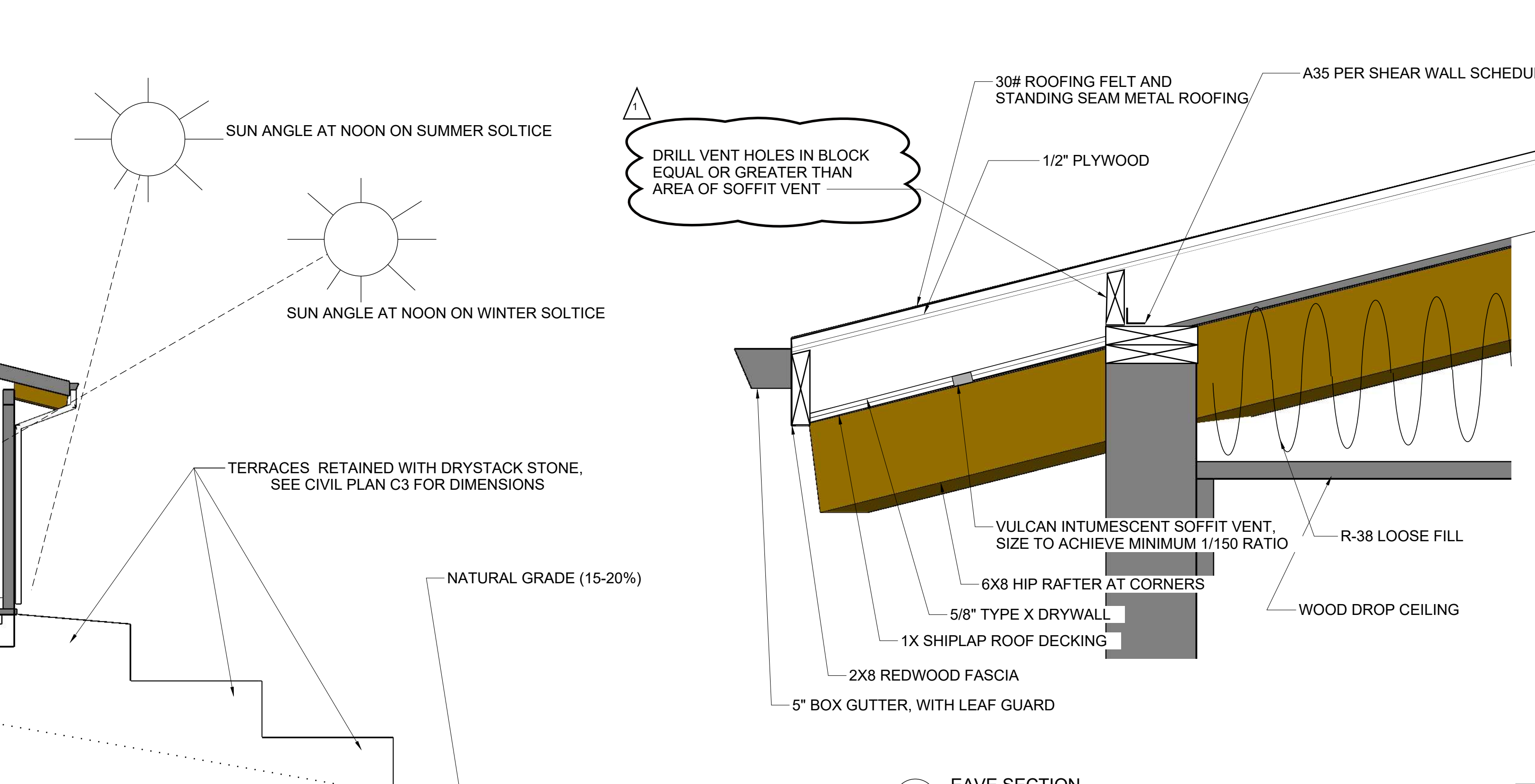
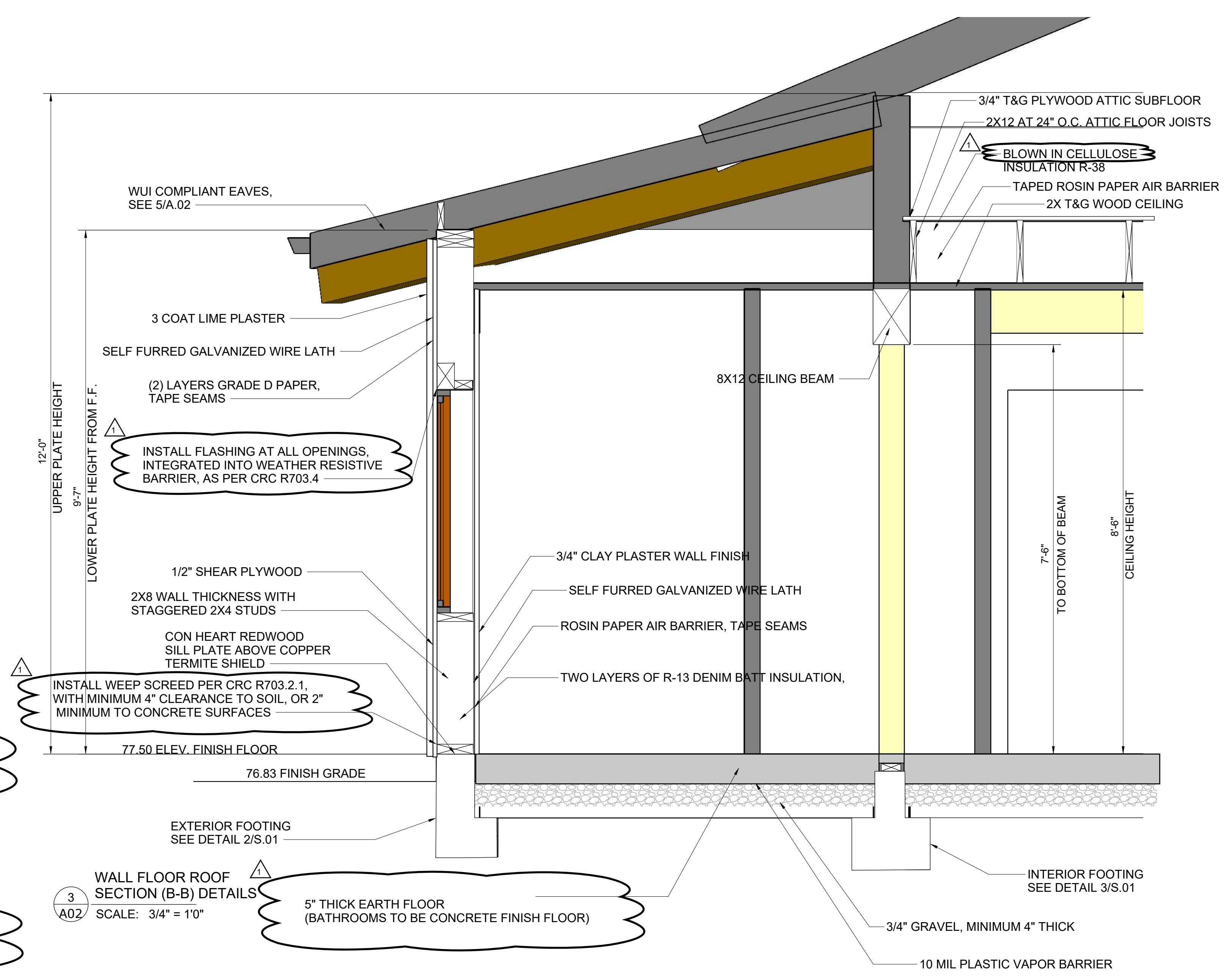
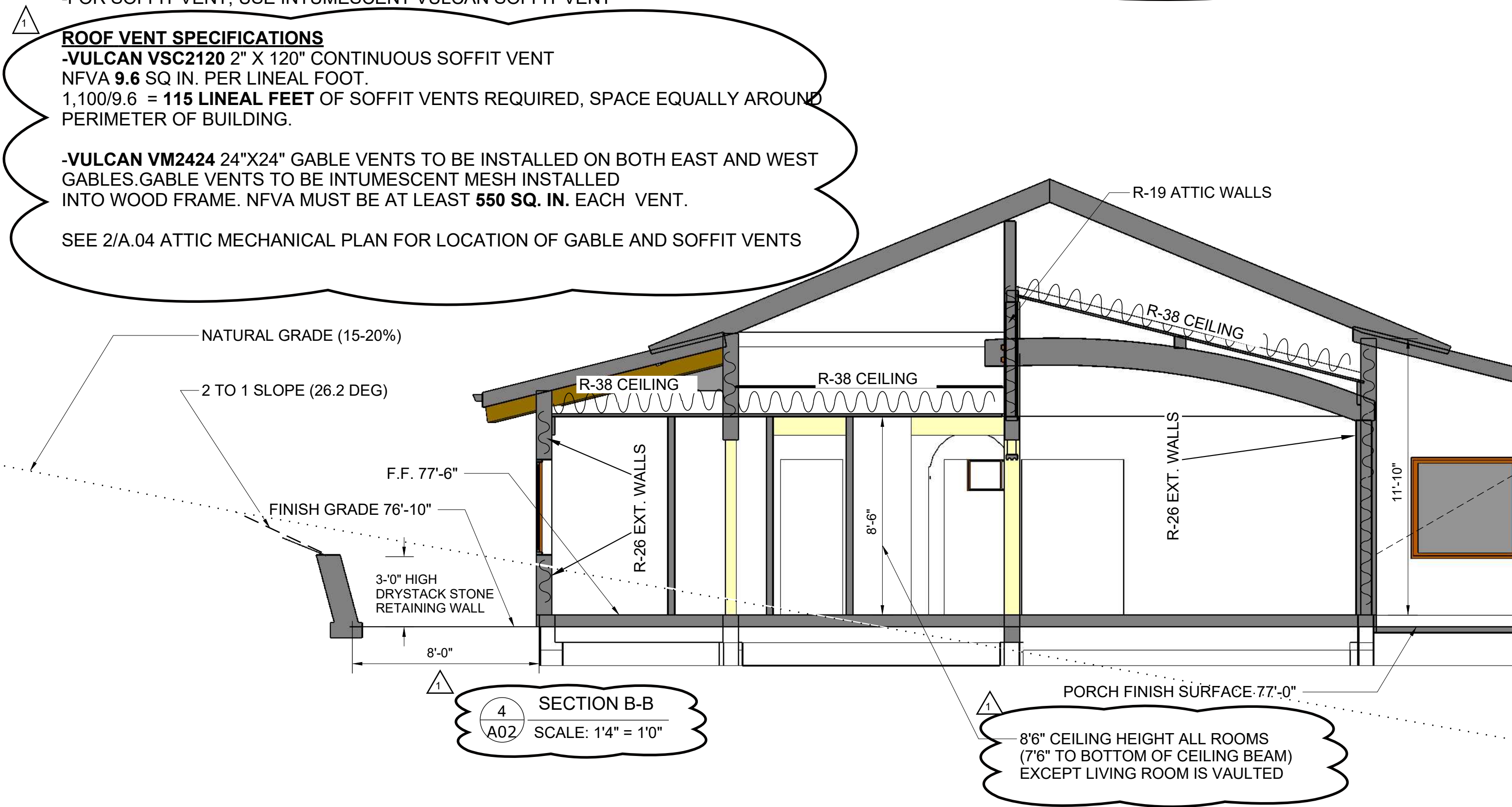
1
A02
SECTION A-A
SCALE: 1/4" = 1'0"

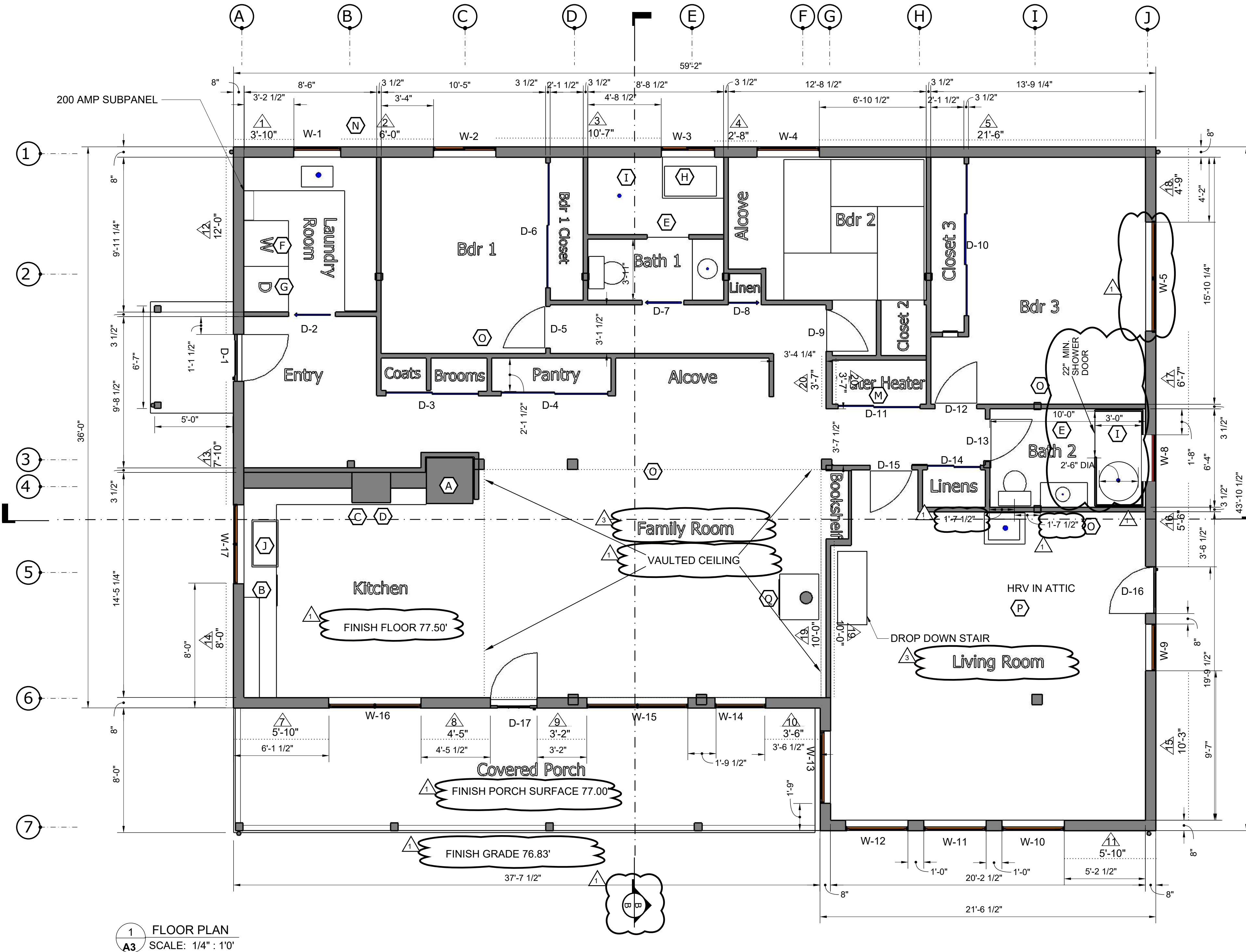
2
A02
EXTERIOR STUD WALL TOP VIEW
SCALE: 1 1/2" = 1'0"

CALCULATIONS FOR ROOF VENTING REQUIREMENTS
 VENTED ROOF SQUARE FOOTAGE = 2,295 SQ FT.
 TIMES 1/150 VENTING RATIO = 15.3 SQ FT
 TIMES 144 CONVERT TO SQUARE INCHES = 2,203 SQ IN.
 DIVIDE BY 2 = 1,101 SQUARE INCHES SOFFIT NET FREE VENT AREA (NFVA)
1,101 SQUARE INCHES GABLE NET FREE VENT AREA (NFVA)
 -FOR SOFFIT VENT, USE INTUMESCENT VULCAN SOFFIT VENT

ROOF VENT SPECIFICATIONS
-VULCAN VSC2120 2" X 120" CONTINUOUS SOFFIT VENT
 NFVA **9.6 SQ IN.** PER LINEAL FOOT.
 1,100/9.6 = **115 LINEAL FEET** OF SOFFIT VENTS REQUIRED, SPACE EQUALLY AROUND PERIMETER OF BUILDING.
-VULCAN VM2424 24"X24" GABLE VENTS TO BE INSTALLED ON BOTH EAST AND WEST GABLES. GABLE VENTS TO BE INTUMESCENT MESH INSTALLED INTO WOOD FRAME. NFVA MUST BE AT LEAST **550 SQ. IN.** EACH VENT.
 SEE 2/A.04 ATTIC MECHANICAL PLAN FOR LOCATION OF GABLE AND SOFFIT VENTS

SECTION NOTES
 1. SEE GRADING PLAN C3 FOR FINISH GRADING ELEVATIONS, SLOPE, AND DRAINAGE
 2. COVERED PORCH FLOOR SURFACE AND LANDINGS FOR EXTERIOR DOORS TO BE CONCRETE SLAB
 3. THE BUILDER SHALL FOLLOW ALL GUIDELINES AND PROCEDURES AS LAID OUT IN THE BOOK "EARTHEN FLOORS: A MODERN APPROACH TO AN ANCIENT PRACTICE" BY SUKITA REAY CRIMMEL AND JAMES THOMPSON.





1 FLOOR PLAN
A3 SCALE: 1/4" : 1'0"

SHEAR WALL SCHEDULE

SHEAR WALL DESIGN PARAMETERS																		
WALL SPECIFICATIONS										TOP PLATE ATTACHMENT				SILL ATTACHMENT				
WALL PANEL LABEL	SHEAR PANEL LABEL	SHEAR IN WALL		LC	Abutting Panel Members and Sill Plates	Studs			TRANSFER @ PANEL ONLY				TRANSFER @ PANEL ONLY					
		Material and Nailing	LENGTH			UC	KIPS/FT	Size	Material	Spacing	SIMPSON SDWC16400	8d	16d	AS3	16d	AS3	AB	
																	5/8" IN.	
												23S	116	135	450	135	450	800
LINE 1 WP1	S1 15/32 10d@6	3.833	0.630	0.182	13	2"x	2X4	STUD	24			6	6	24	6	6	24	48
LINE 1 WP2	S1 15/32 10d@6	6.000	0.670	0.228	13	2"x	2X4	STUD	24			6	6	23	6	23	42	42
LINE 1 WP3	S1 15/32 10d@6	10.563	0.665	0.233	13	2"x	2X4	STUD	24			5	6	23	6	23	41	41
LINE 1 WP4	S1 15/32 10d@6	2.700	0.595	0.121	13	2"x	2X4	STUD	24			6	6	24	6	24	48	48
LINE 1 WP5	S1 15/32 10d@6	21.500	0.635	0.216	12	2"x	2X4	STUD	24			6	6	24	6	24	44	44
LINE 3 WP1	S1 15/32 10d@6	8.250	0.258	0.089	20	2"x	2X4	STUD	24			6	6	24	6	24	48	48
LINE 6 WP1	S1 15/32 10d@4	6.250	0.740	0.378	13	3"x	2X4	STUD	24			3	4	14	4	14	25	25
LINE 6 WP2	S1 15/32 10d@4	4.416	0.705	0.353	12	3"x	2X4	STUD	24			3	4	15	4	15	27	27
LINE 6 WP3	S1 15/32 10d@4	3.333	0.882	0.333	13	2"x	2X4	STUD	24			4	4	16	4	16	28	28
LINE 6 WP4	S1 15/32 10d@4	3.500	0.963	0.362	12	3"x	2X4	STUD	24			3	4	14	4	14	25	25
LINE 7 WP1	S1 15/32 10d@6	5.833	0.257	0.087	12	2"x	2X4	STUD	24			6	6	24	6	24	48	48
LINE A WP1	S1 15/32 10d@6	12.000	0.609	0.207	13	2"x	2X4	STUD	24			6	6	24	6	24	46	46
LINE A WP2	S1 15/32 10d@6	7.833	0.594	0.202	13	2"x	2X4	STUD	24			6	6	24	6	24	47	47
LINE A WP3	S1 15/32 10d@6	8.000	0.619	0.210	12	2"x	2X4	STUD	24			6	6	24	6	24	45	45
LINE J WP1	S1 15/32 10d@6	10.250	0.425	0.145	13	2"x	2X4	STUD	24			6	6	24	6	24	48	48
LINE J WP2	S1 15/32 10d@6	5.500	0.406	0.138	12	2"x	2X4	STUD	24			6	6	24	6	24	48	48
LINE J WP3	S1 15/32 10d@6	6.583	0.424	0.144	13	2"x	2X4	STUD	24			6	6	24	6	24	48	48
LINE J WP4	S1 15/32 10d@6	4.750	0.413	0.140	12	2"x	2X4	STUD	24			6	6	24	6	24	48	48
LINE G WP1	S1 12/15/32 10d@4	10.000	0.770	0.785	12	3"x	2X4	STUD	24	3			2	6	2	6	12	12
LINE G WP2	S1 12/15/32 10d@4	3.583	0.556	0.454	13	3"x	2X4	STUD	24		3	3	11	3	11	3	21	21

HOLD DOWN SCHEDULE

WALL PANEL LABEL	HOLDOWN LABEL	Vert. Chords	ATTACHMENT 16d o/c [IN]	TENSION CHECK	TIE-DOWN
					KIPS
LINE 1 WP1	HDU2-SDS2.5 DF-SP	2-2X8	6.00	0.492	1.512
LINE 1 WP2	HDU2-SDS2.5 DF-SP	2-2X8	6.00	0.612	1.883
LINE 1 WP3	HDU2-SDS2.5 DF-SP	2-2X8	6.00	0.608	1.868
LINE 1 WP4	HDU2-SDS2.5 DF-SP	2-2X8	6.00	0.319	0.988
LINE 1 WP5	HDU2-SDS2.5 DF-SP	2-2X8	6.00	0.508	1.593
LINE 3 WP1	Not Req'd	2-2X8	#VALUE!	NC	NC
LINE 6 WP1	HDU2-SDS2.5 DF-SP	2-2X8	6.00	0.476	1.463
LINE 6 WP2	HDU2-SDS2.5 DF-SP	2-2X8	6.00	0.327	1.006
LINE 6 WP3	HDU2-SDS2.5 DF-SP	2-2X8	6.00	0.209	0.642
LINE 6 WP4	HDU2-SDS2.5 DF-SP	2-2X8	6.00	0.416	1.28
LINE 7 WP1	HDU2-SDS2.5 DF-SP	2-2X8	6.00	0.166	0.510
LINE A WP1	HDU2-SDS2.5 DF-SP	2-2X8	6.00	0.441	1.357
LINE A WP2	HDU2-SDS2.5 DF-SP	2-2X8	6.00	0.450	1.385
LINE A WP3	HDU2-SDS2.5 DF-SP	2-2X8	6.00	0.480	1.477
LINE J WP1	HDU2-SDS2.5 DF-SP	2-2X8	6.00	0.357	1.098
LINE J WP2	HDU2-SDS2.5 DF-SP	2-2X8	6.00	0.357	1.097
LINE J WP3	HDU2-SDS2.5 DF-SP	2-2X8	6.00	0.361	1.111
LINE J WP4	HDU2-SDS2.5 DF-SP	2-2X8	6.00	0.354	1.087
LINE G WP1	HDU8-SDS2.5 3.5 DF-SP	4X8	4.00	0.973	6.781
LINE G WP2	HDU4-SDS2.5 DF-SP	2-2X8	4.00	0.833	3.804

APPLIANCES/FIXTURES

TYPE	SIZE (W X H)	NOTES
REFRIGERATOR		
DISHWASHER		
36" RANGE/OVEN		ELECTRIC 220V
36" RANGE HOOD		
BATH VENT FAN/ LIGHT		
WASHER		
DRYER		ELECTRIC 220V
SOAKING TUB		WOOD
WALK IN SHOWER		
GARBAGE DISPOSAL		

DOOR SCHEDULE

LABEL	SIZE (W X H)	TYPE
D-1	3-0 X 6-8	WOOD EXTERIOR SOLID CORE
D-2	3-0 X 6-8	WOOD INTERIOR POCKET
D-3	6-0 X 6-8	WOOD INTERIOR BYPASS PAIR
D-4	6-10 X 6-8	WOOD INTERIOR BYPASS PAIR
D-5	2-8 X 6-8	WOOD INTERIOR
D-6	8-0 X 6-8	WOOD INTERIOR BYPASS TRIPLE
D-7	2-8 X 6-8	WOOD INTERIOR POCKET
D-8	2-0 X 6-8	WOOD INTERIOR POCKET
D-9	2-8 X 6-8	WOOD INTERIOR
D-10	9-9 X 6-8	WOOD INTERIOR BYPASS TRIPLE
D-11	5-3 X 6-8	WOOD INTERIOR BYPASS PAIR
D-12	3-4 X 6-8	WOOD INTERIOR BYPASS PAIR
D-13	2-8 X 6-8	WOOD INTERIOR
D-14	3-4 X 6-8	WOOD INTERIOR BYPASS PAIR
D-15	2-8 X 6-8	WOOD INTERIOR
D-16	3-0 X 6-8	WOOD EXTERIOR SOLID CORE WITH TEMPERED GLASS PANE
D-17	3-0 X 6-8	WOOD EXTERIOR SOLID CORE WITH TEMPERED GLASS PANE

WINDOW AND DOOR NOTES

- ALL EXTERIOR DOORS AND WINDOWS TO BE MINIMUM 1 3/8" SOLID CORE WOOD PER WUI REQUIREMENTS (CBC 708A / CRC R337.8)
- ALL EXTERIOR GLASS TO BE INSULATED AND MINIMUM 1 TEMPERED PANE. (CBC 708A / CRC R337.8)
- WINDOWS AND DOORS TO BE CONSTRUCTED WITH DRY, ALL HEART VERTICAL GRAIN REDWOOD, TUNG OIL FINISH.
- OPERABLE WINDOWS TO BE FITTED WITH REMOVEABLE INSECT SCREENS.

- GLASS TO BE DUAL PANE WITH AT LEAST ONE PANE TEMPERED.
- GLASS SPECIFICATIONS PROVIDED FROM THE MANUFACTURER AND PURCHASE RECEIPT SHALL BE KEPT WITH THE JOB PLANS AND BE PROVIDED TO THE COUNTY INSPECTOR FOR VERIFICATION.
- GLAZING SHALL COMPLY WITH THE MINIMUM ENERGY FEATURES, SEE ADJACENT.
- EGRESS WINDOWS MUST HAVE OPENING THAT IS NOT LESS THAN 5.7 SQUARE FEET, WITH 20" MINIMUM CLEAR WIDTH AND 24" MINIMUM CLEAR HEIGHT, AND THE BOTTOM OF THE OPENING IS NOT MORE THAN 44" ABOVE THE FLOOR. EXCEPTION: GRADE FLOOR OPENINGS SHALL HAVE A NET CLEAR OPENING OF NOT LESS THAN 5.0 SQUARE FEET. (CRC R310.2.1)

PLUMBING/APPLIANCE NOTES

- PLUMBING FIXTURE LOAD CALCULATED AT 30.5 WATER SUPPLY FIXTURE UNITS USING CPC TABLE 610.3.
- WATER SUPPLY LINE SIZE TO BE 1.25" MINIMUM DIAMETER. THIS ALLOWS FOR UP TO 150 FEET SUPPLY LINE LENGTH (ACTUAL LENGTH TO BE APPROX. 75 FEET) CPC TABLE 610.4
- ANY NEW APPLIANCES INSTALLED SHALL BE ENERGY STAR APPLIANCES PER SANTA CRUZ COUNTY CODE 4.201.1.2
- ALL NEW HOT WATER LINES 3/4 INCH OR LARGER AND ALL NEW HOT WATER LINES TO THE KITCHEN SHALL BE INSULATED. [CenC 150(j)2.A] (MINIMUM INSULATION TABLE 120.3-A)
- EQUIPMENT AND APPLIANCES HAVING AN IGNITION SOURCE SHALL BE ELEVATED SUCH THAT THE SOURCE OF IGNITION IS NOT LESS THAN 18 INCHES (457 MM) ABOVE THE FLOOR SURFACE ON WHICH THE EQUIPMENT OR APPLIANCE RESTS. (CBC 406.2.9.1)
- THE HYBRID ELECTRIC HEAT PUMP WATER HEATER SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND ALL APPLICABLE BUILDING CODES.
- A DRAIN PAN AND DRAIN LINE TO THE EXTERIOR OF THE BUILDING SHALL BE INSTALLED FOR THE WATER HEATER. (CMC 303.8.1/ CPC 507.5)
- NO WATER CLOSET SHALL BE SET CLOSER THAN 15 INCHES FROM ITS CENTER TO A SIDE WALL OR OBSTRUCTION. THE CLEAR SPACE IN FRONT OF A WATER CLOSET OR LAVATORY SHALL NOT BE LESS THAN 24 INCHES (CPC 402.5)
- SHOWERS AND WALLS ABOVE BATHTUBS WITH SHOWER HEADS SHALL BE FINISHED WITH A NONABSORBENT SURFACE TO A HEIGHT NOT LESS THAN 6 FEET ABOVE THE FLOOR. (§R307.2 CRC)
- SHOWERS AND TUB-SHOWERS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE, THERMOSTATIC, OR COMBINATION PRESSURE BALANCE/THERMOSTATIC MIXING VALVE TYPE THAT PROVIDE SCALD AND THERMAL SHOCK PROTECTION. (§408.3 CPC)
- SHOWER DOOR ENCLOSURES SHALL HAVE SAFETY GLAZING PER (CRC R308.4)

WINDOW SCHEDULE

LABEL	SIZE (W X H)	TYPE
W-1	3-0 X 3-0	HORIZONTAL SLIDER, TEMPERED
W-2	4-0 X 3-3	HORIZONTAL SLIDER, TEMPERED, EGRESS
W-3	3-5 X 4-1	HORIZONTAL SLIDER, TEMPERED
W-4	4-0 X 4-0	HORIZONTAL SLIDER, TEMPERED, EGRESS
W-5	7-0 X 3-3	HORIZONTAL SLIDER, TEMPERED, EGRESS
		MERGED INTO W-5
		MERGED INTO W-5
W-8	3-0 X 1-4	HORIZONTAL SLIDER, TEMPERED
W-9	3-0 X 4-0	FIXED, TEMPERED
W-10	4-0 X 4-4	HORIZONTAL SLIDER, TEMPERED
W-11	4-0 X 4-4	FIXED, TEMPERED
W-12	4-0 X 4-4	HORIZONTAL SLIDER, TEMPERED
W-13	4-7 X 4-4	FIXED, TEMPERED
W-14	3-3 X 5-0	FIXED, TEMPERED
W-15	6-6 X 5-0	HORIZONTAL SLIDER, TEMPERED
W-16	5-11 X 3-8	HORIZONTAL SLIDER, TEMPERED
W-17	5-1 X 3-3	HORIZONTAL SLIDER, TEMPERED

GLAZING MINIMUM ENERGY FEATURES

SEE SUPPLEMENTAL TITLE 24 SUMMARY SHEET FOR SOURCE

Dual Pane Non-Metal Windows/Doors
Operable: Max U-Value = 0.58; Max SHGC = 0.65
Fixed: Max U-Value = 0.55; Max SHGC = 0.67
Patio Door: Max U-Value = 0.58; Max SHGC = 0.65

PLUMBING AND APPLIANCE NOTES CONTINUED

- SHOWER STALLS SHALL HAVE A CLEAR INTERIOR FINISH AREA OF 1,024 SQUARE INCHES AND BE ABLE TO ACCOMMODATE A MINIMUM 30" CIRCLE AT THE THRESHOLD LEVEL. THESE CLEARANCES SHALL BE MAINTAINED UP TO A HEIGHT OF 70" ABOVE THE SHOWER DRAIN PER CPC SECTION 408.6.
- SHOWER DOORS SHALL MAINTAIN A MINIMUM CLEARANCE OF 22" WIDTH. (CPC 408.5)
- WATER SYSTEM PIPING SHALL COMPLY WITH INSULATION FOR PIPING AND TANKS. [CenC 150.0(j)]

HEATING AND COOLING

TYPE	SIZE (W X H)	NOTES
80 GAL WATER HEATER		HYBRID ELECTRIC HEAT PUMP
MINI SPLIT OUTDOOR CONDENSER UNIT		48,000 BTU
MINI SPLIT WALL MOUNTED INDOOR UNIT		
HEAT RECOVERY VENTILATOR		
WOODSTOVE, MAKE/MODEL TBD		EPA RATED, INSTALL OUTSIDE AIR SOURCE

PLUMBING FIXTURES/ CALGREEN WATER EFFICIENCY COMPLIANCE

NUMBER	TYPE	MAX FLOW RATE
F-1	KITCHEN FAUCET	1.8 GPM @ 60 PSI
F-2	LAUNDRY FAUCET	1.8 GPM @ 60 PSI
F-3	BATH 1 FAUCET	1.2 GPM @ 60 PSI
F-4	BATH 2 FAUCET	1.2 GPM @ 60 PSI
F-5	STUDIO FAUCET	1.8 GPM @ 60 PSI
F-6	SHOWER HEAD 1	1.8 GPM @ 80 PSI
F-7	SHOWER HEAD 2	1.8 GPM @ 80 PSI
F-8	TUB FILLER	N/A
F-9	TOILET 1	1.28 GAL PER FLUSH
F-10	TOILET 2	1.28 GAL PER FLUSH

DRAWN BY: TOBY HARGREAVES 2/16/2023

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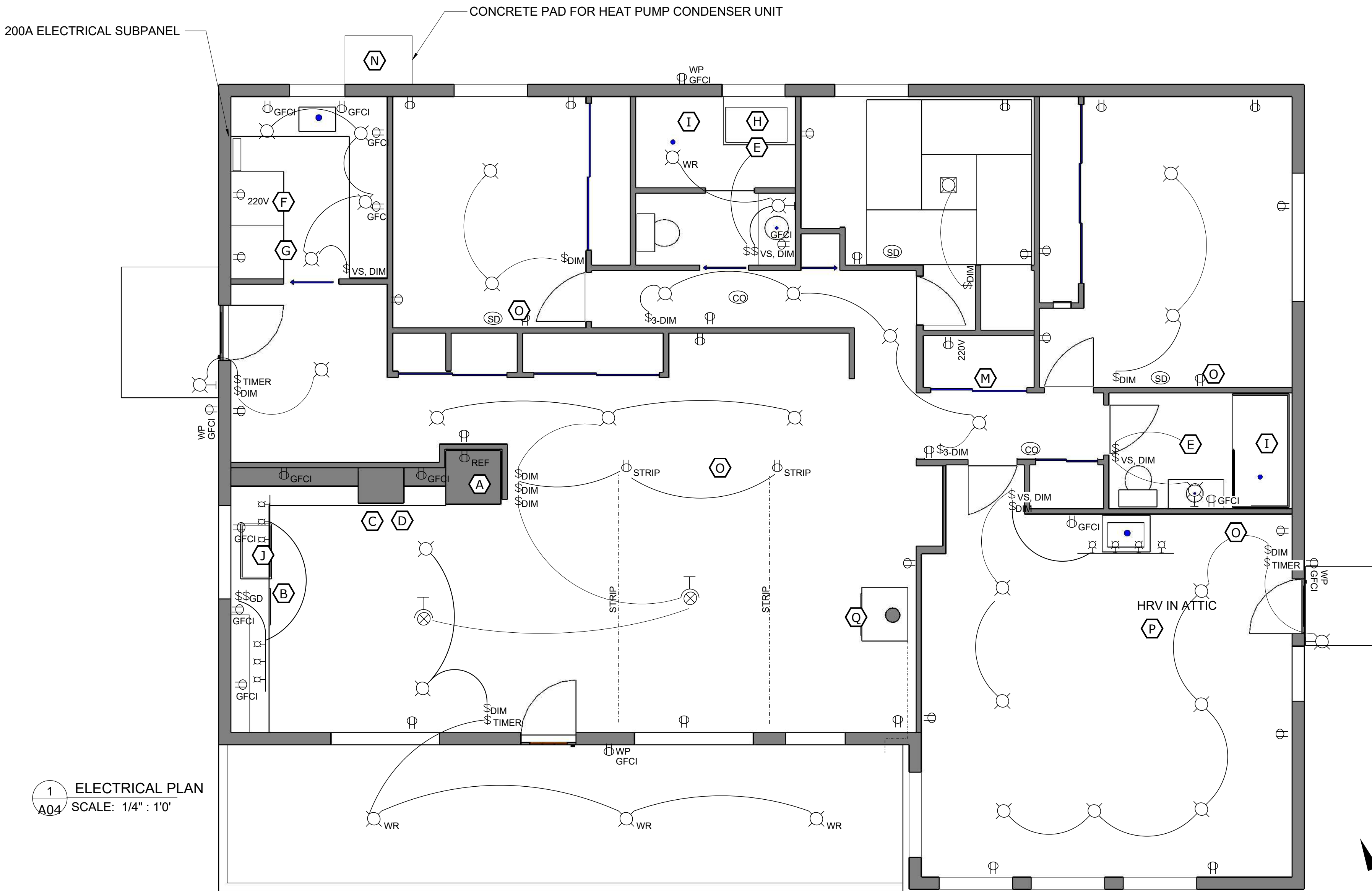
REVISION 2/16/23

PROJECT HARGREAVES RESIDENCE

TOBY AND KORI HARGREAVES

Residence
Floor Plan

A.03



1 ELECTRICAL PLAN
A04 SCALE: 1/4" : 1'0"

ELECTRICAL NOTES

1. ALL WORK TO CONFORM TO 2019 CALIFORNIA ELECTRICAL CODE
2. ALL LIGHT FIXTURES TO BE HIGH EFFICACY. . [CA ENERGY §150.0(k)1.A]
3. ALL BRANCH CIRCUITS THAT SUPPLY 125-VOLT, SINGLE PHASE, 15- AND 20- AMPERE OUTLETS (I.E. RECEPTACLES, LIGHTS, SMOKE ALARMS, ETC.) TO BE PROTECTED BY ARC-FAULT CIRCUIT INTERRUPTER (AFCI) LISTED TO PROVIDE PROTECTION OF THE ENTIRE BRANCH CIRCUIT PER CEC 210-12(B) IN KITCHENS, LAUNDRY ROOMS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, BEDROOMS, CLOSETS, HALLWAY, AND SIMILAR LIVING SPACES. (CEC 210.12)
4. ALL LIGHT FIXTURES TO HAVE HIGH EFFICACY LED LAMPS INSTALLED
5. ANY NEW APPLIANCES INSTALLED SHALL BE ENERGY STAR APPLIANCES PER SANTA CRUZ COUNTY CODE 4.201.1.2
6. ALL OUTDOOR LIGHTING MUST BE HIGH EFFICACY AND MUST INCLUDE MANUAL ON/OFF SWITCH WITH A PHOTOCELL AND MOTION SENSOR OR A PHOTOCONTROL AND AUTOMATIC TIME SWITCH CONTROL OR AN ASTRONOMICAL TIME SWITCH CONTROL OR AN ENERGY MANAGEMENT CONTROL SYSTEM. [CA ENERGY § 150.0(k)3]
7. ALL 125-VOLT AND 250-VOLT, 15- AND 20-AMPERE NON-LOCKING RCEPTACLES SHALL BE LISTED TAMPER RESISTANT. (CEC 406.12)
8. EXHAUST FANS IN BATHROOM AREAS WITH SHOWERS AND/OR TUBS SHALL BE ENERGY STAR RATED AND HAVE A HUMIDISTAT CONTROL (UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM). (CA ENERGY STANDARD 150(O)ASHRAE 62.2 AND CALGREEN 4.506.1) THE MINIMUM LOCAL EXHAUST RATE SHALL BE 50 CFM (CRC R303.3, EXCEPTION).
9. NEWLY INSTALLED KITCHEN RANGE HOODS REQUIRE MANDATORY VERIFICATION BY A HERS RATER. THE HERS RATER WILL VERIFY THAT THE INSTALLED KITCHEN RANGE HOOD IS CERTIFIED WITH THE HOME VENTILATING INSTITUTE (HVI), AND THAT IT IS RATED TO MEET THE REQUIRED AIRFLOW OF 100 CFM MINIMUM AND A NOISE LEVEL OF 3 SONES OR LESS. KITCHEN RANGE HOODS EXHAUSTING MORE THAN 400 CFM AT LOWEST SPEED ARE EXEMPT FROM THE MAXIMUM SONE REQUIREMENT. [CA ENERGY STANDARD 150(O)1G]
10. ALL HIGH EFFICACY LIGHT FIXTURES REQUIRED TO BE CERTIFIED TO JA8-2019 (DOES NOT INCLUDE FLUORESCENT LIGHT FIXTURES) MUST BE CONTROLLER BY A DIMMER, VACANCY SENSOR, OR MANUAL-ON OCCUPANCY SENSOR.EXCEPTIONS ARE PROVIDED FOR CLOSETS SMALLER THAT 70 SQUARE FEET IN FLOOR AREA AND LIGHT FIXTURES FOR HALLWAYS. [CA ENERGY §150.0(k)2.J]
11. JA8-2019 MARKING IS REQUIRED FOR THE FOLLOWING:
 - ALL LIGHT SOURCES IN CEILING RECESSED DOWNLIGHT LUMINAIRES. CEILING RECESSED DOWNLIGHT LUMINAIRES SHALL NOT HAVE SCREW BASES REGARDLESS OF LAMP TYPE AS DESCRIBED IN CA ENERGY §150.(k)1.C.
 - GU24 SOCKETS CONTAINING LED LIGHT SOURCES. A GU24 LAMP FITTING IS A TWO-PIN CONNECTOR FOR COMPACT FLUORESCENT LAMPS (CFL) OR LED LAMPS THAT USE A BAYONET MOUNT-LIKE TWIST-LOCK TWO-PIN CONNECTOR INSTEAD OF AN EDISON SCREW FITTING.
 - ANY LIGHT SOURCE NOT OTHERWISE LISTED ABOVE AND CERTIFIED TO THE COMMISSION AS COMPLYING WITH JOINT APPENDIX 8
12. THE HYBRID ELECTRIC HEAT PUMP WATER HEATER SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND ALL APPLICABLE BUILDING CODES.
13. THE MINIMUM SERVICE DISCONNECT FOR THE RESIDENTIAL UNIT IS 100 AMPS, OTHER BUILDINGS (GARAGE) 60 AMPS. [CEC 230.79(C)(D)]
14. ELECTRICAL OUTLETS IN THE LAUNDRY MUST HAVE BOTH GFCI AND AFCI PROTECTIONS. [CEC 210.8(A)(10) AND 210.12(a)]

WOOD HEATER NOTES

The Energy Standards establish exceptional method guidelines for the use of wood heaters. If all the criteria for the wood heat exceptional method are not met, a backup heating system must be included in the compliance calculations as the primary heat source.

- The building department having jurisdiction must determine that natural gas is not available.
- Note: Liquefied petroleum gas, or propane, is not considered natural gas.
- The following eligibility criteria apply:

1. The local or regional air quality authority must determine that its authorization of this exceptional method is consistent with state and regional ambient air quality requirements according to Sections 39000 to 42708 of the California Health and Safety Code.
2. The wood heater must be installed in a manner that meets the requirements of all applicable health and safety codes, including, but not limited to, the requirements for maintaining indoor air quality in the CMC, in particular those homes where vapor barriers are.
3. The wood heater must meet the EPA definition of a wood heater as defined in Title 40, Part 60, Subpart AAA of the Code of Federal Regulations (40CFR60 Subpart AAA) (See below.)
4. The performance of the wood heater must be certified by a nationally recognized agency and approved by the building department having jurisdiction to meet the performance standards of the EPA.
5. The rated output of the wood heater must be at least 60 percent of the design heating load, using calculation methods and design conditions as specified in §150(h).
6. At the discretion of the local enforcement agency, a backup heating system may be required and be designed to provide all or part of the design heating load, using calculation methods and design conditions as specified in §150(h).
7. The wood heater must be located such that transfer of heat from the wood heater is effectively distributed throughout the entire residential dwelling unit, or it must be used in conjunction with a mechanical means of providing heat distribution throughout the dwelling.
8. Habitable rooms separated from the wood heater by one free opening of less than 15 ft² or two or more doors must be provided with a positive heat distribution system, such as a thermostatically controlled fan system. Habitable rooms do not include closets or bathrooms.

- Please demonstrate compliance by providing specifications or provide a backup heating system. [CA Energy Standards Residential ACM 2.4.1]

ELECTRICAL LEGEND

- ⌚ RECEPTACLE
- ⌚ GFCI GFCI RECEPTACLE
- ⌚ WP GFCI WEATHER PROTECTED OUTDOOR GFCI RECEPTACLE
- \$ SWITCH
- \$DIM DIMMER SWITCH
- \$3-DIM 3 WAY DIMMER SWITCH
- ☼ RECESSED CEILING LIGHT
- ☼ WR WET RATED RECESSED CEILING LIGHT
- ☼ WALL MOUNTED LIGHT
- STRIP LED STRIP LIGHTING ONTOP OF BEAMS

- TRACK LIGHTING
- ☼ SURFACE MOUNTED CEILING LIGHT
- ⌚ EXHAUST FAN/LIGHT

SPECIAL RECEPTACLES

- \$VS, DIM VACANCY SENSOR DIMMER LIGHT SWITCH
- \$TIMER TIMER SWITCH WITH ASTRONOMICAL CLOCK FOR OUTDOOR LIGHTING
- \$GD GARBAGE DISPOSAL SWITCH
- ⌚ DW DISHWASHER PLUG OR J-BOX
- ⌚ ISL ISLAND RECEPTACLE (GFCI PROTECTED, NO MORE THAN 12" BELOW COUNTER EDGE)
- ⌚ REF REFRIGERATOR OUTLET
- ⌚ STRIP OUTLET ABOVE BEAM FOR STRIP LIGHTING
- ⌚ 220V 220V RECEPTACLE OR J-BOX FOR DRYER, BOILER, AND OVEN/RANGE
- ☼ SD SMOKE DETECTOR, HARDWIRED WITH BATTERY BACKUP AND INTERCONNECTED
- ☼ CO SMOKE AND CARBON MONOXIDE DETECTOR, HARDWIRED WITH BATTERY BACKUP AND INTERCONNECTED

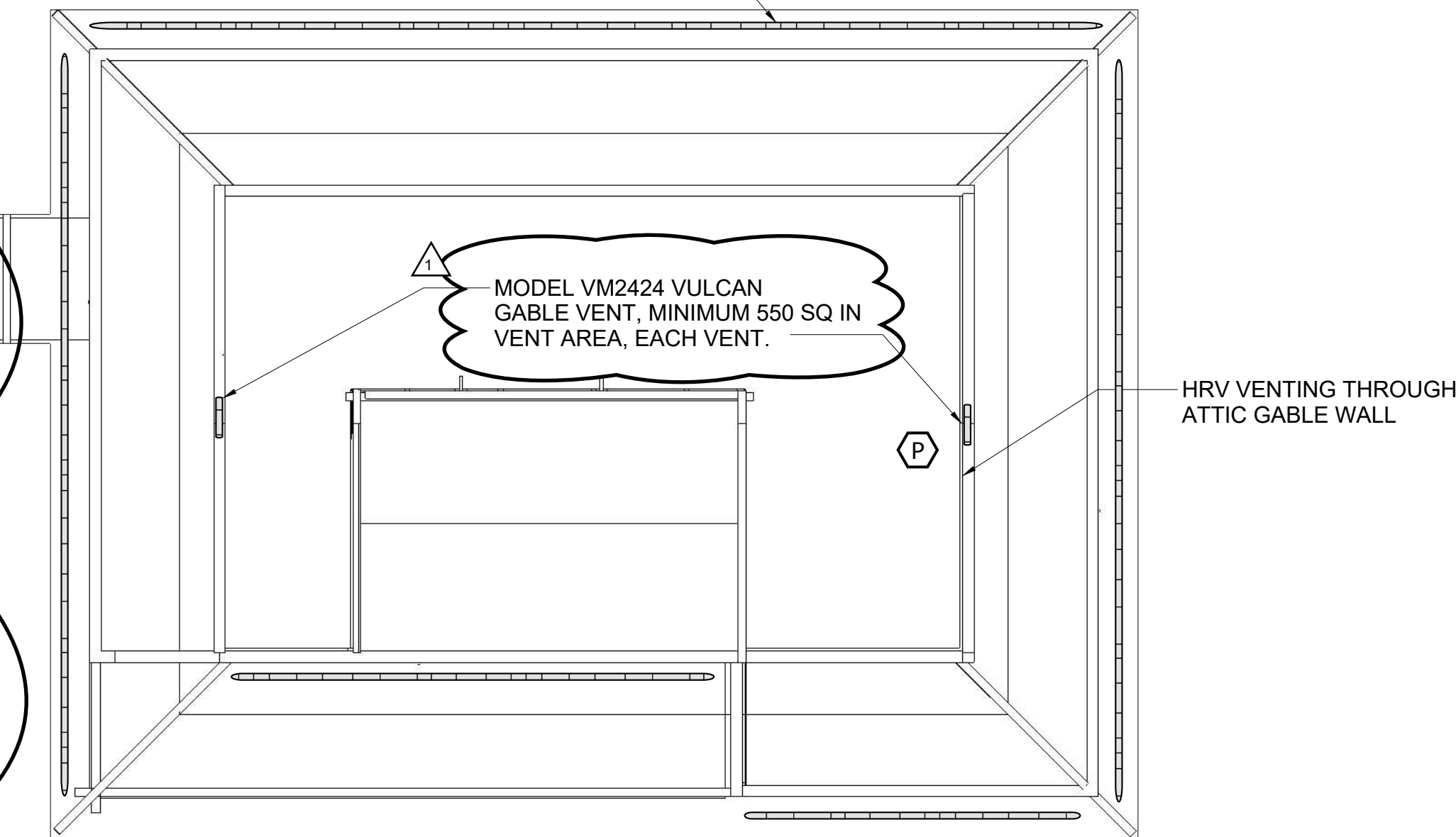
APPLIANCES/FIXTURES

TYPE	SIZE (W X H)	NOTES
A REFRIGERATOR		
B DISHWASHER		
C 36" RANGE/OVEN		ELECTRIC 220V
D 36" RANGE HOOD		
E BATH VENT FAN/ LIGHT		
F WASHER		
G DRYER		ELECTRIC 220V
H SOAKING TUB		WOOD
I WALK IN SHOWER		
J GARBAGE DISPOSAL		

HEATING AND COOLING

TYPE	SIZE (W X H)	NOTES
M 80 GAL WATER HEATER		HYBRID ELECTRIC HEAT PUMP
N MINI SPLIT OUTDOOR CONDENSER UNIT		48,000 BTU
O MINI SPLIT WALL MOUNTED INDOOR UNIT		
P HEAT RECOVERY VENTILATOR		
Q WOODSTOVE, MAKE/MODEL TBD		EPA RATED, INSTALL OUTSIDE AIR SOURCE

MODEL VSC2120
VULCAN CONTINUOUS SOFFIT VENT
SEE A.02 FOR CALCULATIONS



2 ATTIC MECHANICAL PLAN
A04 SCALE: 1/8" : 1'0"

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PROJECT
HARGREAVES RESIDENCE
APN 063-141-23

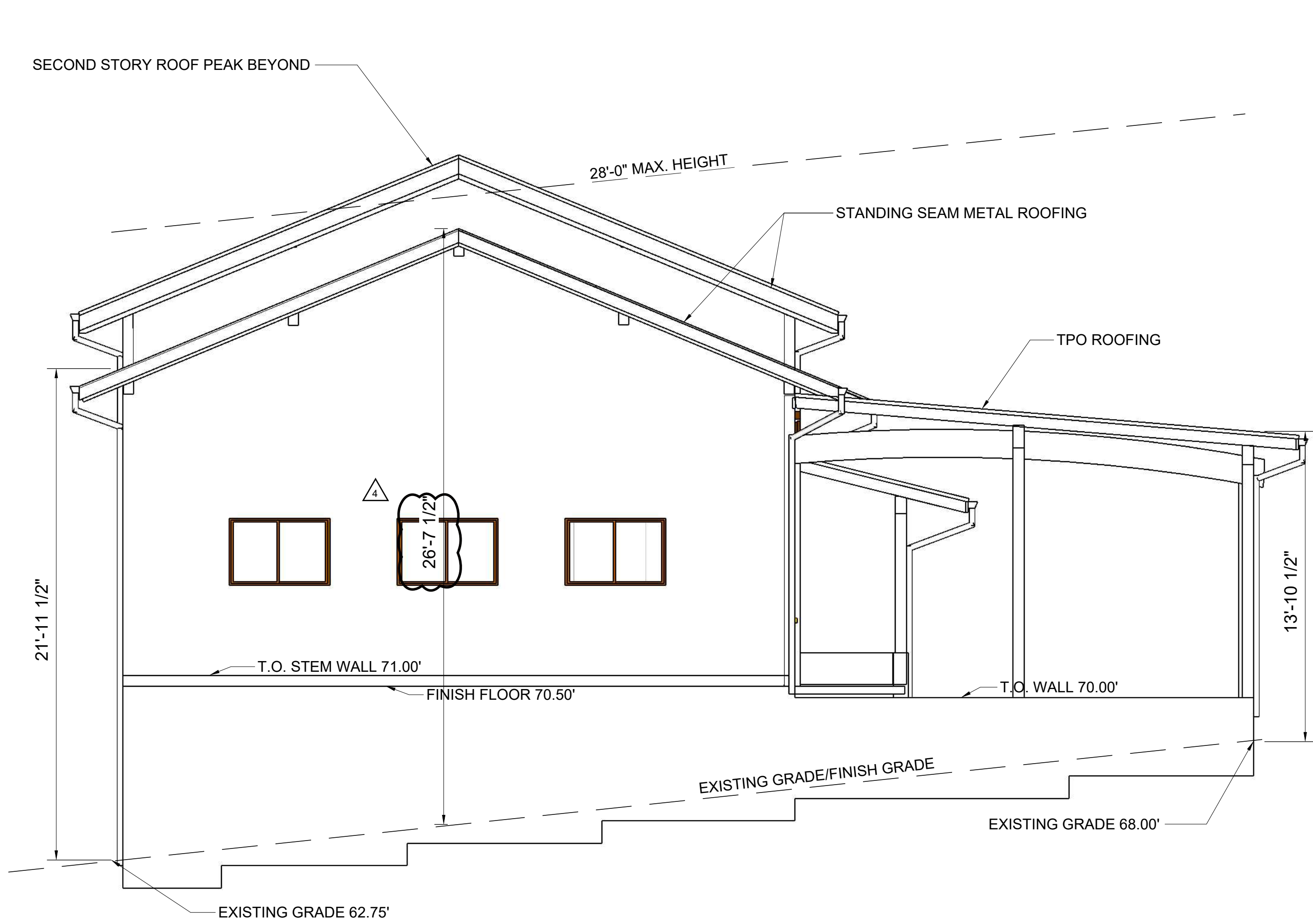
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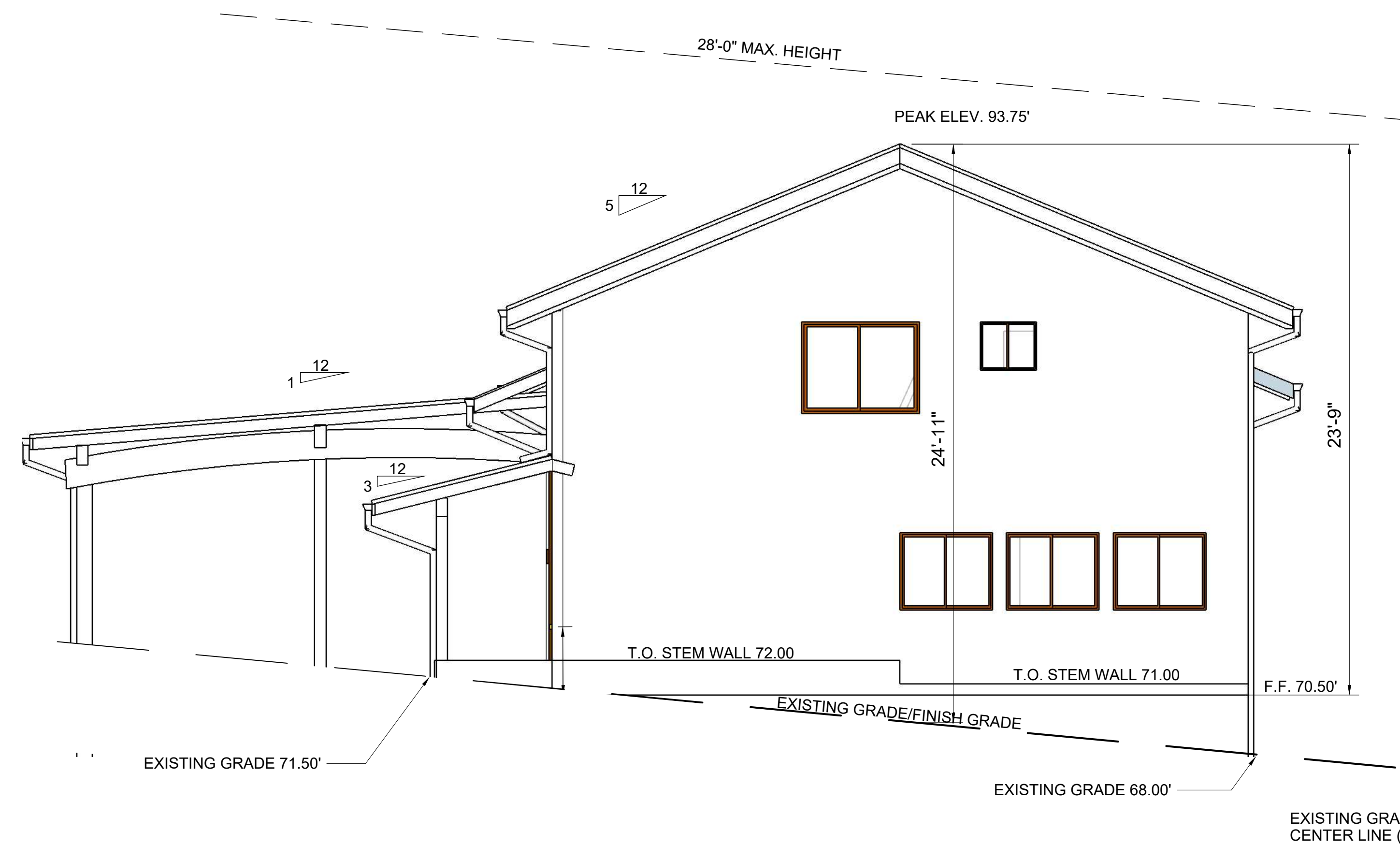
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Residence
Electrical/Mechanical Plans

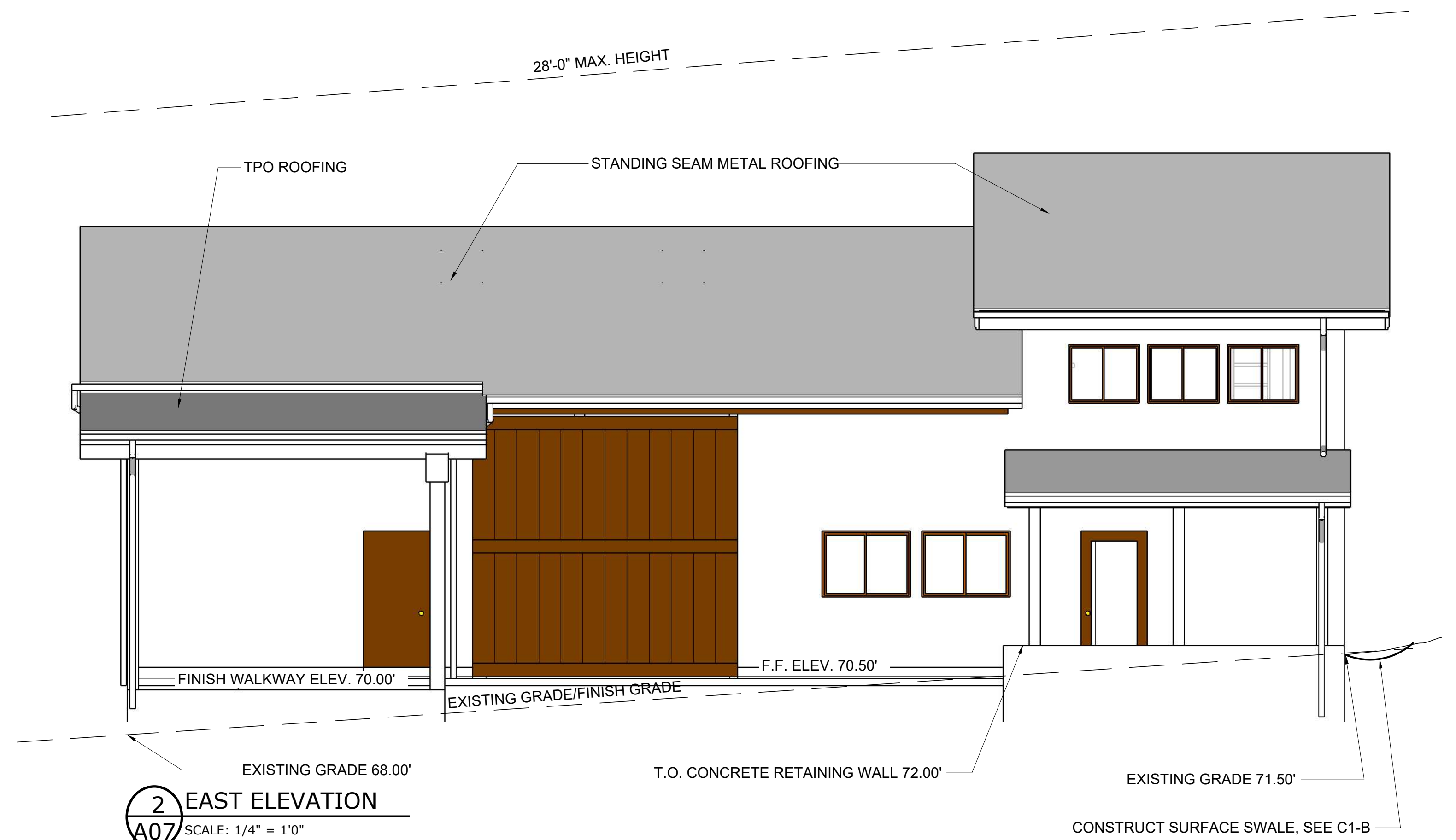
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1 SOUTH ELEVATION
A07 SCALE: 1/4" = 1'0"



3 NORTH ELEVATION
A07 SCALE: 1/4" = 1'0"

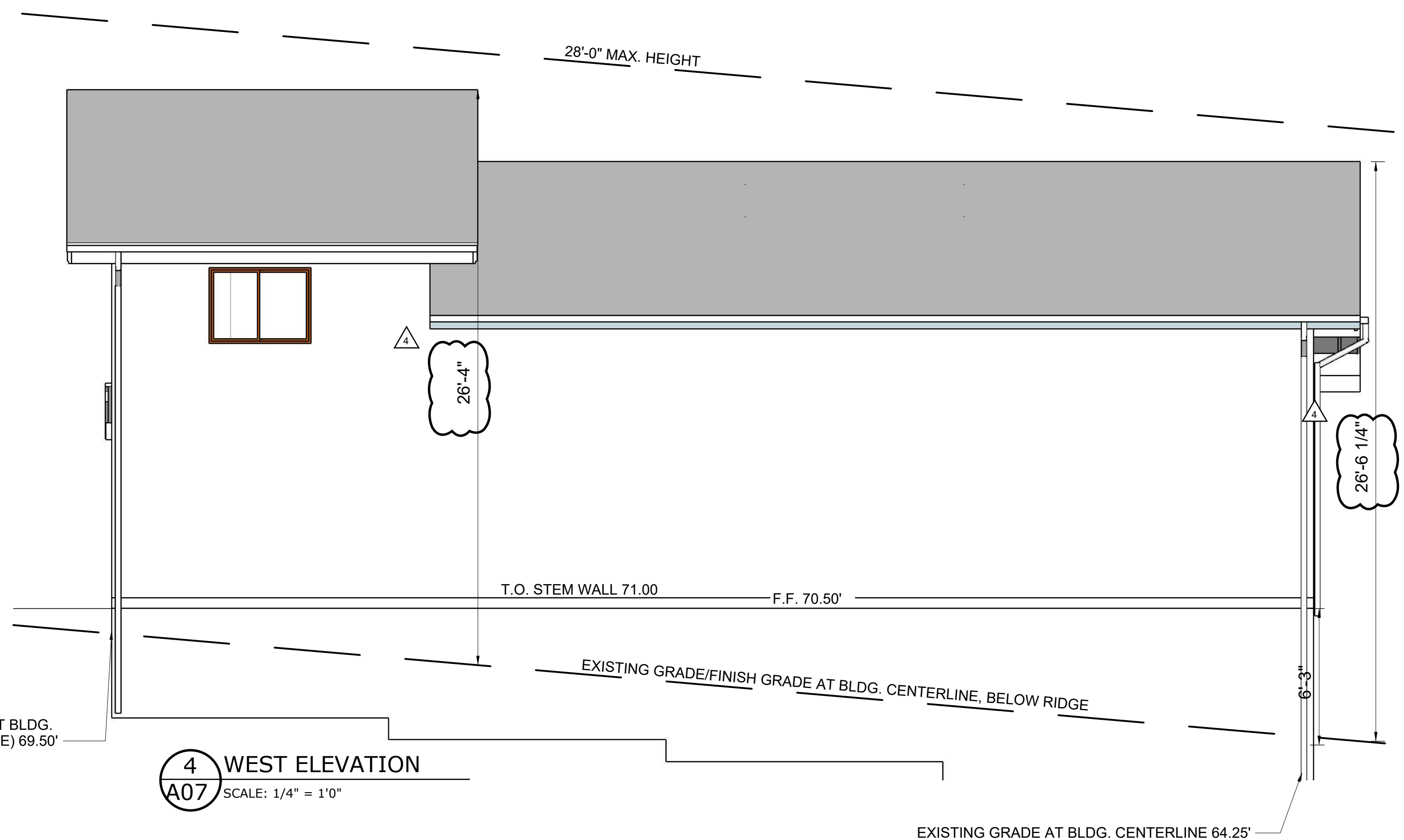


2 EAST ELEVATION
A07 SCALE: 1/4" = 1'0"

ELEVATIONS NOTES

1. CROSS REFERENCE C-3 DRAINAGE PLAN FOR ELEVATIONS OF FINISH SURFACES, AND DRAINAGE SLOPES
2. CROSS REFERENCE C-3 PLAN FOR DOWNSPOUT LOCATIONS AND TIE IN TO STORM DRAINS
3. TOP OF WINDOWS AND DOORS ARE 6'8" ABOVE FINISH FLOOR

4. ROOFS SHALL HAVE A ROOFING ASSEMBLY INSTALLED IN ACCORDANCE WITH ITS LISTING AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. ROOF ASSEMBLIES IN THE FIRE HAZARD SEVERITY ZONES SHALL BE CLASS A RATING WHEN TESTED IN ACCORDANCE WITH ASTM E108 OR UL790. (CBC 705A.1, CRC R337.5.1)



4 WEST ELEVATION
A07 SCALE: 1/4" = 1'0"

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ADU/WORKSHOP
APN 063-141-23

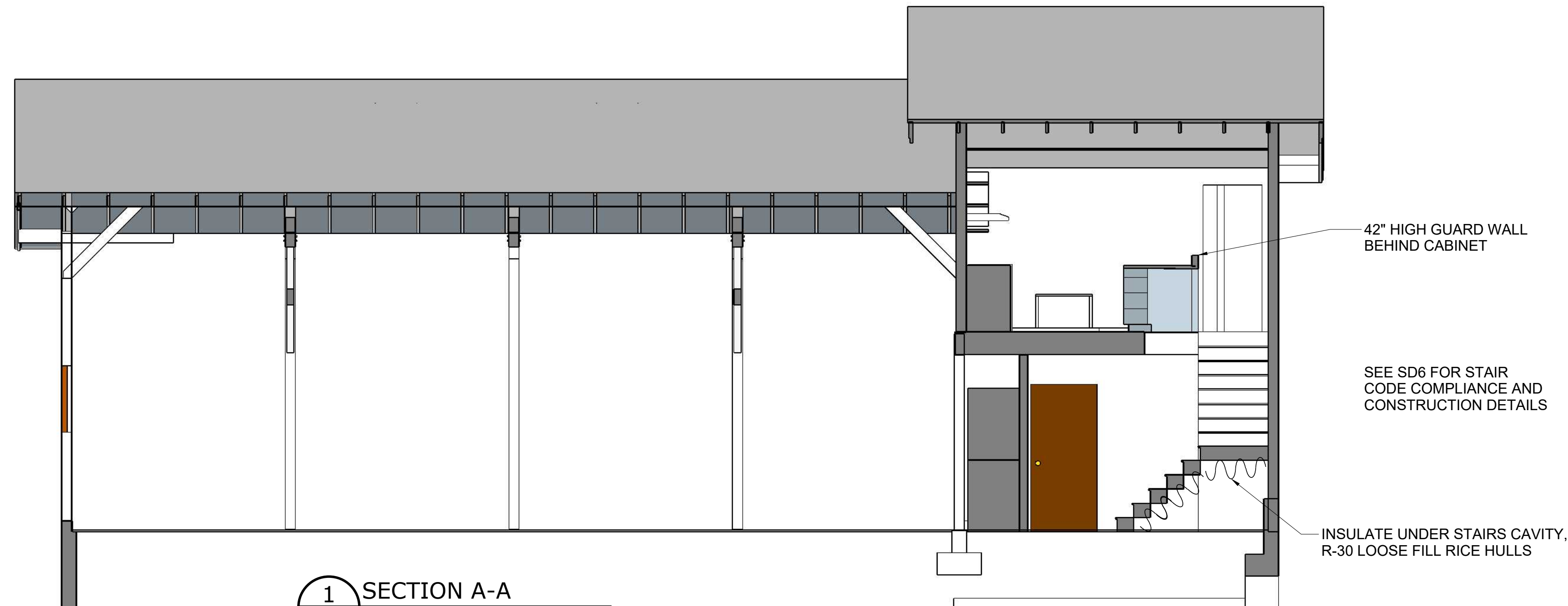
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4	7/16/23

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Toby Hargreaves

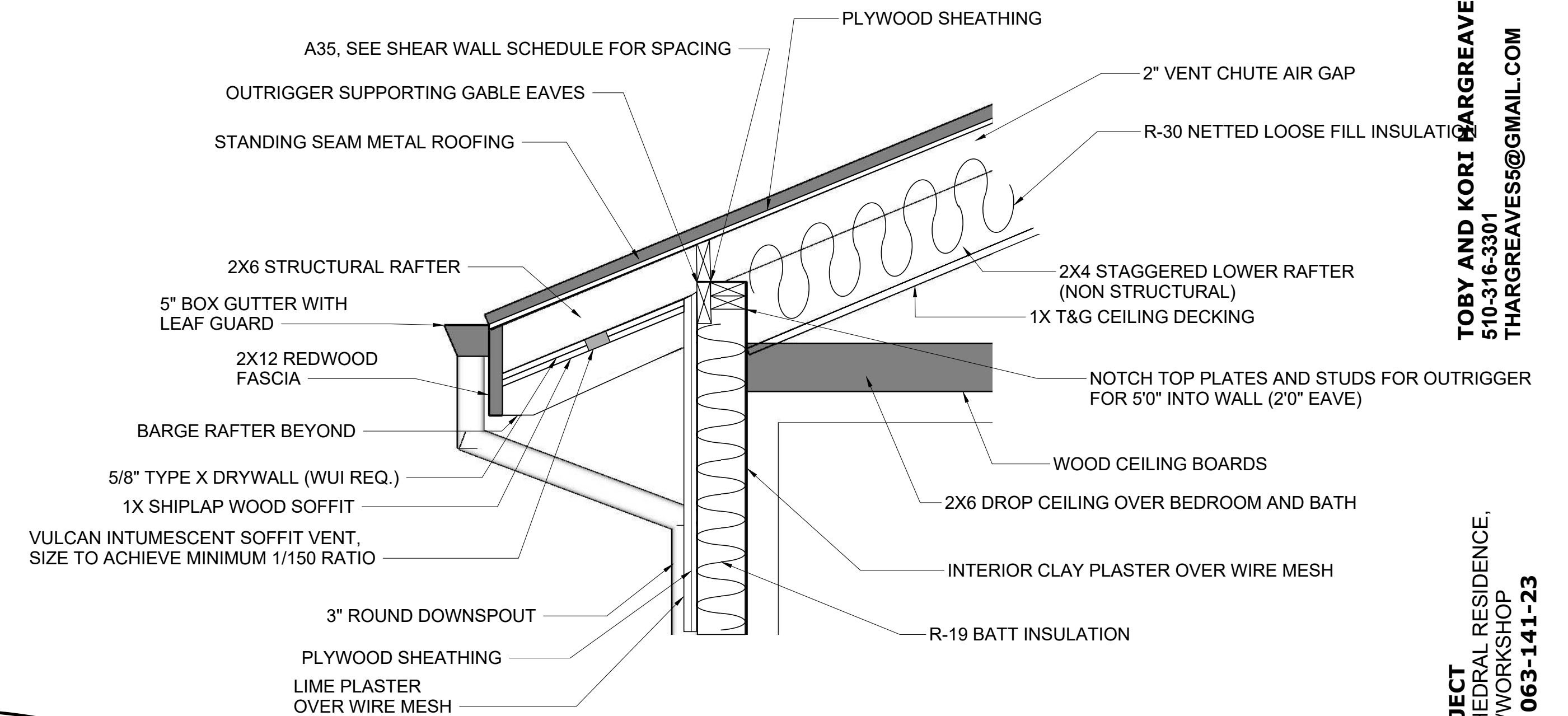
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Workshop/ADU
Elevations

A.07



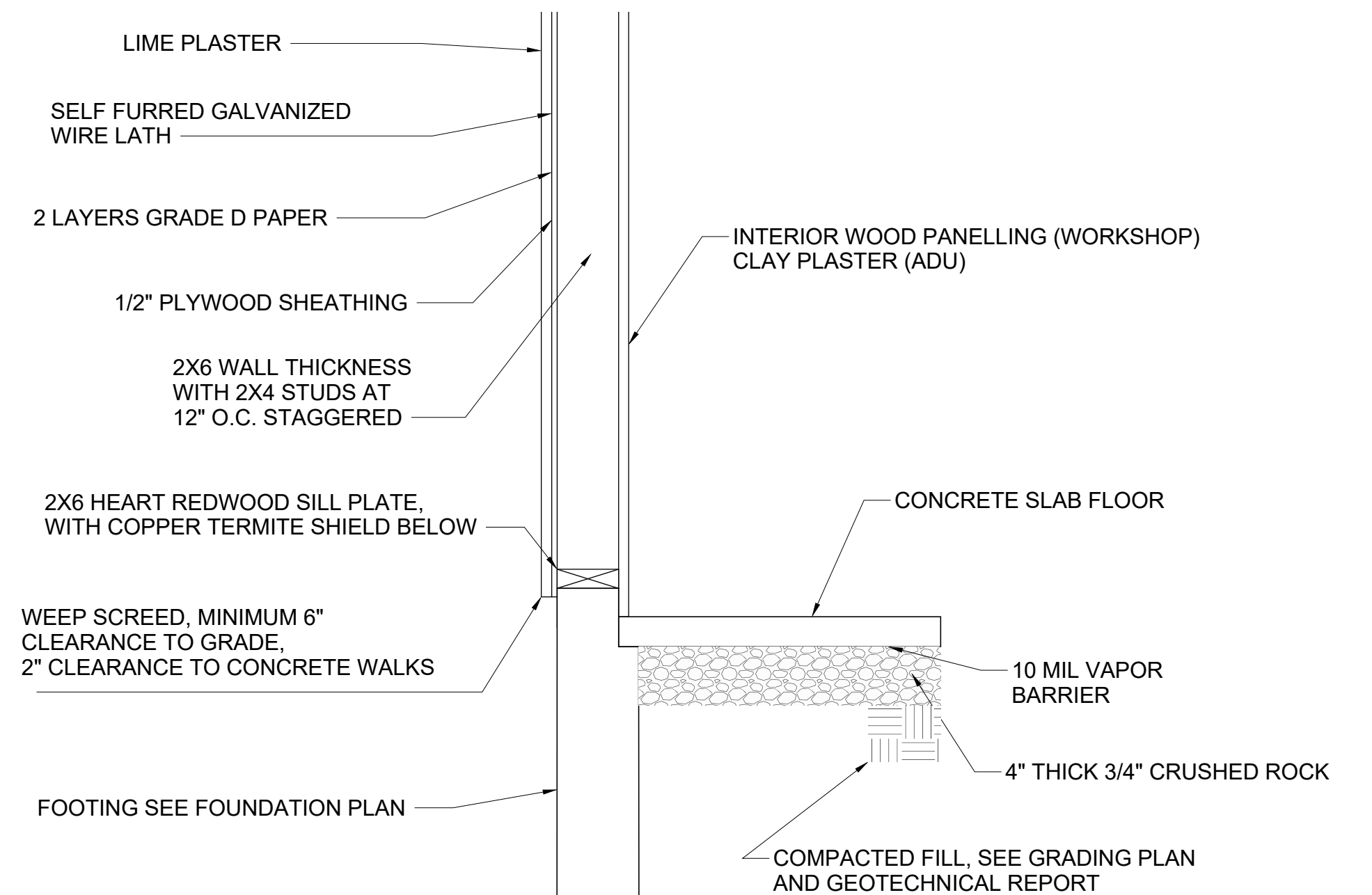
1 SECTION A-A
A08 SCALE: 1/4" = 1'0"



5 TYPICAL ADU EAVE DETAIL
A08 SCALE: 1" = 1'0"

CALCULATIONS FOR ROOF VENTING REQUIREMENTS
VAULTED CEILING SQUARE FOOTAGE:
16.25 FT X 13.5 FT = 220 SQ. FT. X 2 = 440 SQ. FT.
TIMES 1/150 VENTING RATIO = 2.93 SQ. FT.
TIMES 144 CONVERT TO SQUARE INCHES = 422 SQ. IN.
DIVIDE BY 2 = **211 SQUARE INCHES SOFFIT NET FREE VENT AREA (NFVA)**
211 SQUARE INCHES RIDGE NET FREE VENT AREA (NFVA)
-FOR SOFFIT VENT, USE INTUMESCENT VULCAN SOFFIT VENT, SEE 5/A.08

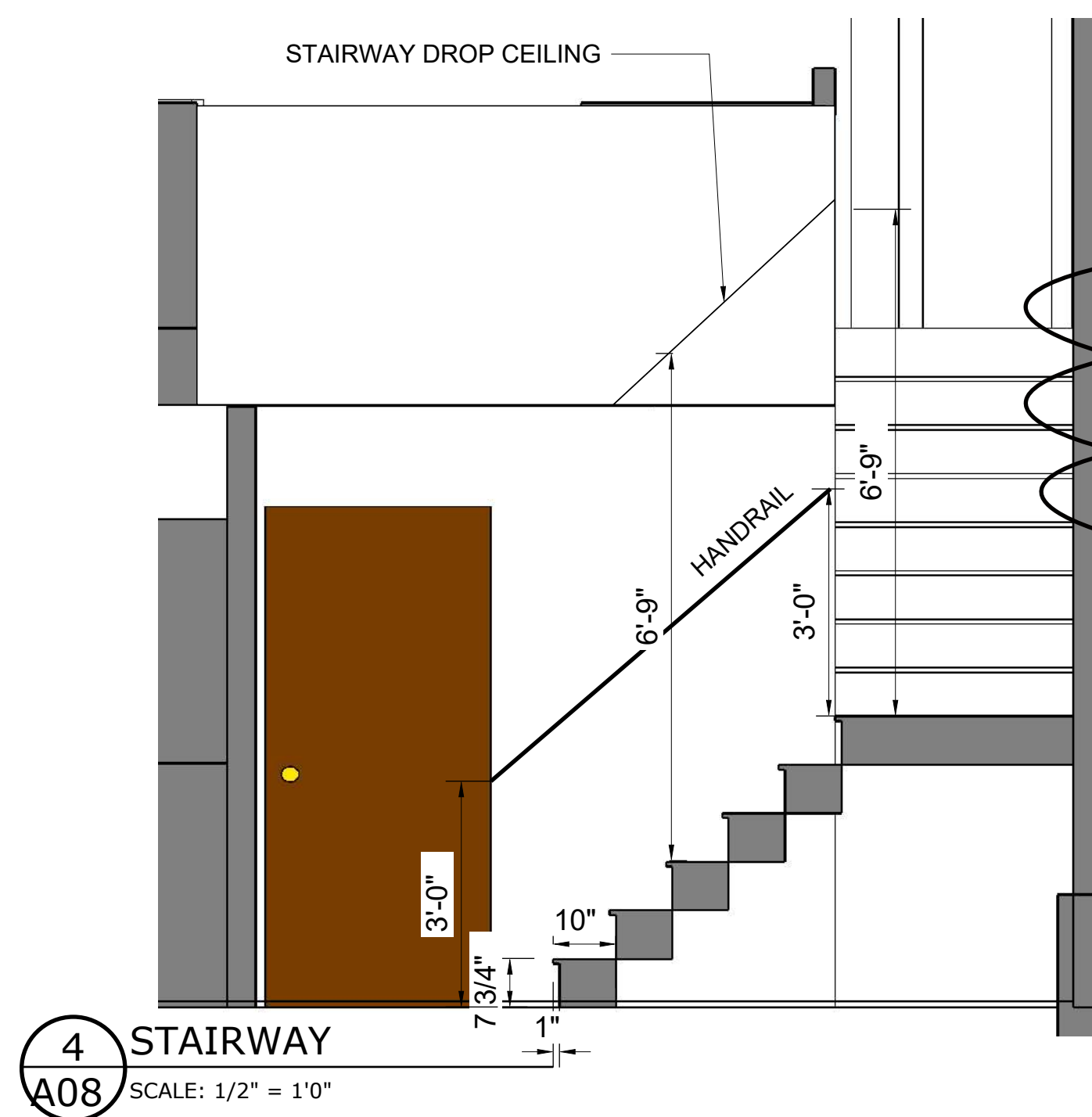
FOR ROOF VENTING
PLAN AND SPECS SEE S.07



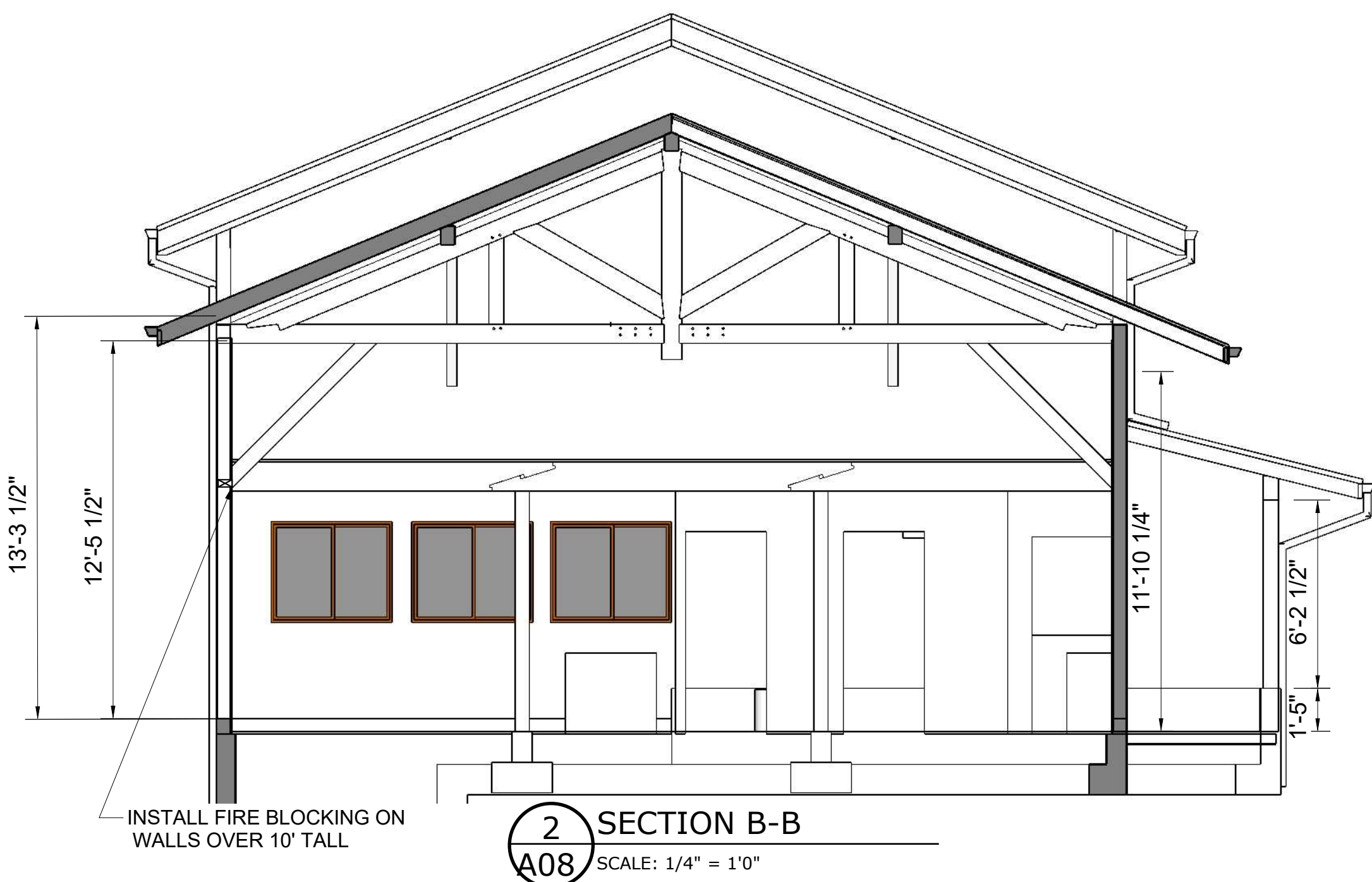
6 TYPICAL WALL SECTION
A08 SCALE: 1" = 1'0"

SECTION NOTES
1. THE PRIVATE GARAGE SHALL BE SEPARATED FROM THE DWELLING UNIT AND ITS ATTIC AREA BY MEANS OF GYPSUM BOARD, NOT LESS THAN 1/2 INCH IN THICKNESS, APPLIED TO THE GARAGE SIDE. GARAGES BENEATH HABITABLE ROOMS SHALL BE SEPARATED FROM ALL HABITABLE ROOMS ABOVE BY NOT LESS THAN A 5/8 INCH TYPE X GYPSUM BOARD OR EQUIVALENT AND 1/2 INCH GYPSUM BOARD APPLIES TO THE STRUCTURES SUPPORTING THE SEPARATION FROM HABITABLE ROOMS ABOVE THE GARAGE. DOOR OPENINGS BETWEEN A PRIVATE GARAGE AND THE DWELLING UNIT SHALL BE EQUIPPED WITH EITHER SOLID WOOD DOORS OR SOLID HONEYCOMB STEEL DOORS NOT LESS THAN 1 3/8 INCHES IN THICKNESS, OR DOORS IN COMPLIANCES WITH SECTION 716.2.2.2.1 WITH A FIRE PROTECTION RATING OF NOT LESS THAN 20 MINUTES. DOORS SHALL BE SELF-CLOSING AND SELF-LATCHING. (CBC 406.3.2.1)

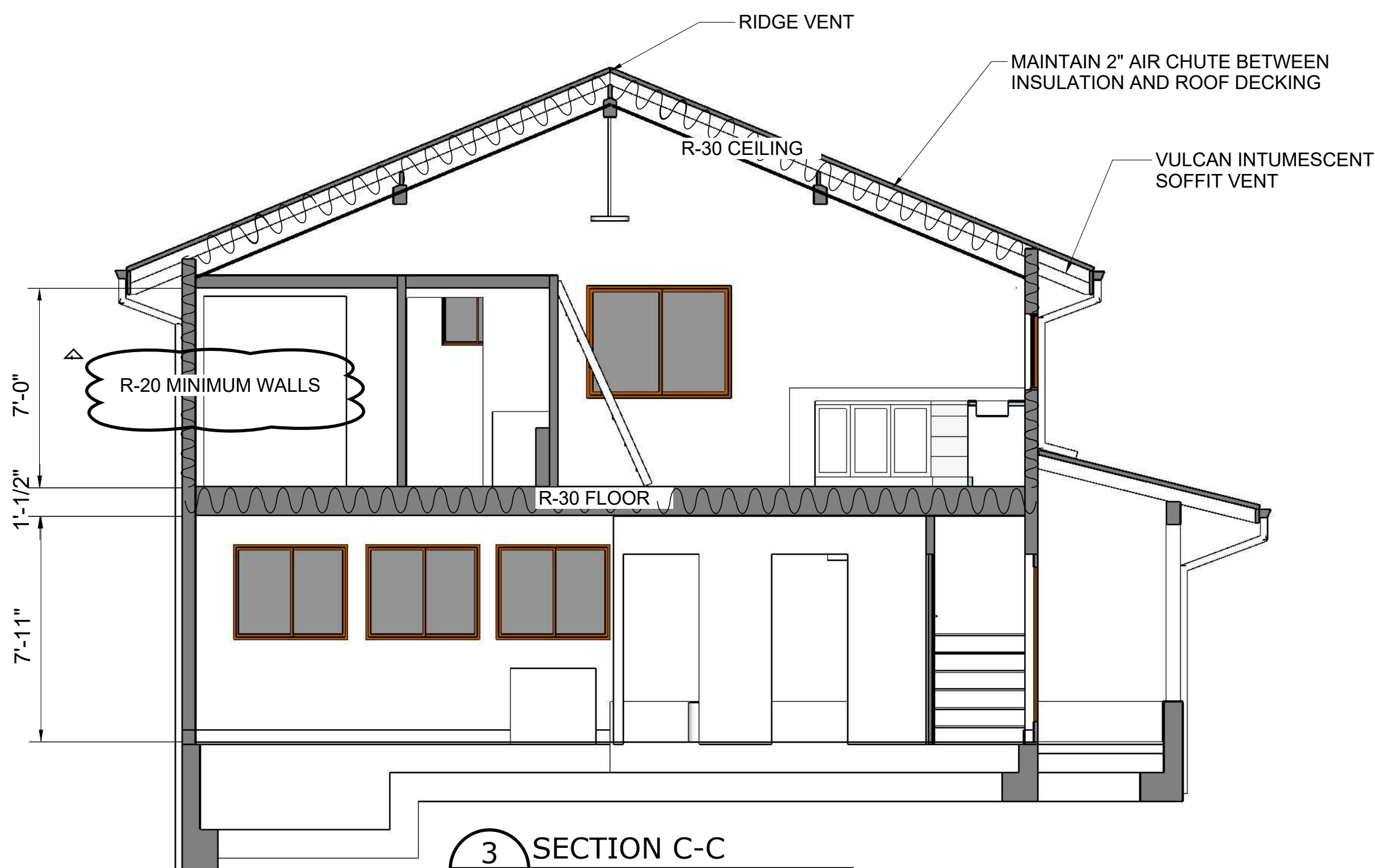
STAIRWAY NOTES
1. STAIR RISE 7 3/4". THIS IS TO VARY NO MORE THAN 3/8" FOR ANY STEP.
2. STAIR TREAD 10" WITH A 1" NOSING.
3. A GRASPABLE HANDRAIL IS TO BE INSTALLED ON AT LEAST ONE SIDE OF THE STAIRWAY 34" TO 38" ABOVE THE LEADING EDGE OF THE TREAD.
4. STAIRWAY SHALL BE MINIMUM 36" FINISH WIDTH, WITH 36" DEEP LANDINGS AT TOP, BOTTOM, AND AT CHANGE OF DIRECTION OF THE STAIRWAY.
5. SEE ELECTRICAL PLAN FOR STAIRWAY ILLUMINATION
6. SEE SD6 FOR STAIR CODE COMPLIANCE AND CONSTRUCTION DETAILS
7. MAINTAIN MINIMUM 6'8" FINISHED HEAD HEIGHT ABOVE LEADING EDGE OF TREAD TO CEILING



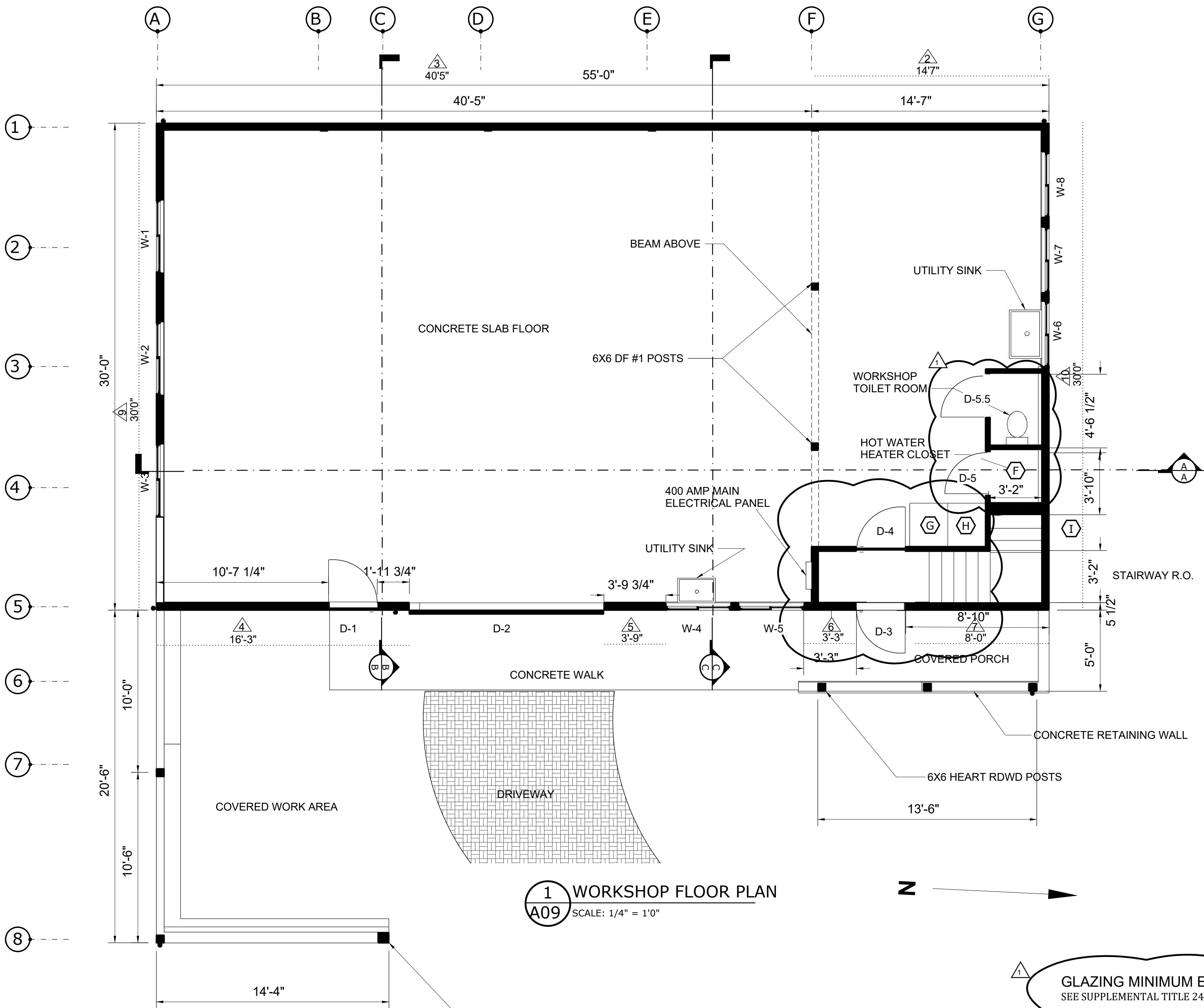
4 STAIRWAY
A08 SCALE: 1/2" = 1'0"



2 SECTION B-B
A08 SCALE: 1/4" = 1'0"



3 SECTION C-C
A08 SCALE: 1/4" = 1'0"



- FLOOR PLAN NOTES**
1. ALL DIMENSIONS ARE OF FRAMING TO FRAMING. SEE SECTION DETAILS FOR THICKNESSES OF WALL FINISHES
 2. WORKSHOP FLOOR SURFACE SHALL BE SLOPED TO FACILITATE THE MOVEMENT OF LIQUIDS TO DRAIN OR TOWARD THE MAIN VEHICLE ENTRY DOORWAY. (CRC R309.1/CBC 406.4.2)

SHEAR WALL SCHEDULE

SHEAR WALL DESIGN PARAMETERS																
WALL PANEL LABEL	WALL SPECIFICATIONS										TOP PLATE ATTACHMENT		SILL ATTACHMENT			
	SHEAR PANEL LABEL				SHEAR IN WALL		Abutting Panel Members and Sill Plates	Studs			TRANSFER @ PANEL ONLY			TRANSFER @ PANEL ONLY		
											8d	16d	A35	16d	A35	16d
	Type	Material and Nailing	LENGTH	REGION	UC	KIPS/FT	Size	Material	Spacing	IN	IN	IN	IN	IN	5/8" in	
											116	135	450	135	450	800
LINE.1 WP1	Force Transfer	1/2" PLY W 10D @ 3/12	14.75	N/A	0.890	0.592	3"x	2X4	STUD	24	2	2	9	2	9	16
LINE.1 WP2	Segmented	1/2" PLY W 10D @ 4/12	14.75	R1	0.552	0.282	2"x	2X4	STUD	24	4	5	19	5	19	34
LINE.1 WP3	Segmented	1/2" PLY W 10D @ 4/12	40.00	R1	0.429	0.219	2"x	2X4	STUD	24	6	6	24	6	24	43
LINE.5 WP1	Segmented	1/2" PLY W 10D @ 4/12	16.25	R1	0.548	0.280	2"x	2X4	STUD	24	4	5	19	5	19	34
LINE.5 WP2	Segmented	1/2" PLY W 10D @ 2/12	3.75	R1	0.949	0.476	3"x	2X4	STUD	24	2	3	11	3	11	20
LINE.5 WP3	Segmented	1/2" PLY W 10D @ 2/12	3.25	R1	0.949	0.671	3"x	2X4	STUD	24	2	2	8	2	8	14
LINE.5 WP4	Segmented	1/2" PLY W 10D @ 3/12	8.00	N/A	0.712	0.474	3"x	2X4	STUD	24	2	3	11	3	11	20
LINE.5 WP5	Force Transfer	1/2" PLY 10D @ 3/12 FTAO	14.75	R1	0.758	0.504	3"x	2X4	STUD	24	2	3	10	3	10	19
LINE.6 WP1	Perforated	1/2" PLY W 10D @ 4/12	30.00	N/A	0.604	0.308	2"x	2X4	STUD	24	4	5	17	5	17	31
LINE.6 MW1	Force Transfer	1/2" PLY 10D @ 3/12 FTAO	30.00	N/A	0.856	0.569	3"x	2X4	STUD	24	2	2	9	2	9	16
LINE.6 UW1	Force Transfer	1/2" PLY 10D @ 3/12 FTAO	30.00	N/A	0.539	0.359	3"x	2X4	STUD	24	3	4	15	4	15	26

HOLD DOWN SCHEDULE

SEE FOUNDATION PLAN FOR HDU LOCATIONS
SEE SECOND FLOOR FRAMING PLAN FOR MST STRAP LOCATIONS

WALL PANEL LABEL	HOLDOWN LABEL	HOLDOWN LABEL	Vert. Chords DIM	ATTACHMENT 16d o/c [IN]	TENSION CHECK	TIE-DOWN
LINE.1 WP1	NC	MST37_24_DF/SP_Nail	2-2X6	6.00	0.921	1.584
LINE.1 WP2	HDU4-SDS2.5_DF-SP	NC	2-2X6	4.00	0.737	3.385
LINE.1 WP3	HDU2-SDS2.5_DF-SP	NC	2-2X6	6.00	0.395	1.216
LINE.5 WP1	HDU2-SDS2.5_DF-SP	NC	2-2X6	5.00	0.956	2.941
LINE.5 WP2	HDU2-SDS2.5_DF-SP	NC	4X6		0.303	0.932
LINE.5 WP3	HDU2-SDS2.5_DF-SP	NC	4X6		0.515	1.583
LINE.5 WP4	HDU5-SDS2.5_DF-SP	NC	2-2X6	3.00	0.851	4.804
LINE.5 WP5	NC	MST37_24_SPF/HF_Nail	2-2X6	6.00	0.936	1.494
LINE.6 WP1	HDU4-SDS2.5_DF-SP	NC	2-2X6	5.00	0.889	3.147
LINE.6 MWPI	HDU2-SDS2.5_DF-SP	NC	2-2X6	6.00	0.747	2.296
LINE.6 UWPI	NC	Not Req'd	2-2X6	6.00	NC	NC

GLAZING MINIMUM ENERGY FEATURES

SEE SUPPLEMENTAL TITLE 24 SUMMARY SHEET FOR SOURCE

Dual Pane Non-Metal Windows/Doors
Operable: Max U-Value = 0.58; Max SHGC = 0.65
Fixed: Max U-Value = 0.55; Max SHGC = 0.67
Patio Door: Max U-Value = 0.58; Max SHGC = 0.65
Velux Skylight Max U-Value = 0.43; Max SHGC = 0.28

DOOR SCHEDULE

LABEL	SIZE (W X H)	TYPE
D-1	3-0 X 6-8	EXTERIOR SOLID WOOD INSWING, WITH TEMPERED GLASS PANE
D-2	12-0 X 11-10	EXTERIOR TRACK MOUNTED ROLLING WOOD, 1.5" THICK PLANK DOOR
D-3	3-0 X 6-8	EXTERIOR SOLID WOOD INSWING, WITH TEMPERED GLASS PANE
D-4	3-0 X 6-8	EXTERIOR SOLID WOOD OUTSWING
D-5	2-8 X 6-8	WOOD INTERIOR, LOUVERED AS PER WATER HEATER REGS
D-5.5	2-8 X 6-8	WOOD INTERIOR
D-6	2-8 X 6-8	WOOD INTERIOR
D-7	2-8 X 6-8	WOOD POCKET DOOR
D-8	5-0 X 6-8	WOOD BYPASS SLIDING PAIR

WINDOW AND DOOR NOTES

1. ALL EXTERIOR DOORS AND WINDOWS TO BE MINIMUM 1 3/8" SOLID CORE WOOD PER WUI REQUIREMENTS (CBC 708A / CRC R337.8)
2. ALL EXTERIOR GLASS TO BE INSULATED AND MINIMUM 1 TEMPERED PANE. (CBC 708A / CRC R337.8)
3. FOR LARGE BARN DOOR, USE CROWN INDUSTRIAL FLAT TRACK HARDWARE (600-800 LBS. CAPACITY) OR SIMILAR HARDWARE.
4. CONSTRUCT LARGE BARN DOOR OF SHIPLAP SOLID PLANK 2X REDWOOD LUMBER, ALL HEART.
5. ROLLING BARN DOOR SHALL RESIST THE INTRUSION OF EMBERS BY PREVENTING GAPS BETWEEN DOOR AND DOOR OPENINGS, AT THE BOTTOM, SIDES AND TOP OF DOOR, FROM EXCEEDING 1/8 INCH.
6. ALL WINDOWS AND DOORS WITH GLAZING SHALL BE BUILT OF ALL HEART VERTICAL GRAIN REDWOOD. GLASS TO BE DUAL PANE WITH AT LEAST ONE PANE TEMPERED, AND SHALL BE NFRC CERTIFIED. MAINTAIN NFRC LABEL LING ON GLASS UNTIL COMPLETION OF THE PROJECT.
7. GLAZING SHALL COMPLY WITH THE MINIMUM ENERGY FEATURES. SEE ADJACENT.
8. EGRESS WINDOWS MUST HAVE OPENINGS THAT IS NOT LESS THAN 5.7 SQUARE FEET, WITH 20" MINIMUM CLEAR WIDTH AND 24" MINIMUM CLEAR HEIGHT, AND THE BOTTOM OF THE OPENING IS NOT MORE THAN 44" ABOVE THE FLOOR. (CRC R310)

APPLIANCES & FIXTURES

- A 36" UNDER COUNTER REFRIGERATOR
- B 24" STAINLESS SINK
- C 24" FREESTANDING ELECTRIC RANGE AND OVEN
- D 24" RANGE HOOD
- E BATHROOM FAN/LIGHT
- F HYBRID ELECTRIC HEAT PUMP WATER HEATER, 50 GALLON
- G WASHER
- H DRYER
- I MINI SPLIT OUTDOOR CONDESER UNIT
- J MINI SPLIT INDOOR WALL MOUNTED UNIT

PLUMBING FIXTURES CALGREEN WATER EFFICIENCY COMPLIANCE

NUMBER	TYPE	MAX FLOW RATE
F-1	KITCHEN FAUCET	1.8 GPM @ 60 PSI
F-2	WORKSHOP FAUCET	1.8 GPM @ 60 PSI
F-3	BATHROOM FAUCET	1.2 GPM @ 60 PSI
F-4	SHOWER HEAD	1.8 GPM @ 80 PSI
F-5	TUB FILLER	N/A
F-6	ADU TOILET	1.28 GAL PER FLUSH
F-7	WORKSHOP TOILET	1.28 GAL PER FLUSH

PLUMBING/APPLIANCE NOTES CONTINUED

5. EQUIPMENT AND APPLIANCES HAVING AN IGNITION SOURCE SHALL BE ELEVATED SUCH THAT THE SOURCE OF IGNITION IS NOT LESS THAN 18 INCHES (457 MM) ABOVE THE FLOOR SURFACE ON WHICH THE EQUIPMENT OR APPLIANCE RESTS. (CBC 406.2.9.1)
6. THE HYBRID ELECTRIC HEAT PUMP WATER HEATER SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND ALL APPLICABLE BUILDING CODES.
7. A DRAIN PAN AND DRAIN LINE TO THE EXTERIOR OF THE BUILDING SHALL BE INSTALLED FOR THE WATER HEATER. (CMC 303.8.1/ CPC 507.5)
8. NO WATER CLOSET SHALL BE SET CLOSER THAN 15 INCHES FROM ITS CENTER TO A SIDE WALL OR OBSTRUCTION. THE CLEAR SPACE IN FRONT OF A WATER CLOSET OR LAVATORY SHALL NOT BE LESS THAN 24 INCHES (CPC 402.5)
9. SHOWERS AND WALLS ABOVE BATHTUBS WITH SHOWER HEADS SHALL BE FINISHED WITH A NONABSORBENT SURFACE TO A HEIGHT NOT LESS THAN 6 FEET ABOVE THE FLOOR. (\$R307.2 CRC)
10. SHOWERS AND TUB-SHOWERS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE, THERMOSTATIC, OR COMBINATION PRESSURE BALANCE/THERMOSTATIC MIXING VALVE TYPE THAT PROVIDE SCALD AND THERMAL SHOCK PROTECTION. (\$408.3 CPC)
11. SHOWER DOOR ENCLOSURES SHALL HAVE SAFETY GLAZING PER (CRC R308.4)

WINDOW SCHEDULE

LABEL	SIZE (W X H)	TYPE
W-1	4-6 X 2-10	CASEMENT, TEMPERED
W-2	4-6 X 2-10	FIXED, TEMPERED
W-3	4-6 X 2-10	CASEMENT, TEMPERED
W-4	4-0 X 3-0	HORIZONTAL SLIDER, TEMPERED
W-5	4-0 X 3-0	HORIZONTAL SLIDER, TEMPERED
W-6	4-0 X 3-4	HORIZONTAL SLIDER, TEMPERED
W-7	4-0 X 3-4	FIXED, TEMPERED
W-8	4-0 X 3-4	HORIZONTAL SLIDER, TEMPERED
W-9	3-3 X 2-8	HORIZONTAL SLIDER, TEMPERED
W-10	3-3 X 2-8	FIXED, TEMPERED
W-11	3-3 X 2-8	HORIZONTAL SLIDER, TEMPERED
W-12	5-1 X 4-0	HORIZONTAL SLIDER, TEMPERED
W-13	2-6 X 2-4	HORIZONTAL SLIDER, TEMPERED
W-14	4-8 X 3-6	HORIZONTAL SLIDER, TEMPERED, EGRESS
W-15	REMOVED	

SKYLIGHTS REMOVED

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PROJECT
CATHEDRAL RESIDENCE,
ADU/WORKSHOP
APN 063-141-23

REVISION
2/16/23

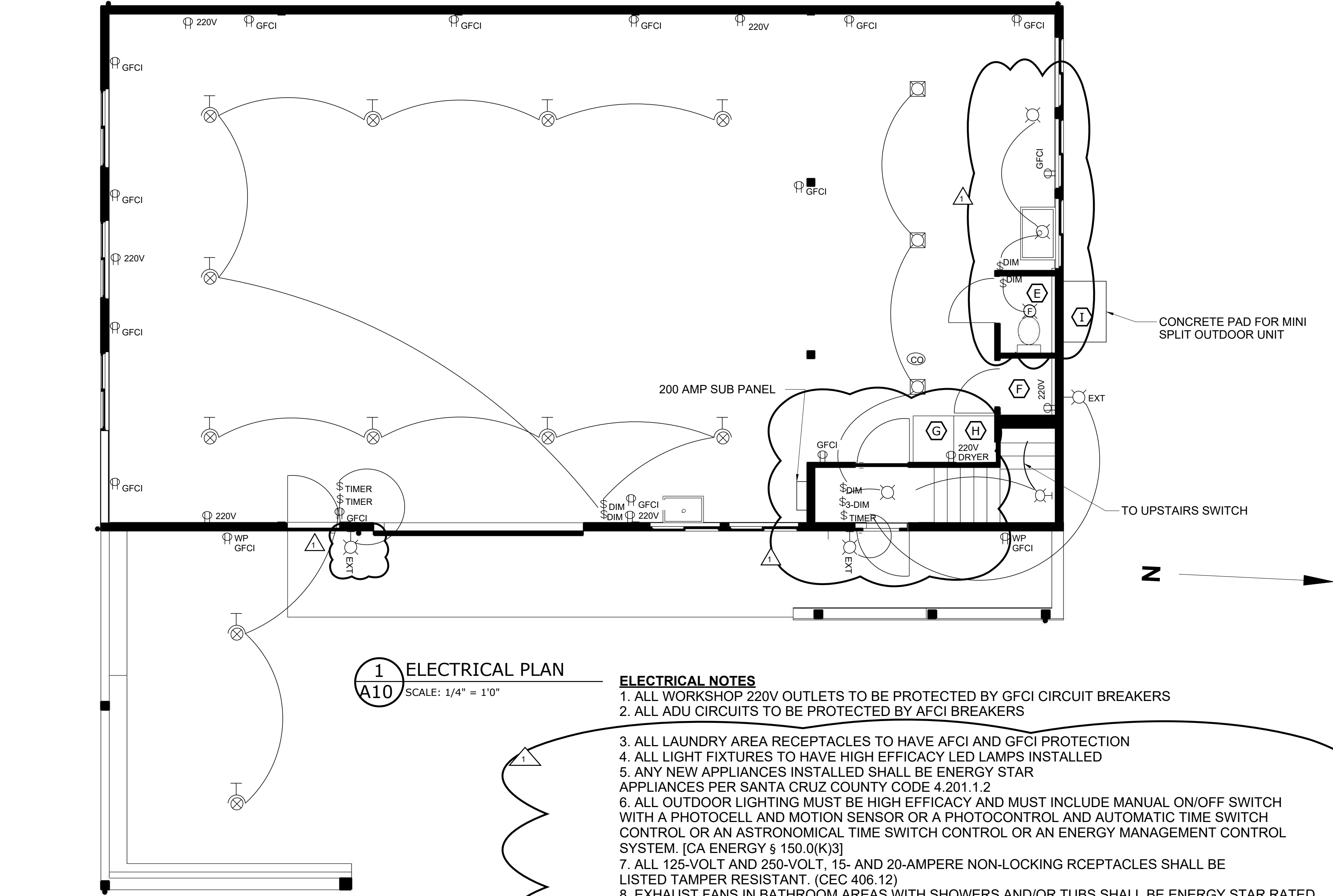
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DRAWN BY: TOBY HARGREAVES 2/16/2023



Workshop/ADU
Floor Plan

A.09



1 ELECTRICAL PLAN
A10 SCALE: 1/4" = 1'0"

ELECTRICAL NOTES

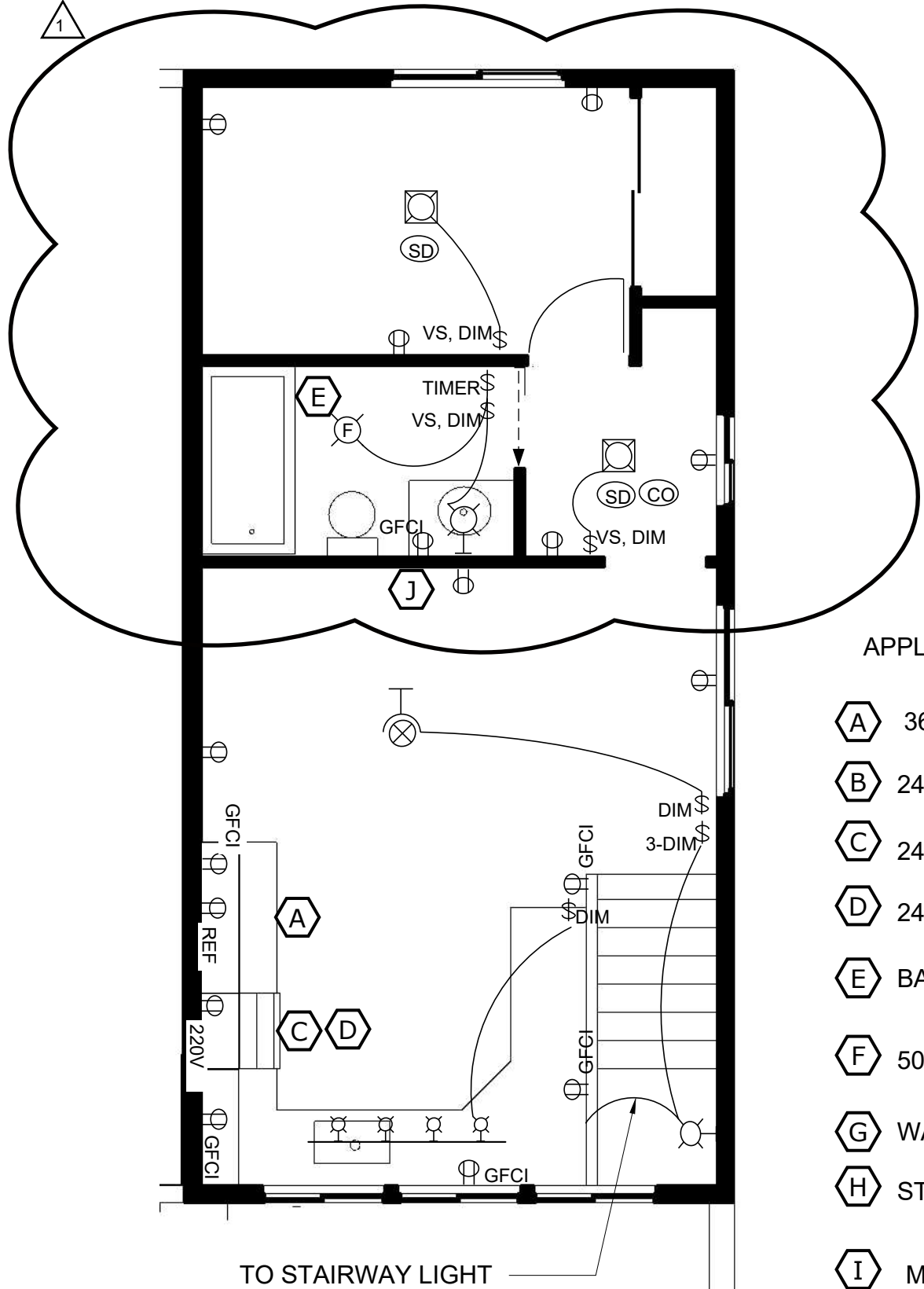
1. ALL WORKSHOP 220V OUTLETS TO BE PROTECTED BY GFCI CIRCUIT BREAKERS
2. ALL ADU CIRCUITS TO BE PROTECTED BY AFCI BREAKERS
3. ALL LAUNDRY AREA RECEPTACLES TO HAVE AFCI AND GFCI PROTECTION
4. ALL LIGHT FIXTURES TO HAVE HIGH EFFICACY LED LAMPS INSTALLED
5. ANY NEW APPLIANCES INSTALLED SHALL BE ENERGY STAR APPLIANCES PER SANTA CRUZ COUNTY CODE 4.201.1.2
6. ALL OUTDOOR LIGHTING MUST BE HIGH EFFICACY AND MUST INCLUDE MANUAL ON/OFF SWITCH WITH A PHOTOCELL AND MOTION SENSOR OR A PHOTOCONTROL AND AUTOMATIC TIME SWITCH CONTROL OR AN ASTRONOMICAL TIME SWITCH CONTROL OR AN ENERGY MANAGEMENT CONTROL SYSTEM. [CA ENERGY § 150.0(K)3]
7. ALL 125-VOLT AND 250-VOLT, 15- AND 20-AMPERE NON-LOCKING RCEPTACLES SHALL BE LISTED TAMPER RESISTANT. (CEC 406.12)
8. EXHAUST FANS IN BATHROOM AREAS WITH SHOWERS AND/OR TUBS SHALL BE ENERGY STAR RATED AND HAVE A HUMIDISTAT CONTROL (UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM). (CA ENERGY STANDARD 150(O)/ASHRAE 62.2 AND CALGREEN 4.506.1) THE MINIMUM LOCAL EXHAUST RATE SHALL BE 50 CFM (CRC R303.3, EXCEPTION).

ELECTRIC HOT WATER HEATER SPECS

A.O. Smith Signature 900 50-Gallon Tall 10-year Limited Warranty
4500-Watt Double Element Electric Water Heater with Hybrid Heat Pump
Model #HP10-50H45DV

Warranty	10-year limited
Number of Elements	2
ENERGY STAR Certified	
Water Connection Size	3/4-in
Temperature and Pressure Relief Valve	
Smart Compatible	X
Series Name	Signature 900
CA Residents: Prop 65 Warning(s)	Prop 65 WARNING(S)
UNSPSC	40101800
Weight (lbs.)	196.0
Use Location	Indoor
Hybrid Heat Pump Technology	
Commercial/Residential	Residential
Water Heater Style	Tall
Insulation Thickness (inches)	2.0

Wi-Fi Compatibility	X
Point of Use	X
Foam Insulation	
Nominal Capacity (Gallons)	50.0
Mobile Home Compatible	X
Bluetooth Compatibility	X
Element Type	Copper
Element Wattage (Watts)	4500.0
Height (inches)	63.0
GPH Recovery at 90 Degrees F (Gallons)	20.7
Water Connection Location	Side
Uniform Energy Factor	3.45
Family Size	4.0
Rated Storage Capacity (Gallons)	46-Gallon
Safety Listing	UL safety listing



2 ADU ELECTRICAL PLAN
A10 SCALE: 1/4" = 1'0"

ELECTRICAL NOTES, CONTINUED

9. NEWLY INSTALLED KITCHEN RANGE HOODS REQUIRE MANDATORY VERIFICATION BY A HERS RATER. THE HERS RATER WILL VERIFY THAT THE INSTALLED KITCHEN RANGE HOOD IS CERTIFIED WITH THE HOME VENTILATING INSTITUTE (HVI), AND THAT IT IS RATED TO MEET THE REQUIRED AIRFLOW OF 100 CFM MINIMUM AND A NOISE LEVEL OF 3 SONES OR LESS. KITCHEN RANGE HOODS EXHAUSTING MORE THAN 400 CFM AT LOWEST SPEED ARE EXEMPT FROM THE MAXIMUM SONE REQUIREMENT. [CA ENERGY STANDARD 150(O)1G]
10. ALL HIGH EFFICACY LIGHT FIXTURES REQUIRED TO BE CERTIFIED TO JA8-2019 (DOES NOT INCLUDE FLUORESCENT LIGHT FIXTURES) MUST BE CONTROLLER BY A DIMMER, VACANCY SENSOR, OR MANUAL-ON OCCUPANCY SENSOR.EXCEPTIONS ARE PROVIDED FOR CLOSETS SMALLER THAN 70 SQUARE FEET IN FLOOR AREA AND LIGHT FIXTURES FOR HALLWAYS. [CA ENERGY §150.0(K)2.J]
11. JA8-2019 MARKING IS REQUIRED FOR THE FOLLOWING:
-ALL LIGHT SOURCES IN CEILING RECESSED DOWNLIGHT LUMINAIRES. CEILING RECESSED DOWNLIGHT LUMINAIRES SHALL NOT HAVE SCREW BASES REGARDLESS OF LAMP TYPE AS DESCRIBED IN CA ENERGY §150.(k)1.C.
-GU24 SOCKETS CONTAINING LED LIGHT SOURCES. A GU24 LAMP FITTING IS A TWO-PIN CONNECTOR FOR COMPACT FLUORESCENT LAMPS (CFL) OR LED LAMPS THAT USE A BAYONET MOUNT-LIKE TWIST-LOCK TWO-PIN CONNECTOR INSTEAD OF AN EDISON SCREW FITTING.
-ANY LIGHT SOURCE NOT OTHERWISE LISTED ABOVE AND CERTIFIED TO THE COMMISSION AS COMPLYING WITH JOINT APPENDIX 8

ELECTRICAL LEGEND

	RECEPTACLE
	GFCI RECEPTACLE
	WEATHER PROTECTED OUTDOOR GFCI RECEPTACLE
	SWITCH
	DIMMER SWITCH
	3 WAY DIMMER SWITCH
	PENDANT DOWN LIGHT
	RECESSED CEILING LIGHT
	EXTERIOR WALL MOUNTED LIGHT
	WALL MOUNTED LIGHT
	TRACK LIGHTING
	SURFACE MOUNTED CEILING LIGHT
	EXHAUST FAN/LIGHT

SPECIAL RECEPTACLES

	VACANCY SENSOR DIMMER LIGHT SWITCH
	TIMER SWITCH WITH ASTRONOMICAL CLOCK FOR OUTDOOR LIGHTING
	GARBAGE DISPOSAL SWITCH
	DISHWASHER PLUG OR J-BOX
	ISLAND RECEPTACLE (GFCI PROTECTED, NO MORE THAN 12" BELOW COUNTER EDGE)
	REFRIGERATOR OUTLET
	OUTLET ABOVE BEAM FOR STRIP LIGHTING
	220V RECEPTACLE OR J-BOX FOR DRYER, BOILER, AND OVEN/RANGE
	SMOKE DETECTOR, HARDWIRED WITH BATTERY BACKUP AND INTERCONNECTED
	SMOKE AND CARBON MONOXIDE DETECTOR, HARDWIRED WITH BATTERY BACKUP AND INTERCONNECTED

MINI SPLIT HEAT PUMP SPECS

Pioneer® Diamante Series 12,000 BTU 20 SEER 115V Ductless
Mini-Split Air Conditioner Heat Pump Full Set with 16 Ft. Kit

Performance Data

- **Power Supply:** 110~120V, 60Hz, 1Ph
- **Cooling Rated Capacity:** 12,000 BTU/h
- **Cooling Capacity Range:** 3,700~13,000 BTU/h
- **Cooling SEER:** 20 BTU/w
- **Heating Rated Capacity:** 12,000 BTU/h
- **Heating Capacity Range:** 3,500~13,500 BTU/h
- **Heating HSPF4/HSPF5:** 10 / 7.8 BTU/w
- **Refrigerant Type:** R410A/30
- **Suitable Area:** 200~450 Sq.F

Indoor Unit Data

- **Air Flow (Hi):** 383 CFM
- **Sound Level (Hi/Med/Low):** 40 / 37 / 34 dB(A)
- **Net Dimensions (WDH):** 32 x 8-1/8 x 11.5 Inches
- **Carton Dimensions (WDH):** 34-7/8 x 11 x 14-1/2 Inches
- **Net / Gross Weight:** 17 / 24.2 lbs

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PROJECT
CATHEDRAL RESIDENCE,
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APN 063-141-23

REVISION
2/16/23

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7/27/22

DRAWN BY: TOBY HARGREAVES 2/16/2023

Toby Hargreaves

Workshop/ADU
Electrical/Mechanical Plan

BOTH STRUCTURES WILL HAVE THE SAME WALL COVERING

The natural color of lime finish plaster is pure white. We plan to pigment the finish coat with iron oxide pigments (mixing red, yellow, brown) to achieve a light earth tone. Something akin to the photos below, both of which are lime plaster finishes. The photo below left also suggested what we are hoping to do with the trim: all heart natural redwood, which will of course gray and weather with time.



BOTH STRUCTURES WILL HAVE THE SAME ROOFING

Option a:



Option b:



BOTH STRUCTURES WILL HAVE THE SAME WINDOW/DOOR/TRIM STYLE

As is described in the Door and Window Notes on the Floor Plan pages, the doors and windows will be custom built. Other than the glass, all parts (frames and sashes, doors, jambs, trim) will be all heart vertical grain redwood. They will be coated with Outdoor Defense Oil, which is natural tung oil with citrus oil and zinc added for mold and UV protection. Porches will be constructed with heavy timber redwood post and beams, and the fascia and barge rafters will be also heart redwood.

There are multiple low (less than 3 ft.) retaining walls on the proposed grading plan (page C3). These we plan to construct with dry stack stone, in an effort to achieve as natural a feeling and aesthetic as possible, as well as to keep a low carbon footprint

There is an existing perimeter fence surrounding the property. It is primarily fixed knot field fencing with t-posts to keep deer out. There is also a section of redwood privacy screening fence along the road.

Saint-Antier Natural Hydraulic Lime 3.5 (NHL 3.5) is an industry standard for historic restoration. It is used as the sole lime binder for its great Portland cement, stucco and plaster formulas, whereas the 3.5 Portland cement was originally used for concrete. It is also used for building new sustainable structures where lower embodied energy materials are desired. Saint-Antier NHL is pure and natural, free of additives and has been in use throughout the world for over 165 years.

Saint-Antier medium strength or "moderate" hydraulic lime. It is used where a respectable amount of free lime, (that which is responsible for self-healing), is desired along with an excellent modulus of elasticity and high vapor exchange characteristics in the NHL range. All Saint-Antier Natural Hydraulic limes set within 24 hours. NHL 3.5 reaches its initial cure in about three days. This lime is used for making soft yet durable pointing mortars which when mixed

of vapor permeability than all mortar mixes containing any amount of Portland cement. This remains true while achieving comparable strengths for many applications without the need to use a large amount of cement or a Pozzolan to achieve good, or effective, results.

Saint-Antier NHL is completely immune to sulfates and salts. Alkali-silica reactions, common with Portland cement mortars do not take place with Saint-Antier Natural Hydraulic Lime. The durability of these mortars eliminates any need for a high temperature fired lime which are required for the production of Portland Cement. Saint-Antier NHL has an excellent modulus of elasticity.

Unlike Portland cement-based mortars, Saint-Antier NHL is the only material that requires no specially placed control joints in walls. The breathability of mortars with Saint-Antier NHL also reduce, if not eliminate, the requirement for weep vents in curtain or veneer walls.

- High vapor exchange qualities
- 80% less carbon emissions than the Portland cement alternative
- Re-absorption of CO₂ in curing
- Will not deteriorate timber

Saint-Astair NHL 3.5 must be mixed with natural or manufactured sharp sand with at least 4 grades forming a substantial part of the sand and no more than 3% of particles smaller than grade #200 (0.075 mm). Sand must be clean and free of clay and silt. Clean, potable water may be used. The mix must be clean and free of any foreign matter. Water only until the mix contains the minimum amount of mixing water to become workable. Keep water ratios consistent between batches to ensure consistency in material performance and appearance. Mix for a minimum of ten minutes, let rest for five minutes (for hydration) then continue mixing for another five minutes. Judge workability only after continuous mixing.

DO NOT ADD PORTLAND CEMENT, LIME, FLY ASH, POZZOLANS, ACCELERATORS, RETARDERS TO

Customer Service Centers
Salem, OR: 503-390-7174 or 800-272-7023 | Spokane, WA: 509-536-4097 or 800-776-8771

General Application

Must be substrate and any previous lime mortar application with water immediately before a new application but only as a slight dampening to control absorption. No standing water should remain during a new application. If any excessive or moderate amount of moisture does remain during damp, bad flashings or moisture from a chimney cavity this must be corrected before new work begins. ASTM has reports on normal absorption rates for most building materials not explicitly covered by individual manufacturers.

Wait a minimum of 10 days between coats of stucco (render). Within 24 hours of an installation job closed any openings that would be the next coat is installed. Saint-Gobain NHL mortar can be reworked within 24 hours depending on weather conditions. Protect the new work for 72 hours from wind, direct sun, freezing temperatures, excessive heat and rain.

Protect the work outside by using spring clamps to hold burlap or jute a few inches away from the work and not in contact to avoid staining the work. Wet the work and the covers a few times a day for a three day curing period. Breathable fabric covers allow moisture to slowly escape and encourage a slow cure. Tarps could be used on the outside of the scaffold to protect from hot sun, driving rain and drying winds.

Disposal: Sweep bulk material into containers and dispose of in a landfill in accordance with all local, state and federal regulations. The cured product is non-hazardous.

Strength factor	3.5 (moderately hydraulic)
Compressive strengths	870 psi @ 24 months w/ Lime: Sand mix ratio of 1:2.5
Residue	@ 0.09mm: 6.5%
Available (free) Lime Ca(OH) ₂ after slaking	25%+
Packing	55 pound bags
Whiteness index	72
Surface Cover	274 sq.ft/oz

SKYLINE ROOFING®

f m e o b e e n

SMP COLORS Dura Tech™ xfl
12" – 26ga 16" – 26ga

ZINCALUME® Plus		AK, CA, OR, WA
Winter White	—	CA, OR, WA
Surf White	—	—
Light Stone	—	CA, OR, WA
Desert Beige	—	—
Cascade Gray	—	—
Taupe	OR	—
Patina Steel	—	CA, OR, WA
Chesnut Brown	OR	AK, CA, OR, WA
Classic Brown	—	AK, CA, OR, WA
Mocha Black	OR	AK, CA, OR, WA
Canyon Red	—	—
Rustic Red	—	AK, CA, OR, WA
Old Town Gray	OR	CA, OR, WA
Old Zinc Gray	OR	AK, CA, OR, WA
Weathered Copper	OR	AK, CA, OR, WA
Slate Gray	OR	AK, CA, OR, WA
Tahoe Blue	OR	AK, CA, OR, WA
Everglade	—	CA, OR, WA
Densal Green	OR	AK, CA, OR, WA
Forest Green	OR	AK, CA, OR, WA
Copper Penny®	—	AK, CA, OR, WA
Premium Coat - Natural Rust Metal is galvalume	—	AK, CA, OR, WA

cool
DURA TECH™ xFL

Keeps the heat out and the color brilliant.

Superior color retention • Chalk and fade resistant • Energy saving colors.

REPRESENTATION OF COLORS MAY VARY DUE TO PRINTING LIMITATIONS.

Sample color chips are available upon request. Consult your ASC Building Products representative for more information.

* Please note these colors are batch sensitive (they have color variations) and are directional in nature. Different batches are not to be mixed on projects. We recommend that you request a sample of current stocked material to review actual color before ordering to ensure color accuracy. We are not responsible for color variations.

Manufacturing Locations:

AZ - Chandler, Arizona
CA - Sacramento, California
OR - Salem, Oregon
WA - Spokane, Washington

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www.ascbp.com

GENERAL NOTES

- All construction shall comply with applicable requirements in the current edition of the Santa Cruz County Design Criteria.
- All Figure references (Fig.) refer to standard details in the current edition of the Santa Cruz County Design Criteria.
- No changes in the approved plans shall be made without prior approval by the Santa Cruz County Planning Department.
- The Director of Planning, or his authorized representative, shall have the authority to stop work if the work is not being done in accordance with the approved Improvement Plans.
- The contractor shall notify the Santa Cruz County Planning Department (454-2580 or 454-2077) at least 24 hours prior to the start of construction.
- All drainage inlets are to be precast concrete Christy boxes, model as indicated on plan, or equivalent, with concrete bottoms.
- All storm drain material to be SDR 35 PVC.
- All construction shall be in accordance with the recommendations of the Geotechnical Investigation prepared for the site by Dees & Associates, Inc., Project No. SCR-1489, dated July 2020.
- All construction shall be in accordance with the recommendations of the Arborist Report prepared by Henry Bosinger, dated Feb. 26, 2023.

ABBREVIATIONS

AB	AGGREGATE BASE	GB	GRADE BREAK
AC	ASPHALT CONCRETE	INV	INVERT
AGG	AGGREGATE	LF	LINEAR FEET
BC	BEGIN CURVE	LT	LEFT
BOT	BOTTOM	LP	LOW POINT
BVC	BEGIN VERTICAL CURVE	PCC	POINT OF COMPOUND CURVE
CL	CENTERLINE	PRC	POINT OF REVERSE CURVE
DS	DOWN SPOUT	R	RADIUS
(E)	EXISTING	RC	RELATIVE COMPACTION
EC	END CURVE	RT	RIGHT
EG	EXISTING GROUND	S	SLOPE
EVC	END VERTICAL CURVE	SD	STORM DRAIN
FF	FINISHED FLOOR	STA	STATION
FG	FINISHED GRADE	TSW	TOP OF STEMWALL
FL	FLOWLINE	TG	TOP OF GRATE
FS	FINISHED SURFACE	VC	VERTICAL CURVE

EARTHWORK ESTIMATE

REMOVAL AND RECOMPACTION OF TOP 3' OF SUBGRADE BELOW NEW BUILDING FOUNDATIONS PER PROJECT GEOTECHNICAL REPORT:
VOLUME = ±700 CUBIC YARDS

GENERAL GRADING FOR HOUSE WORKSHOP & DRIVEWAY (ACCOUNTING FOR STRUCTURAL SECTIONS OF DRIVEWAY AND BUILDING SLABS):

CUT = 490 CUBIC YARDS
FILL = 590 CUBIC YARDS (ASSUMING 15% SHRINKAGE FACTOR)

EXCAVATION FOR DETENTION/RETENTION POND, SEPTIC TANKS, & SEPTIC LEACH FIELD:
CUT = 110 CUBIC YARDS

PROJECT TOTAL:

CUT = 600 CUBIC YARDS
FILL = 590 CUBIC YARDS
NET = 10 CUBIC YARDS CUT

EXCESS CUT MATERIAL SHALL BE SPREAD ON SITE.

EROSION CONTROL NOTES

- Stockpile disturbed topsoil and redistribute around the finished site as seed base.
- Disturb only those areas under construction. Do not leave soil unprotected.
- Exposed soil shall be protected at all times as follows:
Seed and Straw Mulch

Seed and straw mulch is to be used for soil disturbed areas as a means for temporary protection until permanent stabilization is established. It may be used on slopes up to 3:1 H:V (33%).

Seed and straw mulch shall consist of spreading seed (a minimum of 5 lbs/1000 sq. ft.) over disturbed areas and then placing a uniform layer of straw (2-3 bales/1000 sq. ft.) incorporating it into the soil with a studded roller or anchoring it with a tackifier stabilizing emulsion.

Note:

In areas that are not sensitive habitat, the seed shall be annual winter barley and the straw shall be derived from rice, barley, or wheat. In areas that are sensitive habitat, the seed mix and straw shall be as recommended by the project biologist, be indicated on the plans, and approved by the Planning Department.

SEDIMENT CONTROL NOTES

Silt Fence

Silt fences shall be used for perimeter control. They shall be placed below areas where sheet flows discharge from the site. They should also be used as interior controls below disturbed areas where runoff may occur in the form of sheet and rill erosion.

Silt fences shall not be used in streams, channels, drain inlets, or any place where flow is concentrated.

Silt fences shall not be used in locations where ponded water may cause flooding.

Silt fences shall not be used on a slope, or across any contour line. If not installed at the same elevation throughout, silt fences will create erosion.

The maximum length of slope draining to any point along the silt fence should be 200 feet or less.

The ends of the silt fence shall be turned uphill to prevent stormwater from flowing around the fence.

CONSTRUCTION WASTE CONTROL MEASURES

- IF SPOILS ARE TO BE STORED ON SITE, PLACE SPOILS PILE ON A FLAT PORTION OF THE SITE AND SURROUND IT WITH A SILT FENCE PER DETAIL C7-B.
- THE SOIL STOCKPILE AREA SHALL BE SURROUNDED WITH A SILT FENCE PER DETAIL C7-B. WHEN ACTIVE WORK IS NOT BEING DONE ON THE STOCKPILE, IT SHALL BE COVERED WITH PLASTIC AND THE PLASTIC SHALL BE SECURED IN PLACE WITH ROPES AND SANDBAGS.

SITE HOUSEKEEPING REQUIREMENTS

CONSTRUCTION MATERIALS

- ALL LOOSE STOCKPILED CONSTRUCTION MATERIALS THAT ARE NOT ACTIVELY BEING USED (i.e. SOIL, SPOILS, AGGREGATE, FLY ASH, STUCCO, HYDRATED LIME, ETC.) SHALL BE COVERED AND BERMED.
- ALL CHEMICALS SHALL BE STORED IN WATERTIGHT CONTAINERS (WITH APPROPRIATE SECONDARY CONTAINMENT TO PREVENT ANY SPILLAGE OR LEAKAGE) OR IN A STORAGE SHED (COMPLETELY ENCLOSED).
- EXPOSURE OF CONSTRUCTION MATERIALS TO PRECIPITATION SHALL BE MINIMIZED. THIS DOES NOT INCLUDE MATERIALS AND EQUIPMENT THAT ARE DESIGNED TO BE OUTDOORS AND EXPOSED TO ENVIRONMENTAL CONDITIONS (i.e. POLES, EQUIPMENT PADS, CABINETS, CONDUCTORS, INSULATORS, BRICKS, ETC.)
- BEST MANAGEMENT PRACTICES TO PREVENT THE OFF-SITE TRACKING OF LOOSE CONSTRUCTION AND LANDSCAPE MATERIALS SHALL BE IMPLEMENTED.

WASTE MANAGEMENT

- DISPOSAL OF ANY RINSE OR WASH WATERS OR MATERIALS ON IMPERVIOUS OR PERVIOUS SITE SURFACES OR INTO THE STORM DRAIN SYSTEM SHALL BE PREVENTED.
- SANITATION FACILITIES SHALL BE CONTAINED (e.g., PORTABLE TOILETS) TO PREVENT DISCHARGES OF POLLUTANTS TO THE STORM WATER DRAINAGE SYSTEM OR RECEIVING WATER, AND SHALL BE LOCATED A MINIMUM OF 20 FEET FROM AN INLET, STREET OR DRIVEWAY, STREAM, RIPARIAN AREA OR OTHER DRAINAGE FACILITY.
- SANITATION FACILITIES SHALL BE INSPECTED REGULARLY FOR LEAKS AND SPILLS AND CLEANED OR REPLACED AS NECESSARY.
- COVER WASTE DISPOSAL CONTAINERS AT THE END OF EVERY BUSINESS DAY AND DURING A RAIN EVENT.
- DISCHARGES FROM WASTE DISPOSAL CONTAINERS TO THE STORM WATER DRAINAGE SYSTEM OR RECEIVING WATER SHALL BE PREVENTED.
- STOCKPILED WASTE MATERIAL SHALL BE CONTAINED AND SECURELY PROTECTED FROM WIND AND RAIN AT ALL TIMES UNLESS ACTIVELY BEING USED.
- PROCEDURES THAT EFFECTIVELY ADDRESS HAZARDOUS AND NON-HAZARDOUS SPILLS SHALL BE IMPLEMENTED.
- EQUIPMENT AND MATERIALS FOR CLEANUP OF SPILLS SHALL BE AVAILABLE ON SITE. SPILLS AND LEAKS SHALL BE CLEANED UP IMMEDIATELY AND DISPOSED OF PROPERLY.
- CONCRETE WASHOUT AREAS AND OTHER WASHOUT AREAS THAT MAY CONTAIN ADDITIONAL POLLUTANTS SHALL BE CONTAINED SO THERE IS NO DISCHARGE TO THE UNDERLYING SOIL AND ONTO THE SURROUNDING AREAS.

VEHICLE STORAGE AND MAINTENANCE

- MEASURES SHALL BE TAKEN TO PREVENT OIL, GREASE, OR FUEL TO LEAK IN TO THE GROUND, STORM DRAINS, OR SURFACE WATERS.
- ALL EQUIPMENT OR VEHICLES, WHICH ARE TO BE FUELED, MAINTAINED, AND STORED ON SITE SHALL BE IN A DESIGNATED AREA FITTED WITH APPROPRIATE BMPs.
- LEAKS SHALL BE IMMEDIATELY CLEANED AND LEAKED MATERIALS SHALL BE DISPOSED OF PROPERLY.

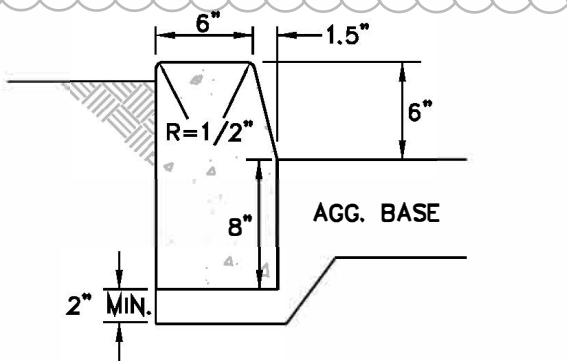
LANDSCAPE MATERIALS

- CONTAIN STOCKPILED MATERIALS SUCH AS MULCHES AND TOPSOIL WHEN THEY ARE NOT ACTIVELY BEING USED.
- CONTAIN FERTILIZERS AND OTHER LANDSCAPE MATERIALS WHEN THEY ARE NOT ACTIVELY BEING USED.
- DISCONTINUE THE APPLICATION OF ANY ERODIBLE LANDSCAPE MATERIAL WITHIN 2 DAYS BEFORE A FORECASTED RAIN EVENT OR DURING PERIODS OF PRECIPITATION.
- APPLY ERODIBLE LANDSCAPE MATERIAL AT QUANTITIES AND APPLICATION RATES ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR BASED ON WRITTEN SPECIFICATIONS BY KNOWLEDGEABLE AND EXPERIENCED FIELD PERSONNEL.
- STACK ERODIBLE LANDSCAPE MATERIALS ON PALLETS AND COVER, OR STORE SUCH MATERIALS WHEN NOT ACTIVELY BEING USED.

ARCHAEOLOGY NOTES

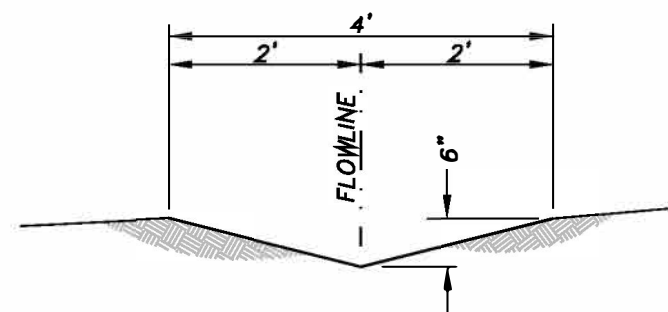
-PURSUANT TO SECTIONS 16.40.040 AND 16.42.080 OF THE COUNTY CODE, IF AT ANY TIME DURING SITE PREPARATION, EXCAVATION, OR OTHER GROUND DISTURBANCE ASSOCIATED WITH THIS DEVELOPMENT, ANY ARTIFACT OR OTHER EVIDENCE OF AN HISTORIC ARCHAEOLOGICAL RESOURCE OR A NATIVE AMERICAN CULTURAL SITE IS DISCOVERED, THE RESPONSIBLE PERSONS SHALL IMMEDIATELY CEASE AND DESIST FROM ALL FURTHER SITE EXCAVATION AND NOTIFY THE SHERIFF-CORONER IF THE DISCOVERY CONTAINS HUMAN REMAINS, OR THE PLANNING DIRECTOR IF THE DISCOVERY CONTAINS NO HUMAN REMAINS. THE PROCEDURES ESTABLISHED IN SECTION 16.40.040 AND 16.42.080 SHALL BE OBSERVED.

-ARCHAEOLOGIST OF RECORD: PATRICIA PARAMOURE, ARCHAEOLOGICAL CONSULTANT, (408)891-9878, patparamourearcheconsult@gmail.com
5439 SOQUEL DRIVE, SOQUEL, CA 95073

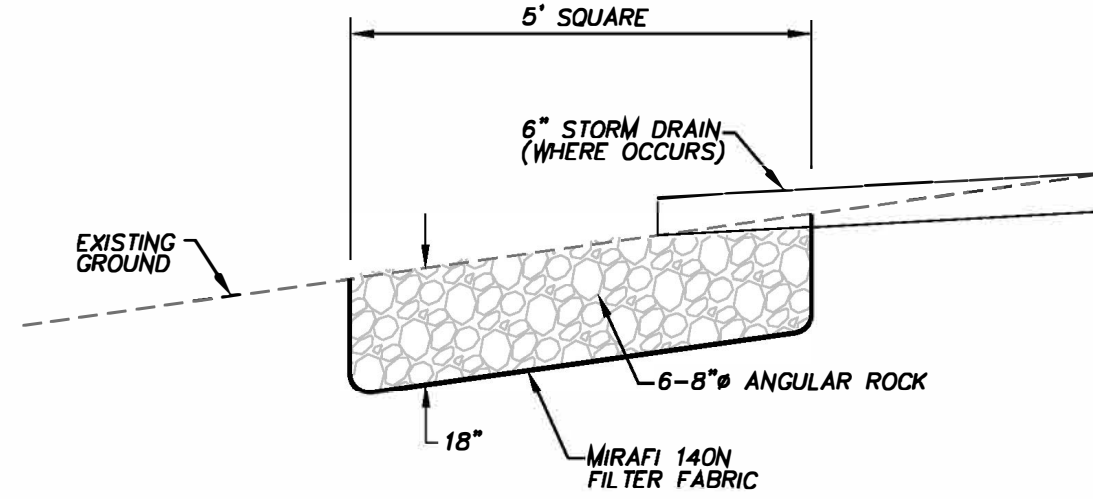


TO BE CONSTRUCTED OF CLASS B CONCRETE

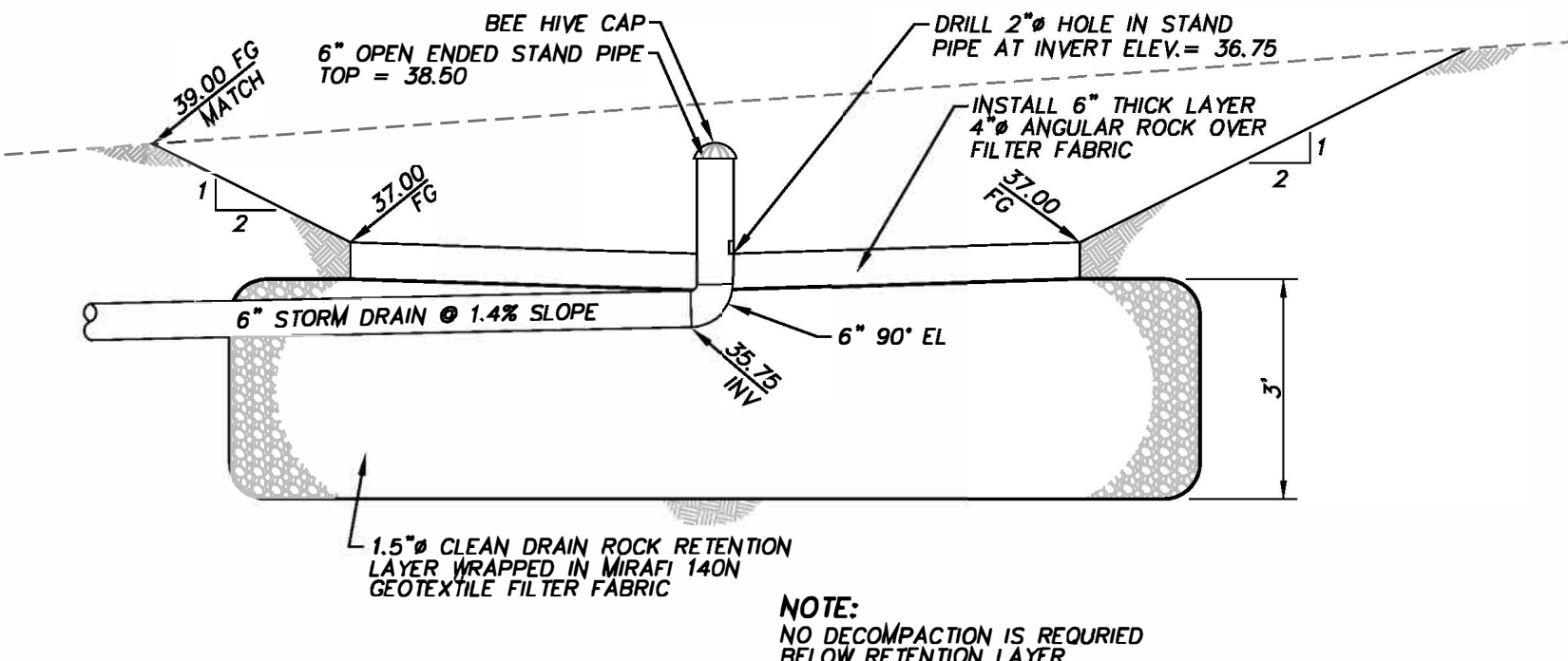
DETAIL C1-A
CONCRETE CURB
N.T.S.



DETAIL C1-B
SURFACE SWALE
N.T.S.



DETAIL C1-C
ROCK DISSIPATOR DETAIL
N.T.S.



DETAIL C1-D
DETENTION/RETENTION POND DETAIL
N.T.S.

DRAINAGE ANALYSIS

APPENDIX A – PROJECT INFORMATION & THRESHOLD DETERMINATION.

TOTAL LOT SIZE = 2.38 ACRES
EXISTING PERMITTED IMPERVIOUS AREA = 0 S.F.
REPLACED PERMITTED IMPERVIOUS AREA = 0 S.F.
REPLACED PERMITTED SEMI-IMPERVIOUS AREA = 0 S.F.
TOTAL PROPOSED SELF-TREATING AREA = 0 S.F.
PROPOSED IMPERVIOUS AREA = 5,730 S.F.
PROPOSED SEMI-IMPERVIOUS AREA = 3,670 S.F. (1,835 S.F. ADJUSTED)
TOTAL REPLACED IMPERVIOUS & SEMI-IMPERVIOUS AREA = 0 S.F.

TOTAL PROPOSED IMPERVIOUS & SEMI-IMPERVIOUS AREA = 7,565 S.F.
PROJECT THRESHOLD CLASSIFICATION = LARGE PROJECT

PRE-DEVELOPMENT CONDITIONS

THE PRE-DEVELOPED SITE WILL BE CONSIDERED 100% PERVIOUS
FOOTPRINT OF NEW IMPERVIOUS AND SEMI IMPERVIOUS AREAS = 9,400 S.F.

RUNOFF COEFFICIENT = 0.30
 $C_{a10} = 1.0$
 $i_{10} = 2.5 \text{ in/hr}$ ($P_{60} = 2.0$)
 $Q_{10} = C_{a10} \times (1.0)(0.30)(2.5)(9,400/43560) = 0.16 \text{ cfs}$

POST-DEVELOPMENT CONDITIONS

PROPOSED IMPERVIOUS AREA = 5,730 S.F.
PROPOSED SEMI-IMPERVIOUS AREA = 3,670 S.F.
RUNOFF COEFFICIENT FOR IMPERVIOUS AREA = 0.90
RUNOFF COEFFICIENT FOR SEMI-IMPERVIOUS BASEROCK AREA = 0.60
COMPOSITE RUNOFF COEFFICIENT = 0.78

$C_{a10} = 1.0$
 $i_{10} = 2.5 \text{ in/hr}$ ($P_{60} = 2.0$)
 $Q_{10} = C_{a10} \times (1.0)(0.78)(2.5)(9,400/43560) = 0.42 \text{ cfs}$

MITIGATION MEASURES

- IN ORDER TO REDUCE NEW IMPERVIOUS AREAS, THE MAJORITY OF THE NEW DRIVEWAY WILL BE CONSTRUCTED USING SEMI PERVIOUS BASEROCK.
- RUNOFF FROM ALL NEW IMPERVIOUS AND SEMI-IMPERVIOUS AREAS WILL BE COLLECTED IN A CLOSED CONDUIT STORM DRAIN SYSTEM. THIS SYSTEM WILL DIRECT RUNOFF INTO A DETENTION POND WITH A GRAVEL RETENTION LAYER BELOW.

SIZE DETENTION POND

THE P_{60} VALUE FOR THE SITE = 2.0
THE C_{PRE} VALUE FOR THE SITE = 0.30
THE C_{POST} VALUE FOR NEW IMPERVIOUS AREAS = 0.90

APPLYING THESE PARAMETERS TO FIG. SWM-15a OF THE COUNTY DESIGN CRITERIA, THE REQ'D DETENTION VOLUME = 2,200 CF/ACRE OF NEW IMPERVIOUS AREA = 2,200 x 7,565/43560 = 382 CUBIC FEET OF REQUIRED DETENTION VOLUME.

THE FOOTPRINT OF THE DETENTION POND IS 25' x 10' WITH AN AVERAGE AVAILABLE DEPTH OF 1.62'. THE RESULTING DETENTION VOLUME PROVIDED = 405 CUBIC FEET.

SIZE RESTRICTING ORIFICE OUT OF DETENTION POND

THE RESTRICTING ORIFICE SHALL BE SIZED TO PASS 0.16 CFS MAXIMUM IN ORDER TO MAINTAIN THE 10-YEAR PRE-DEVELOPMENT RUNOFF.

TRY 2" DIAMETER RESTRICTING ORIFICE

AREA 2" = 0.02 sq. ft.
VELOCITY OF FLOW THROUGH ORIFICE = $C_v \sqrt{2gh}$
FLOW RATE THROUGH ORIFICE = $C_c A_v$
FLOW RATE THROUGH ORIFICE = $C_c C_v A \sqrt{2gh}$

$C_c = 0.62$ & $C_v = 0.98$ FOR A SHARP-EDGED ORIFICE

H = HEAD ABOVE CL OF ORIFICE = (MAX. W.S.E. – ELEV. OF CL OF ORIFICE) = 38.50 – (36.75 + 0.08) = 1.67'

$Q = (0.62)(0.98)(0.02) \sqrt{(2)(32.2)(1.67)}$

$Q = 0.13 \text{ CFS} < 0.16 \text{ CFS}$ O.K.

SIZE LOW FLOW PERCOLATION LAYER BENEATH POND

THE PERCOLATION LAYER WILL BE SIZED BASED ON THE STORAGE PERCOLATION METHOD AS OUTLINED IN THE COUNTY OF SANTA CRUZ DESIGN CRITERIA.

CALCULATIONS WERE DONE USING THE EXCEL SPREAD SHEET PROVIDED ON THE COUNTY PUBLIC WORKS WEB SITE WITH THE FOLLOWING PARAMETERS:

$P_{60} = 2.0$
 $Q_{PRE} = 0.30$
 $Q_{POST} = 0.90$

PER THE PROJECT GEOTECHNICAL REPORT AND THE NRCS WEB SOIL SURVEY, THE SATURATED PERMEABILITY VALUE FOR THE SITE SOIL IS 1.2 IN/HR.

IMPERVIOUS AREA MITIGATED BY PERCOLATION LAYER = 7,565 S.F..

SATURATED SOIL PERMEABILITY = 1.2 IN/HR
VOID RATIO = 0.40
STRUCTURE RATIO = 30.00 (L) 15.00 (W) 3.00 (D)

RESULTING REQUIRED RETENTION VOLUME = 525 CUBIC FT.
ACTUAL VOLUME PROVIDED = (0.40 VOID RATIO)(30.00')(15.00')(3.00')
ACTUAL VOLUME PROVIDED = 540 CUBIC FEET

ESTIMATED STRUCTURE DRAINAGE TIME PER EXCEL SPREADSHEET = 10.6 HRS.

BUILDING SITE UPSLOPE DRAINAGE PATTERN

- ANY RUNOFF FROM PROPERTIES TO THE NORTH IS INTERCEPTED BY THE EXISTING ROADSIDE DITCH RUNNING ALONG THE NORTHERLY SIDE OF CATHEDRAL PARK DRIVE.
- DUE TO THE EXISTING TOPOGRAPHY, THE BUILDING SITE WILL NOT RECEIVE RUNOFF FROM THE PROPERTIES TO THE EAST, WEST, OR SOUTH.
- RUNOFF FROM THE AREA BETWEEN CATHEDRAL PARK DRIVE AND THE BUILDING SITE WILL BE DIRECTED AROUND THE BUILDING SITE BY A SWALE AS SHOWN ON SHEET C3.

DOWNSTREAM ASSESSMENT

AFTER LEAVING THE DETENTION SYSTEM, RUNOFF WILL FLOW SOUTHERLY FOR APPROXIMATELY 80' BEFORE LEAVING THE PROPERTY. THIS WILL GIVE RUNOFF AMPLE TIME TO DISPERSE AND PERCOLATE INTO THE GROUND. THE LONG FLOW PATH COMBINED WITH THE MITIGATION MEASURES INCORPORATED INTO THE PROJECT WILL RESULT IN THERE BEING NO ADVERSE EFFECTS TO DOWNSTREAM PROPERTIES OR DRAINAGE SYSTEMS.

MAINTENANCE PROCEDURES & SCHEDULE FOR DRAINAGE SYSTEM AND MITIGATION MEASURES

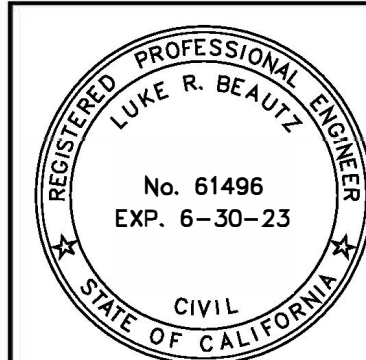
- DRAINAGE BOXES
 - PROCEDURE:
REMOVE GRATE OR LID FROM DRAINAGE BOX AND THEN REMOVE ANY ACCUMULATED SILT AND DEBRIS.
 - SCHEDULE:
PERFORM PROCEDURE PRIOR TO FIRST RAIN OF THE SEASON.
 - SIGNS OF FAILURE & REMEDY:
SIGNS OF FAILURE ARE SILT AND DEBRIS FILLING UP THE BOX AND CLOGGING THE INLET AND/OR OUTLET PIPE. REMEDY THIS BY SNAKING THE INLET AND/OR OUTLET PIPE TO REMOVE COLLECTED SILT AND DEBRIS.
- DETENTION POND WITH RETENTION LAYER BELOW:
 - PROCEDURES:
 - REMOVE ANY COLLECTED SILT AND DEBRIS FROM THE DETENTION POND.
 - INSPECT THE 2" ORRIFICE IN THE 6" STAND PIPE AND REMOVE ANY DEBRI SO THAT THE ORRIFICE IS CLEAR.
 - INSPECT THE TOP OF THE 6" STAND PIPE & REMOVE ANY COLLECTED DEBRIS SO THAT THE TOP OF THE PIPE IS CLEAR TO ACCEPT OVERFLOW.
 - SCHEDULE:
PERFORM PROCEDURES PRIOR TO FIRST RAIN OF THE SEASON AND THEN MONTHLY DURING RAINY SEASON.
 - SIGNS OF FAILURE & REMEDY:
SIGNS OF FAILURE WOULD BE EROSION OCCURRING AROUND THE RIM OF THE DETENTION POND DUE TO IT OVERFLOWING AS A RESULT OF A CLOGGED ORRICE IN THE STAND PIPE AND/OR CLOGGING OF THE TOP OF THE STAND PIPE. REMEDY THIS BY CLEANING THE ORRIFICE AND STAND PIPE EVERY TWO WEEKS DURING THE RAINY SEASON.

NOTE:

UPON COMPLETION OF WORK, THE CIVIL ENGINEER WILL HAVE TO INSPECT THE DRAINAGE IMPROVEMENTS AND PROVIDE THE PUBLIC WORKS DEPARTMENT WITH A LETTER CONFIRMING THAT THE WORK COMPLETED WAS IN ACCORDANCE WITH THE APPROVED PLANS. THE LETTER SHALL BE SPECIFIC AS TO WHAT WAS INSPECTED IN TERMS OF PIPE SIZES, ELEVATIONS, ETC.

5/1/23 – REVISED PER COUNTY PLAN CHECK COMMENTS.

C1



Luke Beautz

IMPROVEMENT PLAN
SHOWING GRADING & DRAINAGE FOR A
NEW RESIDENCE, WORKSHOP & DRIVEWAY
ON LANDS DESCRIBED IN THE DEED TO
TOBY & KORINA HARGREAVES

DOC. No. 2020-0031702 OF OFFICIAL RECORDS

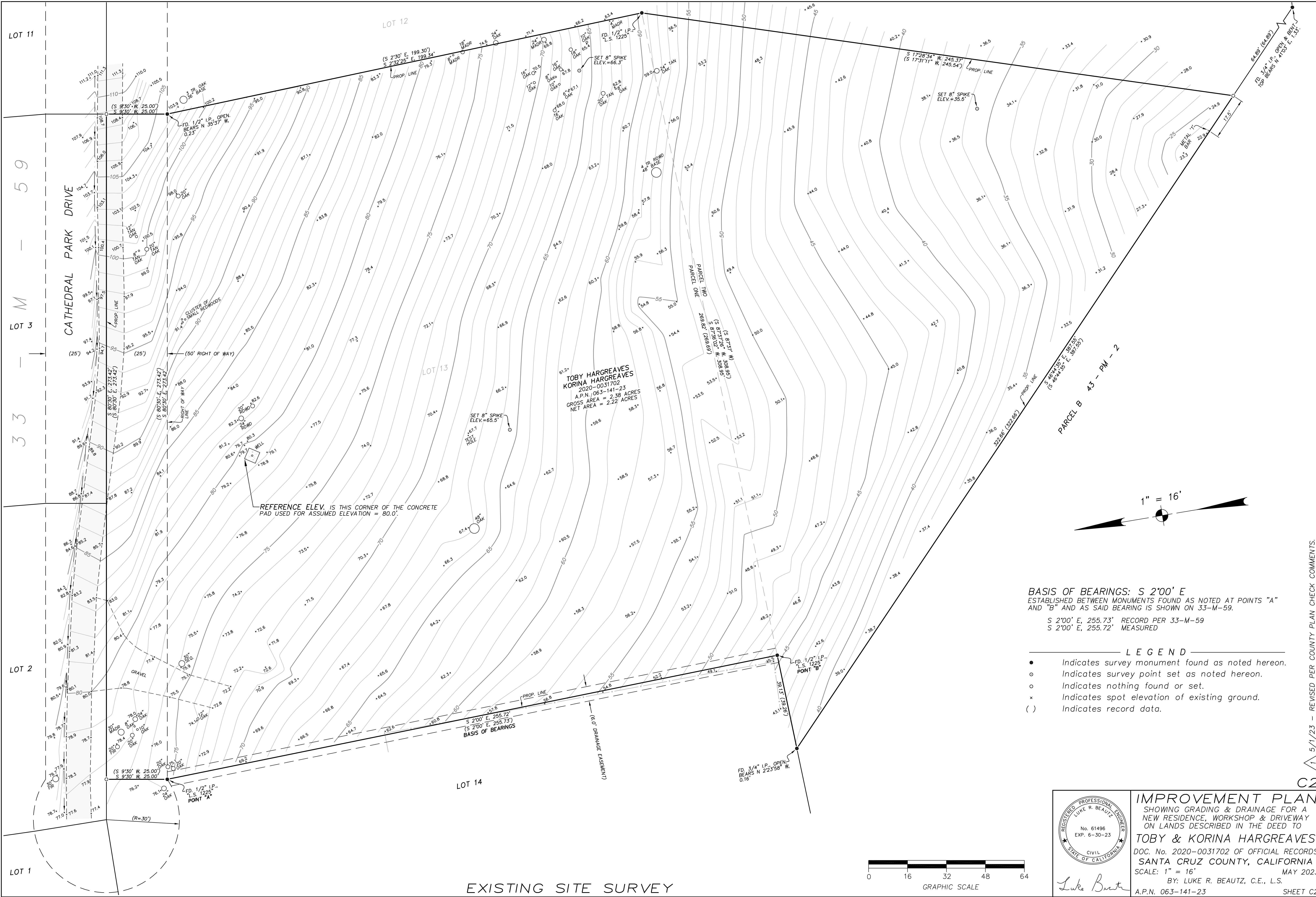
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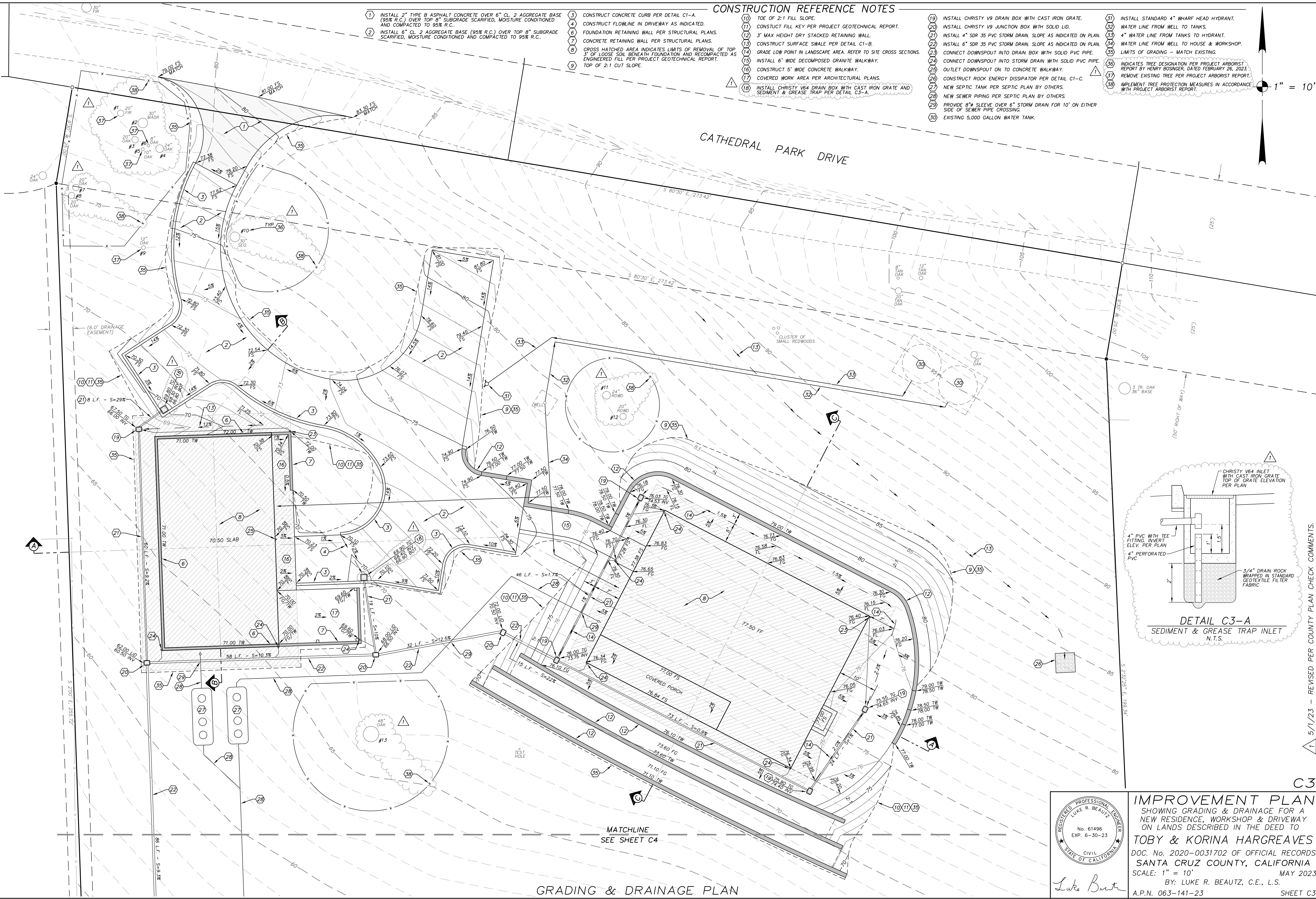
SCALE: NONE MAY 2023

BY: LUKE R. BEAUTZ, C.E., L.S.

A.P.N. 063-141-23 SHEET C1

NOTES, EARTHWORK ESTIMATE, & DRAINAGE ANALYSIS





- 1

INSTALL 2" TYPE B ASPHALT CONCRETE OVER 6" CL. 2 AGGREGATE BASE (95% R.C.) OVER TOP 8" SUBGRADE SCARIFIED, MOISTURE CONDITIONED AND COMPACTED TO 95% R.C.
- 2
- INSTALL 6" CL. 2 AGGREGATE BASE (95% R.C.) OVER TOP 8" SUBGRADE SCARIFIED, MOISTURE CONDITIONED AND COMPACTED TO 95% R.C.

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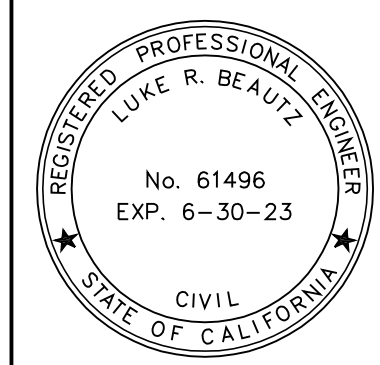
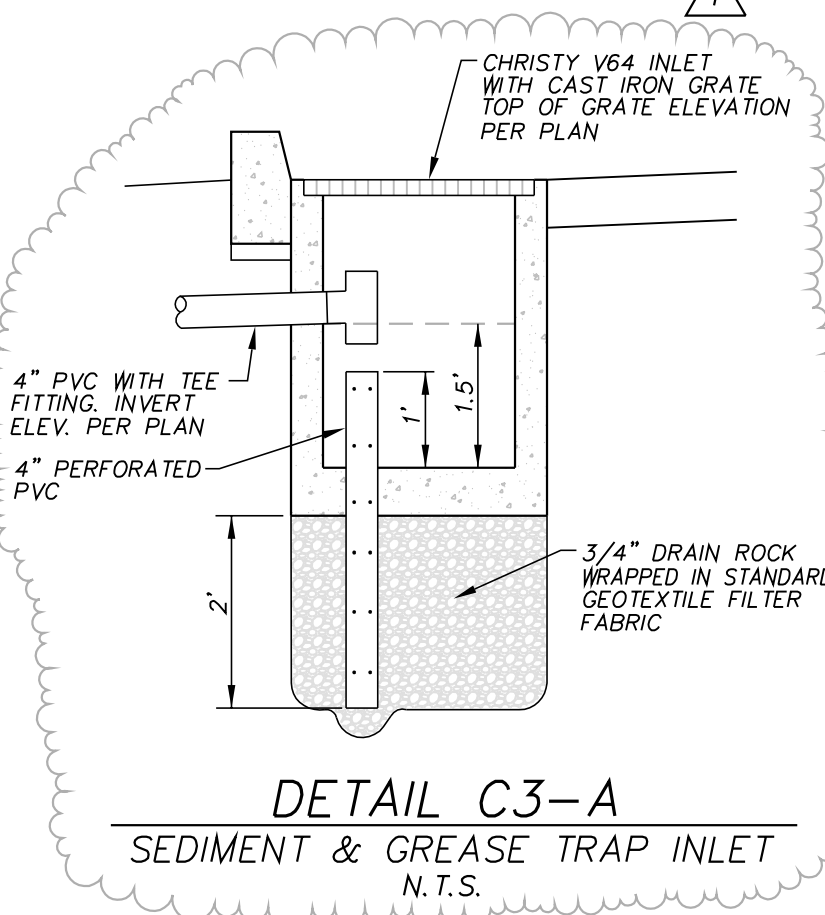
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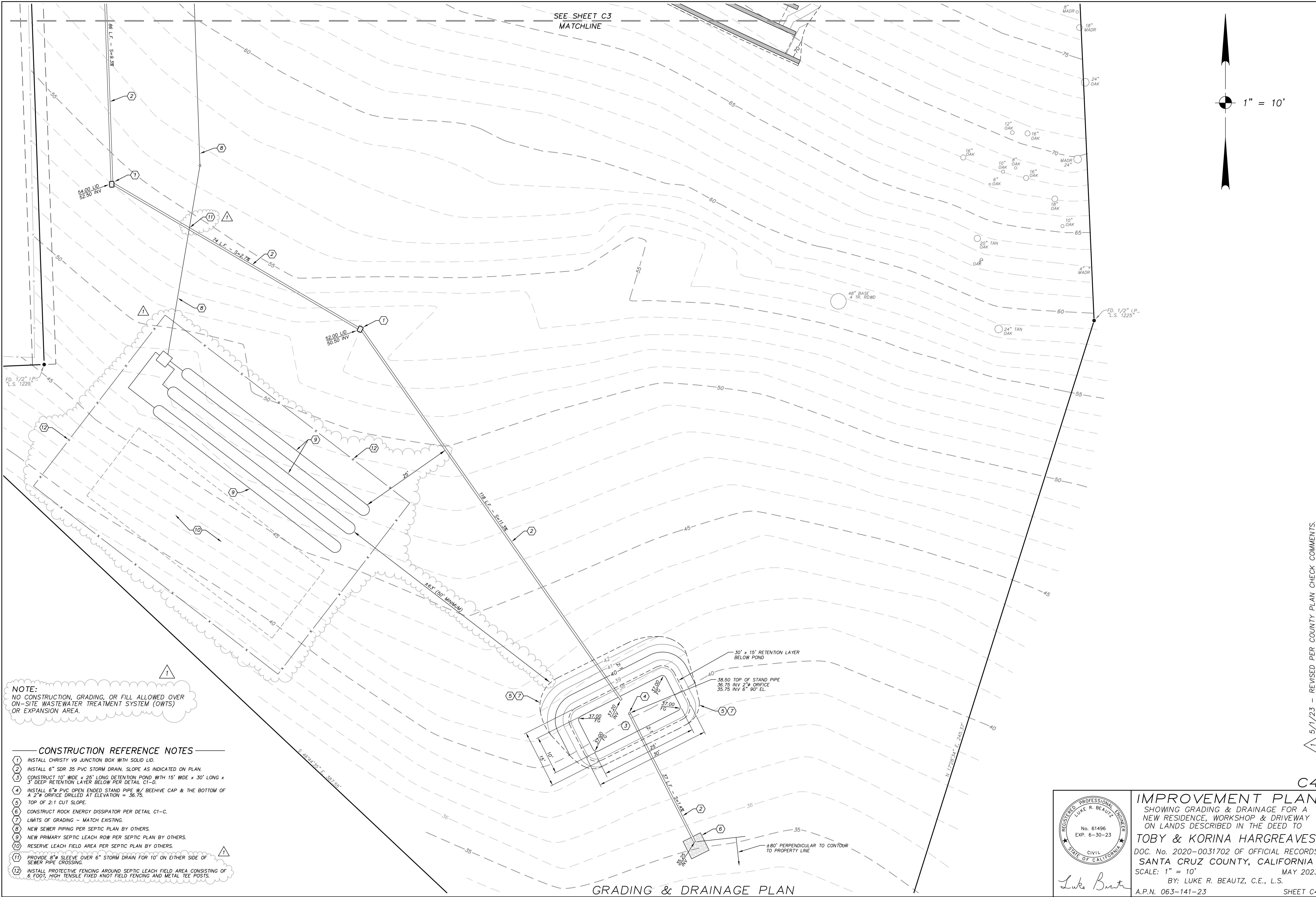
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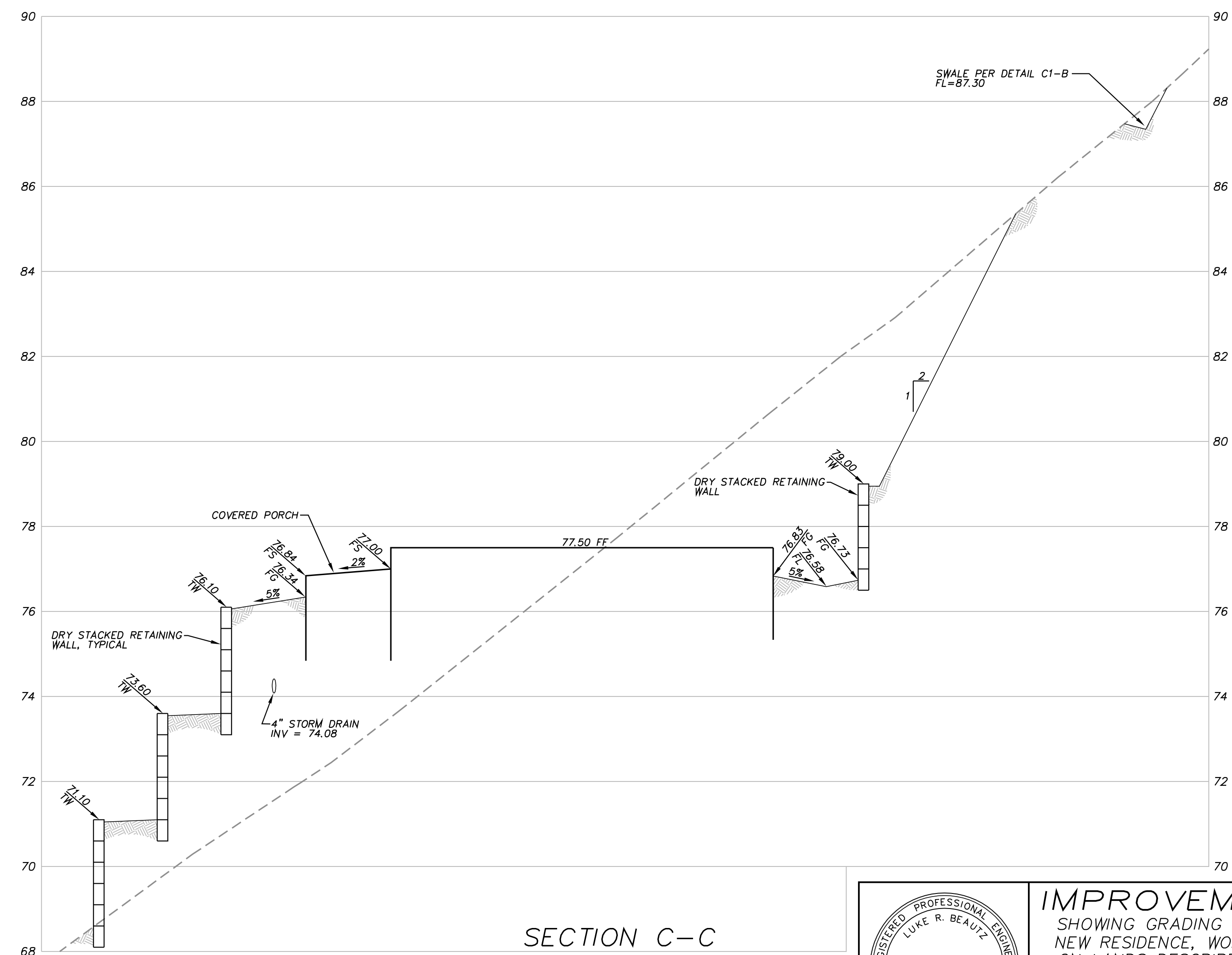
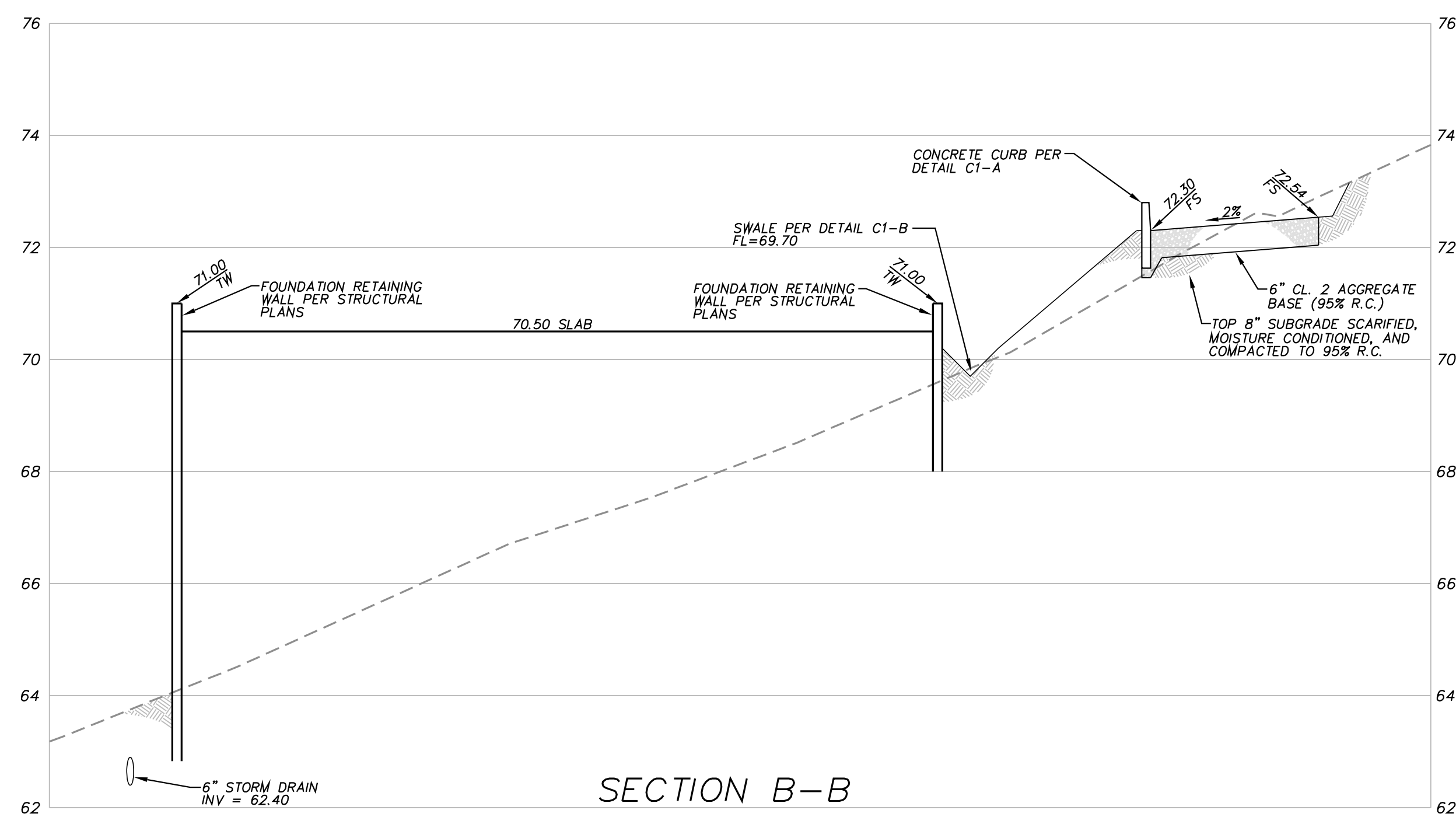
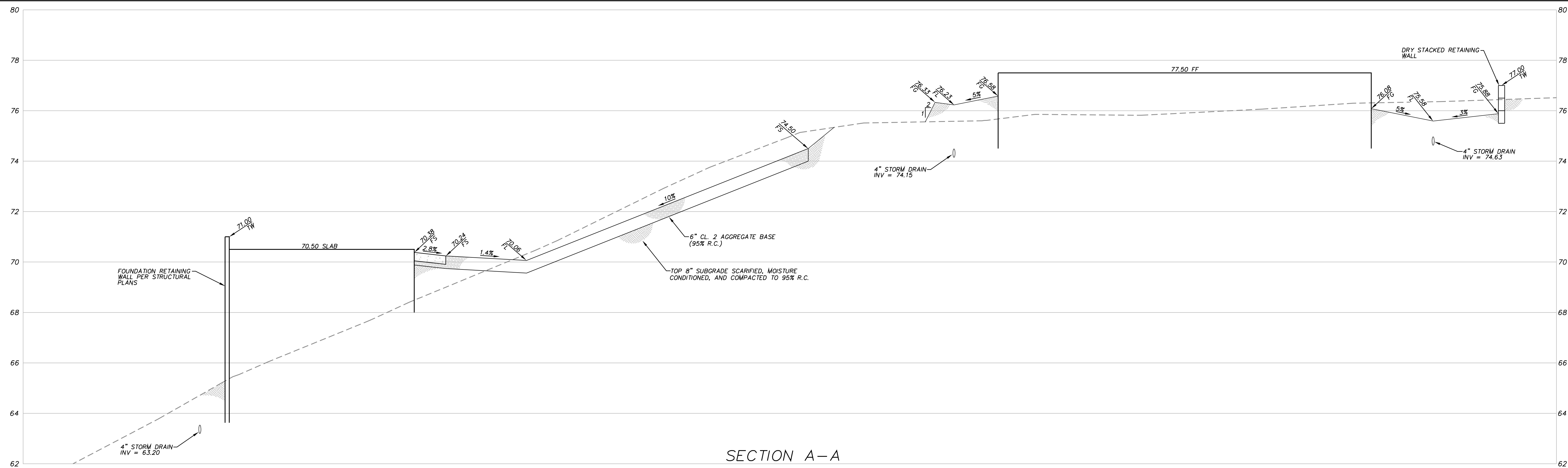
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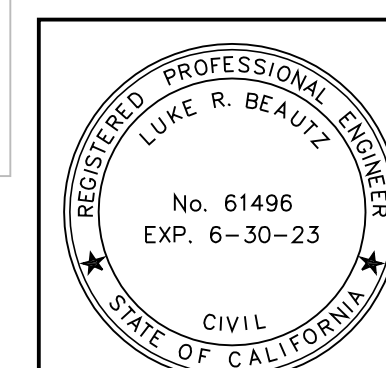
IMPROVEMENT PLAN
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DOC. No. 2020-0031702 OF OFFICIAL RECORDS
SANTA CRUZ COUNTY, CALIFORNIA
SCALE: 1" = 10'
MAY 2023
BY: LUKE R. BEAUTZ, C.E., L.S.
A.P.N. 063-141-23





SITE CROSS SECTIONS

SCALE: 1" = 8' HORIZ.
1" = 2' VERT.

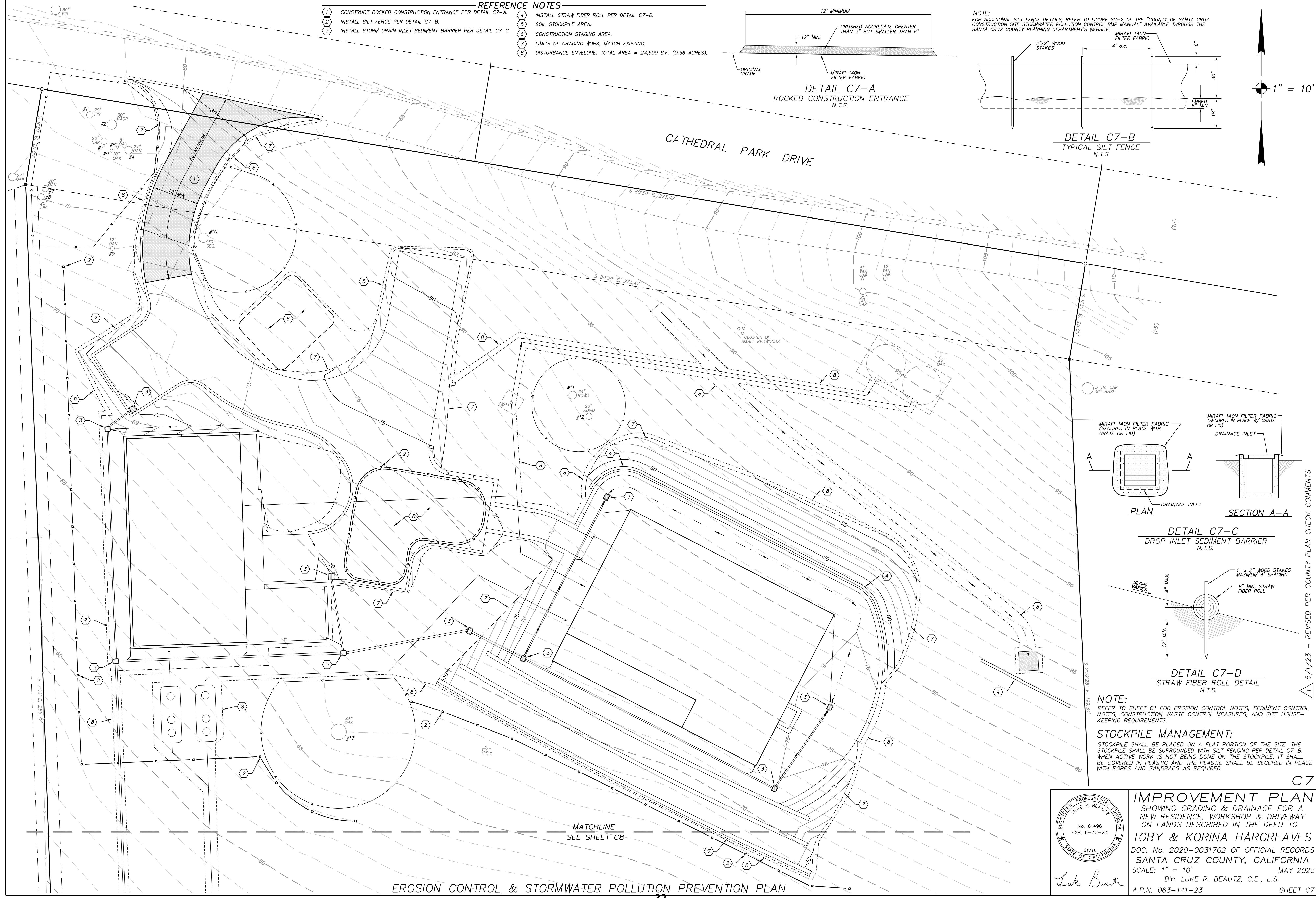


Luke Beautz

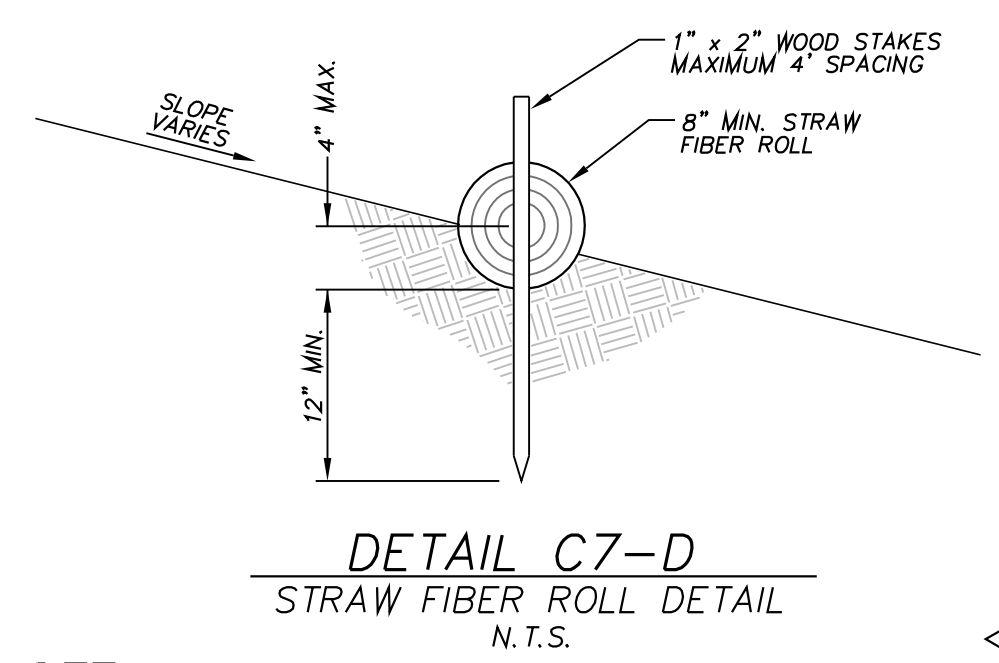
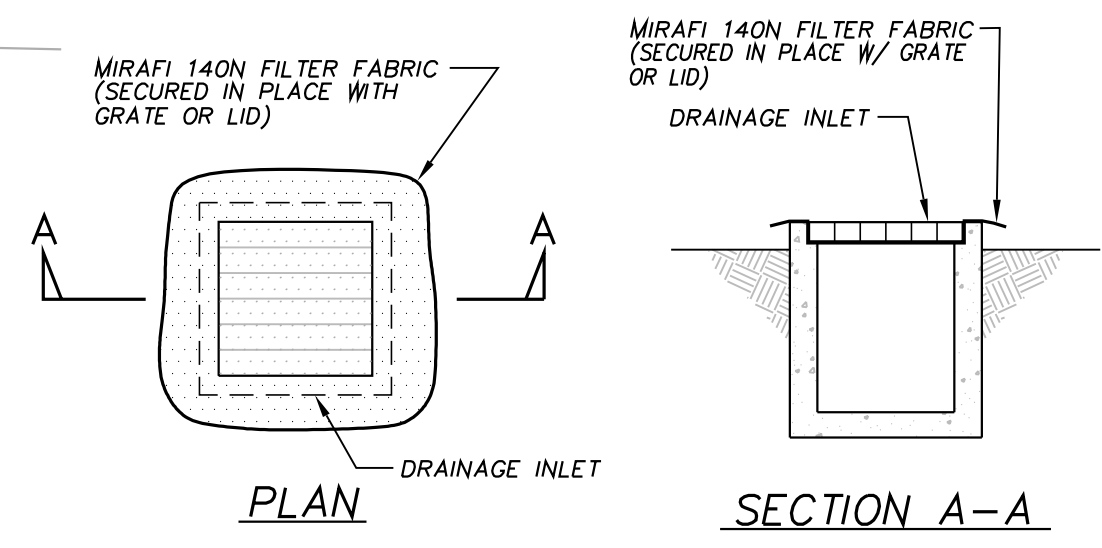
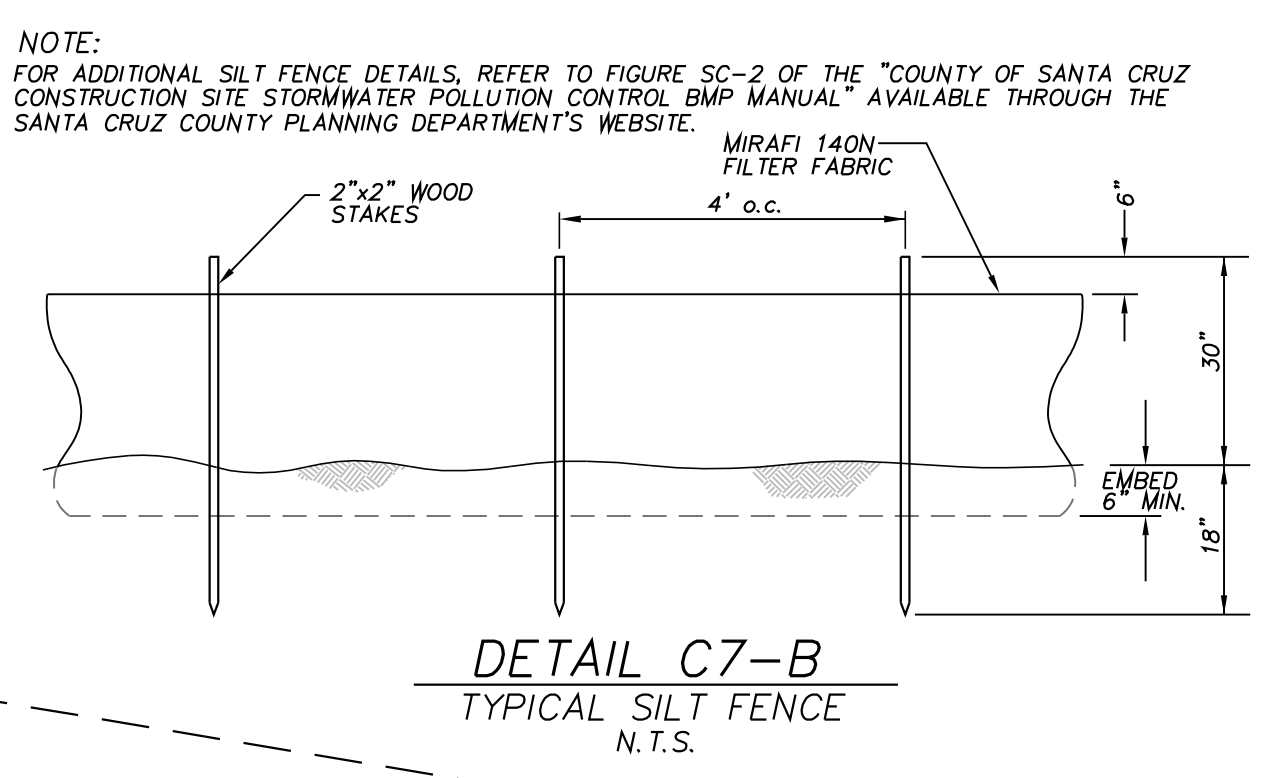
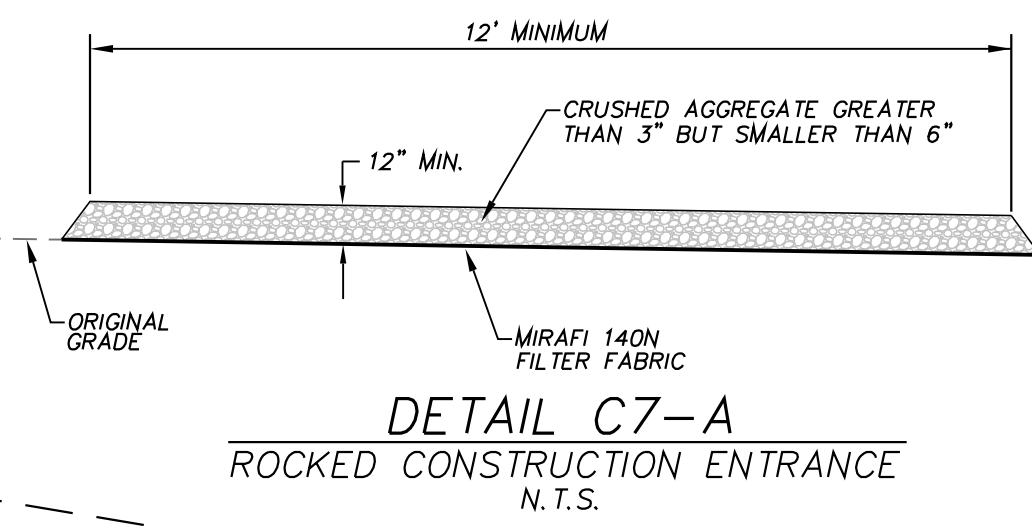
IMPROVEMENT PLAN
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SANTA CRUZ COUNTY, CALIFORNIA
SCALE: 1" = 8' MAY 2023
BY: LUKE R. BEAUTZ, C.E., L.S.
A.P.N. 063-141-23 SHEET C5

5/1/23 - REVISED PER COUNTY PLAN CHECK COMMENTS.

C5

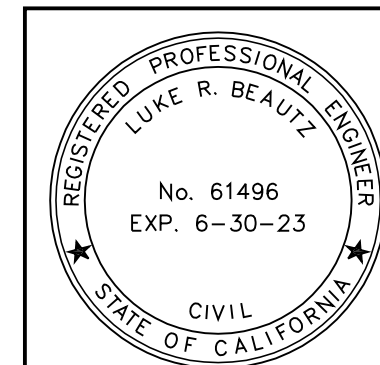


- REFERENCE NOTES**
- 1. CONSTRUCT ROCKED CONSTRUCTION ENTRANCE PER DETAIL C7-A.
 - 2. INSTALL SILT FENCE PER DETAIL C7-B.
 - 3. INSTALL STORM DRAIN INLET SEDIMENT BARRIER PER DETAIL C7-C.
 - 4. INSTALL STRAW FIBER ROLL PER DETAIL C7-D.
 - 5. SOIL STOCKPILE AREA.
 - 6. CONSTRUCTION STAGING AREA.
 - 7. LIMITS OF GRADING WORK, MATCH EXISTING.
 - 8. DISTURBANCE ENVELOPE. TOTAL AREA = 24,500 S.F. (0.56 ACRES).



NOTE:
REFER TO SHEET C1 FOR EROSION CONTROL NOTES, SEDIMENT CONTROL NOTES, CONSTRUCTION WASTE CONTROL MEASURES, AND SITE HOUSE-KEEPING REQUIREMENTS.

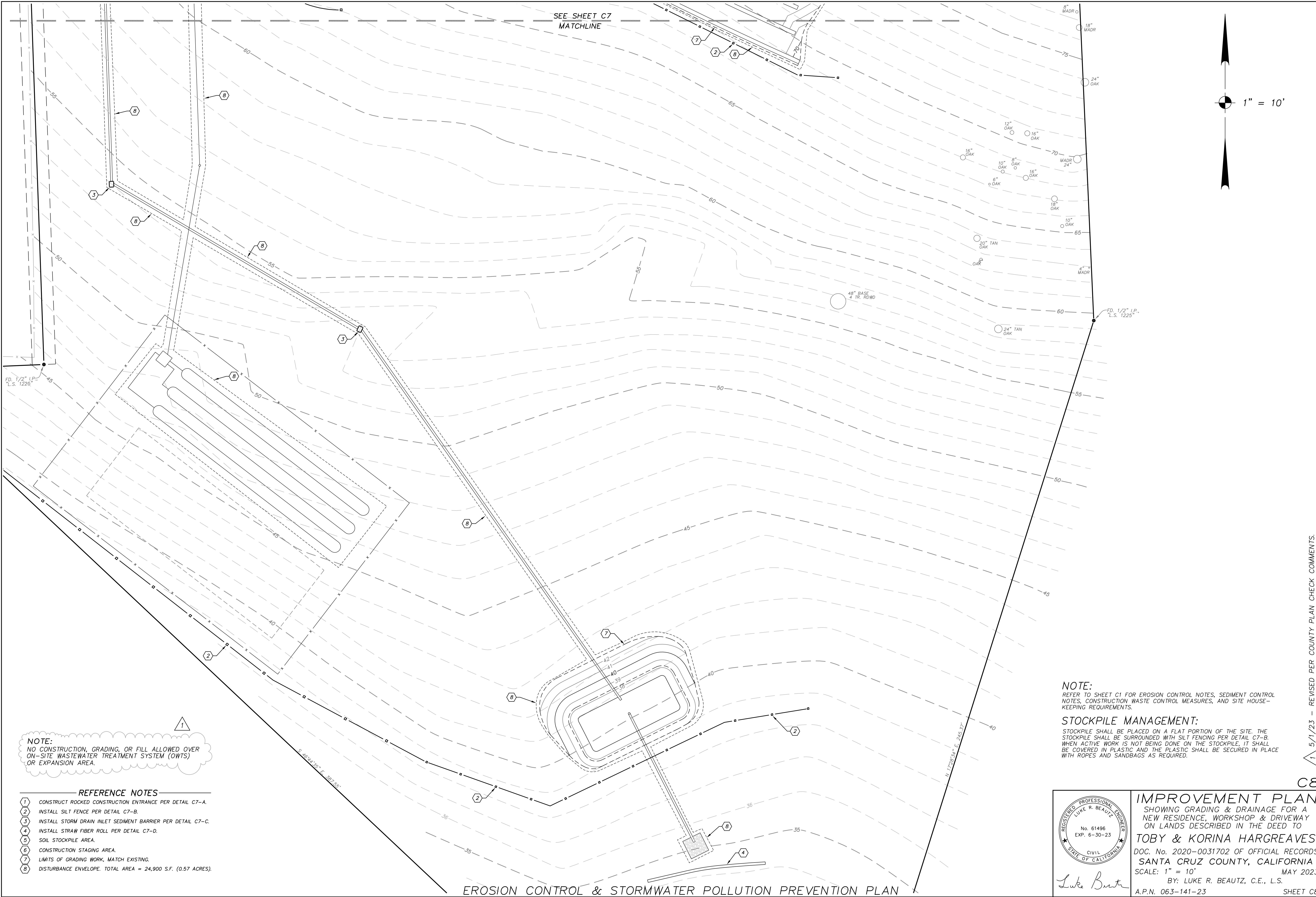
STOCKPILE MANAGEMENT:
STOCKPILE SHALL BE PLACED ON A FLAT PORTION OF THE SITE. THE STOCKPILE SHALL BE SURROUNDED WITH SILT FENCING PER DETAIL C7-B. WHEN ACTIVE WORK IS NOT BEING DONE ON THE STOCKPILE, IT SHALL BE COVERED IN PLASTIC AND THE PLASTIC SHALL BE SECURED IN PLACE WITH ROPES AND SANDBAGS AS REQUIRED.



IMPROVEMENT PLAN
SHOWING GRADING & DRAINAGE FOR A
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SANTA CRUZ COUNTY, CALIFORNIA
SCALE: 1" = 10'
MAY 2023
BY: LUKE R. BEUTZ, C.E., L.S.
A.P.N. 063-141-23

5/1/23 - REVISED PER COUNTY PLAN CHECK COMMENTS.

C7



SEE SHEET C7
MATCHLINE

1" = 10'

NOTE:
NO CONSTRUCTION, GRADING, OR FILL ALLOWED OVER
ON-SITE WASTEWATER TREATMENT SYSTEM (OWTS)
OR EXPANSION AREA.

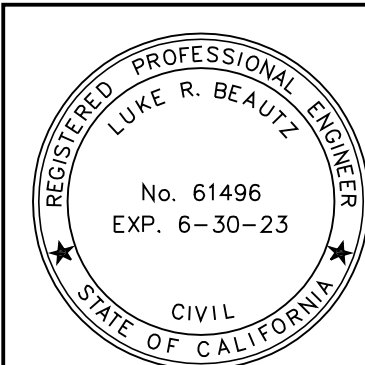
REFERENCE NOTES

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5. SOIL STOCKPILE AREA.
6. CONSTRUCTION STAGING AREA.
7. LIMITS OF GRADING WORK, MATCH EXISTING.
8. DISTURBANCE ENVELOPE. TOTAL AREA = 24,900 S.F. (0.57 ACRES).

NOTE:
REFER TO SHEET C1 FOR EROSION CONTROL NOTES, SEDIMENT CONTROL
NOTES, CONSTRUCTION WASTE CONTROL MEASURES, AND SITE HOUSE-
KEEPING REQUIREMENTS.

STOCKPILE MANAGEMENT:

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IMPROVEMENT PLAN

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DOC. No. 2020-0031702 OF OFFICIAL RECORDS

SANTA CRUZ COUNTY, CALIFORNIA

SCALE: 1" = 10' MAY 2023

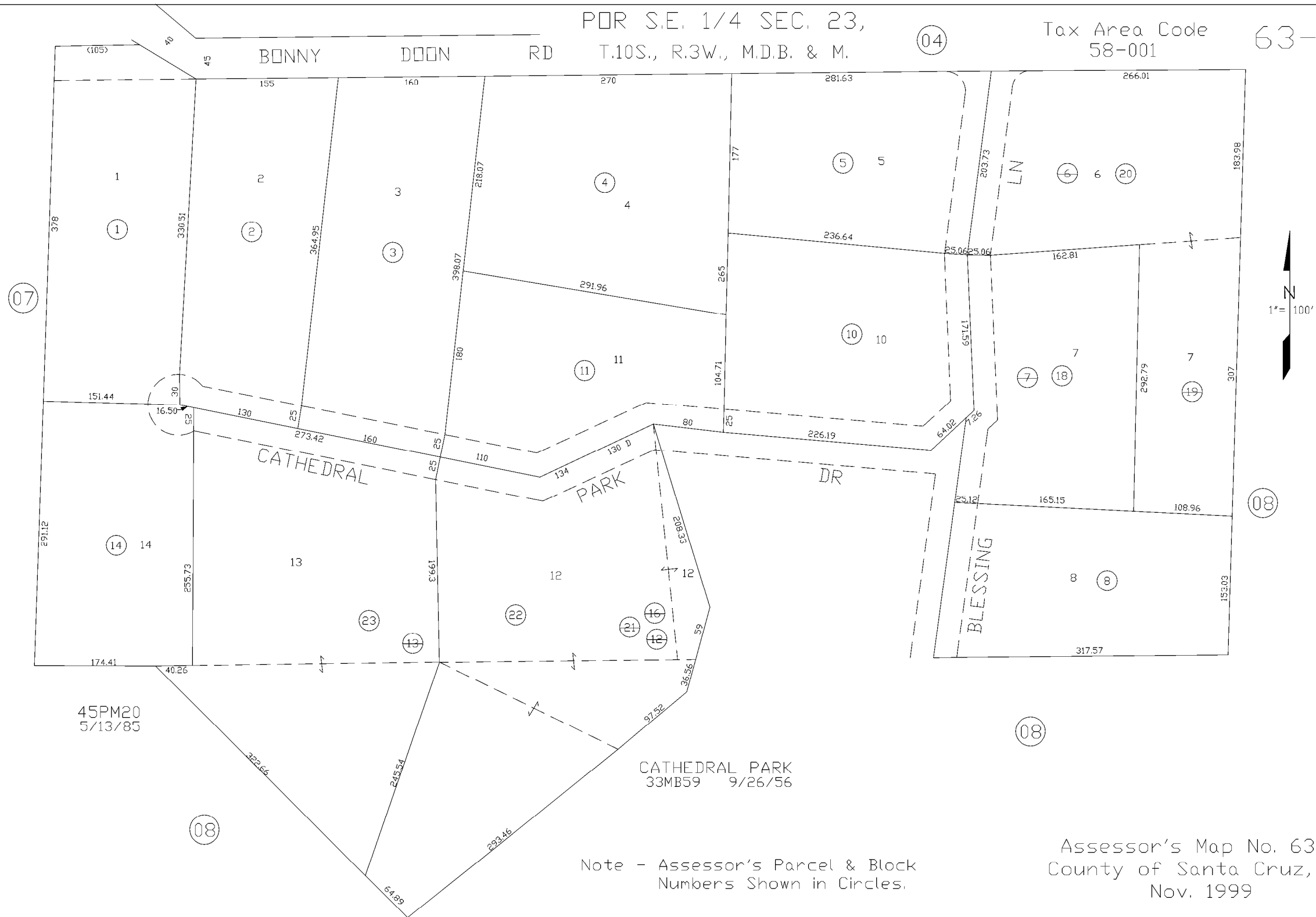
BY: LUKE R. BEAUTZ, C.E., L.S.

A.P.N. 063-141-23 SHEET C8

EROSION CONTROL & STORMWATER POLLUTION PREVENTION PLAN

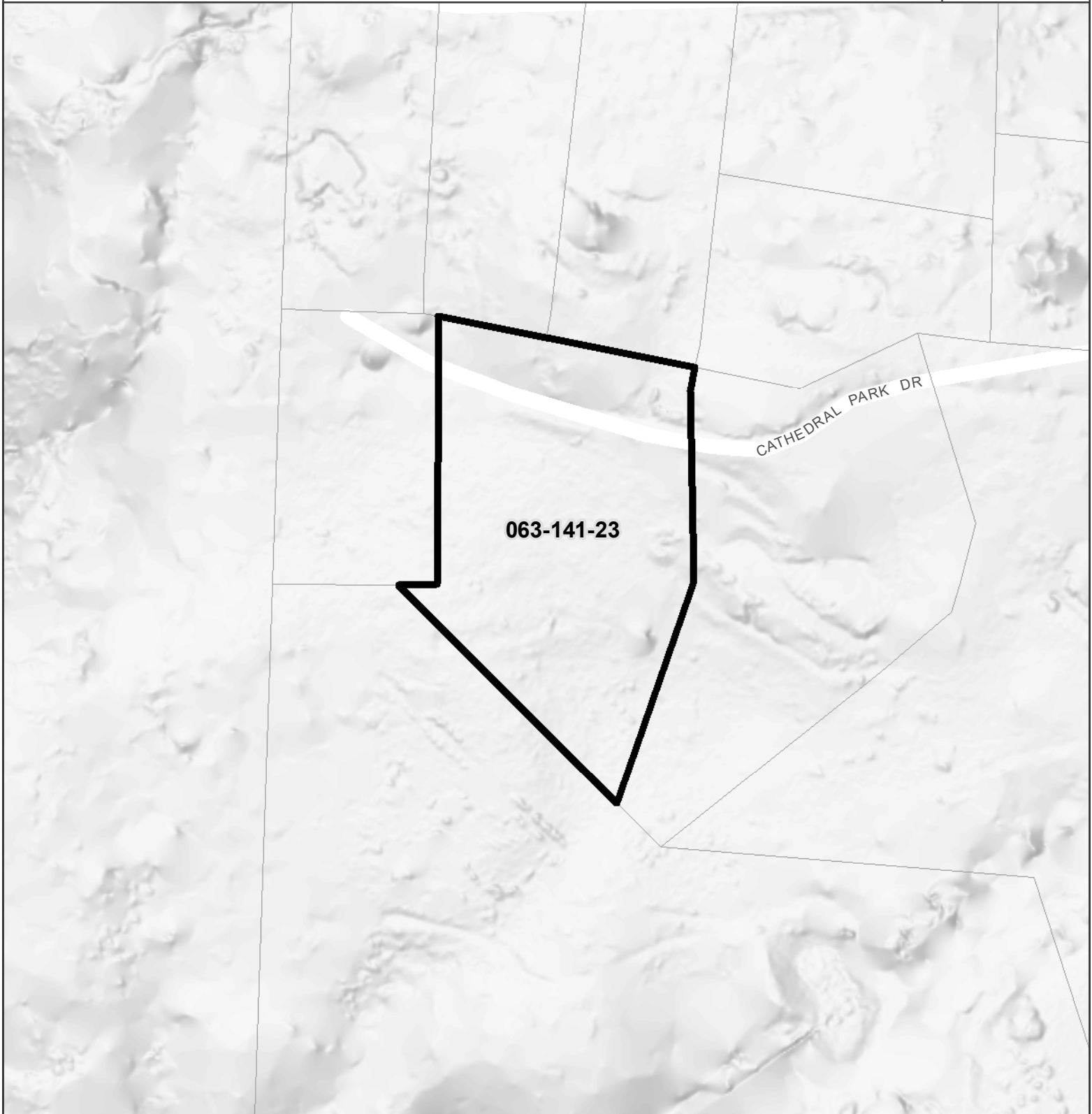
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Rev 4/25/01 CB (0-001639, LEA 1-21)
Rev 6/26/01 CB (Added MB ref)
Rev 2/28/02 mvm (5st name)
Rev 6/9/03 CB (For of pg 08)
Rev 6/9/03 CB (For to pg 08)
Rev 6/9/03 CB (3-0015543; 45 & 47, LEA 1-22 & 23)

63-14





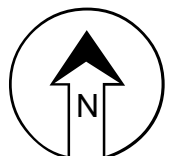


Parcel Location Map



Parcel: 06314123

-  Study Parcel
-  Assessor Parcel Boundary





Parcel General Plan Map



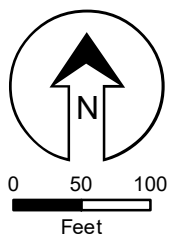
Mapped
Area

R-M

063-141-23
(R-R)

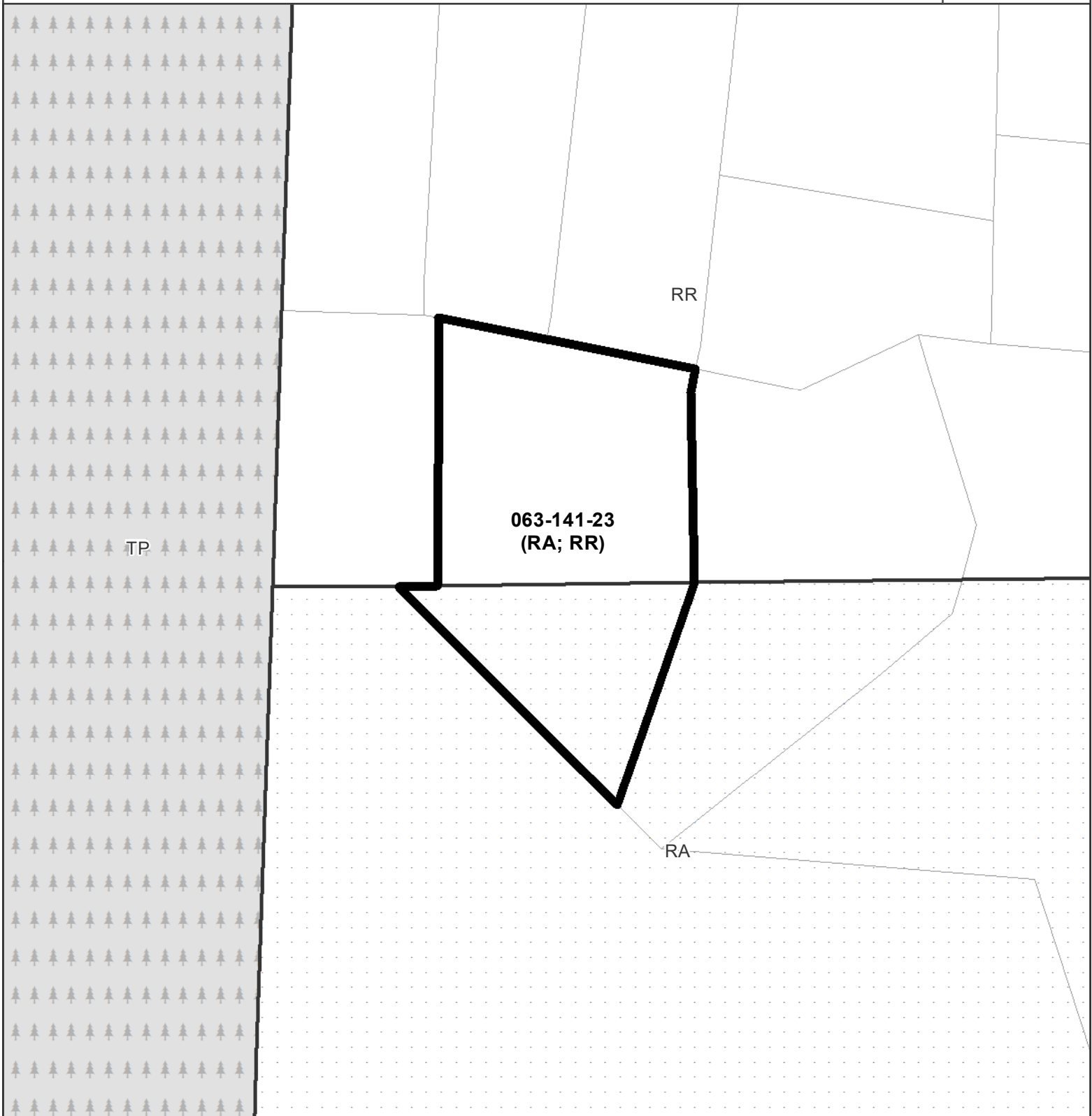
R-R




- ☐ R-M *Residential Mountain*
- ☐ R-R *Residential Rural*

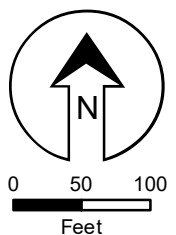




Parcel Zoning Map



-  RA Residential Agricultural
-  RR Residential Rural
-  TP Timber Production



Parcel Information

Services Information

Urban/Rural Services Line: ☐ Inside ☒ Outside
Water Supply: Well
Sewage Disposal: Septic
Fire District: CalFire (County Fire Department)
Drainage District: None

Parcel Information

Parcel Size: 2.29 acres
Existing Land Use - Parcel: Vacant
Existing Land Use - Surrounding: Rural residential neighborhood
Project Access: Cathedral Park Drive
Planning Area: Bonny Doon
Land Use Designation: R-R (Rural Residential)
Zone District: RR (Rural Residential) & RA (Residential Agriculture)
Coastal Zone: ☒ Inside ☐ Outside
Appealable to Calif. Coastal Comm. ☐ Yes ☒ No

Technical Reviews: REV231076 (Archaeological Report Review)

Environmental Information

Geologic Hazards: Not mapped/no physical evidence on site
Fire Hazard: Not a mapped constraint
Slopes: 15-20%
Env. Sen. Habitat: No identified habitat area on site
Grading: No grading proposed
Tree Removal: 4 trees proposed to be removed
Scenic: Not a mapped resource
Archeology: Mapped resource - Arch. Report reviewed and accepted



County of Santa Cruz, PLANNING DEPARTMENT
OVERHEIGHT FENCE CERTIFICATION

231331

701 Ocean Street, Santa Cruz, CA 95060 | TDD (831) 454-2123 | Fax (831) 454-2131 | Tel (831) 454-2130

Approval Date: 8/9/2023

Site Address: 121 CATHEDRAL PARK DR
BONNY DOON CA 95060

Owner: HARGREAVES TOBY & KORINA

PROJECT DESCRIPTION

Permit to recognize an existing six-foot wooden fence constructed within the front yard setback.

Requires an Over-Height Fence Certification.

Property is located on the southern side Cathedral Park Drive, approximately 850 feet southwest of the intersection of Bonny Doon Road and Cathedral Park Drive, in Bonny Doon (121 Cathedral Park Drive).

Overheight Fence Conditions of Approval:

Any changes to the submitted plans require re-certification.

Contact Person: Toby Hargreaves
520 Thayer Road
Santa Cruz CA 95060

This approval does not confer legal status on any existing structure(s) or existing use(s) on the subject property that are not specifically authorized by this permit.

Applicant Signature

Date



SANTA CRUZ COUNTY FIRE DEPARTMENT

Chief Nate Armstrong

6059 Highway 9, Felton, CA 95018 | (831) 335-5353 | FAX (831) 335-4053 | TDD:(831) 454-2123

October 20, 2022

Toby Hargreaves
0 Cathedral Park Drive
Santa Cruz, CA 95060

Subject: Water tanks for APN: 063-141-23, 0 Cathedral Park Dr. as part of APP-221080.

Dear Mr. Hargreaves

This letter responds to your request for our recommendation on the water tank location at the above-referenced address. To increase the available fire flow, our preference is to have the tank installed at the highest grade possible so that gravity flow will be provided to the hydrant below. The location of the water tank on the site plan submitted to us shows that the proposed tank location will situate the tanks at a grade higher than the hydrant, which will provide better water flow for firefighting purposes if the new tanks are used to supply the hydrant. This recommendation is for APP-221080 only.

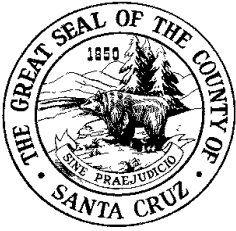
As we have discussed, final determination for locating these items within setback belongs to the County of Santa Cruz planning department.

Sincerely,

A handwritten signature in blue ink, appearing to read "C Walters", is written over a horizontal line.

Christopher Walters
Deputy Fire Marshal
Santa Cruz County Fire Department

Cc: Chron
File



COUNTY OF SANTA CRUZ

PLANNING DEPARTMENT

701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123

Korina and Toby Hargreaves
121 Cathedral Park Dr
Bonny Doon, CA 95060

May 23, 2023

Subject: Proposal to construct a single family dwelling and detached garage located in the Coastal Zone.
Archaeological report review and conditioned approval
APN 063-141-23 , Application REV231076

Dear Mr. and Mrs. Hargreaves,

The County of Santa Cruz Planning Department received and reviewed the Archaeological Report prepared by Patricia Paramoure December 29, 2022 for a new single family dwelling and garage. This report was required due to the potential presences of archaeological resources within the proposed project area. Based on the submitted report findings the project site is unlikely to contain precolonial or historic-era resources as no indications of significant cultural resources were found during the site reconnaissance. The following conditions will be included in the Coastal Permit 231176.

- A. Pursuant to Sections 16.40.040 and 16.42.080 of the County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this development, any artifact or other evidence of an historic archaeological resource or a Native American cultural site is discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the Sheriff-Coroner if the discovery contains human remains, or the Planning Director if the discovery contains no human remains. The procedures established in Sections 16.40.040 and 16.42.080 shall be observed.
- B. The building permit application shall include condition A, above, and shall provide the contact information for the archaeologist of record.

If you have any questions regarding this letter, please call me at (831) 454-3164.

Sincerely,

Leah MacCarter
Resource Planner